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Birds

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY FOR
THE STUDY OF BRITISH AND
FOREIGN BIRDS IN FREEDOM
AND CAPTIVITY.

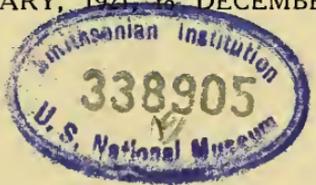
EDITED BY

D. SETH-SMITH, F.Z.S., M.B.O.U.,

AND

R. I. POCOCK, F.R.S.

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COUNCIL'S REPORT FOR THE YEAR 1921

The year which ends with this number has been one of the most difficult of the so-called "peace" years; but the Society has come through the ordeal, and rather than look back at the trials of the past we should look forward to the future with confidence and hope, seeing the signs that are visibly pointing to a real revival of aviculture. Several large consignments of birds have come into this country in the course of the year, and the importation of foreign species is the most important factor in the support of the Society, for without birds to keep aviculture alive we can neither get contributions to our Magazine nor hope to secure new members. The difficulties of the present time have caused many aviculturists to give up their hobby and resign their membership, and unless these resignations can be made good, it will be impossible to enlarge the Magazine so long as the cost of production remains as high as it is at present. It is to be hoped, therefore, that members will do their best to induce their friends to join the Society and will send the Editors accounts of the doings of their birds, so as to help to get back to the days of a Magazine of thirty-two pages and a coloured plate.

Signed for the Council,

J. LEWIS BONHOTE,

Hon. Secretary and Treasurer.

ALPHABETICAL LIST OF CONTRIBUTORS

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JANUARY 1, 1921

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The date following the Member's name is the date of his election. "Orig. Mem." signifies that the Member joined the Society on its formation in October, 1894. The asterisk denotes that the Member pays the subscription through a bank. Members are requested to adopt this method of payment if convenient.

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- 30 BOYD, HAROLD ; Box 374, Kelowna, British Columbia. (March, 1902.)
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- 40 BUTLER, ARTHUR LARCHIN, M.Aust.O.U. ; Waimarie, Lower Sandy Bay, Hobart, Tasmania. (July, 1905.)
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- *CARPENTER, The Hon. Mrs.; 22 Grosvenor Road, S.W. 1. (Feb., 1898.)
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- 50 *CECIL, The Lady WILLIAM, Baroness Amherst, of Hackney; Stowlangtoft Hall, Bury St. Edmunds, and 6 Onslow House, S.W. 7.
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- 60 CROSS, W. SIMPSON, F.Z.S.; Otterspool House, Aigburth, Liverpool. (Jan. 1898.)
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- DENNIS, Mrs. H. E.; c/o Mrs. Mortimer, Wigmore, Holmwood, Surrey. (March, 1903.)
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- 70 *DE WINTON, WILLIAM EDWARD, F.Z.S., M.B.O.U.; Southover Burwash, Sussex. (August, 1903.)
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- 90 GOODALL, Lieut. A. G., R.F.A. ; 64 Park Road, West Dulwich, S.E. 21. (April, 1918.)
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- 100 GULBENKIAN, C. S. ; 27 Quai d'Orsay, Paris. (Dec., 1908.)
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Africa. (Oct., 1906.)
- HOPSON, FRED C. ; 65 Northbrook Street, Newbury. (March, 1897.)
- 120 HORNE, ARTHUR ; Bonne-na-Coile, Murtle, Aberdeenshire. (Dec., 1917.)
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1905.)
- *INGRAM, Sir WILLIAM, Bart. ; The Bungalow, Westgate-on-Sea. (Sept.,
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- 130 JEAKINS, A. E. ; The Studio, Simla, India. (March, 1915.)
- JENNISON, GEORGE, M.A. ; Zoological Gardens, Belle Vue, Manchester.
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- LEACH, C. F. ; Vale Lodge, Leatherhead, Surrey. (June, 1914.)
- LÉCALLIER, Madame ; 109 Rue de la Republique, Caudebec-Ics-Elbeuf, France. (April, 1918.)
- LE SOUËF, A. SHERBOURNE ; Zoological Gardens, Sydney, N.S.W. (Aug., 1913.)
- 140 LE SOUËF, DUDLEY ; Zoological Gardens, Royal Park, Parkville, Melbourne, Australia. (1912.)
- LEWIS, D. THOMAS ; Oaklands, Aberkinfig, Glam. (1917.)
- LIENAU, C. H. A. ; Newbury, 23 Victoria Avenue, Unley Park, South Australia. (Oct., 1917.)
- *LILFORD, The Lady ; Lilford Hall, Oundle, Northants. (Jan., 1898.)
- *LOCKYER, ALFRED ; St. Monica's Lodge, Elm Park Road, Winchmore Hill, N. 21. (Dec., 1905.)
- LOVELACE, The Countess of ; Wentworth House, Chelsea Embankment, S.W. 3. (May, 1906.)
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- 150 MACDONALD, Miss VIOLET ; Ipley Manor, Marchwood, Hants. (Feb., 1920.)
- *MCGEAGH, R. T., M.D. ; Mona Lodge, Lezayre, near Ramsey, Isle of Man. (Aug., 1908.)
- *MCGUGAN, J. M. K. ; Northern Bank Buildings, Donegal Square, Belfast. (April, 1920.)
- MALONE, Mrs. M. L'ESTRANGE ; West Lodge, Malton, Yorks. (Jan., 1902.)
- MANCHESTER PUBLIC LIBRARIES ; Reference Library, Piccadilly, Manchester. (July, 1913.)
- *MANNERS-SMITH, Mrs. ; The Residency, Nepal, India. (1911.)
- *MANSON-BAHR, Dr. PHILIP H., B.A., M.B.O.U. ; 32 Weymouth Street, W. 1. (Nov., 1907.)
- *MARSHALL, ARCHIBALD McLEAN ; Chitcombe, Brede, Sussex. (Jan., 1906.)
- MARSHALL, F. ; 34 Stirling Road, Bournemouth. (1916.)
- MARTIN, H. C. ; 147 Victoria Road, Old Charlton, Kent ; and Saladero, Liebig, Fray Bentos, Uruguay. (Jan., 1897.)
- 160 MAUD, Mrs. CHARLES E. ; Hotel del Monte, Monterey, Cal., U.S.A. (July, 1913.)
- MEADE-WALDO, E. G. B., F.Z.S., M.B.O.U. ; Hever Warren, Hever, Kent. (Jan., 1895.)
- MILLER, R. SCOTT ; Clydeneuk, Uddingston, Glasgow. (1919.)
- MILLSUM, O. ; 79 Northdown Road, Cliftonville, Margate. (Aug., 1909.)
- MOIR, J. K. ; Normanton, Young Street, Albury, N.S.W. (July, 1918.)

- MONTAGU, Hon. E. S., M.P., M.B.O.U. ; 24 Queen Anne's Gate, S.W. (May, 1912.)
- MORTIMER, Mrs. ; Wigmore, Holmwood, Surrey. (Orig. Mem.)
- MUNDY, Miss SYBIL MILLER ; Grendon Hall, Grendon, Northampton. (Jan., 1909.)
- MUNT, HENRY ; 10 Ashburn Place, S. Kensington, S.W. 7. (1912.)
- MURRAY, Mrs. E. G. DEWAR ; Inchrye House, Lindores, Fifeshire. (1919.)
- 170 MURRAY, R. H. ; Brook Lodge, Woodlands Park, Altrincham, Cheshire. (Feb., 1920.)
- MYLAN, JAMES GEORGE, B.A., M.B. (Univ. Coll.), L.R.C.P. and L.R.C.S. (Ed.), etc. ; 90 Upper Hanover Street, Sheffield. (Dec., 1901.)
- NATIONAL ZOOLOGICAL PARK (The Superintendent) ; Washington, Dt., U.S.A.
- NEILSON, Major GEO. M. ; Boraston Knowe, Blackhall, Midlothian. (June, 1918.)
- NEVILLE, Capt. T. N. C. ; Bramall Hall, near Stockport. (July, 1917.)
- NEWMAN, T. H., F.Z.S., M.B.O.U. ; Newlands, Harrowdene Road, Wembley, Middlesex. (May, 1900.)
- NEWMARSH, C. T. ; Gamage's, Ltd., Holborn, W.C. (Aug., 1915)
- *NICHOLS, Walter B., M.B.O.U. ; Stour Lodge, Bradfield, Manningtree. (Jan., 1907.)
- " NOSHOMU " ; c/o Maruzen Co., Tokyo, Japan. (1919.)
- Oakey, W. ; The Anglers' Inn, 4 Pole Street, Preston. (March, 1896.)
- 180 OBERHOLSER, HARRY C. ; 2805 18th Street, N.W. Washington, D.C., U.S.A. (Oct., 1903.)
- Ogilvie-Grant, W. R., F.Z.S., M.B.O.U. ; Farley Hill Cottage, near Reading. (Dec., 1903.)
- OGLE, BERTRAM SAVILLE, M.B.O.U. ; Mill House, Steeple Aston, Oxford. (Dec., 1902.)
- ONSLOW, The Countess of ; Clandon Park, Guildford, Surrey. (July, 1910.)
- O'REILLY, NICHOLAS S. ; 144 Eastern Road, Kemp Town, Brighton. (Dec., 1894.)
- PAM, ALBERT, F.Z.S. ; Wormleybury, Broxbourne, Herts. (Jan., 1906.)
- PAM, HUGO, C.M.Z.S. ; National Match Factory of Venezuela, Ltd., Caracas, Venezuela. (Sept., 1911.)
- PARMENTER, Miss ; Sedgemere Hall, Roydon, Essex. (Nov., 1917.)
- PENROSE, FRANK G., M.D., F.Z.S., M.B.O.U. ; Rathkeale, 51 Surrey Road, Bournemouth. (Dec., 1903.)
- PERCIVAL, WALTER G. ; Kalnangi, Chania Bridge, British East Africa. (Feb., 1915.)
- 190 PHILLIPS, JOHN C. ; 79 Mount Vernon Street, Boston, Mass., U.S.A. (March, 1910.)
- PICKFORD, RANDOLPH JOHN ; Thorn Lea, Carmel Road, Darlington. (Feb., 1903.)
- PIKE, L. G. ; Kingsbarrow, Wareham, Dorset. (1912.)
- *POCOCK, R. I., F.R.S., F.L.S., F.Z.S. ; Zoological Society's Gardens, Regent's Park, N.W. 1. (Feb, 1904.) (*Hon. Editor.*)

- PORTER, SIDNEY ; Selwyn House, Old Normanton, Derby. (April, 1920.)
- POTTER, BERNARD E., M.B., M.R.C.S., L.R.C.P. ; 26 Park Crescent, Portland Place, W. 1.
- PRINCETON UNIVERSITY, LIBRARY OF ; Princeton, New Jersey, U.S.A. (Nov., 1907.)
- PYCRAFT, W. P., A.L.S., F.Z.S., M.B.O.U., etc. ; British Museum (Nat. Hist.), Cromwell Road, S.W. 7. (Nov., 1904.) (Hon. Member.)
- PYMAN, Miss E. E. ; West House, West Hartlepool. (June, 1919.)
- RADCLIFFE, Major A. DELMÉ ; 105th Maratha Light Infantry, c/o Messrs. Cox & Co., Army Agents, 16 Charing Cross, S.W. 1.
- 200 RAMSAY, LUCY ; 23 Rua de Serpa Pinto, Villa Nova de Gaya, Oporto, Portugal. (Nov., 1919.)
- RATHBORNE, HENRY B. ; Dreenan, Boa Island, Pettigo, Co. Fermanagh. (May, 1901.)
- RATHMELE, JAMES E. ; 24 Milk Street, Boston, Mass., U.S.A.
- *RATTIGAN, Lieut. G. E. ; 29 Caroline Street, Eaton Terrace, S.W. 1. (Aug., 1908.)
- REID, Mrs. ; Funchal, Madeira. (Feb., 1895.)
- *RICE, Capt. G. ; Persey House, Blairgowrie, N.B. (May, 1912.)
- RICHINGS, Rev. B. G. ; Barton Vicarage, Cambridge. (June, 1919.)
- *ROBBINS, HENRY ; The Maisonnette, New Oxford Street, W.C. (April, 1908.)
- ROBERTS, Mrs. MARY G., C.M.Z.S. ; Zoological Gardens, Beaumaris, Montpelier Street, Hobart, Tasmania. (June, 1903.)
- ROGERS, H. E. ; "Arequipa," 7 Aigburth Road, Liverpool. (June, 1919.)
- 210*ROGERS, Col. J. M., D.S.O., F.Z.S., M.B.O.U. (late Royal Dragoons) ; Riverhill, Sevenoaks. (April, 1907.)
- ROTHSCHILD, Hon. LIONEL DE, M.P. ; 46 Park Street, W. 1. (Nov., 1913.)
- ROTHWELL, JAMES E. ; 153 Sewall Avenue, Brookline, Mass., U.S.A. (Oct., 1910.)
- ROYAL ZOOLOGICAL SOCIETY OF IRELAND ; c/o Royal College of Science, Dublin. (Oct., 1905.)
- RUMSEY, LACY ; 23 Rua de Serpa Pinto, Villa Nova de Gaya, Oporto, Portugal. (April, 1919.)
- *ST. QUINTIN, WILLIAM HERBERT, F.Z.S., M.B.O.U. ; Scampston Hall, Rillington, York. (Orig. Mem.)
- SAKAI TATSUZO ; 2 Chrome, Kano Cho, Kobe, Japan. (1919.)
- SAMUELSON, Lady ; Hatchford Park, Cobham, Surrey. (July, 1916.)
- SLATER, W. L., M.A., F.Z.S. ; 10 Sloane Court, S.W. 3. (Aug., 1904.)
- SCOTT, Capt. B. HAMILTON, R.F.A. ; Hamildean, Ipswich. (1912.)
- 220 SEBAG-MONTEFIORE, Mrs. ; 2 Palace Houses, W. 2. (1913.)
- *SEPPINGS, Major J. W. H., A.P.D. ; The Castle, Cape Town. (Sept., 1907.)
- *SETH-SMITH, DAVID, F.Z.S., M.B.O.U. ; 34 Elsworthy Road, South Hampstead, N.W. 3. (Dec., 1894.) (Hon. Editor.)

- *SETH-SMITH, LESLIE M., B.A., M.B.O.U. ; Nagunga, Kampala, Uganda. (July, 1912.)
- SICH, HERBERT LEONARD ; Corney House, Burlington Lane, Chiswick, W. 4. (Feb., 1902.)
- SILVER, ALLEN, F.Z.S. ; 18 Baneswell Road, Newport, Mon.
- SIMPSON, ARCHIBALD ; Oakfield House, Stanks, Crossgates, near Leeds. (Feb., 1901.)
- SMALLEY, F. W., F.Z.S., M.B.O.U. ; North Cove Hall, near Beccles, Suffolk. (1912.)
- SMITH, C. BARNBY ; Woodlands, Retford. (Aug., 1906.)
- SMITH, O. C. ; 73 Audley Street, Reading. (March, 1915.)
- 230 SMITH, PHILIP ; Haddon House, Ashton-on-Mersey, Sale, Manchester. (Dec., 1917.)
- SMITH, W. PROCTOR ; Haddon House, Ashton-on-Mersey, Sale, Manchester. (Nov., 1917.)
- SNAPE, Major A. E., R.A.F. ; Langwyd, Sunningdale, Surrey. (June, 1918.)
- SOUTHPORT CORPORATION, CURATOR OF ; Hesketh Park, Southport. (Jan., 1904.)
- SPRANGE, Sergt. D. H. ; Terranova, Chinderah, Tweed River, N.S.W. (Feb., 1918.)
- SPROSTON, Mrs. ; Elm House, Nantwich, Cheshire. (June, 1917.)
- *STANSFIELD, Capt. JOHN ; Dunninald, Montrose, N.B. (Dec., 1896.)
- STAPLES BROWNE, R. ; Bradfield House, Bicester, Oxon. (Aug., 1898.)
- STEVENS, H. ; Gopaldara Mirik P.O. *via* Kurslong D.H.Rly., Bengal, India. (Oct., 1911.)
- STOCKPORT CORPORATION ; Superintendent, Vernon Park, Stockport. (Oct., 1902.)
- 240 SUGGITT, ROBERT ; Suggitt's Lane, Cleethorpes, Grimsby. (Dec., 1903.)
- SUTCLIFFE, ALBERT ; Fairholme, Grimsby. (Feb., 1906.)
- SWAYSLAND, WALTER ; 47 Queen's Road, Brighton. (Orig. Mem.)
-
- TAKANO, J. ; 67 Shichome Honcho, Yokohama, Japan. (Jan., 1921.)
- TAKA-TSUKASA, NOBUSUKE ; 106 Honmura-Cho, Azabu, Tokyo, Japan. (Feb., 1914.)
- *TANNER, Dr. FRANK L. ; Vanvert House, Guernsey. (Jan., 1914.)
- TAVISTOCK, The Marquess of ; Warblington House, Havant, Hants. (1912.)
- TEMPLE, W. R. ; Ormonde, Datchet, Bucks. (June, 1907.)
- TERRY, Major HORACE A., M.B.O.U. (late Oxford and Bucks Light Infantry) ; Compton Grange, Compton, Guildford. (Oct., 1902.)
- TESCHEMAKER, W. E., B.A. ; Ringmore, Teignmouth, Devon. (May, 1904.)
- 250 THOM, ALFRED A. ; Whitewell Lodge, Whitchurch, Salop. (June, 1913.)
- THOMAS, F. INIGO ; 2 Mulberry Walk, Church Street, Chelsea, S.W. 3. (June, 1914.)
- THOMAS, Miss F. G. F. ; Weston Hall, Towcester, Northants (Mar., 1899.)
- THOMAS, HENRY ; 15 Clinning Road, Birkdale, Southport. (Jan., 1895.)

- THOMASSET, BERNARD C., F.Z.S. ; The Manor House, Ashmansworth, near Newbury. (July, 1896.)
- THOMASSET, H. P. ; Weeness, Natal, South Africa. (Nov., 1906.)
- THOMPSON, Mrs. F. F. ; Canandaigua, N.Y., U.S.A. (July, 1907.)
- THORNILEY, PERCY WRIGHT ; Hole Head, Dawlish. (Feb., 1902.)
- TICEHURST, NORMAN FREDERICK, M.A., M.B., F.R.C.S., F.Z.S. ; 24 Pevensey Road, St. Leonard's-on-Sea. (Dec., 1906.)
- TILLEY, G.D. ; Darien, Conn., U.S.A.
- 260 TRANSSVAAL MUSEUM ; The Director, Transvaal Museum, Pretoria. (Jan., 1921.)
- *TREVOR-BATTYE, AUBYN, B. R., M.A., F.L.S., ; Ashford Chace, Petersfield, Hants. (July, 1898.)
- TUNNICLIFFE, Mrs. KATHERINE A. ; 42 Hesketh Road, Southport. (Sept., 1919.)
- TWEEDIE, LIEUT.-COL. W. ; c/o Mrs. Tweedie, 8 Glebe Crescent, Stirling. (April, 1903.)
- UPPINGHAM SCHOOL ; c/o The Head Master, The School House, Uppingham. (Nov., 1920.)
- URWICK, DOUGLAS R. ; Prior's Barton, Winchester. (Mar., 1913.)
- VALENTINE, ERNEST ; 7 Highfield, Workington. (May, 1899.)
- VAN OORT, Dr. E. D. ; Museum of Natural History, Leiden, Holland
- VAN SOMEREN, V.G.L., L.R.C.P. & S., Edin., L.R.F.P.S., Glas., L.D.S. ; c/o Dr. Hartert, Tring, Herts. (June, 1915.)
- WACHSMANN, A. E. WRIGHT DE BERRI ; Maitai, Murray Road, Beecroft, N.S.W. (Aug., 1914.)
- 270 WAIT, Miss L. M. St. A. ; 12 Rosary Gardens, S.W. 7. (Feb., 1909.)
- WALKER, Miss H. K. O. ; Chesham, Bury, Lancs. (Feb., 1895.)
- WATERFIELD, Mrs. NOEL E. ; Blyburgate House, Beccles, Suffolk ; and Port Sedan, Red Sea. (Sept., 1904.)
- WAUD, Capt. P. REGINALD ; 203 Knightsbridge, S.W. 1. (May, 1913.)
- WEIR, J. ; Douglas Cottage, Upper Ashley, New Milton, Hants. (July, 1918.)
- WELCH, F. D., M.R.C.S., L.R.C.P. ; Hartley, Longfield, Kent. (March, 1920.)
- WELLINGTON, Her Grace the Duchess of ; Ewhurst Park, Basingstoke. (Oct., 1913.)
- WHITAKER, JOSEPH I. S., F.Z.S., M.B.O.U. ; Villa Malfitano, Palermo, Sicily. (Aug., 1903.)
- WHITLAW, Miss ROSA M. ; Amerden, Taplow. (Aug., 1914.)
- WILLFORD, HENRY ; Sans Souci, Havenstreet, Ryde, Isle of Wight. (Nov., 1907.)
- 280 WILLIAMS, Mrs. C. H. ; Emmanuel Parsonage, Exeter. (May, 1902.)
- *WILSON, Dr. MAURICE A. ; Walton Lodge, Pannal, Harrogate. (Oct., 1905.)
- *WINCHELSEA AND NOTTINGHAM, The Countess of ; Haverholme Priory, Sleaford. (April, 1903.)

WINN, The Hon. Mrs. ; Nostell Priory, Wakefield, Hants. (Nov., 1920.)

WOODWARD, KENNETH M. ; 1 Madison Avenue, New York, U.S.A. (March, 1915.)

WOOLDRIDGE, Prof. G. H., F.R.C.V.S. ; Royal Veterinary College, Camden Town, N.W. (1912.)

WORKMAN, WILLIAM HUGHES, M.B.O.U. ; Lismore, Windsor Avenue, Belfast. (May, 1903.)

*WORMALD, HUGH ; Heathfield, East Dereham, Norfolk. (Dec., 1904.)

YEALLAND, JAMES ; Binstead, Isle of Wight. (July, 1913.)

289 YOUNG, H. R. ; 77 Mitcham Lane, Streatham, S.W. 6. (April, 1920.)

Rules of the Avicultural Society

As amended July, 1920

1.—The name of the Society shall be THE AVICULTURAL SOCIETY, and its object shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society. The year of the Society, with that of each volume of the Society's Magazine, which shall be known as *The Avicultural Magazine*, shall commence with the month of January and end on the 31st of December following.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members, and the latter shall be restricted in number to six, and be elected by the Council.

3.—The Officers of the Society shall be elected, annually if necessary, by members of the Council in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Secretary, an Editor, a Treasurer, an Auditor, a Scrutineer, and a Council of fifteen members. The Secretary, Editor, and Treasurer shall be *ex officio* Members of the Council.

4.—New Members shall be proposed in writing, and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five members shall lodge with the Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more Members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the Members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—Each Member shall pay an annual subscription of £1, to be due and payable in advance on the 1st of January in each year. New Members shall pay, in addition, an entrance fee of 10s. 6d.; and, on payment of their entrance fee and

subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their membership at the end of the current year of the Society are expected to give notice to the Secretary before the 1st of December, so that their names may not be included in the "List of Members", which shall be published annually in the January number of the Magazine.

7.—The Magazine of the Society shall be issued on or about the first day of every month, and forwarded, post free, to all the Members who shall have paid their subscriptions for the year; but no Magazine shall be sent or delivered to any Member until the annual subscription shall have reached the hands of the Business Secretary or the Publishers. Members whose subscriptions shall not have been paid as above by the first day in November in any year shall cease to be Members of the Society, and shall not be re-admitted until a fresh entrance fee, as well as the annual subscription, shall have been paid.

8.—The Secretary, Editor, and Treasurer shall be elected for a term of five years, and, should a vacancy occur, it may be temporarily filled up by the Executive Committee (see Rule 10). At the expiration of the term of five years in every case it shall be competent for the Council to nominate the same officer, or another Member, for a further time of five years, unless a second candidate be proposed by not less than twenty-five Members of at least two years' standing, as set forth below.

In the November number of the Magazine preceding the retirement from office of the Secretary, Editor, or Treasurer, the Council shall publish the names of those gentlemen whom they have nominated to fill the vacancies thus created; and these gentlemen shall be deemed duly elected unless another candidate or candidates be proposed by not less than fifteen Members of at least two years' standing. Such proposal, duly seconded and containing the written consent of the nominee to serve, if elected, in the capacity for which he is proposed, must reach the Secretary on or before the 15th of November.

The Council shall also publish yearly in the November number of the Magazine the names of those gentlemen nominated by them for the posts of Auditor and Scrutineer respectively.

9.—The Members of the Council shall retire by rotation, two at the end of each year of the Society (unless a vacancy or vacancies shall occur otherwise) and two other Members of the Society shall be recommended by the Council to take the place of those retiring. The names of the two Members recommended shall be printed in the November number of *The Avicultural Magazine*. Should the Council's selection be objected to by fifteen or more Members, these shall have power to put forward two other candidates, whose names, together with the signatures of no less than fifteen Members proposing them, must reach the

Hon. Secretary *by the 15th of November.* The names of the four candidates will then be printed on a voting paper and sent to each Member with the December number of the Magazine, and the result of the voting published in the January issue. Should no alternative candidates be put forward, in the manner and by the date above specified, the two candidates recommended by the Council shall be deemed to have been duly elected. In the event of an equality of votes the President shall have a casting vote.

If any Member of the Council does not attend a meeting for two years in succession the Council shall have power to elect another member in his place.

10.—Immediately after the election of the Council that body shall proceed to elect three from its Members (*ex officio* Members not being eligible). These three, together with the Secretary, Treasurer, and Editor, shall form a Committee known as the Executive Committee. Members of the Council shall be asked every year (whether there has been an election of that body or not) if they wish to stand for the Executive, and in any year when the number of candidates exceeds three there shall be an election of the Executive.

The duties of the Executive Committee shall be as follows :—

(i) To sanction all payments to be made on behalf of the Society.

(ii) In the event of the resignation of any of the officers during the Society's year, to fill temporarily the vacancy until the end of the year. In the case of the office being one which is held for more than one year (e.g. Secretary, Editor, or Treasurer) the appointment shall be confirmed by the Council at its next meeting.

(iii) To act for the Council in the decision of any other matter that may arise in connexion with the business of the Society.

The decision of any matter by the Executive to be settled by a simple majority (five to form a quorum). In the event of a tie on any question, such question shall be forthwith submitted by letter to the Council for their decision.

The Executive shall not have power

(i) To add to or alter the Rules ;

(ii) To expel any Member ;

(iii) To re-elect the Secretary, Editor, or Treasurer for a second term of office.

It shall not be lawful for the Treasurer to pay any account unless such account be duly initialled by the Executive.

It shall be lawful for the Secretary or Editor to pledge the Society's credit for a sum not exceeding £15.

Should a Member wish any matter to be brought before the *Council* direct such matter should be sent to the Secretary with a letter stating that it is to be brought before the Council at their next meeting, otherwise communications will in the first place be brought before the Executive.

A decision of a majority of the Council, or a majority of the Executive endorsed by the Council, shall be final and conclusive in all matters.

11.—The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Executive Committee). The Secretary and Editor shall respectively refer all matters of doubt and difficulty to the Executive Committee.

12.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit. Five to form a quorum at any meeting of the Council.

13.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

14.—Neither the office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person.

15.—The Scrutineer shall not reveal to any person how any Member shall have voted.

The Society's Medal

RULES

The Medal may be awarded at the discretion of the Committee to any Member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any Member wishing to obtain the Medal must send a detailed account for publication in the Magazine within about eight weeks from the date of hatching of the young, and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents.

The account of the breeding must be reasonably full so as to afford instruction to our Members, and should describe the plumage of the young and *be of value as a permanent record of the nesting and general habits of the species.* These points will have great weight when the question of awarding the Medal is under consideration.

The parents of the young must be the *bona fide* property of the breeder. An evasion of this rule, in any form whatever, will not only disqualify the breeder from any claim to a Medal in that particular instance, but will seriously prejudice any other claims he or she may subsequently advance for the breeding of the same or any other species.

In every case the decision of the Committee shall be final.

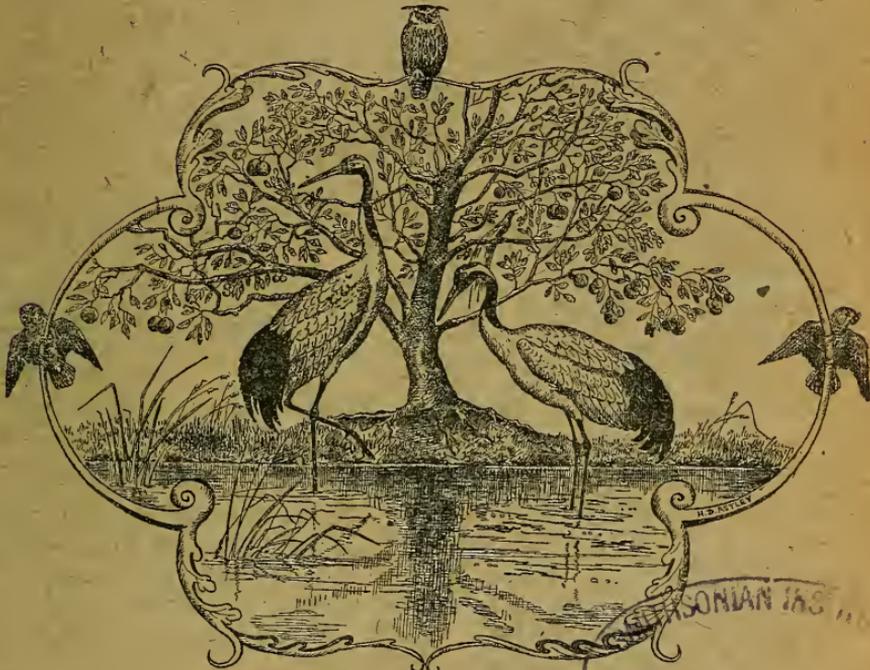
The Medal will be forwarded to each Member as soon after it shall have been awarded as possible.

The Medal is struck in bronze (but the Committee reserve the right to issue it in *silver* in very special cases) and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—founded 1894". On the reverse is the following inscription: "Awarded to [*name of recipient*] for rearing the young of [*name of species*], a species not previously bred in captivity in the United Kingdom".



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THE AVICULTURAL MAGAZINE



SEASONIAN 183
 MAY 12 1948
 NATIONAL MUSEUM

THIRD SERIES.
VOL. XII. NO. 1.

The Price of this
Number is 2/-.

JANUARY
1921.

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of **25/-** per annum.

NOTICE TO MEMBERS.

The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER,
Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except *post-mortem* cases) and all other correspondence should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

The Magazine is published by Messrs. STEPHEN AUSTIN & SONS, 5 Fore Street, Hertford, to whom all orders for extra copies, back numbers for 1917 and after, and bound volumes (accompanied by remittance), should be addressed. Current Monthly Numbers **2/-** each (except in special cases, such as the Number containing the List of Members, Index, etc., when the Committee may increase the price), by post **2/1**; for back numbers a higher price is charged according to circumstances. Cases for binding the Magazine (in art cloth, with gold block on side) can be obtained from the Publishers, post free and carefully packed, at 3/- each; or the Publishers will undertake the binding of the Volume for 5/6, plus 9d. for packing and postage. Members are requested to state whether they want the wrappers and advertisements bound in at the end or not. Telephone: 46 Hertford.

BACK VOLUMES OF THE *AVICULTURAL MAGAZINE* PREVIOUS TO 1917.

Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Dr. Graham Renshaw having resigned the post of Editor, Messrs. R. I. Pocock and D. Seth-Smith have consented to act as such *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,

c/o The Zoological Society of London,

Regent's Park, N.W. 8.

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 1.—*All rights reserved.* JANUARY, 1921.

DIET FOR REARING YOUNG BIRDS

By MAURICE AMSLER, M.B., F.Z.S.

I see from notes by Mr. Seth-Smith in the November issue of the Journal that 1920 has been a very poor breeding season. Although my fellow-members have my sympathy, I must admit that the statement brought me some measure of comfort and consolation.

The past season has been the worst in my experience since I first took up foreign birds. A few Diamond Doves and four Swainson's Lorikeets are all I can boast of after months of care and attention. Orange-headed Ground Thrushes looked promising; the male gave all his titbits to the female even after the moult was completed in October, but beyond the carrying of a few straws there was no attempt at reproduction.

My present pair are both young and vigorous birds, and my failure is all the more disappointing as in previous years I have seldom failed to get at least two nests of young.

It may not be out of place here to advise those who may be keeping these (or allied) species to separate the male from the female when all breeding is over. My experience with more than one pair is that the male is more attentive during the breeding season, but that after the moult he chases the hen about, prevents her feeding, and by generally bullying her either causes her death or finally kills her, unless separated in time. When springtime comes round the hen will turn the tables on the cock if he is introduced to her too early.

As I proposed saying something about the feeding of birds in this article, I may perhaps mention that these Thrushes and also the American Robin (*Turdus migratorius*) do not require a large quantity of mealworms in rearing young. Two or three dozen should be given daily for the first three days, after which the quantity may be gradually reduced, their place being taken by small earthworms. The latter are best supplied in a large shallow box containing plenty of damp moss. The worms live indefinitely, and the parent birds have a continuous food supply. Gentles I have already mentioned and advocated in the Magazine. I have used millions in my time with no untoward result, but they must be properly scoured, preferably in meal or flour, until they have lost their central black line. Cockroaches or blackbeetles are, I know, said to "scour" the young birds. My experience is that the parents only use the smaller insects, and the results have always satisfied me. Lastly there is raw meat; my last brood of Orange-headed Ground Thrushes, reared in 1914, were fed very largely on it, and left the nest very fit and strong and were fully reared. I think a good deal depends on its preparation. My method was to pass the meat through a mincer, together with stale bread; the mixture is then quite crumbly, and does not seem to disgust the birds like a mass of pure meat. The parent birds in question had been in my possession for some three years, and it is possible that their long captivity had caused them to forget the aversion, which we all know, to feeding with anything but live food.

The above points may appear a trifle laboured, but mealworms are at the present costing 1s. per ounce. Given liberally a pair of feeding Thrushes could dispose of an ounce daily, and a good deal more when the youngsters were half-grown. I tremble to think what my bill would have been at the present price when I had young of Occipital Blue Pies and Yucatan Jays! The price of "soft food" at 2s. 6d. to 3s. 6d. a pound also "gives us to think". I have completely given up buying the made-up article, and find that bisnit-meal (preferably grocer's biscuits) mixed with a small quantity of minced cooked meat suits the larger insectivorous birds perfectly well. To this may be added twice weekly as a treat some well-crushed hard-boiled eggs. In addition to this all my birds get a daily ration of the Lorikeets' food mentioned below, and I think it is to this that their fitness is partly due.

I mentioned earlier that the Swainson's Lorikeets had reared four young in 1920. Two eggs since, laid in August, were clear; but there are two more in the nest-box due to hatch in a day or two. So I may yet beat my own record and rear six in the year. This would make a total of sixteen young in three years—a pretty good record, seeing that the clutch is never more than two in number. For this I take no credit. I merely happen to have bought a breeding pair, not an invariable occurrence with this genus. When these Lorikeets first arrived I was told to feed them on a mixture containing Mellin's food, condensed milk, honey, and crumbled biscuit or sponge-cake made up with boiling water; some of the ingredients were not very easy to obtain during the War, and all were expensive in the long run. However, I continued their use until the birds had reared their first chick. This bird grew very slowly, although the above food was supplemented with cane-sugar, which Mr. E. J. Brooke told me was very important; he left the nest at the age of *twenty weeks*, and was of about the same size as other young birds I have since reared, which left the nest at five weeks.

I could not help thinking that in the case of these birds (I am not referring to Sun-birds, Sugar-birds, and such like delicate fry) there was something lacking in the condensed milk which handicapped the growth of the young. Whether I was right or wrong, I decided at the time to try a simpler food. I had noticed that the old birds were fond of sweet rice pudding, but as this takes hours to make properly I tried ground rice boiled for a few minutes with fresh cow's milk and sweetened with honey-sugar. This has been my staple food ever since, some two and a half years, and the birds get scarcely anything else, very occasionally a little fruit or perhaps a little custard. But they do not care much for these "treats".

We have heard and read a good deal about "Vitamines" of late, and I am wondering whether the usual mixture given to Sun-birds, etc., may not be lacking in some such substance. It is known that the lack of a Vitamine affects young and growing animals and birds much more than it does adults, and the use of fresh cow's milk might make all the difference in the rearing of some rarity, such as a Sun-bird or Fruitsucker.

I know, of course, that both these and other genera feed their young

largely with insects, but in the case of the Gold-fronted Fruitsucker, which I nearly bred on three different occasions, the old birds used both the condensed milk mixture and also pure honey, in addition to insects, in feeding the young, which never lived beyond twelve days. Perhaps my ground rice and milk might have brought me success.

All the above is, of course, merely theory, but in the feeding of all except the hardiest birds we must remember that the diet is largely artificial, and when failure occurs we must bear in mind what are called for want of deeper knowledge "accessory food bodies". An intensely interesting article appeared in *L'Oiseau* some months ago. The writer dealt in a very convincing manner with the lack of Vitamines as the cause of death in many of the more delicate African Finches. Perhaps Mr. Delacour would allow a verbatim translation of the article for the *Avicultural Magazine*. To refer again to the ground rice mixture, it is this which I mentioned earlier in these notes as being used to supplement the insectivorous birds' food. All the birds get a small quantity daily. Amongst those which I know eat freely of it I may mention Waxbills, King Parrakeets, Jays, Thrushes, Tits, Whydahs, and even, occasionally, the Diamond Doves.

I am sure the birds thrive on it, it is a welcome change for them, and as it contains milk it may be taken as a sort of substitute for insect food; this in the case of the smaller Waxbills, who seldom eat mealworms, is an important point during the winter months when gnats, green-fly, and such like small fry do not exist.

Having opened the subject of food and diet, might I ask other members for their views thereon. A number of useful and interesting facts on feeding might be brought to light by a series of articles on this topic.

SEXING PARROTS

By E. MAUD KNOBEL

The question of sexing birds whose plumage is the same in both cock and hen has often been discussed, and various theories put forward for distinguishing them. It is said that a practised eye can easily tell the sexes when a pair of birds are together, and the methods

hitherto employed are by carefully noting any differences that may occur. Even then it is very difficult if you have an old hen and a young cock, say, for example, of a Blue-fronted Amazon, and one can never be quite sure. May I venture to put forward another suggestion for determining the sexes? In doing so I should like it to be borne in mind that I am speaking of parrots only, for it is solely in this family of birds that my experience lies. This is by carefully feeling the bird in the neighbourhood of the pelvis. In the cock bird you will find the pelvic bones taper down to a point and lie so close together that they are practically touching, whereas in a hen bird the pelvic bones are wide enough apart to allow an egg to pass through.

In my Alexandrine Parrot, which I know is a cock bird by the black and rose collar, the pelvic bones lie close together, and I find the same in my small Sulphur-crested Cockatoo, which has black eyes, and whose general demeanour pronounces him a cock bird. Out of the eight Blue-fronted and two Yellow-fronted Amazons I have kept I believe only two were male birds, and I am inclined to think that the majority of birds that come over to this country are females. Mr. C. P. Arthur, in his account of Grey Parrots in his book *Parrots for Pleasure and Profit*, says much the same thing, i.e. that he has not found a single male among the many he has dissected.

Last year I had a charming Yellow-fronted Amazon (Judy), which I subsequently determined to be a hen. I must say the first time I saw her in a shop I was not greatly taken with her, but the next day I visited her again, when she promptly stepped off her perch on to my hand. I at once bought her and carried her home. The very first morning I let her out she flew across the room on to my shoulder, and never have I had a bird which formed so great an attachment as she did. She was really never happy unless she was on me, and she was the most gentle and playful little creature I have ever had. Yet she was undoubtedly a hen, and this entirely does away with the theory that male birds like women and females men. In her case, from outward examination, the pelvic bones were quite an inch apart, and dissection after death, which came all too soon, proved her unquestionably to be a hen. I missed her so much and was so unhappy at her loss that two days after I replaced her—if one can say such a thing, for one never

replaces, really—with a baby Blue-fronted Amazon, a funny little thing with no wing or tail feathers, in fact very few feathers at all, but mostly brown down. In this bird the pelvic bones lie close together, touching each other, and I have no hesitation in pronouncing him a cock. I tamed him in two days, that is to say, he would come on my hand, lie on his back on my lap, and let me kiss and stroke him, but he will never adore me in the way Judy did, and has a very independent nature, but he has moulted into a handsome bird and promises to be an excellent talker and whistler.

My little Senegal Parrot, who in point of size and colouring is quite as beautiful as the one so many of us know and admire in the Parrot-house at the Zoo, with the exception that in mine the head is a trifle smaller, has the pelvic bones about $\frac{3}{4}$ in. apart, and I feel quite sure in my own mind that she is a hen. In the very few dead specimens that I have been able to examine I have not found that the pelvic bones of either sex look very different, and I am inclined to think that what one feels in a *live* cock bird is not so much bone matter as cartilage or gristly matter, extending on beyond the pelvic bones down to a fine point, and which in a dead bird gets quickly shrivelled up so that one cannot find it.

There may not be much in this theory, but certain it is that in some birds the bones are wide apart, in others close together, and one naturally asks oneself if this does not denote sex. *Why*, then, should it be? Perhaps some other members who have had more experience and opportunity of studying these things will be able to help in determining this question.

THE STORY OF A TAME ROOK

By PREBENDARY LAMBRICK

One of the prettiest features of our country rectory is its beautiful avenue, but what we appreciate more than its beauty is the large colony of Rooks that inhabits it. We have more than fifty nests, and the birds are an unfailing source of interest.

The old birds, the patriarchs, live at the top end, near the road, the younger ones near the house. Is it possible that what we often hear

described as robbing each other's nests of sticks is, in fact, a splendid system of fagging? It is, at any rate, noteworthy in our case that it is always the "road" birds that commandeer the "house" birds' sticks. The cocks seem to take it as a matter of course, but sometimes the little ladies resist the demand on their youthful spouses. The heads of the clan seem to control the number of nests that are built, and it is not an uncommon sight to see them pull nests to pieces and drive birds away. The sentries are well posted, but never disturb the birds for any of our household passing up and down the avenue at night, but if a stranger comes the conversation is very general, and not always polite. We know immediately the whortleberries are in on the hills by the droppings under the trees. Last year in the autumn the great parliament was held in a big field alongside their houses. Two or three thousand birds came, arriving about ten o'clock in the morning and settling in long lines across the field. From time to time companies rose out of the line, circled in the air, and alighted in another line, for all the world like going to attend another committee. On one occasion a great sorrow befel us. Two crows came and settled among the rooks, and although sitting, the whole colony rose into the air one Sunday afternoon, divided into three bodies, and deserted the nests. One section went off to the Mendip Hills, and we were able to observe the interesting fact that they built in separate isolated trees, covering a fairly large area, and not congregating together as usual, and began again to lay, and brought up their young families. So much for the wisdom of the agricultural committee of a county council who suggested beating drums, lighting fires, collecting noisy boys to drive sitting birds off their nests, and so put down the pest! They may be wise, but they have not "cornered" Rookie yet!

But now I must come to the great day. On the 1st of May, 1912, I was going up the avenue when I heard a most fearful cawing, and on the ground there were two tiny fledglings, perfectly bare except for their wing-quills. One was injured and died, the other, the screecher, I took up in my hands and brought into the house. The next day I went to Ireland, and when I came back after a month Rookie had taken over the rectory, which she has ruled ever since. My housekeeper, Miss Latcham, was the foster-mother, and the bird always goes to her

with her ailments now, and she also much prefers to be put to bed by her nannie.

She is absolutely free of the house, never has her wing cut, and asks for all she wants, and we can always tell whether it is her bath, food, bed, or change of air that she requires.

She has a far more acute sense of hearing than we have, and can detect the noise of an aeroplane or motor-car many seconds before we do. She is, moreover, always certain of the direction from which it is coming, whereas we are often confused. She is very accurate in distinguishing sound, and always knows whether I ring the bell for daily service or my colleague. If he rings she takes no further notice; if I do she lights on the window and waits anxiously for me to come down the garden.

When we were billeting troops during the War, she took great delight in the horses and men, and much appreciated the officers of the Royal Welsh Fusiliers because of their flèches, which her keen eye had detected before they entered the house, and which she had a continuous desire to remove all the time they were with us.

She builds her nest every year in the workroom. Her first was constructed entirely of what could be got in the house. She started with twigs out of the housemaid's box, then impounded four work-scissors, my 2 ft. rule, three silver teaspoons, the receipt file, reels of cotton and silk, two tape measures, a strap, string, and tape. All these were wonderfully worked in, the interlacing being most clever and laborious. Having satisfied herself with the outside, she proceeded to line the nest, the first precious prize being a new chamois leather; this was followed by three cleaning-cloths, a pair of stockings, pieces of linen, flannel, silk, a newspaper torn to shreds and taken piece by piece. Bright colour was a great attraction, and always preferred to white or brown goods. Each year since then we have put a box with sticks and remnants in the room for her. She has always liked me to help, and this year she was more than ever exacting, her scheme being that I should bring the material and she build the nest, which she put together in a very cosy corner of the wardrobe. I am expected to feed her when she is nesting.

Her memory is most remarkable. The Rev. E. F. Turner left

Blagdon in 1914 and came back in 1919 for the first time after being demobilized. I was sitting with the bird when she suddenly began to fly about madly, and we heard a footstep outside. She could not have seen him, but remembered his step, and there was no rest till she was allowed to welcome her old friend and show him he was not forgotten. In the old days it was great fun to see the little rook and the tall big man walking demurely up the avenue together.

She shows great accuracy in measurements. At one time she was very fond of taking pins out of the packet, would hold as many as fifteen in her beak, and then plant them in twos and threes under different objects. If we moved them or changed them when she was out of the room she never failed to detect there were three where she had put two, or to note any other alteration that had been made, and was never satisfied till she had replaced them all in their original positions.

I feel I must tell one story against myself. I was doing some sermon work one morning, and had put down a note on a small scrap of paper, when suddenly "Jinnie" went off with it. When I went for her she calmly swallowed it. In righteous indignation I caught her and smacked her on the claws with a pencil. She then skipped on to the inkstand and, to my horror, proceeded to drink ink in a most suicidal manner. When she had swallowed as much as she could hold I found that death was not her object, but vengeance, for she spat the whole of it over my face and collar! It took my wife some time to recover from the effect of uncontrollable fits of laughter at my appearance.

She has established an ascendancy over our kitchen cat, and it was great fun the other day to see poor pussy a prisoner under the copper and Rookie, like a sentry, marching up and down in front keeping her in, at the end of her beat always going about facing her charge in correct style.

She appreciates getting a letter through the post. She cleverly opens the envelope with her beak, draws out the enclosure and stands on it, and soon lets everyone know that that piece of paper is her own especial possession, and must not be touched. As with the letter just described, so is her dealing with a bit of dough or a piece of bacon-

rind thrown down to her. She waits for the cook, after placing her pastry in the oven or her bacon in the frying-pan, to present her with scraps for similar treatment. Her imitation of two eats fighting is so realistic that the girls have rushed into the kitchen thinking a strange eat had caught her, only to find her on the gas-bracket giving a musical sketch.

If you go out without saying anything she flies madly about the room. If you say to her, "Coming back soon," she quite understands and remains peaceful and satisfied.

She is very fond of putting things in the tuck of my trousers. One day in church I heard faintly the sound of a silver bell during service, and it turned out to be a thimble her ladyship had stolen and put in her usual store-eupboard, which had shaken out on to the marble floor of the chancel. We hardly ever lose anything by her thefts, as all she steals she endows me with.

One of her greatest friends is Mr. Gilbert Day, our plumber. He always ignores her sex and calls her "Jack". There is a wonderful freemasonry between them. He gives her most fascinating things out of his bag, but if he happens to want the particular thing he simply says "Come on, Jaek", and the bird comes straight up, gives over what she has got, and receives a substitute from him. The way she pokes her beak into all his work and down the pipes is a perfect lesson to a clerk of the works. One word as to her digestion. She has survived two tabloids of pyrogallic acid and half a dozen Beecham's pills! But a saccharine tabloid does not appeal to her at all.

No words can describe the bird's devoted affection. If I am out for a few minutes, there is a joyous welcome back; if I return after a few weeks' absence, such a greeting! So much to tell me! She knows the true meaning of love, for it is always "giving" with her, not "getting". She brings her first bit of food for me to share, and is only too delighted if I ransack her little treasury, which no one else may even look at. She is happy for hours on my shoulder, greets me the first thing in the morning, is so disappointed if I cannot give her an hour before the rest are up, and has a last word for me before I go to bed; and I can close this letter as I did a letter to the *Spectator* three years ago: "As I write she is on my wrist, talking to me all the time."

MY PATAGONIAN PARROTS

By W. SHORE-BAILY

One day last autumn I was wandering through one of the large West End bird stores, when my attention was called to a cage full of Parrots. On asking the attendant what they were called he said Patagonian Conures, and that they had only lately been landed, together with some Blue-crowned Conures. Amongst the five birds in the cage were two birds considerably larger than the others and of a lighter colour. It is true that one of these birds had very few feathers on it at all, and the other was in bad condition, but in view of their possible rarity I decided to take the lot. On getting them home and examining the two large ones carefully, I made them out to be *C. bryoni*, although they differed in one or two important points from the description of this bird, especially in the absence of the white band across the chest, as described in both Seth-Smith's and Butler's books. The smaller birds were also without this white band, although in all other respects they answered to the description given in the books. The question is, does this white band exist in either species? It is not shown in the capital drawing in Mr. Seth-Smith's book, nor can I see any trace of it in the print in Dr. Butler's work. I wrote to the Magazine on this subject a short time since, and it was suggested by both Lord Tavistock and Mr. Seth-Smith that the larger birds were hybrids. At that time I could think of no possible cross except between "*C. patagonus*" and "*C. hæmorrhous*", but the difficulty in my mind was the large size of my Parrots. Dr. Graham Renshaw thought that the size of my birds did not affect the question, mentioning the fact that the hybrid is often larger than either of its parents; but my experience with hybrids in birds does not bear this out, as although I have bred many hybrids I have never had one yet that was larger than the bigger of its parents. I have now come to the conclusion that the smaller birds are pure "*C. patagonus*", and the other two the offspring of a cross between the Little Macaw, "*Ara severa*," and the Blue-crowned Conure, "*C. hæmorrhous*." Their description is as follows: general body colour above and below, light grass-green; primaries, bluish-green; a small patch on wing butts, and a garter

scarlet ; under side of tail-feathers, red ; a narrow band across forehead, dark chestnut brown ; front of head, light brown ; upper mandible, white, with tip black ; lower mandible, black ; patch of bare skin around the eye white ; size about equal to the Alexandrine Parakeet. It will be noticed that the forehead, wing-butts, and tail correspond very closely in colour with the same parts in "*A. severa*", and the rest of the body with that of "*C. hæmorrhous*". I have always considered this latter bird to be closely allied to the smaller Macaws, especially in regard to the size of its bill. This bill, by the way, is a most formidable weapon. The bird uses it very effectively on the woodwork of the aviary, and if you have occasion to handle it, very stout gloves are advisable. In my hybrids the bill is still larger, and they easily bite through the wire netting of their aviary. One Sunday morning early this month I was aroused early in the morning by the screams of Parrots outside my bedroom window, and on looking out I was in time to see a little flight of five just disappearing over the tops of some high elm-trees. One of the hybrid Macaws had eaten a large hole through the roof of the aviary and let its companions out. For three or four days they remained together, visiting all the neighbouring villages, and subsisting, apparently upon leaves and bark, for as far as I know they were never seen upon the ground. They looked very pretty soaring 40 or 50 yards in the air, and their loud calls could be heard half a mile away. "Reminds one of India," I heard one comrade say to another as the birds flew over their heads, and it is really a pity that it is not safe to leave this kind of bird at liberty, as even if one could train them to come back regularly to food, they would, as things are now, sooner or later fall victims to the man with the gun. Of my birds, the wire-cutter found its way back after five days' liberty, two others were captured in neighbouring villages, and two are still missing. These birds are quite hardy, and I was surprised that they made no attempt to breed. In their own country they nest in holes in cliffs and river-banks, so I had some nest-boxes sunk into a bank in their aviary, but they made no use of them ; possibly they may have been interfered with when on the ground by my Mantchurian Pheasants, or they may not be true pairs. Another Patagonian Parrot, or, at any rate, an Argentine one, is the Maximilian Parrot, "*Pionus maximiliani*." Of these rare birds I have

three specimens. In shape they closely resemble the African Grey Parrot, but are hardly as large. Their general body colour is green; primaries of wings edged with black; outer webs of tail-feathers bright blue; under tail coverts, scarlet; head, brown; cheeks, brown, each feather edged with brown, giving it a pretty scaly appearance; bill, yellow; bare skin around eye, white. They are rather quiet and apathetic in their demeanour, but this may be due to their rather rough condition. If they improve I shall try and breed from them next season.

REVIEW

A NATURALIST IN HIMALAYA¹

The author of this book is a very keen observer, and has made most careful and minute studies of the habits of the creatures around him during a residence in the Himalayan Valley of Hazara, between the years 1915 and 1916. The accounts he gives of the life-history of the various species of ants, spiders, butterflies, and such-like creatures are fascinating, but all point to the following of a blind propelling instinct with complete lack of reasoning power. The author describes the method employed by the Harvester Ants in collecting their winter store of grain; how the carnivorous species, *Phidole indica*, on finding its prey, hurries back to the nest to communicate the intelligence to the army of workers and soldiers waiting for such a call; how the geometrical spider constructs its wonderful snare with mathematical precision. These and other small creatures have the secrets of their lives divulged in this fascinating volume, which, however, is not entirely confined to these small fry. The author has a chapter of observations on mammals, in which he deals with the leopard, Himalayan monkey, and flying squirrel, and another on birds, in which his remarks and deductions on soaring flight, migration, nesting instinct, and so forth are particularly interesting and instructive. There is not much aviculture in this volume, but as the majority of aviculturists are naturalists first, it will appeal to many readers of this journal.

¹ *A Naturalist in Himalaya*, by Capt. R. W. G. Hingston, M.C., I.M.S. Demy 8vo, cloth; 16 page illustrations. Price 18s. net. H. F. and G. Witherby, 326 High Holborn, W.C. 1.

CORRESPONDENCE

CHESTNUT-WINGED STARLINGS

SIRS,—With reference to your footnote on my letter in the December Magazine with regard to my Chestnut-winged *Amydrus*, may I point out that in Gould's *Birds of Asia*, vol. v, there is a coloured plate of *A. tristrami* exactly resembling my pair of *Amydrus* from Africa. I cannot find *Hagiopsar tristrami* in Gould's works. He names it *Amydrus tristrami*, with no synonym, and wrote: "There cannot be the slightest doubt as to *Amydrus tristrami* being a good species. It is nearly allied to *A. fulvipennis* of South and South-Western Africa. The size of both species is the same."

That my birds may be *A. morio* I do not dispute, but judging by Gould's plate they appear as identical with *A. tristrami*.

These birds seem to be hardy, for although only lately imported they are thriving in an outdoor aviary, and even moulted in November.

HUBERT D. ASTLEY.

[Sharpe separated the Palestine species from the African birds (*Amydrus*), calling it *Hagiopsar*, of which genus it is the only representative.—EDS.]

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Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

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BACK VOLUMES OF THE AVICULTURAL MAGAZINE PREVIOUS TO 1917.

Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Dr. Graham Renshaw having resigned the post of Editor, Messrs. R. I. Pocock and D. Seth-Smith have consented to act as such *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,

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THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

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MY LONG-TAILED ROLLER

By JEAN DELACOUR

If I was asked which I prefer of the birds I actually possess, I think the reply would be: "My Long-tailed Roller," although there are some good birds in my cages, such as Cuban Trogon, King Bird of Paradise, Giant, Hoary, and Black-collared Barbets, Cossyphas, several species of Sun-birds, Black-backed Tanager (*Calliste melanonota*), etc., and nearly all of them are very tame and amusing. The only bird which might almost surpass the Roller is a charming purple-capped Lory, whose affection for my attendant and myself is really wonderful, and makes one think of a pet dog.

But the Roller possesses altogether the four most important qualities for a bird in captivity: beautiful plumage, tameness, sensibility, and rarity. Rollers are amongst the most difficult birds to keep in good condition. At liberty they feed mostly on the wing, and they need much exercise to keep in good health. As they fear the cold and can only be kept in summer in an outdoor aviary, it is rather difficult to give them enough room to fly about and a good temperature all the year round, unless the bird is so tame that it can be handled at any time, and this is the case with mine.

Another thing is that it is often difficult to accustom Rollers to captivity; Major Millet-Horsin, Medical Officer to the French Colonial Army, who has spent years in studying and catching birds in Africa,

and is a great authority on the fauna of that part of the world, told me that it was only last year, after about twelve years' trial, that he succeeded in keeping a Roller in captivity, in the native country of the bird!

When I obtained my Long-tailed Roller, in January, 1920, he was a very ugly greenish-grey creature, with dreadfully dirty feathers. But his tameness, coupled with the pleasure I found in acquiring a Roller, which was certainly not the well-known Indian species, was quite sufficient to make me happy. I did not know exactly which species he belonged to, as several are found in Africa, and the information I had about his native country was somewhat uncertain.

As my bird-rooms were not quite ready at the time, Mme. Lécallier kindly took the Roller *en pension* and at my next visit I saw some lilac feathers appearing amongst the grey ones of the breast, showing that beyond doubt the bird was the Long-tailed Roller, *Coracias caudatus*.

He went through the moult within two months, and was in full plumage in April. His tameness soon made him a pet and he flew about loose in Mme. Lécallier's bird-room until May. But then, the bird-room having been closed for some reason, the Roller was confined in a cage, and three weeks later had a fit and very nearly died. No doubt that was occasioned by lack of exercise. My place being ready by this time, I took the Roller with me and let him out in one of the bird-rooms. He recovered in a few days, and has never ceased to be in perfect health since. He moulted again in August, and is now in perfect plumage. He has a roomy wooden cage, where he sleeps, and is left until 11 a.m., when the cleaning of the room is finished; then he is let out and enjoys liberty in the room until 8 p.m. He sits on the cages and on the top of the aviaries, has some discussions with the Giant Barbet through the wire of the aviary, and takes a flight almost every two minutes. When I come in he flies to me, opens his wonderful blue wings in salute, uttering his loud crow-like call, and he takes the keenest interest in everybody and everything. His diet consists of insectile mixture, a little raw meat, and half a dozen mealworms a day. He touches apples sometimes, and altogether wants rather a large quantity of food.

I believe that the only Long-tailed Roller which has ever been

imported alive into Europe before was the bird that the Berlin Zoological Gardens had in 1912, and I think it did not live very long there.

The Long-tailed Roller is common throughout Central Africa, from Angola to Zanzibar. It is a shy bird, living in hilly, wooded countries. Like all its congeners it feeds on insects caught on the wing, and nests in holes of trees. The plumage of the Long-tailed Roller is extremely handsome: top of the head and hind neck, dark green; white eye-brows; cheeks, violet chestnut; throat and chest, rich lilac streaked with white—especially on the throat in my bird, this beautiful lilac colour extends up to the cheeks, and there is very little difference in the colouring of the cheeks and that of the breast; underparts, light turquoise blue; back, greenish cinnamon; wings, bright light blue and rich dark blue; light blue tail with central feathers dark greenish blue, and the two outermost rectrices elongated, very pale blue with black thin ends; bill, black; feet, grey. The males and females of this species have the same plumage, so that I have no idea of the sex of my bird.

THE MALLEE FOWL OF AUSTRALIA

By T. P. BELLCHAMBERS, South Australia

The crime of civilization is its callous disregard of the wasteful exploitations of wild life, which go on in the name of sport and of commerce. What better off will the world be that the fur-seals and right whales have ever existed on this planet when the last moth-eaten garment is thrown on the rubbish-heap and the last cask of oil exhausted? What shall repay future generations for the barbarous destruction of the beautiful Egrets and the ill-used Penguins that are driven alive along roads ending over boiling caldrons in Maquari Islands? Who can tell what evils we are laying up for future generations by this wanton destruction of Nature's guardians of sea and land? A chain has but the strength of its weakest link. Slowly and surely man is undermining the foundations on which life itself rests. We know that there are some live forms whose work is so important to man that living they are worth their weight in gold,

whereas, dead, their value is counted in pence or at most a few paltry shillings.

Think of Australia, the wonderful world museum of antiquities, with its living fossils, the one open living page of an otherwise long-closed book; of its faunal and floral types of a long-dead past; its aboriginal inhabitants belonging to the Stone Age!

Australia in the past has not proved worthy of this great charge, which should have been held in trust for the whole world. Already some of her unique treasures have gone into the eternal silences; others are perilously near the vanishing point. To many of her scientists engrossed in the study of bones, relics and fossils, to which so many give the higher value, are failing in their duty to the valuable living types that are theirs to save—the Marsupialia, Monotremata, Flightless Birds, and the Mound-builders.

One of the most interesting of these living types is the Mallee Fowl (*Lipoa ocellata*), inhabiting the waterless Mallee-lands of Western and South Australia, Victoria, and New South Wales, and subsisting upon seeds of the acacia, berries and insects, and drinking, apparently, only dew-drops hanging from the leaves. Apart from the menace of the fox and gun, the bird is doomed by the advance of settlement, for it cannot exist in the open lands.

For many years I made a special study of this bird, making periodical trips into the Mallee-lands, suffering heat, hunger, and thirst in the big lone lands, sleeping beneath the stars with the scant tracery of leaves overhead, and the scent of the broom in my nostrils, listening to the solemn booming notes of the cock Mallee Fowl and pondering the mysteries of creation.

It was thus I learnt much of the life-history of these wonderful birds, even the art of mound-building, which I then occasionally built and successfully worked at my camp. The absorbing interest attaching to such a work was a sure preventative of any feeling of loneliness, and four, five, and sometimes six weeks would slip by ere I broke camp and left these solitudes. Expenses had to be met by capturing and supplying to various zoological societies a few of these same Mallee Fowl. This removal of pairs from the mounds finally settled the sex habit and proved them not communistic as supposed, but solitary. It was in

these wilds I early disproved the statement (found in some of our leading works on Australian birds) that the wing is used to sweep the material together for the mound. This is never the case, the feet alone being used.

Much of my work had to be done over and over again, but slowly the life-history of this bird was unravelled. It is monogamic, and apparently mates for life. The construction and maintenance of mounds, chiefly performed by the male, entail a labour of about nine months' duration. The birds choose a site that will be exposed to the sun's rays during the heat of the day, preferring a slope that faces the sun. A pit is dug about 12 inches deep, the soil being banked around the edge, and the measurement from bank to bank being from 7 to 9 feet. The thick accumulation of *débris* (fallen leaves, bark, etc.) is then raked from under the Mallee into the more open ways that lead to the pit. By preference this is taken from the higher side of the pit, it being much easier for the birds to rake it downwards than up the slope. When the required material has all been raked into the clear open runs that lead to the pit, the male, starting nearest to the pit, but facing outwards, proceeds with a sweeping throwing motion of the foot to pass the material behind him, a few strokes with each foot, then he moves forward, keeping this up until he reaches the end of the row. Then retracing his steps to the pit, he proceeds as before, keeping this going at frequent intervals until the whole of the material is heaped high in the pit, which is left awaiting the rains, and beyond occasional stirrings of the surface there is not much done for a time. Then, as spring approaches, the desiccation of the surface and core commences. This work lasts a considerable time. We will suppose spring is here and the hour is 9.30 a.m. The male appears, proud and dignified of mien, the female sedately following, always, at this time of laying, uttering at very frequent and regular intervals a low, soothing and pleasing note, to which the male occasionally responds in a deeper tone. Proceeding to the top of the mound, the birds, relieving each other at intervals, make an excavation reaching into the loose core or egg-chamber, terminating the excavation in a small cup-like hole. Placed against its solid wall, the female, with legs straddling across this small hole, head down along her breast and facing the wall, presses

forward, opens her wings, slightly withdraws her head, and with that movement the large pink egg slips into its prepared place. Her part is now done—she quietly glides away into the shade of a bush. The male now gives his attention to the egg, which has probably fallen a little out of the perpendicular. Choosing a spot about an inch away from the egg, he thrusts his beak into the sand up to his forehead, then pushing forward and using this sand as a cushion, he brings the egg to an upright position. With the withdrawal of his head the sand falls and keeps the egg upright and on its small end, in contact with the solid wall of heating material. The reason for this action is twofold; first, the shell is too fragile for direct contact with the bird's head, and second, the falling sand prevents the egg from again falling forward. All eggs in the egg-chamber must be so placed that the chicks emerge in the right direction to gain their liberty. On their sides they would meet their death against the hard walls of the egg-chamber. The male now replaces the blanket of sand and fine leaf-material, sometimes covering the eggs to a depth of about two feet. The thickness of this covering has been noticed to vary with weather conditions. This hard and laborious work during the heat of the day is done in several shifts, and intervals of rest are taken. The period of incubation is about fifty-five days. The heat required is from 85 degrees to 96 degrees Fahr. The eggs are laid at intervals varying from three to seven or even eight days. The number is about thirty, varying according to the age of the bird and the season. There is also a big variation in the incubation period, the extreme noted being in one case ninety-nine days. This must have been due to retarded incubation.

In addition to bottom heat, a very frequent use is made of solar heat, the mound being frequently opened out to within an inch or two of the eggs, and, as the material gathers heat, it is replaced layer by layer, the intervals allowing for the next layer to become heated. I have seen the male putting on extra covering by moonlight as late as 8.30 p.m. on the approach of a change in the weather. This is done to conserve the heat that has been gathered during the day.

Both birds frequently test the heat of the egg-chamber. This is done by thrusting the beak up to the forehead into its walls, and holding it there for several seconds. I think they are guided by this test as to the amount of sun heat required.

We will suppose that two months have expired. The mound now contains nine eggs and a chick which broke its shell at noon yesterday. That it is near the surface we know by that slight depression. Its shoulders are upward, and with them it is boring through the loose sandy covering, ever pressing the falling sand under its feet. Its head is bent down along its breast; its nostrils protected by a shield of bristles. There is a heaving motion with falling sand in the depression. Another heave and a little head shoots into view, and a staggering chick drops back into the hollow from which it has emerged. Its eyes are closed; it is perfectly still, resting after its subterranean journey, which had lasted for twenty hours. It is 8 a.m., and the shadows of the nearby mallee are just leaving the mound. The long journey upward seems to be always made in the night. I have never known a chick emerge during the heat of the day. They would surely perish in the attempt, let alone clashing with the male's duty of testing the sun's heat. Always they come in the cooler, quieter hours of early morn. The chick lifts its head and takes its first long look around. Then with a staggering run it disappears into the bushes.

A Bronzewing Pigeon barely alights on the mound, when from an adjacent bush the cock Mallee rushes forth, crest up, plumage ruffled, wings open, and dashes at the sacrilegious intruder. There is a sharp clap clap of wings, and the pigeon is gone. Then comes a softly uttered warning from the bushes, and with one eye turned skyward the cock gently lowers his body to earth. There he lies perfectly motionless, his colours blending perfectly with the leaf-scattered soil. See! just a dark speck high in the blue; it is a Wedge-tailed Eagle. Unwinking, the eye of the Mallee follows the moving speck right into the glare of the sun; not a movement until that monster of the skies has passed from view, then, with a softly uttered who-how, he again ascends the mound. The female comes forth from her hiding and proceeds to scratch around the base of that structure, intent on a beetle-hunt among the loose *débris* and coarser material there scattered. Meanwhile the male is busy opening the mound. The chick we saw run into the bushes has already taken up the burden of life. Should we give him a fright he will rise and fly a full hundred yards and again hide in a bush. Independent and capable, he quickly acquires the wisdom of the bush

folk. His third season finds him calling and listening up and down the long green aisles, ever seeking his kindred spirit that shall walk and work with him through the ever changing seasons. Should he find a mate some preparation is made for the coming season, but usually it is the fourth season before domestic duties are taken up in earnest.

And now, though my wanderings in the Mallee have come to an end, and much of the Mallee is a waste of shifting sand, yet the solemn booming wh-who-oome, who-oome of the Mallee cock still falls upon my ear; in the silence of evening and early morn it is heard, and the sound recalls the days of my wanderings.

I do not now need to hunt the lonely bush-lands for this beautiful creature and its wonderful mounds, for within 30 yards of where I sit and write there are two complete mounds, one of which has been producing chicks for the past six years. The other belongs to a young pair, and is their first attempt. The birds are content, and would not leave, but because of the foxes they have to be enclosed in netted yards, which include plenty of shady bush-cover. Here, with our shyest of wild creatures, I have proved that we can save from utter destruction Australia's valuable fauna. I have had good success with other species, but I am proudest of the fact that I have won the confidence of this most shy and retiring of Nature's children of the bush, and done what was said to be an impossibility—bred these birds in captivity. Eggs that I have weighed averaged two to the pound. They are of good flavour, and are frequently hunted by the settlers for food.

The laws of nature are wise laws. The representatives of wild life, native to each land and sea, we know, hold an important place in nature, seemingly fitting into their places like bits of mosaic, each important to all, all to each; and subject to certain modifications, due to civilization, the fauna of each country is best fitted to control the balance of that country.

QUAIL BREEDING IN JAPAN

By N. TAKA-TSUKASA, Tokyo, Japan

For many years the Japanese have kept Quails in captivity for the sake of their song. Hence the song of the domesticated Quail has

become very different from that of the wild birds. The domestic birds sing "Qua grrrr", instead of "Qua kah", the usual wild song. The Japanese praise this style of song, i.e. "Qua grrr". It reminds one of the sound of distant thunder, and high prices are asked for birds which prolong the sound of "grrr" longest.

Those who like the Quails or to hear their song often meet together with their Quails at a club, restaurant, or similar place, and judge the song of the Quails, the best birds receiving a prize and being registered. Many people name their Quails as they do race-horses. Such meetings were often held in the Middle Tokugawa period, and the daimyos and rich people of that period kept their favourite Quails in cages made of precious wood, ivory, or raised lacquer, inlaid with gold, silver, and shells, and decorated with beautiful coloured silk braid. It was said that such cages were usually made in pairs, and the meetings were held in the early morning, for the Quails sing their song best in the morning or the evening. It is true that the Quails sing best at those times, but at present many people disregard the time, for the Quails sing quite freely at all hours while on show, performing repeatedly against each other. During recent years an added interest in keeping Quails is that the hen lays at least 150 to 250 eggs in one year, and the laying season can be arranged at the will of the keeper. A further interest lies in getting the Quails to lay in small cages, made of bamboo bars, and measuring four-fifths of a foot square, the top being netted over and the floor strewn with sand, the Quail being a species of game-bird and addicted to sand-baths.

The birds are fed like the canary of England, in the sense that the food is suspended at an opening at the side of the cage. Quails are fed on a kind of soft food, called by the Japanese "Suriye", which is composed of river fish smoked, dried, and ground to a powder, and mixed with meal of roasted rice and chaff. Bean-meal is sometimes added to this. The animal food is called "Namaye" and the meal "Kinako", or "Ko". The silver carp and a kind of dace (*Leuciscus macropus*) are commonly used for "Namaye", but the dace is said to be preferable to any other fish. "Kinako" is composed of equal parts of roasted rice-meal and chaff, and the quantity of bean-meal is left to the will of the person who uses it. The usual proportions for the

mixture are one part of fish-food to two parts of meal. When the Japanese wish the birds to lay they put the cage under artificial light for about two or three hours after dark. At the same time the proportion of animal food is sometimes increased by nearly one-half, but according to my experience that is rather too strong for many birds. Some people also put the birds all night long under artificial light, but I think this also is not necessary, for I find no better results from this method.

After the birds have been fed with an increased proportion of animal food for about a week or two the male birds begin to sing and the females to utter a cry, something like the cry of the barn-door hen when she wishes to lay. Sometimes the female lays an egg without any preliminary announcement. When the males begin to sing and the females to utter the cry, they are mated every morning by setting the cages side by side and opening the entrances. After this the females lay their egg once every day. Another way of testing the female's readiness to lay is to place one's hand on the top of the cage, when if the females are broody they lie down on the floor of the cage and utter a cry which resembles the scolding cry which a hen utters when sitting. The females lay six to seven eggs in succession, then cease for a day or two before beginning again. I think it is better to stop the laying after the keeper has obtained from fifty to sixty eggs and rest the birds three or four weeks. It is very surprising that the eggs have increased from one-third to twice their size since Quail breeding was first favoured. It is very easy to stop the birds from laying by removing the cages from under the artificial light at night, and keeping the birds in the dark. The birds left in the dark very soon begin to moult. During the moult we feed the birds with seeds. It is very interesting to note that the time of laying is an hour later every day, and that when the female finishes she announces the fact by a few cheerful cries.

The cages are washed and cleaned every two or three days, and if the climate is hot and wet every other day, because the cages are small and the food juicy, and the Quails need dry ground to stand on, like other game-birds. The egg of the Quail is as large as the first thumb-joint, measuring about one inch in length, and its colour is a pale yellowish olive, splashed with dark-brown markings, which are sometimes large, sometimes small, sometimes dense, and sometimes sparse,

and the egg of a properly treated bird is chalky on the surface. Some people say the egg which is not chalky is not fertile, but this is not always true, for I have obtained chicks from some which were not chalky. The eggs can be hatched under a bantam-hen or in an incubator, which I find answers equally well.

The chicks come out from the eggs in about sixteen or seventeen days. After leaving the shell they are kept without any food or treatment by the keeper for about twenty or twenty-four hours. The chicks which are under twenty or twenty-four hours' old are too weak to be left alone, though they are very active soon after hatching, and if we transfer such young birds from the foster-mother to the nursing-box they will at first run about here and there, seemingly very happy, but alas! one by one they become faint and die from exhaustion. Sometimes they survive the exhaustion, but many such birds have malformed legs, and are quite unable to stand or walk, owing to imperfect ossification of the legs.

When the chicks are put in a nursing-box another clutch of eggs can be placed under the hen. The hen can sit on two consecutive sittings. The chicks in a nursing-box are fed with the paste mentioned in the former paragraph, by plastering it on a board which leans diagonally against the wall of the box. The one thing the breeder should always bear in mind is that the paste often adheres to the chick's bill and covers the nostrils and eyes. This often blinds or suffocates the birds. Hence the breeder must watch them, and if he finds the paste sticking to the bill he must remove it without delay. If the paste on the bill hardens it can be removed with ease by cleaning the bill with a piece of wet cloth. The nursing-box, in size 1 foot by $2\frac{1}{2}$ feet, is partitioned into two chambers by a screen, one chamber measuring 2 feet, and the other 6 inches. The latter, heated by a lamp or other apparatus such as is used in a vivarium, is the bedroom for the chicks, which when put in the box can already run about easily, and soon find their food and learn how to eat. I find it better at first to put the food board at a distance of about two-thirds of the length of the large chamber from the screen, and to draw it further away as the chicks grow, and to have the paste at first very moist, then by degrees to get it drier, until the ordinary consistency is reached.

When the chicks grow as large as the chick of a domestic fowl, we stop heating the bedroom, except on cold or wet days. When they change their down to feathers the chicks are treated in the same manner as the parent birds. They mature at the end of three months. In this way the Japanese easily propagate their Quail families from a small stock, and obtain in a short time many eggs to eat and birds to give them song. The eggs are very good to eat when put in soup or jelly, boiled, and also fresh. I find the fresh, uncooked egg nicer than the hen's egg, since it is richer, although not so strong as the duck's egg. Some persons are over confident that Quail's eggs have more nourishment than the hen's, and in the olden times the Japanese thought them a good medicine for a paralytic.

The flesh of the Quail fed on soft food is not good for eating purposes. They must be fed upon seeds and grains some weeks before being used for the table. Then the flesh is very delicious.

STRAY NOTES

BREEDING THE KAGU.—Our member Mr. G. A. Heumann, writing from his home in New South Wales, tells of the successful breeding of the Kagu in his aviaries. When he wrote in November the young bird was nine weeks old, and still being fed by its parents, who were most attentive to its needs, one or other being always with it. The young bird, he says, always runs between its parents, and unlike most chicks which follow their mother, the young Kagu makes its parents follow it.

THE AMETHYST STARLING.—The Zoological Society has received a beautiful specimen of the South African form of the Amethyst Starling (*Pholidauges leucogaster verreauxi*), presented by its corresponding member, Dr. Harold Miller, Superintendent of the Zoological Gardens at Durban. The Society has only once before possessed an Amethyst Starling, a specimen of the typical form from West Africa presented by Dr. Hopkinson, but these are not the only ones that have been imported. Mr. Hamlyn had some four or five specimens in one of his South African consignments some few months ago, which were, I believe, bought by Mons. Delacour. Amethyst Starlings are some of the most beautiful of the Glossy Starlings, the whole of the upper surface

being of a brilliant metallic copper colour with purple and violet reflections, while the under-surface from the chest downwards is pure white. The typical form *Pholidauges leucogaster* occurs in West as well as in North-east Africa, while *P. l. verreauxi*, which differs in having white on the outer tail-feathers, is confined to South Africa, and a third form, *P. sharpei*, occurs in East Africa.

SEXING BIRDS.—I think there is a great deal in the theory put forward by Miss Knobel as to the distance apart of the pelvic bones in the sexes of birds. It is well known amongst poultry-keepers that these bones are considerably farther apart in a bird that is in laying condition than in one that is not laying, in fact, hens and pullets are constantly examined to ascertain if they are laying or not. At the Zoological Gardens a few hens are kept as foster-mothers for young Pheasants, etc., and during last year a fair number of young Silkies were reared for this purpose; there are three cockerels and a number of pullets, and I have examined these. I find that in the cocks the two bones are barely half an inch apart, this dimension being exceeded by all of the pullets. Some of the latter have commenced to lay, and these have the pelvic bones more than an inch apart; in one case the distance was an inch and three-quarters, while in those birds that had not commenced to lay the distance was about three-quarters of an inch.

D. S.-S.

REVIEWS

THE AUK. Vol. XXXVIII, No. 1. 1921.

This number of the organ of the American Ornithologists' Union opens with an interesting account of the habits of the Dickcissel (*Spiza americana*), otherwise popularly known as the "Little Meadowlark", or Black-throated Bunting, of the prairies of Illinois, by Dr. Alfred O. Gross. This first instalment deals with the geographical range of the species, its distribution in Illinois and its migrations, its sexual and seasonal coloration, measurements, etc., its general behaviour and song. The paper is illustrated with four photographic plates, three of which show nests *in situ* with eggs or nestlings.

Equally interesting is the first part of a paper by Mr. Harrison F. Lewis on the nesting of the Philadelphia Vireo (*Vireosylva philadelphica*). This is couched in the form of a diary of observations extending from June 11 to July 3, 1919, and the facts recorded attest a degree of perseverance and patience on the part of the observer which will appeal to all lovers of wild birds. Mr. H. Mousley continues his notes on the birds of Hatley, Stanstead Co., Quebec, adding five species to the list published in 1918; and Mr. Horace W. Wright publishes the known records of the occurrence of the Bohemian Waxwing (*Bombycilla garrula*) in New England, frequently in the company of the Cedar Waxwing (*Bombycilla cedrorum*). Other papers dealing with systematic ornithology call for no special notice; but it may be added that the part concludes with more than twenty pages of general notes on American birds and with reviews of recent literature.

EARLY ANNALS OF ORNITHOLOGY. By J. H. GURNEY, F.Z.S. London :
H. F. & G. Witherby. 1921. Price 12s. 6d. net.

Members of the Avicultural Society familiar with Mr. J. H. Gurney's book on the Gannet will not be disappointed with his latest achievement, *Early Annals of Ornithology*. Starting in the first chapter with the prehistoric sketches left by men of the early and later Stone Ages, the pictures of ancient Egypt and the bas-reliefs of Babylon, with references to the written records in the Bible and classical literature, Mr. Gurney deals in order with the centuries of the Christian era, telling us about the birds known in Britain to the Romans, Saxons, and Picts, and so on down to the eighteenth century, finishing up with Pennant. There are numerous quotations from ancient writers and many reproductions of old engravings, and naturally there is a good deal to be said about hawking in the past; but perhaps, if a selection be made, the most interesting section of the book is the chapter dealing with the history of the Crane, Bustard, Spoonbill, and Bittern in Great Britain, a chapter sandwiched in between those treating of the sixteenth and seventeenth centuries.

From what has been said it may be inferred that the bibliographical work involved in the compilation of the volume has been considerable,

and Mr. Gurney is to be congratulated upon having compressed his extensive subject-matter into some 230 pages. After the monotonous publication of book after book upon British Birds, each one little more than a repetition of its predecessor, it has been a great treat to us to read Mr. Gurney's work, and we most cordially recommend it to members of our Society. It is well produced in every way, and is illustrated with maps and photographs as well as with the copies of old engravings above referred to.

NEW MEMBERS.

MR. N. F. COCKELL, Villa Tosca, Beausoleil, Monte Carlo.
THE HON. MRS. WINN, Nostell Priory, Wakefield.
THE REV. PREBENDARY LAMBRICK, Blagdon Rectory, Bristol.
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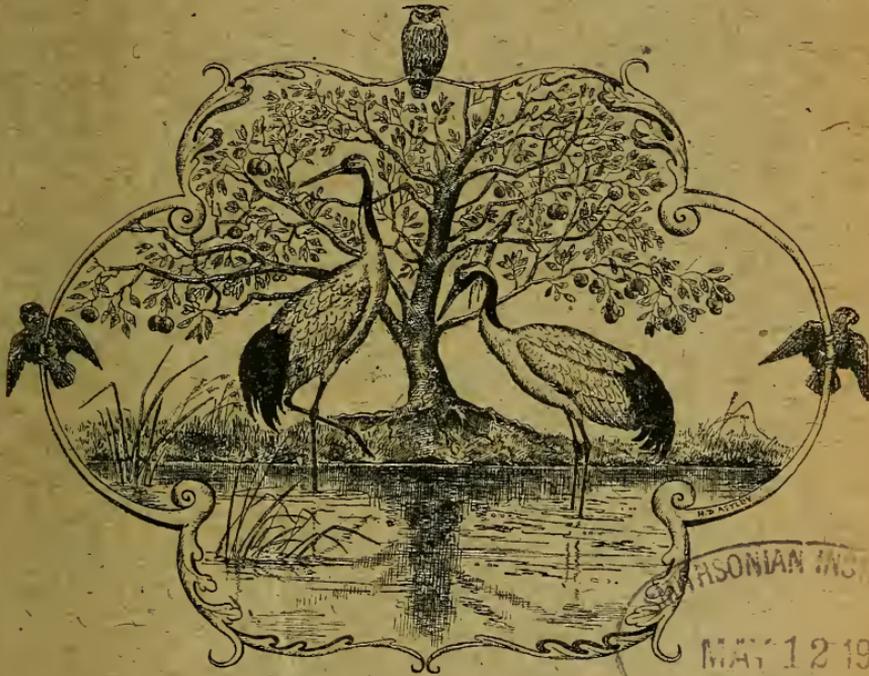
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THE

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

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NOTICE TO MEMBERS.

The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER,
Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except *post-mortem* cases) and all other correspondence should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

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NOTICE TO MEMBERS.

Dr. Graham Renshaw having resigned the post of Editor, Messrs. R. I. Pocock and D. Seth-Smith have consented to act as such *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,

c/o The Zoological Society of London,

Regent's Park, N.W. 8.



Photo

W. H. St. Quintin.

ASIATIC WHITE CRANE

To face p. 33.]

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 3.—*All rights reserved.* MARCH, 1921.

THE WHITE ASIATIC CRANE

By W. H. ST. QUINTON, F.Z.S.

Anthropoides leucogeranus

Mr. F. E. BLAAUW, in his beautiful monograph on the Cranes, while protesting against the further splitting up of the family, admits three genera, and places the White Asiatic Crane in the second genus, *Anthropoides*, with the Demoiselle, Wattled, Stanley, and the White-naped species.

According to Mr. Blaauw's views, the White-naped and the Crane under notice are closely related. Extremely little is known of the habits of the *A. leucogeranus*, except what has been written about it by Mr. A. O. Hume; and all subsequent writers quote at length from his very detailed and graphic description, for there is no other information accessible about the bird in its wild state.

Hume wrote of the bird as he knew it wintering in Northern India, but not very much is to be learned of birds which we only know as winter visitors, as then they are mainly occupied by questions of food and self-preservation. Pallas describes the nest, which he found in 1773, and I believe no recent writer has seen this Crane in its summer home in the Siberian morasses. I have had four or five of these Cranes at various times, but, apart from its beauty, have found the bird less friendly to its owner and generally less interesting than most members of the family. But I have not had the fortune to possess a good pair and we never had a nest here. At Lilford I believe eggs have been laid, but they were unfertile, and the splendid pair at the London

Zoological Gardens have often nested and incubated steadily, with no better result, and I think this Crane has not bred in captivity in Europe. There is one portion of Hume's description of this bird to which I should like to draw attention. He says that he examined over twenty specimens (killed between October and March), and that he never found a trace of any animal food in their stomachs. He considered it exclusively a vegetable feeder, for he only found "rush seeds, bulbs, corms, and even leaves of aquatic plants", but never found remains of fish, reptiles, or grain. But though this was the case in India and in winter, I have seen enough of this bird to cause me to feel sure that it is otherwise at other seasons of the year. I have found it a confirmed egg-stealer, and I believe that this has been the case at Lilford also. I once saw one of my White Cranes carrying off a Great Bustard's egg, with the contents dripping on to the ground while the disconsolate mother followed mournfully behind the robber at a few yards distance, and I have elsewhere in the Magazine recorded the intelligent way in which my White Cranes stationed themselves at dusk near some high wire netting fences and strode off when they heard the netting struck to pick up the beetle before it could get on the wing again.

My impression is that this Crane requires at least as much animal food in confinement as the other species. It also should, if possible, have access to some pond or shallow stream, for it is very aquatic in its habits.

ORNITHOLOGY AND AVICULTURE

By E. G. B. MEADE-WALDO, F.Z.S.

The sciences of ornithology and aviculture are intimately connected. Each has much to learn from the other. Many of the problems of the lives of birds can only be solved through the keeping of them in confinement. I think there are amongst ornithologists some who do not set much reliance on the behaviour of aviary birds in such matters as seasonal changes of plumage, the assumption of mature or breeding plumage, periods of incubation, breeding habits, the manner of rearing their young, etc. The skilled aviculturist can tell at once when confinement, diet, or environment in any way alters the natural order of his charges' lives.

The ages to which birds live in a purely natural state can only be guess-work, but as many species, including small passerine birds, live long lives in confinement, it may be assumed that without accident at least the same ages would be attained in a wild state. Keepers of Waterfowl can note the changes of plumage of *both sexes* in their birds far more correctly than it is possible to note them from skins or from observing wild birds, as it is impossible to tell the ages of the latter with any certainty. Wildfowl, of course, can be kept in a condition almost the same as in nature. The extraordinary habits of the Sandgrouse in conveying water to their young by the male saturating his breast could never have been discovered except by accident in a wild state, while the curious seasonal changes of plumage would have remained a puzzle. The age to which these birds live could never have been guessed by those who only know them wild or as skins. The aviculturist has, I believe, not by any means overcome some of the problems of aviculture. Why do the Flamingoes keep their rose-coloured feathers in full beauty for years in confinement, often under extremely unnatural feeding, while the Scarlet Ibis loses its colour at once and never recovers it, but remains dull pink? I am not sure that it is easy to get the Linnet to retain its rose colour after having moulted out in a cage? While the Rose Finches never do; the Crossbill never resumes the full red colour after moulting. The Pine Grosbeak keeps in perfect colour for years. Yellow and pink are the two colours which remain a puzzle; in many cases when lost these never are regained in their full brilliance. An example of this is in the Great and Lesser Birds of Paradise. The yellow of the head in the adult birds is replaced in confinement by a yellowish cream, all other colours are replaced as in nature; the same applies to the twelve-wired Bird of Paradise, *Seleucidés niger*.

It is by studying birds in confinement alone that the question of colour change in feathers can be proved. My own experience is that there is no change in the colour of any feather when it is once grown beyond that of intensity of colouring dependent on the vigour of the bird, all change must come through moult, tip-moulting, or abrasion. It is to be hoped that these various questions may be taken up by members of the Society. There is much of real interest in them both to the aviculturist and the ornithologist.

SOME CORSICAN BIRDS

By SYDNEY PORTER

While staying for a short period this year in Corsica I was able to observe a few of the birds there; but unfortunately my notes are brief and unscientific, for I had two handicaps—first, having no binoculars with me and, secondly, having with me a friend who took not the slightest interest in ornithological matters; this latter was perhaps the most trying.

How different is Corsica in the way of bird life from Southern France and Italy, where most of the sweet songsters are transformed into “*petits oiseaux*”, as they are called on the menu. Corsica is teeming with bird life and one could spend a delightful holiday in the spring time “bird-watching”. How so many of these so-called ornithologists can go about as I have seen them do shooting down every feathered creature whose species they are not sure of is beyond me. If on a holiday I were to kill only one bird I should feel the “pangs of conscience” for the rest of the time.

One of the first of the feathered tribe that meets the eye is the Chaffinch—he seems everywhere, and is much commoner than the sparrow; the latter seems to keep on the outskirts of the towns, and is much cleaner and lighter in colour than his English brethren, and several I saw had black crescent-shaped marks on the flanks; indeed, *Passer domesticus* looked so different that my friend was sure that they were Whitethroats!

Another very common finch is the lovely Goldfinch. Around Calvi there were literally hundreds. They frequented the waste ground by the sea, and seemed to be feeding from the dead heads of the thistle and teasel; but upon examination of these heads there was no trace of seed in them. Unfortunately one sees many of these bright songsters in tiny cages hanging outside the poorer class of houses in Corsica. Greenfinches are also numerous, and at Ajaccio flocks were seen in the orchards near the town. In these orchards were also seen the lovely little Citril and Serin Finches. The types of these finches inhabiting Corsica are supposed to differ from those on the mainland; they are cheerful, restless little birds, always moving from the ground to the

trees and back again. I saw them often in the company of Greenfinches; their song was heard from an olive- or orange-tree, and it was something like that of the Goldfinch. Another bird that was noticed near Ajaccio was the Crossbill, but of the species I am not sure. I dare say it was the common kind. These birds we saw in the fir- and pine-trees, and they first attracted our attention by their incessant chatter which was kept up all the while they were feeding. Several pine cones that seemed to be torn to pieces were found under the trees. This was no doubt the work of the Crossbills.

Several Marsh Buntings were seen, or at least I think that they were. These birds are somewhat like the Reed Bunting, but larger and darker in colour. A very common bird just outside the towns was the Ortolan Bunting. One saw little parties of about three to six searching for food on the roads. They seemed very tame, and would allow approach within about ten yards of them. There were many other kinds of Buntings, but I was quite unable to distinguish their species. There were also Pipits which haunted the seashore, but the Pipit family are usually dark and with very little difference between the species, so they are hard to identify at a distance. Skylarks were common, too. Thrushes and Blackbirds were far from being numerous, their scarcity being due to the fact that they were in demand for the "pet". I noticed several Thrushes on the rocks by the sea at Ajaccio. They were about the size of a Blackbird and of a dark-brown colour, with the chin, throat, and breast rufous. They moved about in the same manner as a Dipper, jerking the tail and flirting the wings. What species they were I do not know; perhaps some other member of the Society can enlighten me.

The most charming bird to my mind was the sweet little Sardinian Warbler. He seemed everywhere—away in the mountains, by the seashore, and even in the hotel gardens. He is somewhat after the same style as the Dartford Warbler, only stouter in build. The head is jet black and the whole of the underparts pure white; the upper parts are delicate grey, the long tail is dark grey with the outer feathers white, the iris is bright yellow, which gives the bird a rather unique appearance. He is a restless and lively little bird, and hops continually through the low bushes of rosemary and cistus that cover the un-

cultivated parts by the seashore, and every now and then flies on to the topmost branch of a bush and surveys the world, swelling his white throat and jerking his tail meanwhile, but as soon as one approaches dives into the bushes again. The coloration of this little bird makes him one of the most noticeable of the smaller Corsican birds in the winter time, though in the summer time he would be outrivalled by the gorgeous Rollers and Bee-eaters.

The Dartford Warbler I only saw once, and that was near Calvi. It was behaving in the same way as the Sardinian Warbler. Blackcaps are very common, and one sees them everywhere, especially in the palm-trees, searching for insects at the base of the huge leaves.

Numerous yellowish green warblers were seen in the trees and bushes near the towns. These may have been Yellow-browed Warblers. Great Tits and Blue Tits were comparatively common in the orchards, as was the familiar Robin, which looked quite out of place perched on the cactus hedges.

The Stonechat was very noticeable everywhere one went. One was sure to see him either perched on some dead plant or on the telegraph wires uttering his strange notes.

Wagtails were numerous, especially the yellow ones. I think these must have been Grey-headed Wagtails. These were one of the few birds one saw in the streets of the towns; Pied Wagtails were also seen, but what species they were I do not know, for ornithologists have divided the Pied Wagtails into so many different races that I hesitate to identify them. A bird that I was very glad to see was the Kite. One evening we counted more than a dozen sailing gracefully over the little mountain town of Corté; they remained for hours sailing on outstretched pinions; their long forked tails seemed to be on a pivot, for while the bird seemed to be perfectly still hovering in the air, the tail was moving from side to side all the time and sometimes seemed to be almost at right angles to the body. I suppose we should see these graceful birds in Britain and many others as well if it were not for the wretch with the gun. Buzzards were not very common. I only saw two and they were flying very low down over the fields, evidently looking for food. Kestrels were very much in evidence, and were much tamer than those in England. Evidently they are not persecuted

so much. Their favourite perch seems to be the telegraph wires by the roadside.

Hooded Crows are very common, but they seem to be a different race from those we see in England and France; they are much lighter in colour, and at a distance seem black and white. Indeed, my friend often mistook them for Magpies. Round the sea coast they swarmed, finding their food no doubt from the various mollusca thrown up by the tide. With these Crows were often one or two Carrion Crows, which seemed never to wander very far from the seashore. I have just noticed in *The Practical Handbook of British Birds* that the Common Hooded Crow is "replaced by another form in Corsica".

Of wading birds and gulls we saw very little; the Black-headed and Herring Gulls were the only ones seen. I may mention here, if it is not out of place, that while staying in the Maritime Alps in France I saw several examples of that charming bird, the Wall Creeper, flying about over the snow, the rich crimson of the wings making a pleasing contrast with the white surface of the rocks. Surely these little birds cannot be so very delicate to endure such cold.

This brings to a close the list of birds that I was able to identify. There were many more seen, but, as I have stated before, having no glasses and an uninterested friend, I was unable to devote much time to watching the birds, but some time in the future I hope to visit Corsica again and to spend a longer and a more profitable time amongst the birds, not with the object of collecting sub-species, but to get a glance at their lives and not to take those lives on the mere excuse of benefiting science. Do we not get infinitely more pleasure studying these feathered jewels in their own sittings than comparing musty skins? Have we gained much knowledge in comparison to the thousands and thousands of lives that have been taken to supply our collectors' cabinets and museums? I venture to say *no*. But I have wandered off my subject. Corsica is surely one of the most fascinating places for the bird-lover, for there so many different kinds of birds are found, and yet it is so near England. It was winter time when I was there, and at a time no doubt when the bird population was at its lowest. What must it be like in the summer, when all the gorgeous migrants come from the South? What a vast field of study for the

observant one around the great reedy lake of Biguglia or the high towering cliffs of Porto! Some day, when I have been again, I may be able to add something interesting to these scrappy notes.

ANOTHER MEDAL FOR BREEDING RARE BIRDS

In the January number of *l'Oiseau* the following note appears. The larger of the two medals, it will be observed, may be won by aviculturists in any European country.

“In addition to the awards which the Société Nationale d'Acclimation already bestows annually for work appertaining to ornithology and aviculture, a medal (large size) may henceforth be won by anyone succeeding in rearing in Europe a species of bird or a hybrid bird which has not previously been reared in captivity. A medal (small size) may also be bestowed on the breeder who shall rear, under the same conditions, the first bird, or hybrid bird, in France. These medals will be awarded by the Award Committee of the Society. On every medal the name of the breeder and of the bird will be inscribed. Anyone desiring to compete must send to the president of the ornithological section, within a period of approximately two months of the birth of the bird, a detailed report, which will be published in *l'Oiseau*. The report must give a complete description of the nest, the eggs, and the chicks. All proofs, and any possible details which might be inquired into, should be given. The young bird will be considered reared when it is in a position to feed itself without the help of the parents. The birds bred must be the property of the breeder, who may, however, cede his rights to the award to the person who controls his breeding establishment.

“The medals will be awarded as soon after the receipt of the report as possible; they will be distributed at a special award meeting. In all cases the Award Committee will be the only judges as to whether a medal should in any particular case be awarded or not, and their decisions must be regarded as final.”

STRAY NOTES

AUSTRALIAN BIRDS.—It is doubtful whether aviculturists will avail themselves to any extent of the offer of Australian birds made by the Australian Zoological Control Board, for the prices asked are, to say the least of it, high. It appears that a few persons have been entrusted by the Government with the whole of the wild animal trade of Australia, and they have been thus enabled to corner the market. Nothing must be sold out of the country except by them, and they can charge what prices they like. Moreover, the prices asked are for the stock on board ship in Australia, the purchaser to take all the risk on the voyage and to pay the freight. Thus, for a pair of newly caught White Cockatoos, birds which are regarded as vermin in wheat-growing districts, and are worth no more than £5 or £6 a pair in England, we are asked to pay £6 before the specimens have started on their voyage. Very few aviculturists will buy birds under these conditions, and if the Control Board wishes to do business they must send a consignment in charge of a qualified attendant, to be sold here for what they will fetch.

SOUTH AFRICAN BIRDS.—Messrs. Gamage have been receiving collections of South African birds lately, and several rarities have been offered at prices which in these days are not excessive. On a recent visit I noticed a cage containing a number of Pied Starlings (*Spreo bicolor*), a brown and white bird with a very conspicuous whitish yellow iris and yellow base to the otherwise black bill. The species has never before been imported so far as I am aware, although it is abundant in many parts of South Africa. Another cage contained some six or seven Amethyst Starlings (*Pholidauges l. verreauxi*), of which I wrote in these notes last month. There was one fine example of the splendid Black-collared Barbet (*Lybius torquatus*), two Levaillant's Barbets, and a large number of Red-collared and Red-shouldered Whydahs.

YOUNG KAGU.—Mr. Heumann sends me further information about his young Kagu, which he says is now as big as its parents and quite able to take care of itself. The parents, he says, "are teaching it to sing out in the mornings, which is very funny, as its voice is cracking." One envies Australian aviculturists their splendid climate, where the breeding of foreign birds seems to be a much easier matter than it is

here. Mr. Heumann has bred, in addition to the Kagu, "quite a lot, such as Parrot Finches, Cordon Bleus, Lark Finches, Crested Cardinals, and nearly all the Australian Finches, and many others."

A NEW BOOK ON AUSTRALIAN BIRDS.—Messrs. H. F. & G. Witherby announce the publication immediately of volume i of *A Manual of the Birds of Australia*, by Gregory M. Mathews, the author of *The Birds of Australia*. It contains about 300 pages, and is illustrated with ten coloured and thirty-six monochrome plates, and the price is £3 3s. per volume. Volume i deals with the Orders CASUARI and COLUMBÆ.

MANDARIN DUCKS AND JAPANESE TEAL.—During the past few weeks both Mandarin Ducks and Japanese Teal have been imported and offered at a reasonable price. These are wild caught birds and unpinioned and a very valuable addition to the ornamental waterfowl in this country, as none had been imported since pre-War days, and stocks which have not died out altogether or been disposed of on account of the impossibility of providing food during the period of food-shortage have become in-bred. Moreover, these species are two of the most beautiful of the ornamental ducks.

CAROLINA DUCKS.—Perhaps the most beautiful of all the ornamental waterfowl is the Carolina, or Wood Duck, of North America. The War has reduced its numbers in Europe in the same way as it has affected all captive birds that were not considered useful as food-providers, and it is not easy to obtain these birds now. In America, their habitat, they had been nearly exterminated when the Bird Protection laws saved them, and in parts the species is slowly recovering. But they will never again be imported, and we must rely upon those bred in Europe to keep up the stock in this country. Fortunately the species was well established in Europe before the War, and probably it may be obtainable on the Continent. I do not know what has happened to the large numbers that formerly frequented the Berlin Zoological Gardens, where they were full-winged and bred freely in nest-boxes and natural hollows in the trees.

IN THE NEW YORK ZOO.—Mr. L. S. Crandall has kindly sent me a copy of the latest issue of the *New York Zoological Society's Bulletin*, in which are described some recent collections of birds, and a splendid

lot they make. The finest lot was received in November from that well-known collector Mr. E. S. Joseph, and included species from every part of Australia, as well as from Tasmania, New Zealand, New Guinea, New Caledonia, and the Caroline Islands. Shipping difficulties had prevented transportation since 1917, so that the accumulation of several years was ready when space finally became available, and the collection is the finest that has been received in America for many years. Thirty-five species had never before been represented in the Zoological Park, and several were quite new to aviculture. The birds received include a pair of Prince Rudolph's Bird of Paradise (*Paradisornis rudolfi*), the beautiful blue bird from the Owen Stanley Mountains in South-East New Guinea, three Six-plumed Birds of Paradise (*Parotia sefilata*), two Rifle-birds, and a green Manucode. Alexandra and Turquoise Parakeets arrived, the former having been thought to be extinct. Keas and the rare Kaka came from New Zealand, while the collection of Pigeons included the very rare White-fronted Bronze-wing (*Henicophaps albifrons*) from New Guinea.

MR. JOSEPH.—It is to be hoped that before long Mr. Joseph will favour this country with a visit and bring with him a collection such as he has recently conveyed to America. He is described as "tall in statue, big in heart, a marvellous engine of energy, intelligent, fair and square". He is said to possess an "almost fanatical devotion to the pursuit and care of zoological rarities". He had in his possession in Australia a living Duck-billed Platypus, which he was about to take with him to the States, but the New South Wales Government prevented its leaving. "Mr. Joseph is 48 years of age, stands 6 feet in height, and weighs 275 lb. He is at home everywhere in the Southern half of Africa, in Australia, New Zealand, England, America, Panama, and the Pacific Islands. He handles all kinds of wild beasts and great snakes, and he is as proud of a feather-tailed marsupial opossum as some collectors are of elephants. To see him reach into a crate, seize a big kangaroo by the tail, drag it forth struggling and kicking and hold it up in mid-air for your admiration, is a daily incident possible only to him."

D. S.-S.

REVIEW

A PRACTICAL HANDBOOK OF BRITISH BIRDS. Pt. x, vol. ii, pp. 81-176.

Witherby & Co., 326 High Holborn, W.C. 1. Price 4s. 6d. net.

We are favoured with a copy of part x of this excellent publication, which is to be completed in eighteen parts, and will form by far the most up-to-date and practical handbook of the day on British birds. The subject has been treated of extensively and books on British birds are numerous, but there are very few that one can name as being absolutely reliable and free from the common fault of copying from previous authors. Saunders' *Manual* was the best book of its day, and at the present time we know of no other that excels it in usefulness and reliability; but the last edition appeared in 1899, since which date not only has much been added to our knowledge regarding the various local races of species, but the habits of certain species have somewhat changed, their range extended or decreased, and it was quite time that another work by the best authorities on the subject was produced. We are glad that this present production is not the work of one author alone, for no one person can know all there is to know on so large a subject even as that of British birds, for the term includes every species which at any time visits this country. The present book has been divided into sections, and these have been placed in charge of the following six authors, each of whom is an authority on one or more particular group: Dr. E. Hartert, Miss Annie C. Jackson, Rev. F. C. R. Jourdain, Mr. C. Oldham, Dr. N. F. Ticehurst, and Mr. H. F. Witherby.

The form of the work is eminently practical, and under the name of the species we find a full description, both of the adult male, adult female, nestling, juvenile plumage (in some cases both of the male and female), winter and summer plumage, measurements, characters, and allied forms, field characters, breeding habits, food and distribution, both in the British Isles and abroad.

The part before us deals with the birds of prey, and contains many excellent figures of a particularly useful kind, showing the difference between allied forms or species. Thus, on page 131, we have outlines of the bills and middle toes of the Golden and Sea Eagles, showing at

a glance some of the chief distinguishing characters, while a plate by Mr. Lodge shows half a dozen species of hawks in flight.

D. S.-S.

CORRESPONDENCE

GREY TANAGERS

SIRS,—Could you tell me whether the Tanager described below is an Olive Tanager or a Blue Tanager? The whole plumage except the wings and tail is lavender grey, the wings and tail are glossy light-bluish green, the wing coverts are not the same shining blue as in the Blue Tanager.

SYDNEY PORTER.

[There are several species of the bluish-grey Tanagers which are closely allied, and it is difficult to say to which the bird referred to belongs without close inspection. *Tanagra episcopus* has the lesser wing-coverts whitish, while these are more bluish in *T. collestis*, bright blue in *T. cana* and *T. cyanoptera*, and violet in *T. sclateri*.—D. S.-S.]

GLOSSY STARLINGS AND OTHERS

SIRS, — I have recently had several small Glossy Starlings (*Lanycrocolius*) which I do not remember possessing before. They are the smallest I have ever had, and at first, without reference, I thought they were *L. chalcurus*. As far as one can possibly describe changeable-hued birds of this kind, the salient features are small size, prevailing shining *golden green* plumage, noticeably *dark patch* surrounding eye and ear coverts and rump feathers *exactly same colour* as mantle and back. The upper appearance of tail rich peacock copper green. Irides same rich yellow as in the Purple-headed Glossy Starling, *L. purpureus*, a bird almost twice as large. They are an interesting change from *L. chalybeus*, the so-called Green Glossy Starling. The outline of bill and head is much more curved in this small species than in *L. chalybeus*. I should be glad to know whether my identification is correct, as I am only able to refer to a B.M.C. and not a set of skins. All aviculturists must welcome the reappearance of the Red-billed Liothrix on the

market. I was fortunate in getting several genuine males from one dealer and several females from another for males. Although males *in full plumage* are usually larger, more handsome, and more brilliant on the ear-patch, breast-patch, and flight feathers than females, immature birds are difficult to sex when dirty. I have, however, never heard an adult female sing the rich sustained Black-cap song of the male, and have never heard a male call in the high-pitched voice of the female. Cocks caged in pairs, when in high condition, fight brutally, and cocks and hens when first introduced skirmish; but once this is over they usually hold up their heads for a tickling process which seems to give them great pleasure. I was glad also to see again and have some Red-breasted Marsh Birds (*Leistes superciliaris*) and their counterparts, Military Troupials (*T. militaris*). One bird appeared to be *T. defillippi*, having a light streak at base of mandible in addition to superciliary streak. Can anyone tell me whether a hen of *T. militaris* ever has a bill *as short and as stout* as that of *Leistes superciliaris*, as I have a bird which I take to be a large *Leistes* out of colour that was sent me for a hen Military Troupial? I think it must be over fifteen years since I bought either of these birds alive, but I never remember a hen Military Starling having a bill as thick as a Marsh Bird. When one lives away from London it is very difficult to settle these points to one's satisfaction.

ALLEN SILVER.

ANDEAN GEESE

SIRS,—On January 10, 1921, the male in the London Gardens gave an outburst of affection to the female, which was interesting to watch. When she was standing quiet he kept walking from side to side, passing in front of her each time, his neck fully erect with short beak resting on throat feathers, and at intervals spreading out the tail and uttering two distinct notes frequently—a guttural “ka” and a sound best described as a “musical gobble”. The female frequently replied to the latter; but did not make a “ka” in reply to the male, although she appeared to appreciate it, the scene lasting an hour.

Of the four species of *Chloephaga* seen alive—Upland (*C. magellanica*),

Ruddy-headed (*rubidiceps*), Kelp (*antarctica*)—the species of this note is to my mind the most attractive; the black on the wings and tail (and to a lesser extent scattered spots on the back feathers, with tinges on the forehead and part of the breast) contrast with the white plumage; the red beak with tip black and red feet being also ornamental, while the brown iris shows prominently.

Both sexes are large and thick-set, and the only difference in plumage that I could discover was that the male had some dark purple feathers at lower part of wing when closed.

Specimens seen have been from Peru and Argentina. Does the species extend elsewhere, and is there anything characteristic or unusual in its habits when wild?

In addition to the two voices above mentioned both sexes squoraked later on like domestic British Geese.

FRED. D. WELCH.

QUAILS IN CONFLICT

SIRS,—Whether any species fight *frequently* when wild seems to me to be difficult to decide owing to their small size. It seemed to be, therefore, worth recording that two female Indian Button Quail (*Turnix tanki*) fought (in the small bird-house of the Gardens) to a fatal ending on December 24, 1920 (as you are probably already aware).

My attention was called by a visitor to the quarrel; and by the time I arrived at the cage (being, when spoken to, at the further end of the house) one bird was apparently *already dead*, because the other was standing on it and pecking very vigorously at its rump area. When the keeper got the body out there was a large superficial wound there, which suggested that the conflict had been "short and hot", because there was *no disturbance* in the cage *a few minutes before*, I and the keeper having both of us been there quite close. Probably heart failure brought a *sudden* end to the fight. Apparently the victor was still enraged even after we removed the corpse of its victim, judging by the fact that a few minutes later I found it fighting with an Indian Jungle Bush-Quail (*Pedicularia asiatica*); but it had to retreat speedily before this larger opponent! Discretion was the better part of valour

here! Having read with great interest the account of Quail breeding in Japan (pp. 24-8) by Mr. N. Taka-Tsukasa, might I inquire of him whether the birds there (apparently *Coturnix japonica*, though no species name given) quarrel *when wild* to his knowledge?

Perhaps readers acquainted with Indian life could also give some information as to pugnacious behaviour about the species above referred to by me.

FREDERICK D. WELCH, M.R.C.S.

March 4, 1921.

[Dr. Welch was mistaken in his identification of the Quails, as the only two examples of *Turnix tanki* in the Gardens of late were a true pair of which the female died from egg-binding in February. Conflicts between birds in the wild state are not common, because there is plenty of space for all.—ED.]

THE SONGS OF THE CIRL BUNTING AND LESSER WHITE-THROAT

SIRS,—The songs and cries of birds and mammals have always interested me, and on more than one occasion I have mentioned in print the fact that the monotonous song of the Cirl Bunting is often impossible to distinguish from that of the Lesser White-throat.

Several "eldest naturalists" have shaken their heads over such an assertion; indeed, one of our popular catch-and-label-your-new-sub-species school mocked at the very idea of anybody who professed to know one British bird from another mistaking the song of the Cirl Bunting for that of the Lesser White-throat.

Therefore, I was not a little uplifted to find to-day on reading what Montagu, the first man to recognize the Cirl Bunting in this country, had to say about this very point.

Perhaps you will allow me to quote his words from his famous *Dictionary of British Birds*? Of the Cirl Bunting he writes: "The monotonous song of the male was incessant, shrill, and piercing; so much resembling the vociferous call notes of the Babillard, that it requires considerable knowledge of their language not to mistake the one for the other."

PHILIP GOSSE.

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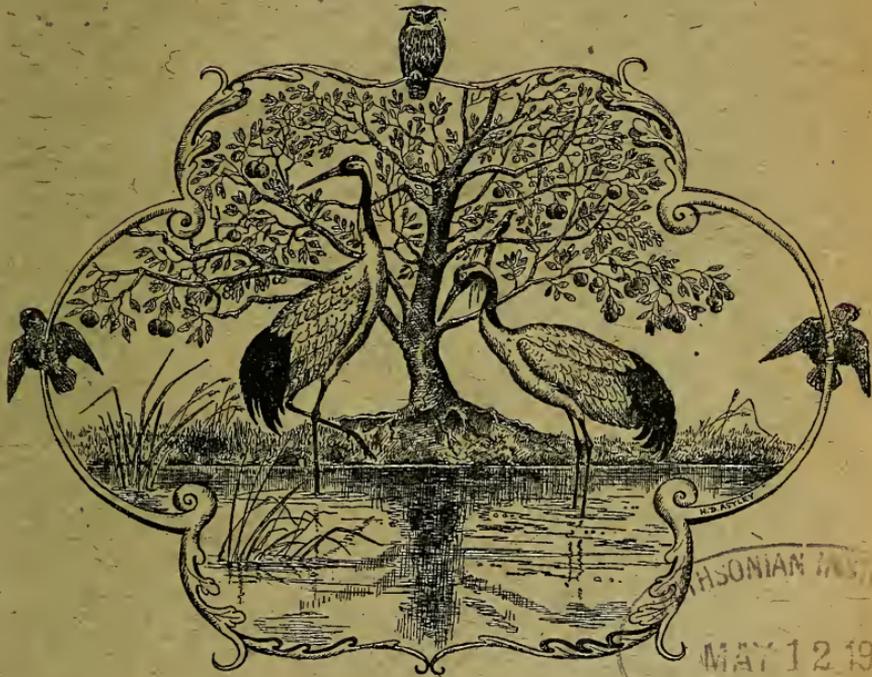
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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of **25/-** per annum.

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The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

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Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Dr. Graham Renshaw having resigned the post of Editor, Messrs. R. I. Pocock and D. Seth-Smith have consented to act as such *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,
c/o The Zoological Society of London,

Regent's Park, N.W. 8.





To face p. 49.]

CEDAR WAXWING AND YOUNG.

J. M. Schreck.

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 4.—All rights reserved. APRIL, 1921.

THE CEDAR WAXWING

(*Ampelis cedrorum*)

There are three species of the genus *Ampelis*, the Waxwings, the best-known being the Common or Bohemian Waxwing, *A. garrulus*, which visits this country at irregular intervals, sometimes in considerable numbers. Its habitat is the Arctic portions of both hemispheres. The second species is the Cedar Waxwing, which occurs over the whole of temperate North America, migrating south in winter to Guatemala and the West Indies; and the third is the Japanese Waxwing (*A. japonicus*). All three species are very much alike in plumage, the prevailing colour being soft reddish-brown, the head carrying an erectile crest. The face is ornamented with black and the wings tipped with yellow in *A. garrulus* and *A. cedrorum*, and red in *A. japonicus*. In the Common Waxwing some of the secondary wing-feathers have the shafts tipped with wax-like appendages, and in adult birds these sometimes occur on the tail feathers as well. The Cedar Waxwing has less of the red tips and the Japanese bird none at all.

The Cedar Waxwing is very rarely imported to Europe, but at the present time a fine specimen is exhibited at the Zoological Gardens, where it can readily be compared with the commoner species which is also represented. It is a smaller bird, and in addition to the differences mentioned above it will be observed that the flanks are yellowish-olive instead of brownish-grey and the under tail-coverts are white instead of chestnut as in *A. garrulus*.

In his letter published in the last November number of this journal Mr. Barnby Smith describes a nest of this species which he saw in a British Columbia apple-orchard in which the material used was string. As a rule the materials employed are twigs and rootlets, the structure being lined with feathers. Soon after Mr. Barnby Smith's visit to Canada I received a letter from his nephew, Mr. Vernon Darney, enclosing the photographs, which are herewith reproduced, of the Cedar Waxwing with its young. He wrote from Walhachin, B.C. : " My uncle, Mr. Barnby Smith, has just been out here en route for New Zealand, and while he was here I introduced him to a man who is very keenly interested in all wild life. Among other things he showed us were photos of a Cedar Waxwing and young. My uncle asked me to obtain copies and send them to you, as they might interest some of the readers of the *Avicultural Magazine*. They were taken by Mr. John M. Schreck in an apricot orchard at Naramata, British Columbia, in 1911. Naramata is in the famous fruit-growing district of the Okanagan."

The food of Waxwings consists of insects and berries, and they are not difficult to keep in captivity providing their diet is not of too fattening a nature. They are very fond of soaked dried currants, and these seem to be a very wholesome food with the addition of a small quantity of good insectivorous food.

D. S.-S.

MY PIGMY OWL

By THE MARQUESS OF TAVISTOCK

For many years it has been one of my avicultural ambitions to possess a tame Pearl-spotted Owlet (*Glaucidium perlatum*). Ever since I made the acquaintance of a charming specimen at the Zoological Gardens I have hoped to receive an offer of one from a dealer, but it was not until last summer that my hopes were realized in a letter from Gamage's, only to be dashed a day or two later by another letter in which they said that they found that the birds were really Pigmy Owls. Being at that time under the impression that the Pigmy Owl was a very different bird from the Pearl-spotted, I wrote back that I did not want them and one was sold not long afterwards. Happening to call at Gamage's on

my next visit to London, I saw the other little fellow, and at once realized that he was sufficiently like my favourite to be worth buying, although he looked dirty and woebegone. A few days later he arrived, very sorry for himself and with one eye closed—a common habit with owls when feeling out of sorts which leads the inexperienced to suspect an injury. After a night's rest and a good meal of sparrow, "Owlikins" seemed much more lively—he was an adult bird and untamed, except in so far as his travels had accustomed him to the sight of human beings. On examining him carefully, however, I was very disappointed to find that his beak had been severely injured, apparently by the bite of another bird; the upper mandible was nearly bitten through at the base and much twisted, and a large piece of one nostril was entirely gone. Next day the twisted mandible had been broken clean off, and I was afraid I should have to destroy the poor little chap as it seemed hardly possible he could feed. However, a little coaxing revealed the fact that he could swallow pieces of food put into his mouth, and later I found out that with the aid of his claws he could feed himself on chopped-up food, though he was quite unable to tear skin or bones. The most annoying result of his mutilation is his inability to keep his feathers clean, necessitating assistance from me which is much resented. So far I have been unable to induce him to take any kind of bath. Little Owls very seldom bathe, but they love an occasional sprinkling, with water or exposure to a shower of rain; Owlikins hates being sprinkled, and was so miserable after a forcible wetting I once gave him that I was quite afraid he would die. I have never seen him drink, although I should not like to say he never does so; Little Owls drink sparingly when adult, but, according to my experience, not at all for the first few months of their existence. For some months I had very little time to devote to Owlikins, and could not let him out of his cage. Before long, however, he would jump on to my knee for food with a little coaxing, and allow me to stroke his head. He is as diurnal in his habits as a Little Owl, and like all "haggards" of that species I have tamed, exceedingly gentle, never showing the smallest sign of temper as hand-reared birds will sometimes do. As compared with a Little Owl he appears to possess a very limited vocabulary. So far I have only heard him utter a clear musical whistle, usually about dawn, and a finch-like cheep, which

appears to correspond to the low, harsh noise a Little Owl makes when hungry or desiring to attract the attention of his friends.

Since being away on a holiday I have had more time to devote to Owlikins, and he is getting steadily tamer. He likes me best, but is less desperately shy of strangers than the Little Owls I have kept. He shows remarkably little fear of my small son, aged 3, in spite of his noisy ways, apparently considering that he is both young and harmless! Owlikins is let out in the room every evening; he is not very active, spending most of his time on two different chairs, and not exploring every corner, after the inquisitive habit of a Little Owl. He is, however, much less troublesome to recapture than other half-tame owls I have had, and does not dash into inaccessible corners, a little coaxing and gentle driving being all that is required to induce him to return to his cage. If approached when out in the room by someone he is rather afraid of he seldom flies away, but tightens up all his feathers and remains motionless until the danger is past. He is also not at all ready to fly off when I go near him while he has food in his claws; if he were a trained hawk he would be commendably free from the vice of carrying.

Mealworms are his favourite food, and he requires a good many to keep him in health. He catches them in his claws with great quickness, but the subsequent transfer to his mouth is a matter of difficulty. He prefers mice to small birds, and will eat small earthworms readily, but does not care about big ones.

The other night for the first time I saw him attempt to play, Little Owl fashion, by pouncing on the chair cover and worrying it, but his missing upper mandible will, I fear, prevent him from getting much fun in this way. He appears to be moulting at present, for although I have seen few dropped feathers in his cage, he has a lot of quills showing. I rather fear that Owlikins may not live to a great age, but I hope to keep him in health and happiness for a time, at any rate, in spite of his infirmity. Had it not been for his unlucky accident I feel sure he would have turned out an ideal pet, and even as he is he is a dear little chap, sitting by me as I write, a tiny ball of fluffy feathers surmounted by a bright, serious, little round face.

A VISIT TO THE BRINSOP COURT AVIARIES

By G. H. GURNEY, F.Z.S.

Having lately spent a week-end in Herefordshire as the guest of Mr. H. D. Astley, some account of his wonderful collection of birds, which he keeps at his beautiful home at Brinsop Court, will, I am sure, interest those readers of the *Avicultural Magazine* who have not been lucky enough to have had the opportunity of seeing the treasures he has there.

To begin with, the beautiful old house, part of it twelfth century, is filled with treasures not only ornithological, but also with its associations with Wordsworth, and its lovely old galleries and halls make it a place of great delight apart from the birds. The moat which surrounds the house and the gardens of great picturesqueness and fascination add to its beauty, which is further emphasized by the Stanley Cranes, which are full winged, or by the Flamingoes, which always appear to group themselves in positions in which their beauty shows off to perfection, either reflected in the moat or standing in some corner amongst surroundings which add enormously to their own beauty. The Stanley Cranes generally take an early morning fly round the place, and to see them come sailing over the roof of the house and then settling is a wonderful sight; they are perfectly tame, and although all Mr. Astley's birds were in beautiful order I do not think I have ever seen two birds in such faultless condition and bloom as these two Stanleys were.

Amongst so many birds it is difficult to know which to specially mention, when all deserve a word. On going down to breakfast the first morning I was greeted by a Missel Thrush which has the run of the dining-hall and flew screeching at me as I entered the room, pecking me quite severely on the forehead, knowing perfectly well I was a stranger. Recovering from this somewhat boisterous greeting I at once went to look at some of the avian treasures in cages in the room. Here, in a large wooden cage, Mr. Astley keeps his unique Woodpecker, the Golden Naped Woodpecker from the Himalayas; it is frightfully rare, and those of us who have kept woodpeckers know what difficult

birds they are to deal with satisfactorily, but this bird, which I think Mr. Astley has had for considerably over a year, looked the picture of health; it was about the size of a Green Woodpecker, perhaps rather smaller, and beautifully marked with yellow; quite tame, and if one put one's hand near the bars of the cage, its long pink tongue would dart out and vibrate up and down one's finger with great rapidity, being specially attracted by the glitter of my gold signet ring. In this room also are a pair of Purple Sugar Birds, a Shama, and a lovely Chestnut-breasted Blue Niltava. Down a passage is the bird-room, a good-sized room, the walls lined with white china tiles; here, flying loose, are the pair of Cat Birds, most interesting and fairly tame; they are rather heavy-looking birds, but very attractive and of course extremely rare. I was pleased to see two Black-winged White Grackles; I kept this very handsome Starling before the War, and found them most charming birds, with their black and white plumage and bright yellow legs and bill. Three Queen Alexandra Parrakeets, a Black-capped Lory, some Blue Budgerigars, and last, but by no means least, a most beautiful Mot-mot, made up the inhabitants of the bird-room. The Mot-mot, with its curious racket tail, was not loose, but in a cage; he was quite tame and the picture of health. In Mr. Astley's study were four Nightingales, three of them anyhow singing beautifully; here also was a rare Robin Chat (*Cossypha caffra*), a North American Wood Thrush, Rose-breasted Grosbeak, and a White-winged Mocking Bird. Other birds noticed in various parts of the house were Liothrix, two rare Mocking Birds (*Mimus gilvus*), Hooded Siskins, Mexican Red Cardinal, Yucatan Blue Pie, and various others which I have forgotten.

The evening I arrived at Brinsop there was great excitement, for the pair of Hokis, or Eared Pheasants, which are quite full-winged and have the run of the garden, had gone off and after much difficulty had been located in a large wood on the side of a hill some mile away from the house; however, later in the evening Mr. Astley's bird-man reported that they had been found, and had either been driven or came back, and he told me the following morning that they had flown down the hill-side at the most terrific pace, far faster than partridges. They appeared to be none the worse for their adventure, and were most attractive looking birds, I thought, with their ear tufts and odd tails,

and on the Sunday evening I saw them roosting on their accustomed bough at the top of a tall Scotch fir in the garden.

In the Paddocks besides the Stanley Cranes were four Manchurian Cranes, as well as White-necked and Australian. The large pond beyond the moat held a varied collection of Ducks; most of the commoner species were represented and I also noticed Scaup, Red-crested Pochard, Chiloe Wigeon, Falcated Duck, Golden-eye, White-eyed Pochard, and the extremely rare and beautiful little Cotton Teal, of which there were three or four (I forget) lovely examples swimming about, rather apart from the commoner herd, as though they knew their superiority. The geese included Canadian, Bernicle, Ross' Snow Goose, Bar-headed, Ruddy-headed, Magellanic, and Grey Lag.

The large series of beautifully arranged and thought-out aviaries contained a wonderful collection of various birds. I have jotted down the names of a good many, but the following is a very incomplete list; the birds I can remember included Barraband Parrakeets, Red Rumps, Siamese Fire Backs, a pair of Satyr Tragopans, White-crested Jay Thrush, every shade of Blue, Green, and Yellow Budgerigars, Black-headed Caiques, King Parrot, Stanley and Queen Alexandra's Parrakeets, Cockatiels, Purple-winged Glossy Starlings, Chestnut-winged Grackles, Tree Pipit, Wheatear, American Robin, Orange-headed Ground Thrush, African Thrush (*Turdus kilimensis*), Blue Birds, Indigo Buntings, Sulphury Seedeaters, Yellow singing Finch, Violet-eared Waxbill, Taha Weavers; and of doves in the same aviaries I noted Diamond, Indian Palm, Bar-shouldered, Crested, and Turtle Doves, and some Bleeding-heart Pigeons. While sitting on a seat outside the aviary with Mrs. Astley a perfectly delightful pair came walking up, one on each side, a Guan and a Trumpeter; the former hopped on to the back of the seat, and began to amuse himself by pecking Mrs. Astley's hat; the Trumpeter, not to be outdone, essayed to jump into her lap, but that was already occupied by a Pekinese Spaniel, so he had to be content with standing on the seat and pulling her jacket with his beak. A few yards away on a heap of hay, against a sunny wall, basked a pair of little Duiker Antelopes, a very difficult animal to keep in confinement, while before long the two Hokis walked up and flying up on to the back of the seat demanded attention. It was all a wonderful picture, and

after breaking the tenth commandment many times, I reluctantly tore myself away from these fascinating aviaries to return to the house, passing on the way another aviary in which I noticed Golden Pheasants, a Siamese Fire Back, and three fine Monauls. Too quickly Monday morning came, and I had to leave hospitable Brinsop and its many delights, and as I drove through the fore-court and over the moat, I turned back to see the last of the lovely old house and the pink of the Flamingoes as they stood motionless in the water, and thought of the Queen of Sheba after her visit to King Solomon, who returned to her own home with no heart left in her.

AN AMUSING AMAZON, AND ALSO A PARRAKEET

By FREDERICK D. WELCH

A relative of mine used to keep a Blue-fronted Amazon, which I frequently saw between 1890 and 1910, which shows that this species will live at least twenty years and probably very much longer, a Sulphur-crested Cockatoo having lived ninety odd years, so I was informed in 1901 by a patient in Maidstone about one at his house. This Amazon used to perform some amusing antics, of which readers of the *Avicultural Magazine* may like to hear.

The shutters in the dining-room used to be closed by a handle, which being turned slid them out, so to speak, from an excavation within the wall, and were made with a mirror on their inner sides, which reflected things in the room. The Amazon used to be let out of its cage most evenings for exercise, its favourite method of locomotion being to walk *backwards* along the floor, and when it saw the reflection of itself in the mirror-windows it used during the end of December and first half of January to advance with an excited chuckle and begin moving much like the action of a dove in courting. This chuckling was made in quite a soft voice, and was never made, to my knowledge, except during those months. It seemed to me to be undoubtedly a display of breeding affection. There was nothing known for certainty about the bird's history previous to its arrival at

my relatives, which I understood to have been many years before it was first seen by me ; but it seemed to me as the most likely explanation that it had been captured when quite a nestling, and therefore never remembered distinctly seeing others of its own species, in which case it seemed to me the sexual affection would be more shown than with Amazons which see each other frequently.

Be this as it may, it was an interesting scene to watch, and usually continued for about a minute, at the end of which time it apparently dawned on the Amazon's brain that the supposed companion was not inclined for flirtation, as it usually left the window suddenly and resumed its walks in no very amiable mind towards human beings for a while ! The only other of the tribe which it saw during its life there was a Ring-necked Parrakeet (*Palæornis torquata*), with which it was not on friendly terms, so the two were never let out of their cages at the same time. The Parrakeet was, by the way, a remarkably distinct talker and mimic, calling " Puss, puss, puss " so as to deceive the kitchen cat, which thought (as I saw myself) it was the cook calling for it to give it food ; and it also frequently deceived a maid called " Sarah " by calling her when she had left the room where it used to live.

The Amazon, on the other hand, used only to call in a monotonous bass voice at sunset regularly, and occasionally in early morning as well. When out of its cage it used to frequently enter beneath the grate, where a fire was burning at the time, and pull out bits of cinder and eat them, which I suppose acted in a similar way to the small stones eaten by domestic fowls and others of that order.

It would not, however, take any notice of cinders taken out for it by myself or others in the house, but ignored such with contempt ! It was a wonder that the bird never got its plumage damaged by hot cinders falling from the fire above it, and it dodged in and out from the grate in a most skilful way.

I may add, in conclusion, that the Amazon and Parrakeet above mentioned were regularly watered from overhead with a watering-can and fine-rosed nozzle in hot weather with ordinary tap-water, and left in sunshine out of doors to dry, care being taken, of course, to avoid draught.

THE SCARLET-BREASTED SUNBIRD

(Cinnyris gutturalis)

A specimen of this fine Sunbird has been presented to the Zoological Society by its corresponding member, Mr. Harold Miller, the Director of the Durban Zoological Gardens, and is the first example the Society has received. It is a splendid species, with the head and body velvety black shaded with brown, the forehead and cheeks glossed with metallic green, the throat and chest scarlet, the feathers with a subterminal bar of metallic blue showing as minute spots. The species occurs in East, South-East, and South-West Africa.

Capt. Shelley, in his *Birds of Africa*, gives a long account of the habits of this species from the pen of the late Capt. Boyd Alexander, who tells us that "When not breeding, the males generally travel from one spot to another without the company of the females. During the heat of the day, when all other birds have hidden themselves in the depths of the wood, they are abroad, seeming to take a delight in the intense heat, always most active, while it is only in the early morning and evening that they take a rest from their labours and retire into the thick under-cover. As the pairing season approaches, the male never leaves the side of his mate, and when courting her has a quaint way of swaying his body from side to side as if it was on a pivot right in front of his gaze. Moreover, he is constantly singing to her, uttering his song from the topmost twig of some tall acacia tree, while the notes both in tone and rendering are by no means unpleasant, and closely resemble those of the Lesser Redpoll".

A nest found by Boyd Alexander was oval-shaped and attached to three slender branches of an acacia tree, and about 20 feet up. It was flimsy and untidy, made of fine grass interwoven with fragments of skeleton leaves, cobwebs, and cocoons, and lined with fluffy down. Near the nest was a nest of bees, which the birds made use of to guide them to some rich flower store in the vicinity.

An examination of a series of these birds convinced Boyd Alexander that the full plumage of the adult is not assumed until the second year.

D. S.-S.

BLUE BIRDS OF PARADISE IN NEW YORK

Mr. L. S. Crandall, Curator of Birds in the New York Zoological Park, writes: "Our Blue Birds of Paradise are just finishing a good moult, and seem to be in very good shape. They are most splendid birds, and I do hope we shall have good luck with them." British aviculturists will wish New York every success with these wonderful birds.

BIRD PROTECTION IN QUEENSLAND

About 18,000 Parrots and Finches of species frequenting the northern parts of Australia were recently taken into Brisbane Harbour on board a steamer bound for Sydney. Much concern was manifested by the owners of the birds, when shortly after the steamer berthed, honorary officers of the Queensland Agricultural Department and the bird protection societies attended with a police sergeant, and the latter announced his intention of releasing the birds, trade in which is forbidden under the Queensland law. Permits from Northern Territory officials were produced by the bird-catchers, whereupon the matter threatened to develop into a clash between Federal and State authorities. However, the police arrived at the conclusion that their powers did not extend to the birds on the boat, and they did no more than place a guard to ensure that none of the Finches disembarked locally. Such of the birds as were intended for Brisbane were not landed. The whole avine cargo went on to Sydney, where the birds sold readily at prices ranging from 20s. to 50s. a dozen.

[By the courtesy of the London Correspondent of the *North Queensland Register*.]

STRAY NOTES

With the advent of spring, aviculturists will be busily preparing their aviaries for the nesting season. Let us hope the season will be a better one than the last, which was generally regarded as one of the

worst for many years. One of the most interesting aviaries in the Zoological Gardens is the Summer Aviary, so called because it is the summer home of many of the birds which winter in the Bird House and Western Aviary. With the first fine days of April many of the hardier birds are transferred to this enclosure and seem at once to realize that they have arrived at their summer quarters, and that it is time to turn their thoughts to nest-building.

THE SUMMER AVIARY.—The Zoological Society is fortunate in possessing two good pairs of American Blue-birds, a species that was well known to aviculturists in the old days before the export of American birds was prohibited. These have been placed in the Summer Aviary, one pair in each of the two compartments, and it was a pleasure to watch them when first liberated. The cocks commenced to sing and spread their wings and tails, and to inspect every box for a suitable site for a nest. Virginian Cardinals, Song Sparrows, and several others were busy building their nests in less than a week after being put into the aviary.

KING VULTURES.—An interesting addition to the collection at the Zoo consists of a couple of King Vultures, a species that has been unrepresented for some few years past. This is the only species of Vulture that is really brightly coloured when adult, the sexes being alike, of a rosy cream colour, with a grey neck-ruff, black wings and tail, and the head ornamented with bright orange and red. One of the two new arrivals is immature, and is of a uniform blackish-brown colour, a stage that I, at least, had never before seen. It will be interesting to watch the gradual change to the adult coloration.

JAPANESE TEAL.—Japanese Teal have been arriving in some numbers and the dealers are offering them at a very reasonable price. These are some of the most beautiful of the ornamental waterfowl, but they are very wild when first imported and unless carefully enclosed with wire-netting will stray away to a certainty. They have been bred successfully on several occasions in this country, but they must have plenty of space. At the Zoo, in the breeding season, pairs will wander up and down by the wire fencing in their endeavours to go further

afield in search of a nesting site. Only once have eggs been laid, in a nest close to the fence, and as far from the pond as the birds could go.

A CURIOUS GREY PARROT.—I hear that Mr. Delacour has obtained a very curious and rare variety of the Grey Parrot, in which the whole of the plumage is pink, with the exception of a few feathers in the body and the quills, which are of the normal grey colour.

COLOUR VARIETIES OF THE BUDGERIGAR.—Colour varieties in birds are always interesting, and occasionally they are more beautiful than the normal state. In the Budgerigar, for instance, the blue variety is extremely beautiful, and it is very satisfactory to know that this race has not died out as was at one time feared that it might on account of the War. Two or three of our members have stocks which they are doing their best to increase. There are now three distinct varieties, the well-known yellow, the blue, and the olive. Mr. Astley bred a white bird, which most unfortunately died. He kindly sent me the dead bird, which I was very glad to add to my collection of skin specimens.

Comparing a series from the normal green bird to the white one finds that the colour in the former is composed of yellow and blue, the former a pigment, the latter being produced by feather-structure, combined with black pigment. In the yellow variety the black pigment has disappeared; in the blue variety the yellow pigment is absent. Mr. Astley's bird is not a true albino, as it had dark eyes. It is a very washed-out blue, still showing faint traces of blue on the rump. The yellow pigment has entirely gone, as in the typical blue, and the black pigment is only present to a very small extent.

A SPLENDID PEREGRINE.—The Zoological Society has received as a present from Major W. H. Rawnsley an extremely fine female Peregrine Falcon in most faultless condition. The letter accompanying the bird states that "she was caught on a trawler off Iceland in a fog in October, 1920, and fed *on fish* from the time she was caught till purchased in Aberdeen a week or so after landing. She is very tame in the sense of not being frightened at people, but she is too vicious to train. She eats off her jesses at once, and fights like mad when we try to hood her. She will fly to the hand for food."

A NEW WADERS' AVIARY.—The Waders' Aviary at the Zoological Gardens came in the way of certain alterations that were necessary, and it was decided that it should be taken down and re-erected on another site between the Lion House and the Cattle-sheds. This work has now been completed, and in many ways the new aviary is better than the old. The aspect is better, the inmates getting the benefit of more sun than formerly. In the old position the birds had to be viewed against the light, the front of the aviary facing north, whereas now the north end is planted up with ornamental shrubs and an excellent view is obtained from the other three sides.

D. S.-S.

CORRESPONDENCE

LONGEVITY IN CAGE BIRDS

SIRS,—As a general rule, when one has valuable birds which one is most anxious to keep for many years they frequently die promptly; but when one has birds of little intrinsic value they continue in boisterous health for an unconscionable time and therefore cost one at least a hundred times their value in food.

As I mentioned some time ago I still have three finches remaining from my former living collection of birds—a hen Napoleon Weaver bought in 1900, a cock Chingolo Song-sparrow bred by Mr. Teschemaker in 1907, and a cock hybrid between Cherry-finch and Masked Grass-finch bred by Mr. Sich in 1908.

All these birds are in perfect health and condition, and have never had a day's illness, their chief interest consists in their longevity.

I always regarded the Weavers as hardy and long-lived birds, but twenty-one years in captivity and still going strong seems remarkable for so small a bird as a Napoleon Weaver.

A. G. BUTLER.

11th April, 1921.

The Hon. Treasurer acknowledges with thanks the receipt of 10s. towards the General Expenses Fund from Sergt. Sprange.

MEMBERS' PRIVATE SALE AND EXCHANGE COLUMN.

The charge for private advertisements is SIXPENCE FOR EIGHTEEN WORDS OR LESS, and one penny for every additional three words or less. TRADE ADVERTISEMENTS ARE NOT ALLOWED IN THIS COLUMN. The Editors reserve the right of refusing any advertisement they may consider undesirable.

FOR SALE.

THE FOLLOWING BOOKS in good condition for disposal:—*Foreign Doves and Pigeons* (Alderson); *How to know the Indian Waders* (Finn); *Ornamental Waterfowl*, 1st edition (Hubbard); *The Speaking Parrots* (Russ); *Winged Life in the Tropics* (Hartwig); *Parrots in Captivity*, 3 vols. (W. T. Greene); *Foreign Birds for Cage and Aviary* (Butler); *A Bird Dictionary* (Hett); *Garden and Aviary Birds of India* (Finn); *The World's Birds* (Finn); *The House Sparrow* (Tegetmeier); *Essays on Natural History* (Chas. Waterton); *Favourite Foreign Birds* (W. T. Greene); *Foreign Cage Birds* (Gedney); *Birds I have kept* (Greene). The above for £2 10s., plus carriage. *Parrakeets* (Seth-Smith), in parts as issued; one copy; scarce; 35s.—D. SETH-SMITH, 34 Elsworthy Road, London, N.W. 3.

WANTS.

The charge for members' advertisements under this heading is FOURPENCE FOR TWELVE WORDS or under, and one penny for every additional three words or less.

WANTED.—Cock Gouldian Finch, or a pair; also pair Mandarin Ducks.—THE DUCHESS OF WELLINGTON, Ewhurst Park, Basingstoke.

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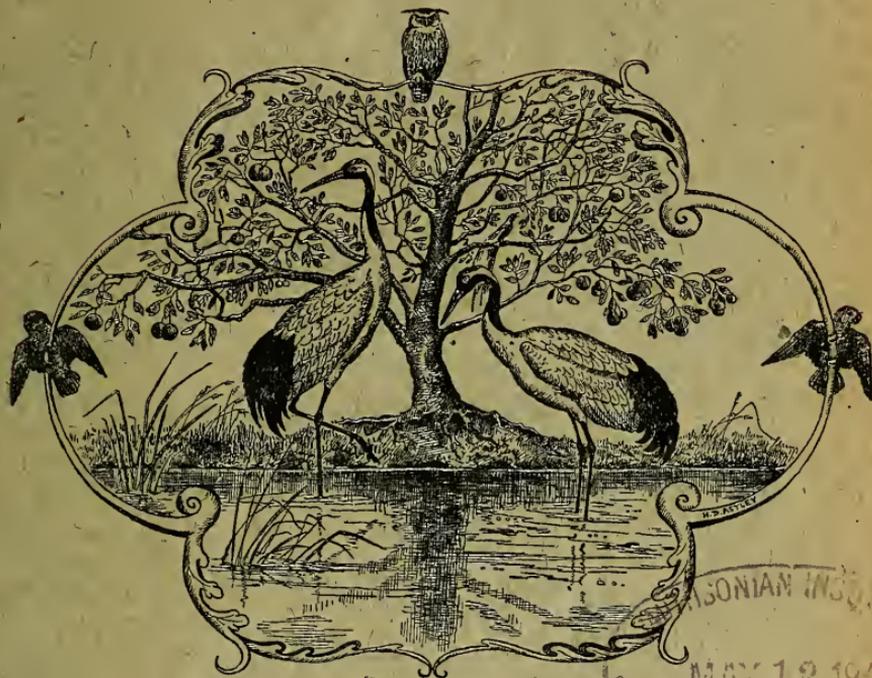
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THE
**AVICULTURAL
 MAGAZINE**



SONIAN INSTITUTE
 MAY 12 1948
 NATIONAL MUSEUM

THIRD SERIES.
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MAY,
 1921.

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of **25/-** per annum.

NOTICE TO MEMBERS

The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER,
Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except post-mortem cases) and all other correspondence should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

The Magazine is published by Messrs. STEPHEN AUSTIN & SONS, 5 Fore Street, Hertford, to whom all orders for extra copies, back numbers for 1917 and after, and bound volumes (accompanied by remittance), should be addressed. *Current Monthly Numbers* 2/- each (except in special cases, such as the Number containing the List of Members, Index, etc., when the Committee may increase the price), by post 2/1; for back numbers a higher price is charged according to circumstances. Cases for binding the Magazine (in art cloth, with gold block on side) can be obtained from the Publishers, post free and carefully packed, at 3/- each; or the Publishers will undertake the binding of the Volume for 5/6, plus 9d. for packing and postage. Members are requested to state whether they want the wrappers and advertisements bound in at the end or not. Telephone: 46 Hertford.

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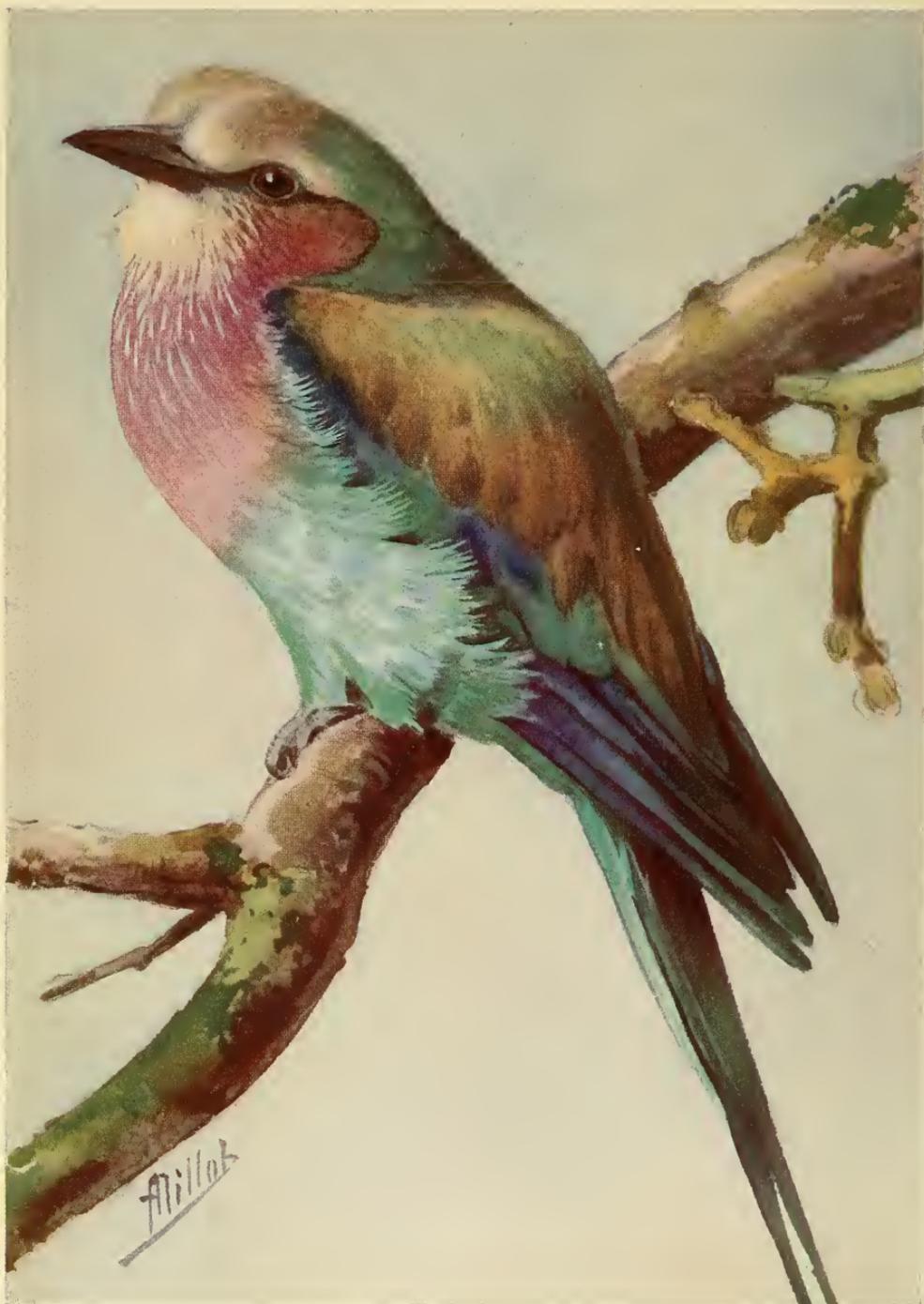
NOTICE TO MEMBERS.

Dr. Graham Renshaw having resigned the post of Editor, Messrs. R. I. Pocock and D. Seth-Smith have consented to act as such *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,
c/o The Zoological Society of London,

Regent's Park, N.W. 8.



CORACIAS CAUDATUS, L.

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 5.—All rights reserved.

MAY, 1921.

A VISIT TO THE BIRDS AT THE WELLINGTON ZOO

By C. BARNBY SMITH.

I had an opportunity of visiting the Zoo at Wellington, New Zealand, last February, and considering the institution has only been in existence about twelve years, the collection of birds is most satisfactory and interesting. The Zoo comprises some 17½ acres of undulating ground on the edge of the hills in the outskirts of the city, and is fairly well screened from wind—a great point at Wellington. The large pond for waterfowl would carry any number of birds, and the Paradise Ducks, Japanese Teal, Maned Geese, etc., which I noticed looked very flourishing. More waterfowl, however, are greatly wanted. By far the most interesting thing I saw was the place where a pair of Mantell's Kiwis nested three years ago. These birds were confined in a large wire enclosure on the hillside, the place being fairly dense with trees and low bushes and having a little watercourse running down the centre. The birds, unfortunately, elected to make the nest in the bank of the stream at the lower end of the enclosure. They burrowed a hole like a rabbit's hole, extending some 18 inches into the bank at right angles to the stream, and then the hole had an elbow-turn, and was carried on for another 2 feet. At the end the birds excavated a circular hole of considerable size, which they carefully lined with leaves from lime-trees in the enclosure. It seems that the female bird did most of the nest-making. The hopes of Mr. Langridge, the Zoo Superintendent, were great for a

time, but unfortunately before any eggs were laid a heavy rain-storm raised the water-level of the stream to such a height that it was found necessary to dig into the nest from above to avoid the risk of one or both the old birds being drowned. Both birds were in the nest when it was dug out. Since then no further attempt at nesting have been recorded, but as there are still Kiwis at the Zoo the future is not without hope. Considering Kiwis are practically doomed to extinction, further records as to their nesting operations are most desirable.

Amongst other birds that have recently nested at the Zoo, with more or less success, are Paradise Duck, American Wood Duck, Weka Rails, Red-billed Gulls, Black-backed or Dominican Gulls, Straw-necked Ibises, Magpie Larks, Yellow-tufted Honey-eaters, and, of course, various small families.

I saw a very fine pair of Ostriches and a Cassowary which would be a credit to any collection. I also noticed two White-fronted Herons in splendid health, after two years in captivity. These birds are incessantly picking up flies and other insects, and Mr. Langridge attributes their good health greatly to this. In various aviaries he hangs up meat to induce flies. A fine King Penguin and three Selater's Crested Penguins showed the usual inquisitiveness and anxiety to be fed. A curious pied specimen of the Pectoral Rail looked quite happy. If this could be got to breed there might possibly be interesting results. Amongst Owls were the Australian Barn Owl, a very fine specimen, the "Delicate Owl", the "Spotted Eagle Owl", and, of course, the common New Zealand "Morepork", which greatly resembles our *Athene noctua*.

The Parrots included Keas, Kakas, Cockatoos, Pennants, Rosellas, Macaws, various small Parrakeets, and a splendid specimen of a Tabuan Parrot from the Fiji Isles. I was disappointed not to see either Kakapos or New Zealand Parrakeets. Both, however, are most difficult to obtain, though further efforts to get them are being made.

Pheasants did not show any specially rare varieties, but included a good cock Elliot's Pheasant, sent in mistake for a Jungle Fowl.

I noticed amongst the Lesser Waders a fine specimen of the Golden Plover, which was just losing his full breeding plumage. This bird

flew into the porthole of a ship 50 miles off the coast. At present the Zoo does not hold any specimens of those interesting New Zealand birds, the Stilts (either pied or black), but it is hoped to get these in future as they are fairly common in many places. The prospects of getting "Tuis" or Parson Birds are much more doubtful, and the possibility of getting "Huias" almost nil.

A small flock of Apostle Birds (*Struthidea cinerea*) from Australia seemed quite happy in an enclosure with other birds. They have been in the Zoo some six years, and though popularly supposed to be most pugnacious, yet in captivity have shown quite a peaceable disposition. Their common name of Apostle Bird is gained from their being usually found in flocks of twelve. It is interesting to note that wild Fantails (that quaint lively little bird with at least nineteen names) have repeatedly nested and reared young in the Zoo grounds.

The Zoo authorities are most anxious to enlarge their collection of birds, and the New Zealand climate is such as to render easy the keeping of many varieties, which in other places are only half-hardy. There are, however, obvious difficulties in the way of speedy progress, such as geographical situation, shortage of labour and lack of transport facilities incidental to a newly developing community.

Members of the Avicultural Society and other enthusiasts having surplus stock for disposal might do worse than arrange to send them to the Wellington Zoo. The Superintendent would readily answer all inquiries as to method of transit and otherwise; also arrange special terms with the shipping companies. Many New Zealanders would like to see birds sent from the British Isles, to which they, almost all of them, refer as "Home".

THE EUROPEAN SPARROW OWL

(*Glaucidium passerinum*)

By E. G. B. MEADE-WALDO.

Lord Tavistock's interesting account of his little Sparrow Owl induces me to refer to one which we had in confinement many years ago. This one was purchased from the late Mr. A. E. Jamrach, who told me that he procured it from the same source from which he used to

get his Ural Owls, viz. East Prussia. She, for it was a female, lived with us for three years in perfect health, and then escaped, and as she had evidently been captured when adult, there is no doubt but that she found little difficulty in getting her own living. In many ways this little owl differed entirely from all the numerous species of owls which I have kept. The peculiar whistle and chirp (to my ear musical) is most un-owl-like, and is characteristic of the genus *Glaucidium*, as is also the peculiar manner in which the tail is elevated—you cannot say cocked up—and swung from side to side—you cannot say wagged—when the bird is in motion. I have not bred this owl, so cannot say how the adult plumage is assumed, viz. if immediately after the first white down, or if there is an intermediate down between the nestling white down and the true feathers, or no, but I should be inclined to think that the plumage is assumed as in the Scops Owl, *without* any intermediate down. Perhaps Miss Chawner, who has successfully bred a kindred species of the same genus can enlighten us. I find by my notes that I considered this owl to be an insect and *bird* eater, in this case differing from Lord Tavistock. Also she was a very large eater. I should think in the northern forests and semi-Alpine forests in which it finds its home that titmice very likely form a considerable part of its food. Our bird was extremely fond of sunning itself and in taking a dust-bath; she also bathed and drank, but was not nearly so fond of a bath as the generality of owls, which, with the exception of the Barn Owls and Little Owls (*Athene*), are great washers. It was interesting to note that when the tail was elevated the “hinge” seemed to be nearly in the middle of its back, showing how much was “feather” and how little owl!

LONG-TAILED TITS

By HUGH WORMALD.

The way in which the numbers of Long-tailed Tits have increased in the last two years must be a matter for congratulation to every naturalist, gardener, and fruit-grower. The winter of 1916-17 very nearly exterminated them here in Norfolk, and their numbers remained very small until last spring, when there was a perceptible increase of

birds, though I did not see a nest in 1920. I saw one or two family parties which had not left the nest for more than a week or two. But this spring just round here I know four nests, and several other pairs of birds whose nests I have not found, so that in this locality, at any rate, their numbers are up to the 1915 standard. I have always wanted to know how long a time is occupied in building one of their wonderful nests, and this year I was able to find out how long it took one pair to build (I daresay the time taken by individual pairs varies). On Saturday, 12th March, I happened to see a Long-tailed Tit fly into a low rhododendron, it only remained there a second or two, but since where birds are concerned I am of an inquisitive disposition, I was obliged to go and look into the shrub, where, to my delight, I found a minute piece of moss and lichen, obviously the first foundation of a nest. Fortunately the site is only 2 ft. 6 in. or so from the ground on the outside of an outside shrub of a large clump of rhododendrons, and consequently easily watched. I noticed that when collecting material the birds were frequently separated by some distance, but when feeding only, and not actually building or collecting, were always together; also that they always fed on the same trees, i.e. two small clumps of young larch. The nest progressed very slowly at first, three or four days seeming to make no difference to it in size, although the birds worked extraordinarily hard. What struck me as remarkable was that I never saw either of the birds remain at the nest for more than two or three seconds, and yet in that time they managed to get the material woven in very tightly and neatly; how they do it with their absurd little beaks is amazing! It was not till the nest had attained the size of a Chaffinch's that it began to grow at all quickly; at this point a lot of very fine grass leaves were used in the inside, the outside being composed of moss, lichen, and cobwebs. This was the fourteenth day, and from now onwards the nest grew much more rapidly, until by the eighteenth day from the outside the nest appeared finished. The birds now began to bring feathers only, and must have brought hundreds! On the twenty-third day the nest was completed. The first egg was laid on the twenty-fifth day, and from then onwards I never saw the birds at all; they forsook my garden entirely, and I feared that they had forsaken the nest, so on the evening, when there should have

been four eggs, I thought I'd put a finger in to see if everything was all right. I chose the evening as I didn't expect the bird to be on the nest at 5 p.m. However, as luck would have it, she was on, but fortunately took no notice of being poked by my finger. I hurriedly retreated a few yards to see if she would come off, but as she didn't appear for ten minutes I concluded that she wasn't worried, and left her. I didn't like to feel any more, for fear of making her forsake, so I don't know how many eggs she laid, nor the exact day on which she began to incubate. I didn't see either bird for about a fortnight, until one evening when they both flew across the lawn into a birch-tree near the house, obviously my pair as the hen's tail was very bent from being twisted round in the nest. After this I saw them together fairly frequently; they were now using the garden again, but didn't seem to have any fixed time for coming off the eggs to feed. On 29th April I again felt in the nest, and found several very small birds and could feel one or two eggs, but whether these were "clear" eggs or have since hatched I don't know. The bird broods them a great deal, but comes off if one walks by the nest; when she was incubating she never stirred, even when one looked quite close at the nest. Sometimes one could see her face looking out half smothered in feathers, but she always retreated and huddled down into the nest instead of coming out of it. I expect the young birds to remain in the nest until about the 16th of this month (May). When building the birds took no notice of me at all. I used to sit on a bank about three yards from the nest and watch them; as long as one kept still they didn't worry.

SOME BIRDS IN MY AVIARIES

By J. DELACOUR.

In the course of 1920 I was lucky enough to procure six different species of Barbets. I am particularly fond of this family of gorgeous birds, whose peculiar shape and bright colours are often associated with great tameness. Three of my Barbets come from Asia and three from Africa. One knows that, besides these two continents, South America also possesses Barbets. All are rather omnivorous, but Asiatic

birds are more fruit-eaters, African, and especially American, species being more insectivorous.

My Asiatic Barbets are the Giant, the Hoary Jungle, and the Common Bluethroated. Of the last bird, well known to all aviculturists, I won't speak. The Hoary Jungle Barbet (*Thereiceryx zeylonicus*) is an inhabitant of India and Ceylon; his size is that of a Starling; his body is of a lovely pale green, head and neck grey streaked with white, bill dark yellow, eyes with white "spectacles". It is a bold and unsociable bird that I keep alone in an aviary of the bird gallery, as well as the Giant Barbet. The latter (*Megalæma virens*) is the biggest bird of the family, and a very handsome one. Its size is that of a Jay; head and neck very dark bluish-green; chest, dark brown; tail and wings, green; shoulders, chestnut; underparts, green streaked with pale yellow; vent, rich pink. This bird inhabits China. Of the African species, one is the well-known Levaillant's Barbet (*Trachyphonus cafer*), a beautiful bird with rather a long tail, a crest, and a fine plumage, variegated with yellow, red, black, and white. The Black-collared Barbet (*Lybius torquatus*) is also very handsome and rare. A few have been imported lately, but when my bird arrived it was only the second one ever imported into Europe, the first one having been brought into Berlin in 1912. Its size is that of the Common Barbet; head and neck, scarlet; wide, black collar; back, olive green; wings and tail, black; underparts, yellow. My last species is a little Pied Barbet (*Tricholæma leucomelan*) of the size of a Sparrow, black and white, with a scarlet and yellow patch on the head. All these African birds are quite sociable and harmless, and live in the Bird Gallery with Tanagers, Bulbuls, etc. I give all these Barbets insectile mixture; a little meat, fruit, such as apple, orange, bananas, elder-berries, etc., mashed potatoes and carrots and dried figs and raisins. I find them very robust and most satisfactory aviary birds.

Two rather rare birds that I have kept and have proved a failure are the Grey Touracou (*Schizorhis concolor*) and the Long-tailed Pied Shrike (*Urolestes melanoleuca*). Of the former species I received a dozen specimens a year ago, with the result that, despite all cares, only one is still living in my aviaries. I and Mme. Lécallier tried all sorts of food and accommodations, and always, without any apparent reasons,

some of the birds became mute and died after a month's disease. The bird I still have lives out of doors in the large aviary, where I keep my Magpies, Jays, Toucans, Hornbills, etc., and is in perfect condition. I shall add that these Grey Touracous are rather clumsy in their ways, and not nearly so attractive as the green species.

Out of the four Long-tailed Pied Shrikes that I received, two died quickly. The other two lived about a year, and I must confess that I was pleased to see them go! They should be quite nice in good plumage, but they are so wild and restless, that they always damage their feathers, even in a large aviary. I have not seen mine with their long whydah-like tail more than a couple of months. And one never knows how to keep them; they seem very unhappy in a cage; I tried to put them in the Magpies' aviary, but they were bullied by them. I put them with smaller birds, of their own size; the Shrike killed several of them. One should give them a large aviary to themselves, and they are not worth it. They are not difficult on the food question, being quite satisfied with Duquesne insectivorous food and meat.

About two years ago I received a consignment of five Cuban Trogons, in miserable condition, in fact they were nothing but lumps of dirty broken feathers. Three died shortly, but two recovered, moulted out, and became the most charming birds one could wish to possess. Unfortunately, one died of stoppage of the intestines from having swallowed the hard skin of some coarse grape. With Trogons and Birds of Paradise it is essential not to give them any chance of eating hard food, as they invariably die when they eat it. My last Trogon is in the best of health, and now moulting for the second time with me. It is a very tame and sensible bird, with the most gorgeous green, pearl-grey, white, black, and crimson dress.

My largest outdoor aviary, which connects with a heated room, contains a fair number of Magpies, such as Acalie (*Cyanocorax chrysops*), Blue (*C. cæruleus*), San Blasian, Beechey's (*Cissolopha sanblasiana* and *C. beecheyi*), Himalayan Blue (*Urocissa occipitalis*), Wandering Tree Pies (*Dendrocitta rufa*), African Black (*Cryptorhina afra*); an Australian Piping Crow; some Toucans and Hornbills, long-tailed Glossy Starlings and Mexican Rails (*Aramides albiventris*); all these birds agree very well together, and make a very good show. There is never any fighting between them.

DIFFERENCES IN CHARACTER IN BLUE-FRONTED AMAZON PARROTS

By E. MAUD KNOBEL.

I have often been very much amused by other peoples' ideas and opinions of birds, both as pets and in general. I remember some years ago being introduced to a lady at an "at home", and after a while she asked what I was interested in. I replied that I went in for birds. "Oh, yes," she said, "canaries." "No," I said, "not Canaries, foreign birds." "Ah!" she exclaimed, "Budgerigars." As I was keeping a Shama, a superb Tanager, and a Bauer's Parrakeet, amongst other things, at the time, and feeling not a little proud of them, I tried to explain what they were, but her imagination had evidently never penetrated beyond canaries and budgerigars, and she dismissed me as a mild kind of lunatic.

Once down at the London Hospital, where for many years I was a ward visitor, I remember one day talking to a patient, and had tried many subjects, but had got no answers beyond yes and no. Then I suddenly began talking about my Parrots. At this her whole face lighted up, and she exclaimed, proudly, "Ah, I keep a Parrot." Oh, I thought to myself, at last I have found something in common. So delightedly I asked her what kind it was, a grey or a green. "Green," she said. "Does it talk," said I, " "Oh, no," she replied, "it is under a glass case!"

People have often asked me why I keep so many Parrots. Surely they must all be alike. Well, are they? I can honestly say that I have never had two alike. They all have so much individual character. There are dull ones, of course, and clever ones, tame ones, and savage ones, but they are all different. For this paper I propose to pick out the three Blue Fronted Amazons that I have at the present moment.

The first, erroneously named "Richard," for she is an old dame of many years standing, was given to me in November, 1914, by friends who had to part with her on account of the war. Personally, I far prefer to buy my own birds and get them first hand. By that I mean young birds freshly imported who have never known another mistress that I can teach and bring up as I like. And yet it is not every bird

I want by a very long way; it has to have something "special" about it for me to want to possess it. However, at the beginning of the war one could not look a gift horse in the mouth, so I gladly accepted Richard. She is a pretty bird—at least, she has a very pretty head—with a great deal of blue, and what yellow she has is under the chin. She is small for a hen, and not a good shape, and her feathers have rather a faded washed-out appearance. But then she is old, which may account for want of colour. I should say she had been badly treated in her youth, for even now, after nearly seven years, she will never come on my hand, and is afraid of hands. She will get up on my shoulder, but is uncertain in her temper, and will occasionally turn round and give a pretty hard nip. She is terribly jealous of the other birds, and I have to be careful not to pet any while she is out of her cage, for if I do, she will fly right across the room, straight for my head. She is a fair talker, and has learnt quite a good deal since she came to me. I think if I had had her in her first youth she would have been a charming bird, but her temper is too uncertain and at times she screams in rather a persistent way, which is trying. She is never so happy as when she is allowed to roam about a room, and she loves to get under a piece of curtain, but she is the most destructive bird I have and has to be watched all the time or she will have her beak into the best chippendale chairs or leave a hole in the curtain.

My next Blue-front is Ena, a young cock bird that I bought as a funny little fluffy brown baby in nestling plumage in January, 1920. The youngest Parrot I have ever had, Ena was bought in a great hurry to replace a sad and tragic loss, for I had had the most charming Yellow-front, called Judy, who for months had been a bosom companion and had lived incessantly on my bed, mostly under the eiderdown, for I was ill at the time. But one morning, when my nurse was out of the room, Judy took a flight and landed on the window ledge, where, before anything could be done, she picked up and ate a piece of broken glass. Poor little Judy! she simply bled to death, for it had cut the intestine about the sixth of an inch, and apparently nothing could be done. I missed her so dreadfully that two days after her death we phoned to Gamage to see if they had anything that would do to fill the gap. However, they had nothing at the moment that would suit me, so

De Von was visited, with the result that Ena was brought home. Now Ena is an exceedingly independent nature—does not care to be nursed or petted or even have his head scratched, but is developing into a wonderful talker and whistler. He will come on my hand, in fact I bring him down to breakfast like that every morning, but it is only on sufferance. He is not yet in adult plumage, which I believe they don't obtain for two or three years, but he has moulted, and certainly looks a lot better than a year ago. He is an elegant slim bird, with much darker green feathers than either of my hens—a small, rather round head, prettily marked with blue and yellow—more yellow than Richard, and like Richard the shoulder spot and speculum are pink rather than red in colour. Richard will sometimes play in his cage either with a piece of wood or chain, and very occasionally will lie on his back and play with his toes in the way parrots do, but Ena, though he is still such a baby, never has played, and I don't think ever will. He is entirely taken up with talking, and starts with my early tea at 7 o'clock in the morning, though still covered over, and goes on till he is again covered over in the evening. He literally laughs and cries the whole day through. He cries at times in the most heartrending way, sobbing out at intervals, "Mother, I want Mother," and when it becomes really desperate he will suddenly stop and laugh as heartily as he had cried, as if it had been the greatest joke. He makes all the noises of a baby, and, I think, would deceive anyone. This accomplishment he learnt elsewhere. Every morning he asks himself in the most concerned manner, "Ena, how are you? Aren't you well?" He imitates faithfully cats mewling, dogs barking, the squeak of a certain tap, and other sounds about the house, and as to whistling, I sometimes think he will drive me grey, he is so quick at picking up. When first uncovered, and again when it is getting time to be put to bed, he becomes very restless, and it is the only time he shows an inclination to scream, but by taking him on my hand and holding him up and letting him have a good flutter, it generally has the desired effect of stopping him.

My third Blue-front that I have just now is quite a new acquisition, having only been here three weeks. Dinah is a very young hen, and one of the handsomest birds I have ever had. She has a slight frontal band of blue, and a great deal of yellow of a deep colour,

extending beyond the eye and well down on to the breast. The shoulder spot and speculum are of a vivid scarlet, and the dark blue of the flight feathers is very rich in colour. I think Dinah and I fell in love at first sight, for she had only been a few hours in Gamage's when I saw her and made her acquaintance. She came immediately on to my hand, and let me do as I pleased with her. I visited her many times, but for a whole month resisted her charms, but each time I saw her I wanted her more and more until one fine day the deed was done, and I brought her home. The first morning I uncovered her and let her out of her cage she seemed rather cross. She had certainly got out of bed the wrong way. I believe, however, this was accounted for by her being covered over. She probably was not accustomed to it, and was too hot. That was speedily rectified, and she has never shown any sign of being cross since, except when she thought my father was going to take her away from me, when she tried her beak on his thumb!

Now Dinah is absolutely the opposite to Ena. She plays about the whole day, swinging on a chain, lying on her back at the bottom of the cage, and playing with a bit of stick, and never seems tired. Yet to me she is one of the most gentle and loving birds I have ever had. I can do anything with her, and the moment I come into the room she wants to come to me to be nursed and petted. She and Ena live in the same room, one in each window, and she is beginning to try and copy Ena in the way of laughing, which is amusing to hear, but beyond saying "Hulloa" and "Pretty Bird" and singing a little, I have not heard her do much in the way of talking until a few evenings ago, when I came in, and I must say they were both "going it". Ena was saying all he knew, and Dinah was chipping in in a loud voice with "Hurrah, hurrah, hurrah", and then talking what sounded like Portuguese. In the *Avicultural Magazine* for June, 1902, in an article of Canon Dutton's, I see he says that "some people think that female parrots are much gentler than male birds." This has certainly been my experience, though I cannot say that my knowledge of male birds has been very great, for out of the thirteen Amazon Parrots that I have had I believe only two have been cock birds. But both those cock birds have been good talkers, very independent, and they have not wanted to be petted. I had a theory that if one only acquired a bird young enough one could

mould it as one wished, but that theory, like a good many others, has had to go to the wall. A great deal, I may say an *enormous* deal, can be done in a young bird by persistent gentleness and patience, in fact I believe that the whole temperament of a parrot depends entirely on the treatment by its first owner. At the same time they have so much individual character that one cannot make them all of one pattern.

CORRESPONDENCE

THE COLOUR OF THE SCARLET IBIS IN CAPTIVITY

SIRS,—In the March number of the *Avicultural Magazine* Mr. Meade-Waldo writes that the Scarlet Ibis “loses its colour at once and never recovers it, but remains a dull pink”. This is true of the bird in close confinement, but the colour is retained for years if the bird has access to water (not necessarily rich in natural food) and an extensive grass range. If the enclosure is well sheltered, and contains plenty of thick evergreens, the Ibises can be wintered out of doors, anyhow in the Midlands, and require no other artificial food than chopped raw meat.

TAVISTOCK.

RAVEN *VERSUS* RAT: ACTION DUE TO INSTINCT

SIRS,—In one of the recent numbers of *The Field* there was (so far as I now remember) a reply to a correspondent about food of Ravens, such as worms, beetles, snails, mice, field voles, moles, birds; but no mention of rats. As the Rev. Bancks, of this village, had told me a few weeks before about a Raven he kept in past years (“about 1902”), I thought its actions towards a rat might be worth mentioning.

Having caught a large rat uninjured, a friend suggested putting it into the Raven’s cage, and on this being done the bird at once attacked it, and after putting a foot on it to hold it down, killed it with a single peck in the body in stabbing fashion.

The scene clearly proved that Ravens will attack these rodents when wild, and are therefore of some economic value.

In addition to the above, it may be of interest to say that the bird was taken young from the nest, and therefore it is most unlikely it had previously seen an older bird kill rats in this way. Therefore, the

method of stabbing the body seems to be due to instinct, and not learnt by individual experience. The Raven's behaviour recalls the cracking of snail shells, which a writer, Miss Frances Pitt, considers is "probably learnt by personal experience" in young Thrushes (*Ann. & Mag. Nat. Hist.* 1919, pp. 529-31)—an opinion with which I cannot agree from personal observations on these birds.

In support of the view that the action in Ravens is not learnt by personal experience after leaving the nest, the Rev. Bancks informed me most emphatically (he not knowing "the drift" of my question) that his bird "did *not* attack the head".

When we consider that adult Brown Rats can bite sharply in self-defence, I should have thought a Raven, if the method was learnt by after experience, and was *not* instinctive, would have first attacked the rat in the head to put it out of action, previous to delivering the blow at the body of the rat. What is the experience of other people who have fed Ravens on live rats? Do these birds vary in method of killing such prey?

It might also be of interest to hear what a Raven would do with a full-grown adder—whether attack it in the head, or whether disable its spinal column before attempting to eat it—if any reader has made observations on such.

FREDERICK D. WELCH.

21st April, 1921.

FOOD OF SWAINSON'S LORIKEET

SIRS,—Referring to Dr. Maurice Amsler's letter on food for birds in the January number, I had a Swainson's Lorikeet some years ago when I was in Egypt.

It was fed upon whole rice, very heavily sugared and boiled in water. It also had seed, but I do not think it ate very much of it. I gave it the sweet rice on advice given me at the Giza Zoological Gardens. The bird occasionally had a date, slit, and the slit filled with honey. It was very fond of this, but did not care for other fruit, oranges, etc.

The people I gave the bird to when I left the country fed it as I had done myself, and I know that it thrived for four years or more.

J. W. H. SEPPINGS.

THE CASTLE, CAPETOWN.

OUR COLOURED PLATE

By arrangement with La Société d'Acclimatation de France, the Council of the Avicultural Society hopes to be able to reproduce from time to time plates of birds already published in the organ of the French Society, which most of our members will have little opportunity of seeing. For this highly appreciated privilege we are greatly indebted to the Executive of la Société d'Acclimatation, and more especially to our esteemed member, Mons. J. Delacour, the distinguished president of the section of ornithology of that body.

The plate in our current number is a beautiful representation of the Long-tailed Roller (*Coracias caudatus*) in the possession of Mons. J. Delacour, who gave us an account of it in our February issue for this year. This Roller from Central and South Africa appears to be a rare species in captivity. The Zoological Society, at all events, has never been so fortunate as to secure it for exhibition.

AN APPEAL TO MEMBERS

The delay in the publication of this number of the AVICULTURAL MAGAZINE, which the Editors greatly regret, is entirely due to there being no contributions in hand at the time when the issue for May was due to go to press. While gladly taking this opportunity of expressing their grateful acknowledgements to the authors of the articles above printed for their kind and prompt response to the urgent appeal for "copy" that was made—a response which shows there is no lack of interesting subject-matter to write about—the Editors feel compelled to impress upon members the fact that they are both busy men, with so many other calls upon their time and energies, that they cannot undertake, in addition, the combined duties of editorship and authorship of the AVICULTURAL MAGAZINE. While fully realizing that "aviculture" has not as yet reverted to pre-war conditions, the Editors feel sure that out of the several hundred members of the Society there must be many with interesting items to record about their birds, who from timidity or dilatoriness or the mistaken opinion that the facts are of no importance or well known, refrain from putting

them in writing and sending them for publication. The Editors would be glad of any "copy" in the form of notes, correspondence, or articles, however short they may be or however trivial the subject-matter may seem.—EDS.

THE COUNCIL MEETING AND MEMBERS' TEA

By kind permission of the Council of the Zoological Society, the meeting of the Council of the Avicultural Society will be held on Friday, 22nd June, at 3 p.m., at the Zoological Society's office in Regent's Park. Tea, to which members are cordially invited, will be served in the Fellows' Tea Pavilion in the Gardens at 4 p.m.

CANDIDATE FOR ELECTION.

THE MARCHIONESS OF BATH, Longleat, Warminster. Proposed by WM. SHORE
BAILEY.

MEMBERS' PRIVATE SALE AND EXCHANGE COLUMN.

The charge for private advertisements is SIXPENCE FOR EIGHTEEN WORDS OR LESS, and one penny for every additional three words or less. TRADE ADVERTISEMENTS ARE NOT ALLOWED IN THIS COLUMN. The Editors reserve the right of refusing any advertisement they may consider undesirable.

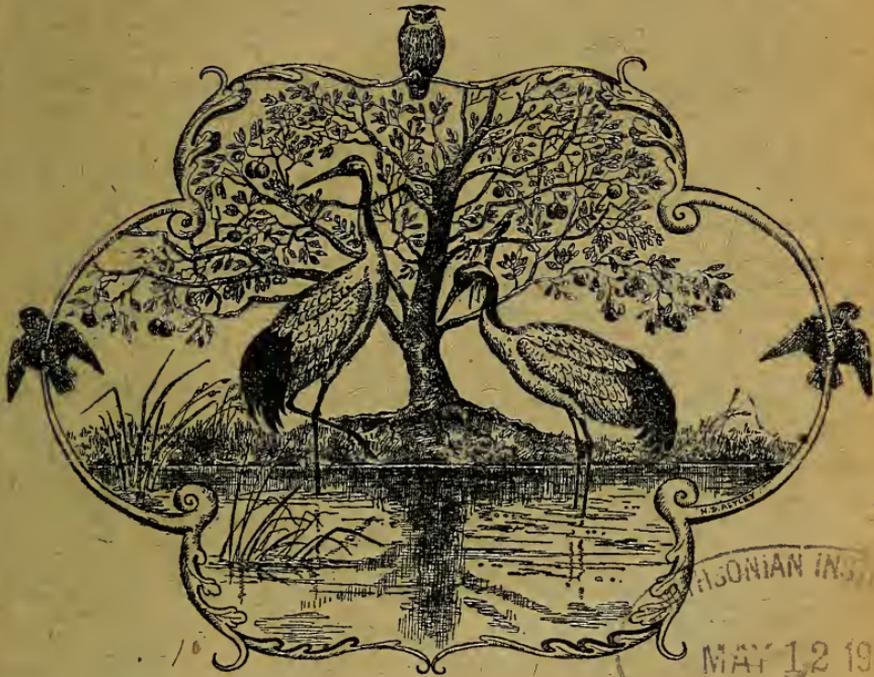
WANTS

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WANTED.—By Mons. J. DELACOUR, Chateau de Clères, Seine Inférieure, France, *Avicultural Magazine*, 3rd Series, Vol. IX, No. 1.

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JUNE,
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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of **25/-** per annum.

NOTICE TO MEMBERS

The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER,
Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except *post-mortem* cases) and *all other correspondence* should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

The Magazine is published by Messrs. STEPHEN AUSTIN & SONS, 5 Fore Street, Hertford, to whom all orders for extra copies, back numbers for 1917 and after, and bound volumes (accompanied by remittance), should be addressed. *Current Monthly Numbers* 2/- each (except in special cases, such as the Number containing the List of Members, Index, etc., when the Committee may increase the price); by post 2/1; for back numbers a higher price is charged according to circumstances. Cases for binding the Magazine (in art cloth, with gold block on side) can be obtained from the Publishers, post free and carefully packed, at 3/- each; or the Publishers will undertake the binding of the Volume for 5/6, plus 9d. for packing and postage. Members are requested to state whether they want the wrappers and advertisements bound in at the end or not. Telephone: 46 Hertford.

BACK VOLUMES OF THE *AVICULTURAL MAGAZINE* PREVIOUS TO 1917.

Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Dr. Graham Renshaw having resigned the post of Editor, Messrs. R. I. Pocock and D. Seth-Smith have consented to act as such *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,
c/o The Zoological Society of London,

Regent's Park, N.W. 8.

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 6.—All rights reserved.

JUNE, 1921.

NOTES ON NEW ZEALAND BIRDS

By C. BARNBY SMITH

Having recently paid a few months' visit to the North Island of New Zealand, I am recording some notes as to the birds I saw or failed to see, thinking such notes may be of possible interest to some bird-lovers.

New Zealand is, as regards bird-life, at once the most surprising and disappointing country I ever visited. One has read of Kiwis, Bell birds, Kakapos, and other weird forms of bird-life, but on landing one rubs one's eyes considerably and asks whether or not it is not really England. There is the Sparrow in great abundance; there are Thrushes, Blackbirds, Larks, Chaffinches, Starlings, Goldfinches, and a few more English friends, but beyond these one may search for days and see nothing—at least, such is my experience, and (even making due allowance for defective observation on my part) I think the fact is beyond doubt that the New Zealand native birds are to the ordinary individual mainly conspicuous by their absence.

New Zealanders do not appear to be much interested in birds, but if one asks why so few of the native birds are seen, the answer is always either that the birds are in the back blocks or were common some twenty or thirty years ago, and are now destroyed by stoats, bush fires, shepherd dogs, rabbit poison, or other attendant blessings of civilization.

I recently travelled fifty miles by rail in an out-of-the-way part of the country, and looked out of the window the whole journey, hoping to see some interesting birds, but I only saw two birds (Finches) during

the whole journey of four hours. Over a similar journey in England one would, of course, have seen birds of many varieties in considerable numbers.

If one takes a favourable position in the bush or manuka-scrub, or amongst the fern or on the edge of cultivated lands, the result is just as disappointing. Of course, there are still birds left in out-of-the-way places, and some of them are very interesting. Off Cape Brett, for instance, there are large numbers of Shags, Black-backed or Dominican Gulls, Red-billed Gulls, Blue Herons, Terns, Gannets, Mutton Birds, and many other kinds I did not know. At other points on the coast there are long stretches without any bird-life whatever, except, perhaps, an occasional Black-backed Gull or Shags. The Government make some efforts to keep Shags within reasonable bounds as regards numbers, but such efforts do not seem to meet with much success. To anyone who has seen the birds on long stretches of New Zealand coast and then turned to the water simply alive with fish, it is not surprising that Shags find New Zealand a veritable paradise and multiply exceedingly.

One day I had an excellent view of a Blue Heron feeding. Instead of standing patiently waiting in one spot, it walked rapidly about a pool continually making stabs at the water and reminding me rather of a somewhat active ibis. Although aware of my presence, it continued to feed. The New Zealanders will insist on calling all Herons "Cranes". The White Heron and White-fronted Heron are exceedingly rare. The Bittern I only saw once. These birds are supposed to be protected, but the feathers are much sought after for making trout flies, and the Maoris (and, I fear, sometimes the whites), knowing the value of the skins, do not fail to procure them.

The Swamp Hen or Pukeko (*Porphyrio melanotus*) is said to be common. I doubt it, as it is a very tame bird and the Maoris kill it for food. I have repeatedly seen a few of the birds on different occasions, and they present a quaint appearance amongst the flax rushes, manuka, and other undergrowth. I never saw any other Rails, and (except in the case of the Weka Rails) could scarcely find anyone who had heard of even their existence.

I much wanted to see a Wrybill Plover, but never got the opportunity. Nowadays they are said to be extremely rare. I,

however, noticed quite a lot of little Plover, which I was told were Sand Plover, though judging from illustrations they looked to me like "Banded Dotterel". Anyhow, they quite lacked the grace of form of our own little Ringed Plover.

I got some excellent views of Pied Stilts feeding in a shallow lagoon off the edge of Lake Rotorua. I had previously seen one flying over, but on inquiry was told there were no Stilts there. I should have much liked a photo of the feeding birds, which were close at hand, and in their movements reminded me of the Avocets at the London Zoo when nesting there some years ago. Incidentally, I should like to ask whether it would not be possible to get over to England some of these Pied Stilts. They swarm on the coast in some places and at some seasons. The Black Stilts are much rarer, and only once did I see (or think I saw) a pair flying over. The Avocet seems non-existent in New Zealand.

Weka Rails are by no means uncommon, and a friend of mine travelling through the South Island describes them as being most amusingly bold.

My inquiries as to Ducks were specially disappointing. One may say of the average New Zealander—

A duck beside the river brim,
A Grey or Mallard is to him,
And it is nothing more.

Both Grey and Mallard are looked at from the culinary point of view only. Anything outside these seems regarded as a harmless eccentricity of nature of little account. It is plain, however, that constant shooting with large duck guns has pretty well cleared many places which formerly swarmed with duck of various kinds. In Government reserves, however, there are still many varieties of interest to be found, as for instance at Hamurana on Lake Rotorua, where Black Teal are very plentiful and are quite tame. I never saw any Grebe of any kind, although I was often in places where I expected to find them. On the other hand, Black Swans are quite plentiful.

Kingfishers are common. The first I saw was on a croquet hoop in a garden in the village of Russell. My surprise was naturally great, but later I grew accustomed to expect them almost anywhere. The

New Zealand Kingfisher quite lacks in form and colour the grace and beauty of our English bird.

As to Hawks, the Harriers seemed hanging in the air almost everywhere I went, and I was informed they did considerable damage, and I fear are on the increase. Other Hawks appear to be quite rare. I do not recall seeing a single specimen.

The Morepork Owl is the only owl common throughout the country.

The New Zealand Quail is now extinct, but imported Australian Quail are found in some districts, though in small numbers. On the other hand, the Californian Quail is very plentiful almost everywhere, at any rate, in the North Island. I was much interested in watching a pair of them with a brood of young on a road in the outskirts of Auckland last November; the cock bird, of course, an embodiment of fussiness and with the usual distracted sense of parental responsibility. The Quail is, I think, the only game bird of all those imported which is really successful at the present time. Partridges have been a dead failure, and pheasants have "gone back" and become scarce in many places where formerly plentiful. The reason is probably five-fold, namely: (1) bush burning, (2) poison laid for rabbits, (3) poaching by Maoris, (4) a plague of stoats, and (5) Harrier Hawks.

I never saw any Kiwis, nor had I an opportunity to undertake the lengthy search in back country blocks, which the attempt to see any would have entailed. From many inquiries, however, I came to the conclusion that these birds are even now not so rare as is supposed, though, of course, they are very seldom seen. The numbers that must be destroyed by bush fires and stoats is, nevertheless, great. A friend of mine, a farmer, spoke of it as being no uncommon occurrence for his sheep-dog to kill Kiwis. The best way of catching them alive is by a soft-mouthed retriever.

I was amazed to see in the New Plymouth district almost the commonest bird was the Mynah. Whether they have come from "the islands" on their own account, or have been artificially introduced, I do not know. Sometimes they frequent a district for a few years and then all vanish. This was the case recently in a district near Wellington, and the Mynahs were said to be driven out by the Starlings, which sounds strange.

The Huia is said to be extinct, but I have it on good authority that the Maoris deny this, and could produce some if a licence were obtained and they were paid to get the birds. The Maoris are keen observers of many things, and their opinion in the matter of birds is usually worth attention.

The Tui, or Parson Bird, is a bird in which the New Zealanders take special pride, and as soon as birds are mentioned the question is asked, "Have you seen or heard the Tui?" and then follows a rhapsody as to its note being much better than the nightingale's. I have on several occasions seen these birds, but the excitement their appearance causes is in itself an indication of their rarity. Bush fires and bush clearance are doubtless the main causes.

Of small native birds the lovely little Fantails are the most conspicuous—quite fearless and very pretty to watch as they actively move about the manuka or other bushes. The White-eye, or *Zosterops* (which first came over from Australia about seventy years ago), is also a delightful little bird and fairly common.

I never saw a Parrot in New Zealand. It is quite easy to find any number of Keas if one goes to the right places. Kakas are rarer—Kakapos very rare indeed (most New Zealanders seem never to have even heard of them), whilst the smaller Parrakeets, although by many believed to be extinct, yet are still to be found, I understand, in out-of-the-way districts. They are, however, according to my information, very erratic in their movements. None will be seen in a certain district for some years; then they come in considerable numbers quite suddenly, and as suddenly vanish. Their extinction can, I fear, be only delayed for a few years.

The good the Government is doing by protecting birds in the way of reserves, both on the mainland and on certain islands, is worthy of all praise by aviculturists, and I hope there is no truth in the statement that stoats have found their way to at least one of the islands and that the keepers on another of the islands keep cats. At present the Government are not issuing any licences for export of native birds. Considering the awful slaughter of birds that is taking place owing to stoats, bush fires, rabbit poisoning, bush clearance, and other causes, it seems a pity that a strictly limited number of licences to export are

not granted yearly to those genuinely interested in aviculture. The indirect good in tending to educate public opinion as to the intense interest of bird life would far outweigh the damage done by the relatively small number of birds taken.

In conclusion I should like to express a hope that the above notes of commonplace things are not unduly prolix; my only excuse for writing at all is that owing to changed conditions books and records written only a few years ago are to day hopelessly misleading.

AVICULTURAL NOTES

By HUBERT D. ASTLEY

My birds have been so frequently written about that it is difficult for me to supply anything fresh. I had not realized how antagonistic Stanley Cranes can become. My pair, the male being full-winged, was completely docile for a year and a half, but this spring all that changed, so that finally the male had to be caught and suffer the ignominy of a clipped wing and imprisonment along with his mate in a wire enclosure. They took to standing on a narrow bridge, or along a paved pathway, defying humans who wished to pass along, and because it was I who generally came to the rescue the male took an intense dislike to me, attacking me savagely at every opportunity, especially when he saw me in what he thought was retreat. His attack was no joke, for being full winged, he jumped into the air a little above the level of one's face, with extended legs and talons, so that one day as he descended he ripped not only one of my stockings, but the leg which it covered, for these crane's claws are excessively sharp and curved after the manner of a bird of prey. One of the womenfolk, coming across the narrow paved path between two ponds, encountered him. I was near by and called out: "If you walk straight on I don't think he'll do anything." She took my advice. In her arms was a large basket of clean linen, fresh from the wash. Up flew the Stanley Crane, legs to the fore, catching the basket with his claws. Tableau!

My only means of resisting his onslaughts was to arm myself with a large landing-net, and even then he would charge again and again, dodging the net, whilst I fenced with this rather cumbersome foil in

desperation ; and in such a tussle one day, I having apparently come out as conqueror, putting the net over his head and pushing him into the pond, where I held him down for half a minute, he was undefeated. Shaking my fist at him, reminding him of his ingratitude for all my loving care of him and his wife, I walked away. Hardly had I taken five steps before—whirr ! a flapping of great pinions and he was at me again. He will also attack an Alsatian wolf dog, bowling her right over and leaving her terrified. If he behaved to children in this manner he would be really dangerous.

Such a magnificent bird, and now deprived, through his own foolishness, of flight. He no doubt regrets it, and so do I, for to see the big bird coming over the house and flapping on broad pinions round the meadows, calling as he went, was a fine and, in England, an utterly uncommon sight. He never went far and never really high in the air, his wife running to catch him up, shrieking at him to return, which he always did. I have not actually pinioned him, and may permit him to be full-winged once more during the winter. Not in the spring ! He killed my White Peacock. Of course, having been practically living the life of a wild bird, his condition is superb ; no Stanley Crane in Africa could be better. When he is in a bad temper he puffs out his head feathers beyond the normal, reminding one of the hood of a cobra.

Twice this year have my Australian Cranes (Native Companion) had eggs, and each time (?) the Jackdaws have succeeded in filching them. The birds had their nest in the middle of a large meadow, and were fed there, so that they should not have to leave the eggs. The last time, in May, they had incubated them for nearly thirty days, and then suddenly the eggs were not !

The White-necked Cranes also had theirs, but they were clear. The Manchurians are sitting as I write. Last year their eggs were clear.

As to other species, I have been more successful, although I touch wood when saying so ! My hen Satyr Tragopan laid twelve eggs and then died, but out of the twelve I have seven young ones. Of all charming chicks these are the most fascinating, because they are so exceedingly fearless and free of any timidity, just as likely to fly on to one's knee as on to their foster-mother's back (a Rhode Island Red

hen). Russet in colour, especially about the head, born with fully developed wing feathers, and if the weather be fairly good, not at all difficult to rear. I give them custard to commence with, mixed with dried ants' cocoons and insectile food, but they soon take to pheasant meal, and love lettuce chopped fine, dandelion leaves, etc., and clean gentles. At a month old they have the colouring of the adult female—a rich spotted russet-brown. At times one of them flies on to one's shoulder as unconcerned as a starling on a sheep's back. Tragopans are far tamer at this age, or any age, than Monauls. By the by, my old hen Monaul (Impeyan Pheasant) has her brood of five, hatched by herself in a small aviary, and two males reared by me in 1918 are still at large. One in the woods, always wild; the other amongst the poultry, to whom he displays ridiculously, looking like some Eastern potentate garbed in gorgeous violets and blues, and bedecked in sapphires and emeralds with a neckpiece of burnished copper. His full display is amusing. I have watched him in an orchard. He stoops to the ground, works his opened wings up and down like a toy wound up, then rushes forward for a few yards in this position, suddenly stopping, raising himself up, turning and walking away with head in the air, chestnut tail widely spread, and white rump gleaming. An extraordinary spectacle, but not so fascinating, nor really so beautiful, as the display of the Tragopans.

My male Satyr Tragopan was very pugnacious this last April (I do not know why, but so many birds seemed to be full of a war-like spirit this year; it is catching, I suppose), and attacked me in the aviary, spurring my hands and drawing blood. Then he would walk round me, swelling out all his splendid Venetian-red body, starred with white spots, compressing his head feathers, and letting down his horns, brilliant turquoise blue-green, a marvellous contrast of colour against the black of the crest and the glowing red of the body, never quite showing all his wattle, which is turquoise blue with rose spots, as vivid as the finest Limoges enamel, and more so. One so seldom is there at the right moment to see the full display, which only lasts three weeks at the most. My aviary-keeper told me that the male Tragopan jumped on to his back very often when he was stooping down to clean up, where the bird would peck angrily at his cap, and how one

day when he suddenly dislodged him the Tragopan's wattle was fully displayed, so that the bird probably always showed this beauty on these occasions; but as he was on my bird-keeper's back, the latter could not see what was going on. And all the time the Tragopan kept up a clucking which would grow into a subdued version of the loud, weird "wa-a-a-ah!" which he utters in the courting season, opening his mouth as wide as Tetraxini when she achieves a top note!

(To be continued.)

STRAY NOTES

By D. SETH-SMITH

On a recent visit to Clifton I had the pleasure of seeing Mrs. Burgess's very fine collection of birds, and was greatly surprised to find such a number of rarities. They are kept in a bird-room, which is fitted up with numerous aviaries where many different species live together on the best of terms. It would be extremely difficult to say which was the rarest bird in this collection of rarities. There is a fine specimen of the White-rumped Lory (*Eos fuscata*), an equally good Black Lory (*Chalcopsittacus ater*), and a little further along one comes across three examples of the Varied Lorikeet (*Ptilosclera versicolor*), a species which I thought had not been imported since 1902, when the first arrival of this species from North-west Australia made quite a sensation amongst aviculturists, as some of the older members of this Society will remember.

STARLINGS AND BOWER BIRDS.—There was one compartment full of Glossy Starlings of several species, including Burchell's, the Long-tailed, Green, and others of some of those smaller species which are very difficult to identify without careful comparison. There were Pied Starlings and Amethyst Starlings. A lovely specimen of the Australian Cat-bird, in its rich green dress, shared a compartment with a Satin Bower Bird, also clad in the green plumage of the female or immature male.

PARRAKEETS AND OTHERS.—Of Parrakeets there were the Queen Alexandra, Rock Poplar, Kings, Crimson-wings, Pennants, Adelades, Rosellas, Uvean, Barnards and Bauers, Golden-crowned and Jendaya

Conures, not to mention a host of Blue Budgerigars and Green Budgerigars that have been bred from Blues, and are likely therefore to produce Blues. There were Black-capped Lories intent upon nesting, Hawk-headed Parrots, Guira Cuckoos, an Oven Bird, Red-cheeked Colies, and a great many more that I have forgotten.

BRINSOP COURT.—Thanks to the kindness of Mr. and Mrs. Astley, I visited Brinsop Court, justly famed on account of the great interest attaching to the house itself, and its splendid collection of birds. Mr. Gerard Gurney has given us an account of the latter, and little therefore remains to be said. Not only does the collection contain many great rarities, but all are in the most splendid condition and kept in ideal surroundings. When I was there during the last days of April several interesting birds were nesting. The European Cranes in the Park had just been robbed by Crows, but White-necked Cranes were sitting. We found several Ducks' nests near the moat, and in the aviary itself Queen Alexandra Parrakeets were incubating; one hen paired to her proper mate, another to a cock Barraband Parrakeet. Baby Blue Budgerigars peeped from their nesting logs, and a Monaul Pheasant hen sat tightly on five eggs. A number of eggs had been laid by a Satyr Tragopan, which were being incubated by a domestic hen, and I hear since that seven chicks have been hatched, while the Monaul has a brood of five.

THE WOOD HOOPOE OR KAKELAAK.—Amongst a collection from South Africa received by Mr. Hamlyn, I noticed a fine specimen of the Wood Hoopoe (*Irrisor viridis*), which is, I believe, the first ever imported. This bird has the head, neck, and upper back glossy green, the rump and upper tail-coverts and wings blue, the latter spotted with white. The strongly graduated tail is blue, the outer feathers spotted with white; the throat and neck are steel-blue, and the breast green. The long, curved bill and the legs and feet are red. This is a forest-loving species, frequenting the highest trees and usually associating in parties of some half-dozen birds. They are said to possess an extremely disagreeable odour.

TATAUPA TINAMOUS.—Among the recent additions to the Zoological Society's collection are six specimens of the Tataupa Tinamou (*Crypturus tataupa*), a representative of a remarkable group of South

American birds with very extraordinary breeding habits. A full account of these birds, and of their nesting and rearing young in captivity, appeared in the *Avicultural Magazine* for August and October, 1904, and with the first of these instalments appeared a coloured plate of the adult and newly hatched chick. In the Tinamous the female is the larger and more vigorous bird, and she courts the male, who incubates the eggs and rears the young; but the duties of the female Tinamou are not finished for the season when she has laid one clutch of eggs. She takes no further interest in male No. 1, but looks around with much calling for male No. 2, and having found him she lays a second clutch of eggs, which he proceeds to incubate, and in all probability, in the wild state, this is repeated with two or three more males. In the case of the Tataupas bred in 1904, no less than fourteen young birds were reared in the one season from a single female and two males. When male No. 1 commenced to incubate his batch of four pink eggs, the female was transferred to another compartment of the aviary, in which was male No. 2. She promptly set about nesting again, and laid him a clutch, and by the time he had sat out his period of twenty-one days the brood hatched by No. 1 were nearly reared and the female was allowed to go back to her first mate. The third clutch of eggs followed and was hatched by No. 1, and subsequently a fourth which No. 2 eventually hatched. This habit of polyandry in birds is not confined to the Tinamous; it obtains also in the Hemipodes, or Bustard Quails, and probably in other species, such as the Phalaropes and Painted Snipe, in which the female is the larger and more brightly coloured of the two sexes.

CHUKOR PARTRIDGES.—Mr. Maurice Portal writes: "I have a pair of Cretan Chukor Partridges (*Caccabis saxatilis*) breeding in the garden. The nest is made by scraping out a round hole, some six inches deep, which both birds work at by turning round and round in it. The cock then collects a leaf or piece of straw, and tosses it back over his shoulders to the hen, who takes it and puts it in the nest, which is a very rough affair. She lays daily, but for some reason the cock goes on the nest every day for a bit. They desert very easily. I removed three eggs at the top, using a spoon for the purpose, as there were twelve in the

nest and the bottom ones were so deep down that I thought they could not get any heat. The cock came up, looked in and went off and brought the hen, who had a good look, too. Both then went off to the potting shed and proceeded to make a new nest a couple of feet away from the gardener's feet as he was working, and laid at once."

A STRANGE FRIENDSHIP

By WM. SHORE-BAILY

From time to time one reads in the daily papers of strange friendships between different kinds of birds and animals. One of the most curious cases of this kind that has come under my notice has occurred this spring in one of my aviaries. Last autumn I bought from Hamlyn a pair of South African Plovers; these on arrival proved to be Temminck's Coursers, an adult hen and a young one. They were very pretty little birds, a trifle larger than our Ringed Plover. The hen was in bad health and did not live long, but by keeping it indoors during the winter, and by careful nursing, I managed to save the young one. This spring I turned it into an aviary with a South African Quail hen and two or three pairs of small birds. From the first it tried to make friends with the Quail, but the latter did not respond. Later on I introduced a cock Egyptian Quail as a mate for the southern bird. The little Plover at once attached itself to it, and when handed a mealworm, which it would take from my fingers, it would trot away in search of its friend, calling to it in a low and rather plaintive whistle. Very soon the Quail would come at once in response to the whistle, and I regret to say that he now pays more attention to the Plover than he does to his more legitimate mate. Mealworms are rather scarce, and the other birds in the aviary have always looked on with rather jealous eyes as I have handed them out to the Plover. The little wretch will devour a dozen at a time if allowed to do so, but never before he has carried one or two to the Quail. Latterly affairs in this respect have become more complicated, as pairs of Diuca Finches (*Diuca minor*) and Golden Breasted Buntings (*Emberiza flaviventris*) have nested in the aviary, and it has been quite a common sight to see one of these birds snatch the worm from the beak of the Plover before

he could get to the Quail with it. The astonishment and indignation of both the Quail and the Plover are quite comic. Recently a little Black-cap Warbler hen found its way into the aviary, I don't quite know how, but it has become apparently a willing prisoner. This bird has proved a great thorn in the flesh to our two friends, as not only will it snatch the worms from out of their very beaks, but it will even catch them in the air when thrown to them. It is extraordinary how tame this bird has become in a short time. One day it helped itself to some bread and milk I was carrying in my hand. The Plover is now coming into adult plumage. In juvenile plumage they are very like miniature Golden Plovers. If a true pair could be obtained I feel sure that they would breed here.

REVIEW

The Value of Insectivorous Birds

The current number of the *Auk*, vol. xxxviii, No. 2, contains the concluding parts of Alfred O. Gross's paper upon the Dickcissel (*Spiza americana*) and of Harrison F. Lewis's article on the nesting of the Philadelphia Vireo, the first parts of which were noticed in a recent number of our magazine. The former is principally devoted to the plumage changes from the time of hatching to maturity, the various phases being illustrated by over a score of photographs, but to aviculturists perhaps the most interesting section will be the pages devoted to the food of this bird from its earliest days to the time of its death. Mr. Gross clearly shows that although this bird eats a certain amount of grain, mostly waste grain, at harvest-time, it is of incalculable benefit to the farmer for the number of grasshoppers it destroys. He computes that in the State of Illinois alone the Dickcissels during the active period of the nesting season save the State over four million dollars a day by keeping down the grasshoppers which feed on the growing hay-crops.

Divorce amongst Wrens

Mr. S. Prentice Baldwin has some interesting observations on the banding, what we call the "ringing", of birds, and of the practical application of this method of identification to the study of the habits of the House Wren (*Troglodytes aedon*). He shows, incidentally, that

“divorce” in the case of this species is not an uncommon phenomenon, and that the old and more or less generally accepted belief that most birds mate for life, and each year return to the site of the previous nest to rear their young, must, like most cherished sentiments connected with animals, be abandoned so far as this Wren is concerned, and be regarded as still *sub judice* in the case of other species.

Sparrows and Motor Traffic

Apart from the other articles already noticed, perhaps the one that will interest our readers most is a short account of the reaction of motor-cars upon our ubiquitous and much abused friend the Common Sparrow in Denver City. Mr. W. H. Bergtold sums up the results of his investigations as follows:—

(1) There are fewer Sparrows in Denver than ten years ago; (2) there has been a notable decrease in the horse population of Denver during the past five years; (3) there has been a very patent diminution in the amount of sweepings gathered from the streets of Denver during the past decade; (4) the reduction in street sweepings has resulted in diminishing the Sparrow population by starvation; (5) all these results hinge on the introduction and multiplied uses of the motor-vehicle.

R. I. P.

CORRESPONDENCE

A CURIOUS FEATHER

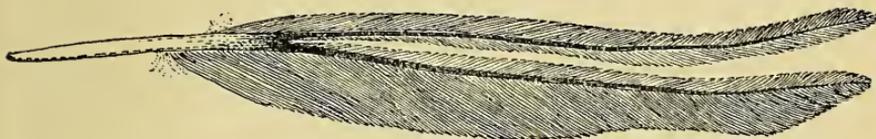
SIRS,—Amongst the many readers of the *Avicultural Magazine* I wonder if anyone can give me an explanation as to the cause of malformed feathers. In May, 1917, I obtained a Grey Parrot—quite a young bird, for he still had the black eyes which began to change about a month after I had him, so I judged him to be about 8 months old. I noticed in the right wing he had a malformed feather. It is a kind of double feather split down the middle, the split edges being red. He has no other feather like it, the rest of the plumage being smooth light grey. I naturally thought that when he moulted the new feather would be a normal one, but I was mistaken; each year he has shed it, and each year the same malformed feather appears. As far

as one can *feel*, there has been no injury to the wing. Therefore I should be glad of any suggestion as to the cause of this curious feather.

E. MAUD KNOBEL.

DIAGRAM OF THE DIVIDED FEATHER

(Reduced to half the natural size)



[For this drawing the two branches of the feather were forcibly pulled apart to show their distinctness and structure. In the natural state they were closely applied to one another in such a way that the planes of their upper surfaces were at right angles. Miss Knobel informs us that the feather was the second primary from the distal end. The interest of the record is one more piece of evidence of the value Aviculture may be to Ornithology.—EDS.]

The Editors sent the feather to Mr. W. P. Pycraft, who kindly favoured us with the following comments:—

“NATURAL HISTORY MUSEUM.

“May 31, 1921.

“The feather you sent is one of the most interesting of its kind I have ever seen. I hope one or two others have been, or will be, saved. I should like to have one. It is difficult to account for their curious abnormality, but I suspect that it is due to the fusion of two feather germs, owing to an abnormal shortening of that portion of the skeleton to which this, or perhaps these two feathers, is attached. Will you ask your correspondent which number in the series this represents? If a section were carefully and cleanly cut through the calamus of this feather, I believe we should find a double column of pith cells, each representing a single feather. But I have not ventured to cut the feather up.

“If this explanation proves incorrect, then we must attribute it to some abnormality or some injury to the papilla.”

SOUTH AFRICAN GROSBEAKS

SIRS,—I have recently come into possession of three varieties of South African Grosbeaks. These birds were privately imported, and the people from whom I got them did not know their names, and I am wondering whether any of our members can name them for me.

No. 1 is about the size of a Cowbird, but in colour it is like the female of the Black Tanager. The inner webs of its flight feathers are whitish. Its bill, which is very short and greyish in colour, is the stoutest I have seen in any Grosbeak.

No. 2 is about the size of a Canary, and its general body colour is brownish-grey, heavily striated on the breast with a darker shade of the same colour. Its forehead and throat are buffish yellow.

No. 3 is a very pretty bird about the same size as the last. General colour chocolate; throat, cheeks, and eyebrow, streaks white; head, tail, and a band below throat, black; flight feathers, black with their base white; under-parts pale chocolate.

This bird is a fine singer and is undoubtedly a cock. The only sound I have heard from the others is a sparrow-like chirp, so they may be females.

WM. SHORE-BAILY.

LORIKEETS

SIRS,—As regards the remarks by Dr. Amsler about food of Swainson's Lorikeet, and by Mr. Seppings, it may be worth adding that when I was Assistant Medical Officer at the County Asylum, Hereford, in 1902 and 1903, there were two Lorikeets, almost certainly Swainson's, in a large cage in "Ward I, Women's Side". One of the patients used to feed these birds regularly with the usual milk puddings given to human occupants, namely, rice, tapioca, etc., made with *fresh cow's milk*, and during the time I was there the birds were both very healthy. I used to give them bits of bread and plain cake, but, like Dr. Amsler's birds, they did not care much for fruit.

This pair at the Asylum were amusing in the way they treated with contempt and complete indifference the few patients who were inclined to try and interfere with them. On the other hand, they were very friendly with patients who fed them, never attempting to peck. During the time I knew them one of the men patients working at the farm threw a stone at a squirrel and knocked it down, it being stunned sufficiently to make it easy to capture alive; and on its recovery I put it into another large cage near the Lorikeets, but with several feet between the two cages. On seeing the squirrel both Lorikeets got

tremendously excited for some days—presumably thinking it was some inhabitant of their native country—and would, it seemed to me, have readily attacked it, had they been allowed. Are they hostile to small mammals? Whether the above birds are still alive I cannot say, but if any readers are in that neighbourhood it might be worth inquiring, because, if so, it would throw some light on the length of life in the species.

Can Dr. Amsler give any information about the age of his male and female? Are they about the same age? If not, which is the older bird? If such facts are known they might be useful knowledge for breeders trying to mate up a pair in the future.

FREDERICK D. WELCH, M.R.C.S.

SCARLET IBIS

SIRS,—With reference to the Scarlet Ibis, Lord Tavistock is quite right; these birds will retain their colour in captivity. My bird has moulted out a richer colour this year than last; some of its feathers are quite scarlet. It is in a large aviary with a good-sized pond, and is fed on bread and milk, biscuit meal, and *cooked* meat. A young Roseate Spoonbill that I had for nearly two years never came into colour, but the bird was never in very good health, which perhaps accounted for this.

WM. SHORE-BAILY.

June 4, 1921.

DATE OF THE COUNCIL MEETING AND TEA—A CORRECTION

By a regrettable error the date of the Council Meeting of the Society and of the tea was wrongly announced in the last issue of the Magazine. The date will be Friday, June 24.

CANDIDATES FOR ELECTION.

DR. EVELYN SPRAWSON, 68 Southwood Lane, Highgate, N. 6. Proposed by HUBERT D. ASTLEY.

MRS. URANIA F. WHIPHAM, 34 Westbourne Park Road, W. Proposed by MISS KNOBEL.

NEW MEMBER.

THE MARCHIONESS OF BATH, Longleat, Warminster.

CHANGE OF ADDRESS.

MR. W. R. TEMPLE, from "Ormonde", Datchet, to "The Lawn", Datchet, Bucks.

MEMBERS' PRIVATE SALE AND EXCHANGE COLUMN.

The charge for private advertisements is SIXPENCE FOR EIGHTEEN WORDS OR LESS, and one penny for every additional three words or less. TRADE ADVERTISEMENTS ARE NOT ALLOWED IN THIS COLUMN. The Editors reserve the right of refusing any advertisement they may consider undesirable.

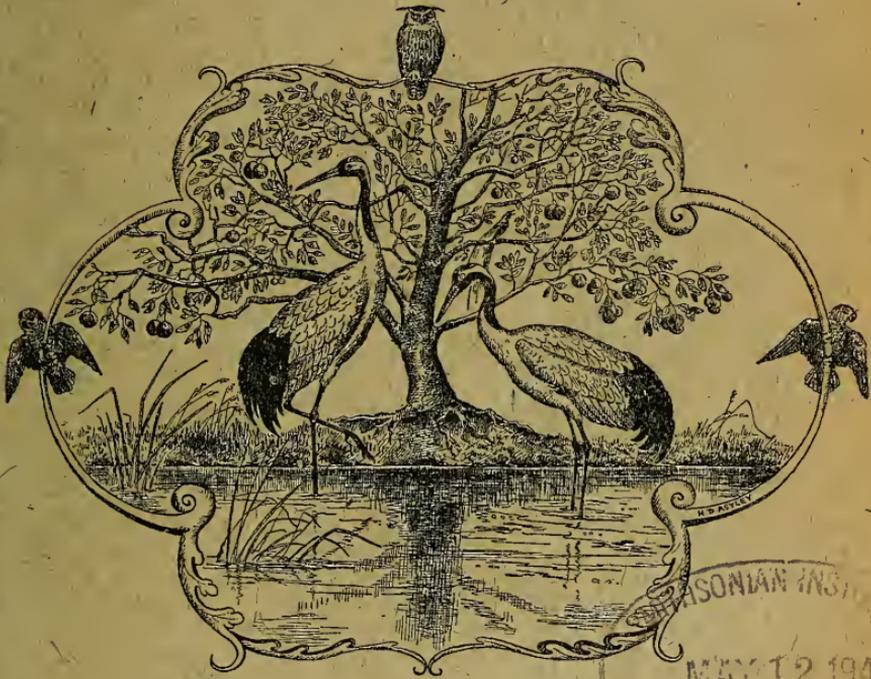
WANTS

The charge for members' advertisements under this heading is FOURPENCE FOR TWELVE WORDS or under, and one penny for every additional three words or less.

WANTED.—Following books on sale or exchange with anything in our country:—Seth-Smith's *Parrakeets*; Green's *The Amateur's Aviary of Foreign Birds*; Green's *Note on Cage Birds*, 1st series; Page's *Aviary and Aviary Life*; Martin's *Home Life on an Ostrich Farm*.—T. Z. TAKANO, 67 Shichome Honcho, Yokohama, Japan.

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JULY,
1921

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of **25/-** per annum.

NOTICE TO MEMBERS

The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER,
Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except *post-mortem* cases) and all other correspondence should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

The Magazine is published by Messrs. STEPHEN AUSTIN & SONS, 5 Fore Street, Hertford, to whom all orders for extra copies, back numbers for 1917 and after, and bound volumes (accompanied by remittance), should be addressed. Current Monthly Numbers 2/- each (except in special cases, such as the Number containing the List of Members, Index, etc., when the Committee may increase the price), by post 2/1; for back numbers a higher price is charged according to circumstances. Cases for binding the Magazine (in art cloth, with gold block on side) can be obtained from the Publishers, post free and carefully packed, at 3/- each; or the Publishers will undertake the binding of the Volume for 5/6, plus 9d. for packing and postage. Members are requested to state whether they want the wrappers and advertisements bound in at the end or not. Telephone: 46 Hertford.

BACK VOLUMES OF THE AVICULTURAL MAGAZINE PREVIOUS TO 1917.

Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,
c/o The Zoological Society of London,

Regent's Park, N.W. 8.

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

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AVICULTURAL NOTES

By HUBERT D. ASTLEY

(Continued from p. 87.)

For some six or seven years a female Ruddy-headed Goose (*Chlæphaga rubidiceps*) had almost entirely ignored her own kith and kin at Brinsop, and has been dubbed "The lady in waiting", for, like Mary's lamb, she follows a pair of Manchurian Cranes everywhere. If the Cranes move too rapidly at times the Goose, which is full-winged, catches them up by flying. And then came a male Monaul, he who struts amongst the poultry, taking upon himself the office of lord-in-waiting, and driving off the Goose, so that at last the latter had to resign her post. It is most incongruous to see the Monaul in full and resplendent uniform, trotting at the Crane's heels. The Goose was less so, but Manchurian Cranes and Monauls are so widely apart in appearance and habits. If the Cranes do not proceed as fast as the Monaul thinks they should, he pecks their heels, and will trot in this manner all about a large meadow. The Cranes must share the feelings of royalty and foster a desire to be sometimes permitted to go out on their own.

I have bad luck with my Cranes. Each year Manchurians, White-necked and Australian, have eggs (they are true pairs), but the eggs are always infertile. Yet the Australians, at any rate, have been seen to mate.

This year I have managed to find more Ducks' eggs than usual, for the Ducks are at liberty on the moat surrounding the house, and the

two ponds in the garden, and can, furthermore, stray away, which some of them do in the breeding season, so that nests are difficult to find. However, I have a goodly number of young summer Ducks (Carolina), some Pintails, and three Bahamas. It is far better to hatch them under Bantams, and I find Yokohama Bantams are excellent mothers. Large hens cannot help crushing the tiny ducklings during the first two or three days of their lives, for the ducklings lie so flat and are apparently nothing but down, so that the hens are, however worthy their intentions, quite unaware when they have their feet on the babies. I keep my ducklings in small Bantam's houses, shutting them at night in the roosting houses, which have sliding doors for exit into the wired runs, which are covered. There are no floors to these runs, and the houses can be wheeled on to fresh grass every day. A large pan filled with duck-weed and just enough water for the ducklings to dibble in is provided, the duck-weed being gathered from a pond and teeming with shrimps. Duck-meal is scattered on the grass and amongst the weed, and I also give clean maggots and fly cocoons. I put an earthenware saucer of moistened meal in the little roosting-house when the birds are shut in for the night, so that they can feed as early as they like next morning, and be out of danger from rats during the night. A few years ago I had a brood of eight Pintails, half-grown and feathering well. I left the shutter of the roosting-house open one night. Next morning five were lying mauled and dead. A rat had worked in under the wire run!

I have had great hopes that my pair of Indian Cotton Teal would nest. The only pair in Europe! which I have had for eight years. The little male has displayed constantly to his mate this spring, and as constantly uttered his curious call, which may be described as kak-kak! kak-kak-kak! A very conspicuous bird in his nuptial plumage, snow-white face and flanks, and bottle-green back; a black line divides the white of the neck from that of the flanks. The eyes are ruby red. I have never seen these birds dive, and to eat grain under water it must be in the shallows, where they can reach it by tipping up. I would that more of this tiny and lovely species could be sent to England, since I have proved that it can be most easily kept, and is apparently as long-lived as other ducks, and very hardy.

I have a male Golden-eye mated to a female Tufted Duck. Last year she successfully concealed her nest and hatched out her brood of eight or nine, but as usual all disappeared, one after the other. One tries to throw food to these Ducks with young ones, but either they at once swim hard in an opposite direction, or adult Ducks assemble and devour it. The only species I could induce to be sensible and recognize one was wishing to help them to rear their young, has been the Shelduck. I have four Bar-headed Goslings, hatched under a hen.

In the aviary a pair of Red-crested Grey Cardinals had three young ones, but they were taken by something. That is the worst of a mixed collection. My Diamond Doves suffer likewise. Three pairs have had nests, and each time the young have been killed, neither can I discover the culprit; so that I consider I have lost at least six Diamond Doves this spring. One day I saw a Budgerigar on one of the nests, doing its best to turn out the eggs, and although I scared it away it was apparently successful, for two days after the eggs had disappeared.

On 3rd June a boy brought me a fully fledged young Lesser Spotted Woodpecker, which he had picked up in the road, possibly injured. A charming little bird. Perhaps it had tried to fly across the road on leaving the nest, and had fallen short. I fed him at first on fly-chrysalises, opening his beak for the purpose, but he did not live. I say "he" because the wish was father to the thought! The female lacks the red on the head, which is such an additional beauty to the black and white barred plumage. This little bird seemed such a pigmy by the side of my Golden-headed Woodpecker from the Himalayas. On the aviary lawn the Noah's ark is cosmopolitan. Amongst the coops and Bantam runs containing Ducklings of three or four species, young Ho-kis (eared pheasants), Bar-headed Goslings, Satyr Tragopan chicks, and Yokohama Bantams, there stroll white Peafowl and two Duiker Antelopes and Demoiselle Cranes, following one for tit-bits. The Trumpeter had to be shut up, as he showed signs of pecking the baby Tragopans, and he is absolutely fearless of attacks from hens, for he waves his wings at them and quite dismays them.

THE ROSY-GREY TURTLE-DOVE AND OTHERS

By T. H. NEWMAN, M.B.O.U.

On 1st May of last year two Rosy-grey Turtle-doves were deposited in the Zoological Gardens, one of which was afterwards presented to the Society by Major Maurice Portal on 30th July.

When considering this species one is confronted with one of those fascinatingly maddening problems of nomenclature. These birds were entered under the name of "*Turtur roseigriseus*". Unfortunately we are now forbidden to use *Turtur* in this connexion, since it must be applied to the little African Amethyst- and Emerald-spotted Doves, formerly known as *Chalcopelia*, which sounds like a riddle—when is a Turtle-dove *not* a Turtle-dove? The answer to which I suppose would be, when it is a *Turtur*, for no one is likely to call the species of *Chalcopelia* Turtle-doves; also the specific name must be spelt *roseogrisea*, as Sundevall wrote "*C(olumba) roseogriseam vocamus*". The Turtle-doves (with the exception of the *tranquebarica* group) are now placed in the genus *Streptopelia*.

The extraordinary interest of the Rose-grey Turtle-dove lies in the fact that there can be no reasonable doubt that it was the wild ancestor from which the familiar so-called Barbary Dove has been derived. I have before referred to this in our MAGAZINE,¹ when I stood sponsor to the Burmese race of the well-known Indian Ring or Collared Turtle-dove. I am glad to say that this form has been upheld and is mentioned both in Mr. E. C. Stuart Baker's² beautiful book on Indian *Columbæ*, and by Dr. Hartert in his great work on Palæartic birds,³ and I also possess eggs taken in Burma and kindly presented to me by Mr. Stuart Baker. Lest it might be thought that I feel unduly elated by this, let me mention that not only did I receive a rebuke from our present Hon. Secretary at the time for presuming to describe a new form without a type specimen (the bird I founded my description on was destroyed by rats), but Mr. Douglas Dewar in his entertaining book, *Birds of the Plains*, made some amusing remarks on changes of nomenclature

¹ AVIC. MAG., IV (2), pp. 321-6, 1906.

² *Indian Pigeons and Doves*, pp. 225-6, 1913.

³ *Die Vogel der paläark. Fauna*, ii, p. 1497, 1920.

in what he calls "Up-to-date species-making". He thinks every bird has its name changed about once in each decade. He noted my paper on the Collared Turtle-dove of Burma, which he at last discovered to be a form of the bird which has been known as the Indian Ring Dove, *Turtur risorius*, of most of the older well-known writers on Indian birds. He is greatly exercised on my daring to describe a new form, and continues: "Thus Mr. T. H. Newman has discovered that the skin round the eye of the ring dove of Burma is not whitish, as it is in India, but yellow; Mr. Newman therefore manufactures a new subspecies, which he calls *Turtur decaocta xanthocyclus*, as opposed to the Indian bird which he calls *Turtur decaocta douraca*. We may consider ourselves lucky that he has not made a new species of the Burmese bird!" I expressly stated that I did "not for a moment think the bird" would "be found worthy of specific rank". As Mr. Dewar does not seem to be acquainted with the Burmese bird, his objections cannot be taken very seriously. The name *douraca* of 1844, being a *nomen nudum*, cannot be used, but as the Indian bird has not yet been found to possess constant distinguishing characteristics from the East European form it can be united with the latter under typical *decaocta*, or, more correctly, *decaocto*, as originally spelt. As this is the bird which has been so persistently called "*risorius*", I must once more run through what has been written about it. The original reference is *Columba risoria*, Linné, *Syst. Nat.*, ed. x, i, p. 165 (1758), and on the strength of *Habitat in India*, this has been supposed to refer to the common Ring Dove of India; Linné based his name chiefly, among others, on the "*Turtur Indicus*" of Aldrovandus. Mr. Stuart Baker in *Indian Pigeons and Doves* uses *risoria* for this species and accuses me, quite correctly, of not referring to the works of Aldrovandus, Brisson, and Linné. He mentions the figure published by Aldrovandus in 1637, under the name of *Turtur Indicus*, the female of which was said to be white with red feet and blackish bill. This figure, which Mr. Stuart Baker calls "an excellent plate of the Turtle-dove" is not coloured, and I agree with Dr. Hartert in thinking it might equally well represent a Barbary Dove, or a wild Indian one or one of several African species. There is nothing either in Aldrovandus's long account or in those of any of the other authors quoted by Linné which would lead one to

suppose that they were acquainted with the Indian bird, while, on the other hand, the cage-bird is quite unmistakably referred to. In 1735 Eleazar Albin published a coloured plate of "The Turtle-dove from the East Indies"; this is a quite excellent figure of a Barbary Dove. He mentions that "they are tame, pretty birds, and kept in cages by the curious, in which they will breed and bring up their young".

Latham, Syn. ii, 2, p. 648, No. 42, 1783, under Collared Turtle, gives a good description. He mentions "the fore-neck and breast, white, with a vinaceous tinge, the rest of the underparts white, tail . . . the two middle feathers plain, the others tipped with white and the outer one white on the outer edge. This inhabits India, but is a bird common in France, and other parts of the European continent, but I do not hear of it at large in England". He adds a note: "Some think as far as Sweden, but I think Linnæus's words do not justify this. He says "Habitat in India, *nobis communis Turtur*," by which I should think he only means that it is everywhere kept in cages, as with us in England. Latham's description is evidently taken from that of Brisson's *Turtur torquatus*; he gives all Linné's synonyms, as well as others. Both Albin and Brisson are quoted by Linné as referable to his *Columba risoria*, the latter, of course, not until a later edition, as Brisson's work was not published before 1760. Temminck and Knip, Les Pigeons, Fam. sec. pl. 44 (1808-11), under *Columba risoria*, as of Latham, 1790, give a good figure of a Barbary Dove, and two plates later one of the white variety, giving it the name of *Columba alba*, and stating its origin to be China.

As long ago as 1873, Schlegel, *Mus. Pays Bas. Columb.*, p. 123,¹ seems to have pointed out that Linné's *C. risoria* referred to the Barbary Dove, as Stejneger, *Pr. U.S. Nat. Mus.*, x, p. 426, 1887, wrote: "It is curious that Schlegel's very clear argument should not have been sufficient to settle beyond dispute the fact that the domestic Ring Dove, which Linnæus described as *Columba risoria* is *not* a descendant of the wild bird of India, China, and Japan usually so-called. The domesticated species belongs to that group of the sub-genus *Streptopelia*, which has a comparatively short tail, with the outer tail-feathers entirely

¹ I regret that I have not been able to see this paper, as they were unable to find it for me in the Zoo Library when I inquired for it quite lately.—T. H. N.

white in the outer web, and it is entirely beyond all probability that these features which are the normal ones of the genus should have been derived from the lengthened tail and the blackish outer web of the outer tail-feathers of *T. douraca*, features entirely unique. Besides, there are wild species which in these characters are identical with the domestic birds, without differing more from it in other respects than does the wild *T. douraca*."

And lastly, Dr. Hartert, *Nov. Zool.*, xxiii, pp. 78-80, 1916, has gone very fully into the matter, and shows that all previous writers quoted by Linné were merely acquainted with the domestic bird, which they supposed to have come from India; he then gives details to show that the Barbary Dove cannot be derived from the wild Indian one, but that, on the contrary, it agrees very closely with *roseogrisea* of N.E. Africa.

To return to the birds deposited in the Zoological Gardens, they certainly so closely resembled the tame bird that they could very easily pass for small, brightly coloured, Barbary Doves. I was most anxious to hear their notes, which would have quite settled the question of origin. I paid them several visits at close quarters, but not a syllable would they utter, and I suspect them of being hens, the one there now certainly seems to be one. Dr. Hartert quoted that *S. roseogrisea* has the same call as that of our domestic race, though he tells me he has not heard it himself. I think it has now been quite proved that this African bird is the ancestor of our Barbary Dove, to which Linné gave the name of *C. risoria*. The name itself while most appropriate for the domesticated bird would be quite misleading for the Indian species which does not laugh!

It is very greatly to be hoped that more specimens of the Rose-grey Turtle-dove may be shortly imported. It is a very common bird in the Egyptian Soudan. Mr. A. L. Butler records, *Ibis*, p. 359, 1905, that it is quite one of "the commonest Doves in the Soudan". He found it "in thousands round the wells of Bara, in Kordofan", while the Hon. N. C. Rothschild and Mr. A. F. R. Woolaston, writing on birds from Shendi on the Nile, midway between the Albara river and Khartoum, *Ibis*, p. 25, 1902, say that it "was exceedingly common. Upwards of fifty might sometimes be seen sitting in one of the bigger trees near the river; it was also well distributed all over the desert,

but less numerous there. Several nests were found in acacia-bushes at heights varying from 3 to 6 feet from the ground. They were light structures of twigs, very similar to those of the European Turtle-dove. The number of eggs was two in every case, they are white with very little gloss : average measurements 29·2 by 23 mm."

The birds from South Arabia have been given the subspecific name of *arabica* on account of certain portions of the plumage, which are pure white in typical *roseogrisea*, being more or less marked with dove-grey ; the black collar is also said to be less broad.

Since the domestic Barbary Dove, *S. risoria*, is derived from the *S. roseogrisea*, the question now seems to be, ought not the wild bird to be included under the former specific name, since it is so much older ? This was actually done by Erlanger, *J. f. O.*, p. 123, 1905, pl. vi, though not in this sense, as unfortunately he applies *risoria* typically to the Indian bird, thus making *roseogrisea* a subspecies of a form with which it has nothing in common.

THE HAWFINCH AS A PET

By RAYMOND COOPER

Over a hundred years ago Bechstein wrote about the Hawfinch : " Only a passionate lover of birds would wish to keep this species." This libel has been repeated from time to time until now, except for show purposes, a Hawfinch is rarely kept.

I hope to a certain extent to be able to defend this truly handsome and delightful bird ; but must, at the commencement, state that I write entirely of the hand-reared bird. I admit that he is a somewhat uncertain problem to rear, but a mixture of insect food and Osborne biscuit will see him through, provided that the utmost care is taken from the beginning to keep him free from the least draught.

After a Hawfinch has passed his first year, he seems to harden, and is then a bird of quite sturdy constitution.

A Hawfinch which I have in my possession has quite a genius for games. He flies on to my shoulder at meal-times and pulls my ear, looking sideways at any object which takes his interest. He will steal a salt-spoon, take it into his cage, and behave in the most absurd

manner with it. Once, when on my shoulder, he started to sing his own song. I added a whistle, whereupon he flew straight back into his cage and sulked. He is absolutely tame and fearless. If I brush my finger across the bars of his cage he will dash after it as if he intended to tear me to pieces, but only to give me a gentle nibble when he catches my finger.

His natural song is not unpleasant, but he has picked up the song of a Roller Canary, and, although I cannot claim that he can execute all the special "tours", his imitation of the roll would deceive most people.

At present he is in a partitioned cage with a hen Bullfinch, and to see him "display" with his crest feathers erect, and his wings drooped like a Starling, while he rolls out his Canary song, is most fascinating.

I have mentioned the partition in the cage, which is necessary, as Mrs. Bully is liable to sudden fits of rage, and unless I can slide the partition between them she will thrash him most unmercifully while he, to his credit, behaves like a perfect gentleman.

In conclusion, if any of our members can obtain a nest of young Hawfinches and rear them, I can assure them that not only are the birds worth keeping, but are the most delightful and engaging pets, as tame as a Bullfinch and as amusing as a Jackdaw.

THE WHITE-STARRED BUSH ROBIN

By the Hon. Mrs. ALGERNON BOURKE.

I was fortunate enough to pay a visit to the Zoological department of A. W. Gamage in June at the moment that a consignment of African birds had arrived. The train, to use a metaphor, was coming in as I stepped on to the platform. I was unable to examine the contents of all the cages, owing to the latter being still covered with gauze wire, but one bird especially attracted my attention, which I secured. It is said to be *Tarsiger stellatus*, and is, I imagine, the first importation of the species. It is allied to the Redstarts, Forest Chats, Robin Chats, etc., and my bird superficially reminds me of a *Niltava*, but the legs are longer than in the Fly-catchers.

Slightly larger than the Chestnut-breasted Blue *Niltava*, the

White-starred Bush Robin has the head and neck with the wings and upper side of the tail smalt blue ; the back and rump being sage-green. Underparts, including the tail feathers, amber-yellow ; legs and beak blackish. But the bird's distinctive and most interesting feature consists of the two small white spots on either side of the lower forehead, above the beak, which appear and disappear as the bird erects or depresses the feathers of the head, and from these " stars " its name of " stellata " has been derived.

It came over in beautiful condition, and within ten days it was singing, and continues to do so every morning when it comes out of its cage for a flight round the room, to which it returns of its own accord. The song resembles that of the blackbird, and it is altogether a most charming and attractive pet. It is fed on insectile food and live ants' eggs and a few mealworms daily.

[*Tarsiger stellatus* occurs in the forest districts of South Africa, but little has been recorded of its habits. It is said to be shy and to inhabit thick bush, and according to Ayres to resemble our Robin in its habits. There is little doubt that this is the first example to be imported of a very beautiful species, of which it is to be hoped other specimens will reach this country. The sexes are outwardly alike.—EDS.]

STRAY NOTES

By D. SETH-SMITH

This is a particularly interesting time amongst the birds at the Zoological Gardens, as a good many species are nesting. In the Great Aviary we have for the first time for many years a good stock of Sacred Ibises. Two pairs have taken possession of a willow-tree, which has been trained to form a flat table-like top, and one nest contains two big young birds, while the other, at the time of writing, is in process of construction. This is not the first time that Sacred Ibises have bred in the Gardens, as a single bird was hatched and reared in 1877.

YOUNG SACRED IBISES.—The young Ibises have the body covered with white down, and the head and neck with black down, and the parents feed them in the same way that Pigeons feed their young, namely by regurgitation, the bill of the young bird being held in that

of the parent. In captivity the feeding of these birds presents no difficulty, even when they have young, meat, fish, and egg sufficing. In the wild state they are said to be very destructive, during the breeding season, amongst the nesting colonies of Penguins and Cormorants, the young of which they devour.

AMERICAN ROBINS.—In the Summer Aviary a pair of American Robins has reared two young birds and the hen is sitting again. The cock was unfortunately not to be trusted with the young of other birds, and after devouring six baby Painted Quails he was quietly removed from the aviary, while his mate continues to incubate, and will, we hope, rear her second brood single-handed, unless the young of the first brood help in the task, which is not unlikely.

BLUE-BIRDS.—Blue-birds nested in a box and have reared three young ones, they are now building again, while another pair in the other compartment of the aviary have a fast growing brood still in the nest. They are delightful birds, and it is a long time since they were regularly imported from the States. They were bred at the Zoo several times between 1860 and 1880, and private aviculturists have bred them. I may add that all that are reared this year will be wanted by the Zoological Society.

GAMBEL'S QUAILS.—Gambel's Quails, which bred for the first time last year have again done so. The old pair have a brood of six or seven chicks, and the young pair, those reared last year, are expected to hatch any day. This Quail, it will be remembered, is something like the Californian Quail, but to my mind more handsome. It is very rarely imported, otherwise it would be a great favourite with aviculturists.

VARIOUS BIRDS NESTING.—Gambel's White-crowned Sparrow and the Pileated Sparrow, both have young in the nest, while Brazilian Blue Grosbeaks are sitting. Brush Bronzewings, Crested Doves, Barred Doves, Dwarf Turtle-doves, and Triangular-spotted Pigeons have all reared young.

AN ABNORMAL ROSY-FACED LOVEBIRD.—A very interesting variety of the Rosy-faced Lovebird has been received at the Zoo with other normal specimens. The rosy tint, which is characteristic of the cheeks, has spread over nearly the whole of the body, so that the bird is rosy pink over the greater part of its plumage.

SOME RARE AFRICAN BIRDS.—Messrs. Gamage continue to receive consignments of birds from South Africa, and have recently had for sale specimens of the Cape Robin Chat (*Cossypha caffra*), Noisy Robin Chat (*C. bicolor*), White-browed Coucal (*Centropus superciliosus*), Ruddy-breasted Bush Shrike (*Laniarius rubiginosus*), and Greater Puff-backed Bush Shrike (*Dryoscopus ferrugineus*).

A NEW LIOTHRIX

Monsieur Delacour received from Marseilles amongst a lot of *Liothrix luteus* (the common Pekin Robin, or Hill Tit) a pair of what appears to be a new species. Both male and female have red foreheads with orange-red on the ear-coverts and a much brighter orange-red on the neck and upper breast. Otherwise they resemble *L. luteus*.

M. Delacour has proposed the name of *L. astleyi*, in honour of the President of our Society, and a description appeared in the *Bulletin* of the British Ornithologist's Club, vol. xli, p. 115, April, 1921. One imagines that it has yet to be proved whether it is a true species, or only a glorified variety of *L. luteus*, but it is significant that a male and female should be coloured alike.

CORRESPONDENCE

AUSTRALIAN ZOOLOGICAL CONTROL BOARD

SIRS,—I wish to correct a note in the March number of your Magazine re the Australian Zoological Control Board. The Government has not prohibited the export of unprotected birds, nor have they given this business to any individual or officials; thousands of birds for which there is an open season are leaving Australia, and many dealers are sending them out. The various Governments are enforcing the various Acts for the protection of our native birds, and will not allow rare protected birds to be sent away as hitherto. It is probable that the Control Board will be asked to see that such of these birds as are required for scientific institutions abroad are sent to them under the best possible conditions.

A. S. LE SOUËF.

ZOOLOGICAL GARDENS, SYDNEY.
23rd May, 1921.

LUCIAN CONURES AND AFRICAN WAXBILLS

SIRS,—I should esteem it a favour if you could tell me how to differentiate the sex of the Lucian Conure, as I have some, but cannot see any difference at all.

I have had very bad luck with rare African Waxbills, every one that I had from a certain dealer died. Violet-ears, Melbas, Black-cheeked, Blue-breasted, Dufresnes, etc., and yet a quantity of common Waxbills that I had from another dealer are all in perfect health, although all received the same treatment. The former mentioned seemed in perfect health at first, but after a few weeks seemed to pine and die away. Do you think that it would be some infection amongst them? But, if it were that, you would have thought that the other ones would have caught it, and succumbed to it, too. I should like to know what you think about it.

SIDNEY PORTER.

BOOK DESCRIPTION OF WHITE IBIS

SIRS,—The recent correspondence about Scarlet Ibis in the MAGAZINE has prompted me to call attention to the descriptions given of the White Ibis of South America, in the same genus, as stated in the Royal Natural History. In vol. iv, p. 319, we read “The last genus we have space to mention is exclusively American, and comprises the beautiful Scarlet Ibis (*Guara rubra*), ranging from Northern South America to Central America and the West Indies; and the White Ibis (*G. alba*), which is South American . . . Both have the tips of wings blackish; the rest of the plumage being scarlet in the one and *black* [italics mine] in the other.” The word in italics ought surely to have been *white*—otherwise it would make plumage all-black.

Is not the genus name *Eudocimus* more in general use than the above *Guara* of R. N. History?

FREDERICK D. WELCH.

VOICES OF JAY THRUSHES

SIRS,—Can you, or any of the members, tell me whether the loud chattering cry made by the White-crested Jay Thrush (*Garrulax leucolophus*) of the Himalayas is uttered by *both* sexes? Not very long

ago I watched two of these attractive-looking birds, both of which made the cry when excited, the crest raised ; and from the way they hopped about near each other seemed to me to be male and female. Is there any external difference in sexes (these two looked the same size) either in size or plumage ?

In their voices the above species seems to me a contrast to the Collared Jay Thrush (*G. picticollis*) of China, the latter bird being (according to those seen) remarkably silent. Is this silence of *G. picticollis* due to ones seen by me being probably females ? Or is it a less noisy species than *G. leucolophus* ?

FREDERICK D. WELCH.

MR. SHORE-BAILLY'S GROSBEAKS—A CORRECTION

SIRS,—The printers have made an error, or I made a stupid mistake in describing my three Grosbeaks, on p. 93, as from South Africa. They are, of course, from South America.

WM. SHORE-BAILLY.

CHUKOR PARTRIDGES

SIRS,—Mr. Portal's account of his male Cretan Chukor Partridge assisting in making the nest rather surprises me, as I have had an extensive experience of the Indian Chukor at liberty in this country, and have always found his domestic virtues to be conspicuous by their absence ; he is a bullying and unfaithful husband, and an even worse father, for not only does he take no part in looking after the young, but he will attack the chicks, which the hen tries to keep out of his way. When the females were accompanied by small young the males, after a good deal of initial quarrelling and bad language, settled down in small parties by themselves, and did not rejoin the coveys until the latter were nearly full grown. It would be interesting to know what share other cock Red-legged Partridges take in the care of the young, and also whether the cock Chukor is a better father in India than he is in Europe ; the fact that he is found with the full-grown covey at the beginning of the shooting season (as I think I have read in the accounts of some Indian sportsmen) does not, in itself, prove that he has been with them all along.

TAVISTOCK.

THEORIES ON DISTINGUISHING SEXES

SIRS,—In the AVICULTURAL MAGAZINE, p. 5, Miss Knobel writes about a female Yellow-fronted Amazon and its affection towards its mistress, stating : “ Yet she was undoubtedly a hen, and this entirely does away with the theory that male birds like women and females men.”

Personally I agree with the writer that there is *nothing* in that theory as applicable to the Parrot tribe—there being too many birds which contradict it by their attitude ; and in this connexion it is amusing to mention that one bird known to me was on one occasion stated “ to be a male ” by a supporter of the theory, and on a later occasion “ to be a female ”, he not recognizing that he was being shown the *same* bird on the two occasions ! But he never explained the so-called change of sex ! As the remarks on the Blue-fronted Amazon, pp. 56, 57, were already sent to the Editors when Miss Knobel’s account appeared, and its habits towards different human beings were intentionally omitted (except l. 11, p. 57) for shortness, it may be of interest to mention now its usual behaviour towards four people : (1) a woman cousin of of mine, disliked her very much ; (2) a man, myself, it disliked even worse than the woman, although neither of us ever teased it, and its *dislike to me* was so great that it used to strike at me with beak even when I brought fruit to it in its cage—consequently I always kept at very long arm’s length when it was out of its cage ; (3) with another man, the butler there, it was the *best of friends*, always allowed him to handle it in the cage (except one day in a fit of temper it unexpectedly bit him on the thumb, but became friendly again later in the day) ; lastly (4), with the butler who came after he left, the bird was always *friendly*. What is the theorist on “ the affection-showing-sex-idea ” going to make of the aforementioned facts ? The theory is like a bucket without a bottom—“ won’t hold water.”

As to the remark : “ It is said that a practised eye can easily tell the sexes when a pair of birds are together,” p. 4, last two lines, the following scene between two birds of prey now in the Gardens, the Fishing Eagles (*Haliaetus leucoryphus*) from India, may be worth mentioning. Soon after their arrival in August, 1920, I watched them very carefully for some hours to see whether their sex could be

distinguished by their attitude towards each other—both being (it seemed to me) in immature plumage; and both the same size. After being indifferent to each other, even when quite close, for several hours, observations extending over several days, a hostile scene occurred, both Eagles facing each other, the feathers on throat and neck raised in excitement, eyes glittering and wings partly raised and ready for flight in attack. Seeing them, then, I think most people, except, perhaps, specialists like the Editors, would have said they were the same sex, “because male and female would be less likely to quarrel.” However, in January, 1921, it seemed to me that one bird was grown rather larger than the other, and was therefore a female—smaller being a male. While on the one side a male and female in birds (and also mammals) have usually, in my experience, agreed well together, there have been, on the other side of the subject, cases where a male and female have disagreed. Therefore it does not seem to me that a hard and fast dogma can be laid down, which will stand when put to the test by actual facts in bird (and in mammal also) life.

FREDERICK D. WELCH.

BLACK-CAPPED LORIES BREEDING

Mrs. Burgess has young Black-capped Lories (*Lorius lory*) almost ready to leave the nest and it is hoped to publish a full account of this interesting event next month. Meanwhile the Editors would be glad to hear if any member or reader knows of a previous instance of this specimen breeding in captivity.

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MISS ELIZABETH HOUSLEY, Rockley, near Retford. Proposed by MR. BARNEY SMITH.

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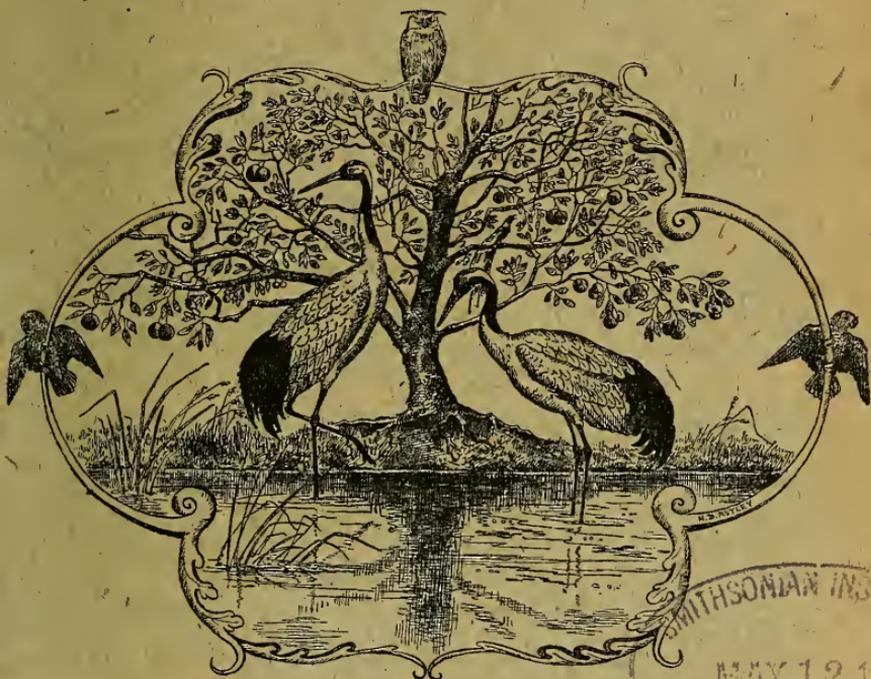
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THE AVICULTURAL MAGAZINE



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THE AVICULTURAL SOCIETY.

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ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except *post-mortem* cases) and all other correspondence should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

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THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 8.—*All rights reserved.* AUGUST, 1921.

BIRDS IN THE PARK AT CLERES

By J. DELACOUR

Nothing is more charming than a good many birds of different sorts, running, swimming, and even flying in a state of semi-liberty, and I always arrange to have a number as well as some mammals in the little park of about 40 acres, all fenced by a wire-netting 8 ft. high, with 2 ft. in the ground. To begin with the largest ones, I have four Rheas, two white cocks and two grey hens. I had a white hen, which died last winter in the most peculiar way; she hit an iron post as she was running, cut her big artery and bled to death. I was most distressed over this accident, when H.H. Prince Murat kindly gave me two grey hens; he has quite a flock of grey Rheas in his large park of Chantbly, where they rear their young ones every year in quite a wild state. One of my white cocks has paired with both hens, and occasionally chases the other one; but most of the time he allows him to stay near the hens and there has never been any serious fight between them. Two dozen eggs were laid in June, which are now in the incubator.

I was obliged to put the Emus into an enclosure, as they proved rather spiteful, especially to the mammals, and also very destructive to plants. Cranes are, in my opinion, the best ornament to a park. I keep loose together one cock and two hen Sarus, pairs of Manchurian, White-necked European, and Blue-crowned Cranes, one Stanley, and a dozen Demoiselles. So far they all agree very well together, and have not destroyed any nest in the spring, but I am very much afraid that when

they have more settled down, after several years, and come into breeding condition, I shall have to separate some pairs to avoid fights in the spring. They generally keep together, with the exception of the flock of Demoiselles and the Crowned Cranes, which stay by themselves. These Cranes do not always keep near the water in which they sleep, but go all over the park, and spend a good part of their time on the higher ground. The cock Sarus is full-winged, and it is a beautiful sight to watch him flying round and circling, which he does about four times a day. He sometimes disappears and flies very high for as much as half an hour, but except on one occasion he has never alighted anywhere but in the park. As he flies he utters loud calls, which his wives and the other Cranes answer. Some newly imported Demoiselles are also left unpinioned, but their feathers have not grown yet, and they still are unable to fly. I find my Cranes never touch the trout, which are abundant in the stream and the lake.

A pair of pinioned Screamers is a good addition to the Waders' collection. They behave exactly like Geese, and swim a good deal, looking for their food on the lake like Water-fowl. They are quite harmless to other birds. They feed on grass only, and in winter touch a little meat mash. Flamingoes are delightful on the river, which is full of freshwater shrimp and supplies them with excellent food. I was lucky enough to receive four of them out of a consignment of twenty sent to the Paris Museum Zoo by the city of Alexandria. My little river being rather deep, the Flamingoes very often have to swim, and behave exactly like swans when they search for their food under water.

My Water-fowl were doing splendidly when, last June, an otter got through a gate on the river, which had been pushed slightly open by the water, and killed over thirty of my best Ducks, and even my old breeding female Bar-headed Goose. The amount of damage one otter can do in one night is extraordinary; six Ducks and one Goose were killed and more or less eaten. I have not been able, so far, to shoot or catch this dreadful brute, but there are now no holes where it can get through. It never caught a bird unless swimming on the water. Fortunately I have a good many young ones which will fill the gaps in the collection. Among these there are eight wild Museovies, ten

Ruddy Shelducks, Bahamas, Yellow-bills, Garganeys, Chilœ Widgeons, Bar-headed and Upland Geese, and some other little birds that I cannot identify yet.

South American gallinaceous birds, Curassows and Guans, are very nice at liberty from April to November. In winter they have to be taken in when it is freezing, as they would loose their tender toes at the first frost-bite. At the present moment I have three Crested Guan, delightfully tame little birds, which stay most of the time on the balustrade of the terrace, three Yarrels, two Alector, one Prince Albert, one Razor-billed, and one Salvin's Razor-bill Curassows. The last is, I believe, quite a rare species, even in skin collections; it resembles the common Razor-bill, but has white underparts instead of rufous, a much smaller bill, and a longer crest. The great tameness of Curassows allows one to have them full-winged, as they never go away, at least, with me.

My three pairs of Spicifer and two pairs of White Peafowls keep each in a corner, and agree rather well. Spicifer cock is very spiteful to human beings, but not too much to birds.

Monauls, Reeves, and Silver Pheasants, Manchurian Crossoptilons, Siamese Firebacks, have been very satisfactory at liberty, but I had to shut in White-crested Kaleeges and Swinhoe's Pheasants, the cocks of which were very dangerous to other Pheasants. Amhersts and Golden have not been very good stayers; one cock takes the advantage and drives away the others in the spring. Anyhow, I bred twenty-one young Amhersts from eggs found in the park, but I don't think that more than one cock and four hens are left out of two dozen birds which I let out last year and were still here in March.

In January I opened the door of two small aviaries in the park, where about thirty Senegal Palm and Half-collared Doves had been kept for three months. They all stayed very well, and scattered through the park, and in April I began to see young ones everywhere. Australian Crested Pigeons and common Barbary Doves were also let out in April. They all stayed very well, but I have not noticed any young ones yet.

I also tried Parrakeets loose, which the Marquess of Tavistock very kindly gave me. A pair of Indian Ringnecks and an Alexandrine cock paired to an African Ringneck hen stayed very well, and have nests,

as far as I can ascertain. A pair of Red-rumped Parrakeets, after having stayed well for three weeks, disappeared ; a few days before the hen looked ill ; she probably died and then the cock went away. Of a pair of Rosy Cockatoos, which were given liberty at the same time, the cock went away after three days, but the hen is still here. She has taken a strong liking to the railway station, which is just outside the park, and spends most of her time on its roof. When a train comes in she flies to the engine, in the smoke, and stays on it even after it has started, until it reaches a curve, about half a mile away. She then flies back to the station.

In separate enclosures I keep a few pairs of Ducks and Geese, two pairs of Temminck's and one pair Satyr Tragopans, a pair of Noble Pheasants, Rufous Tinamous, some Monauls, and Wild Turkeys. All my other birds are in outdoor or indoor aviaries.

THE NARINA TROGON

The only Trogon that appears to be ever imported is the one from Cuba, but there are many other species that might be kept if once they were imported. Mr. Harold Miller, of Durban, writes of the African *Hapaloderma narina* : " I have at present an interesting study of four Narina Trogons, local birds, all doing well, probably the only specimens in captivity. It is a beautiful bird and easily trained and tamed—so different to most other birds in captivity. They nest in November, and as my birds are young and quite tame they may nest. I am feeding them on minced (raw) meat, grasshoppers, mantis, dragon-flies, etc., and the crimson feathers of the body have shown no sign of changing as a result of this unusual diet."

BREEDING THE BLACK-CAPPED LORY

By Mrs. M. A. BURGESS, F.Z.S.

The pair of Black-capped Lories of which I am about to write came from Lord Tavistock about a year ago, having been imported privately in the latter part of 1919. They are a splendid pair, and took a second prize at Newport Show in 1920, my White-rumped Lory being first.

I had a small side aviary built for them in my bird-room, as the cock was growing too savage to be left in the other aviary. The nesting-box was very large and heavy, and for safety I placed it on the floor just for the pair to sleep in, which they always did.

On 2nd April of the present year I saw an egg just outside the box, so I placed it inside, but the hen did not seem to sit, and I thought they had destroyed it. On 4th May I saw another egg, and from that date the hen sat firmly, only coming off for food. Meanwhile, the cock defended the box and at times he was so savage that it was hardly safe to place food into the cage. He always slept in the box. He continued to take his bath as usual; they are great bathers, not just tossing the water over themselves, but rolling over and over in it until they look drowned, and this takes place twice a day.

On 8th June a young bird was seen which was judged to be about ten days old, it was covered with down of a golden colour, and looked about the size of a day-old chicken. On 28th June another baby was seen; in fact, we saw the two together, and I think there is a third, as a third egg was seen on 8th June by the side of the first chick, and the shell of this was thrown out on 23rd June. The hen is hardly ever out of the box, although she now comes out to bathe again, and, strange to say, she is as perfect in feather as she was on the day she was shown at Newport, in spite of the fact that she has been sitting and rearing a brood. They now eat quite double the quantity of food that they did when they only had themselves to sustain, soft food and fruit being all that they take.

On the evening of 2nd July one baby came out of the box as I passed, and it was the funniest mite. On the head was a clearly marked black-cap, and the half-grown wing-feathers were brownish or greenish, I could hardly say which. The breast feathers were like quills, but there were no bright colours visible. The beak looked strong, and the little fellow used quite strong language at me and appeared to have a temper like that of his father. He was not beautiful, but sturdy and about the size of my White-rumped Lory. I do not know whether its parents or myself are most proud of this achievement. I should say the young bird is about two months old.

On the morning of 28th July the bird came out again, a big,

sturdy youngster, with black cap perfect, red face, black beak and eyes, and black or dark legs and feet. The wings are green, with some yellow showing in them when he flaps. The back and breast feathers are now growing, and are dark. He can climb and fly from perch to perch, and is nearly as large as his mother. The parents are very devoted to him, and it is comical to see him sitting between them. I am afraid this is the only one, although my cook seems sure she saw two. I know there were eggs since I saw them, as stated above. Perhaps we shall find out for certain now one, at any rate, is out.

CHUKOR PARTRIDGES FROM CRETE

By Major MAURICE PORTAL, D.S.O.

In the early summer of 1920 Col. R. Meinertzhagen kindly brought me from Crete a pair of *Caccabis saxatilis*; they were tame and only had a few feathers cut from one wing. They were pinioned permanently in July, as they began to fly on to the top of the garden wall. They were very tame with the gardener, and used to remain quite near him when at work. The cock being always rather more shy than the hen, but in bad weather both used to come into the potting shed and sit on the flower-pots while work was going on, and roosted there at night. Beyond water and a handful of wheat they required no attention.

About the beginning of Mareh they showed signs of pairing, and spent most of the day walking about together inspecting possible nesting sites, and finally selected the root of an old fig-tree. The hen seraped a round hole and the cock brought her a straw in his beak, running round and round and finally throwing it over his back, when she picked it up and put it in the nest, which finally was roughly lined with straw and dead leaves. A spell of warm weather brought on an old rhubarb plant, some 30 yards off, and on the 25th of March they spent all the day near it, and next day seraped out another nest under a leaf, making free use of the straw already there, and only adding dead leaves.

On 15th April there were ten eggs in this nest, dirty white in colour, with faint spots of brown, and as we had 10 degrees of frost I took

five of them and replaced them with dummy eggs. The hen came and looked and called the cock from the end of the garden and the pair went straight away together and seraped a hole under a plant of brussel-sprouts, 50 yards off, putting in only a few bits of dead weed, and laid one egg the same day. I took the other five of the first nest. She laid fourteen eggs in the second nest, which was deep and eggs were piled on each other. I removed the top four with a spoon, but the hen came and looked, and again called the cock, and went off. That afternoon it was cold and dull and they came into the potting-shed and made a serape in the soil by the gardener's feet as he worked, and laid one egg in it under the potting-bench. They had for the first time suddenly shown a fondness for seed-beds, and had cleared a bed of seedling lettuce, onions, and something else, so I roughly enclosed some grass outside where the bee-hives were, and the gardener opened the garden door and they went to their new home. A few days later a new nest was made under a doek, and finally fifteen eggs were laid. Incubation commenced about 23rd May, and twelve hatched about 6th June. The enclosure was suitable owing to ants' nests and shelter from a wall, so the gardener only fed on seeds and gave water. The young were always bad to see and worse to eat, as, if frightened *at all*, they squatted and did not move a fraction. The cock always seemed to be with them, except once when both were with them on the border. The cock was chiefly noticed on the nest during incubation, but we never went oftener than once a day. I had to go to London on business on 5th July, when the chicks were three weeks old, and returned on 9th July to see ten flying some 200 yards in a flight and over garden walls and tree-tops.

Haines, the gardener, to whom all credit of success is due, as he has had sole care of them, informed me that on 6th July he had gone to look at a hive of bees and saw the hen Chukor with seven or eight young not *two* days old. I regret I cannot be positive that I saw her on the nest which hatched the twelve, and can only assume that the cock did nearly all the incubation, and the hen started a new and fourth nest, which up to date I have not found in the grass, so I do not know how many eggs she laid in it. The ten young alive of the third nest are always with the cock, and he keeps them away from the hen and

her younger lot, but should he meet these he attacks at once. This gives the following number of eggs :—

On 15th April : 10 eggs laid, 9 fertile and hatched under Bantam.

On 3rd May : 15 eggs laid (14 in nest and one in potting-shed), all fertile.

By 23rd May : a Chukor was sitting on 15 eggs, all fertile (but 3 left in nest), hatched about 12th June.

On 6th July : the hen found with 7 or 8 young birds a day or so old.

If the Chukor in Crete make a habit of laying like this the breed should not become extinct, as, at the least, this is forty-seven or forty-eight eggs laid and of these only one was unfertile.

The birds with their parents develop quickest, and are strongest, but it should be remembered that they have had no cold weather, and lots of ant heaps. My birds under Bantams did badly until allowed complete freedom of range, and then the usual losses started ; a bird got in a ditch ; a dog frightened the lot one day, and they ran and flew in every direction, three never came back, two got trodden on, etc. I fed on hard-boiled egg and dry chick-feed ; later small seeds from the threshing machine, which contained very small wheat and much dirt, but at 10s. cwt. was well worth it, and better than dry chick-feed. I added oatmeal if they did not feed up well, and ants' nests when I could dig them—for the latter they will eat out of my hand.

The young are very shy if you move, and have a bad habit of running a long way and squatting until the hen calls. Cold rain or cold wind they dislike, unless under the lee of something. They drink freely at night, but rarely in the day-time, and when they do drink do so for some minutes.

The young will walk up anything like a post or log resting up against the netting and are always trying to get out, and having accomplished this they at once try to get back again. They develop faster than Red-leg Partridges, and fly much earlier on in life ; the call is somewhat like that of the Red-leg (*C. rufa*), and if a mound of logs is built in the enclosure they will soon be on the top calling, flying down into the grass at the least disturbance and five minutes later up on the top again.

If anyone should try these birds, I would suggest an enclosure of



PHOLIDAUGES VERREAUXI, BOCAGE.

5 or 6 feet high wire netting of 1 in. mesh and 18 inches of $\frac{1}{2}$ in. mesh put in addition round the bottom—and the enclosure in a position from which they can see people pass by freely—a mound of rocks or logs in the middle, and plenty of shelter. They appreciate any sort of artificial cave made of stones or logs of wood, but appear to prefer it with two means of exit.

OUR COLOURED PLATE

VERREAUX'S GLOSSY STARLING

For the opportunity to publish the beautiful coloured plate illustrating this number of the *Avicultural Magazine* we are indebted to our distinguished and esteemed member, Monsieur J. Delacour, who has kindly placed it at our disposal under circumstances already explained in an earlier issue of the Magazine. It represents Verreaux's Glossy Starling (*Pholidauges verreauxi*), a rare and beautiful bird apparently comparatively recently imported to Europe for the first time. A short note about the species was published by Mr. Seth-Smith in our Magazine last February on the occasion of the presentation of a specimen to the Zoological Society by Mr. Harold Miller, the Superintendent of the Zoological Gardens, Durban.

With the admirable plate before us it is needless to describe the bird. It is needless, too, to enter into the question as to whether it should rank as a distinct species or merely as a local race or subspecies of its northern and better-known relative, the White-bellied Glossy Starling (*Pholidauges leucogaster*), a representative of which was presented to the Zoological Society for the first time in 1906 by Dr. Hopkinson, D.S.O., who brought it from the Gambian Province of West Africa.

Verreaux's Glossy Starling does not apparently occur in Cape Colony; but on the western side of Africa it ranges from Damaraland to the Congo, where it meets the White-bellied Glossy Starling, and on the eastern side it goes as far north as Zanzibar, its southern limit being Natal, Zululand, and the Transvaal. In the southern districts of its range, at all events, it is migratory to a certain extent. In Damaraland, for example, the species arrives on the approach of the

rainy season, but gradually leaves as the country dries up, a few only staying behind to pick up a precarious living. Similarly the bird is by no means rare in Natal in the autumn and winter, when it may be seen almost invariably in flocks, consisting entirely of either male or female birds. Towards spring they appear to migrate to the north, although in that province apparently, as in the Transvaal, some individuals are resident throughout the year. These facts point to tropical Africa as the original home of the species.

Their food consists principally of berries and other small fruit and insects, particularly the flying termites, which are captured on the wing. The nest is made in holes in trees or other natural hollows, which are lined with wool and feathers, over which green leaves, periodically renewed, are placed. The usual number of eggs is four.

R. I. P.

TWO INTERESTING ORIENTAL BIRDS

Mr. J. D. La Touche, who has recently returned from Yunnan, kindly brought for the Zoological Society two birds, which have certainly never previously been exhibited in the Gardens, and have probably never before been imported to Europe alive. One is the so-called Finch-billed Bulbul (*Spizixus canifrons*), which earns its trivial name from its short, thick, almost shrike-like bill, very different from that of the typical Bulbuls. It is, indeed, very doubtful if the bird is in reality a Bulbul, although commonly classified with them. Mr. E. W. Oates suggests that its position will probably be found hereafter to be among the Sibilis and White-eyes. The crest on the head is long and thick, and the nostrils are partially concealed by small feathers. Three species only appear to be known, two of them inhabiting China, while the third, the one under notice, occurs in Yunnan and the hills of Assam. It has the forehead and front part of the crown ashy-grey—whence the name *canifrons*—the rest of the crown and lores black, the cheeks blackish with greyish-white tips to the feathers; the ear coverts pale-brown; sides of the neck streaked with black; throat very dark brown; upper plumage and wing coverts green; the wings dark brown, with the outer webs greenish-yellow; the tail also is greenish-yellow, with the tip black; the underside yellow

or yellowish. Nothing appears to be known of the habits of this interesting bird to explain the powerfully developed bill.

The other bird represents the species called by Oates the White-winged Myna (*Sturnia nemoricola*), which he records from Pegu and Tenasserim. It is closely allied to the common Malabar Myna (*Sturnia* or *Paliopsar malabarica*), but differs principally in having the winglet, or bastard wing, and the primary wing-coverts entirely or in part white in the newly moulted adult instead of black. The two species, however, appear to be very much alike when immature, and even after reaching maturity, when the plumage is faded and worn. It nests at the same time of the year, that is to say, in May and June, as the Malabar Myna, and has similar eggs.

Mr. La Touche also sent to the Zoological Society at the same time an example of the Great Eagle Owl, which he tells me in his letter he believes to be the representative of an undescribed local race.

R. I. P.

CORRESPONDENCE

JARDINE'S OWL

SIRS,—In reply to Mr. Meade-Waldo's inquiry in the May number of the Magazine, my Jardine's Owls showed no intermediate plumage between the down and the adult. The only difference between the young and their parents was that the former were paler and the markings not so distinct. By the autumn there was no difference, and it was very difficult to distinguish the young from the old.

ETHEL F. CHAWNER.

FOREST BANK, LYNDBURST, HANTS.

3rd July, 1921.

THE MARSH OWL

SIRS,—I have lately secured a nice specimen of the African Marsh Owl, *Asio capensis*, a quietly coloured but very pretty bird, with full, soft plumage in dusky browns and greys, wings tipped and barred, with tawny yellow and tail the same. The face is paler grey and very round, the eyes look black, but are really mahogany coloured, and being set in dark feathers look larger than they really are. The legs and feet are

closely feathered, claws black. Beak short and strong, also black. My specimen is a fierce little creature, and hisses defiance at anyone who comes near, she also utters a snarling croak, reminding one of a creaking door.

Mr. Meade Waldo says: "I know the Marsh Owl *well*. I lived for years close to the wild ones in Morocco, but never managed to get a living bird. They nest in the wettest part of the great marshes late in the summer, when it is very hot, and the whole country a mass of mosquitos. They are diurnal, *very* strong on the wing, catch fish and frogs, also voles, young ducks, etc. I have never seen one in the market, and I never shot one, though I often could have done so; it looks a big bird on the wing . . . It occurs sparingly in the South of Spain. The Marsh Owl does not hoot, it gives a loud "squack". It prefers far wetter ground than the Short-eared Owl and you never see it anywhere else."

My specimen is about the size of a Short-eared Owl, will eat rabbit, but prefers feather to fur. I think it is a female.

ETHEL F. CHAWNER.

THE VOCIFEROUS ROBIN-CHAT (*COSSYPHA BICOLOR*)

SIRS,—I have lately added to my collection another species of the African Robin-chats, known under the rather absurd name of "vociferous" or "noisy" Robin-chat. An extremely handsome bird, with upper parts dark grey, chin, breast and underparts bright rich chestnut; from the beak, encircling the eyes and spreading over the ears and cheeks, black; the tail, central feathers, dark grey; outer ones, chestnut, and upper tail-coverts chestnut. The bird is the size of the better-known Cape Robin-chat (*C. caffra*), but is slightly stouter in build. As to his noisiness, I have not heard it, but I have listened to a very sweet song. The bird arrived in almost faultless condition from Africa, where the species is found in Cape Colony and Natal, etc.

All the *Cossyphæ* would make pleasant cage-birds and there are many species, several of which are inhabitants of Uganda and British East Africa, such as *C. heuglini*, *C. natalensis*, *C. polioptera*, *C. subrufescens*, *C. melanota*, *C. verticalis*, etc.

HUBERT D. ASTLEY.

BREEDING THE YELLOW-BILLED CARDINAL

SIRS,—I have just succeeded in breeding the Yellow-billed Cardinal. So far as I am aware this is the only occasion upon which this species has been bred in captivity. Three young left the nest, but only one has survived to be completely independent of its parents. This young bird, still in juvenile plumage, has been seen, and the nest inspected, by Mr. Wesley T. Page. The old birds are now busy nesting again. I will send an account of this happy event to the "Avicultural" in the course of a few days, meanwhile I am putting in a formal claim for a medal.

GERALD E. RATTIGAN.

FLUDER HOUSE, KINGSKERSWELL,
SOUTH DEVON.

27th June, 1921.

 THE CAPE BISHOP

SIRS,—Among the South African birds which seem now to be coming in, have any "Kaffir Finches" (*Pyromelana capensis*) been imported? I very much want to see one of these to compare with a Yellow-backed Whydah I have.

E. HOPKINSON.

 REVIEWS

 THE LIFE OF PROFESSOR NEWTON¹

The name of Professor Newton has long been and will long remain a household word amongst ornithologists, not only in this country, but throughout the world, for he was one of the leading ornithologists of his time and his work will remain a model of what ornithological investigation and literature should be. His *Dictionary of Birds* alone is a masterpiece, every page testifying to the great knowledge and careful work of its author and containing a mine of information. For upwards of fifty years Alfred Newton held the chair of Zoology and Comparative Anatomy at Cambridge University, and during all those years he never lost an opportunity of helping and encouraging such of the undergraduates as were interested in ornithology, and to his help and teaching

¹ *Life of Alfred Newton*. By A. F. R. Wollaston; with a preface by Sir Archibald Geikie, O.M. London: John Murray. Price, 18s. net.

is due the fact that quite a number of brilliant ornithologists were produced from Cambridge during that period. It is very fitting that one of these pupils of his should have been chosen to write the story of his life, which has just been published. There has been a good deal of delay in producing the volume, for Newton died in 1907, but Dr. Wollaston, himself an eminent naturalist, has during the interval been engaged for a period of years in exploration work in New Guinea and elsewhere, not to mention the further delay caused by the great upheaval of the war, in which his services were required in other directions. But now that the book has appeared, it is well worth the waiting for, and ornithologists in common with others will find very much of interest in its pages.

Newton made it his habit to keep practically every letter he received, and apparently many of his correspondents kept the letters they received from him, so that his biographer has been able to publish a large number of the most important out of some thousands of these letters, and these give perhaps a better insight into his life and character than could otherwise have been obtained. Every chapter is of absorbing interest, whether it relates to the Great Auk and his visit to its former breeding places, to Darwinism, or the founding of the B.O.U. and the *Ibis* in Newton's rooms at Cambridge. In every chapter we obtain an insight into the character of one who was of the best type of English gentleman of the mid-Victorian period, a man of the most upright principles, of strong opinions, and a staunch conservative who hated what he regarded as new-fangled ideas, such as the creation of subspecies and the employment of trinomials in nomenclature, though, surely, had he lived long enough, he would have come to recognize the necessity of these. In spite of his dislike of new ideas, he was one of the first to recognize and approve of the views of Darwin.

Professor Newton was an Honorary Member of the Avicultural Society, and the present writer cherishes a letter written by him in reply to an invitation to become an honorary member. It is in the Professor's usual courteous style, and expresses appreciation of the work achieved by the Society and what he describes as the honour it was proposed to confer upon him.

D. S.-S.

A PRACTICAL HANDBOOK OF BRITISH BIRDS¹

Part XI of this very useful work is to hand, and deals with the Osprey, Vultures, Storks, Herons, Spoonbills, Ibis, Flamingo, and the family Anatidæ, the Swans, Geese, and Ducks. In addition to some excellent text-figures, this part contains a very useful coloured plate showing the bills of the two British Wild Swans and the Geese, a valuable aid to identification.

This work when completed will contain the most up-to-date information on all the birds on the British list, and should be in the hands of every student of this branch of Natural History.

BRITISH BIRDS. Vol. xv, Nos. 2 and 3, July and August, 1921.
H. F. & G. Witherby.

Apart from the usual notes upon the habits and local occurrence of British birds, the two last numbers of this periodical contain three particularly interesting articles upon "Nesting Ringed Plovers", by T. Leslie Smith, illustrated by five photographs; upon "Diving Ducks on the Coast of Western Canada", by C. E. Alford; and upon "The Little Tern and its Young", by J. N. Douglas Smith, who assisted his brother in his observations upon the Ringed Plover in the article already mentioned. Mr. Alford's article upon diving Ducks deals principally with the Harlequin, Golden-eye, and Red-breasted Merganser. The courtship of the Golden-eye is very amusingly described, and the record of the manner in which the Gulls of the district, principally the Glaucous-winged Gull (*Larus glaucescens*), watch for the rising Ducks to rob them of their captured prey, as told in the July number, is independently confirmed in the August issue by Mr. Theed Pearse, writing from Courtney, Vancouver. In this number also Mr. Hugh S. Gladstone raises the interesting question of the date of the introduction of the Ring-necked Pheasant into Western Europe. This bird, he says, is not believed to have been brought to this country until the end of the eighteenth century. Nevertheless, a Flemish

¹ H. F. & G. Witherby, 326 High Holborn, W.C. 1. Price 4s. 6d. per part.

tapestry, dating back to about 1520, which was exhibited at the Franco-British Exhibition of Textiles held in London in the early spring of this year, contains a picture of what appears to be the Ring-necked species. The photograph certainly shows the white ring on the neck very clearly; but, as Mr. Gladstone candidly admits, the portrait may have been copied from some Oriental picture or the ring may be a comparatively modern addition to the tapestry, which is known to have been repaired, although at what date it is impossible to say.

NEW MEMBER.

MISS ELIZABETH HOUSLEY, Rockley, near Retford.

MEMBERS' PRIVATE SALE AND EXCHANGE COLUMN.

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PAIR young Upland Geese, £5 ; Chile Wigeon, 50s. ; large Tinamōus, £5 ; Hybrid Necklace Doves, 20s. ; Yellow Budgerigars, 20s. ; Blue-bred Greens, 30s. ; Cuba Finches, 30s.—WM. SHORE BAILY, Boyers House, Westbury, Wilts.

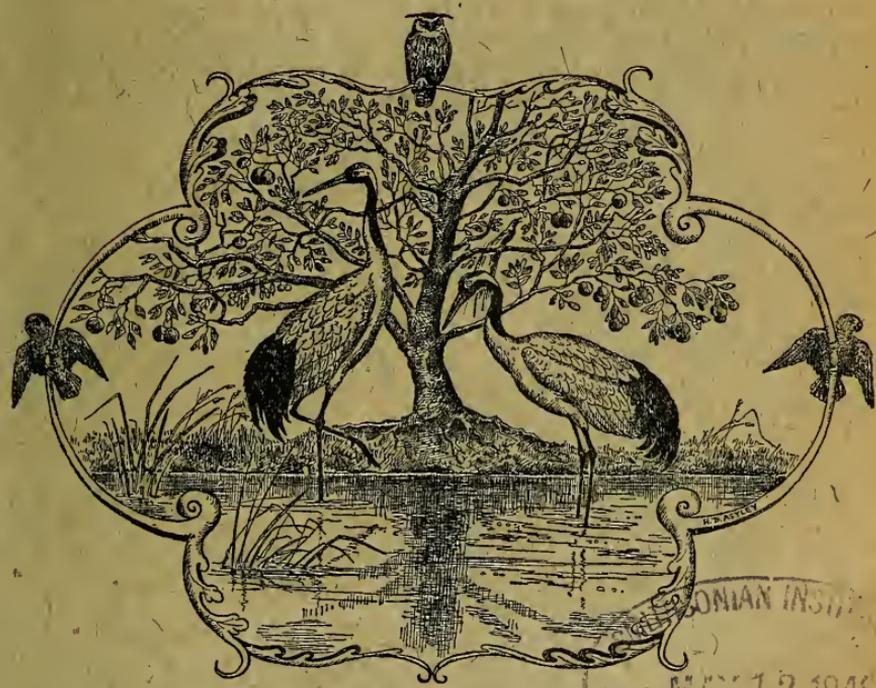
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THE

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SEPTEMBER,
 1921.

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

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NOTICE TO MEMBERS

The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton.

All Queries respecting Birds (except *post-mortem* cases) and all other correspondence should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. Any change of address should be notified to him.

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

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BACK VOLUMES OF THE *AVICULTURAL MAGAZINE* PREVIOUS TO 1917.

Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,
c/o The Zoological Society of London,
Regent's Park, N.W. 8.

THE AVICULTURAL MAGAZINE

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FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XII.—No. 9.—All rights reserved. SEPTEMBER, 1921.

ON INDIVIDUALITY

BY THE MARQUESS OF TAVISTOCK

It is one of the most obvious and well-known facts in the world that no two human beings are exactly alike, and while one could hardly venture to assert that no two beasts or birds are exactly alike, the fascination of keeping animals in captivity and of studying them in a wild state consists largely in observing the difference in character and disposition between individuals of the same species. Nine hundred and ninety-nine may display the same trait, and yet there is always the chance that the thousandth may be a most striking exception to the rule.

All who have kept large ruminants know that it is a certainty that an adult male Deer of any species will be exceedingly dangerous in the breeding season, if he has lost his fear of man, yet there is one authentic record of a Red Stag—and a master Stag, too—who could be safely handled by his owner at all times of year, and there is also a record of an equally amiable Fallow Buck. What is true of mammals is equally true of birds; most owners of large collections of Cranes and waterfowl can supply instances of individual wild Geese which have developed an intense and quite unreciprocated passion for individual Cranes. I can remember a Brent Goose which fell in love with a Whooping Crane and a Ross' Snow Goose which attached itself to a pair of Sarus. It is not the normal habit of Geese to take an interest in Cranes, but there is a certain type of Goose mentality to which a Crane makes an irresistible appeal; how interesting it would be to know *why*! Cranes, also, may be the victims of an abnormal and

unrequited affection. I once knew a female Common Crane who attached herself to a breeding pair of Sarus; she did not want to oust the hen Sarus from the affections of her mate; she just wanted to live with the two. The Sarus were bored by her company and frequently told her so, but she was impervious to hints, even delivered at the point of the beak! When the Sarus made a nest she proceeded to lay an egg in it, which she incubated whenever the Sarus would let her, for, with the strange lunacy of birds in such matters, they adopted the egg and laid none of their own. Finally we removed the Common Crane and her egg, and the Sarus made another nest, laid, and brought up a family.

Then, too, I once owned a Yellow-bellied Parrakeet, whose domestic life and morals were for the whole of one summer a public scandal. One of the leading characteristics of the entire broad-tail family is the strict and lasting fidelity of the male bird to his mate, a fidelity which is at once an example and reproach to the males of certain other bipeds—notably humans and ducks. But this particular yellow-belly was a most notorious exception to the general rule. He lived at liberty and being without a mate of his own kind he paired with a female Port Adelaide—a closely related species. When spring came round the Adelaide nested in a hollow tree, and according to the usual custom of her family disappeared from view. A few days later, to my surprise and disappointment, I saw the yellow-belly courting a hen Blue-bonnet that I had just turned out in an enclosure with a cut wing. This appeared to point to but one conclusion—the Adelaide was dead and the yellow-belly a widower. Not long afterwards, however, we saw the Adelaide and we realized that we were dealing with a confirmed rake. The yellow-belly never fed his sitting wife but spent all his time with the Blue-bonnet, in spite of the fact that she gave him no encouragement. The poor Adelaide carried on fairly well until the young hatched, when the unnatural strain proved too much for her, and like the heroine of an early Victorian novel, she fell into decline and died and her unhappy family perished with her. The tragedy caused the yellow-belly no concern; he had already persuaded a hen Rosella to marry him, but when she went to nest he deserted her for a newly imported Brown's, and ended the season by marrying a young

Adelaide—a bird of the year ; it is only fair to him to add that next season he lived a fairly reputable life, and even brought up a child of his own. Then came the war ; the birds were neglected and the yellow-belly and others disappeared—so I cannot say whether the reformation would have been lasting.

At present in my collection I have another bird of abnormal character—a cock Redrump. I have had many Redrumps—including several pairs at liberty. The cocks, without exception, have been faithful and devoted husbands and very good stayers, but if ever a hen Redrump met with a fatal accident her mate, after a few days of anxious, fruitless calling, invariably departed and was never heard of again alive. I therefore learned this lesson—if you lose one of a pair of Redrumps at any time of the year replace it *at once* or else catch up the survivor. Last year I bought a cock Redrump as a mate for a hen that seemed anxious to nest. He was rather fat and “ soft ” when he arrived and did not seem particularly interested in the nest-box, but he settled down before long and eggs were laid in due course. About this time a hen Blue-bonnet in another aviary laid three eggs and then got ill, and I put the eggs in the Redrump’s nest along with their own. The Redrump’s eggs all proved clear, but the Blue-bonnet’s hatched. One youngster died in the nest, the others flew, and the cock Redrump showed himself a most devoted foster-father. But about this time I noticed he was becoming exceedingly short with his wife—in fact, he would hardly allow her to come out of the nest-box. The hen Redrump, however, made the best of a bad job, by laying another clutch, which, like the first, proved clear. After that I took the nest-box away, and soon afterwards gave the entire family—reduced to three by the death of another Blue-bonnet—their liberty. From that time onward the cock Redrump would have nothing more to do with the hen and associated entirely with his adopted daughter, and if the hen Redrump tried to join them she was promptly driven away. At the beginning of winter I broke up the alliance by sending both Redrumps to an aviary in the Isle of Wight. Here, apparently, the cock became reconciled to his first mate, but when nesting-time came she unluckily died egg-bound. Some little time later I had him sent back to me and turned him into the aviary where he had nested the year

before, providing him with a new hen. He was very much in breeding condition and far more fit than in the previous spring, but he was by no means gracious to the fresh arrival, and a little inclined to bully her. When they seemed on more friendly terms I released them, but the cock took no trouble to keep in touch with his partner, and being rather a wild bird she strayed and was lost. There was, at that time, an unmated hen Blue-bonnet in one of the aviaries, but the Redrump took no interest in her, and as he was calling and displaying all day long I feared he would leave, and caught him on the trap feeding-tray and put him into his aviary again; a few minutes later I saw him making his exit; we had forgotten to tack up the hole through which the pair had been released! After that I left him to his own devices and tried to procure a third female. Every day I expected to find him gone, but days became weeks and weeks months, and still he stayed; he spent nearly all his time in a neighbouring garden, amusing himself by chasing sparrows—an unusual pastime, for parrakeets at liberty absolutely ignore small birds, as indeed they also do when properly kept in big aviaries; if a parrakeet is dangerous with finches, in nine cases out of ten the owner is originally to blame for bad management. At last the hen arrived and I turned her into an aviary. The cock absolutely ignored her, and it was plain that a bachelor existence entirely satisfied him. After a considerable time I turned her out and she has stayed all right, but as a pair they are a failure—he goes one way and she goes another. They do not quarrel when they meet, but, rather to my surprise, she proves to be the master. I wonder what will happen when spring comes round again—will the hermit relent or will he continue his sparrow-hunting?

Though a less marked possessor of individual peculiarities, a cock Brown's Parrakeet has sufficient character to vex me and send my best-laid breeding schemes agley. He is a rather old bird, and in an aviary a failure at producing a family, so this spring I gave him and his mate their liberty; he was much attached to the latter, but tragedy was in store, for while prospecting for a nest she descended a chimney and starved to death in the unoccupied room below, through the carelessness of my servants, who had been specially warned of this danger. I obtained another hen, but although she stayed well

and the two were quite friendly, it was evident, as time went on, that there was something not quite right. Though often together, they were also often apart, and the cock Brown's did not display that pugnacity towards other Parrakeets which is usually associated with an entirely happy marriage. They did, indeed, do a little house-hunting in a perfunctory sort of way, and the hen tried to repeat her predecessor's exploit, but was rescued in time. There was an unmated cock Brown's in one of the aviaries in whom the hen began to take more and more interest, but the final breach came when a cock Yellow-mantle died or disappeared, leaving a widow and family. A very short time later the cock Brown's married her and took over the care of her brood, and from that time on he not only ignored the hen but drove her away when she came near. Fate, however, has interposed. I have caught up and removed the Rosellas and given the aviary Brown's a mate. So the old cock has returned to his first partner with a very ill grace, for there is no getting away from it, temperamentally they *don't* suit each other—again, why?

NESTING NOTES ON 'THE YELLOW-BILLED CARDINAL (*PAROARIA CAPITATA*)

By Capt. GERALD RATTIGAN

Description of Plumage.—I think this bird is too well known to require a detailed description of its plumage to be given here, but roughly it differs from the Pope Cardinal, its nearest imported relative, by its smaller size, black instead of carmine throat, and darker back. A full description, together with an excellent plate, appears in Dr. Butler's *Foreign Finches in Captivity*, p. 68. The sexes, according to this author, are alike, but I have no difficulty whatever in fixing the sex difference so far as my pair are concerned, though whether or no these distinctions are constant I cannot say. In my birds the hen is very slightly but quite noticeably smaller and slimmer; the white of the underparts is also of a much purer colour in the cock.

Immature Plumage.—When first hatched sparsely covered with grey or dirty white down,

On leaving nest the plumage is roughly as follows : Above, greyish; the feathers of the back tipped light brown ; head, dark greyish-brown ; sides of head, rufous ; throat, same colour, but of a paler, more washed-out tint, a sort of fawn which extends slightly into the breast ; sides of neck, pure white, tapering to the nape, where it merges into the greyish-brown of the back ; wing coverts and tail feathers, black ; feet, light brown ; bill, upper mandible, blackish-brown, under, light horn colour ; the thighs show no trace of the black of the adult.

Clutch.—Three. Eggs olive-green, densely streaked with dark (amber) brown. Size appears to be about the same as that of the Red-crested Cardinal, and large for the size of the bird.

Nest.—Very compact and strongly made, and composed of the wing twigs of the maidenhair bush, lined with a little fine grass and pampas grass. The nest exactly resembles that of the Red-crest's built in the same aviary, and is composed of practically the same materials, save that the Red-crests added a little cow-hair as an inner lining, but it is much more strongly and compactly put together.

Incubation period thirteen days, and young left nest in thirteen days.

Fending for itself.—Commenced to pick up tit-bits on its own on the eleventh day after quitting the nest, and was entirely on its own two days later. Commenced to eat coached hemp and sunflower seeds fifteen days after leaving the nest, and was actually singing on the 3rd July, or twenty-three days from leaving the nest.

Song.—The song of these birds I find quite pleasing, but very weak and low, and whilst the hen was incubating the cock frequently regaled her with what might be termed a "whisper" song. This song was sometimes quite inaudible, to human ears at any rate, but was accompanied by a rather envious display, during which the cock raises the red feathers at the crown of the head, and spreads out the feathers of the tail like a fan. Incidentally I note that Butler, in the work already referred to, states that this bird cannot raise the red feathering on the head at will. This is, however, incorrect, for the cocks, at any rate, can and frequently do raise these feathers when excited. The young bird, which is very tame, often displays to me in this way, generally after he has had his ration of mealworms, and I have no doubt it

forms part of the ordinary sexual display. While I consider this species to be quite the most charming and attractive of the Cardinals, I find it extremely pugnacious for its size, especially as might be expected when breeding. It is fond, like its larger relative the Red-crest, of hotly pursuing smaller and weaker birds, whose every twist and turn it will follow, being very rapid and dexterious on the wing. I believe this practice is indulged in more for the sport of the thing and as a form of exercise than anything else, but still I personally would not dream of confining the species with any of the smaller Finches or Waxbills. It agrees quite well with the Red-crested and Green Cardinals, which mostly ignore it, but in my experience cannot be safely enclosed with Pope Cardinals.

Rearing.—For the first three days the young birds were fed entirely upon a diet of green fly, long-legged spiders, and small caterpillars. After this the menu was gradually modified, until after the first week they were entirely on a diet of hard-boiled egg and tea-biscuit, supplemented with a few mealworms supplied every three hours throughout the day. It would, however, be probably possible to raise them entirely on the latter diet if supplied with discretion. In my experience the most dangerous period for young birds (insectivorous) is just after they have left the nest, when they almost always seem to be attacked by diarrhoea in a greater or lesser degree. Why this should be so is a mystery to me, but I have found that powdered cuttle-fish sprinkled over the egg-food tends to lessen the danger. This idea was given to me some years back by my Red-vented Bulbuls, which I noticed always used to give cuttle-fish liberally to their young, when the latter were about 6 or 7 days old, and these birds hardly ever lost a chick.

THE YELLOW-BACKED WHYDAH (*Coliuspasser macrourus* (Gm.))

By DR. E. HOPKINSON

This bird is a native of Tropical Africa, ranging through West (Senegambia to Angola), Equatorial, and East Africa. The Gambia must be very near the northern limit of its western range, and here

it is certainly more common to the south than to the north of the river, and apparently never extends more than, say, 40 or 50 miles inland. Even in Kombo, where it is more or less plentiful, it is a very local bird, and never found far from the mangroves.

After an interval of a good many years I have once more got one of these birds, caught in Niuni at a place called Tubab Kolong, almost on the same day and almost on the same spot where I saw my first Niuni bird thirteen years ago. I have looked up my old diaries and the notes I used to keep in former years on my birds, when I had more time, and also, I suppose, more inclination. These give certain details about these birds both in wild life and captivity, which may be of interest. One thing they seem to show is that the date at which the males come into colour varies with the age of the bird (as observation abroad also seems to indicate), and that this change may be delayed (and sometimes perhaps advanced) by various causes, such as captivity or the change from freedom to captivity.

I will commence with extracts from my old Gambia bird-diaries :—

1902. June. Have five among the three cages of small birds I am taking home. One has yellow shoulders and dark wings, the others are quite off colour, and look like large out-of-colour Bishops, but have a more greenish tinge than these. I had one other cock with more yellow, but it died within twenty-four hours. They were all caught in Kombo close to Bathurst.
1906. Jan. I think I found old nests of this bird in the swamp at Nianimaru. (1919. *No. I now know that the nests were those of the Crimson-crowned Bishop.*)
1907. May 27. Near the Cape (Kombo) I saw a nearly black bird with yellow shoulder-patches attended by two uncoloured blackish birds; they were the size of a "Kaffir Finch", which at first I thought they were, and later Caterpillar-catchers (which I only know from descriptions).
- June 18. Saw another at Tuba-Kolong in Niuni; very like the first bird, but not so much black.
- June 25. Essau, Niuni. Saw another, half black and with shoulders (*not* back), yellow. No long tail. I think these must

be *Pyromelana*. (? Have we a "Kaffir Finch", *P. capensis*, here?)

1908. July. Saw definite Y.B. Whydahs occasionally near Bakau (Niimi).

1909. May 11. Gunjur. Saw a single bird exactly like the 1907 birds. Half colour (general weaver-look and black like a Bishop), and with the yellow confined to the shoulder; back still speckly. Got quite close to this bird.

May 15. Kartong (southern border of Kombo). Saw several more of these birds in the dry, now quite sandy, rice-fields. Tails do not seem long enough for Yellow-backed Whydahs; they suggest to me the *Urobrachya* plate in the B.M. catalogue, but the shoulder-patch is a bright gold yellow. During the next few days I remained at Kartong and saw plenty of these birds on the rice-fields or the dry sandy flats covered with coarse grass and low straggly thorns, behind the mangroves along the Allahin River. Here they were feeding on the ground with other Weavers and Waxbills, in pairs, or more commonly in threes, one showing yellow and black, the other two in brown plumage and presumably hens. They were very tame for Weaver birds and only flew at one's close approach, and then only to the nearest bush, returning at once to the feeding-place as we moved on. The males were about half-coloured (I saw none in full colour), and the yellow was entirely confined to the shoulders.

1916. August. Yellow-backed Whydahs quite common at the Cape during the rains. They nest in the rough grass among the mangroves which border the numerous creeks. At this season one sees the males very commonly, but the females rarely. I think that there is usually only one wife, but occasionally I feel sure that one male (perhaps a cocksure young one) has two establishments to look after. There is no nesting in company like the Bishops, and I have never seen one male driving another as is so common among the Crimson-crowned Bishops, which nest in much the same places, but in larger numbers, so that the males are continually coming into collision with each other over fancied trespasses.

I know now that the Gunjur birds were these Whydahs and that the yellow always commences on the shoulders, the back colour coming very late. This year I was able to watch the complete change from half-colour in June to full colour (in most) by the end of July. A few, however, though obviously nesting, were neither completely black nor yellow-backed even in August.

About 1910 I had thirty-six of these birds, mostly cocks in half colour. They were all in one cage, and had all been caught in Kombo. I only got them a few days before sailing for home (end of July). The luggage was loaded into a lighter to go off to the steamer, the birds among them—a tornado, the whole covered with a tarpaulin, so thoroughly that all the live-stock was suffocated. A great catastrophe. I should have liked to get home three dozen Yellow-backed Whydahs.

1918. These Whydahs are quite common in Kombo during the rains, and odd ones may be seen all the year round. Nearly all the males keep the yellow shoulders all the year round. On the Cape road one sees them in full colour from the end of July to about October. They never appear to like to stray far from mangroves, and at the end of the dry season seem content with brackish water for drinking, like our "Black Pigeons".

In Niimi they also breed, but are certainly less common there than in Kombo.

1921. Tubab Kolong. June 17. Caught one half-colour cock, and saw a few others. Shoulders yellow, a few speckles of black below and wing feathers dark. Brought him home. Now (July 26) the throat is black and the black speckles are increasing in size everywhere. The wildest bird of this kind I have ever had.

So much for the wild life; the remaining notes refer to those I have kept :—

1902. Brought five from Gambia, July, 1902. No. 1 was showing a little yellow and had dark wings, the other four were quite off colour. Turned into aviary with No. 5, the rest in cage indoors.
Aug. 12. The out-of-colour birds are getting a greenish-yellow

tinge over the plumage. All in perfect condition now. (? Have they moulted?)

Sept. 20. No. 1 now in full colour. A handsome but not very lively bird; very keen on insects, thus differing from the Paradise Whydahs and resembling the Bishops. Has looked rather bad at times, but now that he is in full colour seems better.

The others I am nearly sure are young cocks. No. 5 is growing a long tail, but shows no sign of either black or yellow, and I have seen two of the others "sing"; they also seem to be getting a bit speckly about the face.

Oct. 12. No. 1 still in aviary and in full colour. All tail-feathers now of the same length, at first the two middle ones were the longest.

Nov. 12. No. 1 still full colour and in perfect condition. Nos. 2 and 3 are now at Oxford.

All both sing and dance like Bishops, and are rather quarrelsome, especially with each other.

Nov. 20. No. 1 found insensible and moribund on the floor of the aviary after a very cold night. Brought indoors to the fire and given brandy; to everyone's surprise recovered. Kept indoors in cage to himself.

Dec. 11. In No. 2 (Oxford) one yellow feather has appeared on one shoulder. Have not felt the intense cold, though we have had 10 to 15 degrees of frost.

Dec. 18. A few yellow feathers on each shoulder now of No. 2. Does not look quite so fit. Very keen on mealworms.

Dec. 24. No. 1 still indoors. Full colour, perfect condition. All black with brown edges to flights; the yellow extends over whole upper back and shoulders.

Nos. 4 and 5 still in Brighton aviary; yellow showing on the shoulders of both and in one the wings are getting black.

No. 1 continued. 1903

1903. Feb. 1. Still full colour.

March 6. Still indoors; beginning to moult. Cage full of black

- and yellow feathers, but the tail is still long, and only a few brown feathers have so far appeared on the head and checks.
- Mar. 13. Brown increasing rapidly ; now a big patch on each side of chest.
- Mar. 19. Quite half-brown and looking most untidy, but tail still long.
- Mar. 31. Browner. Now beginning to shed tail. Yellow, I think, much the same. Lively and fit.
- April 7. Turned into aviary. He is the only Whydah there. Had there been others I do not think it would have been safe to turn him out as he is very spiteful with other Whydahs, but inoffensive to smaller birds.
- April 17. Still in aviary. Nearly all brown ; back brown, but shoulders still yellow. All tail lost now ; there are now only a few short feathers, the new tail.
- May 13. Hardly more than a speck of yellow now showing on each shoulder, but he has grown a new tail, a brown one. Is now, I suppose, in complete out-of-colour plumage. Very fit.
- Aug. 13. In nearly full colour again ; nearly all black, though still a few brown feathers among the yellow on back.
- Oct. 8. Still in aviary. Perfect condition. Have turned out one of the other Whydahs ; they agree.
- Oct. 24. Occasionally tremendous battles between the two Whydahs, but apparently no harm done.
- This morning this bird fell down in a fit (rigidity and stupor and almost "light"). Brandy and castor-oil ; fire. Revived and in the afternoon ate a spider.
- Oct. 26. Dead. A similar attack to his first, but with a different ending.

No. 2. 1903 to 1912

1903. Jan. 15. No increase in yellow, but has moulted his tail and is growing another.
- Mar. 13. Perfect condition, but no increase in colour. Tail still short.
- May 1. Black appearing in specks ; old tail being shed and new black feathers coming.

- May 17. Has quite a long black tail now, and the black specks are increasing in number and size.
- June 11. Still in cage. Head and neck black, tail black and full length, but belly, etc., still brown. Rather more yellow on shoulders, none on back yet.
- June 23. In nearly full colour.
- Sept. 29. Turned into Brighton aviary. Tail slightly longer, and yellow back clearer and rather more extensive than in No. 1. The two Whydahs took no notice of each other when introduced.
- Oct. 24. In cage for the Crystal Palace show. Full colour, perfect condition. Fairly steady in cage.
- Oct. 31. Returned from Show. V.H.C. only in A.O.S. class against wonderful birds. Returned to aviary.
- Dec. 1. Now about half-colour.
1904. Absent in Gambia.
1905. April. Still in aviary on my return. Out of colour, but with still some yellow. Very fit.
- June 16. Half-colour again. Indoors in cage, as in the aviary he is *non compos* and generally lies on the ground gasping or darts wildly about. In cage seems perfectly well.
- Aug. 10. In full colour and perfect condition. Turned out again.
- Sept. 12. Seems quite to have got over his illness. Still full colour.
1906. July. Still in aviary on my return from Gambia. Full colour.
- Oct. 6. Still full colour. Very quarrelsome with the Weavers.
1907. July. On return from Gambia, still in aviary. Full colour and perfect condition.
1908. July 1. Ditto.
1909. July. Ditto.
1910. July 16. Ditto. Noted as "quite off colour, Feb. 17, this year".
- Aug. 13. Brought indoors as he is now very dangerous with other birds.
- Sept. 11. Turned out again with a slightly clipped wing.
- Nov. 23. Hardly shows any sign of losing colour yet.

- Dec. 1. Brown now appearing in the black, but tail still long.
Died sometime in 1912. Had "fits" at long intervals for the last six years of his life.

No. 3. 1903

- Jan. 4. Rather larger and greener about the breast than No. 2, but has no yellow on shoulders.
Feb. 1. Primary coverts now black, but no yellow on shoulders or other change of colour yet.
Feb. 7. Yellow appearing on shoulders. Still in cage.
April 20. Head beginning to get speckled with black and darker on the crown.
April 23. Turned into aviary. Perfect condition except for slight roughness on head.
May 13. No longer in aviary. Probably escaped as no body was found. Only one of these Whydahs now left, No. 2.

No. 4 showed a little yellow on shoulders by the beginning of 1903.

- April 3. Noted as "still in aviary, no change of colour".

All these birds walk on the ground like other Whydahs, but at times hop as well.

- April 7. Died. "Shoulders yellow, wings black, rest brown, even mantle like rest of back."

All the above birds and nearly all the others I have had turned out to be males. In freedom, too, the females seem much more retiring than the males, and less often seen than the males, even if every allowance is made for the absence of colour.

Query, is there any simple reason which can account for so many more males than females being caught?

There is as yet no record of this bird having been bred in captivity.

In Butler's *Foreign Finches* is a good coloured plate, at least of the male, though that of the hen does not attract.

Other coloured figures are given by Russ (*Fremdlandischen Stubenvogel*, i, 218) and Reichenbach (*Singvogel*, pl. 27).

A QUEENSLAND BUSH MYSTERY

A weird "moo-moo" sound, more subdued than that of a cow or calf, is often heard at night-time in the Queensland bush, and there are wide differences of opinion, even among bushmen, as to the source of the sound, which is regarded by many with superstitious awe. A recent controversy in the *North Queensland Register*, of Townsville, does not seem to have completely solved the mystery, though it has narrowed down the sound to one emanating from some member of the animal creation. Some say snakes, others owls, and others again mopokes, rats, porcupines, or quails. The balance of opinion is in favour of a light-grey variety of quail, which usually haunts rosewood scrub. Yet a naturalist whose word carries weight in Queensland writes :—

"The quail's call note is easily recognizable, but the forest night noise is different and a much lower sound, repeated more rapidly than the quail's call. You may approach the night noise stealthily, and then fire a gun or make a noise that would scare away any bird ; then retreat quietly, and the noise commences again in the same place, "M M M". Many people of the bush make pets of quails, and their note is well known."

CORRESPONDENCE

HABITS OF THE MOORHEN

SIRS,—On a small natural garden pond here close to the house a pair of Moorhens hatch and rear two or three broods annually. As they are fearless but independent their habits can be easily watched.

This year, as usual, they have two broods, the three survivors of the first brood being now (27th July) full grown. There is a second brood of which four survive, about three weeks old, being still in the completely black downy stage. Natural food being extremely scarce owing to the drought, and not a blade of green grass (their principal food) existing, we feed them twice a day by throwing broken bread, etc., on the water-lily leaves. The family, consisting of nine birds, come

and feed freely within a few feet, and the curious thing is they all feed one another! *The small black young ones feed their parents* as soon as they have had enough! The young of the first brood, of course, as usual, feeding their brethren of the second nest. Occasionally the food is passed on to the parents from the young of the first brood, who give it first to the second brood, who in turn pass it on to their father and or mother.

E. G. B. MEADE-WALDO.

HEVER, KENT.

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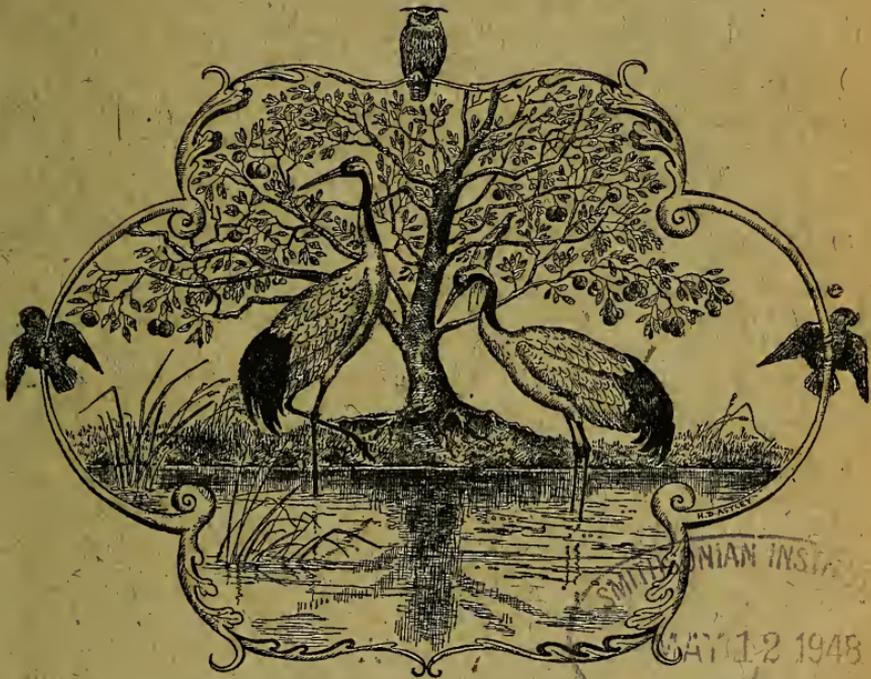
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THE AVICULTURAL SOCIETY.

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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

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IN FREEDOM & CAPTIVITY

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ZEBRA FINCHES AT LIBERTY

By the MARQUESS OF TAVISTOCK

About ten years ago I tried an experiment with various Australian Finches at liberty; Gouldians and Parrot Finches were a failure, but I did succeed in breeding Zebra Finches, Rufous-tailed Grass Finches, Long-tailed Grass Finches, Parson Finches, and Diamond Sparrows. Of these the Zebra Finches and Ruficandas were really prolific, and lots of young ones made their appearance during the course of the summer; but as autumn drew to a close their numbers decreased, and next spring I had only one or two pairs of old birds left. Then, with their offspring of the year, disappeared the following winter. It was clear that the little birds could not be kept at liberty all the year round, cold and natural enemies being too much for them.

This year, however, I determined to see if certain foreign Finches cannot be profitably and successfully kept at liberty during the summer months only. Ruficandas, unhappily, are almost unobtainable now-a-days, but at the end of June I bought five pairs of freshly imported Zebra Finches. Although they were by no means in good condition, they began nesting the day after their arrival and quarrelled so badly in the good-sized aviary in which they were released that three days later I had to give them their liberty. This was really too soon, as it did not give them time to get properly used to their surroundings. Consequently three disappeared at once, and probably strayed, while

a fourth, the weakest of the lot, died of chill. The three remaining pairs settled down nicely, and soon had nests, one pair choosing the top of a pear-tree in the kitchen-garden, another a branch of a Douglas fir about 40 feet from the ground, and the third built in a juniper fairly low down. In due course two pairs brought their families to the feeding-tray, one consisting of five young birds, and the other of three. When the youngsters were quite independent of their parents I caught them up for next year's stock. The cock of the third pair disappeared just about the time that a brood should have flown. I bought a new mate for the widow, but released him too soon and he did not stay. Some weeks later the hen likewise disappeared. The two pairs soon set about repairing their nests, and at the end of September two more broods appeared—five and two, this time. As the season was getting on and one of the old cocks was moulting and seemed a bit out of sorts, I caught up the whole lot and ended the experiment for the year. On the whole it has been a success, for though only seven old birds remain out of the original eleven, I caught up nineteen Zebra Finches altogether. Had I started in May with five strong pairs, and kept them in the aviary ten days before releasing them I think there is little doubt that I should have had well over thirty by now. The Zebra Finch is a jolly little bird at liberty; he is tame enough to let you see plenty of him and his small size and nest-roosting habits protect him to a great extent against the attacks of owls and other vermin; he never goes far from home, and will do well in quite a small garden; Parrakeets need tall trees and plenty of room, and are conspicuous targets for the guns of foolish or ill-disposed persons, but tiny Finches are seldom noticed by those who are not on the look-out for them. Zebra Finches build the same substantial domed nests at liberty that they do in an aviary, and the sexes seem to take turns in incubating the eggs, for when they are sitting it is usual to see all the cocks feeding at one time and all the hens at another. Both old birds accompany the young for a short time after the latter have flown and the hen is the first to get tired of them; stop feeding them and later drive them away.

BATELEUR EAGLES

By FREDERICK D. WELCH

There were four specimens of this African species, *Helotarsus ecaudatus*, living in the London Gardens in July, 1920, and as they showed three distinct differences in coloration, although the birds were about the same length, 23 inches, it seemed a good opportunity to point out the differences at different ages and also to correct a misleading statement in the *Royal Natural History*. Two of the Eagles which arrived in June, 1919, had blackish-brown beaks, skin between that part and the brown iris was brown; in plumage they were darkish-brown; the legs being tinged with pink, and they remained so till August, 1921 (since when I have not visited the Gardens and any future change is therefore unknown to me).

These two were, it seemed to me, undoubtedly much younger than the other two, which arrived in 1906 and 1909, and were very different, being bright red between brown iris and beak (latter black in tip half, yellowish at base), with legs also red.

It is here that the statement in the *Royal Natural History* is misleading, because in vol. ix, p. 212, it states that the facial colour of some Bateleurs living then was "solely due to effects of captivity", as they were paler than the "coral red" referred to a few lines before; and the words seem to me to therefore imply that a captive bird *cannot* be red on face. But such is an obviously erroneous idea, as proved by the two Bateleurs referred to by me, and which were still in perfect health as late as August, 1921, when last seen by me. As the section is not signed by any special writer it is uncertain who held that view (except that as Dr. Bowdler Sharpe is referred to by name it seems certainly *not* he who wrote it); but it seems to me as probable that the birds there referred to had not then reached their fully adult colour, because I have seen several red-faced Bateleurs in captivity from about 1898 (three years after dating of that book) and onwards (in addition to those two referred to). These were alike in plumage except the wings, being chestnut maroon on back, rump, and short tail, and black elsewhere. In the coloration of long wing feathers these two older birds differed from each other considerably up to August, 1921, they

being *black in whole exploded-to-view length in one bird*, while they were slate-grey with only the end inches black in the other bird (as in wood-cut on p. 212, *Royal Natural History*), and this difference could be seen when the Eagles raised their wings, and also when they sat with them folded.

Personally I do not consider that the *exact* age of any Eagle captured in fully adult plumage can be known; and it also seems impossible (in my humble opinion) to make any estimate as to the age of either bird referred to which would get within a year or two of their ages. The only thing presentable is to say they were “over 12 and 15 years” when this account was penned, which is proved by their dates of arrival. But one bird may have been several years older than the other when caught—and from their wing-differences it would seem to me there is considerably more than three years difference in age between them now. But, be that view of mine as it may, the *bird with black wing-feathers seems to me older than the other*, because it is more likely that grey would darken into black as age advanced, rather than that a black feather would turn grey in part. Upper parts of wing were brownish-black. However, if either Editors or other member does not agree with this view perhaps they will not hesitate to give their opinions in print.

As to habits, there are several voices uttered by Bateleurs which are distinct; for instance, like the words “uck! uck!” etc., “warr! warr!” etc., “orr! orr!” etc.; and on the ground they look rather peculiar because of wings projecting beyond short tail when walking. Though somewhat ancient history, it may be worth adding that several years ago now, a single female deposited a white egg which was removed by the then head-keeper as obviously unfertile, he showing it to me (Birtling this was). Some reference to the habits when wild seems worth mentioning in concluding these notes on captive birds, especially its feeding on snakes, many of which it captures when grassy parts are on fire, at times entering the thick smoke. When we compare the short leg of a Bateleur with the long leg (about 2 feet, I should think, estimating, on living bird) of the Secretary Vulture, it is clear that a long leg is *not necessary* to repeatedly kill poisonous snakes by holding them at a distance from the bird's body when disabling them by blows on head from the powerful beak.

Personally I should think the success of the Bateleur is largely due to rapidity of action in attack on the snake (in this being analogous to Indian Mongoose, among mammals, versus Cobra); and this opinion was supported some months after being formed by seeing two of the living birds referred to engage in a pugnacious display when on the floor of their cage, when both circled around each other rapidly by a series of high hops. In addition to snakes and various reptiles, they also feed on small mammals, carrion it is also said; and can soar high in the air (their wings being well developed, as shown when they stretch them in the Gardens).

ODD NOTES

By ALLEN SILVER

I saw on 10th August the young Black-capped Lory bred this season by Mrs. M. Burgess, of Helston House, Clifton. It was apparently about three months old, full-winged, and quite able to look after itself, although I understand it retired at night with its parents to sleep in the nest-box in which it was hatched. In size I should say it equalled the hen. The iris was dark, the bill, which had been black, was at the time of my visit rich horn brown, daily assuming an orange tint. It seemed only to differ in colouring from the hen in having the under-tail colouring greenish instead of violet blue. The colouring of its cap was as dense as that of its parents. Although not densely feathered on the breast, bunches of quills were fast appearing. It had already commenced to imitate sounds and whistles, and was an active and engaging bird, susceptible of being perfectly tamed.

Two birds recently caught wild in the neighbourhood of Newport (Mon.) were brought to me by two different people within a week. The first, a male example of *Spermophila torqueola*. A handsome masked cinnamon white and black bird, a very free singer. It was in perfect plumage and quite tractable and had, I surmise, escaped from a "Plate" boat coming into Newport, Cardiff, Bristol, Avonmouth, or Barry Docks. This species I have never seen arrive in trade consignments, and have not seen it in any private collection, but believe the London Zoo have had it once.

The other bird, harder to account for, was a Trumpeter Bullfinch, a young male of the year, also in perfect plumage. This species has not been conspicuous for many years. Mr. Meade-Waldo bred it and for pleasing tone of colouring and that condition of plumage so favoured by exhibitors of birds, it stands alone among comparatively plain coloured finches. It is quite a time since I saw one alive. This may have been a pet from a boat touching a South Mediterranean port, but I have not heard that it is a common cage-bird among natives.

Among a consignment of South American birds lately received in London I noticed specimens of *Amblyramphus holosericeus*, the Red-headed Marsh Troupial, a bird which has been absent for years. I secured a very tame Yellow Cassique (*C. persicus*), which proved entertaining, and quite an attractive yellow and black bird with lemon-green bill and china-blue irides. Its song is comical.

Another bird I secured, not often seen on the market, was a Green or Yellow-bellied Maize-eater, or Greenish Hangnest. I found it active, and not so devoid of interest as is the case with *T. militaris* and *L. superciliaris*, two birds which, although conspicuous, are not attractive in a cage. The olive-green of this Maize-eater contrasting with a band of canary yellow makes it welcome in a collection of active birds of this type.

These Troupials want grass and earth to "poke" their bills in, otherwise in close confinement they require periodical trimming.

I also received two small Yellow-shouldered Troupials (*A. thilius*) in apparently first plumage. These were much like miniature Meadow Larks, minus the yellow chest. A few Diamond Finches came on the market, and I was able to secure two pairs. Privately I received and disposed of some Red and Green Parrot Finches and Pectoral Mannikins, birds that are now increasingly scarce.

The Pesquets Parakeet, now in the possession of Mrs. Burgess, is quite a kind and affectionate bird, in spite of its rather forbidding appearance. Clad for the most part in black and red, with its bare face and throat coupled with an elongated vulture-like bill, it is not unlike the Nestors. Had it a light iris it would possess a villanous expression, but the iris is very dark. If maroon as described it must be very dark maroon. I could not examine this item in full sunlight.

The plate of Verreaux's Starling reminds me that my young male is only now (September) just showing adult plumage, and has commenced to quarrel with an adult male.

THE DISPLAY OF THE BLUE BIRD OF PARADISE

In the Bulletin of the Zoological Society of New York for September, 1921, Mr. Lee S. Crandall gives an interesting account of the display of *Paradisorhis rudolfi*, a pair of which species were acquired in the autumn of 1920. The male commenced to moult almost simultaneously with his arrival and when he had renewed his body feathers the pair were placed in a cage near the other Birds of Paradise. All went well for a few days, when suddenly the male attacked his mate, and only her prompt removal saved her life.

“The comparatively short side-plumes of the male had now reached their full length, and appeared as brilliant blue beneath and delicate mauve above. The two central tail feathers or ‘wires’ had grown to a length of a foot or more, each bearing on its tip a spatula of brilliant blue.

“One morning a keeper who was working nearby noticed the male bird was hanging upside-down from his perch, and otherwise conducting himself strangely. He promptly reported that the bird was in convulsions, and advocated its immediate removal to the hospital for treatment. But more deliberate observation showed that while the bird's antics might properly be described as a convulsion, it evidently was not of the sort that calls for medical aid. He was in full display, such as perhaps had never before been seen by civilized man. The display of this species is entirely different to that of the *Paradisea* group, for instead of remaining in an active, upright, position, he grasps his perch firmly with his powerful feet, and with legs extended to the utmost, hangs head downward. During the entire display of several minutes the position of the feet is never changed, and the firm grip never is relaxed

“Viewed from the front the plumes, inconspicuous and rather disappointing when at rest, form a brilliant inverted triangle, with the

raised feathers of the abdomen completing the centre. In the middle appears a longitudinal, ovate patch of velvet black, bordered above by a narrow band of dull red, formed by the feathers that ordinarily clothe the abdomen. The long pendant 'wires' rise to half their length, then droop gracefully downward on either side. The wings are held tightly closed and the head is turned upward.

"During the display the body is moved forward and back with the hips as a fulcrum, and with a violent motion of the body the plumage is frequently spread to its widest expanse. The white lines of feathers which border the eye above and below are conspicuously extended, leaving the bird only a narrow slit through which to peer at the observer. Throughout the bird sings softly, in a low, grating voice, moving his head slightly by sharp jerks. This habit of singing, in which the Blue Bird of Paradise often indulges, when not in full display, seems peculiar to this species.

"Taken altogether the display of this bird is a beautiful and marvellous sight. The rapid vibration of the body causes the brilliant blues of his plumage to run in waves of colour over the entire filmy triangle. The dead black spot in the centre is made more conspicuous by the contrasting colour above it, and when seen under certain lights appears more like a deep cavity than a mere patch of plumage."

STRAY NOTES

A NEW GUINEA COLLECTION.—During the past few weeks some interesting birds have been received at the Zoological Gardens. Mr. Frost arrived home from his expedition to New Guinea at the end of August, and in his collection were some fourteen birds of Paradise, including the Greater, Lesser, Red, King, and Twelve-wired. We were particularly glad to obtain a fine example of the last species. The Aru Island Great Kingfisher (*Seuromarptes tyro*), of which there were five specimens, is another very acceptable addition to the collection, as it has apparently never before been imported alive. The Red-bellied Rail (*Eulabeornis castaneiventris*), from the Aru Islands, is also new to the collection, and so is Stephani's Green-winged Pigeon (*Chalcophaps stephani*) and the Orange-fronted Fruit Pigeon (*Ptilopus aurantiifrons*).

There was also an example of the rare and curious Pesquet's Parrot (*Dasyptilus pesqueti*), but this belonged to the collector, and was sent to America.

BIRDS FROM PARA.—Another interesting collection received by the Zoological Society came from Para and contained a Boatbill (*Canchroma cochlearia*), two Cocoi Herons, two Maguari Storks (*Exenura maguari*), four grey-necked Tree-ducks (*Dendrocymba discolor*), and two Brazilian Motmots (*Momotus momota*). Of the latter, one was most unfortunately drowned in a severe thunderstorm.

BREEDING LEADBEATER COCKATOOS.—An interesting event has been the hatching and rearing of two young Leadbeater Cockatoos in one of the aviaries on the south side of the Parrot-house. One of these tried to take a flight abroad before he was strong enough to do so, and fell to the floor and was injured, in consequence of which he is still unable to fly, although his twin brother (or sister) can fly strongly. There is no distinct juvenile plumage in these Cockatoos, the young, on leaving the nest, being the exact counterpart of their parents, although decidedly smaller. This same species of Cockatoo bred in the Gardens several years ago in the large aviary on the canal bank, which is now, alas! given up to monkeys.

THE SOMBRE BULBUL.—Messrs. A. W. Gamage continue to receive consignments from South Africa and amongst the latest arrivals were some examples of the Sombre Bulbul (*Andropadus importunus*), a bird that may be described as olive-green above and olive-grey below. Of its habits and distribution the late Dr. Stark tells us that it is seldom found away from the dense bush, and owing to its sombre colour and shy habits is not easily seen or discovered; it is sometimes heard seated on the topmost branch of a tree giving forth a blythe song, and it has as well a chirp like that of a Sparrow, only louder. It feeds on insects and berries. It occurs in the bush districts of Cape Colony from the neighbourhood of Cape Town, where it is fairly common, along the southern coast through Swellendam and Knysna and Natal, Zululand and Lydenburg in the low country of the Eastern Transvaal.

AN AUSTRALIAN COLLECTION. — The following note, dated 23rd September, from Melbourne, appeared in the *Times* of 24th

September: "A collection of kangaroos, wallabies, wombats, black swans, native companions, Tasmanian devils, emus, many kinds of parrots, and two splendid specimens of Papuan birds of paradise, were housed on the deck of the White Star liner *Medic*, which left for England to-day. The collection was accompanied by an expert. It constitutes the first consignment by the Australian Zoological Control Board to its depot in London before sale to or exchange with other European zoological societies." The collection should reach London about the first week in November, and it is probable that most of the stock will be temporarily housed in the Zoological Gardens.

THE CONTENTS OF THE COLLECTION.—Since the above was written further information has come to hand of the contents of the collection, and it would appear to be the finest single collection that has ever come from the Antipodes, for, besides some hundred and fifty mammals, such as kangaroos, wombats, and bandicoots, there are no less than some twelve hundred birds from Australia and Papua. Amongst these may be mentioned twenty-five Birds of Paradise, comprising the Magnificent, Six-wired, and Count Raggi's, fourteen Eagles, seventy Fruit Pigeons, two hundred and fifty Parrakeets, twenty-five Black Swans, ten Laughing Kingfishers, eight hundred Finches, and many others. It is unfortunate that this wonderful collection should be arriving at the beginning of the winter, but at the same time birds purchased then will have a chance of becoming established before the next breeding season.

D. S-S.

VOICES OF SOME OWLS, AND REMARKS ON COLORATION

By FREDERICK D. WELCH

One of the most interesting birds I ever knew was a Pel's Owl (*Scotopelia peli*), a large species of African Fish Owl, about 23 inches long, of rufous-bay in general colour, with transverse black bars, and spotted on breast and abdomen with black. The iris in this individual was dark brown; and it frequently uttered a long-drawn-out voice rather like "teroo-o-o-o-o", and became very tame with me. The range of species is from Senegambia to Gaboon and Zambesi area, there

being no ear-tufts. Can we exclude the possibility of the voice being indirectly of use? I see *no reason*, even though it feeds on fish, why the voice, if suddenly uttered, *should not startle a small mammal or bird*, and make it more easily seen by the Owl; and my experience in England has been that *some mammals certainly stay quiet if alarmed for a time to escape danger, and will move if a sudden noise is made* (for instance, a wild vole I experimented on in 1917). Bouvier's Owl (*S. bouvieri*) is another species in the genus, the individual seen being from Lagos. Briefly described it was smaller than *S. peli* and paler brown, the black parts not so well marked; iris dark brown. Unfortunately I do not remember its voice. Does any reader?

A Winking Owl (*Ninox connivens*) from North Queensland used to utter a sound like "woop! woop!"; it being a pretty little grey bird with pale breast longitudinally streaked with brown and no ear-tufts. But the most extraordinary sound I have yet heard from any foreign Owl was a weird sepulchral cry which I believe came from a Milky Eagle Owl (*Bubo lacteus*), a large ear-tufted species about 27 inches long, ranging in Africa south of a line from Senegambia to Abyssinia. Considering that it and also a second bird seen were in general colour of a darkish grey, with paler breast and abdomen, and a black semicircular mark on each cheek (concave towards the beak), the species name seems to me very unsuitable, because the breast and abdomen were the only parts having any approach to milk white. Was the type specimen an albino individual? However, it seems to me that a species name *ought to be retained even if it does not agree in colour*, because if people start to alter names originally given to the types they knock away, so to speak, the foundations of nomenclature; and the result would be to cause confusion among ornithologists and do more harm than good.

In this Owl it seems to me that such an unearthly sound as that voice would make a concealed mammal or bird start and expose its whereabouts to a passing Owl. The sound referred to made me "jump" at the moment.

Syrnium indranee of South India and Ceylon is an attractive looking species, a living individual uttering voice much like *S. aluco*; and to show how variable it is I am quoting from writings of the late

Dr. Bowdler Sharpe (*P.Z.S.*, 1887, p. 477), omitting unnecessary words.

Male, from Ootacamund ; pale brown, chest barred like rest of under-surface ; face uniform deep ochreous buff, with scarcely any white posterior line between ear-coverts and ruff ; wing, 12·8 in.

Female, same locality ; similar to male, but with a little fringe of white behind the ear-coverts, which are uniform ochreous buff ; wing, 13 in.

Female, same locality ; very pale below, chest narrowly barred with brown, like rest of underparts ; face deep ochreous, with scarcely any indication of dusky cross-barring.

Female, from Nilghiris ; very pale below, with whitish cross-bars ; face deep ochre, barred across with blackish ; wing, 13·9 in.

Female (?), South Indian ; very tawny, face deep ochreous buff-rufous near eye ; scarcely any sign of white or frill of ear-coverts ; wing, 13·6 in.

Female (?), Ceylon ; dark bird, chest barred like rest of under-surface ; face deep ochreous buff, with evident traces of dusky cross-bars ; wing, 13·2 in.

Another Ceylon specimen, a darker bird, chest coarsely barred with dark brown, somewhat uniform on sides ; face deep rufous ochre, slight indication of white on lower part near frill ; wing, 12·5 in. (probably male).

Another Ceylon bird, strongly tinged with ochreous below ; face bright orange rufous, scarcely any white on lower margin ; no sign of cross-barring on face ; wing, 11·9 in. (probably a male).

When we consider that Owls roam from place to place it seems to me there is *no doubt* that *S. indranees* varies in the same locality in both sexes. Two specimens of the Ural Owl (*Syrnium uralense*) of north and east Europe and Siberia, a large species about 25 in. long, varied in general colour ; one a pale bird, with darker streaks on head, breast, and abdomen ; the other being a blackish coloration with darker marks showing through. Both uttered at times a bleat like a goat, and were living in same cage. Is this species of dimorphic coloration at times (analogous to what occurs in some mammals) a double-normal coloration ? Or was the above an abnormal melanistic specimen ?

Two individuals of Australian Barn Owl (*Strix delicatula*) in the Gardens in former years varied on throat, breast, and abdominal region, one bird being white on those parts with *no* spots, the other bird white with grey spots, both being of same size and presumably fully adults, living in same cage. Might I suggest that any member who knows any one of above species in the wild state should forward any facts known to them to the Magazine for publication ?

CORRESPONDENCE

REMARKS AND QUERIES ABOUT KAGU

SIRS,—In the *Avicultural Magazine* of 1920 some remarks, mostly about the voice of this bird, *Rhinochaetus jubatus*, were printed on p. 182, they being founded on an individual which had lived in the London Gardens since November, 1906. It seems worth adding now that when in the Gardens in June, 1921, I was told that the bird had recently died, which brings its life in captivity to 14½ years. Can anyone give a longer-known-life in a captive bird ?

When the note referred to was written by me I was not aware that Mr. Heumann was breeding this aberrant offshoot of the Crane group at his home in New South Wales, as mentioned by Mr. Seth-Smith on p. 28 of the 1921 volume ; and as my note was, in addition to recording voice, also intended to draw information from other people, might I ask Mr. Heumann for some facts about his breeding pair ?

Is only one egg laid ? Is any nest made, or the egg laid on grass only ? What is the colour and size of it ? Do both male and female incubate ; and what is the period of incubation ? Is the newly hatched bird downy, or is it naked ?

As Mr. Heumann has, so I was informed by a person who read my note, already written about these birds, my queries may bring some repetition of statements made in former volumes of the *Avicultural* about his birds.

But even if so, it does not seem to me the repetition would be superfluous, because new members are being added to the Society (and many more will, I hope, join !), some of whom at least would also be interested in the replies to above questions ; and also because it is

not always easy to get a copy of any special number where a bird or group of birds a person is interested in have been written about. I should also like to suggest that if Mr. Heumann has a photograph of a male, female, and chick which he has bred, they should be printed in a future number of the Magazine to preserve a record, because it seems to be not unlikely these birds may become extinct owing to their defenceless nature and helplessness.

As to the adult in the London Gardens, I never saw it attempt to use its wings in flight, which suggests the species had lost the knowledge as to how they were formerly used; nor did it even attempt to raise them in like manner as the allied so-called Sun Bittern (*Eurypyga helias*) of South America does, standing in self-defence when other birds attempt to interfere with it, but the Kagu only crouched into a half-standing position (as some domestic fowls do when alarmed) when approached by strangers who tried to handle it, and made no attempt to resist interference.

On this subject I cannot find any information in the books by me now; but judging from the attitude of the Kagu in the Gardens in London, it seemed to me as probable that the species had *lost the use of wings* owing to living century after century in an island home (New Caledonia) in the Pacific Ocean; and where, so far as I am aware, there are none of the flesh-eating marsupials known as Dasyures and their allies, which mammals are presumably frequently stalking birds on the Australian mainland, and in doing so keeping their wings in good order by making them use these parts, in addition to their legs, to escape mammalian enemies. Is this opinion of mine about Kagus having, as a species, lost the use of their wings supported by observation on other birds?

FREDERICK D. WELCH.

THE QUEEN ALEXANDRA PARRAKEET (*POLYTELIS ALEXANDRÆ*)

SIRS,—By what right does Mr. Matthews take upon himself to change the specific name of the Princess of Wales Parrakeet, or, as it naturally afterwards was called, the Queen Alexandra? I have more than once protested against the name being altered to that which

Gould originally called it, namely *Polytelis*. If the Rock Pebbler and the Barraband are *Polytelis*, then, undoubtedly, the Queen Alexandra Parrakeet is also.

Just because the latter species sports in the male one spatulated feather in the primaries, it was afterwards placed by itself under the title of *Spathopterus*. Now it has been found that that name is pre-occupied, and Mr. Matthews has coined a new one, and to my mind an entirely unwarrantable one, namely *Northipsitta alexandræ*. All this trampling upon original names and separation of species because of one feather is ridiculous, and more, it is presumptuous.

I will not dwell upon the trinomial nomenclature, because in aviculture I have something better to do than to talk of my Bullfinch as *Pyrrhula pyrrhula pileata*! But I can only say that when my living Queen Alexandra Parrakeets die I shall refuse to present their skins to any museum or individual (and they are extremely rare, even as such) unless the bird is labelled what Gould named it, namely *Polytelis alexandræ*, and that only.

No doubt one gains some kudos when coming generations see one's name as the giver of titles along with Linnæus, etc., but if we once let in the thin end of the wedge and ignore ornithologists, such as Gould, I see no reason why we should not all of us invent and coin a different name for the same bird, according to our fancies, just as war-profiteers and nouveaux riches put together some ridiculous coat of arms, or calmly annex the crest of another family, as well as the name!

HUBERT D. ASTLEY.

YOUNG ALEXANDRA PARRAKEETS

SIRS,—I have bred three fine young Queen Alexandra Parrakeets this year. A male Barraband (*Polytelis barrabandi*) mated with a female *Polytelis alexandræ*, but unfortunately the latter died when there were two beautiful young birds in a nesting-box, and they also succumbed. They favoured the male in colouring, and, of course, had the rose colour on the underpart of the tail-feathers, which is common to both species.

HUBERT D. ASTLEY.

BREEDING THE YELLOW-BILLED CARDINAL

SIRS,—I see from the August number of the Magazine that Capt. Rattigan has bred the Yellow-billed Cardinal, and that he is under the impression that this has not occurred before in this country. I bred the species in 1911, in my old aviaries. Two broods of two and three youngsters respectively left the nest during the summer; beyond providing a large number of insects, I had no difficulty at all with my birds.

Bird-keepers will remember that this species was quite common and cheap in those days, and I was much more interested in the hoped-for breeding of a pair of Black-cheeked Cardinals (*P. nigrigenis*), which unfortunately did not materialize.

Mr. Temple clearly remembers the rearing of the young Yellow-bills, but we neither of us knew that the occurrence was an unusual one.

M. AMSLER.

THE INCUBATION PERIOD OF CRANES

SIRS,—The hatching of a young white-naped Crane in the Zoological Gardens last spring is not the first case of a Crane breeding in the Zoo. The Mantchurian Crane bred there in 1861 (*Proceedings*, 1861, p. 369). The incubation period of the white-naped Crane which bred at the Gardens last spring was said to be thirty-five days from the laying of the first egg. Blaauw gives thirty days, as noted in the Amsterdam Zoological Gardens. He also says that, when his own Mantchurian Cranes bred, the first chick was hatched on the thirty-first day after the laying of the first egg. It almost looks as if the incubation period varied in these birds to the extent of several days.

I have a pair of Mantchurian Cranes which have nested the last three years. I made very careful notes in 1919, in which year the female laid the first egg on 28th April, and began to sit at midday that day. The first chick was hatched on 1st June, the thirty-fourth day after the laying of the first egg. Last year only one egg was hatched. If it was the second egg laid, it hatched on the thirty-fourth day, but if it was the first laid it did not hatch until the thirty-seventh day, which seems improbable.

W. H. ST. QUINTIN.

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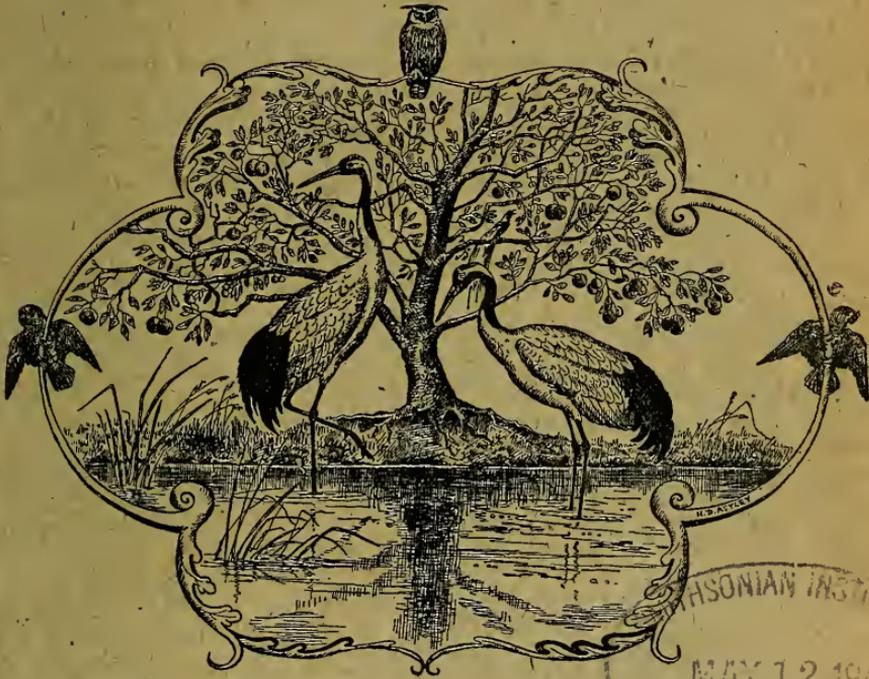
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THE AVICULTURAL SOCIETY.

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IN FREEDOM & CAPTIVITY

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BREEDING OF THE SALTATOR TANAGER

By HERBERT BRIGHT

Last autumn Mr. Rogers, of Liverpool, sent me a line saying he had some South American stock in and would I care to have a look, so I went round to see what had arrived. Amongst the arrivals were some large brown birds like Grosbeaks, which I had not previously seen, so I selected what I thought would be a true pair. I have since discovered that they are Saltator Tanagers, apparently *Saltator aurantiirostris*. One bird showed a yellow under mandible, and the other, which was similar to several of the others, had two dark mandibles. This proved to be a hen, but as she was about the cleanest and strongest of the lot I was half afraid it might turn out to be a young cock. I took them home, and in a few days let them out in the large aviary. The hen at once gathered a few sticks and straws together, and with a little hay made the beginning of a nest, but it was never completed, and they soon took no notice of it. In the early spring I drove all the birds into the bird house, and did not let them out again until all the shrubs and trees had made a good start and the aviary had been cleaned up generally. As soon as they had the chance of getting out of doors again they began to build a large strong nest in an elder. The nest was formed of strong twigs as the foundation, smaller twigs, hay, rootlets, etc., being placed on top, and the inside lined with hair, fibre, and fine hay. The outside of the nest was rough and not unlike a large blackbird's, but well-finished inside. The hen laid and commenced to sit, and I went to have a peep when she was off to see what the nest and eggs were like. I could see into it and did not disturb it in any way, but she never went near it

again. There was only one egg in it, something like a thrush's egg. They began to build another nest in a small shelter shed, which was completed in a few days, but they appeared not to like it, and started a fresh one outside in an elder. This, again, they left, and I presently found they were sitting in the nest in the shelter shed. Four eggs were laid, but only one young one was hatched, which left the nest when not fully feathered, much as the smaller thrushes and blackbirds out of a nest do here. This young one used to climb about in the bushes and on the ground, and was well attended to. I saw it many times, and it much resembled the hen, except that the colour was darker. I imagined it was fully reared, but for some reason it disappeared—possibly the old birds stopped feeding, or it did not find the water, the weather was very dry and hot and the water was a good deal hidden by long grass. Anyhow, the old birds had built another nest and were sitting again in an elder, outside. They had commenced to feed their young before I went away for three weeks, and on my return I found two strong young birds, fully as big as the parents, flying about. In a few days I saw them eating buds and coming in the evening for a drink and a feed of live food (gentles), which is always kept in a tin. This time they appeared to be two cocks, as they were almost exactly like the cock, except that both mandibles are light yellow horn colour, and there is no clearly defined bib marking. Both old and young are not at all shy, and come quite close for live food. She sat closely but used to come off for a feed in the evenings. The cock was very attentive, and used to carry food to the hen, and always gave her food when she came off the nest—mealworms or hop-buds, or anything he could get. I never saw him sitting on the nest. Both birds worked hard at building the nest. The young were fed on mealworms, gentles, milk-sop, and buds from the hop-plants, and later on seeds as well. The first day or two the parents used mealworms only, which they killed very carefully before taking to the nest. I used to think the mealworm had been eaten sometimes, but found they always flew away with it and out it came again to undergo a further preparation before flying off to the nest. Almost from the first they fed the young on small hop-buds, also a little milk-sop. They are quite quiet in the avairy except when nesting and then, as might be expected, they rush at and drive away any birds that come near the nest.

BREEDING OF THE KING PARRAKEET

By M. AMSLER, M.B.

Although the King is not a very rare species, and is found either singly or in pairs in most large collections, I believe I am right in thinking that the successful rearing of young is a somewhat unusual occurrence.

In the first place hens are not very easily come by, a good many supposed hens being males in immature plumage. As the males take three years to develop their distinctive plumage this, in itself, may cause the hopeful aviculturist no inconsiderable delay. Furthermore, the hen King Parrakeet appears very loth to make use of a nest-box. In the wild state the species chooses the hollow limb of some tall and rotten tree; the entrance hole may thus be at a height of 30 or 40 feet and the actual nest almost at the ground level. In captivity it is obviously impossible to provide a nest-box more than 3 or 4 feet long, and this may account for the birds' unwillingness to make use of the usual type of nest-box with which they are provided. My pair of birds came to me from Sir Leo Chiozza Money in 1920 with a rather bad character, the hen had either laid and refused to sit, or had not used a box and thus spoiled the eggs—I forget which.

These birds spent the winter and early spring in a fair-sized aviary, together with a pair of Blue and Black Jays; they paid little attention to each other, but devoted all their spare time to destroying what few bushes the aviary contained. In April I put the pair in a small all-wire flight, 10 ft. by 4 ft., provided with two types of nest-box. One a deep box about 3 feet long, with a hole near the top and a concave wooden bottom; the other was also about 3 feet in length, but was laid horizontally and had one end open to allow the birds to enter—to my mind the latter was an ideal box. These boxes I have lately removed, and I do not believe either bird ever entered them, as the sawdust which I placed inside was not even disturbed, and there was not a feather or other sign of a bird having inhabited either nest.

Knowing their species' propensity for laying on the ground I also provided a half coco-nut husk cemented into a box and buried flush with the surface of the ground. In May the birds were seen pairing, and the cock was constantly dancing round the hen and being generally

officials. On the 13th of that month I saw the hen very busy on the ground, scraping a hole with her beak and feet, all the time assisted by the cock, who fussed around freely and did nothing at all. I examined their "scrape" later in the day; it was a very rough affair, about 9 inches in diameter and some 3 inches deep, and contained a number of stones, which I removed. Next day there were again a number of stones in the "scrape", and this time I left them there—they were collected and carried to the nest by the hen.

By 18th May all traces of the "scrape" had disappeared, and I found an egg on the ground near where it had existed. I put this egg in the coco-nut husk, which happened to be near by. On the 20th another egg was laid in exactly the same place as the first. This was evidently a spot to the hen's liking, so I made a hollow and firm hole in the ground, surrounded it by four bricks placed on edge, and placed the two eggs in the middle. On the 21st I was glad to see that a third egg had been added in the artificial nest. On the 23rd the fourth egg was laid, and on that day I covered the nest by a sort of tunnel made of galvanized iron bent into a semicircle, and kept in position by wooden pegs driven into the ground; the hen could enter from either end. Fortunately, all this in no way disturbed her, and she laid two more eggs on the 25th and 27th, making a total number of six, of which I had to remove one as it was cracked.

At first the hen sat very unsteadily, but I should say that she began incubation with the fourth egg. The eggs varied a good deal in size and shape, were very granular in texture, and two, at least, might be described as nodular, quite unlike any other eggs I have ever seen; this may, of course, be an exceptional feature, due to some defect in the female bird. After the first few days the hen incubated very well, but owing to the shape of the earth bottom of the nest the eggs rolled about a good deal, and I frequently saw one or more eggs which were not properly covered when watching the hen on her nest. On several occasions I deepened the hole and tried to make it more to the hen's liking, but the earth was inclined to crumble away at the edges and to fill up the hollow. Each time I looked in I found and removed a number of pebbles, evidently put in either by the cock or by the hen on her return to her nest; I much feared that these would break the eggs and so

dared not leave them. Could they have been put in to prevent the eggs rolling about? I allowed incubation to proceed until 20th June—over three weeks, when I examined the eggs; they were all infertile, so I removed them and the nesting arrangements in the hopes that a further clutch might be forthcoming and that the birds would choose a nest-box. During all this time the cock was most assiduous in feeding the hen, and became much tamer than he had formerly been.

On 30th June, 2nd July, and 3rd July three eggs were laid again on the ground. This time I cut a hemispherical hole in a thick piece of timber, which I buried flush with the ground and in which I placed the three eggs. On 5th July a fourth egg was laid with the preceding ones, and I then replaced my galvanized iron roof. The hen looked like laying for another three days, but changed her mind and began incubation on 8th July. She sat very steadily, with the cock in constant attendance, until 28th July, when three chicks hatched out; incubation was therefore just under three weeks.

Fearing that the chicks would wriggle out of their shallow nest, I made a sort of box, some 6 inches deep, which I fixed round the nest on 6th August; the parents had to climb over the edge to get down to the young, but they were in no wise disturbed by this change in their home, and I have no doubt that I should have failed in rearing the young had I not taken this precaution. The chicks were even uglier than most parrakeets in the early stages, the skin being greyish white covered with dark grey down. They were constantly brooded by the hen during the first ten days, and I think the cock did most of the feeding, though I am not certain whether at this period he gave the food direct to the chicks or whether he fed the hen, who subsequently fed the young. Very large quantities of hemp and sunflower seed were consumed. Unlike Rosellas and Cockatiels, soaked bread and ground rice were not touched. Owing to the drought there was a great scarcity of groundsel, chickweed, and dandelion, but a large seeding lettuce would disappear in an incredibly short time.

By 6th August, at the age of 9 days, the young were well covered with quills, and extremely noisy when hungry. By the 20th the quills were bursting, and the green colour was clearly visible on the heads and backs. One of the chicks was considerably smaller than the other two.

Growth continued apace, and on 5th September, at the age of 6 weeks, the first youngster left the nest and marched solemnly about the small aviary. He was about two-thirds the size of the parents, with, of course, a stumpy tail, which made him look still smaller. The colour was much that of the female; green head and back, with darker flights; the rump blue, legs and feet horn coloured, beak a pinkish brown. The young of the species are said to have the outer webs of the tail feathers pink, but I could not find this trait in my birds, even on handling them. The first young bird returned to its somewhat unnatural nest for the night but reappeared on the two following days; it was, however, very timid, and would always bolt back to its "burrow" on the approach of any human being.

By 12th September this bird could fly strongly, and looked very nearly as large as its parents. On this day, the second chick left the nest and did not return—there was heavy rain that night, but neither looked any the worse on the morning of the 13th, when a third and much smaller chick appeared. As the flight has no shelter and the nights were becoming cold, I caught and transferred the five birds to an aviary with a large shelter shed, into which I had them shut up at night. For a time the smallest bird was inclined to mope about on the ground, and spent much of his time crying bitterly for the companionship of his brothers and parents on the perches above. I occasionally took him up in my hands and put him on a branch; this was always accompanied by a violent fit of yelling, which continued long after I had left him, and reminded one strongly of a frightened or spoiled child.

At the present time, 1st October, all three young can fly strongly. Their favourite food is hemp, sunflower, and apple, but they also eat a fair quantity of mixed chicken corn and boiled maize. The two larger ones are scarcely distinguishable from their mother, but one of them has distinctly brighter and more extensive red on the underparts, and is obviously a male. They are quite independant, but they still like being fed, and on this point their parents pander to them.

SHRIKES AS CAGE-BIRDS

By DR. E. HOPKINSON, D.S.O.

A recent advertisement of Drongos and some South African Shrikes drew me to the "Zoo" at Gamages, my first visit to this delightful place, but I hope not the last.

These particular birds were my main attraction, for I have kept (or rather tried to keep) a few of them in West Africa, but the whole place and all its occupants were a revelation to me. More or less cut off from things birdy in recent years, I had no idea that such advances in the bird-dealing line had been made nor that a "bird-shop", even at its highest (as here), could be such a delightful place, where birds looked well, were kept well, and apparently sold well.

The sight of these Shrikes determined me to try again with some of the Gambian species if opportunity offers, and also led me to look up what records I have at hand of the keeping of Shrikes in captivity. These are chiefly back numbers of the *Avicultural Magazine* and *Bird Notes*, some of the more recent Zoo lists, and an occasional reference elsewhere. The following is the result of my search, and although there must be a few more records of other species obtained by our own or other Zoos or by dealers, I think it must contain nearly all the Shrikes, which so far have attained avicultural interest.

As regards the DRONGOS, which, however, are, of course, not true Shrikes, I have occasionally seen an odd example of an Indian species in captivity, but never before an African. Have any African Drongos been ever imported before these birds at Gamages? They are, I presume, either *Dicrurus afer* or *ludwigi*, but as their tails are broken one cannot be sure whether they are the first, the FORK-TAILED, or the second, the SQUARE-TAILED DRONGO.

Mr. Finn, in his article on the "Cage-birds of Calcutta" (*Ibis* 1901), mentions three species of Indian Drongo, but of these he says that only one, the BHIMRAJ, *Dissemurus paradiseus*, is at all commonly seen in captivity. The only other record I find is another Asiatic species, the JAVAN DRONGO, *Crypsirhina varians*, one of which appears in the Zoo lists as "new to the collection" in 1907. I will now get on to the true SHRIKES, *Laniidæ*.

THE GREAT GREY SHRIKE, *Lanius excubitor*,

Was (and no doubt will be again) a not uncommon and a very attractive show bird. As many as four at one show are recorded in the *A.M.* for 1908 (p. 158, Crystal Palace Show of that year). Bechstein includes it in his book on cage-birds, giving some ten lines to its "attractive qualities", and mentioning its use as a "Sentinel" in Falcon-catching. It also finds a place in some of the English cage-bird books, such as Birchley, etc.

THE LESSER GREY SHRIKE, *Lanius minor*.

I believe I have seen this bird on the show bench, but can find no record. Bechstein gives quite a long account, and calls it a "very desirable cage-bird". Altogether this writer deals with four Shrikes, the other two being the WOODCHAT and RED-BACKED.

THE RED-BACKED SHRIKE, *Lanius collurio*,

Besides being not uncommon as a show-bird, has the distinction of being the only Shrike hitherto bred in captivity. A pair belonging to Dr. Günther nested in 1904, and between then and 1912 reared altogether seven broods in captivity. See *A.M.*, 1904, 339; 1912, 335, and elsewhere in the interim.

THE WOODCHAT-SHRIKE, *Lanius senator*.

This rare visitor to Britain has made a very occasional appearance at shows, but except for one once brought me alive in the Gambia, where it is a common winter visitor, I have never seen one in captivity.

Other members of the genus *Lanius* which my records lead me to include are :—

1. The AMERICAN GREY SHRIKE, *Lanius borealis*.
2. The INDIAN GREY SHRIKE, *L. lahtora*.
3. The BAY-BACKED SHRIKE, *L. vittatus*.
4. The RUFIOUS-BACKED SHRIKE, *L. erythronotus*.
5. The BLACK-CAPPED SHRIKE, *L. nigriceps*.
6. The BROWN SHRIKE, *L. cristatus*.
7. The MAGPIE-SHRIKE, *Urolestes melanoleucus*.

Of Nos. 4, 5, and 6 Mr. Frost brought specimens in 1912, and with them came a Cuckoo-Shrike, *Graucalus macii*, one of the *Campephagide* (*Bird Notes*, 1921, inset 43). *Vittatus*, *cristatus*, and *erythronotus* appear

in the Zoo lists as new birds in 1902, 1912, and 1915 respectively.¹ Captain Perreau in *Bird Notes* for 1911 (p. 254) described Nos. 3 and 4 as making "very good pets when hand-reared. Wild-caught birds I have not tried, but fancy they would be difficult to steady down; they have quite pleasing notes, and some very harsh ones".

No. 1, the AMERICAN GREY SHRIKE, appears in Russ' big work, the only true Shrike included. The only fact of real avicultural interest mentioned is that three were kept in 1879 in Chicago (*Fremdlandische Studenvogel*, ii, p. 464). The INDIAN GREY SHRIKE holds much the same position in Dr. Butler's book, where we learn that the first example our Zoo had was obtained in 1890. He also mentions certain North African Shrikes reared by Mr. Meade-Waldo. (See *Foreign Cage-birds*, ii, p. 57, and *A.M.*, 1905, p. 45.)

No. 7, the latest record is the large black and white long-tailed MAGPIE-SHRIKE, of South Africa. One of these reached the Zoo in 1920.

We can now turn to the BUSH-SHRIKES, the *Malaconotinæ*, examples of which were the original cause of this article. These are, indeed, rare cage-birds, even compared with their relatives already mentioned, and records and references to them as such are few. In the *A.M.* for 1902, Dr. Butler (p. 44) writes of some of the South African Bush-Shrikes as likely to make desirable cage-birds, and in his *Birds of Africa* (vol. v, p. 410), Captain Shelley quotes Swynnerton as having kept specimens of the SOUTHERN GREY-HEADED BUSH-SHRIKES, *Malaconotus hypopyrrhus*, in captivity for some time and found that they fed freely on locusts, grasshoppers, and the like. This is just what I found with those I have tried to keep in Gambia, but they never got really meated off.

The FOUR-COLOURED BUSH-SHRIKE, *Laniarius quadricolor*, was in the Zoo collection in 1882 according to Dr. Russ (T.c. 464), and this is the only record I have come across which can be said to raise these birds from the ranks of potential to actual cage-birds, and the two species on show at Gamages are the first I have known as such, except for my own unsuccessful efforts in this direction in West Africa.

The species represented are the SENEGAL (OR BLACK-HEADED BUSH-

¹ The Shrikes now at Gamages were all wild-caught, but in spite of this are quite steady, one or two of them wonderfully so.

SHRIKE, *Tschagra senegala*, and the PUFFBACK-SHRIKE, *Dryoscopus cubla*, I presume.

Of the first, I think there are four examples all in good condition, while one is in almost perfect fettle, a wonderful tribute to their importer's care, as, indeed, are all the birds he brought with them, both hard- and soft-billed. For general good condition and looks the Robin-Chats and some rare Bulbuls would take a lot of beating, while a eageful of Dufresne's Waxbills absolutely took my breath away for good looks, although apparently still in the cage in which they travelled. I have brought home a good many Waxbills in my time, and am quite satisfied usually with the condition in which they arrive, but I have, I am sure, never bettered this lot.

The SENEGAL SHRIKES are particularly interesting to me, for I know them well in Gambia, where they are very common, and known as the "Ndoio". Above the colour is a rich red brown, below pale buff. The crown is black, the eyebrow pale fawn, and there is a black streak below the eye, giving the head a striped appearance. The tail is black with white spots near the ends of the feathers, which are most conspicuous when the bird flies. With us they are birds of the more open country, where they spend much of their time on the ground among low scrub, in which they skulk and manage in a wonderful way to hide their rather conspicuous plumage. When obliged to fly they still keep low down or perhaps more often take long flying hops along the ground to another patch of shelter. They are always found in pairs, and when one leaves a bush it is almost immediately followed by its mate. It is a beautiful singer (probably the best we have in Gambia), and is heard mostly during and just after the rains, and then most frequently and at its best in the early mornings and late evenings. The song consists of a long strain of sweet flutey notes, very distinctive when heard, but difficult to remember or whistle. The Mandingos say that this bird is so proud of and so wrapped up in the beauty of its voice that it shuts its eyes when singing in order to listen better to its own notes, and then becomes so absorbed in the performance that it can be easily caught in the hand. Needless to say, I have never done or seen this done, but really I rather hesitate to disbelieve it, for besides realizing now that there are many things in Africa one cannot merely dismiss with scoffing, I saw one of the

Babblers I brought home caught in the hand on a fence in broad daylight while engaged in scolding at another bird below him.

I had forgotten that these birds had so extensive a range in Africa and that the West and South African birds are both *senegalus* till I looked it up. I think, however, that the Gambian birds are rather more ruddy than these I saw the other day, and I see (from Shelley) that the two are subspecifically separated, *Tschagra senegalus* (Linn), Senegal to Liberia, *T. s. erythroptera* (Shaw), South Africa.

Of the PUFFBACK-SHRIKES, if I remember rightly, there were two. They had broken their tails and generally roughened themselves, but were fat and healthy. Although now very steady, they obviously did not at first take so kindly to cage-life as the others must have done. Black and white, and the long soft white back feathers are the main features of their coloration. In the Gambia our Puffback is *D. gambensis*. I have never attempted to keep them and consider that their successful importation is (together with that of the Drongos) an even greater achievement than that of *senegalus*. Both Puffbacks and Drongos have always seemed to me too flycatchery and difficult to attempt.

Of the BUSH-SHRIKES the species which I should rather keep than any, on account of his striking plumage, is:—

The BARBARY BUSH-SHRIKE, *Laniarius barbarus*.

This bird is glossy black above, below (from chin to vent) bright scarlet, and its crown and forehead are yellow, a bird therefore to catch the eye. They are quite common in the Gambia all the year round, and frequent in pairs the outskirts of thick bush, particularly along the swamps and near bush-wells or pools. Their call-note is "tchirk-tchirk", while besides they have a short whistling song of a few notes.

I have kept several, but never for any length of time. All fed well, probably too well, on large insects, lizards, small birds, mice, etc., but I never got one on to a diet suitable for a homeward voyage. I must say I never tried very hard, for I do not think I ever had one near the time for my leave, so that I was never tempted to try and keep them when there was any difficulty in getting live food.

The GREY-HEADED BUSH-SHRIKE, *Malaconotus poliocephalus*, is another handsome bird, green above and yellow below, and distinctly larger than the Barbary. They are more tree-birds than the other Gambian species, and have a long-drawn sweet but rather monotonous whistle.

I mention these two birds as desiderata, but really, if included at all, their mention should have been higher up with the other "possibles", for so far they are certainly nothing more.

I find two other entries of "Shrikes". The first, *A.M.*, 1903, is an account by Mr. Farrar of a pair of Pied Shrikes, and the second an advertisement of a "Greater Blue Shrike", mentioned in *B.N.*, 1910, p. 122. The "Pied Shrikes", I presume, were *Cracticus*; what was the "Blue Shrike"? A Great Grey Shrike?

In conclusion I must just refer to other families of more or less Shrike-like birds, which are known as cage-birds.

The Swallow-Shrikes, *Artamidae*. Two or more species used at times to be imported.

The Crow-Shrikes, *Gymnorhinæ*. The best known of these are the "Piping Crows".

The Cuckoo-Shrikes, *Campephagidæ*, of two genera of which I know single examples have reached England and perhaps there have been more. These are *Graucalus*, as mentioned above, and *Pericrocotus*, the Minivets. These are rare cage-birds in the East, but Mr. Ezra has kept one at least in this country.

A FINE COLLECTION FROM SOUTH AFRICA

Perhaps the largest of all the collections of birds that have arrived from South Africa was recently received by Mr. Hamlyn, of St. George Street, E. His collector, Mr. Grei, brought them home himself, and is to be heartily congratulated upon the excellent condition in which the stock arrived. To successfully look after eighty-four boxes of mammals and birds during a voyage of some four weeks is no small undertaking, and when the present writer viewed them the day after arrival their condition left nothing to be desired. There were no less than eleven hundred small birds, including five species of Sun-birds, two Wood

Hoopoes, Violet-ears, Black-cheeks, Dufresnes, Blue-breasts, Fire-Finches (including *L. rubricata* and *L. jamesoni*), Pied Babblers, Red-breasted Shrikes, Rollers, and a beautiful pair of Temminck's Coursers, besides many others.

D. S-S.

THE COUNCIL MEETING

A meeting of the Council was held on the 21st October, at which the following nominations were made:—

For the Council—H.G. The Duchess of Wellington and Mr. A. Pam, in the places of Lord Tavistock and Mr. Willford, who retire by seniority.

As scrutineer—Lord Tavistock.

The following alterations were made to the Rules for the Society's Medal:—

Paragraph 2, line 3: *after* "species" *add* "and must not have been previously published elsewhere".

Paragraph 3: Omit the whole paragraph.

REVIEW

SKETCHES OF BRITISH BIRDS¹

Under the title *Birds One Should Know*, Messrs Gay & Hancock have produced a very attractive quarto volume, the letterpress of which is by the Rev. Canon Theodore Wood, who describes thirty-three of the commoner species of British birds, and deals especially with their beneficial as well as their mischievous qualities. He is fair in his criticism, and although in dealing with the Sparrow, for instance, he lays full stress upon the good it performs in devouring insects in the spring, he does not minimize the harm it does, and comes to the conclusion that this more than balances the good. He considers the Chaffinch a friend to the farmer during one half of the year and an

¹ *Birds one should know, Beneficial and Mischievous*, by the Rev. Canon Theodore Wood, and illustrated by Roland Green, F.Z.S. Crown 4to (10 × 7½"). Price 10s. 6d. net, postage 1s. London: Gay & Hancock, Ltd., 34 Henrietta Street, Covent Garden, W.C. 2.

enemy during the other, but that, on the whole, it does much more good than harm.

The great charm of the book, however, lies in its illustrations, which are all by Mr. Roland Green, a young artist who has done some very good natural history work, and will, we think, soon be well to the fore in this. There are no less than eight coloured and sixteen uncoloured plates, and 185 text-figures. The illustrations are, in fact, the making of the book, and form a beautiful series which alone is worth more than the



JAY FEEDING YOUNG
(From *Birds One Should Know*)

price charged for the complete volume. The frontispiece, a coloured plate of Goldfinches on a thistle plant, is very charming, as is that of the Lapwing with her young, the Great Tit with her brood of seven, or the Pheasant in covert, while that of a collection of fifteen heads of birds in colours is decidedly useful to the young student. The uncoloured plates, some in half-tone and others in line-work, are also of high quality, as are the text-figures, which are very generously distributed throughout every page of the letterpress.

The title is perhaps somewhat misleading, for the youngest student of British birds will want to know more of our birds than are described here, and it seems strange that a book entitled *Birds One Should Know* should contain no account of the Nightingale, Yellow-hammer, or Linnet, while a comparatively rare species, such as the Short-eared Owl should be dealt with. But we realize that the letterpress is secondary to the illustrations.

CORRESPONDENCE

A RARE BRAZILIAN OWL

SIRS,—I have recently bought a very handsome small Owl, of which I do not know the name, and I should be greatly obliged if any member could enlighten me. The dealer says that it comes from Brazil. It is about the size of our Barn Owl, diurnal, streaked all over with brown and tawny yellow, legs and feet covered with very close tawny down, claws black; feet and legs particularly neat, almost hawk-like. The wings are very long, and project beyond the longish barred tail; underneath the wings the plumage is tawny. The facial disc is full and round, but the head is rather small in comparison with most Owls; iris bright golden yellow, pupil black. Two very short "ears" quite close together on the crown of the head, like a double crest. I think the bird can elevate and depress these tufts, but am not quite certain; they certainly appear more erect if the bird is alarmed or excited, but it may be that they seem so because the other head feathers are depressed.

When this Owl sits erect on its stump it is strikingly hawk-like. It is in good plumage, and keeps itself very clean, enjoying a bath nearly every day.

I should like to know if it will stand the winter in an out-door aviary facing south, with wooden sides and roof; also if it has been frequently imported.

ETHEL F. CHAWNER.

[Mr. Meade-Waldo has identified this Owl as *Asio stygius*.—EDS.]

THE YELLOW-BILLED CARDINAL

SIRS,—With reference to my paper on the Yellow-billed Cardinal, a few small printer's errors have crept in, which I would be glad if you

will kindly have corrected in the next issue of the *Avicultural Magazine* :—

Errata

p. 134, 2nd paragraph, 2nd line : (amber) brown should read (umber) brown.

p. 134, 3rd paragraph, 2nd line : “ wing ” twigs should read “ slender ” twigs.

p. 134, 5th paragraph, 3rd line : “ coached ” hemp should read “ cracked ” hemp.

p. 134, last paragraph, 5th line : “ envious ” display should read “ curious ” display.

Yours faithfully,

G. E. RATTIGAN.

P.S.—I have learned since I wrote to the *Magazine* on this species that Dr. Amsler claims to have bred them in 1911, though he never published an account of the episode nor apparently took any notes. In any case, this appears to be the first published and detailed account of this species breeding in captivity in this country.

SUCCESSFUL BREEDING RESULTS

SIRS,—My birds have done fairly well this year, and I have had the following young ones : 10 Cut-throats, 3 Cuba Finches, 2 Silver-bills, 2 Blue Grosbeaks, 2 Saltators, 4 Blue Robins (but lost three of them later), 12 or more Zebra Finches, 2 Green Cardinals, 1 Virginian Cardinal, 8 Masked Doves, 4 Australian Crested Doves, 6 Geoffroy's Doves, 4 Peaceful Doves, 3 Coekatiels, 2 Redrumps, and 3 hybrid Golden-breasted Waxbill and Avadavat. My pair of Baltimore Orioles built two nests and laid onee, but the eggs failed to hatch. Rock Buntings, Golden-breasted Buntings, Nonpareil Buntings, and a pair of small Grosbeaks all nested but failed to hatch.

HERBERT BRIGHT.

BREEDING GANG-GANG COCKATOOS

SIRS,—I am pleased to tell you that I have been successful in breeding Gang-gang Cockatoos this past summer.

F. G. HEDGES.

CAUDEBEC-LES-ELBEUF, FRANCE.

CANDIDATE FOR ELECTION.

Mrs. WYCLIFFE GOODWIN, Orchard, Westward Ho. Proposed by D. SETH-SMITH.

Mr. J. BICKLEY, 319 Lonsdale Street, Melbourne, Australia. Proposed by A. S. LE SOUËF.

NEW MEMBER.

CAPTAIN MOUNTAIN, Groombridge Place, Groombridge, Kent.

MEMBERS' PRIVATE SALE AND EXCHANGE COLUMN.

The charge for private advertisements is SIXPENCE FOR EIGHTEEN WORDS OR LESS, and one penny for every additional three words or less. TRADE ADVERTISEMENTS ARE NOT ALLOWED IN THIS COLUMN. The Editors reserve the right of refusing any advertisement they may consider undesirable.

FOR SALE

PAIR of Pennants £6, hen Rosella 40s., cock Sayaca Tanager 40s., one pair of Europs Parrakeets £3 10s., cock Yucatan Jay £3 10s., hen Lucian Parrakeet £3, hen Green-winged Dove 25s. All the above are from out-door aviary, and in perfect health and plumage.—SYDNEY PORTER, Selwyn House, Old Normanton, Derby.

WANTS

PAIR blue-bred, and a hen yellow, Budgerigars.—ALFRED THOM, Whitechurch, Salop.

The charge for members' advertisements under this heading is FOURPENCE FOR TWELVE WORDS or under, and one penny for every additional three words or less.

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High-class BIRDS and ANIMALS always on view. Inspection Cordially Invited. Direct Importation of African Birds.

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Cocks 30/- each, Hens 40/-	FISCAL SHRIKE (<i>Lanius collais</i>)	40/-
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<i>notos</i>)		10/6 each.
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RED-COLLARED WIDOW BIRD (<i>C. ardens</i>)		
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MELBA FINCH (<i>P. melba</i>)	Cocks 30/-, Hens 40/-	
HOODED WEAVER FINCH (<i>S. scutata</i>)	5/- each.	
5/- each.	CAPE CANARY (<i>S. canicollis</i>)	
CAPE CANARY (<i>S. canicollis</i>)	Cocks 15/-, Hens 7/6	
ROBINCHAT (<i>Cossyfra catta</i>)	£4	
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COLLARED (<i>A. chalybens</i>)		
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IN FREEDOM & CAPTIVITY

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NOTE ON COLORATION AND VOICES OF SOME OWLS

By E. G. B. MEADE-WALDO

I will try and answer some of Mr. F. D. Welch's queries by beginning at the end! The spotted breast and flanks in *Strix delicatula* is sexual. In the Brown Owls the males when adult have almost invariably white breasts without spots; when young they occasionally have a few spots on the flanks, but these are lost with years. The reverse is the case with the females, the spots on flanks, etc., get thicker and more extended with age.

The very dark Ural Owl which was in an aviary with an adult of the normal colour was a melanistic—two of these melanistic forms arrived—and I believe it is not *very* rare in one locality. The Ural Owl is a true Wood Owl, with all the habits of our Tawny Owl. An adult female that I had in confinement for some years escaped and immediately resumed her natural wild life in our woods. She was evidently a wild-caught bird, and evidently also the mother of a young one that I obtained with her. She hunted like the Tawny Owl, floating from tree to tree silently, and intently listening for the slightest movement in leaves or grass. She evidently knew all about squirrels, for when she had only been out a week I saw her visit several squirrels' dreys and pull them about to see if the owner was at home. She was seen occasionally for about twelve months, and was eventually shot about 40 miles away two years after her escape.

The Ceylon Wood Owl (*Syrnium indranee*) differs much in both sexes throughout its range, as does our own Tawny Owl. In this country it appears to be of three types, foxy red, brown, and ash grey, of which the latter is the rarest locally. Every intermediate form of colouring occurs, and it is extremely hard to find two alike. I think as a rule the foxy-red individuals are inclined to be most numerous in the west, and the grey in the east, but you may find both extremes in the same nest, or, rather, in the same brood when they have got their complete plumage in August.

The Owls are so admirably equipped with their marvellous powers of hearing and sight that there seems no reason to suppose that their voice is used for any other purpose than that of communicating with one another and a love song as in other birds.

THE BREEDING OF THE PASSERINE PARROTLET AT LIBERTY

By MARQUESS OF TAVISTOCK

There are certain birds which, while they do not succeed at liberty on the first or second trial, nevertheless do not behave so badly that one puts them down as hopeless. I have made three or four experiments with Passerine Parrotlets, better known by their trade name of Blue-winged Lovebirds. They are attractive little fellows, and the Kingfisher will not give you a lovelier flash of colour than the cock as he flies across the garden with his mate under the summer sun. But somehow I could not get them to breed, and while they proved hardy enough when over the effects of their journey and not such inveterate migrants and wanderers as Budgerigars and Black-checked Lovebirds, their numbers gradually dwindled until none at all remained. One pair lived through a severe winter out of doors, in spite of the fact that the hen had a damaged wing and could not fly properly; but when summer returned and I made sure they would nest, they, too, disappeared. During the course of my early experiments I learned a few things about Bluewings in captivity. (1) That it is fatal to keep them in a cage with varnished woodwork; they nibble the wood, and then it is good-bye. (2) That they are fond of moistened stale bread or sponge-cake; I could never

tempt them with any kind of green food, although it is not an uncommon sight to see them feeding on the turf when at liberty. (3) That you cannot keep pairs together in a confined space for more than a limited period. Sooner or later they start fighting most murderously ; separating the sexes improves matters a bit, but the safest plan is to keep each pair by themselves. (4) That, while they do not need a large aviary, they pine away if kept in a cage for many months without the amusement of a nest-box. I wish people would realize that it is absolute cruelty to keep Lovebirds, Parrotlets, or even Budgerigars *permanently* in a small cage with no opportunity of breeding.

In the early summer of 1920 I obtained a few pairs of freshly imported Bluewings and turned them out in my garden in Hampshire, but the torrential rain of that misguided summer, which seems to have borrowed the entire rainfall of 1921 to add to its natural allowance, proved quite too much for the Parrotlets, who all disappeared or contracted chills, and only one hen survived. I determined to try a final experiment with more or less established birds, and during the winter made up four healthy pairs, which I released in the middle of May, adding a fifth hen some time later as a mate for a Red-faced Lovebird. The Bluewings soon settled down and started inspecting nest-boxes and quarrelling among themselves. By the end of the month one pair seemed on the point of laying ; then a run of bad luck began. A cock and two hens disappeared, a third hen died egg-bound, and the remains of a fourth were discovered which had probably fallen a victim to the same complaint. During July a young bird made its appearance at the feeding-tray, and when it was quite independent of its parents I caught it up for next year's stock. Fearing that it might be lonely and refuse food, I gave directions that it was to be provided with a young Budgerigar as a companion, but my fears proved to have been only too well justified, for I heard a few days later that the poor thing had crouched in the corner of the cage and starved to death ! Moral : Do not cage young Bluewings singly and without companions used to cage life.

Things were looking bad for the success of my Bluewing experiment, as my stock was now reduced to a single pair and the two widowed cocks. In August the hen of the pair disappeared, and as her mate

did not seem to have much use for the society of the widowers, I hoped that she might be sitting. The cock Bluewing, by the way, feeds his sitting mate, like a Rosella, and does not sit on the eggs, though I think he enters the nest at night. In September I obtained two new hens and released them for a few weeks to get used to the place and keep the unpaired males from straying. The rougher of the two I caught up with her husband early the following month. At the beginning of October the first hen reappeared and looked as though she had come from a nest, as she was less spick and span than when I had last seen her. From then onward she appeared with increasing frequency at the feeding-tray. About the 10th of the month I began to hear squeaking in the trees, which sounded fainter than and different in key from the calls of the old birds. About the 15th I saw what I felt almost sure was a young bird at the feeding-tray, and on the 19th I was agreeably surprised to see nine Bluewings feeding at one time—the two old pairs and five young ones. On the morning of the 22nd I saw seven feeding together—the family as I thought—and, fearing a sudden break in the mild weather, I caught the lot. As I was taking them indoors a single adult cock flew over my head, and I concluded that his mate was starting a belated nest which it would not be wise to allow her to continue with. The seven were placed in a large cage, and left in a quiet room to settle down, which they soon did. The cock at liberty I captured about 11 o'clock and placed, for the time being, in a cage out of doors. I expected his mate to leave her nest before evening when he no longer came to feed her. About 2 o'clock, sure enough, I heard a Bluewing calling in the trees, but the voice sounded more like that of a young than an old bird. A little later I put the cock's cage outside in the hope of his acting as a decoy. In a few minutes, sure enough, down came the owner of the voice—not an adult hen, as I supposed, but a very hungry little cock, who unavailingly besought the prisoner to feed him. Then I saw what had happened; we had caught the second hen before breakfast, and had her already in the house, leaving the fifth youngster at liberty. He had had nothing to eat all day, being scarcely able to feed himself and being ignorant of the exact whereabouts of the feeding-tray. I moved the cage into an aviary flight, and the young Bluewing soon followed, but when I went to shut

the door he popped out again by the way he had entered. I next tried putting the wire trap feeding-tray on the top of the cage, and before very long he was safely secured and reunited to his family. I noticed two things in connexion with the brood; one was that the young cocks were already distinguishable by their blue secondaries, although their rumps were still green,¹ and their body plumage was more like that of the female. The other point was that the old hen fed them quite as much as the cock, although they had been on the wing some time. A hen Lovebird hardly feeds her offspring at all once they have flown, speedily tiring of them, and leaving them to the care of their more patient and affectionate father.

AUSTRALIAN AND NEW GUINEA BIRDS: A FINE COLLECTION

The collection of Australian and New Guinea mammals and birds sent over by the Australian Zoological Control Board reached London on 14th November in charge of Mr. A. S. Le Souëf, the Director of the Taronga Zoological Park, Sydney. It was a wonderful collection so far as the mammals were concerned, containing a fine lot of Kangaroos of several species, Wombats, Bandicoots, and Phalangers.

There were also some very nice birds consisting of two species of Birds of Paradise, the Six-plumed (*Parotia lawesi*) and the Magnificent (*Diphyllodes hunsteini*), both species hailing from South-East New Guinea.

Of Pigeons and Doves there were several species, the most interesting being the White-fronted Bronzewing (*Henicophaps albifrons*) of New Guinea, a species never before imported alive, so far as I am aware. It is of a slaty grey colour with bronze reflections on the wings, a white forehead, and an extremely long bill for a pigeon. Another very interesting as well as a very beautiful bird is the Magnificent Fruit Pigeon (*Megaloprepia magnifica*), of which there were some half-dozen examples. It is leaf-green above with a grey head and purple breast. The typical race occurs in Queensland and New South Wales. These

¹ Since writing this paragraph I noticed that at any rate one of the nestling cocks had quite a lot of blue on the rump.

examples are said to have come from New Guinea, and, therefore, probably belong to the smaller race, which has been separated under the name of *M. assimilis*. Three other species of Fruit Pigeons were the Nutmeg (*Myrestivora*), Orange-bellied (*Ptilopus iozonus*), and the Lilac-crowned (*P. coronulatus*). I was greatly pleased to see a cage full of the very beautiful Plumed Pigeons (*Lophophaps leucogaster*) and Naked-eyed Partridge Pigeons (*Geophaps smithi*) from Northern Australia. The former is a most delightful bird that one had not seen for many years past. It was imported in 1905, and formed the subject of a very charming coloured plate in the AVICULTURAL MAGAZINE for December, 1906. There were also a number of Australian Green-winged, Peaceful and Bar-shouldered Doves.

Of Parrots there were Rosellas and Mealy Rosellas, Kings, Crimson-wings, Redwings, and Cockatiels, the last two in numbers, two pairs of Brown's, and several examples of the very beautiful and rare Swift Parrakeet (*Nanodes discolor*). It is several years since I have seen an example of this lovely species, though I believe a few have been privately imported. It is vivid green in colour, with blue on the forehead and wings and scarlet on the face and shoulders and underneath the wings. In its mode of feeding it closely resembles the Lorikeets, sucking the sweet juices from the flowing eucalyptus trees and sometimes appearing in large numbers when these trees come into flower in South-Eastern Australia and Tasmania. There were also a few of the Yellow-vented Parrakeets of Tasmania (*Platycercus flaviventris*), a species very rarely imported.

The only small birds in the collection consisted of two cages full of Chestnut-breasted Finches and some Diamond Sparrows, but there were several other birds more suitable for a Zoological Garden than for the private aviculturist, such as Emus, Black Swans, Blue Waterhens, Pheasant Coucals, White-bellied and Wedge-tailed Eagles, and one fine example of that strange bird, the Tawny Frogmouth (*Podargus*). All the stock arrived in extremely good condition, testifying to the great amount of care taken over them during the eight weeks' journey from Sydney.

D. S-S.

CORRESPONDENCE

VIOLET-EARED WAXBILLS AT LIBERTY

SIRS,—A pair of Violet-eared Waxbills at liberty have survived the recent severe weather without harm; they seem to stand cold better than any Waxbills I know, but I have never been able to get them to thrive in captivity.

TAVISTOCK.

THE KAGU (*RHINOCETUS JUBATUS*)

SIRS,—I have lately been fortunate in obtaining two Kagus, which are probably male and female, and also probably bred by Mr. Heumann in New South Wales. They are in immature plumage, a dull grey, the wing coverts being barred with rusty-brown. The bird that I take to be the male is of a purer grey than the other, and is more masculine in appearance.

I believe that the eggs of the Kagu have a strong resemblance to those of the Rail family, and are reddish buff with brown and grey markings. Is the French Government taking any steps to strictly protect this most interesting bird in its native haunts in New Caledonia? The Australian Government might have some turned down in a sanctuary in Australia. Is such a wonderful bird to be exterminated? It is a long-lived species, and the only representative of its genus, and breeds in captivity. Let aviculturists and ornithologists bestir themselves to keep the Kagu from everlasting destruction, before it is too late.

HUBERT D. ASTLEY.

BRINSOP COURT, HEREFORDSHIRE.

THE CAPE BISHOP

SIRS,—In reply to Dr. Hopkinson's inquiry as to these birds, I fancy that a few of them have come over lately, but several varieties of Weavers are offered by the dealers from time to time as Cape Bishops. About eighteen months ago Gamages had a cage of large Weavers that they described as Cape Bishops. I bought four of them, two in colour and two in eclipse. These birds were heavily and stockily built, and were about the size of the Rufus-necked Weaver. Colour a rich black, with the back and wing-coverts rich yellow, and this colour,

if I remember rightly, extended to the rump. From the shortness of their tails I concluded that they were Weavers, and not Whydahs, but they may have been *P. macruma*, although in Butler's book the illustration of this Whydah shows the yellow on the upper part of the back only, and the tail is shown longer than in my birds. One of these birds came into partial colour after I had had it a few months, getting the yellow areas as in the adult, but retaining the brown eclipse plumage in the rest of the body. It remained like this until it was killed by a rat about a twelve-month later. These birds built several nests in rushes about a foot above the water, but as I was unable to get hens I was not able to breed them.

This summer I visited Hamlyn's soon after he had received a consignment of South African birds, and amongst several other Weavers that are unknown to me I bought one showing yellow on the back. This bird is about the size of a Napoleon Weaver, and has now come into full colour, being an exact reproduction of the others on a small scale. Can this be *P. capensis*? Butler gives the size of the Cape Bishop as $6\frac{7}{16}$ in., and that of the Napoleon Weaver as $4\frac{1}{8}$ in. My bird is certainly no bigger than the Napoleon, so there is a considerable discrepancy in the size. I am awaiting with interest to see what the others may be when they come into colour.

WM. SHORE BAILY.

BOYERS HOUSE, WESTBURY.

SEPOY FINCH RECOVERING ITS COLOUR

SIRS,—A friend of mine here who has had a Sepoy Finch for the past ten years lost the bird about six weeks ago; the bird has been recaptured to-day (10th November) and has almost entirely recovered its geranium-red colour, which disappeared at the first moult some twelve or thirteen years ago. The bird had originally belonged first to Ezra then to Astley.

M. AMSLER.

UNRELATED COMPANIONS

SIRS,—A strange friendship, as recorded by Wm. Shore Bailey on p. 90, shows a condition of affairs in bird life which it seems to me would be very difficult to surpass for interest—a male Quail preferring a Courser

instead of a female Quail, that is, rejecting a natural wife (as it may be so termed) and taking to a more-distantly related one !

When in early life I lived at Shirley, near Southampton, I had a Canary and later on bought two Budgerigars ; and as one of the latter died and the survivor seemed to be affectionately inclined to the Canary, I turned them into the same cage, where they lived amicably. They used to have some amusing squabbles about bathing, because the Canary (having been with us for some years before the Budgerigar arrived) seemed to consider it had a right to bathe first ; whereas the Budgerigar often thought to enter the bath at the same time, which occasionally led to a squabble in the water, and the ejection of one or other bather. They always roosted side by side. These birds lived at the time of the European Tree Frogs, mentioned by me in the *Field*, 1919, p. 752, and their cage was usually in the same room as the vivarium where the Frogs were. The Canary never seemed to bother its head about these lively jumpers. But the Budgerigar used at times to be apparently perplexed in mind when one or other of the Tree Frogs gave a sudden or extra vigorous jump at a fly, and landed stuck on the glass. It never seemed to understand these peculiar creatures ! Personally it seemed to me to be more frightened for the moment than angry, and I don't think it would have ventured too near to the Tree Frogs if all had been turned out together ! But as the Tree Frogs were special pets of mine, I never ran any risks of injury by letting the birds approach them.

When on a tour in Yorkshire during the summer of 1904 I was surprised to see a Crowned Crane (*Balearica regulorum*) of Africa, wandering about a farmyard among domestic fowls and ducks—all adults, so far as I now remember—and the owner told me it agreed well with them, and had been living there since brought home after the Boer War. Being at that time engaged mostly with foreign mammals in my spare time, it did not occur to me to ask whether the Crane was reliable in conduct with chicks of the fowls or with ducklings. Perhaps some one else can state more about that subject. So far as I now can remember, the place was called Pickering.

FREDERICK D. WELCH.

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AVICULTURAL SOCIETY FOR
THE STUDY OF BRITISH AND
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AND CAPTIVITY.

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D. SETH-SMITH, F.Z.S., M.B.O.U.

AND

R. I. POCOCK, F.R.S.

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REPORT OF THE COUNCIL FOR 1922

In reviewing the past year the Council desires to explain to Members of the Society that the production of the Magazine has been seriously hampered in two ways:—first, the high cost of printing, which has made it necessary not only to forego the luxury of plates but also to keep each part to a maximum of sixteen pages: and second, the difficulty of securing the necessary contributions which has been the prime cause of the unavoidable delay resulting in each issue being nearly a month behind its time. There are, however, favourable signs of an increase in membership and of a fall in the cost of production; and with the starting of a new series in 1923, with the special illustrated articles on Aviculture, made possible by the generosity of subscribers, the Council looks forward to the future with complete confidence in the success of the Magazine.

They wish to tender their grateful thanks to all who have contributed to the upkeep of the Society during 1922, to the authors who readily responded, often at a moment's notice, to the appeal for "copy", to the subscribers to the Illustration and General Funds, to the Editors, Secretary, and Treasurer, and to Mr. T. H. Newman who kindly prepared the index to the present volume.

Finally, they wish to record their sense of the great loss the Society sustained in the untimely death of their colleague, Mr. Bonhote, who as a member of Council, as Editor, Treasurer, and Secretary, was for many years an energetic and enthusiastic worker in the interests of Aviculture.

Signed for the Council,

E. MAUD KNOBEL,

Hon. Business Secretary.

December, 1922.

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- CURREY, Mrs. ; The Pit House, Ewell, Surrey. (Feb., 1906.)
- *CUSHNEY, CHARLES ; The Bath Club, 34 Dover Street, Piccadilly, W. (June, 1906.)
- DAVIES, G. ; 96 Greenfield Terrace, New Tredegar. (July, 1914.)
- 50 DAWSON, W. LEON ; Museum of Comparative Oology, Santa Barbara, Cal., U.S.A. (Oct., 1919.)
- DECOUX, A. ; G ery-pr es Aix, Htc. Vienne, France. (April, 1917.)
- DELACOUR, Lieut. JEAN ; Cl eres, Seine Inf., France. (April, 1916.)
- DELL, CHARLES ; 9 Greenhill Road, Harrow, Middlesex. (July, 1900.)
- DENNIS, Mrs. H. E. ; c/o Mrs. Mortimer, Wigmore, Holmwood, Surrey. (March, 1903.)
- DE PASS, Miss O. ; 6 The Orchard, Bedford Park, W. (March, 1914.)
- *DE WINTON, WILLIAM EDWARD, F.Z.S., M.B.O.U. ; Southover Burwash, Sussex. (August, 1903.)
- DIRECTOR, THE ; Zoological Museum, Tring, Herts. (1912.)
- DONALD, C. H. ; c/o The Alliance Bank of Simla, Ltd., Simla, India. (March, 1906.)
- DOUGLAS, Miss ; Rose Mount, Pitlochry, N.B. (June, 1905.)
- 60 DOWSON, E. M. (June, 1915.)
- DRAKE, G. TYRWHITT, Cobtree Manor, Maidstone. (June, 1918.)
- DREWITT, FREDERIC DAWTREY, M.A., M.D., F.R.C.P., F.Z.S. ; 14 Palace Gardens Terrace, Kensington, W. 8. (May, 1903.)
- DUNLEATH, The Lady ; Ballywalter Park, Ballywalter, Co. Down, Ireland. (August, 1897.)
- ECKSTEIN, F. ; Ottershaw Park, Ottershaw, Surrey. (1912.)
- EURIQUEZ, Major C. M. ; c/o Messrs. Thomas Cook & Son, Rangoon. (1921.)
- *EZRA, ALFRED ; Foxwarren Park, Cobham, Surrey. (1912.)
- *EZRA, DAVID ; 3 Kyd Street, Calcutta. (June, 1912.)
- FASEY, WILLIAM R. ; The Oaks, Holly Bush Hill, Snaresbrook, E. 11. (May, 1902.)
- FINN, FRANK, B.A. ; 23 Chalcot Crescent, Primrose Hill, N.W. 1. (Hon. Member.)
- 70 FROST, WILFRED ; 6 Ward's Avenue, Fulham, S.W. 6. (July, 1908.)

- GHIGI, il Prof. ALESSANDRO ; Via d'Azeglio, Bologna, Italy. (Mar., 1911.)
- GIBBINS, WILLIAM B. ; Ettington, near Stratford-on-Avon. (June, 1895.)
- GILES, HENRY M., M.Aust.O.U. (Orig. Mem.) ; Zoological Gardens, Perth, Western Australia. (June, 1903.)
- GODDARD, H. E. ; Rotheray, Thicket Road, Sutton.
- GOODALL, Lieut. A. G., R.F.A. ; 64 Park Road, West Dulwich, S.E. 21 (April, 1918.)
- GOODLIFFE, Capt. M. H. S. ; Cavalry Club, Piccadilly, S.W. 1. (Sept., 1918.)
- GOSSE, PHILIP, M.R.C.S., L.R.C.P. ; Savile Club, Piccadilly, W. (April, 1911.)
- GRAY, HENRY, M.R.C.V.S. ; 1 Redfield Lane, Earls Court Road, S.W. 5. (June, 1906.)
- GREENING, LINNÆUS ; Fairlight, Grappenhall, near Warrington. (Jan., 1911.)
- 80 GREGORY, Mrs. ; Melville, Parkstone, Dorset. (Dec., 1901.)
- GREY, The Viscount, of Fallodon, K.G. ; Fallodon, Lesbury, Northumberland. (1913.)
- GRIFFITHS, M. E. ; Caizley House, Temple Road, Stowmarket. (May, 1902.)
- GROSSMITH, J. L. ; The Grange, Bickley, Kent. (Nov., 1912.)
- GUILFORD, Miss H. ; 23 Lenton Avenue, The Park, Nottingham. (Mar., 1903.)
- GULBENKIAN, C. S. ; 27 Quai d'Orsay, Paris. (Dec., 1908.)
- GURNEY, G. H. ; Keswick Hall, Norwich.
- HAAGNER, A. K., F.Z.S., M.B.O.U., Director National Zoological Gardens ; Box 754, Pretoria, South Africa. (Nov., 1905.)
- HAMILTON, Mrs. ; Villa Alexandra, Chernex sur Montreux, Switzerland.
- HARCOURT, Rt. Hon. LEWIS, P.C. ; 69 Brook Street, W. 1. (1913.)
- 90 HARDING, W. A., M.A., F.Z.S. ; Histon Manor, Cambridge. (Dec., 1903.)
- HARPER, EDWARD WILLIAM, F.Z.S., M.B.O.U. ; c/o Thomas Cook & Son, Calcutta, India. (Feb., 1901.)
- HARTLEY, Mrs. ; Lynchfield, Bishops Lydeard, Somerset. (April, 1897.)
- *HARVEY, The Hon. Lady ; Langley Park, Slough, Bucks. (Oct., 1906.)
- HAYES, Miss PHYLLIS ; Harcourt, Stanton, Shrewsbury. (1915.)
- HEBB, THOMAS ; Brooklea, The Downs, Luton, Beds. (April, 1914.)
- HEMSWORTH, The Rev. B., M.A., J.P. ; Monk Fryston Hall, South Milford, Yorks. (June, 1901.)
- HEUMANN, G. A. ; Ramona, Bucroft, Sydney, N.S.W. (Sept., 1913.)
- HEWITT, HARALD, F.Z.S. ; East Sooke, Vancouver Island, B.C. (Jan., 1905.)
- HEYWOOD, RICHARD ; Narborough, Norfolk. (Oct., 1911.)
- 100 HILL, ARTHUR W. ; Assist. Director, Royal Gardens, Kew, Surrey. (Oct., 1915.)
- HINDLE, R. FRANKLIN ; 34 Brunswick Road, Liverpool. (Sept., 1898.)
- *HOPKINSON, EMILIUS, M.A., M.B.Oxon., D.S.O. ; Bathurst, Gambia, West Africa. (Oct., 1906.)
- HOPSON, FRED C. ; 65 Northbrook Street, Newbury. (March, 1897.)

- HORNE, ARTHUR ; Bonne-na-Coile, Murtle, Aberdeenshire. (Dec., 1917.)
HORSBRUGH, C. B. ; Blessington House, Hillsborough, Co. Down.
HOUSDEN, JAMES B. ; Brooklyn, Cator Road, Sydenham, S.E. 26. (Orig. Mem.)
HOUSLEY, Miss E. ; Rockley House, near Retford.
HOWARD, ROBERT JAMES, M.B.O.U. ; Shear Bank, Blackburn. (April, 1903.)
HUNTER, W. G. ; West Street, Sydney, N., N.S.W. (Nov., 1917.)
110*HUTCHINSON, Miss ALICE ; Alderton, Chippenham, Wilts. (Aug., 1907.)
HYDE-CLARKE, LIONEL E. H. ; Woodlands, St. Olave's, Great Yarmouth. (1919.)
ICK-HEWINS, T. J., M.D. ; Leeston, Canterbury, New Zealand. (June, 1918.)
*INGRAM, Capt. COLLINGWOOD ; The Bungalow, Westgate-on-Sea. (Oct., 1905.)
*INGRAM, Sir WILLIAM, Bart. ; The Bungalow, Westgate-on-Sea. (Sept., 1904.)
JEAKINS, A. E. ; The Studio, Simla, India. (March, 1915.)
JENNISON, GEORGE, M.A. ; Zoological Gardens, Belle Vue, Manchester. (April, 1918.)
KNOBEL, Miss E. MAUD ; 32 Tavistock Square, W.C. 1. (Aug., 1916.)
KUSER, J. DRYDEN ; Faircourt, Bernardville, New Jersey, U.S.A. (1912.)
LAMBRIK, Prebendary M. ; Blagdon Rectory, Bristol. (Jan., 1921.)
120 LAUDER, P. ; c/o A. P. Lauder, Esq., 60 Ritherdon Road, Upper Tooting, S.W.
LAW, SATYA CHARAN ; 24 Sukeas Street, Calcutta. (1919.)
LAWRENCE, S. A. ; 132 Alma Road, Caulfield, Victoria, Australia. (Sept., 1916.)
LEACH, C. F. ; Vale Lodge, Leatherhead, Surrey. (June, 1914.)
LÉCALLIER, Madame ; 109 Rue de la Republique, Caudebec-les-Elbeuf, France. (April, 1918.)
LE SOUËF, A. SHERBOURNE ; Zoological Gardens, Sydney, N.S.W. (Aug., 1913.)
LE SOUËF, DUDLEY ; Zoological Gardens, Royal Park, Parkville, Melbourne, Australia. (1912.)
LEWIS, D. THOMAS ; Oaklands, Aberkinfig, Glam. (1917.)
LIENAU, C. H. A. ; Newbury, 23 Victoria Avenue, Unley Park, South Australia. (Oct., 1917.)
*LILFORD, The Lady ; Lilford Hall, Oundle, Northants. (Jan., 1898.)
130*LOCKYER, ALFRED ; St. Monica's Lodge, Elm Park Road, Winchmore Hill, N. 21. (Dec., 1905.)
LOVELACE, The Countess of ; Wentworth House, Chelsea Embankment, S.W. 3. (May, 1906.)
LOVETT, C. ; Glendale Park, Nashville, Tenn., U.S.A. (Dec., 1912.)
LOW, GEORGE E. ; 14 Royal Terrace East, Kingstown, Ireland. (Mar., 1913.)
LUCAS, Dr. N. S. ; 19 Westbourne Terrace, W. 2. (Jan., 1913.)

- McCORQUODALE, Mrs. ; Cound Hall, Shrewsbury. (Jan., 1920.)
- MACDONALD, Miss VIOLET ; Ipley Manor, Marchwood, Hants. (Feb., 1920.)
- *MCGEAGH, R. T., M.D. ; Mona Lodge, Lezayre, near Ramsey, Isle of Man. (Aug., 1908.)
- *MCGUGAN, J. M. K. ; Northern Bank Buildings, Donegal Square, Belfast. (April, 1920.)
- MALONE, Mrs. M. L'ESTRANGE ; West Lodge, Malton, Yorks. (Jan., 1902.)
- 140 MANCHESTER PUBLIC LIBRARIES ; Reference Library, Piccadilly, Manchester. (July, 1913.)
- *MANNERS SMITH, Mrs. ; (1911.)
- *MARSHALL, ARCHIBALD McLEAN ; Chitcombe, Brede, Sussex. (Jan., 1906.)
- MARSHALL, F. ; 34 Stirling Road, Bournemouth. (1916.)
- MARTIN, H. C. ; 147 Victoria Road, Old Charlton, Kent ; and Saladero, Liebig, Fray Bentos, Uruguay. (Jan., 1897.)
- MAUD, Mrs. CHARLES E. ; Hotel del Monte, Monterey, Cal., U.S.A. (July, 1913.)
- MEADE-WALDO, E. G. B., F.Z.S., M.B.O.U. ; Hever Warren, Hever, Kent. (Jan., 1895.)
- MILLER, R. SCOTT ; Clydeneuk, Uddingston, Glasgow. (1919.)
- MILLSUM, O. ; 79 Northdown Road, Cliftonville, Margate. (Aug., 1909.)
- MOIR, J. K. ; Normanton, Young Street, Albury, N.S.W. (July, 1918.)
- 150 MORTIMER, Mrs. ; Wigmore, Holmwood, Surrey. (Orig. Mem.)
- MUNDY, Miss SYBIL MILLER ; Grendon Hall, Grendon, Northampton. (Jan., 1909.)
- MURRAY, Mrs. E. G. DEWAR ; Inchrye House, Lindores, Fifeshire. (1919.)
- MYLAN, JAMES GEORGE, B.A., M.B. (Univ. Coll.), L.R.C.P. and L.R.C.S. (Ed.), etc. ; 90 Upper Hanover Street, Sheffield. (Dec., 1901.)
- NATIONAL ZOOLOGICAL PARK (The Superintendent) ; Washington, Dt., U.S.A.
- NEILSON, Major GEO. M. ; Boraston Knowc, Blackhall, Midlothian. (June, 1918.)
- NEVILLE, Capt. T. N. C. ; Bramall Hall, near Stockport. (July, 1917.)
- NEWMAN, T. H., F.Z.S., M.B.O.U. ; Verulam, Forty Lane, Wembley Park, Middlesex. (May, 1900.)
- NEWMARSH, C. T. ; Gamage's, Ltd., Holborn, W.C. (Aug., 1915.)
- *NICHOLS, Walter B., M.B.O.U. ; Stour Lodge, Bradfield, Manningtree. (Jan., 1907.)
- 160 "NOSHOMU" ; c/o Maruzen Co., Tokyo, Japan. (1919.)
- OBERHOLSER, HARRY C. ; 2805 18th Street, N.W. Washington, D.C., U.S.A. (Oct., 1903.)
- OGILVIE-GRANT, W. R., F.Z.S., M.B.O.U. ; Farley Hill Cottage, near Reading. (Dec., 1903.)
- OGLE, BERTRAM SAVILLE, M.B.O.U. ; Mill House, Steeple Aston, Oxford. (Dec., 1902.)
- O'REILLY, NICHOLAS S. ; 144 Eastern Road, Kemp Town, Brighton. (Dec., 1894.)

- PAM, Major ALBERT, F.Z.S.; Wormleybury, Broxbourne, Herts. (Jan., 1906.)
- PAM, HUGO, C.M.Z.S.; National Match Factory of Venezuela, Ltd., Caracas, Venezuela. (Sept., 1911.)
- PARMENTER, Miss; Sedgemere Hall, Roydon, Essex. (Nov., 1917.)
- PENROSE, FRANK G., M.D., F.Z.S., M.B.O.U.; Rathkeale, 51 Surrey Road, Bournemouth. (Dec., 1903.)
- PERCEVAL, WALTER G.; Kalnangi, Chania Bridge, British East Africa. (Feb., 1915.)
- 170 PHILLIPS, JOHN C.; Wenham, Mass., U.S.A. (March, 1910.)
- PICKFORD, RANDOLPH JOHN; Thorn Lea, Carmel Road, Darlington. (Feb., 1903.)
- PIKE, L. G.; King Barrow, Wareham, Dorset. (1912.)
- *POCOCK, R. I., F.R.S., F.L.S., F.Z.S.; Zoological Society's Gardens, Regent's Park, N.W. 1. (Feb., 1904.) (*Hon. Editor.*)
- PORTER, SIDNEY; Selwyn House, Old Normanton, Derby. (April, 1920.)
- POTTER, BERNARD E., M.B., M.R.C.S., L.R.C.P.; 33 Harley Street, W.
- PRINCETON UNIVERSITY, LIBRARY OF; Princeton, New Jersey, U.S.A. (Nov., 1907.)
- PYCRAFT, W. P., A.L.S., F.Z.S., M.B.O.U., etc.; British Museum (Nat. Hist.), Cromwell Road, S.W. 7. (Nov., 1904.) (*Hon. Member.*)
- PYMAN, Miss E. E.; West House, West Hartlepool. (June, 1919.)
- RATHBORNE, HENRY B.; Dreenan, Boa Island, Pettigo, Co. Fermanagh. (May, 1901.)
- 180 RATHMELE, JAMES E.; 24 Milk Street, Boston, Mass., U.S.A.
- *RATTIGAN, Lieut. G. E.; 29 Caroline Street, Eaton Terrace, S.W. 1. (Aug., 1908.)
- REID, Mrs.; Funchal, Madeira. (Feb., 1895.)
- *RICE, Major G.; Persey House, Blairgowrie, N.B. (May, 1912.)
- RICHINGS, Rev. B. G.; Barton Vicarage, Cambridge. (June, 1919.)
- *ROBBINS, HENRY; The Maisonnette, New Oxford Street, W.C. (April, 1908.)
- ROBERTS, Mrs. MARY G., C.M.Z.S.; Zoological Gardens, Beaumaris, Montpelier Street, Hobart, Tasmania. (June, 1903.)
- ROGERS, H. E.; "Arequipa," 7 Aigburth Road, Liverpool. (June, 1919.)
- *ROGERS, Col. J. M., D.S.O., F.Z.S., M.B.O.U. (late Royal Dragoons); Riverhill, Sevenoaks. (April, 1907.)
- ROTHSCHILD, LIONEL DE, M.P.; 46 Park Street, W. 1. (Nov., 1913.)
- 190 ROTHWELL, JAMES E.; 153 Sewall Avenue, Brookline, Mass., U.S.A. (Oct. 1910.)
- ROYAL ZOOLOGICAL SOCIETY OF IRELAND; c/o Royal College of Science, Dublin. (Oct., 1905.)
- RUMSEY, LACY; 23 Rua de Serpa Pinto, Villa Nova de Gaya, Oporto, Portugal. (April, 1919.)
- *ST. QUINTIN, WILLIAM HERBERT, F.Z.S., M.B.O.U.; Scampston Hall, Rillington, York. (Orig. Mem.)
- SAKAI TATSUZO; 2 Chrome, Kano Cho, Kobe, Japan. (1919.)

- SAMUELSON, Lady; Hatchford Park, Cobham, Surrey. (July, 1916.)
- SCLATER, W. L., M.A., F.Z.S.; 10 Sloane Court, S.W. 3. (Aug., 1904.)
- SCOTT, Capt. B. HAMILTON, R.F.A.; Hamildean, Ipswich. (1912.)
- SEBAG-MONTEFIORE, Mrs.; 2 Palace Houses, W. 2. (1913.)
- *SEPPINGS, Major J. W. H., A.P.D.; The Castle, Cape Town. (Sept., 1907.)
- 200*SETH-SMITH, DAVID, F.Z.S., M.B.O.U.; 34 Elsworthly Road, South Hampstead, N.W. 3. (Dec., 1894.) (*Hon. Editor.*)
- *SETH-SMITH, LESLIE M., B.A., M.B.O.U.; Nagunga, Kampala, Uganda. (July, 1912.)
- SICH, HERBERT LEONARD; Corney House, Burlington Lane, Chiswick, W. 4. (Feb., 1902.)
- SILVER, ALLEN, F.Z.S.; 18 Bancswell Road, Newport, Mon.
- SIMPSON, ARCHIBALD; Oakfield House, Stanks, Crossgates, near Leeds. (Feb., 1901.)
- SMALLEY, F. W., F.Z.S., M.B.O.U.; Windermere, 4 Blackheath Park, Blackheath, S.E. 3. (1912.)
- SMITH, C. BARNBY; Woodlands, Retford. (Aug., 1906.)
- SMITH, O. C.; 73 Audley Street, Reading. (March, 1915.)
- SMITH, PHILIP; Haddon House, Ashton-on-Mersey, Sale, Manchester. (Dec., 1917.)
- SMITH, W. PROCTOR; Haddon House, Ashton-on-Mersey, Sale, Manchester. (Nov., 1917.)
- 210 SOUTHOFF, M. G. DE; 13 Via San Spiritu, Florence. (Hon. Member.) (1921.)
- SOUTHPORT CORPORATION, CURATOR OF; Hesketh Park, Southport. (Jan., 1904.)
- SPRANGE, Sergt. D. H.; Terranova, Chinderah, Tweed River, N.S.W. (Feb., 1918.)
- SPROSTON, Mrs.; Elm House, Nantwich, Cheshire. (June, 1917.)
- STEVENS, H.; Gopaldara Mirik P.O. *via* Kurslong D.H.Rly., Bengal, India. (Oct., 1911.)
- STOCKPORT CORPORATION; Superintendent, Vernon Park, Stockport; and c/o London Joint City and Midland Bank, York. (Oct., 1902.)
- SUGGITT, ROBERT; Suggitt's Lane, Clcethorpes, Grimsby. (Dec., 1903.)
- SUTCLIFFE, ALBERT; Fairholme, Grimsby. (Feb., 1906.)
- SWAYSLAND, WALTER; 47 Queen's Road, Brighton. (Orig. Mem.)
- TAKANO, T. Z.; 67 Shichome Honcho, Yokohama, Japan. (Jan., 1921.)
- 220 TAKA-TSUKASA, NOBUSUKE; 106 Honmura-Cho, Azabu, Tokyo, Japan. (Feb., 1914.)
- *TANNER, Dr. FRANK L.; Vanvert House, Guernsey. (Jan., 1914.)
- TAVISTOCK, The Marquess of; Warblington House, Havant, Hants. (1912.)
- TEMPLE, W. R.; Ormonde, Datchet, Bucks. (June, 1907.)
- TESCHEMAKER, W. E., B.A.; Ringmore, Teignmouth, Devon. (May, 1904.)
- THOM, ALFRED A.; Whitewell Lodge, Whitechurch, Salop. (June, 1913.)
- THOMAS, Miss F. G. F.; Weston Hall, Towcester, Northants. (Mar., 1899.)

- THOMAS, HENRY ; 15 Clinning Road, Birkdale, Southport. (Jan., 1895.)
- THOMASSET, BERNARD C., F.Z.S. ; The Manor House, Ashmansworth, near Newbury. (July, 1896.)
- THOMASSET, H. P. ; Weeness, Natal, South Africa. (Nov., 1906.)
- 230 TICEHURST, NORMAN FREDERICK, M.A., M.B., F.R.C.S., F.Z.S. ; 24 Pevensey Road, St. Leonard's-on-Sea. (Dec., 1906.)
- TILLEY, G.D. ; Darien, Conn., U.S.A.
- TRANSVAAL MUSEUM ; The Director, Transvaal Museum, Pretoria. (Jan., 1921.)
- *TREVOR-BATTYE, AUBYN, B. R., M.A., F.L.S., ; Ashford Chace, Petersfield, Hants. (July, 1898.)
- UPPINGHAM SCHOOL ; c/o The Head Master, The School House, Uppingham. (Nov., 1920.)
- VALENTINE, ERNEST ; 7 Highfield, Workington. (May, 1899.)
- VAN OORT, DR. E. D. ; Museum of Natural History, Leiden, Holland.
- VAN SOMEREN, V.G.L., L.R.C.P. & S., Edin., L.R.F.P.S., Glas., L.D.S. ; Nairobi, B.E.A.
- WACHSMANN, A. E. WRIGHT DE BERRI ; Maitai, Murray Road, Beecroft, N.S.W. (Aug., 1914.)
- WAIT, Miss L. M. St. A. ; 12 Rosary Gardens, S.W. 7. (Feb., 1909.)
- 240 WALKER, Miss H. K. O. ; Chesham, Bury, Lancs. (Feb., 1895.)
- WATERFIELD, Mrs. NOEL E. ; Blyburgate House, Beccles, Suffolk ; and Port Soudan, Red Sea. (Sept., 1904.)
- WAUD, Capt. P. REGINALD ; Falcon Close, Woolton Hill, near Newbury. (May, 1913.)
- WEIR, J. ; Douglas Cottage, Upper Ashley, New Milton, Hants. (July, 1918.)
- WELCH, F. D., M.R.C.S., L.R.C.P. ; Hartley, Longfield, Kent. (March, 1920.)
- WELLINGTON, Her Grace the Duchess of ; Ewhurst Park, Basingstoke. (Oct., 1913.)
- WHIPHAM, Mrs. U. F. ; 34 Westbourne Park Road, W. 2 ; and Lozes, Heavitree, Exeter. (July, 1921.)
- WHITLAW, Miss ROSA M. ; Amerden, Taplow. (Aug., 1914.)
- WILLFORD, HENRY ; Sans Souci, Havenstreet, Ryde, Isle of Wight. (Nov., 1907.)
- WILLIAMS, Mrs. C. H. ; Emmanuel Parsonage, Exeter. (May, 1902.)
- 250*WILSON, DR. MAURICE A. ; Walton Lodge, Pannal, Harrogate. (Oct., 1905.)
- *WINCHELSEA AND NOTTINGHAM, The Countess of ; Haverholme Priory, Sleaford. (April, 1903.)
- WINN, The Hon. Mrs. ; Nostell Priory, Wakefield, Yorks. (Nov., 1920.)
- WOODWARD, KENNETH M. ; 1 Madison Avenue, New York, U.S.A. (March, 1915.)

WOOLDRIDGE, Prof. G. H., F.R.C.V.S. ; Royal Veterinary College, Camden Town, N.W. (1912.)

WORKMAN, WILLIAM HUGHES, M.B.O.U. ; Lismore, Windsor Avenue, Belfast. (May, 1903.)

*WORMALD, HUGH ; Heathfield, East Dereham, Norfolk. (Dec., 1904.)

YEALLAND, JAMES ; Binstead, Isle of Wight. (July, 1913.)

†58 YOUNG, H. R. ; 76 Mitcham Lane, Streatham, S.W. 6. (April, 1920.)

Rules of the Avicultural Society

As amended July, 1920

1.—The name of the Society shall be THE AVICULTURAL SOCIETY, and its object shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society. The year of the Society, with that of each volume of the Society's Magazine, which shall be known as *The Avicultural Magazine*, shall commence with the month of January and end on the 31st of December following.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members, and the latter shall be restricted in number to six, and be elected by the Council.

3.—The Officers of the Society shall be elected, annually if necessary, by members of the Council in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Secretary, an Editor, a Treasurer, an Auditor, a Scrutineer, and a Council of fifteen members. The Secretary, Editor, and Treasurer shall be *ex officio* Members of the Council.

4.—New Members shall be proposed in writing, and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five members shall lodge with the Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more Members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the Members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—Each Member shall pay an annual subscription of £1, to be due and payable in advance on the 1st of January in each year. New Members shall pay, in addition, an entrance fee of 10s. 6d.; and, on payment of their entrance fee and

subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their membership at the end of the current year of the Society are expected to give notice to the Secretary before the 1st of December, so that their names may not be included in the "List of Members", which shall be published annually in the January number of the Magazine.

7.—The Magazine of the Society shall be issued on or about the first day of every month, and forwarded, post free, to all the Members who shall have paid their subscriptions for the year; but no Magazine shall be sent or delivered to any Member until the annual subscription shall have reached the hands of the Business Secretary or the Publishers. Members whose subscriptions shall not have been paid as above by the first day in November in any year shall cease to be Members of the Society, and shall not be re-admitted until a fresh entrance fee, as well as the annual subscription, shall have been paid.

8.—The Secretary, Editor, and Treasurer shall be elected for a term of five years, and, should a vacancy occur, it may be temporarily filled up by the Executive Committee (see Rule 10). At the expiration of the term of five years in every case it shall be competent for the Council to nominate the same officer, or another Member, for a further time of five years, unless a second candidate be proposed by not less than twenty-five Members of at least two years' standing, as set forth below.

In the November number of the Magazine preceding the retirement from office of the Secretary, Editor, or Treasurer, the Council shall publish the names of those gentlemen whom they have nominated to fill the vacancies thus created; and these gentlemen shall be deemed duly elected unless another candidate or candidates be proposed by not less than fifteen Members of at least two years' standing. Such proposal, duly seconded and containing the written consent of the nominee to serve, if elected, in the capacity for which he is proposed, must reach the Secretary on or before the 15th of November.

The Council shall also publish yearly in the November number of the Magazine the names of those gentlemen nominated by them for the posts of Auditor and Scrutineer respectively.

9.—The Members of the Council shall retire by rotation, two at the end of each year of the Society (unless a vacancy or vacancies shall occur otherwise) and two other Members of the Society shall be recommended by the Council to take the place of those retiring. The names of the two Members recommended shall be printed in the November number of *The Avicultural Magazine*. Should the Council's selection be objected to by fifteen or more Members, these shall have power to put forward two other candidates, whose names, together with the signatures of no less than fifteen Members proposing them, must reach the

Hon. Secretary by the 15th of November. The names of the four candidates will then be printed on a voting paper and sent to each Member with the December number of the Magazine, and the result of the voting published in the January issue. Should no alternative candidates be put forward, in the manner and by the date above specified, the two candidates recommended by the Council shall be deemed to have been duly elected. In the event of an equality of votes the President shall have a casting vote.

If any Member of the Council does not attend a meeting for two years in succession the Council shall have power to elect another member in his place.

10.—Immediately after the election of the Council that body shall proceed to elect three from its Members (*ex officio* Members not being eligible). These three, together with the Secretary, Treasurer, and Editor, shall form a Committee known as the Executive Committee. Members of the Council shall be asked every year (whether there has been an election of that body or not) if they wish to stand for the Executive, and in any year when the number of candidates exceeds three there shall be an election of the Executive.

The duties of the Executive Committee shall be as follows :—

(i) To sanction all payments to be made on behalf of the Society.

(ii) In the event of the resignation of any of the officers during the Society's year, to fill temporarily the vacancy until the end of the year. In the case of the office being one which is held for more than one year (e.g. Secretary, Editor, or Treasurer) the appointment shall be confirmed by the Council at its next meeting.

(iii) To act for the Council in the decision of any other matter that may arise in connexion with the business of the Society.

The decision of any matter by the Executive to be settled by a simple majority (five to form a quorum). In the event of a tie on any question, such question shall be forthwith submitted by letter to the Council for their decision.

The Executive shall not have power

(i) To add to or alter the Rules ;

(ii) To expel any Member ;

(iii) To re-elect the Secretary, Editor, or Treasurer for a second term of office.

It shall not be lawful for the Treasurer to pay any account unless such account be duly initialled by the Executive.

It shall be lawful for the Secretary or Editor to pledge the Society's credit for a sum not exceeding £15.

Should a Member wish any matter to be brought before the Council direct such matter should be sent to the Secretary with a letter stating that it is to be brought before the Council at their next meeting, otherwise communications will in the first place be brought before the Executive.

A decision of a majority of the Council, or a majority of the Executive endorsed by the Council, shall be final and conclusive in all matters.

11.—The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Executive Committee). The Secretary and Editor shall respectively refer all matters of doubt and difficulty to the Executive Committee.

12.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit. Five to form a quorum at any meeting of the Council.

13.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

14.—Neither the office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person.

15.—The Scrutineer shall not reveal to any person how any Member shall have voted.

The Society's Medal

RULES

The Medal may be awarded at the discretion of the Committee to any Member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any Member wishing to obtain the Medal must send a detailed account for publication in the Magazine within about eight weeks from the date of hatching of the young, and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents.

The account of the breeding must be reasonably full so as to afford instruction to our Members, and must not have been previously published elsewhere. It should describe the plumage of the young and *be of value as a permanent record of the nesting and general habits of the species*. These points will have great weight when the question of awarding the Medal is under consideration.

In every case the decision of the Committee shall be final.

The Medal will be forwarded to each Member as soon after it shall have been awarded as possible.

The Medal is struck in bronze (but the Committee reserve the right to issue it in *silver* in very special cases) and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—founded 1894". On the reverse is the following inscription: "Awarded to [*name of recipient*] for rearing the young of [*name of species*], a species not previously bred in captivity in the United Kingdom".

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

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JANUARY, 1922.

THE PROPOSED NEW BILL FOR THE PROTECTION OF WILD BIRDS

By R. I. Pocock, F.R.S.

Many members of the Avicultural Society will remember that in November, 1913, in response to a widespread and well-founded feeling regarding the inefficiency of the existing law for the protection of birds, Mr. McKenna appointed a special committee to take fresh evidence and report upon the whole question. The committee of seven, of whom three, the Right Hon. E. S. Montagu (the chairman), Mr. E. G. B. Meade-Waldo, and Mr. W. R. Oglivie-Grant, are distinguished members of our Society, held fourteen meetings, and examined many witnesses, representing the fishery, fruit-growing, and agricultural interests, as well as ornithologists, landowners, and other persons concerned in the preservation, capture, and destruction of our wild birds. The committee held its last meeting on July 28, 1914, and its arduous work was practically completed when the outbreak of the European War in August brought all such comparatively trivial matters to a standstill. The continuance of hostilities delayed for five years the issue of the minutes of the evidence taken before the committee, and of their report based thereon. The former, however, was issued as a blue book, and the latter as a white book in 1919, and subsequently a special committee, with our member, Lord Grey of Fallodon, as chairman, was nominated to consider the report before the drafting of a new Bill on wild bird protection to be presented to Parliament.

Although it was known that the existing law had accomplished a great deal in the preservation of bird-life, it had in some cases achieved too much by leading to the local multiplication of certain common species up to the point of converting them into pests ; while it had notoriously failed to protect many very rare birds. The administration of the law, moreover, had been rendered exceedingly difficult, owing to the number and perplexing character of the orders that had been added since the date of its coming into force ; and it was felt that its enforcement was seriously obstructed by the inadequacy of the powers granted to the police.

The recommendations contained in the report of the Departmental Committee are ably directed towards remedying these and other defects. They are too numerous to mention in detail, but the most important is the establishment of an Ornithological Advisory Committee of experts, whose primary function would be to advise the central authority on all matters connected with bird protection. Into their other duties we need not now enter, but the immediate adoption of that proposal is regarded as an essential step towards the scientific administration of the law. Hardly less important are the extended powers to be given to the police in the way of search and detention of suspected persons ; of entry on private land, without permission of the owner, for the purpose of preventing offences, and of seizure of bird, egg, nest, or instrument suspected of being the subject of an offence. It is, moreover, clearly and definitely to be laid down that the enforcement of the law is as much one of the duties of the police as the enforcement of the Diseases of Animals Act, or of similar measures connected with the Ministry of Agriculture.

A tentative list of birds to be protected is contained in two schedules, A and B. In schedule A, comprising species to be absolutely protected during the breeding season, that is to say, from the 1st March to the 1st September inclusive, appear the following : Raven, Goldfinch, Siskin, Woodlark, Marsh Warbler, Nightingale, Pied Flycatcher ; Wryneck, Nightjar, Woodpecker, Kingfisher ; Merlin, Kestrel, Hobby, Peregrine ; Arctic Skua, Great Skua, Terns ; Fork-tailed Petrel ; Black-throated Diver, Red-throated Diver, Eared Grebe, Great Crested Grebe, Slavonian Grebe ; Dotterel, Ringed Plover, Ruff (Reeve),

Black-tailed Godwit, Greenshank, Whimbrel, Red-necked Phalarope, Snipe ; Stone Curlew ; Water Rail ; Quail, Capercailzie ; Swans, Ducks, Graylag Goose. Schedule B is composed of the following species to be protected all the year round : Chough, Golden Oriole, Crested Tit, Reedling or Bearded Tit, Dartford Warbler, St. Kilda Wren ; Hoopoe ; Osprey, Kite, Harrier, Honey Buzzard, Common Buzzard, Sea Eagle, Golden Eagle ; Long-eared Owl, Short-eared Owl, Barn Owl, Tawny Owl ; Bittern, Spoonbill ; Avocet, Kentish Plover ; Baillon's Crake ; Bustard ; Pallas Sand Grouse.

The species contained in schedule B sort themselves at a glance into two groups, namely, those that are common but useful, like our indigenous Owls ; and those that are so rare that even if destructive by nature the harm they effect is practically negligible. It is noticeable, in passing, that protection formerly extended to the Little Owl, an imported species, has been rightly withdrawn, because it preys upon small birds. It thus adds one more instance to the many already on record of the dangers of importing and releasing foreign species of animals in strange lands ; and in connexion with this and similar cases we welcome the recommendation of the committee that for the future the liberation of non-British birds is to be strictly controlled.

On putting the two schedules together, it will be seen that protection of one kind or another is afforded to practically all our birds of prey, resident or visitant, apart from the Sparrow Hawk. Presumably this species, certainly not the least attractive of our Accipitres, is omitted for reasons similar to those that led to the removal of the Little Owl from the list ; but in connexion with the Peregrine it may perhaps be doubted if the owners of grouse moors will note altogether with approval the inclusion in schedule A of this rapacious, if beautiful, Falcon. But to meet a case of this kind, and others possibly similar to it, where a species may be a pest in one place and comparatively or actually harmless in another, the wise recommendation is made that the local authority may appeal to the central authority for extension or shortening of the breeding season and for the removal of a particular bird from either of the schedules. The Raven, for instance, is on the protected list because of its extreme rarity in most English counties ; but application could be made for its exemption from protection in

certain districts in Scotland, where it is sufficiently numerous to prove a pest. Conversely, the local authority can apply to the central authority for the addition of a particular species to either of the schedules, if it is considered to be in need of protection in a particular district; and the central authority would be guided in its decision by the advice of the advisory committee of experts.

Even if space permitted a detailed enumeration of the species, with the reasons for their recommendation for protection, such an undertaking would be quite unnecessary in a journal owned and read almost exclusively by ornithologists and bird-lovers. Possibly, however, the love of birds, which lies at the root of aviculture, may induce some of the members of this Society to wish that the lists of protected species had been longer. Two things, however, must be remembered; first, the Departmental Committee would not be likely to err on the side of neglecting species that required protection; and, secondly, there were so many interests to be considered that all feelings due to sentiment or to a taste for natural history had probably to be sacrificed in many cases to purely economical and utilitarian demands. Few of our birds, for instance, appeal more strongly to us on account of their beauty, elegance, and vitality than the Tits; but, setting aside the Bearded Tit or Reedling, which is not a Titmouse at all, despite its name, the only one that appears in the schedules is the Crested Tit, which is exceedingly rare. The reason for their omission is, no doubt, partly that these highly organized little birds are sufficiently numerous to be exempted from protection—and it was desirable to keep the lists as short as possible—but more particularly that the evidence against some of them, especially the Blue Tit and in a lesser degree the Great Tit, on the charge of serious pecuniary loss inflicted on fruit-growers is so overwhelming and so completely outweighs the evidence of the benefit conferred by their insectivorous habits, that the proposal to protect them would have provoked a storm of protest from owners of orchards. And the same thing would have happened for precisely similar reasons if recommendation had been made to extend the guardianship of the law over that handsome finch of ours, the Bullfinch. If birds of this kind were protected it is tolerably certain that the law would be set at defiance by fruit-growers, because it would pay

them over and over again to shoot or trap the pests and run the risk of being convicted and fined or even, alternatively, imprisoned without the option of a fine. It is true that the recommendation to grant a reward to any person giving information which results in a conviction would increase the likelihood of detection of an offender. Still, we believe that chance would be taken in the cases cited above, and others similar to them.

Under the heading "miscellaneous", various minor, but admittedly important, points were considered. The question, for instance, of bird-catchers, birdshop-keepers, and taxidermists was carefully examined, and resulted in the recommendation that the two first should be licensed, and, further, that there should be regular and careful inspection of shops and places where birds are kept, with a view to the prevention of the keeping of birds under bad conditions. This measure, involving supervision of the trade and more particularly, we hope, the methods of packing for importation of foreign birds, will be welcomed by all true aviculturists. Another trade concerned with wild birds is that of taxidermy, and in this connexion it is recommended that for the future it shall be illegal for a taxidermist to have in his possession, for whatever purpose, any illegally taken bird, egg, or nest. The question of enforcing the keeping by taxidermists of registers open to inspection by authorized persons was also discussed; but, although no strong recommendation was made on the point, it is abundantly clear that the committee was in favour of the suggestion.

There is one other little point to be mentioned in connexion with our home birds, namely, the protection of lighthouses which, as is well known, are a source of serious recurrent mortality, especially to migratory species. Since the provision of perches by Trinity House has proved in many cases an effective means of salvation, the committee advises that suitable perches be provided on all lighthouses on and around our coasts.

The bird fauna of the United Kingdom is so intimately connected with that of Continental Europe, especially through the medium of migratory species, that the consideration of international co-operation in bird protection could not escape the attention of the committee, and naturally the so-called Paris Convention of 1902, the main term of

which was directed towards the absolute protection of the nests, eggs, young, and adults of certain species scheduled as useful to agriculture, was thoroughly discussed, and the reason for the non-adherence thereto of the British Government carefully inquired into. The articles of the Convention were critically examined and, subject to the clearing up of some obscure points and to the adoption of a few suggested modifications, it was decided to recommend that the Convention should be adopted by His Majesty's Government, and that the necessary amendments in the law should be incorporated in the new Act outlined in the committee's report.

The birds scheduled in the French lists as useful and protected, noxious and unprotected, compare very curiously with ours in some respects, and show how circumstances may alter cases. One suspects, indeed, that with our neighbours the utilitarian prevails over the artistic rather more than it does with us. All the true birds of prey, including the Osprey and the Kite, which we prize so highly, are in the noxious list. So, too, are the Bittern, the Divers, and the Raven. Obvious differences of opinion on the subject of useful birds also hold on the two sides of the Channel. For example, the Little Owls and all the Tits, including the Blue, are protected on the Continent, the Blue Tit presumably in accordance with the view, formerly prevalent with us, that its insectivorous diet places it amongst a nation's valuable assets. It is necessary to bear in mind, however, that a bird's habits may vary with its station, or change from time to time according to circumstances—a fact sometimes lost sight of by those who maintain that the fresh inquiry held by the Departmental Committee into the food and mode of life of our wild birds was merely waste of time, seeing that the whole question was, it is claimed, thoroughly investigated and settled once and for all when the original bill for protection was passed some half-century ago.

A natural sequence to the consideration of the French Convention was the recommendation that the policy by which the British Government had in certain cases refrained in the past from taking part officially in international conferences on the subject of bird protection should be reversed, and that this country should for the future be represented officially at such conferences,

and take its share in their promotion. By this means it was felt Great Britain would be able to keep in touch with work done in other countries, and to assist in propaganda in favour of adequate protection in those countries, which have so far refrained from taking satisfactory measures to that end.

Finally, since no report in regard to international action for the protection of birds would be complete without a reference to the danger arising from the wholesale destruction of certain birds for the sake of their plumage, the committee concludes its report with the expression of the hope that, as soon as international conditions permit, the proposals put forward on this subject by the committee appointed by Lord Crewe in 1912 will be revived, and that an earnest endeavour will be made to secure a satisfactory international convention on the lines then suggested.

THE BREEDING OF GANG-GANG COCKATOOS WITH MME. LÉCALLIER

By F. G. HEDGES

In 1920 a pair of Gang-gang Cockatoos were obtained, the cock a newly imported bird, the hen an acclimatized bird, from the Marquess of Tavistock. On arrival they were placed in separate cages until an aviary was built for them, this being 16 feet long, 14 feet wide, and 12 feet high in the centre. The reason for this being higher in the centre is to allow them to get high up out of reach, and to fix a nesting-barrel high up, as it is their natural habit, I believe, when wild, to nest in very high trees. This evidently pleased them, as they were nearly always in the higher part, which has a dead pear-tree for perching. This part is covered about 3 feet square with board and zinc, to give them protection from the sun and to form a dry shelter for them. Under this was placed a 5 gallon wine-cask, the end being covered with 1 in. board and zinc, with a 3½ in. entrance, the zinc being to prevent them cutting a larger hole. They have also a covered shelter, 14 feet long, 3 ft. 6 in. wide, with perch and a dead pear-tree. This is covered in front about 3 feet down with boards from the roof. They have



GANG-GANG COCKATOO

been in this aviary since May, 1920 ; but in that year nothing was done in the way of nesting.

Early in May, 1921, I saw them mating for the first time, and hopes



GANG-GANG COCKATOO

ran high about breeding them, as they were now using the nesting-barrel. On 1st June I looked to see if there were any eggs, but saw nothing. On the 3rd I again looked into the barrel—no eggs ; on the 4th I saw

the first egg. On the 6th I saw the second egg, and this was the last laid. The birds took no notice of me looking into their nest whatever. During incubation, when the hen came off to feed, the cock took her place. One strange thing I noticed was that the hen always came off in the afternoons, when the cock would take her place ; she would be off from one and a half to two hours.

The first egg hatched on 4th July ; this young one died next day. I removed this and now have it preserved in alcohol. When removing the dead chick I saw that the second egg was about to hatch, and it hatched out on the 6th. The young were covered with a rusty red down. Eight days after I again looked into the nest and could see that the young one had grown and was being well attended to. They were left quiet, and I did not look again until the young one was a month old, as I could hear it in the nest. On looking again at one month I could see that the young one was covered with feather-stubs of a grey-blue colour, those on the wings, tail and chest being longer than those on the body. At six weeks I could see that it was a cock bird, as the colour commenced to show on the crest. After this he gained feather very quickly, and during the eleventh week I saw him looking out of the nest. On the morning of 4th September I found the young bird sitting on the dead pear-tree, and was pleased to see a fine strong bird, and in no way wild for a young one. He resembled the hen-bird in form and colour, but he had a red crest, but not so bright as the old bird, with only a few red feathers on the cheeks, and also a dark streak each side of the beak. The young bird could fly well, and could often be seen at the feeding tray with the old ones. If a stranger entered the aviary the hen would commence to cry loudly, and the cock would fly to the young one, as if to guard it from danger. During October I caught the young one up and placed it in the larger bird room, where it is doing well.

I am curious to see at what age the Gang-gang Cockatoo obtains the complete scarlet helmet. I find the Gang-gang hardy, and in no way affected by the cold, as long as they have a good dry shelter to go into. Their food is sunflower, wheat, oats, hemp, and canary-seed, white boiled maize, bread and milk, and a little pear or apple. The Gang-gang is a very interesting bird when in a large aviary. Their

amusement seems to be cutting up all the woodwork they can get at, perches, etc.

Mme. Lécallier has now three pairs, two having been brought over by Mr. A. S. Le Souëf, and I hope to breed from these, perhaps not this year, but one never knows what to expect from birds, as I find some lay the first year and others not before the second or third year.

THE NARETHA PARRAKEET, A NEW BLUE-BONNET

By D. SETH-SMITH

The formation of the Transcontinental Railway which links Western Australia to South Australia has opened up a considerable amount of more or less unexplored country, and it was only to be expected that new types of birds would be discovered. A very interesting one, from the aviculturists' point of view is described and illustrated in the October number of the *Emu*, by Mr. H. L. White, a well-known Australian ornithologist. It is a typical "Blue-bonnet" Parrakeet, but differs considerably in coloration from the well-known red-vented and yellow-vented forms. The forehead and lores are verditer green, the ultramarine blue of the other species being confined in the hen-bird to the cheeks. There is more yellow on the wing-coverts than in the commoner species, and the rump is a brighter yellow.

Mr. H. L. White had secured the services of Mr. F. L. Whitlock, an experienced bird collector, to explore the western portion of the great Nullarbor Plain. A camp was formed at Zanthus, some 130 miles east of Kalgoorlie, where there is a station on the new line, and here the collector discovered a Parrakeet in a cage, the property of one of the railway officials. It appeared to be different from any species he knew, and he ascertained that it had been captured at Naretha, some 75 miles to the east. Proceeding thither, he was soon able to secure specimens which, on comparison, proved to be new to science. The bird has been named *Psephotus narethæ* by Mr. White.

CORRESPONDENCE

MONS. DELACOUR IN VENEZUELA

Mr. Astley has received two letters from Monsieur Delacour dated 21st November and 28th December, 1921, from Caracas, where he had arrived on his way into Venezuela, in which country he is collecting birds, hoping to be able to bring home some humming birds in the spring, and many other species.

(1) "I have not been in the country yet, but in the town and suburbs I have seen a good many Tanagers, Saffron Finches, Siskins (presumably *Chrysomitris cucullatus*—H. D. A.), Keskadees, etc. Bird life is plentiful. The bird market, of course, is the great attraction. I have already bought a few birds, amongst them some wonderful and rare Tanagers from the Andes. *Calliste arthusi*, the shape of the Superb Tanager, head and chest golden orange, two black spots on the cheeks, back, wings, and tail orange and black, sides of breast chestnut. Also *C. cyanoptera*, crown black, head and back silver blue, throat silver-green, the rest blue-black. Quite a number of Euphonias, head sky-blue, neck and upper parts dark blue, underparts orange. I have also other Euphonias and *C. guttata*, *desmaresti*, and *nigriviridis*. Red Siskins and Mules (Canary and Red Siskin) and White-bellied Cardinals are easily obtainable, but more expensive than the rare birds! I also have two nice species of Yellow and Black Siskins. I hope to get a car this week, and will then begin to visit the interior of the country. I have introductions to a number of very kind Englishmen living all over Venezuela, and I am going to stay with several of them in the interesting parts."

(2) "I am leaving Venezuela on Saturday for Trinidad. I have seen a good part of the country, and want to see something else. I shall stay a fortnight in Trinidad and shall go to the Guyanas or Cayenne, where wild life is, I am told, wonderful. Venezuela is by no means a beautiful country, and life is difficult here. But birds are plentiful and very interesting. I have seen nearly all that I was expecting to see. In the north of the country small birds are very numerous. Tanagers of all sorts, Humming Birds, Tyrants, Flycatchers, Siskins, Cardinals, etc., are everywhere. I saw numbers of Parrakeets, Trogons, Jacanas, Puffins, etc. In the Apure country,

a beastly, hot, ugly, flat plain, with enormous but dirty rivers, the Waders are in *millions*. You see all the time big flocks of Egrets, Scarlet Ibises, Storks, and Herons of all sorts, etc. Tree Ducks are abundant, and every hundred yards a pair of Orinoco Geese can be seen on the banks, which are *covered* with huge alligators and caimans. But I shall give you a better account *viva voce*. I brought from the Apure, on a Ford lorry, a nice collection of animals and birds, either given to me or caught by my man. A young tame tiger cat, a pair of young tame Capybaras (!), and a mother silver-grey Agouti (a rare species) with her son (absolutely tame), a pair of young Snake Birds (*Anhingas*), four Rosy-billed Tree Ducks, three Orinoco Geese, some Curassows and Guans, two little Blue Hens, a Sun Bittern, some Macaws and Parrots, Parrakeets, some *Calliste*, twenty *Paroaria nigrigenis*, that you can only find on the Apure and Orinoco, some Tronpials, a King Vulture. I had some beautiful Herons, but they died on the journey, which is really terrible, as you have to cross 500 km. of plain, *without roads!*

I have here an excellent collection of Tanagers, eight species which have never been seen in Europe, quite a number of small birds—and a delicious little Rail, a miniature Moorhen, grey and black, not bigger than a Sparrow, and quite tame. I caught a number of Jacanas, but they don't live. I have some Talpacoti and Scaly Doves, which are very common here. You can imagine how difficult it is to carry all this Zoo behind me, but I hope to get all these things in good health into Europe in the spring."

It is to be hoped that Monsieur Delacour will keep a diary, which should be most interesting reading.

LONGEVITY OF THE JACKAL BUZZARD

SIRS,—Our old hen Jackal Buzzard, *Buteo jackal*, died here last week. She has been here for seventeen years; the pair coming from the Zoological Gardens in 1904. She has laid regularly every year, but for a good many years the eggs have been unfertile. She was in good health till three days before she died. The cock bird is still alive, and looks the picture of health.

GERARD H. GURNEY.

KESWICK HALL, NORFOLK.

BREEDING OF GANG-GANG COCKATOOS

SIRS,—With reference to the announcement signed by F. G. Hedges, in our issue of November, 1921, it is perhaps advisable and more correct to inform members that the Gang-gang Cockatoos are the property of Madame Lécallier, or rather one of the parents is hers, and I fancy I am correct in stating that the other belongs to Monsieur Delacour. F. G. Hedges is bird-keeper to Madame Lécallier.

HUBERT D. ASTLEY.

EDITORIAL NOTES

Mr. Meade-Waldo writes: "There are two clerical errors to my article on Coloration and Voices of Owls in the number of the AVICULTURAL MAGAZINE for December, 1921, that should be corrected. In the first paragraph, line 3, *Brown* should, of course, be *Barn*, and in the second paragraph, line 2, *Melanistic* should be *Melanism*."

Mr. Astley's letter about the breeding of the Gang-gang Cockatoo, the publication of which was postponed until the present issue, was announced in our last number as appearing on p. 186.

Our illustrations of the Gang-gang Cockatoo published on pp. 8 and 9 of this issue are printed from blocks kindly lent by Monsieur Delacour.

NEW MEMBERS.

Mr. PAUL LAUDER, c/o A. P. Lauder, Esq., 60 Rotherdon Road, Upper Tooting, S.W., London.

MEMBERS' PRIVATE SALE AND EXCHANGE COLUMN.

The charge for private advertisements is SIXPENCE FOR EIGHTEEN WORDS OR LESS, and one penny for every additional three words or less. TRADE ADVERTISEMENTS ARE NOT ALLOWED IN THIS COLUMN. The Editors reserve the right of refusing any advertisement they may consider undesirable.

FOR SALE

UNRELATED pair Upland Geese, £7 7s. ; Black-winged Peacock, two White Peahens, 1921 birds, £10.—WM. SHORE BAILY, Boyers House, Westbury, Wilts.

COCK Yellow Budgerigar, pair Orange-cheeked Waxbills, Cock Avadavat; what offers?—ALFRED THOM, Whitechurch, Salop.

WANTS

GOOD Cock Pekin Robin.—B. THOMASSET, Ashmansworth, Newbury.

A GOOD Home for a very tame Lemon-crested Cockatoo.—Please write to Mrs. STAVELEY-HILL, Oxley Manor, Wolverhampton.

The charge for members' advertisements under this heading is FOURPENCE FOR TWELVE WORDS or under, and one penny for every additional three words or less.

GAMAGES ZOO Dept.

Importers of High-class BIRDS and ANIMALS.

BLUE-BREASTED WAXBILLS	10/- each.	RED RUMP PARRAKEET	£3 pair.
BLACK-CHEEK	10/- ..	AFRICAN GREY PARROT (Talking)	£10, £15, and £20 each
ROBINCHAT (<i>Cossyfra caffra</i>)	80/- ..	BLOSSOM HEAD PARRAKEET	50/- ..
RED-COLLAR WHYDAHs	20/- ..	BLUE-HEADED PARROT (<i>P. Mentrus</i>)	£5 ..
DIAMOND SPARROWS	25/- and 45/- pair.	YELLOW-BEAK PARROT (<i>P. Flavinostriis spic.</i>)	£5 ..
SHORE LARKS	17/6 each.	PENNANT PARRAKEETS (Young)	70/- each.
BLACK CAP SHRIKE (<i>T. senegalus</i>)	60/- ..	WHITE-BILLED PARROT (<i>Tanygnathus</i>) rare	£4
RED-CRESTED CARDINALS	12/6 ..	HARTZ MOUNTAIN ROLLER CANARIES	
TWITs	7/6 pair.	Cocks 21/-, 25/-, 30/-, 35/- each.	
CUBAN FINCHES	pair 30/- ..	Hens 5/6, 7/6, 10/6	
ZEBRA	18/6 ..	NORWICH AND YORKSHIRE CANARIES, Exhibition bred, Cocks 30/- to 60/-, Hens 10/- to 30/- ..	
OLIVIOUS THRUSHES	40/- each.	RUSSIAN COCK GOLDFINCHES	
ORANGE-BILLED	30/- ..	" 7/6 and 10/6 each.	
RED-BILLED WEAVERS	pair 5/6 pair.	" Hens 3/6 and 4/6 ..	
RUSS	7/6 each.	" COCK BULLFINCHES	
GREATER HILL MYNAHS	70/- ..	" 10/6 and 15/- ..	
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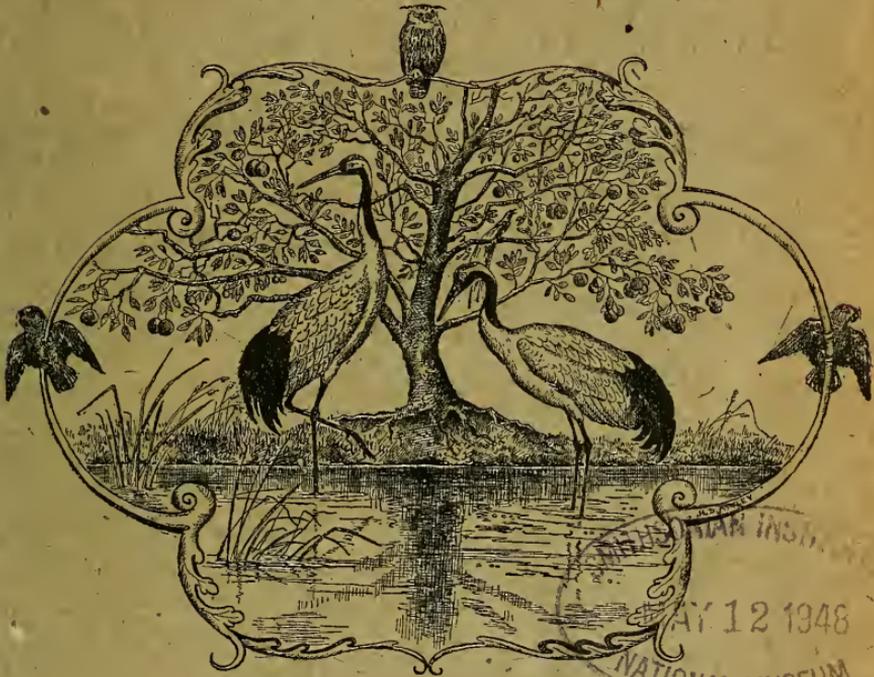
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FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XIII.—No. 2.—*All rights reserved.* FEBRUARY, 1922.

AVICULTURE IN JAPAN

By N. TAKA-TSUKASA

Thinking that some readers of this Magazine are interested in the cage-birds of Japan, and also in the manner the Japanese keep these birds, I am writing an article on the aviculture of Japan. For a considerable time the Japanese have kept both native and foreign birds in cages. Japanese history tells us that for the last 1,700 years the Japanese Bush Warbler was kept for the sake of its beautiful song, and that the Parrots, Peacocks, and Magpies have been imported from Corea for over 1,000 years.

During this period many times we have had both progress and retrogression of this art, and about 100 years ago it was at its highest point, when we arrived at the present method of keeping birds. During this epoch we have had many books on the subject of bird-keeping, and many foreign birds were bred and reared in cages and aviaries, such as the Mannikins, Pheasants, Peafowl, Ducks, and some species of Soft-bills and Parrots, especially the Temmink's Robin, the White-headed Black Bulbul, the Hill Mynah, and the Purple-capped Lory, which were bred in outdoor aviaries, and it is said that the Crested Sheldrake was profusely imported from either Corea or China during this time.

The Crested Sheldrake is now so scarce that there are only two specimens in existence in the world, and even these are only stuffed specimens.

At present the aviculture of Japan is progressing rapidly, and many bird-lovers are eagerly studying it. In the Meiji years this was much neglected, and I think that the aviculturist of Japan will soon arrive at the same level on this subject as the Europeans. Last year an avicultural society began to hold its meetings in Tokyo. These are held every other month.

The Japanese aviculturists separate the cage birds, as Europeans do, into two groups, namely, the seed-eaters or hard-bills and the insect-eaters or soft-bills.

(a) SEED-EATERS OR HARD-BILLS

The Japanese bird-lovers give this group of birds chiefly various kinds of millet (the Japanese name is Awa), *Panicum miliaceum* (Kibi) and *Panicum frumentaceum* (Hiye), in the same manner as the canary seed and millet are used by the Europeans, and also, in like manner as the Europeans, the Japanese mix any two kinds of *Panicum*, which I mentioned above, in the same quantity for their food, and often add the seed of *Pellira ocimoides*, hemp and rape, in such proportion as one-sixth of the whole part of millets. This seed diet can be got from either the bird fanciers' or cereal shops.

We have no canary seed in Japan now, but about 100 years ago, when the first pair of Canary birds were introduced into Japan, the canary seed was also brought into Japan and was sown as the food for the Canary birds, but some time after the Japanese found that the above-mentioned kinds of millets could be substituted for the canary seed, and they stopped the cultivation of the canary seed, so it has become extinct.

With respect to the caging of birds, we use the box-cage generally now, though sometimes a rectangular bar-cage is used for that purpose. The Japanese box-cage is the same as the European one in its principle, but in dimension the height of the cage is greater than the length or width, and the box has in addition to the front door an entrance near the top of the side or at the back of the cage, and the door slides in sideways, while the door at the front slides up and down. This side entrance is used for taking the artificial nest in or out from the cage. The box-cage generally has a paper screen on the front for the purpose

of protecting the bird from cold at night in the winter, and damp and chilly air in damp weather, and against the mosquitoes in the summer. In the latter case we place a mosquito net on the slide in place of the paper.

The artificial nest is made of straw, a saucer-shaped one being used for the Canary birds and a jar-shaped one for the Mannikins and Waxbill, but I personally found, for the Canary birds, an unglazed pottery saucer, called "Kawarake" by the Japanese, is more useful than straw ones, and the jar-shaped one is unfit for breeding, though it is quite enough to sleep in at night, for it is too small for the nest. I use a small box for the nest of the Mannikins and Waxbills, and I get good results.

For the material of nest-building we use generally a kind of rootlet called "Karukaya" by the Japanese aviculturists, and it is sold at the bird fanciers, but a waste swab can be used successfully, and it is less expensive than using "Karukaya". The Japanese call the swab "Pawashi", and this is made of the same rootlets as "Karukaya".

The Japanese bird fanciers' shops sell branches of Niwatoko (elder) for perches. The branch of this tree is soft and very handy for making a perch. The old Japanese bird-lovers think that this tree is beneficial for the birds' legs, and often used the extracts of the branches and leaves of it for a lotion, which is used for broken wings or legs, the injured part being wrapped in a cloth which has been dipped in this extract.

We strew the floor of the cage with sand, and do not use other materials for that purpose excepting old newspapers.

The cage, food, and water receptacles and other things which are used in bird-keeping are obtained from the bird fanciers' shops, but food or water receptacles are also sold in china shops, and the parrot cage can also be purchased from the ironmongers' shops and the sand from the builders.

The most popular and commonest Hard-bill which is kept in a cage in Japan is the Canary bird. The Canary bird is bred in great numbers by peasants and old men of the towns who have spare time, and, of course, by bird-lovers. The most noted localities where the people breed the Canaries are the outskirts of the city of Nagoya and the coasts of the inland sea.

The Canary birds of Japan are chiefly the offspring of the German Rollers and the curled-feathered race, though the latter are less in number than the former. The breed has now become inferior in all respects to the original stock, for new blood has not been imported during the Great War, and therefore inter-breeding in small circles has been the result. But fortunately we have new stock now, though the numbers are small from the native land, so they will be soon improved, and the Green Canaries has been imported too.

Before the Great War we had often very good specimens of Lancashire Cobby, Yorkshire Cobby, and Belgian Fancy Canaries, but they have all nearly vanished from the cage-birds of Japan.

The Japanese did not try cayenne feeding till last year, when Mr. T. Takano, of Yokohama, tried this experiment, and has succeeded in getting some colour-fed birds from the Japanese stock.

We get generally two or three broods a year, but if the birds are in good condition we have one more brood in the autumn.

Just before the breeding season comes we give the seed of *Pellira ocimoides* or rape, and in the breeding season we add a little quantity of the yolk of an egg boiled and chopped fine to the above mentioned seed.

The history of the importation of Canary birds in Japan, according to a "cage-bird" book which was published about 100 years ago, is as follows: The Canary birds were imported many years ago, before this book was published, but the birds were all males, consequently the Japanese could not get any fledglings; but about forty years ago an European (probably Dutch) brought a pair of Canary birds to Nagasaki, from which he got many broods. The governor of Nagasaki received a present of the parent birds from the European, and brought them back to Yedo (now Tokyo), and he gave them to a Shōgun knight. This knight attempted to get young birds from this pair, but he failed the first year. However, the next year he succeeded, and had many birds in a few years. These birds he sold and gave away, and so the Canaries were soon distributed in all parts of Japan.

I have little information on the subject of mule birds, but it is said that the Canaries are crossed with the Siskins and Japanese Greenfinches; so far I have not yet met with such birds. I have heard recently Mr. Takano has succeeded in getting such mule birds.

Bengalee or Pied Mannikin. This bird is also very popular in Japan, and is divided into three varieties by the bird-lovers according to coloration : firstly, the albino, in which the plumage is all white, and it has flesh-coloured bill and legs, but the eyes are not red ; secondly, the cinnamon and white bird ; and thirdly, the dark-brown and white bird. The markings of these varieties are bold and irregular, and the bill is black on the upper mandible and flesh-coloured on the lower, and the legs of these two varieties are equally flesh-coloured.

The box-cage suits this bird the best, because it has been hatched and lived all its life for over 100 years in such a box-cage, so the constitution of this bird has become quite adapted to a box-cage, and generally it is too delicate to live in an aviary or a large cage.

This bird can also stand very simple diet, which consists of any one kind of millet, and this is the only bird which accepts the artificial nest sold at the bird fanciers' shops without any alterations having to be made to it. The artificial nest for this bird is jar-shaped, and if we give it some materials for nest-building it instantly makes a nest and hatches its eggs, and as soon as its young leave the nest it lays another clutch of eggs ; thus it gives us many broods through a year, but generally we have two broods in the spring and the same in the autumn.

The number of a clutch of eggs is either three or four, and the fledglings can easily be reared, as they are generally very strong and the parents take great care of their young. As this bird has generally a very good nature it is often (nearly in all cases) used as a foster-mother for the Zebra Finches, Gouldian Finches, and other rare species of the ornamental Finches.

An old Japanese book on the cage-birds tells us that this bird comes from China, and in the original species the upper parts are dark brown and the breast and abdomen are white with pale dusky streaks. Its bill is black and the legs are pale bluish-grey, and its tail is long and pointed. According to this description I think that the Bengalee comes from the Sharp-tail Finch (*Uroloncha acuticauda*), which is a common bird in the southern parts of China, Formosa, and other tropical parts of Asia.

This bird was imported into Japan about 200 years ago, and during

fifty years it was distributed in all parts of Japan, but still during this time it seems that the White and Cinnamon varieties did not appear.

The Bengalee can be easily crossed with any of the other varieties of its kind, or such Mannikins as the Sharp-tail Finch and Spice bird. The mules between this bird and Sharp-tail Finch, which were hatched in my aviary, are similar to the Sharp-tail Finch, but the skin of the mule-birds is always white.

The Java Sparrow is also one of the most familiar birds of Japan. It is a favourite with the Japanese artists, and it is often painted in pictures. There are three varieties. The first is the common grey bird, which is the most numerous of the three, and every year great numbers are imported into Japan, besides those that are bred in this country. The second one is the White Java Sparrow, which is chiefly bred in Japan, and the third is a brown one, whose upper parts are dark brown, with white cheeks, the head is the darkest. The underparts are yellowish brown, except the breast, which is the same colour as the upper parts, and a dark-brown band runs across the lower breast, which is separated by this band from the abdomen. Some persons think this variety is a hybrid between the Java Sparrow and the Zebra Finch. The third variety is the rarest.

We keep the Java Sparrow in a box-cage as we keep the Canaries which I have already mentioned in this article, but we use a small box for its nest instead of the saucer-shaped artificial nest. The box is similar to those which are used by the Europeans for an artificial nest for the Mannikin or Waxbill. This artificial box-nest can be obtained from the bird fanciers' shops. We have generally two broods in a season.

In Nagoya, where this bird is chiefly bred, the bird fanciers rear the young birds in the following manner: They separate the young birds from their parents (either natural or foster) when they are about a week old and rear them by the hand.

At first the fanciers divide the fledglings into two or three groups, according to the strength of the birds, their diet consisting of a paste made of crushed millet, dried river fish, and greens.

The fancier attaches this paste to a bamboo spatula, with which he pushes the food into the birds' mouths. The young birds soon learn

this method of feeding, and as soon as a man comes to the cage they open their mouths and take the paste from the spatula skilfully. While the fancier feeds the fledglings in this manner, he sorts out the groups again and again as soon as he finds some weaker birds in a group.

This method of rearing gives the fancier less loss than he would have if he left them to their parents until they were old enough to leave them naturally, and by this method he often obtains one more brood than is usual.

The fancier needs the assistance of two or three men's hands, including his own, to rear about 500 to 7,000 fledglings to maturity.

The White Java Sparrow, I have heard, was produced at Nagoya, and obtained from some common grey birds which had some white plumes in the wing, but I think this refers to the origin of the white bird in Japan. The white birds were probably produced in China earlier than the Japanese birds, and it seems that there is no relationship between the stock of Nagoya and that of China.

The Zebra Finches are also bred numerously in Japan, but this bird is not allowed generally to hatch its eggs itself, for what reason I do not know, but the fanciers use the Bengalee hen as a foster-mother to hatch its eggs and rear its young. But personally I have reared many fledglings without using the Bengalee. The Zebra Finch breeds freely in an aviary if it has been accustomed to the aviary life, as this bird is chiefly reared by Nagoya fanciers who keep the birds always in box-cages, so its wings generally are not strong enough when it is put into an aviary to fly about at once and freely. This bird thrives well on the diet which I have mentioned before, and also endures an outdoor life in the winter.

Recently the Gouldian Finch has been bred in Japan in fairly large numbers. But the young birds are very delicate until they finish their first moult. The hatching of the Gouldian Finch is done either by using the Bengalee as a foster-mother or by the parents themselves.

The newly imported birds are also very delicate, and the hen is apt to suffer from egg-binding when she first lays.

The following foreign Finches are commonly seen in the cages of the bird fanciers' shops in great numbers: the Amanduvade, Spice Bird, Sharp-tailed Finch and Black-headed Nun. The Diamond Finch,

Indian Silver Bill, Three-coloured Nun, Chestnut-breasted Finch, Sydney Waxbill, Cherry Finch, Ribbon Finch, and Pin-tailed Nonpareil are often imported, but not so numerous as the former mentioned birds.

Generally the African Finches are imported less than those of Tropical Asia and Australia. All these birds and Weavers and Whydahs are quite hardy in the Japanese winter, especially after their first winter. I have had some Weavers and Whydahs in my outdoor aviary without any heat in winter for ten years, and they are now in quite the same condition as they were when imported. Of course, this aviary has glass screens for protection against the bad weather.

The Japanese generally keep the newly imported birds in box-cages during the first winter and the rainy season, which is as bad as the cold winter for the delicate and weak birds in Japan, as well as newly imported birds.

We put the cage in a sunny place in the daytime and a warm room at night or on chilly days, and from my personal experience it is not necessary to heat this room unless the weather is damp. Generally the front of the box-cage is covered with a paper screen.

Personally I advise that it is better to remove the nest-boxes from the aviaries in which birds are kept that have come from the southern hemisphere, because they are apt to breed in winter, and they will often get egg-bound.

(To be continued.)

FOREIGN BIRDS AT OLYMPIA

By ALLEN SILVER

The resumption of the pre-War Crystal Palace Bird Shows took place in January, 1922, at Olympia, Addison Road, W., being the 56th Annual Show of the L. & P.O. Society. The foreign section was guaranteed by the Foreign Bird Exhibitors League, and although a small trial classification was only possible, a remarkable collection of first-rate exhibits were benched.

Budgerigars.—A poor class of indifferent specimens from a show standpoint. The yellows being of ordinary merit and the greens just commonplace examples; nothing approaching ideal standards.

Broadtails, etc.—1st, 2nd, and 3rd, John Frostick leader, an exceptional Pennant, followed by good Adelaide and a pair of Rosellas.

Cockatoos and Ringnecks, etc.—1st, Lord Tavistock, a Layard Parrakeet in perfect order; first ever exhibited and an education to Parrakeet keepers. 2nd, Frostick, good Citron-crested Cockatoo. 3rd, 4th, and v.h.c., Lord Tavistock, with Lutinos, respectively Alexandine, Blossom-head, and Indian Ringneck. The beautiful Canary yellow and tameness of these birds pleased everyone.

A. O. Sp. Parrakeets.—1st, Lord Tavistock, a Red Shining Parrakeet, perfect; 2nd, J. Frostick, one of the best Kings ever benched, in perfect show form, staged to the minute; 3rd, Mrs. Burgess, White-rumped Lory, very good; extra 3rd, Sulu Island King (Lord Tavistock's), not quite ready; extra 3rd, J. Frostick, perfect pair Bauers Parrakeets, faultless; v.h.c. (two), Lord Tavistock, with Swift Lorikeet and Blue-winged Grass Parrakeets, both rare and beautiful but down on staging. The class also contained a Black Lory, two cock varied Lorikeets, and a 1921 Black-capped Lory, all shown by Mrs. Burgess. The premier birds wanted some separating on show points.

Seed eaters.—1st, Frostick, good pair Long-tailed Grass; 2nd, Wax-bill; 3rd, Cordon Bleus; v.h.c., Cut-throat.

A. O. Sp. F. Bird.—1st, 2nd, and 3rd, the Hon. Mrs. Bourke, with Malachite Sunbird, African Amethyst Sunbird and African Bush Robin (new); v.h.c., Mrs. Burgess, Naked-throated Bell Bird, well staged.

The British birds were a remarkably good collection of exceptional specimens of their kinds. Among the more interesting sections we noticed a Great Grey Shrike, an exceptionally good Wryneck, Gold-crest, and Common Redstart, which have done many rail journeys to shows and were immaculate. There were also Waxwings, Cross-bills, Hawfinches, Blue-headed, Grey and Yellow Wagtails, Nightingales, Robins, Black-cap Warblers, Common, Cirl, Reed, Snow, and Yellow Buntings, some good Thrushes and Blackbirds. The remarkable thing to many who never remove their birds from their living quarters is that most exhibition birds live longer, look better, and become more charming in demeanour than birds that are kept in one place. The excitement evidently is healthful.

ERLANGER'S FALCONS

By FREDERICK D. WELCH

During visits to the London Zoological Gardens in 1920 and 1921 I watched two of the above from North-West Africa, the last visit being in August, and as they were nice-looking birds it seemed to be worth writing a description of them. But writing accounts of active healthy Falcons which are often on the move about their cage in flight is *by no means so easy a task* as writing from museum specimens which can be handled; and this must be my excuse if there should be any omission in the following account.

In general colour they were brown, darker in shade on back and wings, with neck and head paler, the latter having the crown dark anteriorly, paler posteriorly, with some narrow longitudinal dark streaks, and a central dark patch at back of head.

On the face were two dark conspicuous marks, one on each side, starting about $\frac{1}{2}$ inch below the eyes and running downwards and outwards as they descended. The iris was dark, beak blackish.

The breast was pale in general colour, but streaked with dark longitudinal blotches, and the pale feathers around legs had thin dark streaks down them (apparently in centre of each feather): the feet and bare metatarsus being yellow. The tails were dark with pale crossbars.

In flight they moved gracefully and rapidly, and on one occasion a Falcon captured a Sparrow just before I arrived at its cage, and when seen by me was holding the prey in its toes quite dead.

I did not myself see the chase, but was told by a man who did that the Falcon proceeded silently and uttered no noise before the flight, in this agreeing with the silent dash of the Corean Sea Eagle (*Haliaetus branichii*) already recorded (AVICULTURAL MAGAZINE, 1920, p. 55). Judging from these cases and others seen by me in wild state, the feet of Falcons and Eagles are *alone* used in the actual killing of birds, the grip of toes stopping the heart and lung action of the prey, and the beak is not used as with Bateleur Eagles and others against poisonous snakes (AVICULTURAL MAGAZINE, 1921,

p. 148) to disable them, but only to pluck the dead bird and eat it, commencing to tear up the head first, then other parts.

These Erlanger Falcons (*Falco biarmicus erlangeri*) looked to be about 16 or 17 inches long.

I have been unable from want of time and from other reasons to look up specimens in museum or book accounts of adult plumage, but have an impression that the above is immature plumage. Is this so?

Since August, 1921, I have not seen either bird.

THE FLIGHT OF THE BLACK-TAILED PARRAKEET

Some very interesting correspondence on the speed of the flight of birds has been published recently in the *Field*, and amongst the various letters one from the pen of the Marquess of Tavistock is of considerable interest to aviculturists. The Black-tailed Parrakeet is perhaps better known to aviculturists as the "Rock Pebbler" or "Rock Pepler".

Lord Tavistock writes :—

"I should say that the rather scarce Australian Black-tailed Parakeet (*Polytelis melanura*) is probably one of the fastest birds in the world, and also one of the most superbly graceful on the wing. I have kept a young male of this species at liberty for some months past, together with the nearly allied Barraband's parrakeet and the common Indian Ringneck, and have thus been able to compare the speed of the three species with one another and with native British birds. Very few of the latter can equal the pace of the Ringneck, which, when alarmed, is an exceedingly swift bird; but it is quite a poor flyer by comparison with the Barraband, and the Barraband is a little slower than the Blacktail. I have often watched the latter on a fine morning dashing round and round at an almost incredible speed, now turning and twisting over the grass, now diving through the branches, until one would think that only a miracle could save him from being knocked to pieces. The sight is a wonderfully beautiful one, but unluckily a second bird of the same species, which I released last summer,

did not prove as great a success. A Brown Owl attacked it the first night it was at liberty, and, dashing away in the darkness, it lost its bearings and never returned home. It was seen on one or two occasions, and I hoped to recover it, as it was quite tame ; but my hopes seem likely to remain unfulfilled, unless some reader should know of its capture. It is a greenish yellow bird, darker green on the wings, with some of the secondaries red, and a long tail, black above and pinkish underneath. The size is about that of a tame pigeon."

HARDIHOOD OF FLAMINGOES AND STANLEY CRANES

By HUBERT D. ASTLEY

I still have five pre-war Flamingoes (I believe the only ones in England) which have never been shut in during the winters. This year they have on three occasions been frozen in, so that for two or three days and nights at a time they have stood closely packed in a small pool of water, surrounded by ice, which they have managed to keep from being frozen by movement of feet and beaks. From experience they have learnt that it is risky and inadvisable to walk on the ice, for when they did so they constantly slipped up and were in danger of fractured legs.

It is astonishing that birds which would naturally be in Egypt can not only stand the cold, but are able to endure it without any exercise for forty-eight hours and more. It is useless to break the ice, for it only scares them and matters would be worse (and have been) than better. In fact, the remedy is worse than the disease.

When the thaws arrive their joy is great, and in open water once more they rush about with carmine and black wings extended, until one wonders how they can possibly avoid breaking their legs.

In February I had a shock on seeing one morning that the female Stanley Crane was enclosed in ice half-way up her legs, having roosted (as she and her mate always do) in the water. Luckily the ice was not strong enough to hold her, and after a great effort she freed herself, jumped on to the harder ice, and walked ashore, much to her mate's delight and hers, for they proceeded to dance a fandango. On another

occasion last January, when an evening party had been given to the employees, I was seeing some guests off at 12.45 a.m., and as it was freezing very sharply I walked out in the brilliant moonlight to have a look at the Flamingoes, when I descried two grey forms (looking almost white) in the ice of the moat which surrounds the house. It was the pair of Stanley Cranes already frozen in! What horrible moments these are! It was now or never, for before morning I could see that the ice would be too hard for them to break; consequently I threw stones at them, which shot over the ice with resounding ringing chimes; and to my relief first one crane and then the other struggled out and made for the shore. This roosting in the water is perhaps resorted to in Africa, where they would be safe from animals of prey, and would probably be in some lagoon where there were no crocodiles.

Anyhow it proves that Stanley Cranes, once acclimatized, are extremely hardy.

STRAY NOTES

COPY FOR THE MAGAZINE.—The greatest difficulty the Editors of the Magazine experience is to find sufficient copy to fill the journal. There are many members who keep birds, and who must have had interesting experiences, who never write them down for the benefit of their fellow aviculturists. We appeal to those members to send us their avicultural notes whether they think they are worth publishing or not. We can judge as to this when we receive them, and probably we shall find that they are most useful.

THE COMMONER SPECIES.—Many members seem to imagine that the commoner birds, such, for instance, as Zebra Finches, Cordon Bleus, or Budgerigars, are not worth writing about, but that all that the members want is matter dealing with very rare species. We want to impress upon our members that this is not the case, for it must be remembered that there are a number of new members who are quite beginners in aviculture, and the experience of others in the keeping and breeding of the commoner species would be of the greatest value to them.

PIONEERS IN AVICULTURE.—We most of us remember the pride

we took in the first birds we bred, how delighted we were when the first young Cockatiel or Budgerigar made its appearance into the world, and how eagerly we read up every scrap of published information on the subject that we could find. Greene and Gedney were the two authorities we placed our faith in, and to these two pioneers great credit is due for having implanted a love of aviculture in many of those who are now quite old hands at it.

EARLY SUCCESSES AND FAILURES.—Do not let us forget that a new generation of aviculturists is springing up, and let us give them freely of our experience. Let us write of our early successes and failures instead of waiting until we think we have qualified for a medal.

THE BENGALESE.—Mr. Taka-Tsukasa's article which is commenced in the present number reminds us that Japanese and Chinese birds have practically disappeared from the European bird market since the war. The little Bengalese in its three varieties has not been seen for years. It is an extraordinary little bird which is happier in a small cage than anywhere else. It nests freely in any cage, and if you keep a number together the hens will all lay in the same nest and rear their young indiscriminately, and if you like to change their eggs for those of any other small ornamental Finch they do not mind, but will carefully hatch them and foster the chicks as if they were their own.

JAPANESE AVICULTURE.—The Japanese appear to be getting very keen on aviculture, according to Mr. Taka-Tsukasa, and we think our members will be interested in his article, which will be continued in the next number. We much hope that British aviculturists are not becoming less keen, but we fear their numbers are considerably less than they were before the war. An exchange of experiences between the Japanese and ourselves will be very useful, and we hope will stimulate both.

SNOW GEESE.—The Zoological Society has acquired from Mr. Blaauw a very nice pair of Ross's Snow Goose (*Chen rossi*), which is much the smallest of the three or four forms of Snow Geese. It occurs in Arctic America, migrating south as far as Western California in winter. The Snow Geese are rather puzzling. There are the three white forms which differ from one another only in size. The largest,

Chen nivalis, nesting in the Hudson Bay region and migrating along the Atlantic coast; the lesser, *C. hyperboreus*, breeding in Western Arctic America and Alaska, migrating to the Pacific coast; and the small Ross's above mentioned. Are these good species or subspecies? Then, again, the greatest puzzle is the Blue Snow Goose (*Chen caerulescens*), which, except for colour, is identical with *C. nivalis*, with which it also associates, but its colour is chiefly bluish-grey. It seems probable that this and the white form are colour phases of the same species, a case of dimorphism.

D. S-S.

CORRESPONDENCE

A NOISY BIRD

SIRS,—In the Magazine for last July Mr. F. D. Welch asks whether the fact that the examples of *Garrulax picticollis* seen by him were remarkably silent birds was due to their being females. I am afraid I cannot answer as to the sex of those which he saw, but I do know from personal experience, and from what Mr. Fulljames told me about a specimen which he possessed, that *G. picticollis* not only has a harsh chattering song, but whenever it wants to call attention to itself it utters an incessant irritating plaintive whistle. When this noise can be heard by neighbours they will speedily complain of the nuisance and you will have to get rid of the bird.

A. G. BUTLER.

SUGGESTIONS FOR THE MAGAZINE

SIRS,—I understand that you are short of "copy" for the Magazine, and that we, the members of the Society, are so remiss in writing articles, or else have so little of interest to write about, that a moment has come when the question arises whether we can continue to publish a number each month or not.

On a former and a similar occasion I proposed that the Magazine should be published bi-monthly, thereby issuing six numbers a year instead of twelve; by these means having more articles and more money to expend on each number. But many members, I remember, objected to this suggestion.

May I make another, and, as far as I know, a new proposal? It is this. The very subject of birds is, in my most humble opinion, in grave danger of being over-written. Such reams of print have appeared during the last few years, and are still appearing, about birds that there is really very little that is new to be written, and many people are beginning to feel somewhat nauseated by this constant serving-up to these feasts of avicultural nourishment. This more particularly applies to our hobby of the keeping of birds in confinement. The same round of experiences, minor successes and disappointments, and small events are recorded, slightly disguised, time after time.

What I venture, with trepidation, to suggest is this. Why not enlarge our scope, our outlook, and our interests? Why, in fact, should we confine ourselves to birds? Why not, still keeping birds as our major interest, lend our pages to descriptions of our members' other pets, those with fur instead of feathers? Many of us do not keep only birds, but have as well all sorts of small mammals.

If a member keeps Golden Agoutis, as I used to, at large in his garden, or if he has a Coatimundi, an Armadillo, or any other out-of-the-way pet, let him write and tell of it in the pages of the Magazine.

I am prepared to wager that the result will be a larger Magazine, more interesting, and more original articles each month, and, as a result, an increase in membership. I offer this as a suggestion, hoping that if it does nothing else it will bring forth a better scheme from some other member, which will lead to the rejuvenation of the *Avicultural Magazine*. We could then take as our club motto that noble line of English verse (the name of the poet at this moment escapes my memory): "Happy homes and hairy faces."

PHILIP GOSSE.

[We hope our members will freely express their views on this subject.—EDS.]

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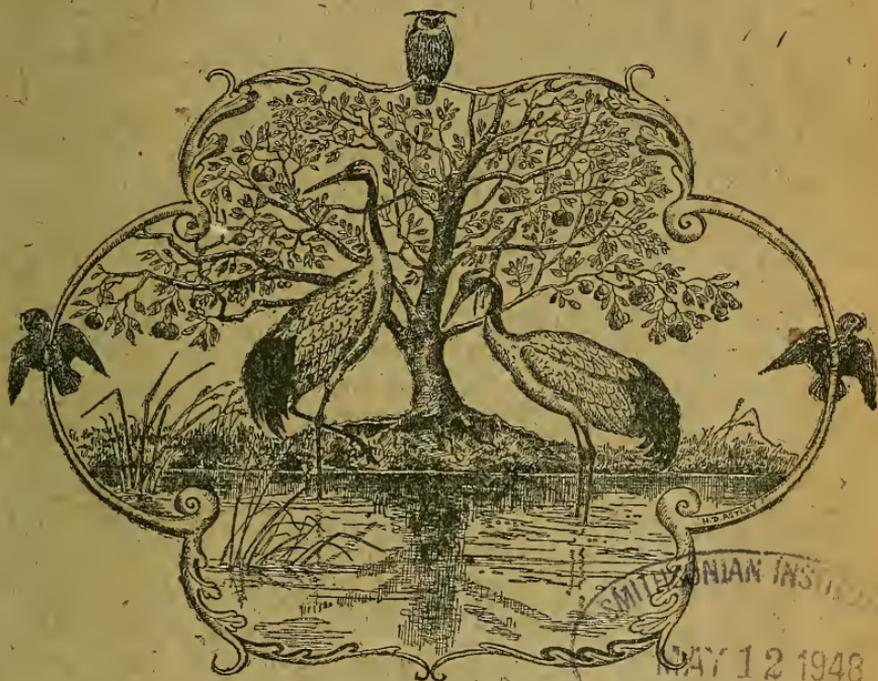
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THE AVICULTURAL SOCIETY.

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NOTICE TO MEMBERS

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ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY TREASURER,
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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

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THE AVICULTURAL MAGAZINE

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IN FREEDOM & CAPTIVITY

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MARCH, 1922.

AVICULTURE IN JAPAN

By N. TAKA-TSUKASA

(Continued from p. 22.)

The following Japanese Finches are commonly kept in cages, and the Buntings are generally treated by the Japanese like the Soft-bills, though some keep them on seed just like other Finches. The Japanese Greenfinch and the Siskin are the commonest. Both are very hardy and thrive well either in a cage or an aviary, and they have a pretty song like a Canary, though they have not so many variations in their song as the Canary has. They need more hemp in their diet than the Canary bird and the Ornamental Finches.

The Mealy Red-poll, the Common Rose Finch, and Japanese Rose Finch are kept for the sake of their coloration, so those birds which are in captivity are generally males. They are less common and rather delicate, but are very pretty birds, having bright rose-colour and crimson red on their head, breast, and belly, and white on the wing.

We keep also the Bullfinch, the Japanese Grosbeak, and the Cross-bill for their song and beauty; the former two birds having a very sweet song and their coloration being also as pretty as that of the latter bird.

We have sometimes a pretty coloured variety of Bullfinch, which has a rose throat and breast like the European Bullfinch, but the former differs from the latter in that the colour of the throat and breast are rose instead of the salmon colour. This beautiful variety

is called "Teri-Usu" by the Japanese, and that name means the bright-coloured Bullfinch.

The Japanese Grosbeak is also called Masked Hawfinch, for it has a black face. The colour of the body is grey with black wings and tail, which have a bluish sheen. Its heavy bill is clear gamboge yellow, and from this reason the Japanese also call this bird the Waxbill, as the original Japanese wax is yellow in colour. The song of this bird reminds one of the Japanese words for "Moon-star and Sun", i.e. "Tsuki-hoshi-hei". This bird is very ill-tempered, so must not be kept with any other birds which are weaker than itself.

The Crossbill comes to Japan very irregularly. We often have not a single bird for a few years and then, on the contrary, we have sometimes so many that every bird fanciers' shop contains great numbers.

The following foreign Finches are imported into Japan in small numbers, namely, the Chinese or Black-tailed Grosbeak, Goldfinch, Green Singing Finch, and Red-crested Cardinal. The Crested Cardinal is said to be bred in Japan, though I have no sure information on this point. I have also often noticed that the Crossbill is kept in a wire cage such as is commonly used for Parrots.

Besides the Finches and the Ornamental Finches there is another common bird which is fed on seed diet, namely, the Varied Titmouse, which is sold plentifully at the bird fanciers' shops in the autumn, and it is fed on hemp seed and walnut instead of millet. It is very hardy and clever, and is easily kept.

Some of these birds do such tricks as tumbling in the air through a ring which is suspended from the top of the cage, or picking up a piece of walnut from a toy bucket by pulling it up by string after it has climbed up a ladder that is attached to the platform, which is high up in the cage. These tricks are very well done. The first, mentioned above, is easily taught by an amateur in the following manner: We select at first a bird that is seen often to jump up from the perch to the top of the cage and come down again to the perch, or fly up in the air and tumbles there, and we place this bird in a cage in which a string is tied about $2\frac{1}{2}$ or 3 inches high across the perch. Soon the bird begins to tumble in the air over the string, and so it easily learns the trick; and when it has learnt it we raise the string 1 or 2 inches higher, and

so by degrees we teach the bird to tumble in the air about 1 or 2 feet high. When its education is so far advanced we hang a ring in the cage instead of the string, so the bird tumbles through the ring in the same manner as it has done over the string. This bird likes to sleep at night in a dark place, so we often hang a small gourd in the cage in which a hole is made for an entrance to the sleeping apartment.

In Japan there are some jugglers who exhibit birds which have been trained to perform many funny tricks, singly or with companions, among which the following are generally seen : A bird picks up a toy straw bag and takes it to a storehouse, and another bird puts it into the storehouse, or a bird picks up a card on which the Japanese character is written that the looker-on has asked for, or a bird climbs up a pole by a ladder and rings the bell which is hung at the top of the pole, etc. In many cases the Titmice do such tricks very well and easily.

In respect to the Parrot and Parrakeets the Japanese keep them chiefly in bell-shaped wire cages singly or in pairs and a few attempt to breed either Parrots or Parrakeets. I have bred Budgerigars, Cockatiels, Red-rumped Parrakeets, Rosy-faced and Madagascar Love Birds, and White-fronted Amazons in my outdoor aviaries, and also the following Parrakeets have been bred and reared by certain Japanese bird-lovers, namely, the Rosella, Crimson Broadtail, and Blue Mountain Lorikeet. Beside these birds we have many kinds of Parrots, Parrakeets, Cockatoos, Macaws, Lories, and Lorikeets, and generally they thrive well in outdoor aviaries if they recover from the effects of importation.

With the exception of the Domestic Pigeons, we have the following Wild Pigeons and Doves as cage-birds in Japan : The Barbary Dove, Java Dove, Zebra Dove, Necklaced Dove, Dwarf Turtle-dove, Australian Crested Pigeon, Cape Dove, Indian Green-winged Dove, and Nicobar Pigeon. But the Cape Dove and Nicobar Pigeon are rarer than other Pigeons, as they are not imported in such large numbers. The Barbary Dove and Java Dove are the commonest ; they breed and rear their young very freely and easily in a bar-cage, and I have known instances of their laying their eggs in a corner of the cage on the floor and hatching their young and rearing them very successfully. The Zebra Dove, Dwarf Dove, and Neck-

laced Dove are sometimes imported so numerously that they can be bought at a very low price.

The Japanese bird-lovers are very fond of listening to the cooing of the Loo-Choo Green Pigeon, which has a very clear purring coo with many variations, but this bird is delicate and is therefore very scarce, and commands a high price.

As regards the fancy game birds in Japan the following are found : The Golden and Silver Pheasants, the Common and Java Peafowls, Chinese and Formosan Tree-partridges, the Painted and Button Quails, beside the Japanese Quail, of which I have already written.

We also have the Common Waders and Waterfowls, namely, the Waterhen, Coot, Grey-headed Gallinule, the Indian Water-rail, Ruddy Crake, and the Sacred, White-necked, Manchurian, and the Common Crane, the Mandarin Duck, Teal, Common Wild Ducks, Muscovy Ducks, the Chinese and White-fronted Goose, and the Whooping and Black Swan. These birds are kept for the ornamentation of the gardens and the parks.

(b) THE SOFT-FOOD BIRDS

The Japanese as a rule prefer birds for their song rather than their coloration, so the art of bird-keeping is chiefly restricted to the keeping of soft-food birds, though during the last few years the art of bird-breeding has been advancing rapidly. For feeding purposes the Japanese use a kind of paste, which is called "Suriye", for all birds, even for those that live on insects or berries. I have already written about the "Suriye" in my previous article on "Quail-breeding in Japan", so I will not repeat it here. We can get the materials, i.e. the mixed powdered food, from the bird fanciers' shops, with the implements for mixing the soft food, which consist of a bowl grooved inside like a coarse file and a hard wooden staff by which it is mashed into a paste in the bowl.

We call the soft food by different names according to the proportion or quantity of animal food which it contains; for instance, if the food contains one-tenth part of vegetable food we call it "Japan-ye", and if two-tenths part "Nibu-ye", and if the mixture is half and half it is called "Dogaishi".

Most insectivorous birds are kept on "Gofun-ye", that is in

proportion five-tenths of the quantity of animal food to vegetable food, and the paste which contains the former, below five-tenths part of the latter, is called weak paste, and above that it is called strong paste.

The cage of the soft-food birds is an oblong bar-cage with a detachable bottom, with a bar-grid attached to the bottom of the bar-cage, and being detachable. This grid keeps the bird in the cage when the true floor is removed for cleaning purposes, and it also keeps the bird clean, as it separates it from the dirty floor. The cage also has an outer cover, which is made of wood and is large enough to contain the cage, the entrance of this cover being made to receive a paper screen for use when the weather is cold.

As the Japanese paste will not keep, it must be made every day, and in summer twice a day. By strengthening the quantity of the animal food and lengthening the time of light by putting the cage near an artificial light, the Japanese make certain species of birds sing their song at any time that the owner wishes to hear it.

By this method the Japanese have made Thrushes, Buntings, etc., sing in the early autumn, training these birds as decoys to catch the wild birds as they come back from the north.

The most favourite soft-food bird of this group in Japan is the Japanese Bush-warbler. This bird has been kept for its song by the Japanese for many ages, and even now the song is loved by the Japanese, and as they do not try to breed this bird in captivity a great number of the young birds are brought up by the bird fancier and bird-lovers from the nest by hand every year, and they are very carefully fed.

The bird-protection law of Japan prohibits the catching of certain birds which are scheduled by the law; the Bush-warbler is one, so we must obtain permission before taking the young bird from the nest. When the fledgling reaches maturity it is trained to imitate the song of the bird which is the best singer of its own kind by listening to its song. The Japanese love those birds which sing their songs graduated three times successively, that is, the first is the highest and the last is the lowest, and the third one must be sung very clearly and perfectly. Good singers often cost more than £10, and every year some meetings are held by the lovers of the Bush-warbler to judge its song. The

lovers of this bird often keep their birds in a very luxurious cage, as as I have mentioned in my previous article, "Quail-breeding in Japan." The Japanese Bush-warbler is often fed in the same manner as the other insectivorous birds, with a worm which lives in the stem of the cotton plant or wild vine.

The next to mention is the Japanese Robin, which is a very active manly bird with a strong loud melodious song, and some bird-lovers prefer this bird to the Bush-warbler. As this bird is very bold it is soon tamed, and often we meet with these birds tamed. They sing their song as soon as they see the owner's hand wave over the top of their cage. In their wild state they live in the dark silent woods of a mountain ravine, so we have better results by keeping them covered up than by not using the cover. This bird is rather delicate in summer.

We have the following species of Robin: the Temmincks' Robin, Eastern Robin, Ruby Throat, Siberian Blue Robin, Indian Stone-chat, Japanese Accentor, Japanese Blue Fly-catcher, and Narcissus Fly-catcher.

As I have mentioned in the article on Hard-bills in this paper, the Japanese feed the Bunting on the soft food. Among the Buntings the following species are commonly seen in captivity: the Japanese Bunting, the Japanese Yellow Bunting, the Yellow-throated Bunting, and the Japanese Meadow Bunting. All these Buntings are very good songsters, especially the Japanese Bunting and the Japanese Yellow Bunting. The Reed Bunting and the Japanese Reed Bunting are also appreciated by the Japanese, and the Chestnut Bunting is often imported from China.

(To be continued.)

MY BIRDS

By Mrs. BURGESS

Reading in the Magazine that Mr. Seth-Smith had seen the Red-beaked Tree Hoopoe of South Africa when first imported, it may be of a little interest to our readers to hear that I bought these birds. I am unable to say much about them because on arrival they at once took

to a large nesting-box right at the top of the aviary, and remain in this practically all the time. They have always been and are still very shy, but have grown glorious birds, and I only wish they would allow us to view them more. I am sure they are a true pair because I can see the difference in size and in the length of the beak in the two birds. If they are out they at once begin to call, so this is one's only chance of seeing them, and if perfectly quiet one may get a good view; but on the slightest sound there is a rush and both try and run into the box together, with the result that they get fixed and one has to pull back. It is as good as a play, this Jack-in-a-box performance. They are perfectly harmless to other birds, and feed on insect food and mealworms. They will not peck if you have to handle them. Their plumage now is getting quite perfect. The prevailing colour is beautiful metallic blue, glossed with dark green and purple. The inner web of the first three quills is decorated by a single white spot, while the next six in order have two white spots. The three first tail-feathers are similarly adorned and are also marked near the tip. The eyes are brown, the beak long, fine, and a beautiful red, as are also the feet. The wings measure 6 inches and the tail 9 inches. They copy each other in everything, and utter their cry on rising from the ground. In spite of the shortness of the legs they run over the ground with tolerable ease. They have a very strong odour such as I have never yet smelt in any other bird, but one only notices this on actually handling the birds or approaching them very closely. Can any member tell me if these birds have been imported before? Mine are supposed to be the first importation.

Another rare bird I have is the pink Grey Parrot, which had lived in Belgium several years before she came to me. She was brought from the Congo by a traveller, and exhibited at a bird show in Brussels where she won first prize. She is quite unique so far as I know; talks well and is gentle and finger-tame. A large bird, larger than my old Grey Parrot. The whole of her body except the quills and a few feathers on the wings, which are normal, is pink, like a Flamingo, each feather being bright pink with lighter pink edge. The tail is crimson, the head light pink and white, the eyes and feet dark. She laid five eggs while with me last year, and became fearfully broody.

In fact, her one object when out is to find a nest, any box is a great attraction, but so far the Greys I have had with her have all turned out to be hens, and she will at once attack them. Male Greys seem hard to get. I don't want her plumage hurt, so that makes me fear a fight.

Then, different again is the large Pesquet's Parrot, but I believe that Lord Tavistock has written on this wonderful bird. It was found it could not stand out of doors even in summer, and as my aviaries are indoors, and heated in winter, it was sent to me. On arrival at my house it took three days to make up its mind to come out of its box, which had been placed in an aviary by itself. It had been very frightened on the journey, and when it is frightened it lifts its voice, and the more it did this the more the porters looked at it, until on arrival it was shouting loud and strong, and I may add its voice is like a donkey's bray! Now it is pretty good unless the "inner man" requires attention, and this has to be attended to *at once* by order of "The General", as we call him. He looks rather like a Vulture, and eats only bread and milk, fruit, and practically the same food as a Lory. Given a bunch of grapes he holds them in his claws and sucks out all the juice with his flesh-coloured tongue, which is not brush-tipped as in the Lories. He is a very heavy bird, scarlet and black, and is in perfect plumage, and really a dear old thing. I can rub him, and he likes lots of petting. He tries hard now to talk, and has a very deep voice quite unlike that of any other Parrot that I have heard. This bird, I believe, was the first ever imported, a second Pesquet imported in 1921 having gone to America; mine remains the first and only one in Europe.

BREEDING GOULDIAN FINCHES

By THE DUCHESS OF WELLINGTON

The nesting of Gouldian Finches has been frequently recorded in the pages of the *Avicultural Magazine*; but we are so earnestly adjured to send accounts of the events which take place in our aviaries that I think it worth while to give details of the successful rearing of a brood of Gouldians in my aviary last autumn.

The parents are both black-headed, and had been for some time in

their present quarters looking very fit and tight, though evidently domineered over by a fine red-headed cock; he afterwards became the villain of the piece, but I will not anticipate.

It was with mixed feelings that I saw that the black-headed pair thought of going to nest, popping in and out of the nest-boxes, carrying bits of dry grass and the cock performing his absurd little "display". Of course, it was delightful to find that I had a breeding pair, but horrid doubts assailed me; the summer even of 1921 could not last much longer—it was the end of September—what if the long foretold wet weather set in and my poor little hen fell a victim to egg binding? More than one friend assured me this would most likely be the case, but I did long for young Gouldians, and could not find it in my heart to thwart this attempt. Both birds were in splendid condition and thoroughly acclimatized, so I resolved to let matters take their course and hope for the best. The Black-heads seemed to approve of "labour saving", for the nesting-box which they finally fixed on already contained a partly constructed nest, and though ample nesting material was at their disposal they merely added a little dried grass and decided that nothing more was required. The nest-boxes are in the covered part of the aviary, so circumstances were favourable for the birds.

All went well; the eggs duly hatched without any catastrophe, and the young were reared on spray millet and seeding grass. Unfortunately I released the red-headed cock just before the young birds were fledged, and he so harried the poor little parents that they could not feed their young sufficiently and the hen bird died. The aggressor was caught up and re-caged before he could do further mischief, and the remaining three babies were safely reared by their father. They are still in nestling plumage, so I do not yet know their sex.

STRAY NOTES

A BITTERN.—Mr. St. Quintin has presented to the Zoological Society a very fine specimen of the Bittern, which he has had for nearly two months. It was captured in a curious way. It was seen on the edge of a trout-stream with a half-pound trout in its mouth. The fish was too large for the bird to swallow, and in its endeavours to do so it failed

to observe a man approach. The man's cap was placed over the bird's head, and so it was made a prisoner. Mr. St. Quintin was just in time to save it from the tender mercies of the taxidermist.

MANDARIN AND CAROLINA HYBRIDS.—I do not believe that a hybrid between the Mandarin and Carolina Ducks has ever been reared, although one has known of the two species pairing. Mr. Wormald writes me that he has a Mandarin Drake voluntarily mated to a Carolina Duck, but he fears that the eggs will be infertile. He has had eggs from such a mating before, he says, but they have always been infertile. I have seen many hybrids of which one parent was a Carolina, and it seems strange that this duck should not produce hybrids with the Mandarin, with which it is supposed to be so closely allied. Certainly the females are much alike in outward appearance, though whether the two species are really closely related seems doubtful.

ORNAMENTAL WATERFOWL.—Mr. Wormald is looking forward to a successful season with his Ornamental Waterfowl, of which he has over seventy pairs of the best kinds. There are few forms of aviculture more fascinating than the keeping and breeding of the smaller ducks, providing one possesses the necessary facilities. The eggs are generally collected and hatched under small hens, of which the best kind for the purpose is a cross between the Silkie and some normally-feathered type of Bantam such as the Japanese. The rearing of the ducklings of some of the small Teal requires considerable skill, but if left to the parent duck the chances are that she will lose most of her ducklings from the attention of hawks, stoats, weasels, or persecution by other ducks.

RINGED TEAL.—The small and very beautiful Ringed Teal (*Nettion torquata*) is one of the rarest and most highly prized of the South American ducks. There are but few pairs in the country. Mr. Astley had a lovely pair when I visited Brinsop Court last spring, but I believe they have not bred. I believe they have been bred at Lilford, and Mr. Wormald has recently secured some from abroad. He writes: "So far I have never had any luck with Ringed Teal. In 1914 I had a pair which laid one egg only, from which a duckling hatched but died in a week. Last year I had a pair which laid one egg only in a Carolina's nest. This also hatched but died young, and then a stoat killed the

old pair! The ducklings are lovely little things, grey and white with pink legs and feet."

ECLIPSE PLUMAGE.—It is a well-known fact that in the ducks of the Northern Hemisphere the males, after the breeding season, moult their gaudy feathers and take on a plumage closely resembling that of the females. In the Southern Hemisphere this rule does not apply. In many species the sexes are alike, but there are some, such as the Rosy-bill and the Ringed Teal, in which the sexes are completely different; but they do not go into "eclipse" plumage like the northern ducks. The Chestnut-breasted Teal of Southern Australia and Tasmania is perhaps an exception, but the eclipse in this species is not complete and seems to vary in individuals, some drakes taking on a partial eclipse plumage in the autumn, while others do not change at all at that season.

D. S-S.

CORRESPONDENCE

DR. GOSSE'S PROPOSAL.

SIRS,—The suggestion made by Dr. Gosse amounts to this: The Avicultural Society, strictly founded for the study of birds, is to be wound up and a new Society to include the study of all branches of zoology is to replace it. If we include fur as well as feather in our Magazine, there is no reason for excluding scale and shell: reptiles appeal to me more strongly than mammals and arthropods have had a great fascination for me from my earliest youth; in fact, I began to take pleasure in the study of them when only 7 years old. Now, however, I could not recommend the study of zoology in its many branches; and, if the scope of our Society were to be thus extended, I should reluctantly feel bound to resign my membership.

As one of the original members and founders of the Avicultural Society, I should be sorry to see its absorption into a Zoological Society; but possibly it has done all and more than all that it was expected to do towards the advancement of science, and whatever is decided upon we may congratulate ourselves upon the fact that up to the present it has not been useless.

A. G. BUTLER.

OBSERVATIONS ON BIRDS OF PREY

SIRS,—In case any member has spare time for the above, might I suggest they carry out a series of observations either on the immature King Vulture (*Gypagos papa*), of Brazil, which was in the Gardens last summer or on the Vociferous Sea Eagle (*Haliaetus vocifer*), of Madagascar, or on both of these ?

If observations were made and written down at intervals of every two months, noting whether there was any change of colour in feathers, beak, iris, or feet, or whether these parts were the same as two months before, they ought to be of interest to publish in the future as a record. Personally, I have no time for such at present, and should like to suggest it for some one who has.

Changes of colour in feathers of birds are always of interest to observe or read about, as also those in fur of mammals. If the latter get included within the scope of the Magazine, we might get some interesting remarks on four-footed creatures ; and it seems to me there would be no great difficulty in a title for the including of mammals.

Would not "The Bird and Mammal Magazine" be a suitable one ? "Bird" coming first in the name (different to the natural position in the animal kingdom) would show that the magazine was *mostly devoted to birds*, and that mammals only were secondary.

But to return to the title of these remarks, I may say that if it be of use to another observer (as suggested), the Vulture was still darkish brown in July, 1921—no signs of the gaudy (for a Vulture) colorations of the adults.

FREDERICK D. WELCH.

[Very little change has taken place in this bird since Dr. Welch observed it.—EDS.]

 ERLANGER'S FALCON

SIRS,—Mr. F. D. Welch, in his article on the above species of Falcon, suggests that it and other Falcons kill their prey by the grip of its feet alone ? The methods which all the true Falcons employ are well known to all practical falconers ; two methods are employed about equally,

but some individuals seem inclined to adopt one method almost to the exclusion of the other. The first method, and perhaps the most striking, is when the Falcon "stoops" from a great height at its prey ("quarry" is the technical term), which is doing its best to escape by flight far below it, and cuts its victim over with such force that it falls dead or very severely crippled to the ground. (I have seen a grouse bound 6 feet into the air from the force of the impact when struck.) The Falcon "draws up" and comes down on her victim, who, if alive, is adroitly killed at once by a severe bite at the base of the skull, crushing the vertebræ. If the prey is of a kind that is likely to defend itself, such as a Crow, or Rook, or Gull, the Falcon muzzles it first with one foot, and then kills it.

The other method is as follows. The "stoop" is, of course, the same, but the Falcon, instead of cracking her "quarry" over, comes down slightly behind it, and with the immense impetus gained by the stoop rushes through the air immediately overtaking almost any bird, who is seized in the feet (this is called "trussing") and carried on a short or longer distance, according to either the weight of the bird or the will of the Falcon. On these occasions the quarry, of course, is always alive, but is so quickly killed by the Falcon on landing that it is always extremely difficult to get up in time to save the life of any bird. The Falcon in question is one of the Lanner Falcons, *Falco biarmicus elangeri*; it inhabits North Africa, and is, or, rather, was, much used by the Arabs in falconing. We have never thought much of the Lanners; this country does not really suit them, and the Peregrine is all that can be desired.

The true Eagles, *Aquila*, kill their prey much as the Falcons do, but as the great majority of their prey are mammals and caught on the ground, they are killed by the immensely powerful grip of the feet and talons.

The Short-winged Hawks, such as the Goshawk, *Astur*, and Sparrow Hawk, *Accipiter*, which catch their prey by means of a short and very rapid chase through the air, kill their prey by crushing with their feet, and so far as one can make out, do not seem aware of the "seat of life" like the Falcons are; but anyone who has carried a female Goshawk in "yarak" (the technical term for "flying order") on his glove can well

understand that it would not take many "kneads" of those terrible feet to end the life of anything she was likely to catch.

E. G. B. MEADE-WALDO.

HEVER, KENT.

12th March.

THE QUEEN ALEXANDRA PARRAKEET

The following was received by Mr. Astley :—

DEAR SIR,—In the October number of the *Avicultural Magazine* I see a note by you asking by what right Mr. Mathews takes upon himself to change the name of the Princess of Wales (Queen Alexandra) Parrakeet. Please allow me to state that I cordially agree with you, and often wonder why he is so fond of changing old and well-used names. You will probably have noticed that he has done it in many, many cases, and I strongly object to the bird referred to having its name altered, and quite agree with your article.

Yours truly,

D. LE SOUËF,

Director.

ZOOLOGICAL GARDENS,
MELBOURNE.

COMPARING REMARKS ON CAPTIVE AND WILD BIRDS

SIRS,—Some people are inclined to argue that observations made on foreign birds "do not show the true character of the species".

It seemed to me, therefore, advisable to point out that the remarks about Forster's Milvago or Carrion Hawk of the Falkland Islands, printed in the *Avicultural Magazine*, 1920, pp. 41-3, were (so far as character was concerned) supported by observations of two people in the birds' native lands. In my remarks on *Ibycter australis* it was evident that the birds were of fearless and daring character as shown by the words "A striking feature of these Milvagoes during their earlier years—especially from about 1900 to 1908—was their aggressive temper towards other birds", and their hostility to two Eagles ending with "so that Forster's Milvago is not deficient in courage". Their noisy behaviour was shown by words "shrieking wildly and

vociferously"; and their heavy flight as compared with the allied Caracaras was shown in the last lines.

Let us turn to observations of two people at very different periods and see whether they support the above conclusions of mine. I think they do. Darwin (*Royal Natural History*) wrote: "They live on the flesh of dead animals and marine productions, and on the Ramirex rocks their whole sustenance must depend on the sea. They are *extraordinarily tame and fearless*" (italics mine—supports their character as formed by me, F.D.W.) "and haunt the neighbourhood of houses for offal" (evidently with *little* fear of man, here agreeing again with the Zoological Gardens' birds which showed no fear at all.—F.D.W.). They are also stated to be "quarrelsome and very passionate, tearing up the grass with their bills from rage" (agrees with quarrelsome nature of two in Gardens versus Tawny Eagle and Crowned Hawk, Eagle referred to by me.—F.D.W.). "They are noisy uttering several harsh cries" (agrees with shrieking wildly, etc.—F.D.W.). "They build on rocky cliffs of the seacoast, but only on the small adjoining islets, not on the two main islands; this is a singular precaution in so tame and *fearless a bird*." And as supporting my remarks about flight he says "Their flight is heavy and clumsy".

Other remarks as to character, although not directly concerned with the two birds formerly in the Gardens, are of interest to add; and Darwin states: "If a hunting party kills an animal a number soon collect, standing on the ground on all sides. They readily attack wounded birds; a Cormorant in this state having been taken to the shore was immediately seized on by several, and its death hastened by their blows." Occasionally these birds wait at the mouth of a hole made by a rodent-mammal and seizè it when it comes out.

Leaving Darwin's remarks, and coming to present times, there is a letter in the *Field*, p. 506, 15th October, 1921, about the birds of Isla Hermite, near Cape Horn. The writer is referring to Penguins (although no species is given, they seem to³ me to be the Rock Hopper, *Eudyptes chrysocome*, with crest mostly of black, and yellow along its crest's sides.—F.D.W.), and states that during their moult of three weeks when they huddle away in rocky crevices, many die during the period, "some from exhaustion, but others fall an easy prey to the

Hawk Vultures (*Ibycter australis*) which are *very daring*" (italics mine). This again agrees with the observations in Zoological Gardens.

F. D. WELCH.

[It would take many generations of life in captivity to change the nature of a species to any extent. The Milvagoes are amongst the boldest and most aggressive of birds.—EDS.]

SUGGESTIONS ON BREEDING SHRIKES

SIRS,—In the *Avicultural Magazine*, 1921, it is stated on p. 168 that, among the species which migrate to Britain, the only one which has bred in captivity is the Red-backed Shrike (*Lanius collurio*); and in this connexion it may be worth mentioning a scene with two wild birds.

When in Herts in 1892, I found a nest and although there were no eggs then in it and no birds were visible at the time, it was evidently a Shrike's, because of the numbers of insects stuck on to thorns of the hedge for several feet on both sides of the nest (which was a very ragged, untidy structure of coarse grass, twigs, a few rags interwoven in these swaying in the breeze!). On the next visit one of the birds saw me handle the two eggs then in the nest and made a flying attack at me, shrieking wildly and excitedly, although I had replaced the eggs, and made such a noise that its mate soon arrived on the scene and joined in the attack.

Judging from this experience, it would seem *absolutely necessary* that Shrikes should be in an aviary away from any source of irritation from outside such as noisy children, barking dogs, squalling cats, and suchlike if it is hoped to get them to breed successfully in captivity and ought also to have an aviary *to themselves*, and without any birds near which are liable to quarrel.

Also the experience with wild Shrikes suggests that any attempt "to have a peep" into the nest "to see what nest and eggs were like" would have equally bad results as in the first nest made by the Saltator Tanagers which deserted (*Avicultural Magazine*, 1921, p. 161).

FREDERICK D. WELCH.

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IN FREEDOM & CAPTIVITY

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APRIL, 1922.

AVICULTURE IN JAPAN

By N. TAKA-TSUKASA

(Concluded from p. 36.)

The Skylark is also a favourite bird in Japan. It is fed on paste as well as on seed, and it is kept either in a small square cage just like that of the Quail, or a tall round cage; in either case a small round table or T-shaped perch is erected in the centre of the cage on which the bird perches to sing its lovely song.

Though it is not numerous, we have also the Tien-tsin Lark, which is a large bird, and it has a bill much like that of a Finch. Its colour is light brown, with white secondaries and under parts. It is an excellent mocker. The Brown-eared Bulbul also imitates the song of other birds, and its own song is also not bad, but as the notes are too noisy and too rough, it is rarely kept in a cage except for decoying purposes. The Red-eared Bulbul is imported every year, but not in great numbers, and it is often kept by the Japanese bird-lovers in cages or aviaries, but I have not yet heard that it has bred in Japan. The bird is very hardy, and can stand the cold winter nights in an outdoor aviary.

The Black Bulbul from Formosa is rarely found in the shops of the bird fanciers. It is also a hardy bird. Another common soft-bill is the White-eye. This bird is very hardy and bold, so it is found in the luxurious cage of the millionaire's house, and also in the small bamboo cage of the poor peasant's hut, and in either situation it sings its high,

beautiful song at its best. This bird rears its brood in the late spring, and passes the summer in the cool mountain forest, and comes down to the plain in autumn in great numbers, uttering lovely notes as it searches for its food among the bushes and woods. As a cage-bird it lives on the common paste, and is quite healthy and very active, always jumping from branch to branch or from the branches to the bars at the side of the cage, then to the top, and then to the branch again, and all the time it utters its cry "tsi-tsi". The bird-lovers select birds which always repeat their note twice, i.e. "tsi-tsi", because such birds become good singers in the spring. The meeting of the lovers of this bird is often held not in a house but in a garden or park, where the cages are hung on the branches of trees, and there the judges can hear the lovely song of the birds to advantage while the spectators sit quietly on a bench and drink tea, because the White-eye endeavours to sing better when it hears the song of other birds. For this bird a high price is asked if it is a good singer, though it is not so high as that asked for the Japanese Bush Warbler.

This bird is fed simply on boiled sweet potatoes, or persimons when this fruit is in season. If some members of the White-eye are kept in one cage or aviary they live quite peacefully. When they roost they always perch very close together, so the Japanese often say if men sit close together they sit like the "White-eye". The Temminck's Red-breast is a very beautiful bird which has light-red upper parts, jet black face, throat, and breast, and pure white belly. It is a very hardy and active bird, and thrives well in a cage. It was bred by many bird-lovers in aviaries about 100 years ago. The birds which appeared at the bird fanciers' shops of that time were, it is said, nearly all bred in aviaries. This bird's song is inferior to that of the Japanese Robin. It is now brought from the Loo-Choo Islands. The Eastern Robin is a sober-coloured bird, whose upper parts are olive-brown and the lower parts white, and the throat, breast, and sides have olive-brown splashings. This bird is a good singer, and is very much loved by the Japanese bird-lovers, but it is rather rare.

The Ruby-throat is a little larger than the Japanese Robin, and has a beautiful crimson throat, but its song is not so good as that of the Robin. This is also a rare bird and delicate.

The Siberian Blue Robin is of a cobalt-blue, with black eyebrows and pure white breast and abdomen. This bird is delicate when first caught, but when it is accustomed to a life of captivity it becomes hardy. When it is caught it is fed on a strong paste (about 1-8 fun Ye—see the paragraph on food), but when it is tamed it is fed on weaker food (i.e. 3-5 fun Ye). It is beneficial to this bird to give it one or two small earthworms frequently. The Indian Stonechat can't be differentiated from the European species. The Fantailed Warbler and Grasshopper Warbler have been very much admired by the Japanese aviculturists from olden times. As they are very delicate birds it becomes the bird-lovers' pride to keep them in good health. They are brown, soberly coloured birds, but the Grasshopper Warblers have a good song.

The Japanese also esteem the Golden-crested Wren, the Japanese Longtailed Tit, the Japanese Wren. These birds are very delicate, and it is difficult to keep them many years. They must be kept in a cool place during the summer. They are pretty and active, and the Wren has also a very good strong song. The Japanese Accentor is also a favourite bird in Japan. Its head is of a reddish-brown colour, the back is brown, with dark spots and the under parts are grey, with a little tint of brown. As its song resembles that of the Wren, it is also called "Great Wren" by the Japanese. It sings very well in the spring, and when it is domesticated it becomes a very hardy bird.

We have about eight species of the Wagtail in Japan, but we have the three following species as cage-birds, namely, the Grey Wagtail, the Kamtschatkan, and Japanese Wagtail, but the first two species are the commonest. They sing a pretty song from the latter part of spring to summer.

The Japanese Water Pipit and the Eastern Tree Pipit are also often kept in a cage, and they are also good singers. These Wagtails and Pipits often eat seed better than paste, when they are kept in an aviary with the hard billed species.

The Waxwing is very rarely kept in Japan, as it is a very delicate bird, though it is easily trained to take food in captivity. Contrary to the other delicate birds, the Waxwing must not be given paste the strength of which is more than 3 fun Ye, i.e. the quantity of the animal

food in the paste is $\frac{3}{10}$ parts of the vegetable food, as this bird is liable to fatten easily. The Japanese Wax-wing is far more common than the Bohemian Wax-wing in Japan.

The Japanese keep Thrushes chiefly for decoy purposes, but the Grey Blackbird is kept for its beautiful song. This Blackbird has white on its abdomen; the bill and legs are yellow. If it is reared from a fledgeling it becomes so tame as to sing its song while it perches on the owner's hand. It is very fond of bathing. The Solitary Thrush is also kept in a cage though it is scarce; this is a very beautiful bird. Its upper parts are blue, and the under parts are chestnut; it also has a very good song.

We find also the White's Thrush in bird fancier's shops sometimes, but this bird has no good song, and is also subjected to insect trouble, so we must allow it to bathe constantly. The Spectacled Thrush, the Chinese Jay-thrush, the Collared Jay-thrush, and the White-crested Jay-thrush are amongst the commonest foreign birds imported into Japan.

Another common foreign bird is the Pekin Nightingale, which is a very pretty little bird, and has a good song. It is a very hardy bird, and thrives well in the winter without any heat, and if we get a true pair they breed well in an aviary. These birds are very tame and active, and they often take seed as well as the paste. Sometimes the Quail bird is imported, but in small numbers.

The Grey Starling is often kept in a cage. This bird becomes very tame if taken as a fledgeling from the nest, and it will learn easily to mimic the song of other birds and the mewing of the cat, but it is too common in Japan to be popular as a cage-bird. Foreign Starlings, such as the Malabar Mynah, the Pagoda Starling, the Rose-coloured Starling, the Indian Mynah, and the Crested Mynah are also imported into Japan. All these foreign Starlings live well in an outdoor aviary, through the year.

The Hill Mynah is another popular bird in Japan. This bird is kept by many Japanese for its excellent talents of mimicry. In Japan there is no bird which has more excellent talent for mocking than this bird, as the Grey Parrot which is imported also in large numbers is a poorer mocker than the Hill Mynah, but the very small Green Parrots

sometimes surpass the Hill Mynah. The price of the Mynah is often over £10, if it mimics the Japanese language.

Of the Crow tribe, we have a very small number as cage-birds. The commonest of these is the Japanese Jay, and it is very hardy, and sometimes we find an excellent moeker amongst them. The Lidith Jay was formerly brought from the Loo-Choo (Amami Oshima) in numbers, but now it has become very scarce. It mimics better than the Japanese Jay, but it is quite similar to it in its hardness. The Piet is also sometimes imported in small numbers.

Of the Woodpeckers, the commonest Japanese species are the Japanese Pied Woodpecker, the Japanese Green Woodpecker, the Japanese Pigmy Woodpecker, and the Wryneck, but these are rarely kept in cages. They are generally very hardy.

The little Cocker and the common Cuckoos are kept by some of the most successful aviculturists, especially those of western Japan.

The small Waders, that is to say the Rails, the Snipe, and the Plovers are often fed with paste food by the Japanese.

ABOUT BIRDS IN NORTH AMERICA

By F. E. BLAAUW

During the summer of 1921 I took a trip round the United States of North America, returning through Southern Canada. The object of my trip was to visit the forests of North America, which the lumbermen are cutting down in a most alarming way, but I have not forgotten the birds for all that, and it may interest the readers of the *Avicultural Magazine* to hear which kinds of birds I met travelling over that enormous extent of country.

I took ship in Rotterdam on the 20th May, I believe, arriving in New York ten days later. New York is not a birdy place, and even the European Sparrows are scarce birds there, chiefly, I suppose, on account of the horse traffic having given way to the automobiles. It was terribly hot in New York on my arrival there, and hoping to get some fresh air I went to Central Park a couple of days after my arrival. I did not find fresh air in Central Park, just the reverse, as the numberless automobiles made it even more dusty than the streets, and a great part of the soil

being very rocky the trees looked starved and some of them even dying. However, on the parched lawns I found some birds which were new to me in a wild state, and which made me forget the heat and the dust. The most conspicuous amongst them were numerous Purple Grackles (*Quiscalus quiscula*), who went about mostly in pairs, the male with beautiful purple glossy plumage and with an enormously long boat tail. Besides these Grackles, the migratory Thrush or "Robin", as the Americans call him (*Turdus migratorius*), was running about everywhere, being quite tame, as our Blackbirds or Song Thrushes are in Europe. Broadpark was the next place I went to, to see wild birds after the zoological collection had been examined, and the harvest was a good deal better than it was in Central Park.

Broadpark is situated in the outskirts of New York, and is partly converted into a zoological park and partly into a botanical garden, of which, again, a part is the unaltered natural forest. Accordingly the wild birds are more numerous and much more at home there than in the crowded artificial Central Park. In Broadpark the most common and most conspicuous bird is, again, the Migratory Thrush, which is a summer visitor only—and Grackles, with their long boat-shaped tails are also very numerous on the grass. In more secluded woods I found the pretty Cat-bird (*Galeoscoptes carolinensis*) singing its song on a branch 8 or 20 feet from the ground. The song, although pretty, seemed to me to be of not much melody. Besides, some rufous Thrushes, probably Wilson's, were seen running on the ground amongst the bushes.

In the Zoological Park a Baltimore Oriole was singing lustily in some shrubs, and I was told it nested there, and Song Sparrows were quite abundant, running on the ground much in the same way as our Hedge Sparrows (*Accentor*) do. On one occasion I saw a beautiful male American Redstart (*Setophaga ruticilla*), which, except that it has red in its tail does not remind one of a European Redstart at all; and I also saw a big Kingfisher (*Ceryle torquata*) flying over me. Besides the birds, grey squirrels were numerous, and so tame as to feed from the hand of the children. Little Chipmunks (*Tamias striatus*) were running on the ground in the wooded parts, and seemed to make their homes in the hollow tree-roots.

From New York I went south to Washington, a journey of about six hours by express train, mostly over sandy country overgrown with weedy pine-trees. Passing near a small swamp not far from New York, I saw some so-called Red-winged Blackbirds (*Agelaius phœniceus*) sitting in the reeds. Washington, although hot, was quite a relief after the stuffy and dusty atmosphere of New York, and the streets being planted with rows of trees looked quite cheerful after the barren New York skyscrapers. In Washington there is a pretty park round the Capitol, and there, running over the grass like the green Woodpecker does in Europe, I found several examples of the Golden-winged Woodpecker (*Colaptes auratus*), which in Europe I had often kept in my aviaries. Besides this Golden-winged, I saw several other Woodpeckers (*Melanerpes erythrocephalus*) that looked like gentlemen in black with white coat-tails and scarlet heads. They seemed to have nests in the hollow trees, and took not the slightest notice of passers-by. In the Zoological Gardens, which are situated in very fine, hilly country, in what has been, I was told, a private country seat in the immediate neighbourhood of the town, I was greeted by the sight of a pair of Red Cardinals flying about. These birds, although protected, were not numerous, as Dr. Hollister told me. As I have mentioned the name of Dr. Hollister, the director of the zoological collection, I must also mention the gems of his bird collection, namely, three splendid living examples of the nearly extinct Californian Condor. For those who don't know him, I might mention that this Condor is smaller than the Condor of the Andes of South America, that it has about the same coloration, but that the male has no fleshy crest and that the naked head is coloured red and yellow. Dr. Hollister told me that they had nested, but that unfortunately nothing had come of it.

From Washington I took the train to go south to St. Augustine in Florida, a journey which takes two days and a night. A little south of the town of Washington there was a colony of Sandmartins in exactly the same site as where we find them in Europe, but, on the whole, birds were exceedingly scarce. As we were nearing Florida on the second day, we passed an occasional cypress swamp, in which the trees, overgrown as they were by long clusters of tillandsia and with swollen bases, had a most weird aspect. On one occasion I saw a

small flight of white birds flying away from us, and which looked like White Ibises, but they were too far to be sure of it. In the fields the train frightened away flocks of sharp-tailed little Doves, probably *Zenaidura macrura*. In Jacksonville I had to change and the new train brought me to St. Augustine, where I arrived about 8 o'clock at night.

St. Augustine is situated, as everybody knows, on the Atlantic with Anastasia Island, with which it is connected with a bridge, opposite. The first bird I saw the next morning was a Mocking Thrush (*Mimus polyglottus*), which was running about the garden, looking extremely long and thin, and moving its long tail continually in all possible directions, and I afterwards found out that this Thrush takes the place of the Migratory Thrush in the Southern States. It is seen everywhere in the gardens of the towns and in the woods, and it is a very active and rather quarrelsome bird that is not used to hiding himself. The song of these birds resemble almost exactly the song of the European Song Thrush, but is not nearly so strong nor so melodious. In fact, I was very much disappointed when I heard the first bird sing, and I think that it cannot stand in the shade of its European cousin. The next bird I saw was a female Nonpareil Finch, which was feeding on seeds of rough weeds that grew near the hotel. In a bit of wood consisting of glorious old magnolia-trees (*Magnolia grandiflora*), evergreen oaks and junipers, all of them overgrown by tillandsia and long, creeping vines, I saw a splendid pair of Red Cardinals that were mobbing a pair of Blue Florida Jays, so that they probably had a brood not far off. I also heard the notes of a family of Bobwhites (*Colinus virginianus*), which, however, kept so well-hidden in the thick underwood that I could not see them. Over the bog a little white Black-capped Tern, probably *Sterna antillarum*, was fishing with great diligence.

If one stood on the bridge that connected St. Augustine with Anastasia Island when the tide was low, there was a good occasion to observe the little Herons that were looking for food on the mud-flats. Some of these little Herons were pure white, some were grey with rufous plumes on their backs and white plumes on the heads, and some were grey and white; they all were extremely beautiful. In a dead tree

not far from the sea were perched some Turkey Vultures (*Cathartes aura*), old friends which I had met in Chile as far south as the Straits of Magellan.

From St. Augustine I went by auto to Palatka, on the St. John River. The owner of the hotel at St. Augustine had told me that I was sure to admire very much the country I was to pass through—"All potato fields, very beautiful!" Fortunately it was not "all potato fields", and we passed through some beautiful cypress swamps, a kind of wooden viaduct having been made over the water. A great part of the country, however, consisted of pine woods, or more exactly of what *had been* pine woods, nearly all the trees having been cut down, as is the case nearly everywhere in Florida.

(To be continued.)

BIRDS IN A GARDEN NEAR LONDON

By Mrs. CURREY

We are only a few miles from the hub of the world, and yet I have seen about forty species of birds in the old garden. It would be interesting to keep for a year a diary of notes on birds in such a garden, though it would be melancholy to find, as building creeps on, their numbers diminish. Our birds consist of the following:—

A colony of Rooks, once very large, now decreased in size, nests in the old beeches overlooking the garden. When busy with nest-building the birds come on to the lawn quite close up to the house for food. This spring a Rook with half-white wings has appeared, and we are curious to see if he will be tolerated among his swarthy brethren. As we never saw him before, it would seem as if he were a newcomer, in which case, however, his sojourn is likely to be of brief duration, as no foreigners are allowed in the sacred precincts of a rookery. One luckless "Outlander" who once ventured among them, and succeeded in building a nest—but very much out in the cold and far from the others—was set upon by the colony and slain, his nest torn to bits, and his carcass hung from the boughs of the tree he had dared to call his home! Jackdaws, the Rooks' slaves and scouts, nest in fair numbers below the

Rooks, and sometimes I hear the voice of a Crow among them. The Wood Pigeons are allowed to build near the colony. One very curious point I have noticed with the Rooks. They evidently have a king or leader of some sort, for year by year when spring arrives, one Rook takes his seat outside the colony on a high branch and calls: "Wee-oo! Wee-oo!" Whereupon all the others answer "Caw!" and begin to fly about. It is obviously a word of command, and when the young are fledged, "Wee-oo!" sounds all day long, as the lessons in flying begin, and the parent birds escort the young ones on their first flight, a little further every day, till at length they can accompany their parents to the fields to get worms and grubs. There used to be many wild Turtle Doves in the garden, having probably come from the Epsom Downs, where after the races whole flocks appear. Starlings abound, of course, and the dreadful Sparrow, whose business consists in depriving other birds of their food, and even life. Blackbirds used to be numerous; now only a pair or two build in the garden, generally on a south wall close to a garden-door in an old creeper. Years ago a hen Blackbird with only one leg spent several winters here. Thrushes are fairly numerous. Nightingales used to nest in the old hawthorn hedge round a pond in the field beyond the garden, but now the traffic on the road has scared them all away. The Wryneck calls occasionally, but used to haunt the orchard, where there are old fruit-trees to nest in. The Cuckoo formerly frequented our garden so that he was a positive nuisance. After more or less of absence during the war years, he has now come again. Missel Thrushes fly about in early autumn, but do not stay to nest in spring. The Great Tit never leaves us. Year after year his little monotonous note sounds: "Weetle! Weetle! Weetle!" usually repeated three or five times in succession, while after the breeding season he calls "ping! ping" like the ringing of a fairy bell. He is very easily tamed by maize or ground-nuts and will come indoors. The Blue Tit is also always in evidence, and the Cole Tit, and the Blackcap. The Greenfinches and Chaffinches consort with the Sparrows, and by driving the latter away I frighten the former. Having an orchard here, Nuthatches used to be often seen, but fewer now. The Spotted Flycatcher built every year on a low branch of an old cedar, but I cannot find his nest now. Many years ago a very fine

Green Woodpecker appeared on a juniper-stem close to the house, but the Sparrows were after him at once, and away he flew, never to return. These are usually very shy birds, but on Headington Hill last summer I saw a splendid Great Green Woodpecker sitting on a low turf bank sloping up from the lawn to a terrace in front of the house, and busily hunting for worms. Though several people went to an upper window to look at him he made no attempt to fly away, and even glanced up at us, and then went on digging. He stayed there about half an hour, then leisurely flew across the lawn to some large trees, and the following day he came again, and so on for several days. I have never known a Woodpecker quite so tame, though in a garden at Liss I have watched one fairly close to the house on a bank digging for large worms.

Bullfinches used to come into the garden, but they are shy birds, loving quiet, and I seldom, if ever, hear their plaintive little whistle now. The Chiff-chaff is often about, and the little brown Tree-creeper and the Wren. The Pied Wagtail nests here, and the White Wagtail built a charming little nest in some ivy over a fence in the orchard, and brought out four or five young ones, which used to range themselves in a row beside a high box edging in the kitchen garden, while the mother-bird fetched them food, distributing the dainties she had in her bill, worms, grubs, and insects, to each in turn, and once when there was not enough to "go round" she started, on her return with fresh food, with the one she had had to leave out, and who clamoured for his share. There is an old superstition that if Wagtails come to the windows or doors or peck at windows, something untoward will happen. Only once has a Pied Wagtail flown up and pecked at the windows. They are usually shy of coming near our house. Swifts often pass over, shrieking, on a summer's evening, and a Hawk has been seen hovering over the garden. Plovers have been on the lawn, too, in severe winter weather, and Gulls and Wild Duck have been frequently seen high in the air, passing over. A Moorhen came to the pond in our field years ago, and built every year on a pile of sticks and rubbish by a little backwater, and her tameness was remarkable. She brought out several broods. Wild Owls, the Tawny and the Barn Owl were very numerous in our garden, and I have heard the Little Owl whistling. That was when we had pet Owls

in an enclosure under yews and an old walnut-tree. They called the others, and there were evidently Owl-parties at night to judge by the hooting and screeching and whistling that went on. I must close the list of our birds by a mention of the little Hedge-sparrow, who comes always in the wake of the other Sparrows, not with them, and the contrast he forms to them is striking, the little refined, shy bird with his delicate beak and pretty legs and jerking movements intent on picking up the remains of the feast gobbled up by the greedy House-sparrows with their strong beaks and assertive manners, as they pounce on the best morsels and afterwards on each other in ferocious combat and jealousy. The *bonne bouche* comes last, in the shape of the never-failing Redbreast, most fascinating winter songster and friend of man, so easily tamed! “and such a ferocious villain!” I hear someone say *apropos* of the accusation that young Robins tear out their parents’ tongues. But in spite of all, I for one cannot give him up.

Some years ago a pair of Swallows came and built under a roof adjoining our house, below one of the rafters. Swallows had often visited the spot, but after flying in and out had always gone away again. Now we hoped they had come to stay. When the wonderful little nest was half-made I heard from a room, the window of which looked out upon the roof, the cries of a bird in distress. So loud and continuous were they that I hastened out to see what was the matter. As soon as I appeared the male Swallow flew up to me and circled round me several times, screaming evidently in great grief. There, under the half-finished nest, stabbed all over by cruel beaks, lay his little mate, dead, while a concourse of House-sparrows sat on an ilex-tree near chattering. There was no doubt who were the culprits, for I had repeatedly seen them chasing the Swallows, and some time previously the wretched “avian rats” had effectually routed a colony of Swallows from an ancient archway below part of the house, and had torn their nests to pieces. Alas! no Swallow has since come to stay with us again. The Swallows that used, in years gone by, to build and rear their young under the same arch, came year after year, at the same time, before the Sparrows were so numerous, and the young birds used to sit in a row on the lattice window that opened outward over the arch, where the parent birds fed them, quite fearless of the

close proximity of a sink with hot and cold water-taps just under the window, and the presence there of human beings at all hours of the day. The young Swallows learnt to fly by means of the lattice window, whence they took their first flight up to the expanse of outer air at the bidding of the parent birds, who taught them their first lesson in aviation.

COLOUR CHANGE IN GOLDEN PLOVER

By HUGH WORMALD

About three weeks ago I received some Golden Plover from the Continent, one of which showed a sprinkling of black feathers on belly and chin. This bird was lamentably thin and weak, so I separated him and one other very thin bird from the rest, and put them in a small very sheltered aviary, where I could feed them up. I examined the bird assuming summer plumage very carefully, but only found one *new* feather growing; this was on his chin. I caught the bird up every three days, and although he became blacker and blacker I could not find a single other young feather, neither could I find a cast feather in the aviary, which is practically sheltered from every wind and has zinc up the sides 2 ft. 6 in. high, besides a covered shelter, so that I do not think any feathers can have blown away. I did find a lot of half-changed black and white feathers on the bird, which were obviously old winter feathers. I wrote to Mr. J. G. Millais about this bird, and he answered: "Yes, I think Golden Plover get black partly (possibly principally) by colour change and partly by new full summer feathers coming in—keep examining his plumage. Some of these half-changed black and white feathers (which are old winter ones) drop in April and are replaced by full blacks." This statement I find to be absolutely correct. On catching the bird up on 9th April (by then in almost entirely full summer plumage) I did find several new feathers just through and quite black, *but none of these feathers showed at all until the bird was almost entirely black on cheeks, chin, throat, breast, and belly.* I am well aware that zoologists deny the possibility of colour-change in old feathers, and I make no pretence at being scientific, but I have seen quite enough feathers in Ducks, principally in Wigeon and Garganey Teal,

change colour to satisfy me that not only is it possible but frequently occurs. To revert to the Golden Plover; the bird was covered with *new* brilliant black and gold feathers on the back and scapulars, and I believe that all waders get their breeding plumage partly by moult and partly by colour changes. I know that a Snipe I once kept for 2½ years did so.

CORRESPONDENCE

SUGGESTIONS FOR THE MAGAZINE

SIRS,—As you hope members will freely express their views, those of a recently elected member are as follows.

Firstly, a two-monthly magazine of the present size is preferable to a monthly one in the present shortage of copy referred to on p. 27. At the same time, I cannot agree (even though having been primarily a mammal worker) with Dr. Philip Gosse's remarks on p. 30 about the very subject of birds being in grave danger of being over-written, except so far as books on British birds are written with the view of encouraging nature study. A "fresh crop" of such handbooks—more or less copies from previous writers—appears to be on the way to "grow" each spring almost as regularly as grass grows to hay crop! Such books are overdone, and too many. But as to foreign birds, it seems to me *more* information would at times be useful in the Magazine, and this leads me to the next section.

Secondly, when a writer is referring to a bird which is *not a very common one*, it would be as well if they introduced something about its geographical range when wild. Some people would say: "Oh, you can find that in a book of reference on Birds of Asia" (or other continent, as the case may be). I agree that you can. But such necessitates additional books and additional "hunting up", with the possibility of books referred to giving scanty information after a lengthy search; and many people, with their daily business to attend to, have no spare time for such. The more complete an article, the better it is in my humble opinion. Many people are naturalists primarily and in later years aviculturists or keep mammals; and such are more likely to be interested in a journal if something of the range of the species or genus

is included in an article—assuming, of course, that such range is known to the writer. For instance, how many members who have not specialized in the Parrot tribe (I have not myself) have any *accurate* idea as to where an uncommon Lory or a Lorikeet comes from when the bare name alone is mentioned? What proportion knows—5 per cent, or 10, or 40, or 70? To be candid, I know I *don't* (without hunting out the subject), except the part of the continent in a general way where the genus is most represented.

As an interchange of views by members is more likely to be profitable if not overdosed with too many sections for discussion, it seems advisable to stop at the present with the above two.

FREDERICK D. WELCH.

SIRS,—*Re* Dr. Philip Gosse's proposal for articles on other pets besides birds. I think it would be delightful, and hope it may be carried into effect.

M. WILLIAMS.

THE CLUTCH OF BIRDS OF PREY

SIRS,—Referring to the question raised by Mr. Welch regarding the clutch of raptorial birds, perhaps the following experience, showing that the powerful toe-grip is not restricted in that order to Eagles, Falcons, and Hawks, may be of interest. Some years ago in the Gardens I had occasion to handle one of the Egyptian Vultures. With a swift grab at my hand, the bird got hold of the free part of my thumb. Fortunately his toes went round it, without the claws penetrating; but I shall not easily forget the severity of the pinch. Getting a keeper to hold the bird I tried with my free hand to extend the toes and release my thumb; but quite without avail. Another keeper had to be summoned to my rescue. By using both his hands he was able to set me free, congratulating myself that the Vulture had not gripped the palm of my hand! It is interesting that a Vulture which does not use its feet for killing prey, but for holding its food to the ground while pecking it, should have, I should judge, almost as powerful a clutch as a small Eagle.

R. I. POCOCK.

BRITISH BIRDS AND THE GREY SQUIRREL

SIRS,—In view of the controversy in the Press on the question of taking stringent measures to repress or check the spread of the Grey Squirrel, as an inveterate enemy of wild bird-life in Great Britain, it would be both instructive and interesting if some of our country members living in counties where this alien has been liberated or which it has invaded from an original centre of dispersal, would give us their experiences on the point under discussion.

In the Zoological Gardens I have repeatedly seen these squirrels in the spring traversing bush-grown banks, glancing now and again upwards as if in search of nests and ascending the bushes to investigate and rob, unless prevented, any nest they may sight. Some summers ago a pair of Wood Pigeons built in a tree near my house, and passing beneath it one day I was startled by the fall of the two nestlings at my feet. Looking up I discovered the cause to be a Grey Squirrel, which had taken advantage of the temporary absence of the parents to visit the nest and throw out the young. The old birds would probably have proved capable defenders of the family, for a few years later one of these Squirrels, bent upon raiding a Missel Thrush's nest, or coveting the hole in the hollow tree in which it was built, was completely routed by the hen Missel Thrush, which fearlessly assaulted the intruder and ultimately drove it into ignominious retreat by the vigorous strokes of her wings.

R. I. POCKOCK.

FIRE-RED FINCH

SIRS,—I am taking the liberty of sending you a dead chocolate-coloured Grossbeak, which I have not been able to identify, but which you might be able to do. I received this bird alive a few days ago, but in bad health, from Mr. Rogers, of Liverpool. At the same time Mr. Rogers sent me a pair of so-called "Batetivo" Finches (*Spermophila plumbea*), but the chin and throat of the cock bird were not ashy grey but pure white, though it had a white spot at the base of each cheek; in fact, the cock bird was just like a specimen of *S. albigularis*, as described in Dr. Butler's book, and of which I have a living specimen in my aviary.

JAS. GEO. MYLAN.

The following reply has been sent to Mr. Mylan :—

I have carefully compared your bird with all the descriptions of *Spermophila* (*Sporophila*) in the British Museum catalogue, and with those of allied genera, and I have come to the conclusion that it must be the Fire-red Finch (*Spermophila minuta*), although it struck me as being rather large for that species and with a beak which reminded me of *Oryzoborus*; the colouring of the upper parts, however, does not agree with that of species in that genus. I once possessed an example of *S. minuta*, but when it died it was in poor condition and not worth preserving, so that I have no specimen for comparison with yours.

It is quite likely that the male bird sent to you as *S. plumbea* may be *S. albigularis*; dealers are at times liable to make mistakes.

A. G. BUTLER.



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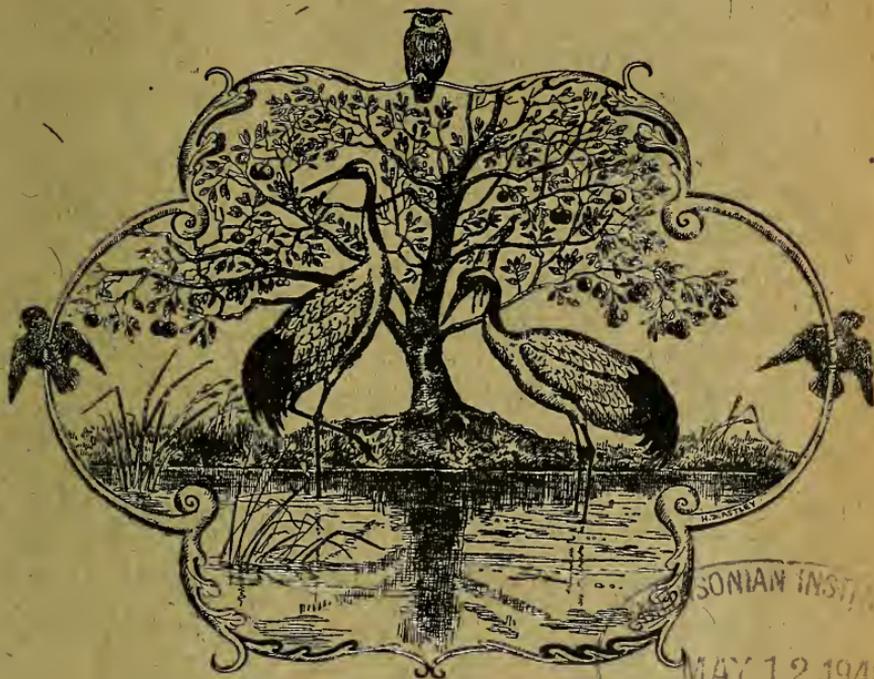
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THE
**AVICULTURAL
 MAGAZINE**



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THE AVICULTURAL SOCIETY.

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NOTICE TO MEMBERS

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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

THE EDITORS OF THE AVICULTURAL MAGAZINE,
c/o The Zoological Society of London,

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Photo by D. Seth-Smith.

KAGU (*Rhinochetus jubatus*).

To face p. 65.]

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

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MAY, 1922.

ABOUT BIRDS IN NORTH AMERICA

By F. E. BLAAUW

(Continued from p. 55.)

Palatka is a nicely situated little town on the St. John River, and was once famous for the cypress swamps in its vicinity. These, however, have been mostly laid waste by the lumbermen, so that it took me a lot of time before I could find out where I could see an untouched forest. However, with the help of one of the managers of a lumber company there, I was directed to Oak Creek on the St. John River, where I found a very fine cypress swamp which included alligators in the muddy water. Birds, however, were conspicuous by their absence, and the only bird of interest that I saw was a large black and white, nearly all black, Woodpecker, which I take to be a specimen of *Phlacotomus pileatus*.

From Palatka I travelled to Jacksonville to take a train there for New Orleans, on the Gulf of Mexico. This journey takes about two days and a night, and one travels chiefly over devastated country that has at one time been covered with pine-woods. As one nears the Mississippi the swamps become numerous, and in one of them I saw a yellowish Rail, which I was told afterwards was quite a rare bird, and like all Rails difficult to see (*Coturniceps noveboracensis*). Besides the Rail there were a good many red-shouldered black Starlings in the reeds of the swamps, also little white Herons were conspicuous, and once I saw a large blue Heron (*Ardea herodias*). Numerous specimens of *Zenaidura macrura* were seen during great part of the journey.

Nearly all the trees in the swamps and a great many others as well, including enormous specimens of *Magnolia grandiflora*, *liquidambar*, *styraciiflux*, and evergreen oaks, were covered by *Tillandsia usneoides*, which formed grey fringes many yards long, and gave all the forests of Florida and Southern Georgia and Alabama a most weird look. New Orleans, situated on the mouth of the Mississippi, was terribly hot, and I was soon driven to the parks to get the fresh air that I might possibly find there. I first went to Audubon Park, which contained large grassy lawns and not very big trees. In it the Mocking Thrush was again a very common and rather obtrusive bird, and besides I only saw a few above grey and underneath white, little birds which reminded me of our Chiff-chaffs! There was also a dark-brown longish songster with a song that reminded me of the song of our Blackcap, but was shorter and not quite so good. In the ponds were blue water-lilies, and I noticed that it took one of the flowers, which was a closed bud when I first remarked it, just about one hour (from 11 to 12 o'clock) to expand. Besides Audubon Park I visited the city parks, but, except lots of black Swans, I saw little of interest there.

From New Orleans I travelled to Tucson, in Southern Arizona, a journey that takes, if I rightly remember, two days and two nights. One first travels over the low country of the Mississippi delta and of Southern Louisiana, which is mostly cultivated, like also Southern Texas; then one approaches the Rio Grande and almost touches Mexico, in El Paso. The country now gets drier, and in New Mexico and Arizona thousands upon thousands of acres are overgrown with Yuccas, which at the time of my visit showed their creamy white flower-spikes many feet long. Opuntias had also gradually appeared, and the first ones I saw were in low willow woods, whilst in the oak copse-woods none were to be seen. The only birds that were at all regularly seen were specimens of the sharp-tailed *Zenaidura macrura* and, more rarely, the smaller short-tailed *Scardafella inca*.

Two or three times the day before I reached Tucson I saw a mirage, which conjured a lake with a background of green trees in the Yucca desert! The nearer we came to Tucson the more numerous became the caeti, in endlessly varying species. In Tucson I left the train, and in a temperature of about 116° Fahr. in the shade I reached my hotel.

I had a letter of introduction to a gentleman of the Carnegie laboratory, and next morning, in the fiery sun, I set out to find him. After some difficulty I met him in his house, against a hill just outside the town, and whilst we were making plans for the afternoon in his veranda a female Red Cardinal came to drink in a small fountain near the house. About six that same evening we set out in a motor to reach the desert, with the object of seeing the giant cacti and all the strange vegetation, the seeing of which had brought me to Tucson. An ornithological magazine is perhaps not quite the place to say much about the flora of an Arizona desert, but I cannot help saying that the aspect of the 40 feet high giant cerei of the barrel cacti, the tree cacti, the paloverde, the creosot bushes, and all the small opuntias and mamillarias, was a sight never to forget.

Not long after we had been wandering on foot amongst all those vegetable wonders, I heard a familiar sound, and a large family of Gambell Partridges (*Cal. gambelli*) came fearlessly walking round us. They were cock and hen and twelve full-grown chicks, which were apparently looking for a perch to spend the night. A large Black Martin was also common, and apparently spent the night in the holes which abounded in the old giant cactus trees. There was also a Woodpecker that frequented those holes, but he did not come near enough so as to enable me to see him well. As the evening fell a Nightjar flew noiselessly around us, and then the sun sank in gold and blood-red behind the mountains and we went home. My guide told me that the so-called Road Runner, a long-legged ground Cuckoo, with brown and buff plumage and a pink mark on each side of the head (*Geococcyx californianus*), and which feeds principally on small lizards, is of not infrequent occurrence amongst the cacti. Unfortunately we did not see one.

From Tucson, which was rather unpleasantly hot with its 116° in the shade, I took a train to travel westward to Los Angeles, a journey which does not take much more than a night and a day. One travels mostly over cultivated country, and when I arrived at Los Angeles I found a temperature of 75°, which felt quite chilly after the 116° of Tucson. Los Angeles is a garden city, and all the houses are surrounded by beautiful flowers, and the streets are often planted with flowering

trees, amongst which was conspicuous *Yacaranda mimosifolia*, with its beautiful clusters of blue flowers. Los Angeles would indeed be a charming town if it had not the defect that all North American cities have, namely, that of having been built on the square system, which takes away all charm! One always looks into an endless hole when one looks into an avenue or street!

Not long after I had established myself into my hotel room, which had windows opening into a garden, I was gladdened by the sight of two beautiful Blue Jays (*Aphelocoma californica*) that were mobbing a cat that sat unconcernedly on a wall and tried to look as if it were no concern of his, those noisy birds! They are extremely handsome birds, those Californian Jays, even more beautiful than their Florida cousins. The colours are more intense and there is an additional pretty light-blue marking over the eyes. Dr. Frank Chapman tells us that this fine bird, in slightly differentiated forms, is found throughout the greater part of the western United States, southward into Mexico.

(*To be continued.*)

A SATISFACTORY BIRD

By the MARQUESS OF TAVISTOCK

“Wanted, Indian Parrakeet; must be reasonable.” So ran an advertisement in *Cage Birds* which caught my eye some months ago. The advertiser was, no doubt, thinking only of price, but if he had had some experience of Parrakeets—and particularly Ringnecks—at liberty, the words might have had for him another and deeper significance. When you give a foreign bird its liberty in order that you may get full enjoyment of the beauty of its plumage and the interest of its habits, you soon find that “reasonableness” is a quality of prime importance. Sometimes it depends on the species, sometimes on the individual. Broad-tailed Parrakeets of all species are eminently reasonable so long as the cocks, only, of properly mated pairs are released. If they stray, the owner has simply got his own stupidity to thank. On the other hand, you can never quite tell what a *Palæornis* will do. It may stay in the most exemplary fashion; it may stay for a time and then go off; or it may stray immediately and be seen no more. If, as I hope

may be the case, the keeping of foreign birds at controlled liberty becomes more popular, a *Palæornis* Parrakeet, known to be a good stayer, should possess a higher value than an untried specimen. I have at the present time an eminently "reasonable" bird in the shape of a fine male King. If all birds gave me as little worry and anxiety in and out of the aviary as he has, aviculture would indeed be a hobby of unmixed joy! I bought him early in the summer of 1920 as a mate for a hen acquired a few months previously. He was then about three years old and very nearly in adult plumage. Although not perfectly tame, he was steady and sensible and far more civil to his wife than most males of his kind. Indeed, he soon began to feed her and for a time I quite hoped that they would breed, but the moult came on without eggs having made their appearance. Even when moulting heavily he continued to feed the hen.

Next summer they again came into breeding condition, but the mistake of putting them in too hot and sunny an aviary caused them to drop into an early moult. Kings cannot stand a damp, sunless aviary in winter, but they like a cool one during the hot weather.

That autumn I made up my mind to release the cock, but having had some previous experience with Kings at liberty, I decided that it would not be prudent to have the pair loose together. Pairs are not always good stayers; they range over a pretty wide area and so far have never nested successfully and as my place is a small one, on the outskirts of a good-sized town, I prefer to have birds that keep pretty close to home. The cock King fell in with my plans perfectly. He went out very quietly into a magnolia-tree above the aviary, made short flights and returned frequently to see how his wife was getting on. Never at any time did he stray more than a few hundred yards and never did he cause me the least anxiety, nor bully the other birds that were loose. On the other hand, he was far from inactive, and I had the continual pleasure of enjoying his attractive flight. Although not fast on the wing, as compared with other Parrakeets, the King is exceedingly graceful, and has a remarkable power of whisking round corners and gliding between trees, to alight suddenly without the usual preliminary flutter of wings. I often used to see him perched on the top of some tall tree and then a couple of seconds later he would be

on the roof of his mate's aviary, having transferred himself so quickly and silently that I could hardly believe I was looking at the same bird.

Every morning I used to take round a few grapes to distribute as titbits. Kings are enormous eaters of fruit and green food and the cock was usually waiting to receive his share. Occasionally I used to find him foraging about on the ground under the thick bushes; he was the only one of my Parrakeets to do this, all the others keeping entirely to the trees or feeding on the open turf. *Palæornis* Parrakeets are wholly arboreal and so are Crimson-wings, anyhow during the winter. Platycerci feed a certain amount on the ground, especially during the breeding season; the same applies to Barrabands and even more to typical Psephoti.

As a rule the King roosted in the bushes near the hen's aviary, but occasionally he got temporarily imprisoned in another aviary which was arranged to catch the Barrabands every night to protect them from the attacks of the Brown Owl. Fortunately, however, the King comes in the category of those birds which are safe from the night marauder, whose crimes in the matter of bird murder are fully as great as those of his much abused relative, the Little Owl, who hunts by day and leaves more traces of his repast. I fancy the Brown Owl's many ardent admirers would be astonished if they knew the extent to which birds—and quite large birds—formed part of its winter menu, but its undoubted destruction of numbers of young rats is certainly a virtue to cover a multitude of sins. On the first of March I thought it time to catch up the King for the breeding season. I put his mate in a parrot-cage and opened the aviary door, and in a very short time he was in beside her and showed little annoyance at the loss of his liberty.

Although the subject of this article is an unusually accommodating bird, I do not think the owner of any properly mated pair of Kings need fear to give the cock his liberty for part of the year, provided the aviary is well placed where there is no danger of the birds missing each other when one is released. Last winter I was successful in keeping cock Crimson-wings at liberty, but although the Crimson-wing is even more beautiful than the King, he is less attached to his mate, a wider ranger, rather spiteful with other Parrakeets, and perhaps not altogether safe from Owls, being not very large, and having only a small beak with which to defend himself.

A CHINESE WHISTLING THRUSH

By H. D. ASTLEY

I have lately purchased a nice specimen of the Chinese Whistling Thrush, which I take to be *Myiophoneus cæruleus*. Some of our members will recall the account of my *M. temmincki*, which lived for about eighteen years, and which was originally reared from the nest in Cashmere by Mr. Ezra. *M. cæruleus* is a size smaller and has a black bill in place of a yellow one. The general colour is much the same in both species; a very deep purple (rather than blue), with a silvery metallic glazing to the tips of the body feathers. There is a detailed description—*Avic. Mag.*, Vol. VII, 1900-1, pp. 210, 211 (Phillipps)—so that I think it is not necessary to repeat it, except to say that the shoulders have a patch of brighter purplish blue. It is a moot point as to whether the genus *Myiophoneus* should be included in the family of Thrushes. Mr. Seebohm does not do so in his monograph of the Turdidæ. To my mind these Whistling "Thrushes" are much nearer that family than to any other, although a very distinct offshoot. They are birds which inhabit mountainous districts where there are boulders and torrents, and there can be heard their melodious whistle, which is rather human in tone, but not very varied.

My present bird is extremely tame, as was my *M. temmincki*; indeed, the latter was positively ferocious. These Whistling Thrushes are stoutly built and larger than a Missel Thrush. Specimens are very seldom imported; they could not be trusted in an aviary with small birds. I remember my chagrin when a Robin slipped through the bars of my Temminck's Thrush's cage and was promptly torn to pieces.

For an illustration and account of this bird cf. *Avic. Mag.*, N.S., Vol. I, 1902-3, p. 196, etc.

 NOTES ON VARIOUS BIRDS

By R. WHITLAW

Encouraged by the Editors' appeal for copy, I venture to submit a few notes on various birds which have at one time and another inhabited my small aviary.

Some years ago you were kind enough to publish a letter of mine on the feeding of Nightingales; on the strength of which the editor of a well-known nature magazine, who happened to be in the neighbourhood, called and begged an interview with the hero of the story. "Tamagno" had just dined and was in rather a supercilious frame of mind—however, he came and sat on the mealworm tin while his visitor grubbed busily for choice offerings which he condescended to accept—and then calmly went to sleep!

"Well I'm blest," commented the interviewer, contemplating the round ball of indifference—"Well I'm blest!"

Both my 'Gales flourished for four or five years and were both ridiculously tame. "Caruso" lived in the aviary and "Tamagno" had a large cage, but was usually loose in the room. Whenever "Caruso" visited the cage or "Tamagno" paid a return call to the aviary the "language" was a revelation. I am glad to say there was always wire between them on these meetings, or there would have been murder and sudden death. "Caruso" was the smaller and more intelligent of the two, delighting in a game of tug-of-war with me, but he did not sing. "Tamagno," however, was a great songster. They were both hand-reared, and are by far the most delightful of all bird pets; but Nightingales should only be attempted by experts.

For some years I had a very fine pair of Bearded Tits, who lived in a big cage—I tried them in the aviary but they would do nothing but dash madly against the wires and would not feed, so I was obliged to catch them up again.

I filled a small travelling cage with coarse, dry grass, and they spent a great deal of time arranging it to their satisfaction, and always slept in the nest. Every year there were several clutches of eggs, but no attempt at incubation. One chick hatched under a canary, but died at once. I never chanced on a wild insectivorous bird's nest at the right time, or I might have got better results.

Most bird-lovers must have observed queer friendships from time to time among their pets. At one time I happened to have in the aviary two cock Paradise Whydahs, in full war paint, and a pair of Doves—a common hen mated to a Turtle I had picked up with his wing half shot away. For months each Dove was always attended by its own

particular Whydah, who followed it about all day and roosted near it at night, neither Dove taking the slightest notice of its admirer. The younger bird at last grew tired of his queer infatuation, but the older one took advantage of a very spoony phase the Doves were going through to roost every night tightly jammed in between the two, and would peck and swear viciously if one of the Doves fidgeted. The Doves never resented the presence of the intruder.

Have any of my fellow-members noticed how vicious young Budgerigars can be when about three weeks out of the nest? I always found that as soon as they got their yellow foreheads they would settle down into comparative respectability. That unfortunate crippled Turtle Dove was always the butt of all their mischief—the usual idea was to get on his back and try to scalp him. On several occasions I was only just in time to avert serious trouble.

One young terror used to use the Dove's tail as a swing, and seemed to delight in the general scuffle which invariably resulted. No sooner had things quieted down than he would creep along a branch upside-down and bite the Dove's toes. The look of almost imbecile bewilderment on the victim's face was really very funny; it never seemed able to make out where the attack was coming from.

I one day picked up a sorry-looking scarecrow—one could hardly call it a bird—at one of the London dealers for a few pence. This half-plucked, dingy object developed into a regular gem of a Lavender Finch, which ultimately went to the Zoo. He was one of the most aggravating little rascals I have ever met—except an equally minute ball of wickedness, a Green Singing Finch.

As soon as he got his clean bill of health I put him into a large, dome-shaped cage with a lot of other small fry. Every night, when all the others had gone to bed, he would take nocturnal peregrinations, hanging upside-down from the top of the cage. When he had had enough he would drop like a stone, smack! on top of the sleeping mites below, and nearly scare them into fits. I always found him quite unconcerned on a perch in the midst of the general flutter. Nothing could be more lovely than his delicate grey set off by his tiny crimson tail—the same scheme of colour affected, on a much coarser scale, by the African Grey Parrot.

THE KAGU (*RHINOCHETUS JUBATUS*)

By D. SETH-SMITH

(See Frontispiece)

The photograph here reproduced represents the old Kagu which lived for some fifteen years in the Zoological Gardens and was well known to many of our members. She was a delightful bird and extremely tame, and would readily come when called and display her fine crest. That it was a female we know because she once laid an egg, and a very beautiful egg it was, or rather is, for I have it safely packed away in a cabinet.

The Zoological Society has been fortunate enough to secure four more Kagus, all extremely fine birds, but not so tame as was old "Johnnie". But they are not really wild, and probably they will soon become quite tame.

The Kagu is an inhabitant of the island of New Caledonia, where I am told it is still fairly abundant, and it is much to be hoped that it may be long preserved, for it is one of the most remarkable of birds. It has no near relations, but is thought to be distantly related to the Rails and also to the Sun-bittern of South America. It is about the size of a domestic fowl, of a pale-grey colour, with the wings conspicuously barred with reddish-brown and black, the immature birds being much browner than the adult and its plumage barred with reddish-brown.

During the last few years Mr. Heumann has been successful in breeding the Kagu in Australia, as recorded from time to time in this Magazine. Only one egg is laid to the clutch, and the young bird when hatched is a very beautiful little creature, according to Mr. Heumann, clothed in yellowish down, striped with black on the body and brown on the head. It stays in or near the nest for four or five days and then commences its walks abroad, leading its parents, which follow, one on either side. The old bird picks up a worm and dangles it in front of the chick, who seizes and swallows it.

STRAY NOTES

Recent importations have included a splendid lot of Australian birds, and as these have been very scarce for years past aviculturists have had an opportunity of renewing their stock of old favourites. Messrs. Chapman of Birmingham and Rogers of Liverpool have both had considerable stocks of these, and the Zoological Society has been able to secure a few which were specially wanted.

CAT-BIRDS.—The Australian Cat-bird is one of the Bower-birds and a very rare species in captivity. It is of a leaf-green with lighter spots, and appears to be the only Bower-bird that does not construct a bower. Its name is derived from its peculiar call, which is a very good imitation of a cat fight. Its home is in the jungle-like scrub of the coastal regions of New South Wales, and the Zoo has secured the only pair that arrived.

REGENT BIRDS.—It is several years since the Zoological Society has possessed the Regent Bird, another of the Bower-birds, and when in colour perhaps the finest of all, clothed as it is in gold and velvety black. Three good immature birds have been obtained, but at present we do not know their sex, and it takes three or four years for this species to reach maturity.

The older members of the Avicultural Society will remember the delightful articles by the late Reginald Phillips, published in this journal in 1905 and 1906, describing the successful breeding of this species in his garden at Kensington.

THE SATIN BOWER-BIRD.—Of this well-known and handsome species the Zoological Society has secured a single male in full adult dress, a state that is probably not arrived at before its sixth or seventh year, the immature male, like the female, being of greenish colour. The eye of the Satin-bird is of a beautiful sky blue. On many occasions has this fine bird constructed its bower in the Western Aviary. Parallel lines of twigs, stuck into the ground, form the bower, and the bird is never tired of decorating this with bright-coloured objects—flowers, shells, and so forth.

THE PIED GRALLINA.—This is one of the commonest birds in Australia; coming into the public and private gardens it is very conspicuous in its black and white plumage, and as a rule it is tame.

I brought home several for the Zoological Gardens in 1908, but none have been imported since until now, one solitary individual having arrived. It is one of those common birds in Australia which is not considered worth bringing home, although it makes a charming aviary bird and one of the easiest of the soft-bills to feed. In the wild state it feeds on worms, water snails, and insects of all kinds, but that it will occasionally eat grain was proved in the old Sydney Zoo, for some poisoned grain put down to destroy the introduced sparrow resulted in the death of a number of Pied Grallinas, which also go by the names of "Mud-lark" and "Pee-wee".

RARE AMERICAN BIRDS.—Mons. Delacour has returned from his trip to Central and South America with a wonderful collection of birds, most of which are new to aviculture. They comprise Humming Birds, Tanagers, Sugar Birds, Parrots, Curassows, and many others. We hope to hear more of these when M. Delacour has had time to settle them all into his aviaries.

SOUTH AFRICAN BIRDS.—I visited Mr. S. Castang's shop in Haverstock Hill, Hampstead, the other day, just after the arrival of a very fine collection of South African Finches, etc. There were many Violet-ears, Melbas, Queen Whydahs, Red-headed and Green Singing-finches, Cape Doves, Ground Larks, and many others. On the whole they had come through in very good condition.

D. S-S.

GENERAL NOTES ON AVICULTURE

By Dr. M. AMSLER

I do not know whether aviculture is on the down-grade, but if one is to judge by the variety and number of articles appearing in our Magazine there must be very little doing in the aviaries of our members.

Only to-day I sorted out the *Avicultural Magazine* for the past four years with the intention of having them bound, and I could not help comparing the present flimsy numbers with those fat, well-illustrated, and interesting Magazines of pre-war days; true, one or two of our cleverest and most successful contributors have dropped

out, but surely there must be others who could contribute something of practical interest.

Being *hors de combat* owing to an accident, I hope to set the ball rolling by writing a few notes on birds I have kept, and ending with a plea for the crow-like birds. Soft-bills in general are looked at askance by a good many whose souls cannot rise higher than Gouldian and Parrot Finches, but when once you have kept these latter birds and have bred them you realize their limitations. They are certainly bright coloured—perhaps beautiful. Their breeding is quite easy providing you don't interfere too much and have well-acclimatized birds which don't attempt to nest in autumn or winter.

Much the same remarks apply to the majority of Waxbills, but these, to my mind, are much more attractive and graceful birds than are the Grass-finches. Most of them are fairly free breeders, and less prone to breed during the cold seasons than the Australian Finches.

Speaking off-hand from memory, the following have reared young successfully in my aviaries:—Blue-breasted (almost yearly), Avadavats, Golden-breasted, Cordon Bleus, Fire-finches, St. Helena's, and Orange-cheeked Waxbills. I have also reared hybrids between the Blue-breast and Cordon Bleu Waxbills, and have once had young of Violet-eared and Australian Crimson Finches, not reared to maturity. I rather fancy the last-named is usually ranked as a Grass-finch. Therefore, if you have a mixed collection and more than one aviary, by all means keep a score or so of Waxbills, which during the warmer months always look attractive and please those who visit your aviaries. My own aviaries have good shelters, but are unheated, and I have come to the conclusion that, though most of these birds can winter out, they are best kept in a large cage indoors or in a shed from November to March. This winter under these conditions I lost four Waxbills, three of which were Black-cheeks. Those who have kept this species will, I think, agree with me that I might honestly have put my losses as *one*, the Black-cheeked Waxbill being so impossibly delicate. How many of us have bought small birds from dealers, and on getting home

have put them in a nice big airy cage, only to find them dead in a day or two. These birds, in many cases, were but newly imported, and did not die from any septic disease, but from *cold*.

Baily, that very able and observant keeper at the Zoological Gardens of London, pointed out this explanation to me some time back, and I have since verified it. If one puts one's hand into a dealer's box-cage containing anything from a dozen to a hundred birds, it will at once be noticed that the air in the cage is quite hot, perhaps 80° or 90° , and over and above this the birds are usually huddled together; is it wonderful that they get chilled when put into a travelling box for a few hours and then have to spend the night in a temperature which perhaps falls to 50° ? The remedy is obvious. All newly bought birds, if they come from a dealer, must be kept in a specially heated cage. I propose making such a cage this year, and shall have more to say about it later. These remarks apply with much less force to Soft-bills and the larger birds which are not kept crowded together before we buy them. To my mind, the Soft-bills or insectivorous birds are by far the most interesting and intelligent of our aviary inmates, and if I had to plump for one genus I should choose the Thrushes. Let anyone who disagrees with me glance through Seeborn's Monograph of the Turdidæ. There is scarcely a bird illustrated which is not beautiful, and many are gems which we would almost sell our souls to possess. Already a fair number of beautiful species have reached us alive, and have done well in captivity; perhaps the Blue-headed Rock-thrush (*Petrophila cinchloryncha*) from the Himalaya mountains cannot be beaten. There is a fine male in the small bird-house at the Zoo. Another handsome species from the same locality is the Chestnut-bellied Blue Rock-thrush (*Petrophila erythrogastra*). I have a pair of these at the time of writing which have been in my possession some five months, but both birds have some difficulty in producing flight and tail feathers, and I much fear I shall not succeed in breeding from them. Less rare than the above, but very beautiful also, is the Orange-headed Ground-thrush (*Geocichla citrina*). I have a pair nesting at the moment, the male kindly lent me by Mr. Teschemaker.

This is a species which I have bred almost annually for the past ten years.

Lastly, I have a pair of Migratory Thrushes, the American "Robin", which are also nesting.

Last year I brought back from France a pair of Pied Rock-thrushes, but unfortunately lost the hen. The male is just finishing his vernal moult, and looks very beautiful with his powder-blue head, orange breast, and white rump; he is, moreover, a fine singer when the spirit moves him, but he prefers, as a rule, to sing a little human ditty which no doubt he learned from the foolish person who hand-reared him.

Practically all the Thrushes are good songsters, even the brightly-coloured species; they are easily tamed by means of mealworms, and are to my mind much more intelligent than the vast majority of seed-eaters. Faults they have: it is not often possible to keep two pairs together in one aviary during the breeding season, but they do not interfere with other birds which are not closely allied, *and* the males are given to murdering their wives when the season is over. Sometimes it is the females who attack the males. I usually manage to mix up the pairs during the autumn and winter in different aviaries, and do not have much trouble, but the sexes must be separated *at once* at the first sign of disagreement or there will surely be a mangled corpse in the aviary one morning.

Perhaps more intelligent even than the Thrushes, though less lovable, are the Jays and Pies. I have not sufficient aviary room for a large collection, and as breeding is always my first object when I get a pair of birds, I have to be satisfied with one, or at the most two, species. For merely spectacular purposes a large mixed collection can easily be kept in a roomy aviary, and there are few sights to equal that of a dozen or more species flying about together in an aviary 30 ft. or 40 ft. long; these I have actually seen at Mons. Delacour's at the Château de Clères.

The aviary can be a very rough affair—the higher the better—with a good-sized shelter and plenty of feeding trays to prevent squabbling; the netting need not be smaller than one inch, as mice would be very welcome visitors to these birds. In such

an aviary breeding is, of course, quite out of the question, for any eggs laid would almost certainly be devoured at once, and young birds, if hatched out, would quite certainly be taken by the other inmates of the aviary. My experience with the Corvidæ is that it is difficult to prevent the parents themselves making a meal off their young, but more of this anon.

Should any pair of a mixed series show definite signs of wishing to nest, the only possible course is to catch them up and put them in an enclosure to themselves.

(*To be continued.*)

THE MEETING OF COUNCIL AND MEMBERS' TEA

The summer meeting of the Council will be held in the Zoological Gardens at 3 p.m. on Thursday, 15th June, and members of the Society are invited to tea in the Fellows' Tea Pavilion at 4 p.m.

CORRESPONDENCE AN UNCOMMON MUNIA

SIR,—The much-respected James Yealland, of Binstead, Isle of Wight, who recently passed away after a long suffering illness, sent me a few weeks ago an uncommon whitish headed Mannikin. As far as I could ascertain without comparing it with skins in the Museum it was *Munia pallidiceps* (no black centre to the belly), chest downwards being dusky and mottled lightly. It resembled *M. flaviprymna* rather than *M. maja* or *ferruginosa*, and apparently comes from Lombok. I have possessed alive *M. pectoralis*, *castaneithorax*, *flaviprymna*, *maja*, *ferruginosa*, *atricapilla*, *malacca*, *punctulata*, *topela*, *risoria*, *subundata*, two species of *Uroloncha* and four of *Spermestes* and several other allied birds, but the example submitted tallied with a written description of *M. pallidiceps* alone. It is the first time I have seen this bird; it is the sort of bird one would expect to be produced from a union of *M. maja* with *M. flaviprymna*.

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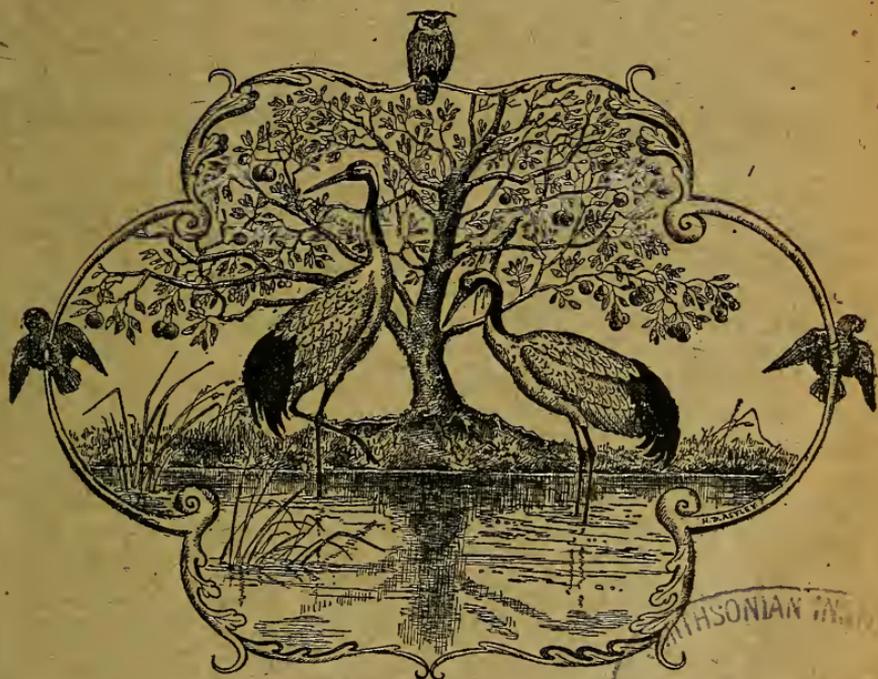
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THE

AVICULTURAL MAGAZINE



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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

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The Subscription to the Avicultural Society is **£1** per annum, due on the 1st of January in each year: and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

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All Queries respecting Birds (except *post-mortem* cases) and *all other correspondence* should be sent to the Hon. Secretary, Mr. J. L. BONHOTE, Park Hill House, Park Hill, Carshalton. **Any change of address should be notified to him.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

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THE AVICULTURAL MAGAZINE

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THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

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JUNE, 1922.

GENERAL NOTES ON AVICULTURE

By Dr. M. AMSLER

(*Concluded from p. 80.*)

I think I must have been about 14 years of age when I took a couple of Jackdaws from a pollard elm, which was hollow almost to the ground level. I well remember the incident because I scrambled down the inside of the hollow trunk, and it was mere desperation and a prospect of a slow and lingering death which enabled me to get up again with my two prizes.

One of these birds I kept: he was full-winged, and had his liberty in a small London garden. His tameness I have never seen equalled, and he never strayed but once, when he flew into the bathroom window of an old lady. She was so irate that I suspect she must have been having a bath.

I kept this bird for several years, and he died one summer holiday during my absence. My next two birds were a Jay and a Magpie, both taken from the nest on the same day. For some reason neither of these ever became really tame, and I blush to say I have no recollection of their ends. After this I kept no birds till I started practice here, when I received three half-fledged Ravens from the Hebrides; needless to say they were hungry on arrival, and I shall not easily forget the face of the man who carried the travelling box from the station.

One may forget to feed a young Thrush or Lark, but one cannot forget three lusty Ravens, even if well covered over for the night;

they begin to clamour at 6 a.m., and can be heard at a distance of 50 yards. They ate anything and everything, and grew amazingly fast.

Having at the time only a small garden, I had to cut their wings to keep them at home, and even then they were very troublesome. A large clump of German iris would be demolished in a few minutes, then one of the dogs would be attacked, or they pecked the baker's legs when he called for orders, and he refused to come again. Finally, I gave two of the birds away to two Eton College masters who had admired and coveted them. One of these was a keen rock-gardener, and he soon found that his raven had an eye for his rarest plants, so the bird was relegated to the stable yard, where he ended his days by drowning in a rain-water tub.

The other bird, which I gave to one of the science masters, was kept in a small aviary of which he showed his disapproval by cawing from morning till night. Some boys in the neighbouring house became so incensed by the noise that one of their number was chosen to "poison" the bird. This boy crept along the coping of the wall against which the raven's aviary was built and gave the bird its dose, which it swallowed quite happily. The result was nil, which is not surprising seeing that the most potent drug these boys could produce was a couple of cascara tabloids!

My own bird remained with me for a couple of years; he could kill a half-grown rat in an instant, and was an inveterate thief and very destructive to garden plants, as I never liked keeping him in a cage. Still, if I had a very large garden, I should certainly get another. This bird went to Devonshire, and was still alive a couple of years ago; if he has not since died he would now be about 16 years old.

Shortly after this I began to build aviaries, and my first venture in the crow tribe was a pair of Chinese Azure-winged Magpies (*Cyanopoliis cyaneus*). These birds are not much larger than a Missel Thrush, and were quite the most delightful of the Pies I have ever kept. They made no attempt at nesting, and I unfortunately lost the male in the autumn.

There is a closely allied species in Spain which anyone at all interested who has friends in Spain should try to import.

Both Chinese and Spanish species have been bred in the Zoological Gardens. In 1915 I bought a pair of Occipital Blue Pies, which nested in a small aviary and reared one youngster from the first nest; the second brood was going strong when the nest collapsed, but I was able to rescue two chicks before they died. One only survived a few hours and the other died in a couple of days. I fear I am a poor hand at hand-rearing anything but the easiest of birds. I had hoped that the rearing of the Blue Pie would entitle me to a medal, but it was discovered that Lord Selford had bred them the previous year.

The next year Mr. Guy Falkener lent me a pair of Yucatan Jays which had been deposited at the Zoological Gardens. These birds nested twice; on the first occasion they reared the young to the age of 17 days and then I believe ate them. On the second attempt the young disappeared after about four days. The season being then over, I had to return the birds, which had by then been presented to the Zoological Society. I believe they again nested unsuccessfully in the Gardens the following year.

Last year there was a large importation of Yucatan Jays—so called—these were really the San Blas Jay. The Yucatan has yellow legs, whereas the San Blas legs are black; otherwise there is very little difference between the two species. I had five birds sent to me from which I was able to pick a true pair. These two were very friendly all the summer; the hen always comes down first to collect such titbits as mealworms, cockroaches, etc., and invariably gives them to the cock, who eventually returns at least part of the repast to his mate. I have already pointed out this peculiarity in my article on the attempted breeding of the Yucatan Jay. I believe that this transference of food from one bird to another is a favourite trick with many Jays and may occur between two birds of the same sex. Only to-day for the first time I noticed the male collecting food and feeding the female. I trust that this may mean that he intends business.

The only other pair of Jays I have at the moment is the Azure

Jay, of which several were imported and sold at a very reasonable price last summer. The colour scheme is much that of the Yucatan, but the bird is much larger and heavier and has a short tail. He should be called the Azure Crow.

By the way, why are these birds called Jays? The Pileated Jay is certainly a Jay, but the Yucatan, at any rate, is as much a Pie as is the Occipital Blue Pie or our own Magpie. The former certainly has a small superciliary ridge of feathers on each side suggesting a man who brushes his hair upwards, but there is no suggestion of a central or movable crest.

When the Azure Jays first arrived they were placed in the same aviary as the Yucatan Jays and a pair of King Parakeets, and for a time I began to think that I was quite mistaken as to sexes; the hen Yucatan insisted on feeding both Azure Jays, and one of the latter fed the male Yucatan. However, as spring approached it became evident that this promiscuous love-making was only a passing phase, and the new arrivals began to have rather a poor time, although so much larger and more powerful than their companions; they would soon have starved had I not removed them to another flight. I have since had to remove the King Parakeets also, as they evidently intend to lay on the ground as they did last year, and this would certainly have meant loss of eggs.

So far neither pair of Jays have ever shown any sign of wishing to build, but the season is young and I still have hopes, though I don't think anyone will ever make a fortune by breeding any of the Corvidæ. As I have already said, the birds are prone to devour their own young, and I certainly think they are more resentful of interference than most birds.

I hesitate to lay down the law, as I have only reared one bird to maturity, but I feel very strongly that if one is to succeed when young are hatched it is absolutely essential to give a very large amount and variety of animal food. Young sparrows are easy to procure and are fairly well received by the old birds; an occasional frog is also liked, mealworms by the hundred during the first few days, and likewise cockroaches, woodlice, earwigs, and even garden worms; but the greatest treat you can give these birds is a mouse,

and a nest of young mice about a week old will fairly make them dance with pleasure. My birds get butcher's meat twice a week and a little cooked meat on other days. I almost think they prefer the latter. They are very fond of picking bones, and always have the carcase of any chicken which has been eaten in the house—the Christmas turkey, or what remained of it, also gave them much pleasure.

Finally, while on the subject of food, I want once more to ask aviculturists to try my ground rice mixture; it is made by pouring a little boiling milk over ground rice, which is then well stirred; the result is a thickish paste, which is sweetened with "honey-sugar". There is not a bird in my aviaries which does not eat it—Waxbills, Bullfinches, Siskins, Tits, Thrushes, Nuthatches, Serins of various kinds, and finally the Jays. I give my birds what I consider to be the best soft-bill food on the market, but the ground rice is always eaten first. New birds always take a day or two before they eat it, but they soon follow the example of their aviary mates, and I am quite sure it suits them; and, as I have already noted in the Magazine, I have a pair of Lorikeets which for the past six years have reared from three to four broods annually, and which now never look at anything else—neither fruit, greenstuff, or seed.

To return to the Corvidæ, before closing my somewhat aimless wanderings it might help would-be breeders to have a short list of the better-known species which have to my knowledge been reared in captivity. These are the Raven, British Jay, Magpie and Jackdaw, Occipital Blue Pie, the Azure-winged Magpie (both Chinese and Spanish sub-species). There are doubtless others which without books of reference I cannot remember. Species which it would be interesting and pleasing to breed are the "Yucatan", including San Blas and Beechey's Jays, the Pileated, Blue-bearded, and American Blue Jays, the Hunting Crow or Cissa from the Himalayas, and lastly the Azure Jay, of which there must be a fair number at the moment in private collections.

As I have learned to my cost, these birds are not quite so easy to breed as Budgerigars or Zebra Finches, but this only adds zest to one's endeavours. There are three difficulties to be overcome—first

the choice of a true pair, a by no means easy matter; next the provision of a suitable nesting site and nesting materials *if* and *when* they are inclined to nest; and finally the selection of suitable food for the rearing of young when they hatch, providing they are not at once eaten by their parents.

The market will never be flooded with aviary-bred Jays, but those that are reared might make charming pets and could be given the run of a large garden. Mr. Astley has a delightfully tame Yucatan Jay which is allowed out in his garden and which returns to its cage, and there is an Occipital Blue Pie on deposit at the Zoological Gardens which I much covet, as I feel sure this bird with a little care could be given semi-liberty. It would be a fine sight to see this, the most graceful of all the Jays, flying loose out of doors.

RECORD OF THE RED TAIL-FEATHERS OF A GREY PARROT

By E. MAUD KNOBEL

I had this Grey Parrot (*Psittacus erithacus*) on 30th May, 1917, and have kept a strict record of the number of red tail-feathers that are shed each year. Feathers have a great interest and fascination for me, and in the keeping of records, of course, one has to choose *certain* feathers and those that are easily identified. I don't know whether there is anything to be learnt by keeping a record or whether anyone else has ever done such a thing. One knows certain facts about moulting. For instance, a bird about to moult starts by clearing up his seed-pot, and for a successful moult requires a more generous diet than on ordinary occasions. They have to make blood to push out the old feathers and produce new ones. I am not a great believer in medicines and tonics, but I do think one is tremendously rewarded by always giving the best foods one can procure. I was taught this during the war, when foods were anything but what they should be, and many of my Parrots either took a long time to come through the moult or produced poor feathers and in some cases blotched with yellow feathers where green ones should have been.

My experience is that the first feathers to be shed are the bastard feathers of the wing. One also knows, too, that when a bird sheds a feather in one wing the fellow in the other wing is almost certain to come out within a few minutes. Some birds seem to moult a little all through the year, while others do a good out and out moult, looking perfect scarecrows for a week or two, then coming out beautiful. I find my Amazons mostly do this. They generally make a clean sweep of everything. I don't mean to say they become absolutely bare, but they look pretty ragged and untidy. My Grey Parrot, on the other hand, never does this, but sheds a few feathers at a time, and never looks anything but absolutely spick and span.

Therefore the enclosed record of the tail-feathers shed in a year covers the whole year and is not confined to any particular period :—

<i>Dates</i>	<i>Number of quills in tail</i>	<i>Number of red feathers in tail</i>	<i>Total</i>
1917, May 30 to 1918, May 29	. 11	. 22	33
1918 " " 1919 "	. 10	. 16	26
1919 " " 1920 "	. 11	. 21	32
1920 " " 1921 "	. 6	. 18	24
1921 " " 1922 "	. 11	. 18	29

BIRDS IN THE PRINCE OF WALES' COLLECTION AT THE ZOOLOGICAL GARDENS

- 5 Argus Pheasants (*Argusianus argus*).
- 4 Rufous-tailed Fireback Pheasants (*Acomus erythrothalmus*).
- 1 Vieillot's Fireback Pheasant (*Lophura rufa*).
- 5 Crowned Wood Partridges (*Rollulus roulroul*).
- 3 Long-billed Francolins (*Rhizothera longirostris*).
- 4 Javan Peafowl (*Pavo muticus*).
- 4 Indian Peafowl (*P. cristata*).
- 1 Red Jungle-fowl (*Gallus gallus*).
- 2 Monaul (*Lophophorus impeyanus*).
- 1 Koklass Pheasant (*Pucrasia microlopha*).
- 2 Nepal Kaleege Pheasants (*Gennæus leucomelanus*).

- 1 Wood Francolin (*Francolinus gularis*).
- 5 Chukar Partridges (*Caccabis chukar*).
- 2 Grey Pigeons (*Columbia grisea*)*.
- 4 Blue-tailed Fruit Pigeons (*Carpophaga concinna*).
- 8 Nutmeg Fruit Pigeons (*Myristicivora bicolor*).
- 1 Jambu Fruit Pigeon (*Leucotreron jambu*)
- 1 Southern Fruit Pigeon (*Crocopus chlorogaster*).
- 23 Spotted Turtle Doves (*Spilopelia tigrinus*).
- 6 Green-winged Doves (*Chalcophaps indica*).
- 1 Burmese Sarus Crane (*Antigone sharpei*)*.
- 3 Javan Adjutants (*Leptoptilus javanicus*).
- 3 Indian Adjutants (*L. argala*).
- 2 White-necked Storks (*Dissoura episcopus*).
- 5 Lesser Egrets (*Mesophoyx intermedia*)*.
- 1 Black-crested Bittern (*Gorsachius melanolophus*)*.
- 1 Water Coek (*Gallinix cinerea*).
- 3 White-breasted Gallinules (*Amaurornis phænicura*).
- 5 Painted Quails (*Excalfactoria chinensis*).
- 2 Nonpareil Finches (*Erythrura prasina*).
- 2 Maja Finches (*Munia maja*).
- 2 Java Sparrows (*M. oryzivora*).
- 2 Sharp-tailed Finches (*Uroloncha acuticauda*).
- 1 White-bellied Finch (*U. leucogaster*)*.
- 1 Malayan Pied Hornbill (*Anthracoceros malayanus*).
- 1 Malayan Wood Owl (*Syrnium sinense*).

Of the above those marked with an asterisk are new to the Zoological Society's collection, and of these perhaps the most interesting to the aviculturist is the Grey Pigeon, which is a very rare bird in skin collections. It inhabits Borneo and Sumatra, and has never before been imported alive so far as I know. In colour it is of a very pale grey, the primary feathers and their coverts and the apical half of the tail being black, while the iris is bright red. The species formed the subject of a coloured plate in the *Catalogue of Birds* in the British Museum.

The White-bellied Finch may very likely have been imported, though I do not remember to have seen it. It is a dark-coloured

Mannikin with white underparts inhabiting the Malay Peninsula and Borneo.

Perhaps the most charming birds in the whole collection are the Crowned Wood Partridges, in which the male is of a rich bluish-green, the wings rich brown, and the head decorated with a crest of purplish red and a vivid white patch on the crown. The hen is nearly as pretty, being grass-green with chestnut on the wings and a greyish head.

In the *Avicultural Magazine* for November, 1907, Sir William Ingram wrote an account of the nesting of this species in his aviaries at Monte Carlo, and this was illustrated by a drawing of the chick by Mr. Collingwood Ingram. The chicks were unfortunately not reared, but Sir William believed them to be the first ever seen by a civilized human being. They are described as being covered with down of a uniform dark chocolate brown. This is a bird of the dense Malayan jungles, which, judging from its habits in captivity, probably never comes much into the open, but spends its time in scratching amongst decaying vegetation in search of insects and small seeds.

D. SETH-SMITH.

INTERESTING BIRDS ; EVEN THOUGH PLAIN-COLOURED !

By FREDERICK D. WELCH, M.R.C.S.

Some people prefer birds which have bright colours in their coloration—a plumage in which is a large proportion of blue, yellow, green, and such-like—and the Parrots seem to have become favourites with many persons chiefly for this reason. It has sometimes seemed to me that certain birds were too gaudy in coloration ; and, on the other hand, I have found several birds at one time or another exhibited in aviaries which were interesting and attractive in appearance, although there was *no gaudy colour* in their general plumage. In this paper have been mentioned a few of the latter, with some description added in order that any reader unacquainted with them can recognize a specimen if he or she should later on see a living one offered for sale, and like to try it in the aviary.

Among the Asiatic birds, one called the Collared Jay Thrush

(*Garrulax picticollis*), which comes, I believe it correct to state, from South China, was always an interesting bird in the Western Aviary of the Zoological Gardens, where I first saw one several years ago now, hopping about and pecking on the ground, and generally active. The general coloration (as written at the time the bird lived) was a yellowish-brown, with chin, throat, and breast whitish; the side of the head posterior to the eye being ornamented with several black marks, as was also the side of the breast where was a bluish-slate patch with some blackish spots on it (there being about an inch between these patches on each side). In this living bird the first two primaries were blackish, and there were also some black spots on the tail about half-way to its tip, and as it hopped about this rather large bird of thrush-like shape always seemed to me to be more interesting to watch than Macaws in their gaudy blue, yellow, red and such-like bright plumage.

Another bird which will, to my mind, compare favourably in general appearance with any of the Parrot tribe—not excluding the gorgeous-coloured Westerman's Eelectus female—is brown and white in most of its plumage. The combination of these, brown in body, etc., with a white head, neck, and upper breast produce an attractive bird in the White-crested Jay Thrush (*Garrulax leucolophus*) of the Himalayas, in which the crest is well developed and appears capable of being raised erect when the bird is excited. A large black beak also improves its appearance, there being a continuation of the dark along to the eye in a broad line; and when a pair of these is seen flying in an aviary from bough to bough, or pecking on the ground and generally fussing about, they surpass (in my estimation) any one or other of the Green or Red Eelectus, or of the Lories in general appearance and interest—even though brown and white in most of the plumage.

A third, not perhaps so attractive in general appearance as the last but a neat-looking bird and one which is interesting to watch, is the Chinese Jay Thrush (*Garrulax chinensis*), even though of sombre colour in its slate-coloured plumage with black face (except white cheeks) and chin.

Birds which are mostly black or mostly white might be thought unattractive in being clothed with such ordinary colour, and despised

therefore by many persons. Years ago now there were two which used to regularly sit on one of the perches in the Western Aviary in the Zoological Gardens and amused me by making an occasional dash about the aviary-compartment after flies and such-like, and were nice birds. The larger was a large Racket-tailed Drongo, black, but none the less interesting to me as it sat with a cheeky, impertinent look in its eyes ; the other, a smaller bird, a White-bellied Drongo—black, with white belly. Both were, so far as I now remember, Indian birds, and with their rather large beaks seemed to show an appearance in head and neck as partly Crow and partly Shrike shape. Unless my memory has miscarried, they both did a little squalling at times, and were lively exciting birds, frequently on the move backwards and forwards between the inner and outer sections of the aviary, and much like the Indian Crow (*Corvus splendens*) in flight. But not too noisy ! Two which hunted on the ground after food, much like the Starlings on lawns in Britain, were Grackles ; one being the Black-winged Grackle (*Graculipica melanoptera*), a white bird with (as its name implies) the wings black. It was not unlike a British Starling in general shape, and stated to be from Java—but whether it ranges into other islands around or on to mainland Asia I am unable to say for certain. Perhaps the co-Editors will inform us more about this latter question ? The other was not so nicely marked a bird (in my opinion) as its more white ally, it having black on the crown, neck, back, and wings, with a collar round the neck from which it presumably was named Black-necked Grackle, the other parts of plumage being white.

I can fancy hearing some enthusiastic admirer of gaudy plumages saying in derision as he or she reads these latter birds' descriptions : “ Fancy admiring a bird in black and white ! ” Well, it is perhaps a *good thing* that all human beings who admire birds *don't all like the same colours and shapes*, or some birds in menageries might die of low spirits and melancholia on account of being ignored by visitors !

Personally I preferred the above seven birds to any seven species of the Parrot tribe—even to Lories, which seemed to me most interesting to observe of that noisy group of gay colours.

SOME REMARKS ON NIGHT HERONS (*NYCTICORAX*)

By FREDERICK D. WELCH, M.R.C.S.

When in London in August, 1920, I watched some birds in the Great Aviary of the Zoological Gardens in order to compare, if an opportunity occurred, their fighting with the Bitterns, previously mentioned in the Magazine, Ser. III, Vol. XI, pp. 104-5, because Night Herons have beaks which seemed to me to be capable of inflicting a severe peck on a hostile bird.

Two scenes were interesting to watch, although not equalling in interest that of the two Bitterns seen many years before—about 1903 or 1904, so far as I remember. When one of the Night Herons was standing in the shallow water, a second bird approached it and apparently tried to take some food it had in its beak. Both birds faced each other, and kept on alternately bobbing up and down by rapidly crouching half-down and immediately raising rapidly to full height, then crouching, then raising, and so forth. During this action neither bird advanced or retreated, but kept standing in the same parts of the pond; and each seemed to me to be trying to find an opening in the opposite bird's defence in order to get in a decisive peck at head or body. They were, however, very equally matched in activity, and after about twenty-five bobbings up and down they parted without damaging each other, the second bird retiring and flying to a bough where it croaked (apparently giving off some rage at its unsuccessful adventure) while the first bird remained in the water—the croak being much like a frog's. Later on, two Night Herons engaged each other in a dispute about food, one bird starting it with a running attack at the other which retreated a few feet, but always facing its opponent; and then retaliated with a similar running attack against the original aggressor, which also retreated in turn, but facing in exactly the same way. The birds alternately attacked and retreated in this way, running forwards and backwards over the same ground time after time; but each Night Heron took care to keep away from its adversary's strong, pointed beak, which latter procedure showed a *disinclination to come to close quarters* in battle on either side, they being (as the others before them)

very equally matched in activity. After about five minutes, during which they continued as above described, they parted, neither bird having gained any advantage in pecking.

Although they are only sombre in appearance in their pale slate plumage with darker slate crown and back parts, the Common Night Heron has always seemed to me a well-proportioned bird in shape ; and shows to most advantage (in my opinion) when stalking along the ground towards night-time, with head lowered somewhat, and wings, back, and tail carried on about the same level as the head, the beak directed and pointing straight in front of it, walking rather rapidly.

THE WAYS OF EAGLES

Although it is known that the Fishing Eagle, like the white-headed emblem of the United States, watches the Osprey for a chance of robbing it of captured fish, it is, I believe, the common impression—it certainly was mine—that Eagles as a class are, for the most part, independent hunters, disdaining piratical methods of picking up a livelihood. That this opinion is erroneous, like many an opinion formed by readers of natural histories deprived of the opportunity of watching the behaviour of wild animals at liberty, is shown by a chapter headed “Aerial Robbery” in a delightful little book *In Nature's Garden*, recently written by Mr. C. H. Donald. In the hope that the account may interest aviculturists as much as it interested me, I venture to reproduce the substance of the incidents as graphically described by the author.

One day in India some commotion was observed amongst a number of small birds, and a flock of Mynahs took refuge in a bush supplying very inadequate shelter. Suddenly a pair of Falcons appeared from a clump of trees. One rose into the air, while the other descending within a few feet of the ground, approached the bush at top speed, shot upwards and then dropped like a stone at the bush, driving out the Mynahs by the ruse. The tiercel poised aloft, then took up the chase, and stooping at the flock succeeded after one or two failures in striking one of the Mynahs. Thereupon a Pallas's Fishing Eagle, which had been awaiting such a chance on the summit of a tree hard by, hastened to the spot. The Falcons saw the danger, and while the male rose high in the air

and attacked the Eagle to distract its attention from the tiercel, the latter made for the trees, carrying her prey in her talons. Disregarding the onslaught of the Falcon, the Eagle went after the tiercel; but before he could get up to her another robber, this time a Tawny Eagle, appeared on the scene. The tiercel dodged his first swoop, but at the second dropped her prey, which the Tawny Eagle grabbed before it reached the ground. Then the Fishing Eagle made for the Tawny, and the latter, turning upon her back in self-defence, gave the former the chance to grab the Mynah, and in the tussle that ensued the two great marauders came fluttering to the ground together. A second Tawny Eagle now came up, but contented itself with circling round the combatants without entering the fray. The next arrival was a Steppe Eagle who sat down alongside and looked as though she meant business, but before she made up her mind there was a great swish of wings, and a fine female Imperial dropped from the heavens and without any hesitation went straight into the mêlée. The Tawny let go her hold almost immediately, and flew off, but the Fisherman hung on for a few seconds and then he, too, resigned himself to the inevitable, and let go. He, however, did not fly, but merely walked off a few yards, and turned round again to face the Imperial. The latter, having secured the bone of contention, raised herself to her full height, and erecting her neck feathers in her anger, gave vent to a succession of raucous calls. Still other Eagles continued to arrive, although ten minutes before there was not one to be seen, apart from the Pallas's Fishing Eagle, which was on the spot when the luckless Mynah was struck down by the Falcon. Finally there were no fewer than seven Eagles, belonging to five species, on the scene, namely, one Pallas's, one Imperial, one Spotted, two Tawny, and two Steppe. Some of these were circling above the spot, the others squatting round the Imperial, which made no attempt to eat the Mynah clutched in her claws. The Fishing Eagle sat passively by; but the author, finding the scene getting monotonous, advanced towards the company, whereupon all the Eagles on the ground took wing, except the Imperial and the Fishing, which refused to stir, so intent were they watching one another. Finally, however, when Mr. Donald was within 25 yards of them, the Imperial rose into the air. This was evidently what the Fishing Eagle had been

waiting for. She was after the Imperial in a second, and being infinitely faster caught her up and attacked her from above with vigour. The Imperial half turned to receive the attack, but, whether from losing her balance or being actually struck, came to the ground—and again the Fishing Eagle sat beside her. Mr. Donald continued to advance, and this time the Fishing Eagle took flight, having a smack at the Imperial in passing. When the latter took wing the Fishing Eagle did not renew the attack, because the Mynah was gone, swallowed at one mouthful, Mr. Donald believed, either as the Imperial Eagle came to the ground, or when the Fishing Eagle had his parting shot at her.

That this is not an exceptional case of the robbery of Peregrines by Eagles is shown by the following incident observed by Mr. Donald. "Suddenly there is a whir of many wings as a large flock of Mallard, Pintail, and Teal rise out of the reeds. Hardly have they gone a hundred yards when the steady, onward, rising flight is turned to a medley of zig-zags, and a dash for the river. A bolt from the blue has descended on the luckless flock in the shape of a fine dark Peregrine Falcon." The Ducks divide, but the Falcon struck in the middle of the whirring mass of wings, and brings her quarry to the ground. But, realizing that the place is too exposed to prying eyes, she presently takes wing, followed by a couple of Kites, which, however, she outstrips, despite the burden she carries. Another pursuer now takes up the chase, to wit, a Steppe Eagle, which strains every nerve to catch up. The Falcon, nevertheless, has the advantage in distance and altitude, and appears to be escaping from the Eagle, when two black objects appear in the sky above her, coming down at tremendous speed. They are a pair of Pallas's Fishing Eagles. Profiting by the advantage of position in the air, one of them strikes, compelling the Falcon to drop her prey. The other Eagle, following behind, catches the falling Duck and sails away with the Peregrine, Kites, and Steppe Eagle in hot chase. The Falcon, mounting to the zenith, stoops with terrific velocity on to the successful robber, which avoids the onslaught with a zig-zag turn, and pursuers and pursued disappear behind some distant trees, leaving the observer to guess the outcome of the episode.

Of all the Eagles Mr. Donald tells us about, the Golden is the only species which dares eat his meal in the open, or even drop it from her

talons to teach the young to stoop, without fear of interference from other aerial robbers.

R. I. P.

CORRESPONDENCE

LONG FLIGHTS OF BIRDS

SIRS,—On crossing the Atlantic (in March) from Southampton to New York, on the White Star liner *Olympic*, my son and I were daily on the look-out for any sea-birds. Only on one stormy day did we see a kind of Petrel following the ship for a short distance; our nearest land then was the Azores, more than 500 miles away.

We have had some very severe storms here (in South-West Texas). The other day I saw some hundreds of Seagulls, also a large white Pelican was shot, measuring over 10 feet from tip to tip of wings. These had been blown inland by the gale; the nearest sea is some hundreds of miles away, Florida, and the Gulf of Mexico.

Some time ago four white Swans were secured here, whose breeding place is in the Arctic Circle.

This part of Texas is quite tropical; I am staying in the Virgin Forest for some weeks, at the house of my brother (who is quite a naturalist). The weather is very hot; for some time past it has been 90 degrees in the shade. This is quite a paradise for birds.

JAMES B. HOUSDEN.

SAN ANTONIO, TEXAS, U.S.A.

May, 1922.

SUCCESS WITH WATERFOWL

SIRS,—I've had over 500 ducks' eggs so far, but in some cases the fertility has been very disappointing, notably in Mandarins and American Wigeon; most of the Mandarin eggs were fertile but the germ died at about 10 days' incubation. However, I have over 100 young ducks and eggs hatching nearly daily till further notice. Some have been most persistent; Shoveler, American Wigeon, Spotbill, and some others have laid three clutches each! I have forty young Carolinas, some three-quarter grown, and more eggs to hatch. Cinnamon and Chestnut-breasts have failed to go to nest so far; I can't think why. Falcated have laid well, but are not off yet. I'll let you know later full results.

H. WORMALD.

9th June, 1922.

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WANTED.

COPY of *Avicultural Magazine*, containing portrait of Whistling Thrush (*Myiophoneus*).—WELCH, Hartley, N. Kent.

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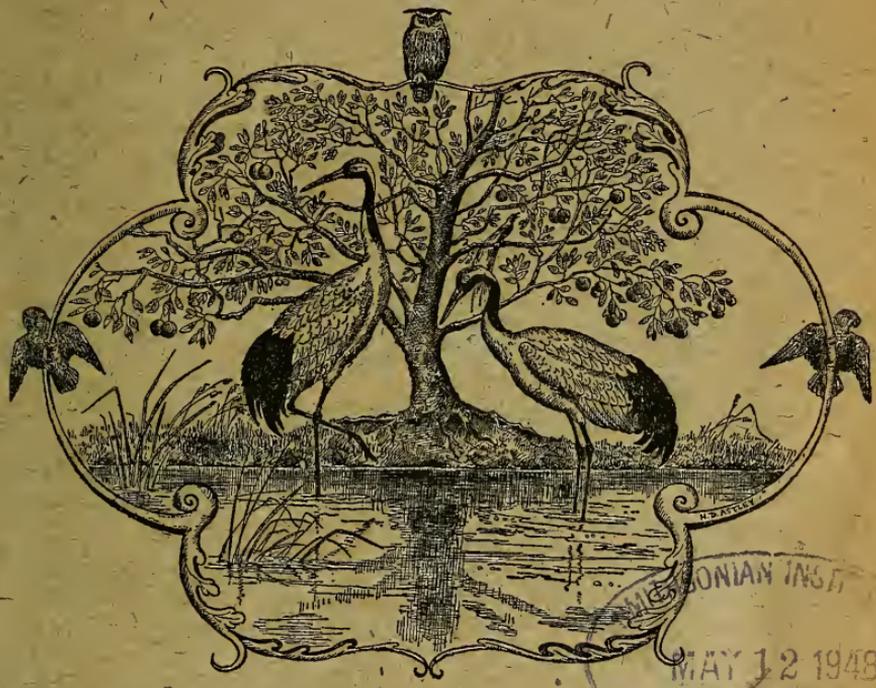
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JULY,
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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

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The Subscription to the Avicultural Society is £1 per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

All communications intended for publication in the Magazine should be addressed to:—

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c/o The Zoological Society of London,

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THE AVICULTURAL MAGAZINE

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FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

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JULY, 1922.

ABOUT BIRDS IN NORTH AMERICA

By F. E. BLAAUW

(Continued from p. 68.)

Close by the town of Los Angeles is Mount Lowe, which is easily ascended by a dental railway which creeps almost perpendicularly against the mountain. I was very much struck by the peculiar aspect of the vegetation against this mountain, as the leaves of both trees and shrubs and bushes were mostly of a silvery hue. So, for instance, the needles of the Douglas pines (*Pseudotsuga douglasi macrocarpa*) were silvery blue, greyish or bluish were the leaves of the lupins (bushy as well as herbaceous ones), and silvery were the leaves of innumerable other things. To match these silvery leaves, a great many flowers were of a pale yellow or delicate lavender blue. I saw very few birds during this excursion, and the only interesting species I noted was a specimen of *Sayornis nigricans*, a nearly all-black bird with little white, which looks like a long-bodied and long-legged Flycatcher.

Another excursion, easily made by electric tram, is to Palissade on the sea-coast. For a couple of miles along the coast is a promenade or drive, which overlooks the sea and is planted as a garden. I was rather surprised to see there a family of black *Molothrus* Starlings (*M. obscurus*), which consisted of a pair of old birds and several young ones, which were carefully attended to and fed by the parents. I was much surprised to see this, as I had been told that this species was parasitical and laid its eggs in the nest of other birds. One of the young birds was apparently rather feeble, and not able to fly well, and when I picked it up the old birds flew round me greatly concerned for the safety of their child. I am at a loss to explain how this

experience agrees with the supposed parasitical habit of these birds! Along the promenade, which was perhaps from 50 to 100 feet above the sea-level, very big sandy-brown Martins, with a white spot on each side of the body, flew restlessly backwards and forwards with such rapidity that the eye had difficulty in following them.

From Los Angeles I travelled by train to del Monte, which is a large hotel in the vicinity of Monterey. It is situated in a finely timbered park, which for once was well stocked with birds. The first birds I noted were Californian Crested Quails (*Callipepla californica*), which were seen running from bush to bush and were quite tame. Then there were numerous families of *Junco pinosus*, pretty grey birds with black heads and yellowish bills, which were mostly running along the lawns caring for their children, which were brown in their first plumage. Very conspicuous were numerous black and white Woodpeckers of the *Melanerpes* family. These birds behaved quite differently from our white and black Woodpeckers in Europe. To begin with, they were more on the walks than on the trees, and were often very busy inspecting the horse droppings; then for a change they would catch insects on the wing as nimbly as our Flycatchers. They would also sit on the roof of the hotel inspecting the passers-by, or inspect the tall stems of the pines, in which they had driven round holes to conceal nuts, which formed a favourite article of diet. Then there were Bush Tits (*Psaltriparus minimus*), Crested Tits (*Parus inornatus*), Chickadees (*Parus rufescens*), and an occasional Humming Bird (*Calypte anna*), which seemed to be mostly of a glossy green as it darted along. On a small lake in the grounds I noticed some young grey Grebes with light faces, probably young birds, also slaty-grey Coots with black heads and light bills. In the bushes round the lake Songsparrows were singing lustily, and this reminds me of a legend about the Song-sparrow, which reads as follows:—

When God had created the world and had distributed the birds, He had *forgotten some parts of North America*. When He was reminded of it, He had only very few birds left, and those mostly inconspicuous ones, and the little Songsparrow, which at the time was not only a *modest* but also a *silent* bird, was amongst the number. The result was that the country which got him was dissatisfied and said that

he was not worth having. So the Creator, for fear that the little bird should be neglected or persecuted, ordained that henceforth he should have a pretty song which he would repeat all day and vary in a thousand ways, and thus be at least the equal of so many finely coloured birds that are silent. And since that time the little Song-sparrow has sung his pretty song all day long, varying it in a thousand ways, and has been the delight of all who hear him! But he has remained an unobtrusive modest little bird which sings his song under the shadow of a leafy bush and does not come forward to be admired!

A famous excursion from Monterey is the so-called "Seventeen Miles Drive". It is a drive round a peninsula, and one passes mostly through woods of *Pinus insignis*, which have as undergrowth a shrubby *Mimulus*, with orange flowers (*Mimulus glutinosus*). Bushes of *Lupinus arboreus*, with pale yellow flowers, are also very numerous, especially near the sea. There are several small rocky islands near the coast, and on them I saw great numbers of Pelicans in the adult and in the immature dress (*Pelicanus rufescens*), which roosted there in company of large Blue Gulls and small Black Cormorants. One doubles the corner of the peninsula at Cypress Point, where many centuries-old specimens of the Monterey Cypress (*Cupressus macrocarpa*) have withstood the storms for untold ages.

From Monterey I travelled to San Francisco, and there in Golden Gate Park I met again my old friend the so-called "Robin", or migratory Thrush, which had here replaced the Mocking Bird of the south. Golden Gate Park is a very fine park, not only full of interesting birds but also full of exotic shrubs and trees, which thrive very well in the mild Californian coast climate. The birds I noted in this park were numerous Nuttall's Sparrows, which are brownish, with blue-grey heads and black stripes. On an artificial lake were a pair of *Erismatura*, of which the male had a black head and white face (*Erismatura jamaicensis*). When the birds had a sleep on the water I noticed that they put their heads on their backs and then lifted their tails from the water, sticking them up perpendicularly. When this position was assumed nothing could be seen of the white face of the male. Rather often seen in the lower bushes were pairs or families of pale-grey birds which reminded me of the European Long-tailed Tit

both in shape and behaviour but had no long tail (*Psaltriparus minimus*). I was told that they were resident in the park. I also saw a few Siskins, of which the males were yellowish-green, with black heads. On a small lake were several Coots with young, which were pearly-grey with dark necks and horn-coloured bills.

One of the great sights of San Francisco is that of the seal rocks, which are, or rather the rocky coast opposite is, easily reached by electric tram. Just opposite the rocks is Cliffhouse, a large restaurant, which, however, at the time of my visit, was closed, it not being able to exist on visitors that were only allowed to drink ice-water. A little to the right of Cliffhouse is, however, a small Japanese tea-house, and this is the best place imaginable from which to observe the rocks. The group consists chiefly of three large rocks, although there are some smaller ones. In the middle towers the largest rock, which forms a huge stone pyramid. On the north side is a smaller, more flattened rock, whilst on the south side there is a small one shaped much like the middle one, but not nearly so high.

The low flat rock is preferred by the Sea Lions, as it is the easiest one to get on to, but the others are also used when wind or high water make the flat rock undesirable. At the time of my visit there were about sixty Sea Lions on the rocks, and from the little tea-house it was quite amusing to watch their doings. The sea round the rocks was apparently full of fish, for every moment one of the animals would drop into the water and get up with a fish, which he would swallow with his head above the surface. These were Steller's Sea Lions, and the males attained a great size. This kind is not to be confused with the Sea Lions we see in captivity in Europe, specially as performing animals in the circus. Those belong to a smaller species which occurs from Golden Gate southward (*Zalophus californianus*), whilst Steller's Sea Lion extends northwards from Golden Gate.

The upper part of the central rocky pyramid was inhabited by a large colony of small black Cormorants (*Phalacrocorax brandti*), who, at the time of my visit, were nesting. The greater number of the nests had chicks in them, whilst others were apparently still incubating. The rock on the south side was generally covered by great numbers of blue Gulls with white heads and red bills (Heermann's Gulls), and also

by a few larger ones that were white with blue backs (*Larus occidentalis*). These Gulls had no nests on the rocks as far as I could make out.

If a Sea Lion after having caught a fish came above the water to swallow it, the Gulls would at once be near him, and if he was not very careful they would succeed in taking the fish from him. In this case he would dive again and in a few seconds be up again with another fish. On one occasion far away at sea towards the south-west I could see through my glasses a great cloud of small black sea birds, apparently Petrels, that were after some food or other on the surface of the sea.

On the Californian coast behind Cliffhouse there is a hill called "Sutroheights", after its owner. On the top is a country house, whilst the immediate vicinity has been planted as a park, and is open to the public during the day. Against the slope of this hill were numerous families of Californian Quails that took not the slightest notice of the crowd of automobiles and foot passengers on the road below. This Quail is quite a common bird in the parks of San Francisco, and as it is so confiding it is easily noticed.

In Golden Gate Park there is a small zoological collection. American bison were there, of course, and also some Wapiti, but the best thing I saw there was quite a large herd of rufus Kangaroos.

(To be continued.)

NOTES ON FIELD ORNITHOLOGY AND AVICULTURE IN TROPICAL AMERICA

By JEAN DELACOUR

I. MARTINIQUE

When one leaves Europe in the autumn, where all is becoming dull and grey, he has quite a shock when he sees the first West Indian Island, La Guadeloupe, the first landing-place since sailing from France. The beautiful bay of Pointe-à-Pitre, with its high mountains in the background, its low coral islets, covered, as well as the shore, with coco-nut palms and mangroves, is incredibly green, and the scenery is a perfect and lovely example of what one in Europe has dreamed of a tropical island.

Dominica, St. Lucia, and Martinique give the same delightful

impression. Everywhere the same picturesque hills, covered with tree ferns and other beautiful vegetation, rise high above the rich coast, between the blue, clear sea and sky. I only spent a short time in all these islands, but in Martinique, where I stayed two weeks in November, and two weeks again in April, thanks to the kind hospitality of the Governor, I could visit all points of interest in the island and become acquainted with what I think is one of the most charming spots in the world.

In the West Indies birds are not plentiful, but the fauna is very peculiar and interesting. These islands lost most of the larger forms of bird life soon after their discovery; the beautiful Macaws and Amazons have disappeared everywhere, except in Dominica, St. Lucia, and St. Vincent, sparsely populated colonies, where the fine Versicolor, Guildings, August, and Bouquet's Amazons still exist in small numbers. The smaller birds had held their own till recently, when the dreadful Mongoose was introduced to fight and destroy the poisonous Snakes, the terrific "Fer-de-Lance". The result has been the almost complete destruction of the ground-breeding and living birds. The Partridge-Pigeons (*Geotrygon*), several Troupials and Thrushes are now doomed to near extinction. There is no bird market in Martinique, and indigenous birds are very seldom kept in captivity. I saw in cages a few canaries, Parrots, and small birds from Cayenne or Venezuela. Nevertheless aviaries are not uncommon, and a few amateurs keep and breed very good foreign birds and even mammals.

The commonest bird of Martinique is the so-called "Blackbird" (Merle), who belongs to the genus *Quisqualus* and is really a relative of the Troupials. It is of the size of a Starling, and has rather similar habits. The males are glossy black; the females and young dark brown. These birds are found as well in the towns and villages as in the plantations; they avoid the wooded hills. A feature of these birds is their quaint and pretty call, which can hardly be termed a song, and their boat-shaped tail. They nest in colonies on trees, where they build huge nests of twigs. I brought home two pairs of Martinique *Quisquales* (*Quisqualus inflexirostris*); they now live in an outdoor aviary, where I hope to breed them. They are kept on the same lines as Starlings and Mynahs.

Another very common bird, in the gardens and the country, is the charming Quit or Sugar-bird (*Cœreba martinicana*), locally called "Sucrier". Each island and several parts of the South American Continent has a particular species of Quit. All of them are tiny birds with curved bills and short tails, black, white, yellow, and grey feathers. The Martinique Quit is almost entirely black, with yellow underparts, and, according to age, yellow or cream-white eyebrows; the base of the bill is red. They are easily caught, and live well on the usual mixture of Mellin's food, honey, and milk, and insectile food. They are rather delicate when first caught, and on the journey; they generally get very dirty and sluggish, but soon recover, and I have now eight of these active and bright little birds in perfect plumage. I landed nine, and lost half a dozen on the way to Europe. The three West Indian Humming-birds (*Sulampis jugularis*, *Sericotes holocericeus*, and *Bellona exilis*) are gorgeous and very abundant. As my late friend the Marquis de Siegur had brought the three species to France in 1914 I did not try to capture any, as I preferred to import Guiana Humming-birds. Two species of Seed-eaters are plentiful in Martinique—the Grey Finch (*Euethia bicolor*) called "Cici", and the Red-throated Finch (*Loxigilla noctis*). Both are easy to catch, but difficult to keep at first. I landed only one male Cici, a very small grey bird, with almost black head and breast, and five Red-throated Finches, one adult male and four young ones. These latter are grey and resemble in shape a Bullfinch, with a smaller head and beak; the male is jet-black, with red throat and eyebrows; it is a very handsome bird. There is in Martinique a very nice song-bird of the Tyrant family (*Elainea martinicana*) called the "Siffleur", a plain grey bird with a crest, most charming in shape and character. Several young ones were brought to me, but only one survived; it unfortunately died in a fit one month after its arrival in France. A Grey Thrush (*Cichlherminia herminieri*) also died soon after it reached Europe. As a consequence of the cold weather my birds had to suffer on the journey from Havre to Cleres.

My collection of live Martinique birds was completed by a pair of Passerine Doves (*Columbula passerina*) and nine Martinique Doves (*Zenaida martinicana*), a fine Pigeon, of a rich rufous colour, varied

with black marks and brilliant violet reflections on the next, very similar to the well-known *Zenaida auriculata*.

A very interesting fact, so far never recorded in any work on ornithology, is the migration through Martinique of the Guiana Parrotlet (*Psittacula passerina*). These little birds arrive from the north in February and March as a rule, and remain three to four weeks in the island. I was fortunate enough to see several flocks of them and to bring home a pair caught near Fort-de-France. They are typical *P. passerina*. On my knowledge no author has ever reported the presence of this Parrotlet in the Northern West Indies, and it is to be hoped that further observations may be made.

There are in Martinique many other interesting birds that one would be glad to have in aviaries, but owing to their scarcity I would not capture them. As an instance, let me mention some charming hours I spent one afternoon in a wood of giant tree ferns on the slope of the "Montagne Pelie". One remembers that twenty years ago this awful volcano destroyed the city of St. Pierre and its suburbs, causing in three seconds the death of all the 40,000 inhabitants. Now everything is quiet again, and the tree ferns which have grown since the eruption are some 30 feet high, so rich is the vegetation in the West Indies. A family of birds inhabited the Tree fern wood: a pair and three young Clarinos (*Myiodesetes genibarbis*), or "Siffleurs de Montagne". The Martinique species is, I believe, superior to all others in beauty and song. This graceful bird, of the size of a Sparrow, with its delicate short bill and long legs, is truly delightful; its elegant and simple dress reminds one very much of that of a *Cossypha caffra*, an harmonious mixture of pearl-grey, orange, buff, and black. These birds only live on the hills, above an altitude of 1,000 feet. The five Clarinos were sitting in the shade, sometimes flying to catch an insect, the only other feathered inhabitants of the wood being gorgeous garnet-throated Humming-birds. It was a wonderful sight, these handsome birds in the stately tree ferns; but more beautiful still was their concert, The male was singing all the time, and the young ones joining him now and then; I had never heard before such a melodious and pure voice. Its own song is most varied, but the Clarino still mimics perfectly human whistling; I tried Arpeges and other tunes, which he answered

perfectly at once. The memory of the time I spent with these lovely birds, which were fearlessly flying and roosting around me, is the best souvenir I brought back from the West Indies.

(*To be continued.*)

ON A QUEER FRIENDSHIP

By E. MAUD KNOBEL

I was much interested in Miss Whitlaw's remarks on "queer friendships" amongst birds in her article in the May number of the Magazine, and à propos of that I saw a strange episode of this kind at the Canal aviary at the zoo the other day. I went to look at the Leadbeater Cockatoo that was born in the Society's Gardens last year and who has recently been turned out into the open-air aviary. There he was sitting on the top of a perch, preening himself in the sun. As I looked, suddenly a little Quaker Parrakeet, of the smaller variety, flew across the aviary and made straight for the Leadbeater, settling down beside him and immediately starting to pluck his breast. I expected to see the Cockatoo resent this liberty and take the Parrakeet by the scruff of his neck and fling him away, but not a bit of it; the Leadbeater began to gently comb the top of the Quaker's head, and then, as if some instinct told him the little Parrakeet needed warmth and protection, he opened one of his beautiful wings and put it entirely round the little bird, completely covering him, so that nothing could be seen but the green tail coming out at the back. There I left them, but visited them again the next day, when the same thing happened, and I thought it was one of the prettiest sights I had seen in bird life. A week later I saw them again, but things had changed; I don't know what had happened, but they were both asleep at opposite ends of the aviary, and when I spoke to them the little Quaker came to the bars to me to be petted instead of going to the Cockatoo.

I may add that the Leadbeater is the only specimen of his kind in the aviary, and there are three Quakers, but two are of the larger kind and are very much taken up with each other, so I suppose these two felt rather left out in the cold and thought they would console each other.

INJURED LEGS IN BIRDS

By FREDERICK D. WELCH.

Some people hold the opinion that injuries to legs of birds occur only when in captivity. This is an erroneous view, because two wild birds have, to my knowledge, injured themselves (not counting immature Rooks falling from nests).

The first of these was an immature Green Woodpecker, which fell out of a large forest tree near here on a windy day in 1918. Presumably it was on the edge of the nest-hole and a gust of wind made its foothold unsteady, for it fell to the ground when an acquaintance of mine was passing, and when brought to me had a compound fracture in one foot. The other case occurred in our garden in spring of 1921. Two Hedge Accentors had a series of quarrels, extending over some days—presumably two males quarrelling about a female in mating—several of which took place on some wire netting round a fowl-run. Exactly what occurred I cannot say, because it is impossible to keep wild birds under observation every minute of every day; but one of them got its leg damaged, very severely sprained even if not a fractured bone, and was hobbling about on one leg only for two and a half weeks. Probably it got the injured limb twisted owing to being caught in the network somehow. The Woodpecker died twenty-four hours later; the Accentor probably recovered, as it was *not found dead*. Two fractures in foreign birds have both been in long-legged species, which would seem to be more likely to be injured as result of slipping during running than shorter-legged birds.

Of these, the case of the red-legged Cariama, which fractured its leg on the ship voyage from Brazil, has been already mentioned by Mr. Pocock (*Avicultural Magazine*, 1920, p. 191); but it seems worth adding that the fracture healed well. When last seen by me in August, 1921, the bird had quite lost the limp which was markedly noticed up to January previously; and the only evidence of former injury as it stood near its larger male companion was the thickened mass of new bone around the ends of the fractured bones a few inches above the toes. In that month it ran, to my knowledge, without difficulty. This result does *very great credit* to those who attended to the after-treatment in

the Gardens, because care is required in these rapid runners to prevent the bird getting over excited, and so avoid any risk of refracture in future months through the original break in the bones. Had the bird slipped and fallen in the months following the injury through trying to run (as it did in January previous to my knowledge), it is highly probable a refracture would have occurred; and had such an unfortunate thing happened it would be unlikely that the fractured ends of bone would unite a second time. This case proves convincingly what can be done to lengthen the life of a long-legged bird by attending to the fracture scientifically with splints, and also careful after-treatment; and if any future accidents occur in birds the *Cariama* case shows the *desirability of not killing the bird*, as was done in the case of the other, a Rhea of South America, which broke its leg when running in an enclosure. Both these latter were quite healthy birds. It would therefore seem that if a long-legged bird falls with its leg doubled under it in certain positions, comparatively little force is sufficient to snap the bone.

[The question as to whether it is advisable to attempt to set a fractured limb by means of splints and bandages depends entirely upon the nature and position of the fracture. In some cases a satisfactory repair is impossible, and the bird has to be destroyed.—EDS.]

STRAY NOTES

Dr. Hopkinson is on his way home from Gambia, and will probably have arrived by the time this is published. He is bringing home a collection of birds, amongst which are Cordon Bleus, Firefinches (Common and Spotted), Grey Waxbills, Combassous, *Hyphantornis* and other Weavers, Yellow-backed Whydahs, Broad-tailed Babblers, etc. He writes that he will be willing to sell some of these for the benefit of the Avicultural Society, after paying the ship and rail charges, which in these days are very heavy. He says he would prefer that they should go to where there is a chance of their breeding, and that he will not undersell the dealers.

HUMMING-BIRDS.—Amongst other rare birds brought to Europe by Mons. Delacour were some Humming-birds, and of these he brought

two to London, but unfortunately his arrival coincided with the change from warm to cool weather. They were placed for one day in cages in the Bird House at the Zoological Gardens, but one which had frayed wings and could not fly, died. The other, which was for Mr. Astley, was temporarily taken charge of by the Hon. Mrs. Bourke, who, by dint of unremitting care and attention, kept it alive until Bailey, the Zoo keeper, was able to conduct it personally to Brinsop Court.

Some idea of the difficulty in keeping Humming-birds can be gathered from extracts from a letter from Mrs. Bourke: "You will be glad to hear the Humming-bird is very well. I got it safely home, with a temperature of 75° all the way, as it was hot and the sun out just the half-hour we were in the train. I packed the cage with two small hot-water bottles, covered it in brown paper, and left an end loose which I raised in the train, so it fed all the way. . . . I heated some water and put it in the milk tin and held it in front of the bird, and you should have seen its delight in bathing and splashing like a big bird, and then preening itself. All this was at midnight and the cage at a temperature of 85°. . . . I am keeping it now at a temperature of 75°, as it seems to have quite recovered its breathing and only pants if one has to handle it to get it up on to its perch. . . . I find this one much worse than a baby, as anyhow that *sometimes* sleeps, but this never seems to."

So far I hear this little bird is still alive and doing well at Brinsop Court, and Mr. Astley will, I hope, tell us how he has provided the necessary temperature without which these mites succumb like flies. They are delightful birds in captivity, providing one has the facilities for keeping them in a uniform temperature of from 75° to 80° Fahr., powerful electric light to take the place of sunlight when this is absent, and an attendant whose whole time is devoted to them!

The species of Humming-birds above mentioned was *Thalurania furcata*, from Guiana, known as the Cayenne Wood Nymph. There are many genera and species of Humming-birds, some of which occur at considerable elevations and comparatively northern latitudes, and some should therefore be far less susceptible to changes of temperature than others.

BREEDING GOLDEN-EYE DUCKS.—Mr. Blaauw writes: "I have a

brood of four young Golden-eyes nearly three weeks old and growing as fast as can be."

CHAPMANS OF BIRMINGHAM.—Mr. Chapman, of the well-known firm of Chapmans, 92 High Street, Birmingham, tells me that he is opening a business in London at 17 Tottenham Court Road. He has just received a fine collection of Australian birds, including Gouldians, Crimson, Diamond, Masked, Long-tailed, Bicheno, and Rufous-tailed Finches, Pennants, and King Parrakeets and Lead-beater Cockatoos. He has another large consignment of Australian Parrots on the way, and also a collection of Brazilian birds.

D. SETH-SMITH.

MEETING OF THE COUNCIL

RESIGNATION OF THE HONORARY SECRETARY AND TREASURER

At a meeting of the Council held on 14th June in the Offices of the Zoological Society of London, a letter was read from Mr. J. L. Bonhote regretfully announcing the necessity, owing to ill-health, of his resignation of the offices of Honorary Secretary and Treasurer of the Society.

Miss Knobel's offer to undertake the duties, at all events until the end of the year, was gratefully and unanimously accepted by the Council. The chairman moved that a vote of thanks be passed, expressing the great appreciation of the Council for Mr. Bonhote's valuable services to the Avicultural Society and their sincere sympathy for his illness and deep regret at his unavoidable resignation of the double office he had so competently filled. This, having been seconded, was unanimously passed.

A NEW FEATURE IN THE MAGAZINE

Monsieur Delacour and Major Pam jointly proposed that the Society should undertake to publish in the Magazine a monthly series of illustrated articles on Aviculture to begin as soon as possible and extend over a period of three or four years; the general scheme of the proposal being as follows:—

(1) That the articles should be published simultaneously in the

Avicultural Magazine and *L'Oiseau*, the organ of La Société National d'Acclimatation de France.

(2) That each article should be illustrated by one or more plates or text-figures, to be executed in Paris under the supervision of Mons. Delacour.

(3) That a special fund should be raised by private subscription to defray the cost of the illustrations estimated at about £70 per annum.

(4) That the articles, dealing with the principal species of birds kept in captivity, should be written by members of the Society possessing special knowledge of the different groups.

(5) That when completed the articles should be issued in volume form and sold through the usual channels.

After discussion the proposal was unanimously agreed to in principle, and a sub-committee of the Council, consisting of Major Pam, Monsieur Delacour, Mr. Meade-Waldo, the Editors, and Secretary, was appointed to arrange the details and report to the Council at a subsequent date.

REVIEW

IN NATURE'S GARDEN. By C. H. DONALD, F.Z.S. London: John Lane, the Bodley Head, 1922. Price 7s. 6d. net.

Before receiving a copy of this book for review we published in the *Avicultural Magazine* for June an account of some of the author's observations upon the habits of Eagles, feeling sure that they would interest our readers. What we then said was almost sufficient recommendation of the volume; but no attempt was made to give an idea of its scope and contents. It consists in reality of a series of chapters telling the experiences of a naturalist and sportsman after Deer, Bears, Bharal, Thar, Panthers, and other big game in the Himalayas. One chapter is devoted entirely to the habits and behaviour of that quaint Indian bird, the Sarus Crane. Mr. Donald has a great sense of humour; and this gift pervades the book, making it exceedingly pleasant reading. He also writes well in other ways, and some of his accounts of the animals are presented in the style with which Thompson Seton has made us familiar. The volume, which is illustrated with many photographs, principally of mountain

scenery, is well printed and artistically bound, like all the books issued by the Bodley Head. We most cordially recommend it to our readers interested in Indian natural history.

INFORMATION WANTED *RE* BREEDING FOREIGN BIRDS AT LIBERTY

The Marquess of Tavistock, Warblington House, Havant, Hants, asks us to announce that he proposes trying to compile a list of foreign birds that have been bred at liberty in this country and reared to maturity by their parents, the latter being both full winged. He would be most grateful for any information on the subject. Since comparatively few aviculturists have facilities for breeding birds under such conditions, the records cannot be very numerous; and since such a list as that contemplated would be useful and interesting to us all, we venture to hope that our readers will help Lord Tavistock in every possible way by supplying him with details as to species, place, date, and name of breeder.

CORRESPONDENCE AN INTELLIGENT ROOK

SIRS,—Some time back I wrote you an account of my tame Rook, who has been my companion now for over ten years. A fortnight ago an incident occurred which I think is of general interest. I was ill and in pain; this presented me in quite a new light to the little lady; she was very puzzled, came on my shoulder, looked very intently at me; then an idea struck her; she flew off, filled her beak with some rice from her saucer, and then proceeded to feed me as they do their young, pushing it between my lips and teeth on to my tongue, repeating the process three or four times. This was continued some days till I went away for a holiday. She has not considered it necessary since my return. I may add that this was done in the presence of witnesses. I should like to know if any one has had a like experience in modern times; it very much recalls a weary, depressed prophet and ravens in ancient history.

(REV.) MENZIES LAMBRICK.

BLAGDON RECTORY, BRISTOL.

GRIP OF A NEW-WORLD EAGLE

SIRS,—It may be of interest to mention that while touring the Zoological Gardens some years ago—about 1909—one of the keepers told me that one of the staff had had a “ Harpy Eagle sit on his arm ! ” when it was being removed from its travelling compartment into the permanent cage in the Gardens.

As I knew him by sight I tried to find him to hear what it felt like, but could not that day. Eight days after this I met him, and pulling up his sleeve he showed his forearm ; also a description of the event was given me. There was *no need to ask* where the bird had gripped him, because the positions where its toes had gripped were *at once seen by the black bruise marks all along the course of the toes*. It surprised me. It was clear on looking at that arm—a strong muscular one—so bruised that the grip of this South American bird must be *terrifically strong* when both feet are brought into action, and their whole strength applied. The exact date I cannot give, but am of opinion the bird referred to was the Harpy Eagle (*Thrasaëtus harpyia*) mentioned on p. 55 of the report of the Council of Zoological Society for 1909 as presented by our member, Captain A. Pam, on 11th August of that year in a collection from Venezuela.

FREDERICK D. WELCH, M.R.C.S.

9th June, 1922.

CANDIDATE FOR ELECTION.

Mr. F. W. S. MAYER, Wulfruna, Concord Road, Homebush, N.S.W. Proposed by
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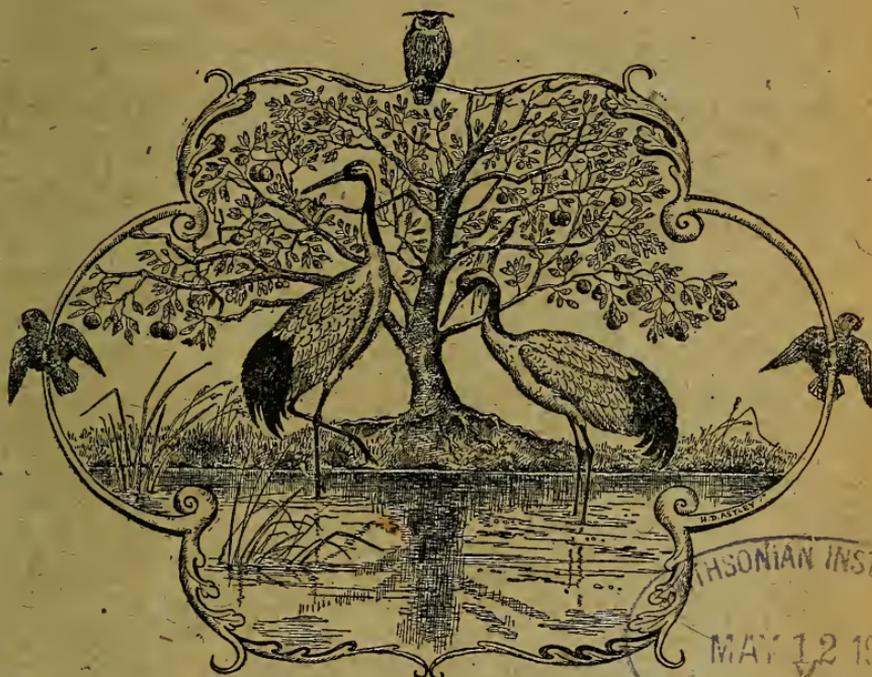
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VOL. XIII. NO. 8.

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AUGUST,
1922.

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THE AVICULTURAL SOCIETY.

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IN FREEDOM & CAPTIVITY

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AUGUST, 1922.

NOTES OF A BIRD-LOVER IN VENEZUELA

By J. DELACOUR

Since leaving Martinique, two days ago, the heat has been unbearable, and this morning the mountainous coast of Venezuela is at last visible. The port of La Guara, where we land, is scorching hot, and we leave it with all possible speed in order to cross the mountains which separate it from Caracas. The precipitous sides of our undulating road are of red rock, and are covered with a sparse, often prickly vegetation, consisting mainly of cacti.

Caracas, a Spanish type of town, is situated in a high valley (900 m.), surrounded with mostly bare mountains, only the ravines being wooded. The object of my journey, however, is to see birds. In the town itself there are some "Qu'est-ce qu'il dit", as *Pitangus rufipennis* is called in the Antilles and the Guianas. They are to be found on the roofs of houses, and on telegraph wires, and make a deafening din. They amuse me, but I know they will become maddening. Further on the squares resound with the cries of the blue and black Tanagers, which are to be seen flying to and fro. In the middle of the town, situated on a hill, is a public garden called Le Calvario, and there all kinds of birds abound. Tanagers and Tyrants are to be seen in company with various species of Finch, Boutons d'or, Thrushes and Humming Birds being especially abundant. In the Calvario there are a few cages in which local mammals are exhibited: Jaguars, Pumas, Agoutis, Peccaries, etc. There are also some captive Crocodiles and a few birds, the Macaws, Guans, Curassows (Daubenton's and Razor-bills), and a Caurale Soleil (?)

attracting special attention. In the vicinity of a small pond are some large Egret.

Vast coffee and sugar-cane plantations are situated in the valley in the neighbourhood of the town. In the coffee plantations are some very large trees, chiefly the evergreen *Erythrina*, which harbours many birds—Hang-nests, Trogons, Tyrants, Tanagers, Quit-quits, and on the paths which border the plantations may be seen Anis, Mocking Birds, Troupials, Sugar Birds, and Humming Birds.

On ascending the neighbouring hills we find many kinds of Humming Birds (*Phactornis*, *Saucerottea*, *Chlorostebin*, *Agyrtia*), yellow and red Tarnis (?), and Tanagers in great abundance. From the trees re-echo the blows of the small Woodpecker, whilst a few Cardinals are to be observed flying to and fro. It is, however, to the wooded ravines, where there is always water in the form of small streams, that one has to go if one wants to observe the beautiful *Calliste* and other sumptuous Tanagers, the Sugar Birds and the Quit-quits, a fact well known to the bird-catchers of Caraeas, for it is there that they set their snares. I take one of these bird-eatchers into my service, and reap a rich and interesting harvest. *Calliste arthuri*, *C. cyanoptera*, *C. atricapilla*, *C. guttata*, *C. cyanescens*, Violet Tanagers, Sugar Birds with blue heads, and a magnificent *Tanagra olivicyanea* are caught as a result of our efforts with lime twigs and traps.

In spite of the splendour of their plumage, these beautiful birds, with their brilliant yellow, blue, and green colours, are rather hard to see when in the branches, where they incessantly pursue one another, uttering shrill cries. But what a feast for the eyes, and what excitement when one sees them fly down, approach the trap, and get caught. In these wooded localities one comes across other, less showy birds, as, for example, Cuckoos, *Dendrocolaptes*, and Ant Birds. Now and again some rapacious bird, a Caracara or Chima-chima, flies by, but as a rule without doing any harm. Everywhere horrible black Vultures are to be observed soaring about with astounding ease.

The town of Caraeas itself is full of interest for the ornithologist. Cages are suspended in front of many windows and shops. If we expect to spot rarities we are doomed to disappointment, as the majority only contain Canaries. A few, however, may sometimes contain Mocking

Birds (*Mimus gilvus*), Red Tanagers, Hooded Siskins, Yellow Tanagers (*S. chrysogaster*), and Canary hybrids, which are very numerous and very popular, some exceptionally coloured varieties fetching very high prices. Yellow-backed Cassiques (*Cassicus persicus*) are also to be seen kept in small cages; they are often quite tame, and are very entertaining as they imitate all the noises they hear. Troupials (*Icterus icterus* and *I. chrysocephalus*) are other song-birds in cages that one may come across, the latter being obtained at a great cost from the Orinoco district. Other Venezuelan species are not kept in captivity.

At the Caracas market there is a very charming section where flowers and birds are sold, one side of the market hall being reserved for the former, the other side for the latter. In elegant cages of fine workmanship, constructed of slender fibre, Canaries, Parrakeets (*Conurus* and *Psittacula*), Tarnis (?), Cardinals, Troupials, Sugar Birds, Quit-quits, and Tanagers are offered for sale. There are seldom any other kinds of birds. The most popular are the Troupials and seed-eaters, which fetch from 30 to 80 francs each. Although birds can be purchased in the market on any day in the week, the finest selection is on sale on Sunday mornings. At Maracay, situated at a distance of 200 kilometres west of Caracas, near the great Lake of Valencia, is the official residence of General Gomy, the President of the Republic. The President is the owner of a kind of farm, and being an enthusiastic naturalist he has transformed it into a zoological garden. The animals he keeps there in small but well-kept cages include a five-metre-long Crocodile, a Tapir, Jaguars, Pumas, a pair of African Lions, Monkeys, including an Albino Capuchin Monkey, and various other local creatures. A large enclosure, through which runs a stream, is inhabited by hundreds of great and small Egrets, mostly with full wings. Mixed with them are a few old and discoloured Water-fowl. I also note an Orinoco Goose, a beautiful sight in its pearl-grey, black, and reddish-brown livery, with its carmine beak and feet. How I should like to bring some of these back to Europe.¹ Some small and uncomfortable looking aviaries contain Toucans, Colins, and a few small birds. At liberty are to be observed all kinds of game birds, and midst this crowd are a number of

¹ I managed to bring back three Orinoco Geese from the region of Apun. They are, at the time of writing, at Clères, in perfect condition.

hybrids between Chickens and Guinea-fowls, and some Curassows, of which two species—*Pauxis pauxi* and *Mitua tomentosa*—are of special interest.

Perched on fenees are some Guans, *Penelope montagnii*, and *Ortalis ruficauda*, and a few Red Ibis. I have, however, left to the last the gem of the whole collection—a magnificent pair of Kamiehis (?), which with full wings are at perfect liberty. As we approach the male is on the ground. He does not move, but makes his hostility to us apparent by his behaviour and deafening cries. The female, perched on the top of a young tree, answers his call by a more subdued cry, and proceeds to fly heavily round and round. It is impossible to get tired of watching these handsome birds. I notice that their frontal horns, which measure more than 10 centimetres, are thin, flat, white, and resemble a slender whale-bone.

On the shores of the Lake of Valencia, among the reeds, a few Manassius (?), some Fly-eaters, *Fluvicola pica*, and numerous Marsh-birds are to be seen. Jaenas are also to be observed gracefully flying to and fro. Everywhere, running about on the roads, we come across numbers of Sealy Ground Doves (*Scardafella ridgwayi*), Passerine and Talpacoti Doves (*Columbina griseola* and *C. talpacoti*). The bushes in this part of Venezuela are full of birds—various kinds of Tanagers, Troupials, Tyrants, of which the magnificent “Bull-blood” (*Pyrocephalus saturatus*) is of brilliant scarlet. On the farms Hang-nests abound, and all the trees harbour enormous nests made of twigs, the work of the very common Grey Ant-eater; finally the houses are treated to the beautiful song of the Agile Wren (*Troglodytes clarus*).

The ornithological fauna of the neighbourhood of Valencia, Puerta Cabella, etc., does not differ to any extent from that of Caracas.

(To be continued.)

SOME CROWS

By FREDERICK D. WELCH

The early experiences of people have, I suppose, some part in framing their likings in after years when they are growing up into manhood or womanhood. Be that as it may, some of the birds which were introduced the earliest into my life in childhood were Crows; and it turned

out that in later years any bird called a Crow or at all resembling the outward appearance of a Crow had greater attractions for me than various other sorts of birds whose plumage was more bright and varied.

The birds above referred to were some four or five individuals of the Indian Crow which used regularly to frequent the garden and compound of the house at Bangalore, Southern India, where I first saw the light of day. They not only came quite close to the outside of the building (much as a European Robin does), but soon became so tame and impudent that they walked without hesitation into the rooms. I took great delight in attracting them inside by holding out bits of meat and other food, and they soon began to live a sort of semi-domesticated existence at the house, being also welcomed by the native nurses employed by my parents. But, on the other hand, they were almost always exiled for the time being when my father returned home from his duties—sometimes after a book or other suitable missile had been sent rapidly at them—because they soon became by no means shy or nervous at helping themselves to food on the table! The more unruly they became, the more I liked them!

What specially amused me was to see them peck holes in tablets of soap with their strong beaks! But this did not exactly improve it for washing purposes, especially if some food remains had been previously on the Crow's beak; and the outcome of these incursions into the house was that this early attempt at aviculture was not exactly encouraged by my parents—much to my sorrow! Finally an arrangement was made between me and my parents that the birds should only be admitted for a short time each day—which seemed to me as a child better than total banishment of my feathered friends.

Coming now into recent years, there was one of these birds in the Western Aviary of the London Gardens in January, 1921, which I noticed when introducing a lady friend to some of the birds there; and it created the impression in my mind that it would soon get as tame with persons who interested themselves in it as did the ones referred to in the opening lines of this account.

If any member wants a pet, why not try an Indian Crow?

This bird, known as *Corvus splendens* scientifically, shows some resemblance in colour of plumage to the Jackdaw, being a mixture

of black and grey, with dark iris, black beak and legs. It has, so far as I know, a general distribution over all India from Cape Comorin to the lower ranges of the Himalaya Mountains, where it comes into conflict at times with the Lammergeier or Bearded Vulture (*Gypaetus barbatus*), arising out of disputes over food; but as the Vulture is a large bird of about 42 inches long, it presumably does not trouble itself overmuch when chivvied by irritable and angry Crows!

I cannot say offhand at the moment whether the Indian Crow is as great a pilferer of the eggs of other birds as is the Grey Crow (*Corvus cornix*) and Carrion Crow (*C. corone*) of Europe; but I have been told it will pick up a golf ball in its toes and fly away with it, which action suggests it would not hesitate to take any bird's egg it might find. If so, in captivity it should be kept alone and away from any other birds which are nesting—for the welfare of the nesting birds. The voice is much like "kerr, kerr!" and is to my mind a pleasanter sound than that of Rooks. It may not be out of place to remark here that these latter will also carry off a fowl's egg in their toes if they find any laid astray in field or hedge in similar way to Crows. This action I have seen *done by Rooks* several times.

Several years ago there was a Crow from Persia in the London Gardens labelled Chaplain Crow, *Corvus capellanus*, which was, so far as I remember, an all-black species. Can any member tell anything about these?

While admitting that my friend of early childhood is a nice-looking Crow, I cannot agree completely with Mr. Frank Finn's remarks in his book, *The Birds of Calcutta*, when he compares this Oriental bird with others of the tribe, and claims *Corvus splendens* as the "sleekest, glossiest, and best got-up fellow of the lot," p. 1.

What about the West African bird, known as *Corvus scapularis*, or the White-necked Crow? The contrast of its white breast and collar, with the black of the rest of plumage and black beak and legs makes it, in my humble opinion, a handsomer bird than the Indian. A picture of it may be seen in the *Royal Natural History*, vol. iii, p. 310; and the iris was brown in living birds seen by me.

Whether it will get as tame and impudent as the Indian bird I cannot say—but perhaps Dr. Hopkinson can inform about its doings

from his experiences in Gambian region? Perhaps he could say also whether white varieties (all plumage) are at all common in the species—analagous to varieties in our native Rook?

When looking at individuals of this pied Crow in captivity, the white afore-mentioned, which is normal, seemed to me to suggest the possibility that the black parts would be more likely to freak into abnormal white in occasional individuals (thereby producing an all-white bird) than would the plumage of one or other of the Crow tribe which was all-black in its normal condition. Any information about its habits would be of interest, it seems to me.

Reference to the "true Crows" above-mentioned, with their stout bills, recalls to my mind an amusing affair with a friend of mine, which happened in 1903. Being informed that my friend had "bought a Chough Crow", I expected to see one of the birds not far removed scientifically from true Crows, and known as Red-billed Chough (*Graculus eremita*)—also sometimes called the Red-legged Crow, as, for instance, by Jardine in 1827, when he visited the Isle of Man, where these birds were very abundant—a bird with comparatively slender beak. However, when my friend and I reached the shop to bring the "Chough Crow" away, I saw at once that it was a Jackdaw!

My friend had paid the money and seemed delighted with the bird, which was very tame, and the old shopkeeper seemed *genuinely ignorant* as to differences between Chough and Jackdaw, and so it seemed to me best to leave them alone after remarking: "Why, it is exactly like the Jackdaw I kept at Devonport, which came down the chimney as a young one!" Still, they both regarded "Jack" as a Chough; and so the bird was termed on the receipted bill, and we brought it away. All tea-time we argued about the delightful pet, but my friend would stick to her "Chough", and so we agreed good-naturedly to differ about its name; and to bridge over the disputed point, I suggested the name of "Jack Chough" for the pet (what its sex was seemed immaterial!), and so it got called.

Some months later my friend told me she had been in the Natural History Museum, South Kensington, and arrived at the conclusion that "Jack Chough" was really a Jackdaw even though purchased as a Chough.

A HUMMING BIRD

By H. D. ASTLEY

I greatly regret to record that my Humming Bird, of which an account is given in the July Magazine, p. 108, died at the end of that month. I had been away from home for three weeks, and on my return I saw that the little bird was not looking as healthy as when I left him, but my bird-keeper had looked after him well, and was exceedingly anxious to keep him going.

His cage was hung in a lavatory where hot-water pipes run up inside the wall, and in addition to this a carbon electric light bulb was kept burning, so that the temperature was usually 75 degrees or a bit over. At night the cage was covered over, and his food was given fresh every morning and afternoon. The carbon light gives out a great deal more heat than the ordinary wire.

The Humming Bird had several twigs of fusehia to perch upon, raised an inch from the tray, which was covered with blotting-paper. The little bird seemed to digest his food well, and used to enjoy dipping into a tin of tepid water, but he could not fly, and although he had moulted a lot of minute body-feathers, he had not dropped any primary wing feathers, which were merely shafts, the webbing having worn off on the long voyage from Venezuela through the feathers becoming soiled with the honeyed food; and perhaps the fact of his being deprived of the power of flight was his undoing.

The little bird was what would be called in good condition, the tiny body quite plump, but his breathing never seemed quite right, and I can only suppose that the internal organs were adversely affected through lack of exercise. I was sorely disappointed, for after keeping him a few weeks I had every hope of doing so for a few years! I shall ever be grateful to Monsieur Delacour for giving me such a treasure, and to Mrs. Bourke for her kindness and ability in saving his life when he was almost gone. I do not think that Humming Birds in good health and able to buzz about would need a temperature above 70 degrees.

They are undoubtedly most intelligent, and when my small mite was on the floor of the cage and found any difficulty in perching, he soon seemed to understand when I held a twig in front of him, and would "climb" on to it, permitting me to convey him to a fixed one in the

age. In colour the body was rich dark purple-blue, with a brilliant throat of scintillating green ; the wings and tail black, the latter forked.

It is hateful and horrible to lose such a rarity, whose like one may never see again. When I looked at the tiny body I could not but sigh and say : “ Why was he ever taken from his Venezuelan forest home ? ”

MORE ABOUT HUMMING BIRDS

Professor A. A. Allen, of Cornell University, recently published in *Scribner's Magazine* an instructive and entertaining account of the nesting of Humming Birds. An epitome of this may perhaps interest members of the Society, and form a fitting sequel to Mr. Astley's article.¹

By good fortune, it appears, a female of one of these feathered jewels elected to nest in a pear-tree in a back yard in America, the choice of site affording the opportunity to keep her and her doings under observation. During the days of courtship the male was much in evidence, rocketing back and forth, with throat ablaze and wings humming before the female demurely perched on some dead twig. But with the laying of the first egg, his interest in the proceedings ceased, and off he went to a bachelor life, leaving to the female the sole charge of the family. The making of the entire nest was also left to the energies of the prospective mother. The nest, made of cotton and coated outside with bits of bark and lichen to make it look like a mere excrescence on the branch to which it was fastened by means of cobwebs, was no bigger than a walnut. Two tiny white eggs were laid in it on consecutive days soon after it was finished. She tended them assiduously, turning them with her probe-like bill, and only leaving them for short periods to catch the insects necessary for her own sustenance. She was absolutely without fear of human beings, and would allow anyone to stroke her as she sat or remove her from the nest, even perching confidently and without resentment upon the finger of the hand that disturbed her. The period of incubation was exactly fifteen days for each egg ; and the naked atoms that emerged, no larger

¹ This account is taken from *The Literary Digest*, 8th April, 1922, for which the Editors are indebted to Mr. Astley.

than honey-bees, had short, stubby bills, quite unlike those of their parents. She fed them from her own crop on nectar and the tiny insects it contained, at first inserting the food into their mouths by means of her tongue, but later on thrusting her bill down their throats and injecting them with the fluid drop by drop by means of a kind of pumping action. Their crops, when distended, were nearly as large as their heads, and the skin was so tightly stretched as to become sufficiently transparent to show the insects still alive and kicking in the nectar. In less than a week there was a noticeable difference in the length of their bills, and feathers began to appear on their backs. During the second week they became fully feathered, and before the end of the third they had outgrown the nest and flattened it out of shape. Three weeks after the first egg hatched, the larger of the two nestlings, who had been trying his wings for several days, rose into the air, and mounting up and up ultimately settled on a twig near the top of the tree. The mother was away food-hunting at the time; but on her return she did not evince the least anxiety or dismay at the absence of one of the twins. After feeding the one that had stayed at home, she uttered a few squeaks, and in response to the answering squeaks of the fledgling up aloft, flew straight to him, perched alongside, and proceeded to stuff him with nectar as she had previously done. The next day the second nestling similarly took wing, but not having sufficient strength to ascend to the lofty position taken up by the first, flew across the yard and ultimately settled on a tiny twig. There he remained until later in the day, when he made a fresh effort, and aided by his increased strength succeeded in joining his companion in the top of the pear-tree. With this record of the first days of their life out of the nest the story closes.

R. I. P.

STRAY NOTES

Mr. Chapman's newly opened bird-shop at 17 Tottenham Court Road, is a model of what such shops should be. Each of the three floors is large, airy, and clean and the walls lined with cages that give the occupants plenty of room. When I called, although the shop had

only been opened a few days and things were not quite in order, so Mr. Chapman told me, I noticed that every cage was clean and there was none of that musty smell that is generally present in bird-shops. Mr. Chapman also had a splendid show of birds. Amazons of many species, including the White-browed and Red-browed, a pair of the rare Yellow-thighed Caiques, nearly a hundred Bauer's Parrakeets, Pennants, and Cockatiels. There were two pairs of the rare Montezuma Quail, and other rare Mexican birds of which the Zoological Society secured a Wagler's Hangnest and a Chestnut-capped Buarremon. There was also a large stock of Australian Finches and Budgerigars.

WATERFOWL AT DEREHAM.—Mr. Wormold has done well with his waterfowl this season, and writes that he has reared about three hundred ducklings. His greatest triumph has been the hatching of two strong Canvas-backed Ducks from eggs sent from Canada in a sealed-up tin box!

THE ORNATE TANAGER.—The Duchess of Wellington is to be heartily congratulated upon breeding in her aviaries at Ewhurst Park the beautiful Blue Tanager, *Tanagra ornata*. I hear that the young birds are out of the nest and feeding themselves, and their parents are building a second nest. There has been a good deal of confusion over the English names of the Tanagers of the genus *Tanagra*. *T. ornata* has been called the "Archbishop Tanager", a name that should be confined to *T. episcopus*. The best name for *T. ornata* would surely be "Ornate Tanager". It is easily distinguished from most of its allies by the yellow edges to the lesser wing-coverts.

LEADBEATER'S COCKATOOS.—For the second year in succession the pair of Leadbeater's Cockatoos in the outside aviary at the Parrot House at the Zoological Gardens have reared two young birds, which left the nest when from four to five weeks old, when they appeared to be nearly as large as their parents. Of all the Cockatoos the Leadbeater is the easiest to breed in captivity, besides being the most handsome.

SACRED IBISES.—In the Great Aviary the Sacred Ibises have again bred, rearing two young birds as they did last year, but, whereas on the last occasion the two young were hatched in the same nest, this year there were two nests, the two pairs of birds building side-by-side,

within a foot or two of one another. In each case two eggs were laid, though only one hatched.

BIRDS OF PARADISE ON LITTLE TOBAGO

It is, I understand, a fact that Sir William Ingram has sold the island of Little Tobago (West Indies) to Mr. A. Luban, of Newark, New Jersey, who is very interested in the Lesser Birds of Paradise, which Sir William imported several years ago from New Guinea.

It is reported that Mr. Luban has an idea of building a huge aviary on the island, where some of the birds could be confined for the purpose of studying their habits. During the last five or six years the birds have increased largely in numbers, which greatly reduces their chances of extermination. A number of papaw-trees were planted with the object of providing fruits for them, and these are greatly appreciated. Mr. Beebe visited the island not long ago, and was very satisfied with the result. He reported that owing to the scarcity of water, pots holding about a gallon have been placed about 35 feet up in three of the most conspicuous trees in the area where fruit is most abundant, and water is supplied twice a month. As many as fifteen Birds of Paradise have been observed at one time in the top of a favourite tree.

It is to be hoped that Mr. Luban will be as successful in his care of these birds as was Sir William Ingram, and will perhaps be able to import other species of the *Paradisidæ*. Kagus might also be turned down, and other birds which are in danger of extinction. One wonders that some of the Birds of Paradise on Little Tobago have never found their way over the 2 mile crossing to Tobago.

HUBERT D. ASTLEY.

BIRDS IN A CHISWICK GARDEN

The following is a list of birds seen in our garden in Chiswick up till 1896. Species which have nested there to my knowledge are marked with an asterisk: Mistle Thrush,* Song Thrush,* Blackbird,* Redstart,* Redbreast,* Nightingale,* Whitethroat,* Blackcap,* Garden Warbler,* Golden Crested Wren,* Chiffchaff,* Willow Warbler,* Hedge Sparrow,* Longtailed Tit, Great Tit,* Coal Tit,* Blue Tit,*

Nuthatch, Wren,* Tree-creeper, Pied Wagtail,* Grey Wagtail,* Meadow Pipit,* Spotted Flycatcher,* Swallow,* Martin,* Greenfinch, House Sparrow,* Chaffinch,* Bullfinch,* Starling,* Magpie, Carrion Crow,* Rook, Skylark,* Swift,* Wryneck, Green Woodpecker, Kingfisher, Cuckoo,* Barn Owl, Tawny Owl, Kestrel, Mute Swan and Wild Duck (on the river), Wood Pigeon, Moorhen, Green Plover, Redbank.

Not a bad list for 5 miles west of Hyde Park Corner. But the Nightingale dates from about forty years ago, and was found by my brother. Our garden was about eleven acres in all and part of it belonged to the garden of Corney House, pulled down in 1832. That part was allowed to run wild, and had a river frontage. It was a paradise for natural history; but that is a thing of the past. The list would be longer but for my youth and ignorance during the best and earlier years.

During the winter of 1912 our gardener found in the garden a young cock Blackbird which seemed to have been badly scared by a cat, just escaping with its life. I gave the man a cage, which he hung up in a shed, and by the spring the bird had recovered except for a slightly drooping wing. It was then released. Now, whenever there is a shortage of food or hard weather, that bird voluntarily returns to the cage, where the gardener keeps it until better weather comes, shutting the cage-door to protect it from cats. I saw it there myself last winter, and have seen it in the garden once this summer. It must, therefore, be 10 years old. It seems to appreciate what was done for it during times of distress.

H. L. SICH.

APPEAL TO MEMBERS

In the July number of the Magazine we announced the intention of the Council to publish a series of articles on Aviculture, to be subsequently printed in book form. At the present time the income of the Society only permits the monthly issue of a magazine of sixteen pages, with an occasional illustration. It has been calculated that the carrying through of the new scheme, involving the printing of a magazine of at least thirty-two pages, with appropriate illustrations, will cost the Society an additional £70 or £80 per annum. This expenditure can only be met by special subscription, and the Council of the

Avicultural Society earnestly hopes that members interested in the project will generously respond to their appeal for the financial support necessary to carry it out. Donations to the fund have already been promised by the members of the Council present at the meeting, when the decision to inaugurate this useful work was made. Subscriptions, however small, will be welcome. They should be sent direct to the Treasurer, Miss M. Knobel, 32 Tavistock Square, London, W.C. 1, who will announce in the Magazine the amounts received.

CORRESPONDENCE

GAME BIRDS WITH YOUNG: DIFFERENT ACTION OF PARENTS

SIRS,—Scenes in which Partridges of the genus *Perdix* defend their young when the latter are in danger are, I believe it correct to say, by no means of rare occurrence.

But recently a scene occurred here in North Kent where the action of the parents was very different, *one defending the young, the other fleeing*; and therefore I thought some account might interest one or other of our members who are breeding the spur-legged allies known as Francolins (*Francolinus* genus), or have kept them in past years, or the Tree Partridges (*Arboricola* genus), which latter are placed one on each side of the Partridges (referred to chiefly in these remarks) by our member, Mr. Ogilvie Grant, in the account of game birds in *Royal Natural History* (see vol. iv, pp. 411 to 413).

On 10th June this year I was standing among some apple-trees on my land, and heard a considerable noise being made by excited Partridges on a neighbour's land, which was then growing a scanty hay crop, there being a thorn hedge between me and the Partridges.

Having a stick in hand, I proceeded towards the hedge to see what was happening, during which time the shrieks of Partridges increased; and when a few yards away from the hedge a single Partridge dashed over it in my direction, squalling loudly in evidently considerable excitement—it obviously not seeing me until it had flown over the hedge. On my reaching the hedge and looking over to where the excitement began, there I saw a dog and the other parent Partridge

carrying out a series of flying attacks round its head, while the brood of young birds were hurrying away as quick as their little legs could carry them into a safer place. This assault it continued, flying round the dog at about the level of its head (it was a sheep-dog), until it apparently considered its young were at a safe distance, and when the dog, being vociferously cursed and abused by me, began to retreat, it then joined its young some yards away.

As afore-stated, the action of the two parent Partridges was, when seen by me, very different—the one retreating in flight from the scene of danger to its young ones, the other vigorously attacking and counter-attacking the offending dog. Personally, I should think the latter was more likely to be the female. It would be of interest to hear from other members who keep either the Francolins or the Tree Partridges, or any birds more or less allied to our British Partridge, how they have behaved when their young were threatened with danger—more especially as to whether there was any difference of behaviour in the parent birds?

FREDERICK D. WELCH.

July 15, 1922.

BRITISH BIRDS IN AUSTRALIA

SIRS,—It is interesting to realize how numerous some British birds are in Victoria and different parts of Southern Australia; they are rapidly increasing in every way. Take, for instance, the ordinary English Sparrow; it is found everywhere now in Southern Australia, and is also working its way over to Western Australia. Take also the English Starling; in Victoria we have them in thousands, and largely in our Zoo, the same in South Australia, and they have now found their way to New South Wales and Southern Queensland. There is a great deal of trouble with regard to them, as they are keen on fruit, and as so many orchards exist here they naturally cause a good deal of bother, various means being used to destroy them. Then, again, Blackbirds are also getting plentiful, especially in parts of Victoria; they are remarkably tame, but one does not hear many complaints regarding them. A few Thrushes are also found here, but they do not increase in the same way as Blackbirds do; they are also found in the more

thickly timbered country. Goldfinches are also numerous ; they are increasing fast, especially in the more open country. Their discarded nests are often seen in the branches when the leaves are off the imported trees. Green Linnets, too, we have a fair number of, and they are often seen. Skylarks are also frequently seen and heard ; they naturally keep to the plain country. The other birds referred to have probably been here now for forty odd years. Some of the birds found here are imported from other countries ; take, for instance, the Indian Minah, which is usually found in well-inhabited districts, especially near the large cities. Then, again, take the Doves from Java ; like all Doves, they are, practically speaking, harmless, anyhow as far as fruit is concerned, but they are very plentiful in Victoria. A few are found in New South Wales, but they have not got anything like the hold in any part of Southern Australia that the other birds have. Sparrows are probably by a long way the most numerous, being found more or less about the cities.

W. H. D. LE SOUËF.

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SEPTEMBER,
 1922.

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of 25/- per annum.

NOTICE TO MEMBERS

The Subscription to the Avicultural Society is £1 per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY SECRETARY AND TREASURER, MISS KNOBEL, 32 Tavistock Square, London, W.C.1.

All Queries respecting Birds (except post-mortem cases) and all other correspondence should be sent to the Hon. Secretary, at the above address. **Any change of address should be notified to her.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

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Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

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FOR THE STUDY OF
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IN FREEDOM & CAPTIVITY

Third Series.—Vol. XIII.—No. 9.—*All rights reserved.* SEPTEMBER, 1922.

NOTES OF A BIRD-LOVER IN VENEZUELA

By J. DELACOUR

(Continued from p. 116.)

Fifty kilometres to the west of Caracas, along the high valley and across some defiles, is the large village of Guarenas, calcined in the midst of arid mountains. Poor market-town though it be, there are nevertheless birds in it everywhere. Grackles, called "blackbirds" throughout tropical America, are abundant in the farmyards.

A dozen kilometres to the north of Guarenas lies Curupao, the home of one of my fellow-countrymen, M. Bickhardt, who kindly allowed me to stay on his estate, and put at my disposal everything I needed. Curupao is an ideal spot for studying the birds typical of the northern mountainous part of Venezuela. Its area, over 50,000 acres in extent, contains all one can wish for—a valley, mountains, here covered with woods and grass, there with bush and coffee plantations, and preserving on their summits the reduced remains of the primitive virgin forest which formerly overspread this part of Venezuela.

The cattle-farm, or "coral," where I live, is full of birds. Every nook is occupied by those already mentioned. Tyrants of different kinds dwell in the roofs, Grackles and Anis in the shelters; the long herbage affords a home for the species of *Spermophila* and Saffron, Jacarini, and other Finches. The low, thick acacias, sprouting along the edges of the buildings, are always enlivened with the voices of Tanagers of all sorts, of Wrens and of Troupials. Every day a pair of giant Cassiques take advantage of the presence of three orange-trees at my door to gorge themselves with fruit during the noon siesta, and everywhere may be heard the strange, sharp cries of Humming-birds,

which are eternally quarrelling and fighting and attempting to put to flight any bird of their own kind that comes into view.

Along the streams, in the low trees, marvels of bird-life may be seen ; here a Jacamar, with long pointed beak, back and wings of shining golden green and belly red, waits, immovable upon a twig, for insects. Peculiar cries, like a sharp, clucking " ton-ton-ton-ton," make me raise my head. They proceed from Trogons, green like the Jacamars, but with breast and belly beautifully tinted with pink.

Farther away are various Cuckoos, grey or rufous birds, the size of a Blackbird or Magpie. Beautiful banded, red-crowned Woodpeckers tap the trees, to which also cling in similar fashion the curious brown *Dendrocolaptes*, with their long, curved beaks.

A large solitary tree is alive with yellow-backed, chattering Cassiques and with troops of Sugarbirds, of the genus *Dacnis* and of *Calliste* Tanagers. Delightful hours may be spent in the contemplation of all these feathered jewels, which show no shyness so long as one keeps still. Seated upon a stone, with the clear stream bubbling round me, I look through my field glass and see Humming-birds, *Phætornis* or *Agytria*, flying fearlessly a few inches from my face and perching to preen their plumage within reach of my hand. Then piercing cries are heard, and a flock of Parrakeets, brown-throated Conures, the Guiana parrotlets, pass in rapid flight, giving the impression of leaves driven hither and thither by a tempest.

High up at an altitude of about 1,500 metres are coffee and other plantations touching the forest, the " Montagne," as it is called by the half-caste Spanish-Indian Peons. Thither I sometimes climb to meet with different species of birds, although Tanagers, Troupials, Trogons, and other frequenters of the valley are still in evidence. The lovely green Jays, *Xanthura cæruleocephala*, blue-headed and yellow-bellied, come down in troops from the summit of the high trees to settle on the coffee-plants and mob our dogs with their cries. Large Pigeons, *Geotrygon*, *Leptoptila*, and *Columba*, are abundant, whereas lower down only little ground Doves are to be found.

The path winds between low plantations of cassava, beans, and bananas, with here and there leafless trees. What is this flock of Parrakeets that wheel and approach us ? They settle on a dead tree

twenty metres from our party. Without moving and unwearied, we give ourselves up to the admiration of these superb birds, which prove to be examples of *Pyrrhura hæmatotis*, coloured green, dark red, and pale blue.

On reaching the forest, we find its margin so dense that nothing can be seen. Outside it is dry and warm. We force our way a few yards within, and find everything changed. The air is damp and almost fresh. Delicate palms, ferns of all kinds, and arums, deck the underwood with delicate verdure; on the trees, comparable in size to our own, but throwing a deeper shade, flourish orchids and bromelias. Cascades fall through the underwood; the damp and gloom increase all round us; the ferns become more delicate and even translucent; and the growth of vegetation is splendid. Beyond this entire acres are covered with a single species of palm, a kind of *Eterpe*, with its clustering trunks, smooth and annulated, crowned at the summit with enormous flexible leaves; and these, when fallen and dry, carpet the ground beneath. Throughout this noiseless forest, not an insect and scarcely a bird is to be seen. Near the edge a large banded Wren has followed us with its sweet and musical song, and a little distance away we surprise a troop of small green Toucans, *Aulacorhamphus sulcatus*. Here and there, near the ground, may be noticed small grey Ant-thrushes, and from tree to tree flit a few Tanagers, the wonderful *Compsocoma sumptuosa*, black and blue above, clear yellow below. That is all I see. Doubtless, the forest shelters numbers of Curassows, Guans, Tinamous, large Accipitres, as well as other birds; but it conceals them with care, as it conceals the Jaguars, Pumas, and Tapirs, whose tracks we see on all sides.

NOTES ON *PSEPHOTUS HÆMATONOTUS*, THE RED-RUMPED GRASS PARRAKEET

By EDWIN ASHBY, F.L.S., M.B.O.U.

When I arrived in South Australia in January, 1885, the above Parrakeet was extremely numerous in the immediate suburbs of Adelaide. I remember seeing flocks of thirty or more in a flock at Hectorville, about 5 miles from the centre of the city. The birds were

always to be found in the large Red Gums (*Eucalyptus rostratus*), which grew and still grows along the watercourses that come down from the hills and flow into the River Torrens. Throughout the Adelaide hills during the years 1885–7 these birds were in great numbers. At Mt. Barker during those years I sometimes saw the limbs of lofty dead Gum-trees almost bristling with these birds. Anywhere throughout that district, only 23 miles from Adelaide, in the morning and evening, flocks of *hæmatonotus* were feeding in the grass paddocks, the bright plumage of the males (red, yellow, blue, and green) lending a charm to the landscape all its own.

I left for England in 1887 and returned in January, 1888. On my return I found that a sad fatality had befallen these beautiful birds. Through the attack of some disease the birds of this species had lost the power to regain their feathers after the annual moult, and swarms of naked but otherwise healthy and vigorous birds were everywhere running about in the long, dry grass absolutely destitute of feathers. I caught several of them, but they showed themselves such adepts at the use of their bills on one's fingers that one was glad to leave them alone. They were feeding on grass seeds and the seeds of other prostrate plants, and appeared, as before stated, quite healthy otherwise. Next spring there were none to be seen. Whether their extinction was due to predacious animals, cats, etc., or only due to the cold of the winter, I do not know. I am inclined to think that the latter was the most potent factor. From that year, 1888, till the present, 1922, I have not seen any of these birds in their old haunts at Hectorville, though the large timber still remains. In the Adelaide hills they disappeared altogether for at least ten years, and after that on one or two occasions I observed an odd pair or so. After the lapse of more than thirty years they have become fairly common, but probably even now there is barely a tenth of the number there used to be prior to the epidemic of 1888.

I am unable to determine the area affected, but I should think it quite safe to estimate that it would equal at least 100 miles in diameter. During the period when they were quite absent from the Adelaide district I saw a fairly large flock near Ballarat in Victoria, say 600 miles away. And about five years ago when visiting about 200 miles north

of Adelaide I saw this Parrot in very considerable numbers, and therefore judged that the epidemic of 1888 could not have as completely exterminated the species there as was the case further south.

The above notes by my friend Mr. Ashby, an experienced field ornithologist, are very interesting to me, because I recollect that about the year 1889 I purchased several Redrumps, all of which were suffering more or less from the complaint known as "French moult". The birds were flightless and to a great extent devoid of feathers. Most of them died, but if I remember rightly a few recovered. One put it down in those days to some fault in treatment either on the voyage or after, but it now transpires that this was a disease which attacked the wild birds, and there is little doubt that they were captured in this condition.

This is evidently one of those strange methods adopted by Nature to avoid over population in any particular species. Here we have a bird that for some unaccountable reason had become excessively numerous in a certain district; probably so numerous that the food supply was insufficient. This strange malady suddenly appears and almost wipes them out, although one is glad to know that the species has to a great extent recovered again.

D. SETH-SMITH.

MY FIRST VISIT TO NEW YORK ZOOLOGICAL PARK, BRONX PARK (WINTER SEASON)

By J. B. HOUSDEN

We landed in New York after being delayed one day in a fog off the Banks of Newfoundland. Our first day in U.S.A. (30th March) my son and I spent at the Zoological Park.

The Zoological Park is the geographical centre of that portion of greater New York known as Bronx County. From east to west it is halfway between the Hudson River and Long Island Sound, and from north to south it is mid-way between the mouth of the Harlem River and Mount Vernon. (From the City Hall the distance is 11 miles.) There are plenty of means of access, and the charge for the whole distance is a nickel ($2\frac{1}{2}d.$); we rode 15 miles for that amount.

The admission is free, except Monday and Thursday, when the admission is fifteen cents. It was a very wet day, and being a pay day, we were almost the only visitors. The area of the Park is 264 acres; the crowning glory of the Zoological Park is the magnificent forest growth of some forty species of trees and shrubs, which covers, thickly or sparsely, about two-thirds of its land area. Over seventy species of wild birds nest in the Park. There are six entrances to the Park, the extreme length from north to south is just under one mile, its extreme width three-fifths of a mile.

We saw our first native birds, a large flock of Purple Grackles and a number of Downy Woodpeckers. We called at the office of Captain C. William Beebe, our Fellow-Member, and the curator of ornithology, and found he was away in the south.

The first building we visited in the Park was "The Small Mammal House." Here, in the 176 cages in and around this building, the visitor finds a large collection of animals, chiefly small mammals. On the whole, the most striking animals in the Small Mammal House are three beautiful Albino Racoons, from Illinois; also an Albino Woodchuck and Opossum.

We noticed in this and other buildings the following notice:—"Hands off, warning, \$3 fine for feeding any of the animals."

The Mammoth Flying Cage, one of the wonders of the Zoological Park, was empty. This cage is the summer home of a mixed flock of large and showy water birds; all these birds are located during the winter in "The Aquatic Bird House." This building (as the official guide informs the visitor) is the result of an attempt to solve an old problem in a new way—the care of large migratory water birds in the most uneven winter climate on earth. A large collection of Flamingoes, large Herons, Egrets, Ibises, and other large birds, all in splendid plumage were in this crowded house. (I hope to pay another visit on my return in July to New York, and see all these birds in their summer quarters.)

We next visited the "Large Bird House," a very handsome building, and, we believe, the largest home for perching birds in existence.

Here I met and renewed my acquaintance with the head keeper (the last time we had met was twenty years ago in our own Zoological

Gardens in London). He was most courteous, and showed us all his magnificent collection of birds. We spent some hours in this house.

The large bird house is an L-shaped building, with an all-glass house in its angle. The main hall extends east and west, and is 60 feet long by 50 feet wide. This great room contains the foreign song-birds, many tropical Doves and Pigeons, several kinds of rare Fruit Pigeons (one pair most lovely birds, marked Lilac-shouldered Fruit Pigeon; and some beautiful New Guinea Pittas); also, Great Crowned Pigeons, Tinamous, Toucans, Hornbills, and Giant Kingfishers. In the great central flying cage is a remarkable gathering of small tropical birds—swimmers, waders, game, and perching birds.

The flying cage in the centre of the main hall contains a pool of running water, some small trees, rocks, and sand. Hopping and flying about, and perching on the trees is a remarkable medley of birds. There are Wood and Mandarin Ducks, Black Skimmers, Terns, several species of Teal, Curlews, Gallinules, Coots, Lapwings, Snipe, Ruffs, Quail, many kind of Pigeon and Doves, Orioles, Cardinals, Woodpeckers, various kinds of Weavers, and Sparrows.

The south side of the main hall is devoted to various large rare birds from the tropics, all in large cages.

On the northern side is a very interesting group of birds from Cuba and the Bahamas, a good collection of Weavers, Finches, Trogons, and others. Here also are rare and beautifully plumed Birds of Paradise (Count Raggi), and the Blue Bird of Paradise, Prince Rudolf, and the Greater Bird of Paradise.

In the "Official Guide" we read: "In the glass court and around it, the Curator of Birds, Mr. C. William Beebe, has scored a gratifying success in the installation of the order Passeres. The birds are arranged by families, and all of the twenty-one families of Eastern North American perching birds are represented. These families are Waxwings, Shrikes, Flycatchers, Wrens, Mocking Birds, Catbirds, Thrushes, Ringlets, Nuthatches, Brown Creepers, Warblers, Pipits, Larks, Tanagers, Orioles, Crows, Jays, and others." A very fine collection and well arranged.

A large circular flying cage, at the outer corner of the glass court, is filled with Robins, Bluebirds, Thrushes (various), and Woodpeckers.

Along the western side of the large bird house (outside), fourteen large cages are filled with members of the Crow and Blackbird families (*Corvidæ* and *Icteridæ*), quite a large number of Ravens and Crows, several different species of Jays and Magpies; Meadow Larks, Cow-birds, Grackles, and Red-headed Woodpeckers.

Of this splendid collection, there were two birds certainly that the writer coveted (although I have stuffed specimens, I have not seen a living specimen for many years), one a beautiful male of the nearly extinct Australian Turquoise Parrakeet (*Neophema pulchella*), the other a male cock of the Rock (*Rupicola crocea*). This bird has moulted twice, but its plumage is quite as bright as a newly caught specimen.

Our first visit to the New York Zoological Park was certainly a very enjoyable one.

NOTES ON THE SEASON'S DUCK BREEDING AT EAST DEREHAM

By HUGH WORMALD

Our hatching results in some cases were lamentable, notably in the case of Mandarins and American Wigeon. However, we have a scheme by which we hope to rectify this next season. A large number of "clear" white call ducks' eggs were laid, and this was to be explained by the fact that she had no drake at the beginning of her laying—my man having sent away her husband by mistake and she had not paired to the other drake which lived with them in time for the first ten eggs to be fertile.

The mortality in young common Pochards was much too high. As a rule, these are very easy ducklings to rear, but several died when quite small. For the last two seasons we have had about four or five young Pochards hatched with pink bills and very pale legs, and the whole colouring rather paler than in the normal bird—more the colour of Red-crested Pochard ducklings. In every case, these light-coloured birds, when about two days old, appear to go "dotty!" They fall about, cannot run straight, and keep twisting their heads round, and invariably die within a week. I should be interested to know if anybody else has come across this unpleasant variety?

The large number of birds we found dead in the shell calls for some notice. As a rule we like to set our eggs so that about forty of different varieties should hatch at the same time. Then by mixing up the young of different sorts before cooping them out, one does away with the danger of a hen killing ducklings of another brood if they get into her coop—since if each hen (I like to have two or three broods of the same age in one enclosure) has, say, three or four Gadwall, Shoveler, Falcated, and Carolina, they cannot tell their own foster children from those of the next coop. This year it so happened that the day before we expected our three largest hatchings (forty to seventy eggs) to come off, we had a bad thunderstorm. In our experience, thunder invariably causes many ducklings to die in the shell, either just before or after chipping. We presume this mortality is caused by the electricity in the air. On the whole, we are well satisfied with the season's results. May could not have been a better month for young ducks, but since the middle of June we have had the worst possible weather, cold and wet almost every day, and it was very difficult to keep quite small ducklings alive. But now (27th July) all the ducklings' should be safe—bar accidents. Some are already moulting from their first plumage into full winter plumage. This has been an extremely good laying season, the fifty-two ducks which laid eggs averaging rather better than 12·5 eggs each. Four laid only seven, one six, and one nine eggs, but these were counteracted by most of the others laying two clutches each; indeed, the Spotbill, one Shoveler, and one American Wigeon laid three clutches each.

We were lucky in losing very few eggs from vermin. To our knowledge the only losses from this cause were two Yellow-billed eggs, one Pochard, two Tufted, and a full clutch of Chestnut-breasted Teal, whose nest we had not found, but the duck had just begun to sit. All these losses, except one egg, were by water-voles, as proved by a few strychnined eggs in the robbed nests. The exception was a large female common rat suckling a litter. She only got about 3 feet from the nest after her second visit.

Perhaps the most important event of all occurred towards the end of July, when two very strong Canvas-backed ducklings hatched from eleven eggs sent to me from Canada. These we believe to be the first

to be hatched in this country. This was an experiment, from which we had little hope of success. American postal authorities refuse to accept eggs unless packed in absolutely air-tight tin boxes, so that these eleven eggs had twenty days shaking in soldered-up tins; but in spite of this seven out of the eleven proved fertile, though only two hatched. These are, we think, the strongest ducklings we have hatched this year. At present they are feeding well, but are extremely shy. It is too much to hope, should we succeed in rearing them, that they will prove a pair.

NOTES

THE DISPLAY OF THE KING BIRD OF PARADISE

(*Cicinnurus regius*)

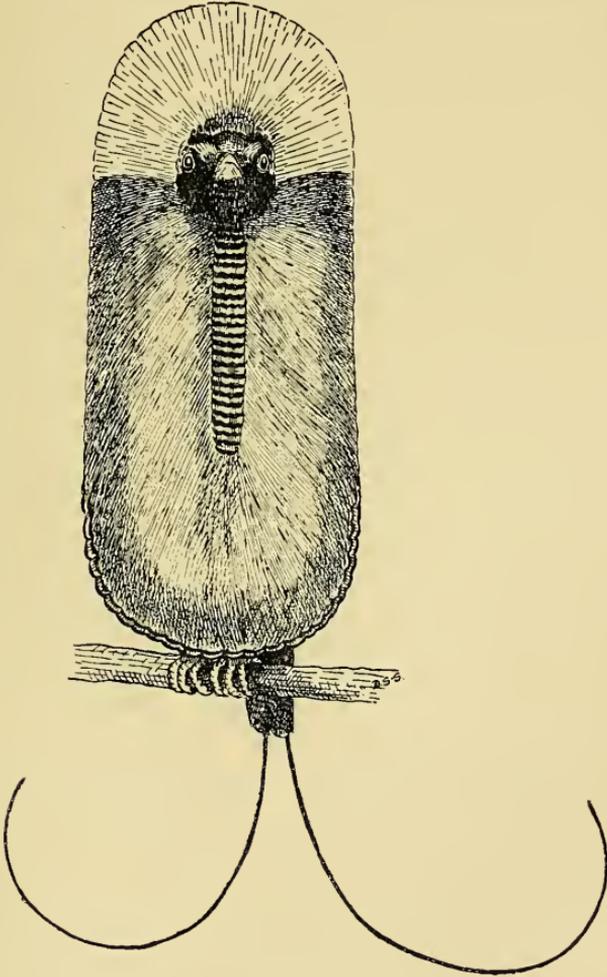
The remarkable displays of some of the Birds of Paradise have often been described in this and other publications, but I think a form of display that I observed in the Small Bird House of the Zoological Society in Regent's Park a few days ago is specially worth recording. In one of the large central cages, in which are kept a considerable number of birds of various species, is an immature male King Bird of Paradise. It may possibly be a female, as female birds of many species will display under certain circumstances, *vide* the peahen and even the peachick! This young bird went through various forms of display to one bird after the other, but it had nothing to "show off" with, being a particularly sombre brown bird of various shades. However, in common with very many kindred species of its genus, it had a brilliant and beautiful apple-green toning to its mouth and throat, and this it displayed to the full, opening its mouth widely to show as much as possible of its throat to each bird it visited as soon as it had finished its display. This appears to me extraordinary. How did this young bird know that its one beauty spot was inside its mouth? As usual, none of the birds which it took so much trouble to show itself to took the slightest notice of it.

E. G. B. MEADE-WALDO.

THE DISPLAY OF THE MAGNIFICENT BIRD OF PARADISE

A male specimen of Hunstein's Magnificent Bird of Paradise (*Diphyllodes magnifica hunsteini*) that occupies a large cage in the

Small Bird House at the Zoological Gardens, has recently completed its moult and is now in quite perfect plumage, and I have on several occasions lately witnessed its display, which is entirely different to that of any other Paradise Bird with which I am acquainted. This is a bird of many colours, but the most conspicuous features of its plumage



are the breast shield of rich green and the fan-shaped shield of pale straw-coloured feathers which grows from the hind neck and normally lies on the back. The features of this shield are peculiar in that they appear as though composed of finely spun glass, which in certain lights looks almost like silver.

When the bird displays it suddenly assumes an erect position, lowers the pectoral shield until it appears to rest on its feet, at the same time throwing into a vertical position the shield of straw-coloured plumes of the nape. The pectoral shield is composed of soft velvety feathers of a bright green, the lower portion of which is edged with brilliant metallic blue, and down the centre of which runs a band of metallic blue feathers edged with green. During display this shield covers the whole bird from the head downwards, being met at its upper edges by the lower edges of the erected shield from the nape, the attitude then assumed being that which I have attempted to represent in the accompanying illustration.

D. SETH-SMITH.

HATCHING THE PLUMBEOUS QUAIL

My Plumbeous Quail (*Synæcus plumbeus*) has laid thirty-two eggs, the last one on 12th August; but she will not sit, probably owing to the smallness of the aviary and want of cover. The eggs are generally laid on alternate days at about noon.

Failing to get a bantam, I placed them under a hen, although fearing she would trample them to death. This actually happened. She did her best but could not avoid treading on thirteen little black beetles. Only two eggs proved clear. She was given three hens' eggs, in case she refused to sit on such small eggs, as well as sixteen quails' eggs. One of the latter I broke a few days before they were due to hatch, in order to find out if it was worth making a run for the chicks and getting ants' eggs to feed them on.

The first eggs of those placed under the hen were laid on 24th June, the last on 17th July. The hen started to sit at 10 a.m. 18th July. Some eggs chipped 10 a.m. 5th August, and a few chicks hatched out at 1.15 p.m. on the same day, and the last at 7 a.m. the following day. The length of incubation was eighteen days and several hours.

The first nest consisted of a few straws collected round a slight hollow scraped in the ground under a bush; a second was made in a tuft of coarse grass.

The eggs, measuring one inch two lines by eleven lines, were bluntly pointed at the small end, cream in colour, and thickly spotted with small specks of dark brown.

In the nestling, the beak, legs, and feet were pale horn, the head brown with three light yellowish white stripes, the throat yellowish-white, the wings brown with two black bars, and the body dark brown, like the wings, with darker and lighter bars and mottling, the under parts paler. In colour they look very much like the young of the Chinese Painted Quail, not at all like the Rain Quail, their nearer relative. These are the only species with which I can compare them.

H. L. SICH.

BIRDS IN A GARDEN NEAR LONDON

I am glad to have three more birds to add to the number in our garden, mentioned in the April number of the *Avicultural Magazine*, to wit, the Great Spotted Woodpecker, the Willow-warbler, and a noisy Jay, who haunts the place and seems inclined to stay. The Woodpecker was tapping so busily on an apple-tree close to the gardener's cottage, that it took no notice of a child patting on the window opposite, but continued its tapping, then flew off quietly into a hedge of old hawthorns and elder. The Willow-wren, singing charmingly among some nut-trees, was detected by an ornithologist friend, who was searching for nests in the orchard. The Spotted Flycatcher, mentioned in my April number account of our birds as having for years nested on the bough of an old cedar, has now built in an old nest in the rustic oak porch of the said gardener's cottage, and has hatched its young. It was so fearless that a little child lifted up to the nest could touch the sitting hen bird. Two young were hatched, one now flown, but the other died in the nest, the mother-bird having been frightened away by a stranger entering the porch and remaining there for some time.

A wild Turtle Dove has come to stay it seems, and actually enters the verandah, where it fights in the air almost every evening with a Barbary Dove over the acquisition of the food put out for the latter. There is now a nest of Barbary Doves in the verandah, and two young were hatched in July. It was absurd to see the parents guarding the verandah as if it were their own, and the cock attacking the wild Turtles which come to feed without any aggressive designs, I feel sure, on the precious nest.

One pair of Bullfinches nested for some weeks in a little basket in their cage, laying eggs and tossing them out again. The hen scornfully tears out all the nesting stuff I put in the basket for her, and dragged up tufts of grass which she pulled up by the roots to the basket to make her nest. She does not mind anyone looking at her as she builds and lays. The cock sings to her all day long. I never had Bullfinches quite so tame, for I can let them out singly or together to fly about the garden, and they come back at my call.

KATHARINE CURREY.

BREEDING ROSEATE COCKATOOS

Mr. Cosgrave writes me from Lilford Hall that a pair of Roseate Cockatoos have bred successfully, the three young birds flying round the park with their parents making a very attractive exhibition. The nest was in a natural hollow in a tall tree, all artificial nesting sites such as boxes being rejected.

Cockatoos are good breeders, given suitable accommodation. The Sulphur-crest has often bred at liberty at Lilford, and Leadbeaters breed yearly at the Zoological Gardens.

D. SETH-SMITH.

CORRESPONDENCE

SIRS,—In your article on the “Ways of Eagles” on page 93 of the present volume of the *Avicultural Magazine*, you say: “I believe it is the common impression—it certainly was mine—that Eagles as a class are, for the most part, independent hunters, disdaining piratical methods of picking up a livelihood.” In that case, it will interest most members to know that the reverse is the case, with a very few honourable exceptions. Of the true Indian Eagles, the only regular hunter is the Golden Eagle (*Aquila chrysaetus*). The Imperial (*A. heliaca*), the Steppe (*A. bifasciata*), the Spotted (*A. maculata*), and the Tawny (*A. vindhiana*), etc., are all pirates and scavengers. I do not mean to

infer by this that they never hunt, as this depends a great deal on environment and opportunity. I have seen the Imperial hunting hares and the others frequently catch rats, toads, lizards, and even bigger game occasionally, but robbery and scavenging are their chief pursuits, and one has not to remain long in any of the stations of India to witness a crow being pursued by, and having to give up its titbit to a Tawny Eagle and so on.

The Hawk Eagles are nearly all hunters. All the species of *Spizaetus* and also Bonelli's Eagle (*Eutolmaetus fasciatus*), and the Rufous-bellied Hawk Eagle (*Lophotriorchis kieneri*) are not, as a rule, given to piracy, but catch their own dinner.

On the other hand, it can safely be said that, given the opportunity, every bird of prey is a pirate to a more or less extent.

Even the noble Peregrine does not disdain purloining another falcon's catch. A very common method of catching Peregrines, and in fact all or any of the Raptores, is by means of a decoy. A ball of feathers, intermixed with a number of fine horse-hair nooses, is tied to another Falcon's feet. Three or four of the flight feathers are tied together to prevent the bird flying away altogether, and the decoy is then thrown up into the air in some open plain or near the banks of some river which the Peregrine is known to frequent. If she happens to be within seeing distance she cannot resist such an opportunity, i.e. seeing another Falcon carrying off what looks like a small bird, and before the decoy has reached the ground, as it will within two or three hundred yards, the Peregrine has caught up and "bound" to the ball of feathers, and incidentally to the nooses. A little pulling and straining to get the titbit away and the nooses have done the rest. You can then run up and catch the wild Falcon, as well as your decoy, as the one cannot carry off the other.

It sometimes happens that some marauding Eagle sees the decoy, in which case, unless you can run fast enough and shout loud enough to drive him away, you will see the last of your decoy.

I have discovered from long experience that a bird of prey which has become suspicious and will not attack a bird, such as a Quail or a Pigeon, behind a net, will forget all about its suspicions and come down without hesitation the moment you substitute another and a smaller

bird of prey, with meat or feathers in its claws, for the Quail or Pigeon. This particularly applies to Eagles, who seem incapable of resisting an attack on something smaller, with food in its talons.

From the last line, page 93 and the first half a dozen lines of page 94, it would appear that the Tiercel is the female. This, of course, is not the case. Amongst the birds of prey, generally (with some very few exceptions) the female is very much bigger than the male, and hence the name tiercel—from tierce, a third—is applied to the male of a falcon, i.e. a third the size.

C. H. DONALD, F.Z.S., M.B.O.U.

BREEDING LESSER SULPHUR-CRESTED COCKATOOS

SIRS,—I have succeeded in hatching two Lesser Sulphur-crested Cockatoos. The male did most of the incubating. I thought this might interest you, as I do not suppose it is of frequent occurrence. The nest is a very stout square box hung on a wire 14 feet from the ground. I intend to try my luck with *C. roseicapillus* ♂ and *C. leadbeateri* ♀.

M. V. ALLEN.

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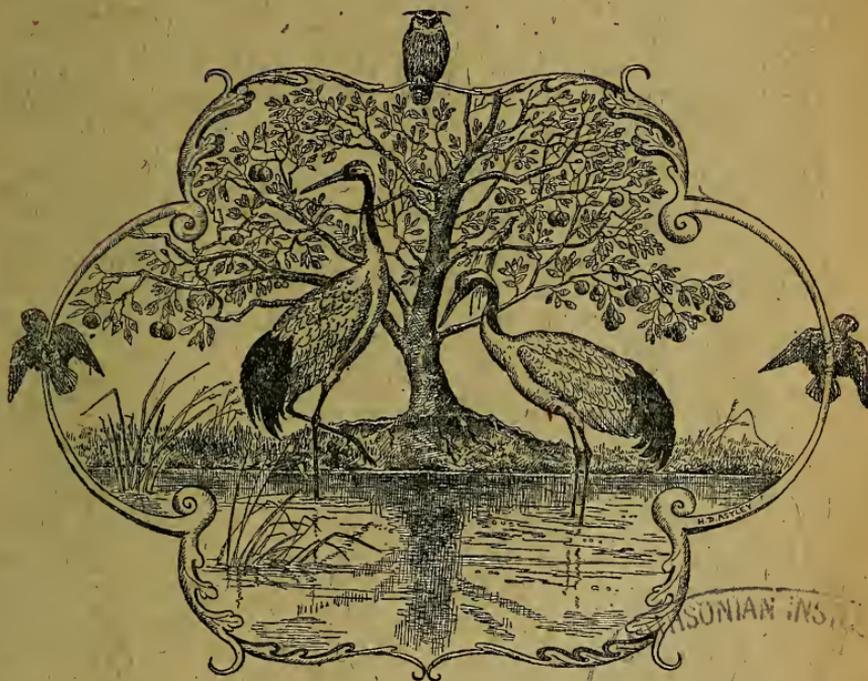
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THE AVICULTURAL MAGAZINE



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OCTOBER,
1922.

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THE AVICULTURAL SOCIETY.

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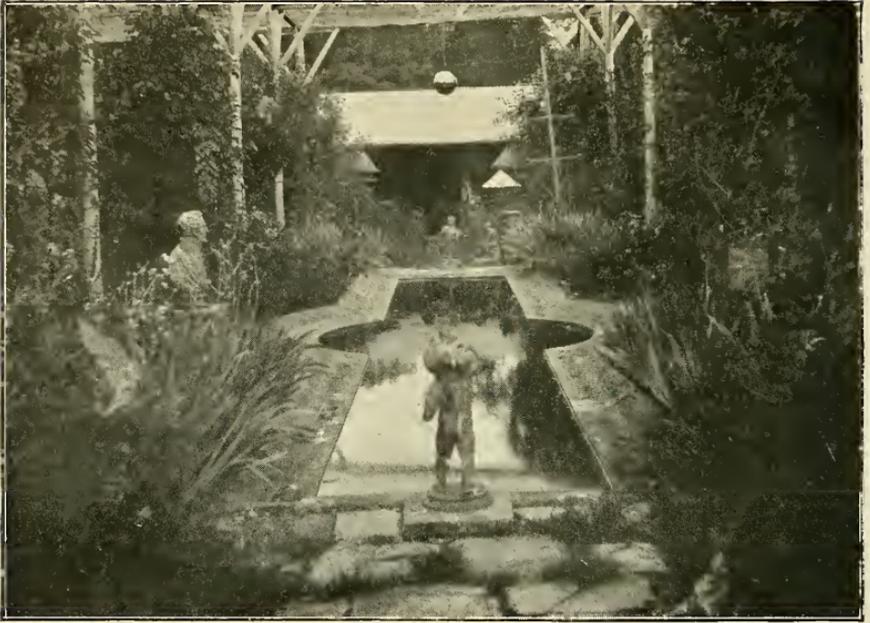
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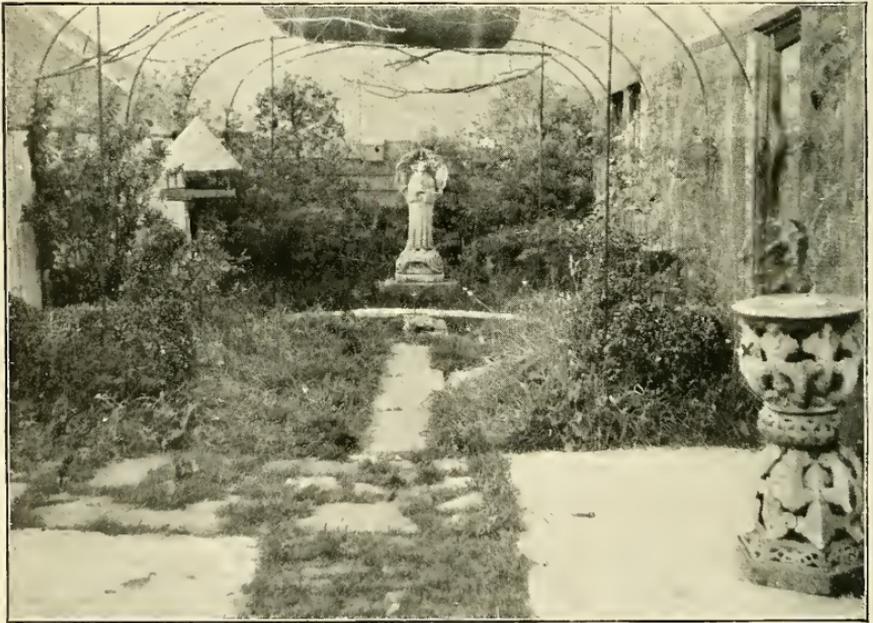
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2.

THE DUCHESS OF WELLINGTON'S AVIARIES.

1. The interior of the Great Aviary.
2. St. Francis Aviary.

To face p. 145.]

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN & BRITISH BIRDS
IN FREEDOM & CAPTIVITY

Third Series.—Vol. XIII.—No. 10.—*All rights reserved.* OCTOBER, 1922.

EVENTS IN MY AVIARIES DURING 1922

By the DUCHESS OF WELLINGTON

Our Editors have asked for an account of aviary work here, and I am well pleased to give it, for the fates have been kind and have granted me several successes this season. My aviaries were altered and remodelled last autumn by the advice of Mr. Astley, who was kind enough to give me the benefit of his great experience. The long passage aviaries are now divided into compartments, each with its boarded shelter and naturally planted flight, so that there is accommodation for more birds with less danger of quarrelling.

They contain the following birds: A pair of Indigo Buntings, now rearing young in their fourth nest. Poor little birds! ill-luck has continually pursued them. At first they were in the big aviary where they thrived and nested, and all went well until the Pekin Robins sucked their eggs. This happened again and again until I caught up the Buntings and gave them a home in this small aviary, where they have things all their own way.

Next door to them is a mixed lot of Lavender Finches, Nonpareil Buntings, St. Helena Waxbills, Cuban Finches, Cordon Bleus, Blue Waxbills, and a Long-tailed Grass Finch, all in the pink of condition and plumage except the Nonpareil, who is moulting heavily. Beyond them, in a compartment to themselves, are a true pair of American Robins, also heavily in moult, but fine, vigorous birds, which look like breeding next year. Beyond, again, is a mixed lot of Zebra Finches, Weavers, and quarrelsome little Queen Whydahs. The Zebras have reared several families and are always cheerful, contented, and noisy.

These compartments run alongside of, and open into, a large aviary known as "St. Francis," from a figure of the saint which stands in it, and it is in this aviary that the event of the year took place. About half-way down the aviary are two ornamental china stands with pierced sides about 2 feet high (see Plate), and inside one (marked in the Plate with a cross) my Ornate Tanagers (*Tanagra ornata*) constructed a neat cup-nest of dried grass and a few small twigs, and successfully reared two broods of three each. We did not discover the nest until the young were hatched, and cannot say if both birds shared in the building and incubation. The young were reared on mealworms and such insects as the parents could capture, now they feed on milk sop and fruit; we have found that they much enjoy ripe elder berries, and, of course, live insects are always welcome. The nest is close to the door leading into the big aviary and everyone going in or out must pass within a yard of the sitting bird; there are more secluded places which she might have used. She must have gone to nest in May, as it was June when we found the young. Not content with having reared six children, this indefatigable bird is sitting again. The three eggs are rather large, very darkly and heavily splashed and freckled with brown. She has used the same nest throughout and kept it perfectly clean. The young resemble their parents except that their colour is duller and they do not boast yellow in their wings. They appear to feel cold, and when the nights became frosty we caught them up and transferred them to the Orangery for the winter, together with a beautiful pair of Golden-fronted Fruitsuckers which were in St. Francis aviary with them all the summer. The old Tanagers and a pair of Masked Doves, which have nearly fledged young in their nest, will remain out for the present.

Behind is another aviary containing a pair of true Blue Budgerigars and one of Blue-winged Lovebirds; next door a beautiful cock Hardwicke's and a White-cheeked Bulbul, both in exhibition plumage, will spend the winter.

Next we come to the Great Aviary, which I think was mentioned in the Magazine some time ago. It is a large and lofty wire structure, with boarded shelters, naturally planted with apple and other trees and bushes, and flowering plants. A shallow pool in the centre

provides safe bathing places for the birds, and is much frequented by pairs of Mandarin and Carolina Ducks and other Ducks. The aviary is enlivened by a flock of Pekin Robins, young birds some of them, but the nests were so well hidden that they were undetected. Though these are great sinners with regard to interfering with other birds' nests, they are so tame and pretty that I cannot find it in my heart to banish them. Senegal Doves have three fully reared young, which they drive and persecute incessantly; these same Doves set on a pair of Green-winged Doves and destroyed one of them. I think they really are the most quarrelsome and vicious of the genus, which is saying much. Giant Whydahs breed freely here, skilfully hiding their nests among the long grass. The cock is most ornamental during the summer, with scarlet and yellow on the wing, especially when flying with his long tail floating behind him.

My greatest success in this aviary was the rearing of three young hybrid Cardinals, Red-crested + Pope. Has this cross been obtained before? They are just getting their red heads, but it is too soon to say if they will have crests. A pair of Californian Quails made several attempts at breeding, but deserted their nests every time, probably disturbed by mice, for it is really impossible to exclude these pests altogether, though they can be kept down, and are by every means in our power.

Along one side of this large aviary are four smaller enclosures: one is empty; the next contains a blue cock and several blue-bred Green Budgerigars, from which I hope to breed Blues next year; the other compartments each hold a true pair of American Blue Birds (N.B.—*They are not for sale*), which were kindly presented to me by the Zoological Society of New York, and are the pride of my heart.

Along the opposite side a passage aviary contains Canaries, Goldfinches, and Green Singing Finches; one end has been cut off and forms a useful quarantine place.

My Gouldain Finches live across the garden in half of the Orangery; they look beautiful, and have certainly two, possibly three, nests. One enterprising pair took possession of a table drawer, obtaining entrance through a small hole at the back. The other half of the Orangery contains the young Tanagers and the Fruitsuckers already mentioned.

Nothing pleases me better than sitting quietly among my birds watching their ways and gaining their confidence. The dullest walks are made interesting now that I am always looking out for berries, flowering grass, or insects for them, and they have gained me many pleasant friends among "birdy" people. Though sometimes an anxiety they are always a delight, and I am indebted to them for many happy hours.

September, 1922.

NOTES OF A BIRD-LOVER IN TROPICAL AMERICA

By J. DELACOUR

(Continued from p. 131.)

The journey down the Rio Portuguesa and the Apure, in a launch, is wonderful. The river flows between two banks of mouldering clay, whose height, at this season of low waters, is about 15 feet. Animal life, on these rivers, is most plentiful, and this part of the world is probably one of the best from the ornithological point of view. Not only birds does one see by thousands, but they belong to especially attractive groups, and, having been but little disturbed until now, they are tame and can be watched easily. One wonders that so few naturalists have been there before.

On the sand banks huge crocodiles are to be seen everywhere, and also birds. Here, hundreds of Black Vultures and Caracaras feeding on the carcase of a reptile; there are also various Egrets and other Herons, thousands of Terns and Cormorants. On most of the trees overhanging the water Hoatzins are sitting or moving along the branches, while enormous Iguanas come down to drink. On other trees families of Red Howler Monkeys watch us fearlessly; in the north of Venezuela and Guiana one hears them but seldom gets a glimpse of them, so wild and timid are they. Every mile or so along the banks one sees a pair of Orinoco Geese; never have I seen them fly or swim, and only once I noticed three together; they don't seem to congregate in flocks.

The low trees on the banks are inhabited by innumerable *Ardeidæ*:

Great and Snowy Egrets, Cooi Herons, Night Herons, Bitterns of all kinds ; now and then a fine black Eagle, with yellow bill and white tail, the *Urubitinga*, can be seen.

Over our heads hundreds of large birds are soaring : huge American Adjutants and *Tantalus* are especially numerous ; Maguari Storks, *Aramus*, all sorts of Herons, Scarlet and Glossy Ibises, Roseate Spoonbills ; other birds soon join them—Terns, Cormorants, and Snake Birds (*Anhinga*). Ospreys are fishing around the launch, and it is a wonderful sight ; Macaws and Parrots often cross the river, flying in pairs ; the Apure, near San Fernando, is over 2 miles wide. This extraordinary display of tropical life is met with everywhere along these rivers.

San Fernando is a miserable and unhealthy little town, frightfully hot. I was there the guest of the Lancashire General Investment Trust, whose officers were most kind to me and helped in every way. The comfortable bungalow faces the Apure ; from the windows we could see enormous Crocodiles and freshwater Dolphins in the water, and on the sand bank, half a mile distant, colonies of Terns, mainly of the curious *Rhynchops*, made an awful and objectionable noise day and night.

In the Apure country the scenery is poor and monotonous. Everywhere flat grassland and rickety trees, swamps, lagoons. Near the water small Caimans and colossal Anacondas swarm. There, too, small Ardeidæ (*Ardetta*, *Butorides*, *Florida*, *Tigrisoma*, *Nyctanassa*, *Nycticorax*, etc.) are abundant, as well as Purple Gallinules and Jacanas. A few Sun-bitterns and flocks of Scarlet Ibises and Roseate Spoonbills are always in sight. Another curious inhabitant of the marshes is the *Rostrhamus sociabilis* ; these dark birds of prey have a curved and weak bill especially adapted to their peculiar life, as they only feed on shell-fish and mussels ; they live in flocks, and other birds don't take any notice of them.

Parrots, Macaws, and Parrakeets are numerous everywhere, and also small birds—Tanagers, Saffron Finches, Cardinals, Ground Doves, etc. But the very particular bird of the country is the Hoatzin. This astonishing creature, which has been mistaken for a gallinaceous bird, is to my mind a relation of the African Touracos rather than anything

else. They never leave the trees they live on; they feed on leaves and nest over the water; their flight is heavy; they can't walk, but they climb easily among the branches. Their habits have been completely described by Mr. W. Beebe, who studied the young ones. These have prehensile claws on their wings (young *Toureaos* also have them, but less developed and useless) which they use to climb; they also swim and dive like reptiles, their near ancestors. Hoatzins are most plentiful in the Apure district. During my visit at San Fernando I was able to go and see some of the Egrets colonies. They can be found at a distance of about 30 miles from the town, and are very far distant from each other. They only include the Great Egret (*Herodias egretta*), but these number thousands and thousands. Their breeding places are known as "garceros" and the sleeping stations as "dormitorios". Both are situated on marshy land, along the river and lagoons, where low and thick trees grow. They are private properties and carefully kept, as a big income is obtained from picking up the ornamental feathers. It is a wonderful sight to watch the Egrets coming back at night. From all directions great white birds are flying towards the "dormitorio", where they alight with hoarse croaks. The aspect of a "garcero" with nests touching each other and thousands of young ones is also very striking.

We left San Fernando, taking with us a Ford lorry to carry our live animals: Agoutis (of the new species that I have described as *Dasyprocta apurensis*), Tiger Cats, Capybaras, Parrots, Macaws and Parrakeets, Curassows and Guans, King Vulture, Adjutant Stork, Tree-ducks, Orinoco Geese, Owls, Sun-bitterns, Purple Gallinules, Snake Birds, Jacanas. At Camoguans we took the small birds we had left behind: Black-cheeked Cardinals, Tanagers, Parrakeets, etc. The return to the coast through the Llanos was very difficult, as there are no roads. Anyhow, all animals arrived in good condition, except for a few waders whose legs got broken.

At Caracas we took the birds we had left: *Calliste arthuri*, *cyanoptera*, *atricapilla*, *cyanescens*, *guttata*, *desmaresti*, *Chlorophonia frontalis*, *Euphonia caeruloccephala*, *Tanagra cana*, *olivicyanea*, *Cassicus persicus*, *Icterus vulgaris*, *chrysocephalus*, *Cardinalis phæniceus*, *Spinus cucullatus*, *chrysogaster*, *Pitangus rufipennis*, *Columbula talpacoti*,

Scardafella ridgwayi, *Leptoptila verreauxi*, and one Humming-bird that I took as a trial, *Chlorostilbon viridis*.

We sailed for Trinidad with that menagerie on 1st January on board the Dutch s.s. *Stuyvesend*.

TRINIDAD

After two days sailing along the coast of Venezuela, the magnificent Mouth of the Dragons opens to our view ; the hilly islets, all of a similar formation, astonishingly regular, appeared as a line between Trinidad and the Continent. They, as well as the two coasts, are very high and extraordinarily green—the verdure of the West Indies, so intense that it appears to be unreal—and the mountain at their northern extremity falls precipitously into the sea.

Port of Spain is the most comfortable town of the West Indies. We stayed there for a fortnight to rest our livestock, which were greatly in need of it after the sea voyage. We installed them in a courtyard, and the cages were arranged in a shed. The larger birds were let out. During the crossing, many Tanagers and other fruit-eaters were too crowded in their cages, and soiled their plumage terribly ; they could not clean themselves properly without bathing, and in spite of our care, we lost some twenty, amongst which was the beautiful and rare *Tanagra olivicyana*, which never reconciled itself to captivity.

Trinidad closely resembles the neighbouring coast of Venezuela. Its Flora and Fauna are almost identical with those of the Continent, and recall but little those of the smaller West Indies.

The island is still rich in birds. They are now strictly protected, for their numbers had been terribly diminished. For the most part, one finds the same species as in the north of Venezuela. In the town the same deafening cries of Tyrants and Tanagers.

Along the roads Troupials are numerous, and also the beautiful golden-green Jacamars, which along with the Humming-birds, resort to the telegraph wires. But we have something new : the Motmot of Trinidad.

The Motmots are birds of the size of a Jay ; they have a big head, marked with black and bright blue, fine ruby-coloured eyes, and a strong, serrated bill ; the body is dark yellowish green

underneath and bluish green above. But what is peculiar to the Motmots is their long tail, of which the two central feathers are terminated with racquets. It was always supposed that the bird denuded the shaft, to form these racquets, with its own bill; but Mr. Astley, who has kept a Motmot (*M. momota*) since 1914 and has carefully studied the moult, has come to the conclusion that the barbs, naturally weak and degenerated, at that point, fall off gradually by themselves in the course of a few weeks after the moult. Motmots frequent dense undergrowth; they nest in burrows which they excavate in steep banks, after the manner of a Kingfisher. A kindly aviculturist, who brought up one of these birds from the nest, most generously offered it to me. A delightful present, for the Motmot of Trinidad, peculiar to that island, had never been brought to Europe. It is decidedly smaller, more brilliantly coloured and more elegant in form, than the ordinary species of the Continent *Momotus momota*.

There are a few coloured and Chinese bird dealers in Port of Spain, but they ask exorbitant prices. Of course, they only offer the common Venezuela species. However, the favourite bird in Trinidad, as well as in Demerara and Surinam, is the Grosbeak. These birds are always kept by themselves in small cages, on account of their charming voices. Each individual bird possesses a more or less varied song, and good specimens are sold for more than £2. Of these Grosbeaks there are two species: one, the size of a Chaffinch, is entirely black, except for a few white feathers on the wing, with a short and very large white beak (*Oryzoborus crassirostris*). This species is the most appreciated for its song. The other (*O. torridus*) is a little smaller, black above, with some white on the wing and chestnut underneath; the beak is blackish. These two Grosbeaks inhabit all the north of the Continent of South America, and are particularly numerous in the Guianas. Some of the Seed-eaters (*Spermophila*) are also very favourite cage birds on account of their song.

We embarked on the 15th January, on the little French steamer *l'Antilles*, with our menagerie, slightly diminished by a few losses and only augmented by the Motmot. Some of the mammals and larger birds, such as Geese, Ducks, Curassows, Parrots, etc., were left behind, thanks to the kindness of the French Consul, who took care of them

until my return from Guiana. The *l'Antilles* runs once a month from Martinique to Cayenne, stopping at all the ports. We called at Georgetown, Paramaribo, and the "Iles du Salut", enchanting and salubrious in the shade of the cocoanuts, in spite of their sinister reputation, as the settlement of the most dangerous convicts, both political and criminal. We arrived at Cayenne, a town of such unattractive aspect, dead and sordid, that, finding it was also unfavourable for ornithological research, we remained only four days. Anyhow, a few trips in the neighbourhood were sufficient to give me a casual idea of the country, and on the 21st January we again set out, this time in a northerly direction, towards St. Laurent-du-Maroni.

THE MARONI

The Guiana sea is shallow, yellow, and muddy, and above the green line of the mangroves torn by the winds, the occasional hill-tops, notably the Rock of Kouron, appear as mountains on that extraordinarily low coast. But *l'Antilles* has turned amidst the great rollers, now we are on the Maroni.

The water of the estuary is muddy like the sea. On either side of the flat banks, distant from one another several miles, mangroves and palms advance far in the water, concealing the banks. A few pairs of Blue-yellow Macaws are flying screaming. That is really the only life one sees on the river and its banks; no waterfowl, no waders, no crocodiles; nothing but the luxuriant vegetation which deprives animals even of the space where they would live on the margin. The contrast of the Guiana rivers, apparently without fauna, to that of the Orinoco tributaries—where animal life is so exuberant—is most striking.

The little steamer continues up the Maroni for several hours; the water clears and becomes transparent, although always maintaining its coffee tint, so characteristic of the Guiana rivers, due to the vegetation which decays everywhere and stains the water. And there are always very few birds to be seen on the banks. We turn about several times; we pass little islands; the majestic river is hardly less wide than at its mouth, and at last we are in sight of St. Laurent.

The forest, which everywhere shuts in the river, widens out; a

clearing of a few square miles has been conquered with much trouble, and on the edge one sees gigantic trunks, half dead, having a naked appearance, separated as they are from their neighbours and from the lower vegetation which had previously surrounded them; their isolation has almost killed them.

A wharf of violet timber; avenues planted with mango-trees along which are pretty villas; the huge buildings of the hospital; and that is the town of St. Laurent-du-Maroni. In the distance, 3 miles off, on the opposite bank (which is the Dutch bank, for the Maroni separates the two colonies), the houses of the little town of Albina, painted in pale blue, appear completely overshadowed amongst the great dark-green trees. People have a preconceived idea that St. Laurent, the town of the convicts, is a "God-forsaken and terrible place". What a mistake! its lovely avenues, with the well-kept grass, trees garlanded with orchids and bromelias, its well-built houses and shady gardens, make the official quarters a most agreeable spot, especially when one compares it to the hideous streets and crumbling houses of Cayenne. The commercial quarters, equally well kept, are amusing owing to the extraordinary mixture of convicts and liberated Europeans and Arabs, of coloured people, Chinese merchants, Boni negroes¹ with their one garment of brilliant hue; Red Indians who descend from the heart of the virgin forest to make certain purchases.

As to the camps of the convicts, one does not even notice them. One sees prisoners everywhere, clean-shaved, dressed in white linen, wearing a large hat of palm leaves, employed in every kind of occupation, under the surveillance of the warders.

St. Laurent and its district belong to the Penitentiary Administration, which there reigns as absolute mistress, a great benefit to naturalists visiting the country. All round St. Laurent convict camps are established, some of which are regular towns, such as St. Jean-du-Maroni. These camps are connected one with another by light railways, which penetrate the virgin forest. One can travel on trucks

¹ The Boni and the Bosch are negroes living in tribes in the most primitive manners, who inhabit the Maroni district above St. Laurent. They are descended from escaped slaves, and have the monopoly as carriers in their canoes on the river.

pushed by running convicts, which is a means of transport in the jungle existing nowhere else.

The Director of the Administration came to see me on the quay ; he placed at my disposal a fine and spacious house, surrounded by a large garden with outbuildings which served admirably for the installation of my collection. With the aid of the convicts, who were given to us as servants, we quickly settled in. We arranged a laboratory, bird-rooms, aviaries, and enclosures. Our greatest help was an old convict, the guardian of the house, who gave many proofs of his goodwill. His Picardy accent drew my attention, and I soon discovered that he came from Villers-Bretonneux, my own village of the Somme ; he knew my grandfather, and after 35 years of exile he was quite overcome at seeing a member of my family. His crime, a small burglary—a very light one compared with those of most of his comrades, had been augmented by his many attempts at escape ; and as he himself says, the Bamboos Cemetery awaits him ; that cemetery, however, is pretty, surrounded by immense bamboos, as tall as European trees. During all my stay there, this man proved himself absolutely dependable.

After having installed the Venezuelan livestock that we had brought with us, we occupied ourselves in procuring Guiana species. I engaged some liberated convicts who make it their profession to catch birds to sell skins ; they use blowpipes with wonderful skill ; in addition to that, I provided them with traps, explaining to them how they should be used. Every day they brought me in something they had captured, which my assistant, Mr. F. Fooks, looked after.

There are many interesting birds in the town. Some Humming-birds (*Thalurania* and *Phatornis*) visited our garden every morning ; in the large mango-trees Trogons call with a monotonous cry, while hundreds of blue, palm, maroon, and black Tanagers swarm in the trees. Amongst the long grass and shrubs are numerous Violet Tanagers, Saffron Finches, Seed-eaters of different species, and glossy, black Jacarinis. In the courtyards Passerine Doves run about fearlessly ; the Black Vultures encumber the streets and yards, while large Martins (*Progne chalybea*) cover the roof of the hospital, where they settle or fly about. They are close relations of the purple Martin of the United States.

The country surrounding St. Laurent can be divided into three zones: the open and marshy "savanah", intersected by canals and streams; the second growth, that is to say, the vegetation which has pushed up since the clearing of the primitive forest; and, finally, the virgin forest itself.

In the Savanahs one meets with the same birds as in the town and, in addition, numerous Waders, Rails, Waterhens, etc. The pretty black and white aquatic Tyrant (*Fluvicola pica*) runs along the banks of the streams. As to the Black Vultures (*Catharistes urubu*), one sees them everywhere, and they are as tame as poultry; one can count by the hundred the "Urubus", as they are called in Guiana, in the vicinity of Cayenne and St. Laurent, and also in the towns themselves; but the red-headed Turkey Vulture (*Cathartes aura*) is very rare. In the second growth, one finds an abundance of birds; its thick and lower trees, of the height of those of Europe, shelter quantities of the smaller ones, while Tinamous inhabit the ground beneath. Yellow-winged Sugar Birds were very numerous in January and February; at that season the males are in full colour, blue and black, and frequent low trees covered with fruit, on which they feed; it is the most wonderful sight, for they have a habit of perching on the extremities of the branches, where they produce a gorgeous effect, especially when they open their wings, showing the bright yellow.

In the same places I met with and captured numerous Humming-birds: *Thaluriana furcata* (the Cayenne Wood Nymph), *Phæornis superciliosus*, *Glaucis hirsuta*, *Campylopterus largipennis*, *Florisuga mellivora*. All these little birds were stunned by my men's blow-pipes, loaded with bullets of soft earth. It was there also that I saw so many Ground Doves, *Leptoptila* and *Geotrygon*.

But for the real untouched wild life one has to enter the virgin forest, the jungle; "la Brousse" as it is called by the French colonists. The forest has hardly been touched except in the immediate vicinity of the towns and villages; everywhere else its reign is undisputed over plains, marshes, hills, and mountains. It is the vast equatorial jungle of South America which covers the continent from the Orinoco to the pampas of Argentina, and from the Andes to the Atlantic. And it is a marvel! The lofty trunks uplift themselves

straight and close together to a height of 130 to 150 feet, finally spreading out with superb branches. Everywhere enormous climbers force themselves upwards to hang down again like giant snakes; *Aroïdæ*, orchids, ferns, and, above all, Bromelias garnish the trunks and branches, whilst from the ground rise everywhere palms and tree-ferns, and various plants with red and yellow blossoms (*Heliconias*, *Ravenalas*, etc.).

Contrary to what is generally supposed, the undergrowth of the Guiana forests is not often entangled, and one can easily travel through it; the one inconvenience is caused by the numerous patches of soft mud and stagnant water which one has constantly to traverse and where one may easily be engulfed. The surface of the ground is a succession of mounds and marsh, cut up by creeks.

(*To be continued.*)

COLOUR-CHANGE IN FEATHERS

A very interesting article from the pen of our Australian member, Mr. G. A. Heumann, appeared in the *Australian Zoologist* of 17th May, 1922, of which the following is an extract:—

“In the same way as the food will influence the construction and activity of the animal cell, so it must have an influence upon the kind and the effect of the chemical colour matter. I need only mention the different colours of the canaries which can be produced as red, white, brown, etc. If cayenne pepper is mixed with the food for young canaries the result is red canaries, but if this food is given at a later period, that is to say when the birds are feathered, then only the down and small feathers will show the colour-change, as only these will be moulted out during the first moult, the larger feathers for the time being remain unchanged, for the reason that this feather is meanwhile dead and the matter changes within the body have ceased. This example is proof that foodstuffs materially influence the coloration of feathers, and I am of opinion that in this way the chemical colours may not only be maintained but also strengthened and improved, but of the ways and means in detail, how to achieve this are so far a closed door to me.

“One fact I have settled to my entire satisfaction, and that is that

both insectivorous and seed-eating birds require a certain amount of live food, which itself has lived upon live plants. They absolutely require this a few months before the moult sets in. I have tried this on Orange Bishops in conjunction with feeding on unripe seed, such as millet or grass-seed still in a milky state. I almost got back the original scarlet colour! Red-breasted Australian Robins fed upon mealworms exclusively produced a dirty pink after the first moult, others which received in addition to the ordinary soft bill food minced raw beef became almost white, which shows that the mealworms fed on dry vegetable matter like bran will not produce the natural scarlet in the feathers. During my experiments with the Sanguineous Honey-eater (Blood-bird) I allowed some of these to fly in a large outdoor aviary set with grape-vines and other plants, which attracted myriads of the tiny leaf-fly. The flies served the Blood-birds as food in addition to the sugar-water they received. All these birds moulted perfectly into their natural scarlet plumage. At the same time others were placed in a large cage with plenty of sunlight, and fed on sugar water sprinkled only with dried and crushed cocoons of flies and with powdered flies. The birds did very well on this diet and moulted without trouble—but a washed-out pink! This seems to prove that it was the leaf-fly in conjunction with unlimited sunlight which caused the natural colour to reappear.

“ It is a remarkable fact that even in nature these colour changes always affecting the red pigment may take place unconditioned by age. I have seen in Fiji numbers of yellow-headed Parrot Finches flying with flocks of red-headed ones, the true colour of the species. I have had young ones of this species which eventually moulted out yellow-headed, neither is it an uncommon thing to see yellow- or copper-headed Gouldians—the offspring of either black- or red-headed ones; and I may state here that I received for several years running a silver white Galah, whose brothers and sisters out of the same nest were naturally coloured. I think I am safe in saying that it is only the scarlet which undergoes these variations, but where the actual cause lies is still a mystery to me beyond what I know of experiments. The common Blue Wren, for instance, which breeds freely in my aviary, has always produced young which colour out according to nature,

whereas the young of the Scarlet Backed Wren only show the dirty orange like the parent after the first moult. Now the young of the Scarlet Breasted or Red Capped Robins have never even moulted out a semblance of their natural bright scarlet."

THE ZOOLOGICAL GARDENS

A YOUNG SPECTACLED OWL

When I had the pleasure of seeing Miss Chauner's collection of Owls last summer, I was greatly taken with her Spectacled Owl, a fine adult specimen, beautifully tame, and of very striking appearance. The Zoological Society had not possessed one of these Owls for nearly thirty years, although before 1894 several had been exhibited under the misleading name of "Downy" Owl. It was, therefore, with much satisfaction that we purchased from Mr. Rogers a beautiful young bird of this species. It is still in down plumage so far as its head is concerned, and its appearance is decidedly quaint, the head being covered with whitish down, the face black relieved by its large orange-coloured eyes. Like Miss Chauner's bird, it delights in being petted and in having its head scratched.

CREAM-COLOURED COURSERS

Amongst recent arrivals at the Zoological Gardens are some half-dozen Cream-coloured Coursers (*Cursorius gallicus*) from Egypt, and they appear to be the first examples of this species exhibited at the Gardens. Its home is in the Canary Islands, North Africa, Arabia, away to Northern India, but its migrations have taken it into several European countries, including England. It is an elegant, plover-like bird of desert-loving habits, its coloration harmonizing well with the sand, and its food consisting of insects. It was kept in captivity as long ago as 1851, for Saunders records a bird brought to Favier of Tangiers in that year which lived until 1859, laying eggs each year which were used to stock the collections of several European collectors.

BREEDING THE BLACK-WINGED GRACKLE

A pair of Black-winged Grackles (*Graculipica melanoptera*), kept amongst a mixed collection of birds in the Western Aviary, took

possession of a large log nest, which had been fixed up some time ago for some Choughs. The keeper did not know that they had serious intentions of nesting, and was surprised one day at the end of September by the appearance of two lusty young Grackles, which except for the dullness of their plumage were just like their parents.

This is a very handsome Starling with pure white plumage and black wings, and, so far as I know, has not previously bred in captivity. Its home is in Java.

D. S.-S.

BIRD OF PARADISE IN LITTLE TOBAGO

In the last number of the Magazine Mr. Astley referred to the Birds of Paradise introduced some years ago by Sir William Ingram to the island of Little Tobago as Lesser Birds of Paradise (*Paradisea minor*). This is a mistake, as it is the Greater Bird of Paradise (*Paradisea apoda*) that has been naturalized there.—D. S.-S.

OBITUARY

JOHN LEWIS BONHOTE
WILLIAM ROBERT TEMPLE

It is with much regret that we announce the death of two well-known and highly esteemed members of the Society. Mr. Bonhote joined the Society at its foundation, was a contributor to its first volume, and has been an active and most useful member during the twenty-eight years of the Society's life. He was a member of the Linnean and Zoological Societies and the British Ornithologists' Union, and published a number of valuable papers both on Mammals and Birds. He had been ill for some months past, and died at Bournemouth on 10th October. We hope to publish a fuller notice by one of his most intimate friends in our next number.

Mr. Temple died at his residence at Datchet on 13th October, after a short illness. He joined the Society in 1907, and was well known to many of our members as a keen and successful aviculturist. He was also a great authority on the various breeds of dogs and other domestic animals.

CANDIDATES FOR ELECTION.

- Mr. G. B. CHAPMAN, 17 Tottenham Court Road, London, W. Proposed by D. SETH-SMITH.
- Field-Marshal The Viscount ALLENBY, G.C.B., G.C.M.G., The Residency, Cairo, and Naval and Military Club, Pall Mall, S.W. Proposed by Mr. HUBERT ASTLEY.
- Miss MOLLY HARGREAVES, Nazeing Park, Essex. Proposed by Major ALBERT PAM.

NEW MEMBER.

Captain H. S. STOKES, Longdon, Rugely, Staffs.

THE SPECIAL FUND.

The Committee acknowledge with best thanks the following contributions:—

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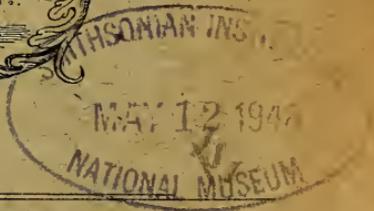
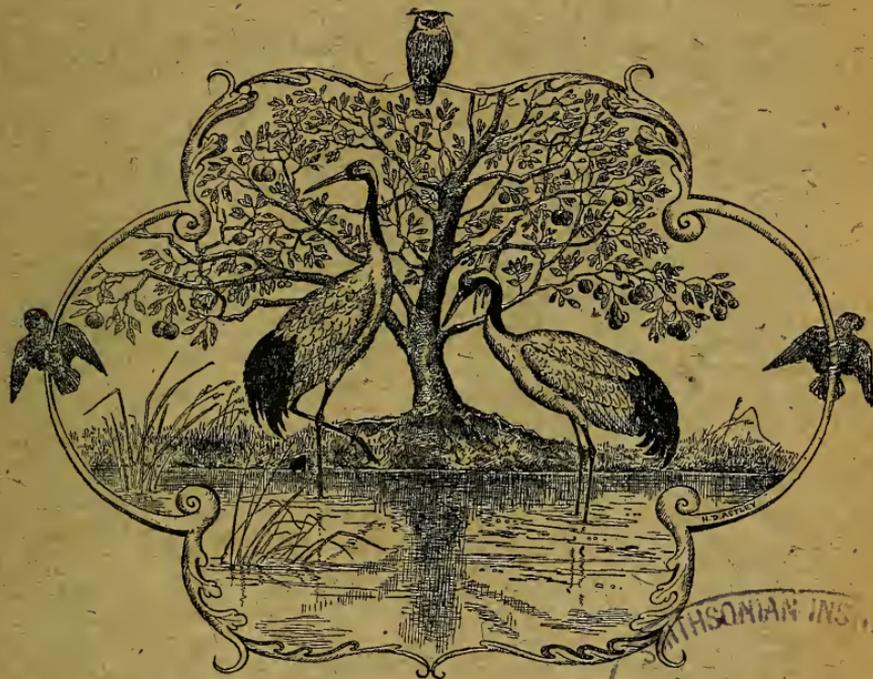
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 MAGAZINE**



THIRD SERIES.
 VOL. XIII. NO. 11.

The Price of this
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NOVEMBER.
 1922.

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THE AVICULTURAL SOCIETY.

FOUNDED 1894.

The Magazine can be had from the Publishers by **NON-MEMBERS** at a Subscription of 25/- per annum.

NOTICE TO MEMBERS

The Subscription to the Avicultural Society is £1 per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/6. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY SECRETARY AND TREASURER, MISS KNOBEL, 32 Tavistock Square, London, W.C.1.

All Queries respecting Birds (except post-mortem cases) and all other correspondence should be sent to the Hon. Secretary, at the above address. **Any change of address should be notified to her.**

Dead Birds for *post-mortem* examination should be sent to the Society's Pathologist, Prof. G. H. WOOLDRIDGE, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W. Telephone: North 1703.

The Magazine is published by Messrs. STEPHEN AUSTIN & SONS, 5 Fore Street, Hertford, to whom all orders for extra copies, back numbers for 1917 and after, and bound volumes (accompanied by remittance), should be addressed. *Current* Monthly Numbers 2/- each (except in special cases, such as the Number containing the List of Members, Index, etc., when the Committee may increase the price), by post 2/1; for back numbers a higher price is charged according to circumstances. Cases for binding the Magazine (in art cloth, with gold block on side) can be obtained from the Publishers, post free and carefully packed, at 3/- each; or the Publishers will undertake the binding of the Volume for 5/6, plus 9d. for packing and postage. Members are requested to state whether they want the wrappers and advertisements bound in at the end or not. Telephone: 46 Hertford.

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Application for these should be made to the Editor of *Cage Birds*, 154 Fleet Street, E.C. 4.

NOTICE TO MEMBERS.

Messrs. R. I. Pocock and D. Seth-Smith have consented to act as Editors *pro tem.* at the special request of the Council.

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IN FREEDOM & CAPTIVITY

Third Series.—Vol. XIII.—No. 11.—*All rights reserved.* NOVEMBER, 1922.

NOTES OF A BIRD-LOVER IN TROPICAL AMERICA

By J. DELACOUR

(Continued from p. 157.)

The fauna of the virgin forest is very rich, but it is not always easy to observe it on account of the depth and luxury of the foliage. The mammals and birds have a thousand ways of concealing themselves at the least sound which causes suspicion, so that one must take precautions and exercise patience in order not to awaken their fear. On the other hand, the birds of the forest are essentially wanderers, certain species frequenting one district at a particular season, where they remain for some weeks, and then disappear to be replaced by others. These local migrations are caused by the abundance of fruits or insects, and also depend upon the breeding season. Furthermore, one does not often find the same birds in the same spot for more than a day or two at a time. Yet numerous species, widely differing, gather together in huge flocks and wander through the jungle.

All this does not facilitate their observation and capture. My bird-catchers were wonderfully well up in their knowledge of the birds of Guiana; they know the seasons when they frequent certain districts, and even certain trees, and also the species one would meet with at the different times of the year. They have given names, often very appropriate, to those species which particularly attract their attention, and I cannot resist the pleasure of quoting some of these quaint appellations; quaint, that is to say, in French, but unfortunately they for the most part lose much of their meaning in English.

- The Bumble-bee Cock (*Lophornis ornatus*).
 The Topaz (*Thalurania furcata*).
 The Solitaire (*Florisuga mellivora*).
 The Bumble-bee Fly (*Chrysolampis moschitus*).
 The Gilded Green (*Galbula viridis*).
 The Louis d'or (20 franc coin), (*Euphonia violacea*).
 The Seven-colour (*Calliste paradisica*).
 The Silver-bill (*Rhamphocælus carbo*).
 The Electric Green (*Chlorophanes spiza*).
 The Blue Velveted (*Cyanerpes cyaneus*).
 The Street Arab (*Lathrea cinerea*).
 The Partridge Hen (*Cryturus soui*).

And last, but not least, "The bird my father," so named on account of its rotund figure, serious mien, and bald head! A brown bird, the size of a rook (*Calvifrons calvus*). The famous bell-bird is a relative.

During the six weeks I spent in the Maroni district I went to the forest nearly every day; in a truck or a launch I reached the proposed spots, then walked through the jungle, followed by a few convicts. Now and then, I undertook trips of several days through the virgin forest or on the rivers, from Mana, on the coast, to above the Hermina Falls, the first rapids of the Maroni, always escorted by my convicts, whose behaviour was exemplary throughout. It is amusing, at night, in the camp to listen to the confidences of the men. They generally try to present their crime in the most favourable light, and if they were to be believed they always had to do with murders committed in a moment of passion. It is well worth hearing them speak shamefacedly of their "misfortune"! I ought to say that the murderers form a sort of aristocracy in the Penal Settlement, looking down upon the thieves! Those, they say, have acted with malice prepense; the assassins, on the contrary, have just let themselves go for a moment, but remain honest men!

The aspect of the virgin forest varies very little. Where the soil is sandy and less rich, the big trees are replaced by the enormous Maripa and thorny Awara Palms (*Maximiliana* and *Astrocaryum*), which make excellent salad.

In marshy ground the slender and elegant Pinot and Comos Palms

grow (Euterpe); here and there the forest is intersected by a vast swamp, which is generally concealed by high grasses; on the banks grow the Mucka-Mucka (*Arum arboreum*) and enormous *Mauritia* palms with fan-like leaves, whose lofty trunks uplift themselves to the height of 150 feet, encircling the savannah; whilst lovely white and pink Water-lilies, which open at night, rest upon the surface of the open water.

One hides oneself at the foot of a tree, remaining absolutely still, field-glasses in hand; and before long the inhabitants of the forest commence to show themselves on the ground; Agoutis, Ant-eaters, Curassows, Guans, Pigeons, and Tinamous come out to find their food; the pretty little black Manakins, with silver-white, golden-yellow, or scarlet heads, shine on the low branches in company with numerous species of Ant-thrushes, with long legs and short tails, reddish-brown, varied with black and white. Golden Green Jacamars perch on the twigs. Sometimes one finds oneself in the domain of the Motmots, which look at you from their thickets, swinging their curious racqueted tails from right to left after the manner of a clock's pendulum, and uttering bubbling notes; and then again one discovers a ground Dove's nest. Above the tree-tops the Toucans pass with their hugely prominent bills, and some pairs of Parrots which stop, chattering at a height of 200 feet amongst the highest branches. There are many species of Amazons, Caiques, *Pionus*, Macaws, Conures, and also some Hawk-headed Parrots, so beautiful and so rare in captivity. How tantalizing! But there is no hope of capturing these birds, nor even of shooting them, for they are too high up.

At times certain trees are transformed for a few hours into a veritable aviary by flocks of birds which come to feed on the fruits. I surprised such troops on several occasions, which permitted me to observe them at my ease. One finds various species mingled together. Troupails with yellow or red backs; violet and yellow or green and pink Trogons, brown Wood-hewers; striped Woodpeckers with scarlet crests; Toucans, Cuckoos, Tanagers, etc. It is a fairy gathering!

Other trees are used as a rendezvous for smaller species, such as yellow-winged and purple Sugar-birds, and turquoise and black-headed Honey-creepers. The purple Sugar-birds are very abundant in the

forest. There are also emerald-spotted and Cayenne Tanagers, whilst Humming-birds mingle amongst them and attack them.

Passing through the jungle, one surprises on the tops of the trees flocks of Paradise Tanagers (*Calliste paradisica*), whose colours of scintillating cerulean blue and emerald green are further enhanced by a back of brilliant orange gold.

Round the scarlet sprays of the blossoms of an enormous "vine" the Topaz Humming-birds buzz; a splendid species almost as large as a small Swallow. The red, yellow, and green hues, iridescent and metallic in the male with his lyre-shaped tail feathers; the golden green colouring of the female; their activity and their lightning-like movements make up a picture which enchants and astonishes. One never sees more than one couple at a time, for any intruders are driven away with sharp cries. Indeed, the Topaz Humming-birds bully all other birds. The smaller species frequent the lower parts of the jungle. The colonies of Cassiques are numerous round the camps and along the creeks; they prefer tall, isolated trees in which to suspend their long, purse-like nests, and it is not uncommon to see trees containing a hundred.

Save for these noisy gatherings of birds silence generally reigns in the forest. Only the Cotingas break the calm with their strange and resounding calls. The magnificent blue Cotingas, whose plumage is brilliant ultramarine satin with rich purple breast, and the curious Pompadour, claret coloured and white, are not very noisy, but "the bird my father" (*Calvifrons*) lows like a cow. The Attila endlessly repeats an unfinished and irritating song; the white Bell-bird makes the forest resound with his sonorous gong, which cry can be heard at several miles' distance, and as for the call of the *Lathrea*, it strikes the traveller with wonder and astonishment.

In the solitary silence of the jungle, a piercing whistle rings out, after a kind of raucous coo: "R-roo—R-roo." "Pi-pi-pi-yo." It is a whistle which almost tears the drum of the ear; another bird answers in the distance, and the cry resounds once more from the same spot, to be taken up by others in their turn, and for hours the deafening concert continues.

It is difficult to make out the authors of this tumult of sound;

one would think that it is produced by a bird of much larger size than is actually the case, but one ends in discovering an ashy-grey bird, the size of a Thrush, of quite ordinary proportions in every way, sitting immoveable on a high branch. This bird, perching in a normal position, gives forth the double coo, and then throwing back its head on to the back, distends its throat, and emits its astonishing call; two whistles, strident and sharp, and then one, more drawn out and descending. It can be heard at about 3 miles off.

But it is really impossible to attempt to describe the charm of the Guiana birds; neither would a whole volume suffice to do so . . .

Another great attraction in the virgin forest is the abundance of the great blue Butterflies, the Morphos. Nowhere in the Guianas or Venezuela are they so numerous as on the banks of the Maroni on the French side; many species of the family (*Hecubas*, *Menelaus*, etc.) swarm in the woods, where they continually flit along the open trails. These wonderful insects descend with gentle flight, falling like sheets of light paper from the tree tops to the ground, the dazzling blue of their wings shining with magnificent metallic gloss. They always seem to fly from a height downwards. Measuring about 8 inches across the wings, they are seen against the dark-green background of the tropical foliage, and present a richness of colouring which no one who has not been out of Europe can imagine. A thousand other species of Butterflies of smaller size, less gaudy but very beautiful, inhabit the forests, whilst the gorgeous *Urania*, green and brilliant blue barred with black, is extraordinarily common in St. Laurent, even over the river itself.

Yet the jungle is not all joy; the mosquitoes are innumerable and irritating, as well as carriers of fever. The Vampire Bats, Blood-suckers, abound; and one has to shelter oneself under the mosquito curtains in a hammock when one is sleeping out at night under the stars. But there the danger of the forest ends, for attacks from Jaguars and other *carnivoræ* need not be feared, any more than poisonous Snakes which avoid human beings, as well as other stinging creatures, such as Scorpions, Spiders, Centipedes, which one seldom sees and which run away as much as possible. I never had the least feeling that any of these would ever attack or bite me, and I never took any precautions to avoid them.

It is no easy matter to accustom the feathered inhabitants of the tropical jungle to captivity. Certain species are very refractory; at different times we attempted to keep Jacamars and Manakins in cages, but without success. Some lived for a few days, others a few weeks, appearing to become accustomed to the food, only to succumb in the end. Tanagers, Cassiques, Barbets, Toucans, Sugar-birds, Quit-quits, etc., accustomed themselves very quickly to a diet of bread and milk; insectile mixture for the insectivorous birds, and fruits, of which bananas, and above all papaya, are the best one can find, but guava was also greatly appreciated. Small waders, although more difficult, take well to chopped meat, mixed with meal, etc. Seed-eaters are generally wild and it is difficult to induce them to feed, and one loses a good many at first; but our most interesting experience was with the Humming-birds. These wonderful little things were all caught with the aid of a blow-pipe loaded with pellets of soft earth, by which means they were stunned, and were almost always brought to me in an unconscious state. We then held them in our hands to revive them and make them feed. Each Humming-bird was placed in a small cage fitted with fine twigs and a special food vessel covered in metal with small holes pierced to permit the birds to insert their bills, at the same time preventing them from soiling their plumage. They were fed upon a mixture of Mellins' food, milk, and honey, which was sometimes substituted by phosphatine in place of the Mellins'.

At first we had to hold each bird for at least ten minutes to induce it to insert its bill into the liquid food and take nourishment, and they often drank of themselves after three or four attempts on our part. When they refused we placed their beaks in our mouths and inhaled gently, which generally produced the desired result. If a Humming-bird was unwilling to feed, we had recourse to the unfailing means of dipping its beak as far as the nostrils in the liquid, which forced it to put out the tongue, when it at once drank greedily.

The effect of the food upon these birds is extraordinary and immediate. A Humming-bird which seemed to be lifeless, buzzed about actively in a minute's time; but, on the other hand, it would quickly fail again, so that one had to again make it feed as soon as it showed signs of drooping. We found that it was necessary to catch

the birds in the morning so that they had the rest of the day in which to recuperate, for Humming-birds caught in the evening died more frequently. Usually they will feed by themselves between four and six hours after their capture, when they begin to realize that their food vessel is as good as any flower filled with nectar and tiny insects, and they then pay it frequent visits. One must watch them carefully until one sees that they can feed by themselves, and then one must not touch them again. They feed very often and take very little at a time. Certain individuals and certain species are more difficult to accustom to cage life; for example, the superb Topaz Humming-bird will not feed by itself for thirty-six or forty-eight hours, and this species is very wild where others quickly tame.

The great difficulty is with regard to the food, which in a tropical climate so quickly goes sour, and one has to mix it fresh several times in the day, particularly in the morning before sunrise, so that the Humming-birds could run no risk of drinking sour food. One should not, however, remove the food vessel over night, after the birds have gone to sleep, for they tumble down and are unable to find their perches again, which would be fatal. Humming-birds are so pugnacious that it is impossible to keep them together in a cage. I tried to put two females together, and also a pair, but hardly had they recovered from the shock of their capture, than they fell upon each other immediately.

Thanks to constant attention we did not lose more than ten per cent of our Humming-birds, and on leaving St. Laurent we took with us thirty birds representing the following species: *Topaza pella*, *Campilopterus largipennis*, *Florisuga mellivora*, and *Thalurania furcata*, the two latter being the most numerous. These are exquisite little birds, the male having the breast and back violet-blue, the throat brilliant emerald green, with metallic lights. The female is pearl grey and golden green. This species was very abundant in the neighbourhood of St. Laurent in January and February, but the birds disappeared at the end of March. My collection was further increased by Tinamous (*Crypturus soui*), Grey-fronted Doves (*Leptoptila rufaxilla*), Cayenne Rails (*Creciscus cayennis*), various Macaws, Jacarini Finches, and other little seed-eaters, Saltators, Quit-quits, and many Tanagers, not to mention some mammals.

The animals and birds rested at St. Laurent with my other collections under the care of Mr. Fooks, whilst I visited Suriname and Demarara and went to spend a week with Mr. Beebe at the tropical Research Station of Kartabo (British Guiana), and I rejoined my collection on board the steamer *Antilles* when I re-embarked three weeks later at Georgetown (Demarara) for Trinidad and Martinique.

NOTES ON BREEDING THE WHITE-BREASTED GROUND PIGEON (*PHLOGÆNAS JOBIENSIS*)¹

By HERBERT BRIGHT

Mr. Page has given the following description of this beautiful Pigeon, so I cannot do better than quote his words. He calls it "a near relative of the Bleeding Heart Pigeon, from which, however, it differs entirely in deportment and coloration, and to which we have given the trivial name of White-breasted Pigeon or Dove. The Bleeding Heart Pigeon in captivity spends most of its time upon the ground, but during two days we did not see it upon the ground at all. The general coloration is rich vinous-cinnamon refulgent with a purplish sheen; upper eye streak, lower eye region, whole of the throat and breast white narrowly margined with black, the whole of its appearance being very handsome and gorgeously beautiful." I have since discovered a point of importance that we both missed when looking at the birds. It is the way, in my pair, at all events, of distinguishing the sexes. In the male bird the white eye streak meets over the base of the beak while in the hen there is a narrow dividing line where the dark colour of the head runs right down to the beak, cutting through the white. I noticed this when looking at the hen sitting on her young. She was very tame at this period, and would not move when we passed within a foot of her nest. My birds came over in a consignment of Australian birds, and I was assured they were a true pair, but was much amused later on when talking to the then owner to hear that he thought they were two cocks. He had evidently not noticed this difference. They had been well cared for on their long journey, and were in good condition

[¹ *Phlogænas jobiensis* Meyer, *margaritæ* (D'Albert and Salvad). Inhabits New Guinea, Jobi, and Bismarck Archipelago.—ED.]

except that one had its wing cut short right across the primary flights. I let both birds have their liberty, thinking they would be all right, but found the cut-winged bird climbed up as high as possible and then went bump on the floor of the aviary when anyone came near, so I had to cage it until the flights were renewed. This took some weeks, but may have helped to induce the birds to breed, the weather being fine when I gave this bird its liberty, and the two birds were evidently delighted to meet. They soon started to go to nest, selecting a well-sheltered spot in a creeper growing thickly on one of the standards of the outdoor flight. Here they sat and, I believe, hatched one young one—I saw them feeding for a few days, but they left the nest after that and I found only a clear egg there. Both nest and egg closely resembled the usual Doves' nest, consisting of a few thin twigs lightly put together. The cock was very wild, and used to dash off when anyone came near the aviary. I think he must have thrown the first young one out in one of his wild rushes. He actually did this in the second nest, only I fortunately found the young one on the ground and put it back in the nest. It was about four days old at the time. The birds selected a precisely similar position for their next nest, but this time it was the corner post by the door of the aviary, and I had faint hopes of rearing any young ones. However, fortune favoured me, and all went well. The hen never flew off her eggs or young except on one occasion, when they were just about ready to fly, and I tried to get a good look at the family. The hen got nervous and dashed off, and out flopped first one and then the other of the two young birds. It was a cold damp evening, so I thought I would try and put them back in the nest, but had slight hopes that they would stop there. I have tried several times to do this on previous occasions with other Doves but always found the young birds jump out again. However, this time I got both of them and put them in together, keeping my hand over them for a little time, and then taking it quickly away again when I saw the hen coming back. I slipped away and the hen came right on to the nest and settled down for the night. They remained in the nest two days after this, although the older bird was well able to get about when I disturbed them. The younger one was not quite fully feathered. After leaving the nest, I never saw

a sign of them for a week and then I found one, then some days later I saw the other, but it was days later still before the old birds brought the young ones into the bird house where the birds are fed; now they come regularly, and I have seen them feeding on several occasions. The young are rather unusual-looking birds, being smoky black all over except for a slightly grey shade on face and breast. There is hardly a trace of the beautiful purplish sheen of the old birds and no white markings. The beak is light horn-colour, but is turning quickly darker. The young hen is a little lighter in colour and a little greyer on face and breast than the cock, also at present a little smaller. Although my birds spend very little time on the ground, I think they have a decided look of the Bleeding Heart Pigeon. The only sound I have heard them make is a very unmusical grunt. The cock made this noise continually when driving the hen to nest. They still go about with the two young ones, which are very wild, and have evidently finished all breeding operations for this season. I have found them quite good tempered with other Doves, and have never seen them take the slightest notice of the numerous other Doves in the aviary, nor have any of the other Doves interfered with them.

SUCCESSFUL BREEDING OF THE ISABELLINE TURTLE-DOVE (*TURTUR ISABELLINUS*)¹

By HERBERT BRIGHT

The Isabelline Turtle-dove bears a strong resemblance to the Wild Turtle-dove (*T. turtur*), but is of a warmer coloration and presents an even more pleasing appearance.

Description.—Entire head, back of neck, sandy-brown (isabelline); upper back, fawn-colour; lower back, rump, and upper tail-coverts, dark fawn-colour; the feathers of the lower back with dusky centres; wings, cinnamon-brown; under parts, vinous-brown; abdomen and ventral region, white; tail, central feathers dusky-brown, broadly tipped with brown, remaining feathers blackish-brown, broadly tipped whitish fawn-colour. On the sides of the neck are two blackish

[¹ *Turtur turtur isabellina* is a subspecies or geographical race of the common Turtle-dove.—ED.]

patches variegated with fawn-colour, and the neck is flushed with refulgent vinous-pink. Bare skin round the eyes, red; legs and feet, red. Total length, $11\frac{1}{2}$ inches, of which the tail measures nearly 5 inches (approximately $4\frac{7}{8}$ inches).

The female is slightly duller, more slenderly built, and the ashy-wash on the sides of body and back more distinct than in the male.

Juvenal plumage very similar to adults, but paler, and the under parts are sandy brown; no neck patches.

It is a native of North-East Africa, and is a very pretty and handsome Dove. I obtained these birds from Mr. Rogers, of Liverpool, who, I believe, got them from the Giza Zoo at Cairo. There were four of this species among various other Doves, and I liked them so well that I brought them away with me. On my arrival home, the weather being warm and fine, I selected what I felt sure were a true pair, and turned them into my large aviary—I had no hesitation in doing this, as the birds were in perfect condition and plumage.

The outward difference between the sexes being infinitesimal, I first picked out, as a hen, the smallest and slimmest bird of the four, and then took the largest and boldest of the other three, and felt pretty sure that I had picked out a true pair, and later events proved this to be correct. The other two I put into another aviary, and I feel sure they are both of the same sex, as they have never shown the least inclination to pair nor make any attempt to construct a nest. I believe them to be males.

The pair in the large aviary settled down almost at once, and in about a fortnight I saw the cock driving the hen about and displaying to her, but, at first, she took but little notice of him. She evidently had not fully got over the importation journey and change of home, but the male persisted and a little later I saw her carrying small twigs into a clump of elder bushes, in the forks of which they constructed a fairly substantial nest of stout twigs for the base and finer twigs on top. The hen laid almost immediately, and in due course hatched out two squabs, which were fully reared. They remained in the nest until they were fully feathered, and there was barely room for both. I looked at them several times, and began to wonder when they would venture out, for they appeared as well grown as their parents.

Eventually I saw one young bird perching in the elder quite close to the nest. When at last they began to go about the aviary they were able to do so as easily as their parents. This is quite different to most species of Doves, as the young mostly leave the nest at a very early age, and, being somewhat helpless at first, losses are not uncommon, and I was gratified that the Isabellines were wiser than most of their kind. The parent birds soon brought them over to the seed tray, and they started at once to pick up seed for themselves.

Without loss of time, the hen laid again in the same nest, and brought out another pair of strong young Doves as before. They at once went to nest again, as before occupying the original nest, and brought out another pair of equally strong young birds, though the weather was then quite cold, with much rain.

Just before the above pair was hatched I wanted to send a pair away to a friend, and had great trouble in picking them out, owing to the adult hen being in moult and the earlier youngster with the adult plumage all but complete.

When the young left the nest they lacked the dark body markings and neck patches of the adults, and their plumage generally was paler than that of their parents.

This species is no trouble in the aviary among the other thirty or so small Doves of various species, only showing a little temper when their nest was too closely approached. The young were equally amiable, and did not interfere at all with their parents' subsequent nesting operations, nor with the later young birds after their exit from the nest.

When Mr. Page was here on a visit in July last, he rather thought this species had been bred at the London Zoo, but subsequent inquiries prove that they have not yet had the species in their collection, so, apparently, this is the first time Isabellines have reared young in England.

REMARKS ON SOME CASSOWARIES

By FREDERICK D. WELCH

In October, 1920, there arrived in the London Gardens two Cassowaries, which were labelled finally as *Casuaris violicollis* from the Aru Islands, the English name being Violet-necked Cassowary.

As these bulky birds are flightless, having only rudimentary wings, and as it seemed by no means unlikely that they might in future years become extinct through being hunted by the natives in these islands, which are not extensive enough for a species to spread and range widely, it occurred to me that a description of them might be worth writing in order to show the alteration as they approached adult life.

When first seen by me they were in immature feathering of brown on body and legs; and there were short brown feathers on head and neck except where the two fleshy wattles were on the anterior and lower part of the throat side by side, and where the horny substance was on crown of head—the casque-site. This latter was quite flattened, and both birds were then often uttering the chirping noise so often made by young Cassowaries of various species. According to my notebook, on 3rd January, 1921, both birds were as follows: Crown of head (casque place excepted) and round ear holes covered still with short brown feathers; skin, greenish-blue in colour around eyes (the iris being brown) except the upper anterior part, which was whitish. The skin round the ear holes can be seen, viewed between the feathering, to be greeny-blue, as also the skin round wattles; but the wattles are of a pinkish-white colour. Beak was slaty-grey, as also horny substance on crown; legs greyish. At that date they stood about 25 inches in height at level of back, and were both then of same size, and plumage on body round legs, etc., was still brown.

On 16th June, 1921, according to my notes, wattles are brighter coloured, with more pinkish red, with skin around them now markedly blue, extending up the throat as far as ear holes. Round eye and above level of ear holes the skin is more of a greenish-blue, and there are still brown feathers on the crown (excluding casque-site) distributed thickly. On throat, however, and round wattles the brown feathers have almost all been shed; but they are still present at back of neck

low down where the skin colour can be seen showing between the feathering as a bright red patch.

Other parts of plumage were different in the birds by this date, when one had grown larger, being about 32 inches at level of back, whereas the other was about 29, there having appeared a marked blackish hue on the shoulders and back of the smaller bird—and, to a *lesser extent*, blackish also on those of the larger. The rest of the feathers on body and round legs were very similar in both birds, being brown. This different extent of blackish hue, and also the different size, suggested to me they were different sex—the smaller being a male.

It is, I believe, the case in some other species of Cassowary, that the males are smaller than females (in this being analogous to some birds of prey). The height of the smaller bird from the ground-level to the crown of its head would be about 43 inches, the casque itself being about $\frac{1}{2}$ in. high—this being estimated from the living bird.

Owing to temporary ill-health, I could not continue the observations during the winter of 1921–2, and it was not until 15th June, 1922, that I found it possible to proceed with the observations.

During the year both birds had grown, the height of the smaller at the level of the back being about 33 or 34 inches, that of the larger about 36; while the height at the casque, when standing, was about 49 inches in the smaller, 54 in the larger bird. Both still had brown feathering round legs and on body near tail end. The casque in both birds was about 1 inch high, rounded from side to side and behind, and dark grey in colour.

The iris was brown, and head and neck were now bare of feathers. Above the level of the eye and ear holes the skin was bluish and tinged with white; below this it was dark violet blue (from which part the species presumably takes its name of Violet-necked) except the back of the neck, where the colour was red and the skin wrinkled.

The wattles were more reddish than a year ago; and the division between them where they met each other in the median line of the throat was longer in the smaller bird, being about $1\frac{1}{4}$ inches, than in the other bird, in which it was about 1 inch.

I cannot say with certainty whether this different length of slit

between the wattles is only an individual variation in these birds now in the Zoological Gardens, or whether it is a sexual difference, and therefore constant in males and in females. But which ever it be, there seems worth while laying some stress on the difference in wattle in the two *Casuaris violicollis* now in the Gardens. It may be not out of place here to insert that in the Two-wattled Cassowary (*Casuaris bicarunculatus*) from Aru Islands the wattles are differently placed, being separated from each other by about an inch, and not side by side as in *C. violicollis*. By August smaller bird was almost all black. The beak was dark in both birds, a blackish-grey, as also legs.

A position in which Cassowaries show to advantage, in my opinion, is when they are seen by the observer side view and sitting at rest on the toes and part of leg above as far as the next joints—these parts of the legs being applied on to the ground, the toes being in line with the part of leg above—the upper part of legs being vertical (as they are in standing) and the head and neck carried erect as the bird sits still resting itself.

In this position the shape of these peculiar birds can be observed better than when walking. Cassowaries feed on greens such as lettuces and such-like vegetation in captivity. Whether the present birds will lay eggs, which are large, blue-green colour, is of course uncertain at the date this description was penned (September, 1922). But as other species, such as the non-wattled Westermann's Cassowary (*Casuaris westermanni*) from the Island of Jobi, and the One-wattled Cassowary (*Casuaris uniappendiculatus*) from New Guinea laid in the Gardens to my knowledge in past years, previous to 1910, it is not unlikely that the above described Violet-necked Cassowaries may also do so. If a true pair (as I believe), it will be of interest if the eggs prove fertile.

At middle of August, 1922, the smaller (? male) *C. violicollis* frequently uttered a sound like "boo-boo", the throat dilating during such, which was obviously a voice of pleasure, being uttered when eating. I did not myself hear the other *violicollis* utter it.

In concluding, a few remarks as to the geographical range of Cassowaries may be worth adding. The deep-sea channel between

the islands of Borneo and Celebes, Bali, and Lombok, which is known to science as "Wallace's Line", being so named after Dr. A. R. Wallace, is presumably more interesting to mammal workers than to ornithological ones as a boundary line in zoological distribution, because mammals, except bats, cannot fly, and some few such as flying-phalangers (a sort of marsupial), flying squirrels, the total number of which is not numerous if we include only those capable of some miles flight. It is clear, therefore, that mammals are more restricted in range than birds are by the sea.

But the Cassowaries are, on account of their rudimentary wings (which are of *no use* in carrying such bulky bodies in flight even for a short distance), restricted in range by the sea boundaries, and are confined to the south-east of Wallace's Line in the islands there, Aru, Ceram, New Guinea, New Britain and such-like, none of them extending over the line into Java or Borneo.

This seems to me to point to the fact that the group must have had these rudimentary wings at a period *very, very far back indeed* into the long-distant past ages of the World's History. Otherwise they would almost certainly have crossed Wallace's Line.

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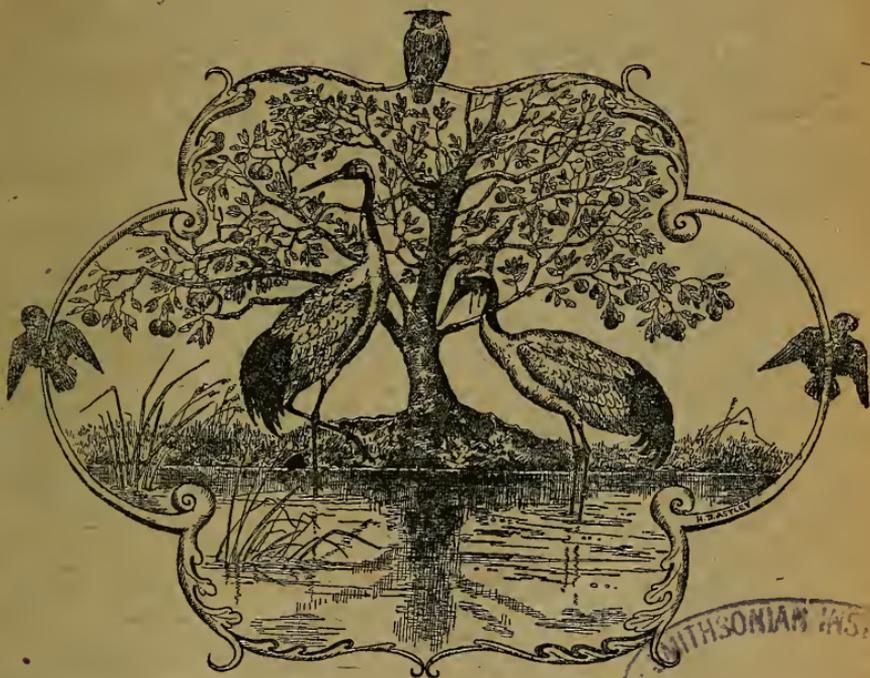
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 VOL. XIII. NO. 12.

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DECEMBER,
 1922.

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THE AVICULTURAL SOCIETY.

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NOTES OF A BIRD-LOVER IN TROPICAL AMERICA

By J. DELACOUR

(Continued from p. 168.)

SURINAM

The Maroni river is at times subject to big storms. When I left St. Laurent for Albina, where I had to take the little Dutch coastal steamer for Paramaribo, huge waves beat against my boat, so that it took me half an hour to cross the river, and I was only able to land after many difficulties.

The voyage from Albina to Paramaribo, following the Maroni and coasting along Dutch Guiana, has nothing to commend it. A rough sea and a cockle-shell boat encumbered with coloured people, Chinese and a regular medley of humans. I was already acquainted with Paramaribo on the Surinam river, which gives to the town itself and to the whole colony their names. The river resembles both the Maroni and all the other water-courses of the Guianas, vast and brown, with muddy shapeless banks.

The capital of Dutch Guiana is very pleasing; the pretty pale-blue houses, many of which carry the mark of the eighteenth century, the broad avenues of the flaming flamboyant trees, the lovely botanical garden, and the general air of neatness and prosperity, give a sense of calm and repose.

The population of 40,000 inhabitants is so mixed and so picturesque that one is never tired of observing it—Indians, Hindoos, Javanese,

Chinese, Negroes, Europeans, and all the possible combinations of these races, each one preserving for the most part its particular costume, modes of living, fêtes, etc.

At Surinam one finds the same kinds of birds as at Cayenne. At the house of an aviculturist, who collects birds and animals to send to the Zoological Gardens of Rotterdam, I saw a Trumpeter, a young Spectacled Owl, a Curassow, and various mammals. In cages in the windows were Grosbeaks, Seed-eaters (*Sporophilæ*), and some violet Tanagers.

Thanks to the kindness of the Director of Agriculture and of his assistant forester, who was willing to serve as my guide, I made some interesting excursions in the country. The virgin forest has been much more cut down than in French Guiana; by which means numerous pastures have been acquired which surround the farms, and where Anis and Grackles abound.

These farms are worked by "Boers", Dutch peasants, whose clear complexions and fair hair are very conspicuous in the tropics, where nearly all the other people are more or less coloured.

The jungle of Surinam is much the same as that of the Maroni, and the fauna is also similar.

But the species of Humming-birds are rather different. *Thalurania*, which was so common there, was absent; this species being replaced by *Phaetornis* and *Agyrtia*, neither of which I had seen before. I imagine that the great watercourses assist to a certain degree to disperse and separate certain species. In the fields of the plantations gained from the forest, certain species are particularly abundant, notably the Grosbeaks (*Oryzoborus* and *Sporophila*), Parrots (*Conurus* and *Psittacula*), and the curious black Puff-birds, which rather resemble a Swift (*Chelidoptera brasiliensis*). These birds perch on dead branches at a great height, from which they fly from time to time to immediately return to the tree. One also sees there the Paradise Jacamar (*Urogalba Paradisea*), so pretty with its long bill and tail, and its plumage of blue and rich green marked with white on the throat.

A very charming bird of prey abounds in this region, the "Nauelère" (*Elanoides furcatus*), with the form of a Swallow, sharply pointed wings and forked tail, pure bluish-grey in colour, with an exceedingly light and graceful flight.

DEMERARA

After spending a week at Surinam, I again boarded the horrible little coasting steamer, with the same unwelcome style of coloured passengers and the same inconveniences, and disembarked the next day at Nickérie, crossing the vast estuary of the river Corentyn in a launch, and landing at Springland in British Guiana. Dunlins (?) were flying over the river on their spring migration.

A pretty canal, covered with rose-coloured Lotus flowers, welcomed us, and a Ford car took us to Georgetown (Demerara) along the excellent coastal road, passing New Amsterdam and crossing the river Berbice, a haunt of a colony of Hoatzins. These extraordinary birds are much less abundant there than on the Apure in Venezuela. The coast for a distance of about 150 miles along the road is worn away, and is now a flat country, semi-inundated, intersected with canals, where innumerable cattle are reared, and rice is also cultivated. The huts of the Hindoos succeed one another uninterruptedly, miserable and sordid on their piles over the water. Tens of thousands of Bengal coolies live along the road. The monotonous country, bordered by the horribly muddy sea, is unvaried except for the cocoanut plantations, the brilliant scarlet sprays of the flowers of the beautiful "Flamboyant" trees, the rose-coloured lotus and the huge Victoria Regia which covers the waters of the canals, and above all the numerous Blue Herons and Egrets which move about amongst the cattle and on the beach. Georgetown, with its 60,000 inhabitants—Hindoos, Negroes, people of mixed blood and Europeans, all noisily employed in their various businesses—offers little interest to the naturalist except in its museum of Natural History, where one finds good local collections. Certain live birds are offered for sale in the market, but at exorbitant prices. One is gratified to find that the fauna is effectively protected in the colony.

THE BOTANICAL GARDEN OF GEORGETOWN

Buytenzorg and Peradenya are, respectively, the pride of Java and Ceylon, and have the reputation of being the finest botanical gardens in the world; yet the splendour of that of Georgetown alone is well worth the voyage to Demerara. Nowhere in the world can one see a finer assembly of tropical aquatic life than on these lagoons and canals.

Certainly these collections of palms and orchids, these sumptuous groups where one finds flora from all tropical countries mingled together, are arranged with exquisite art and form a strange and magnificent park of exuberant verdure and brilliant flowers, enlivened by Tyrants, Tanagers, and other birds that are usually met with in Guiana. But these canals and pools, filled with water lilies, lotus, and *Victoria Regia*, and peopled with Manatees and Waders, appear to be from dreamland, and in short reveal to us the true charm of the Guianas. Here are two long canals which run on either side of a lovely straight and long avenue, shaded by imposing palms and rare trees. As far as one can see the *Victoria Regia* displays its immense leaves of over two yards in diameter, with carmine edges upturned, and their great scented flowers, red, pink, and white. The flowers of this strange plant live for two days only, and change from pure white to sombre red. The *Victoria*, native of a little lake in the interior of the colony, has from there been dispersed in all the gardens of tropical countries, and also introduced into our European hothouses. Its leaf is the largest in existence. Here we come to a square pool starred with water lilies, whose sky-blue flowers with bright yellow hearts uplift themselves above the surface of the water; further on there are acres of pink, white, yellow, and variegated lotus, colossal tulips rising above their grey green leaves, rising from the water to a height of over a yard. Then other lakes filled with blue and pink water lilies, others with *Nenuphar*, white or red. These orgies of aquatic flowers succeed each other endlessly, and in the midst of all this beauty one admires the pretty chestnut and black Jacanas, with their citron-coloured wings, watching over their grey chicks, whose feet, with length out of all proportion, make one think of daddy-long-legs. The big Waterhen (*Gallinula galeata*), with its red beak and its frontal shield, and the little *Porphyrios*, blue and green, walk about on the floating leaves, which are sometimes disturbed by the plunging of a small alligator (*Caïman*). Islets of entangled vegetation arise in the ponds; they constitute the domain of the Herons, which are protected there and peacefully pursue their occupations under the eyes of the public. In March the Herons of Demerara were nesting. During the day one only saw the sitting birds, and the parents who came without ceasing to bring food to their

young, and a great number of nestlings, which, without being able to fly, scrambled about awkwardly in the middle of the entangled branches. Towards evening the whole colony returned from the seashore, where it had passed the day feeding. Innumerable grey and white dots appeared in the air and reassembled on the trees of the islets with raucous cries and disputes. One cannot imagine what an interesting spectacle these birds present, with their peculiar habits, irascible but sociable in their colonial life. Four species inhabited the garden during my visit, the little Egret (*Egretta thula*), the little blue and tricoloured Herons (*Florida cærulea* and *Hydranassa tricolor*), and the violet Night Heron (*Nycticorax violaceus*). In the larger pools big forms travel under the water with strong movements. A Hindoo keeper throws in some grass and whistles, and from the summit of a little Japanese bridge I see the lotus plants yielding to the passage of some large aquatic animal. The movements multiply and converge towards us, and then on the surface of the muddy lake appeared a cowlike muzzle with broad nostrils which opened and shut. A Manatee commences his repast, and is soon accompanied by five or six others. The enormous rounded backs appear on the surface; they seemed to be made of old worn-out leather, greyish brown in colour, and attaining a length of several yards. The Manatees have been introduced into the pools of the Botanical Gardens for some long time, and several generations have succeeded one another there; they increase, but not in considerable numbers. These great aquatic mammals, still fairly abundant in the South American rivers, are decreasing rapidly in numbers. In addition to which it is most difficult to study them, for they never leave the water and are naturally timid. The captives of Demerara are on the contrary very tame.

Amongst the waders mingle the curious *Rostrhamus sociabilis*, birds of prey which feed upon shellfish; a very great number flew from tree to tree, emitting sharp cries. These also had their nests in March mixed with those of the Herons, who showed not the slightest fear of them. During my stay at Demerara I used to return time after time to the Garden, and I passed my last evening there; before leaving the South American continent I wished to see once more the Jacanas dancing on the gigantic leaves of the *Victoria Regia*, and the Herons flying over the pools starred with the blooms of the water lilies and the lotus.

KARTABO

The creation in 1916 by the Zoological Society of New York of a station for tropical research in British Guiana was an event of considerable importance in the annals of Natural History. Nothing analogous to it had up till then been attempted in Zoology.

Mr. William Beebe, Curator of Birds of the Zoological Park of New York, had volunteered to serve in the Great War in France in the Flying Corps, and when finally, after being disabled and passed as unfit for further active service, he regretfully abandoned the battlefields, he was appointed Director of the proposed Station of Tropical Research and charged with its organization. Amongst his numerous publications, Mr. Beebe has described to us the founding of the Kartabo Station, and has kept us continuously interested in his thrilling work ; and more, his graphic style has brought wonderfully to the minds of the inhabitants of chilly Europe and of the States of North America the marvellous life in the tropics, for Mr. Beebe has the pen of a scientist and of a writer.

It was, then, a real joy to me to accept the invitation which he sent me, knowing that I was in his part of the world, to go and spend a few days with him. From Georgetown, crossing the Demerara, and then traversing the coastal district, one reaches the Essequibo. The majestic river has the appearance of a sea, for the opposite bank (16 kilometres) is hardly visible in the misty atmosphere which generally prevails in the Guianas.

A steamer carried me, travelling up the great river, which does not differ from other watercourses of the Guianas, except in its more vast proportions. After some hours' navigation, we reached its confluence with the Mazaruni, and, immediately after, the junction of that river with the Cuyuni. The three vast currents appear to join at the same point and to form a magnificent lake, surrounded by the giant forest.

Three promontories push themselves out ; to the right is the Penal Settlement, where one lands ; to the left Bartica Grove and Kalacoon, the former seat of the Research Station ; and in front, on a sharp point of land which separates the Mazaruni from the Cuyuni River, is Kartabo, where the American naturalists now have their dwelling. The Research Station is not luxuriously installed ; an old and simple colonial house, encircled by its verandah and small tents, whilst all round grow giant

bamboos at least 100 feet high, and in front of the house there opens up the splendid panorama of the confluence of the rivers, with the Essequibo in the background. The house itself is used as a store, the verandah as a laboratory and dining-room, and the tents as bedrooms.

But what an excellent situation for studying the fauna ; at the back of the house a trail, which served as a path to a gold mine, pierces the thick jungle ; a very few paces and one finds oneself in the heart of nature in the midst of most strange creatures ; the rivers themselves containing and enclosing all kinds of curious life.

The Director had as his companions naturalists who are experts in their several branches, as well as artists for drawing and photographing the birds and animals. The organization of this laboratory of the virgin forest, where nothing but living or freshly-killed examples are studied, does Mr. Beebe the very greatest credit and fills one with admiration. Hard work is the rule at Kartabo, from 6 a.m. until nightfall and even later, with little time for regular meals. The results are remarkable ; all the living creatures of the region, from worms to mammals, are captured, measured, drawn, photographed, and thoroughly studied at all periods of their existence, being examined most thoroughly from all aspects and from every possible point of view. And thus the mystery of the tropical life of the Guianas is slowly solved.

As far as the birds are concerned, Mr. Beebe has set himself the task of observing their habits and of throwing light on the question of the development of species of which little is known and which are most interesting, such as the Hoatzin, the Toucans, the Trumpeters, the Curassows, Tinamous, etc., etc.

I left Kartabo at the end of a week, enchanted with the cordial welcome which I received, and with the fine work accomplished and the excellent organization of the Research Station.

I wish all naturalists could go there ; for they would carry away an exact idea of nature in the tropics, and would understand how it is possible to establish a laboratory in the midst of the virgin forest, to gather together scientists and artists, and there on the spot to thoroughly study all the manifestations of life to be found.

One cannot too heartily congratulate the Zoological Society of New

York for the initiative it has established, not only in founding this station of Tropical Research, but also in placing Mr. Beebe there as Director.

(To be continued.)

ABOUT BIRDS IN NORTH AMERICA

By F. E. BLAAUW

(Continued from p. 101.)

From San Francisco I visited the *Sierra Nevada*, chiefly for its Wellingtonias and other wonderful conifers.

The first day I went by auto to *Merced*. At first the country was hilly, but not wooded, and then it became flat and uninteresting, except for the mass of small sunflowers that formed a yellow border along the road. Scarcely any birds were visible.

I spent the night at *Merced*, and continued my travel next morning, first to *Miami Lodge*, where I got some lunch. The road led through a perfectly flat plain, the road being again bordered by sunflowers. Then gradually we got into low mountains with hardly any vegetation, and then as we got higher, feathery blue pines and some oak-trees became a feature of the landscape. The pines looked very delicate with their slender long needles and white coloured shoots, and they seemed to be unnaturally burdened by their enormous cones (*Pinus sabiniana*). The oak-trees, which, I believe, were specimens of the blue oak (*Quercus douglasii*), stood separately, or in groups, and gave the country a parklike aspect.

As we got higher we got into regular woods where the conifers dominated. At first I saw specimens of *Pinus ponderosa*, then *Libocedrus*, *Abies concolor*, and last, not least, the wonderful *Wellingtonias*. These big trees, I am sorry to say, are mostly labelled, in so far as they are conspicuously fine ones, and I was not a little disgusted at finding a label with "General Grant" on one, and General Somebody Else on a second one, etc., etc. The shock to my feelings was, perhaps, only surpassed by that occasioned by all the dirt and filth left by camping individuals at the foot of those wonders of creation. The auto is probably considered as a blessing by most Americans, but it certainly has taken away a great deal of the beauty of the American landscape.

The evening found me at *Wawona*, where I was to spend a couple of days. *Wawona* is an hotel, and it is surrounded by glorious trees of the conifer family, which, however, are treated with but scant respect. There is a stream not very far from the hotel, and on the stones that emerged out of the water I saw again a specimen of *Sayornis nigricans*, which was busy catching insects. Near the river was some low brush-wood that was partly fenced, for some purpose or other, and on that fence my sight was gladdened by a family of plumed or painted Quails (*Callipepla picta*), which are called *Mountain quails*, I believe, by the inhabitants. The painted Quail is a rare bird in captivity in Europe, and I was extremely glad to see it in its native haunts.

A Red Finch, somewhat shaped like a big Linnet (*Carpodacus mexicanus frontalis*), and called there the *House Finch*, was rather a common bird. I also met one single male example of the Bluebird (*Scalia wilsoni*), and once or twice a little Yellow Warbler. In a thin wood, against a mountain, I met a family of *Steller's Jays*, the parents busy feeding their fully fledged offspring. *Steller's Jay* is a most beautiful bird. It is blue with a black crested head, which is again ornamented by a metallic blue front. A little farther I also came across a family of *Californian Blue Jays*, which are crestless and have a whitish throat. Blue Jays of the different species are conspicuous birds in the Western States, as they have very little fear of man, and they certainly contribute much to the embellishment of the woods. Sitting on the ground against the slope of a small cut in the mountain, I again saw a couple of plumed Quails that were hiding under bushes only a few yards distant.

I also met a few times a small black and white Woodpecker with scarlet head and upper breast. There are admirable trees in the immediate neighbourhood of the *Wawona* hotel. Not forty yards away from it is a splendid old specimen of *Libocedrus decurrens*. The bark of old trees of this species grows heavy folds and is of a red colour, and the whole tree reminds one very much of a *Wellingtonia* on a smaller scale.

Near the river are some striking specimens of *Pinus lambertiana*. A peculiarity of this pine is that its top branches are of irregular or unequal length, so that it resembles a spruce of which the branches would be almost horizontal and unequal in length. The cones are

long and of enormous size (13–18 inches long). There were also close by beautiful examples of *Pinus ponderosa*, the finest one standing near the pigsties. This noble tree had been used as a stile to fasten a gate to, and for that purpose had simply been cut flat on one side!! Whatever I admire in America it is not the way that some of the Americans treat their trees! After my trip in the Sierra Nevada, I went back to San Francisco, and then went north to *Eureka* in the *Humboldt Basin*, to see the redwoods on the *Eel River*.

East, in Washington City, I had been told that I would find redwood forests (*Sequoia sempervirens*) near San Francisco. It took, however, over 12 hours by rail to get to *Eureka*, and from there three or four hours by auto to get to really good forests of redwoods on the *Eel river*. In *Eureka* one of the roads was full of tall grasses that bore seed. In it, feeding on the grass seed, were flocks of Siskins, old birds with families of young ones. The old males were yellowish green with a black cap. In the redwood forest the first bird I saw was a *Steller's Jay* that hopped fearlessly around us.

These woods, which showed a wealth of splendid ferns, and in which a specimen of redwood was shown me that had 21 feet diameter, the birds were unfortunately extremely scarce, and I only noted there a *Blackish Wren* and small *Grey Plovers* along the river side, whilst a bird of prey, apparently a *Pandion*, hovered over it at some distance.

A family of ducks, following the course of the river, flew at too great a distance to be identified.

From *Eureka* I went back to San Francisco, and then travelled north by railroad to *Seattle*. This takes about two days and two nights, and on the way one has a fine view of *Mount Shasta*, which is, I believe, 14,000 feet high and has snow on it. *Seattle* has a fine situation on *Pugett Sound*, and one of the commonest birds there is *Turdus migratorius*, which even in the vegetable market hopped fearlessly amongst the visitors.

In *Woodland Park* is a small zoological collection, fine Bison and Wapiti being of course included. In the woods I noticed small birds of the *Jackdaw* family. They looked much like a Jackdaw, but were slightly more elongated, and had no grey neck feathers. The voice, however, resembled closely that of our Jackdaw.

From Seattle I made a trip to Mount Rainier, which mountain, with its surroundings, is a national park. The trip was done by automobile, and the first stage was to *Longmire Springs*, which is situated at 2,700 feet altitude. At first, after leaving Seattle, the Douglas firs which had been my almost constant companions after I had passed Mount Shasta on my way to Seattle, were again conspicuous, but after a while, as we got into the mountains, the forest became mixed, and I saw splendid examples of the *Western hemlock* (*Tsuga heterophylla*), also *Giant thuyas*, *Abies amabilis*, *Abies nobilis*, and some *Abies grandis*.

In the forest I noticed a specimen of the *Golden Winged Woodpecker*, but of the Western form. This form appears to be a little larger than the true *Colaptes auratus* of the Eastern States, and is conspicuously different by having red instead of golden feather shafts in the wings (*Colaptes cafer collaris*).

At Longmire Springs is an hotel where I spent the night, and next morning, under the kind guidance of Professor Flet, who is ranger of the park, I had a delightful walk up the mountains. Before starting we saw a couple of *Black-tailed deer* in a low meadow near the hotel, and in the trees near, several brown, black, and white Tits (*Parus rufescens*) were very active searching the branches of a fir-tree for insects. Our walk led us through splendid forests, chiefly composed of *Abies amabilis*, *Abies nobilis*, and *Abies grandis*, whilst the Douglas firs did not follow us so far up. As we got still higher we met specimens of *Tsuga mertensiana*, *Chamaecyparis nootkatensis*, and near the snow-line little groups of *Abies lasiocarpa* were conspicuous by the spire-shaped crowns of the single trees. In these woods we came across a *mountain form* of *Turdus migratorius*, which is conspicuous by a black band across its red breast. We also saw a *Pine squirrel*, which is grey, with yellowish eyebrows and belly. As we had passed out of the forest and had reached an alpine meadow full of most beautiful flowers, we rested on a heap of loose stones, and whilst we were sitting there a little creature like a small dark grey rabbit without a tail, with small rounded ears and beautiful black eyes, emerged from the ramble and watched us curiously, without showing any fear. It was what was called locally a "coney of the stones" or "little chief hare" (*Ochotona princeps*), and when it had examined us to its satisfaction it quickly re-entered its stone fortress!

Next day I went forward and backward to *Paradise Valley*, which is situated at 5,557 feet, and there made a walk over part of the glacier. The scenery was extremely beautiful, but hardly any living creature was seen. In fact, I cannot remember having seen a single bird!

In the immediate neighbourhood of Seattle is a narrow wooded canyon, with a small stream at the bottom of it, which is called *Roosevelt Park*. As it is rather damp there, the vegetation is luxurious, and this again attracts birds. In it I saw a Robin (*Turdus migratorius*) feeding its young with the scarlet berries of an aralia that was very common there (*Fatsia horrida*). The young Robins differed from the adults by being spotted on the head and back, and by not having the red of the underside so well marked. I also noticed a small brown Wren (probably *Troglodytes hiemalis pacificus*), and once or twice a small Thrush, resembling our Songthrush on a small scale. *Songsparrows*, or cousins of theirs, were often seen running along the ground amongst the rank vegetation, and I once saw a little brown bird that in shape and behaviour reminded me exactly of a female European Redstart.

With a kind American friend who served as my guide, I made a second excursion to *Mount Rainier Nat. Park*, exploring another part of it, and keeping in the forest and the lower parts near the river. As we took our lunch on the borders of a clear stream, an affluent of the *Whitewater*, I noticed a large slaty grey *Waterousel* with striped upperside and yellowish throat, that was fearlessly diving, swimming, and running in the clear stream in pursuit of insects, and later on in the day I saw a second one in the *Whitewater* itself. On our way home we passed some cultivated country, and there, sitting on a pole, I saw a large Meadow Lark staring at us as we rushed past in the auto. This is a large bird; above, greyish brown, and yellow below, with a black crescent on the breast (*Sturnella magna*), and although considered to be a common bird, it is the only one of its kind that I saw. In that same region I saw a few times a large Groundfinch with black head, black upperside with white streaks, white underside with rufous sides, which instantly hid himself at my approach under the bushes or weeds (*Pipilo maculatus*).

As we neared Belle Vue, a suburb of Seattle on the opposite side of Lake Washington, I noticed splendid Madrona-trees (*Arbutus menziesi*), and on a fence, round a garden, a male *Californian Crested Colin* quietly saw us pass.

(To be continued.)

BREEDING OF CAT-BIRDS

By A. DE BERRI WAXMAN

For many years I have made a special study of the keeping of Scrub Birds, such as Regents, Satins, Cat, Pittas, and Spotted Bower-birds, besides a collection from New Guinea consisting of five varieties of Birds of Paradise, Manucode, Spotted Cat-bird (two different varieties), the large and the small about the size of a Pigeon, Pitta, and two varieties of Bower-birds, the grey which is a good mimic, and the Golden Crested, and numerous Pigeons. In the early part of last spring my Cat-birds (*Ælurædus viridis*) were very active and started chasing the other birds in the aviary; the two hen Cat-birds fought, with the result that one was killed, so I caught the pair and placed them in a small aviary about 15 ft. by 6 ft. by 7 ft. In it I placed a little dried bush and fixed a small wire fern basket in the corner, gave them some nesting material, dried grass, twigs, and sticks. Before a fortnight they had constructed a very neat bowl-shaped nest lined with a few feathers. The first egg was laid on 6th September, the second egg two days later. They both sat very patiently, the cock relieving the hen whilst she came off to eat. After sitting for about three weeks I became impatient and tested one of the eggs, which was fertile; the other one was clear. After the first failure they laid again in December; the young hatched in 29 days and only lived for 10 days owing to the shortage of animal and insectivorous food, mealworms being unobtainable. Doomed to disappointment, I intended returning them to the large flight aviary when I noticed that they started adding leaves and twigs to their nest. This time I am pleased to relate that they reared their young. Unfortunately they left the nest too soon: one perished during a heavy storm, the other is over six months old and is exceptionally tame, will feed out of your hand, and will allow itself to be fondled. The young were fed on mealworms (which they killed and prepared), plain soaked bread, apples, and bananas. The cock was very attentive during incubation. He carried food to the hen whilst sitting, and did most of the feeding after the young left the nest.

The coloration of the young is of a bluish green, darker than the parents, the eyes black, changing after six months.

BREEDING RESULTS AT CLERES IN 1922

By J. DELACOUR

The abnormal weather which prevailed in Normandy through the spring and summer (tropical heat in May, and cold and rainy days throughout June, July, and August) has been very prejudicial to bird breeding, and I have nothing to report among the small birds but failures; even the Doves, generally so prolific, have only hatched a few young ones. With Pheasants, Waterfowls, and other larger birds the results have been a little better, though many casualties took place owing to the low temperature.

The following list will give an idea of the birds bred this year:—

	Number of eggs.	Young hatched.	Young reared.
Rhea (white and grey)	?	6	5
Crested Screamer	5	4	1
Black-necked Swan	8	0	0
Ashy-headed Goose	5	5	5
Magellan Goose	8	7	7
Cereopsis Goose	5	0	0
Carolina Duck	8	5	0
Mandarin Duck	6	3	0
Wild Muscovy Duck	12	5	3
Spot-billed Duck	7	4	3
Yellow-billed Duck	25	16	12
Tufted Duck	10	4	0
Chiloe Wigeon	23	19	19
Pochard	18	12	7
Rufous Tinamou	6	0	0
Spicifer Peafowl	5	0	0
White Peafowl	12	4	2
Monaul	2	2	1
Temminck's Tragopan	10	5	1
Amherst's Pheasant	32	29	23
Siamese Fireback	7	5	0
Chinese Painted Quail	8	0	0
Diamond Dove	2	2	2

	Number of eggs.	Young hatched.	Young reared.
Talpacoti Dove	4	2	0
Bar-shouldered Dove	6	6	4
Senegal Palm Dove (at liberty)	?	?	many
Australian Crested Pigeon (at liberty)	?	?	2
Green Budgerigars.	?	?	40
Blue Budgerigars	?	?	14
Pennant's Parrakeet	7	5	0
Gouldian Finch	8	3	0
Zebra Finch	?	?	16

A few other small birds have bred in the aviaries, but as I did not know how many there were before, I cannot give the number reared. Most of the small birds, Doves and Parrakeets, which usually breed freely here, have not even gone to nest, as a result, I think, of the unusually cold summer. A Queen Parrakeet sat for a month in her "grandmother's clock nest box" but never laid one egg. Many young Ducks and Pheasants have been lost, because many of my bantam hens refused to sit; this is another very strange fact which occurred to many aviculturists last year; I was then obliged to put the eggs under big hens (Wyandottes, Sussex, or Rhode Islands), which trod on and killed the young ones; some even murdered them deliberately; such has been the case with broods of Temminck's Tragopans, Siamese Firebacks, Carolina and Mandarin Ducks!

As is shown in the above list, I only bred a few species of Waterfowl, though I possess a fairly large and complete collection. This is due to the fact that having lost last year most of my breeding Ducks (eaten by an otter which had got into the park and killed over fifty) I had to buy new birds, most of them bred in 1921; and one knows that most Waterfowl do not breed before their second or even third year, and become more prolific as they become older. Also I always lose eggs laid in the park that I cannot find; they are destroyed by crows and vermin. I hope for better results in 1923, as I have been able to complete my collection with rarer species such as Ringed, Cinnamon, and Brazilian Teal, Bahamas, White Eyes, Crested Pochards, Sparsa Ducks, etc. I had bad luck with the Black-necked Swans: the female

was disturbed from her nest and died a few days after. The *Cercopsis* laid as usual in the middle of the winter, and their eggs were frozen.

I have five strong young Rheas, from a white cock and a grey hen ; they all had white patches on the head when newly hatched, but now are all grey ; I hope, anyhow, that, later on, some females of these, put with another white cock, will produce all white young ones. It is worth noting that two white cocks run about the park with two grey hens, and that there is very little fighting between them in the spring ; that does not prevent them breeding and sitting well.

THE SOCIETY'S MEDAL

The Council propose to grant medals to the Duchess of Wellington for breeding the Ornate Tanager (*Tanagra ornata*), and to Mr. Herbert Bright for breeding the White-breasted Ground Pigeon (*Phlogoenas jobiensis*), accounts of which have now been published, providing that no member or reader knows of a previous instance of either, in which case they would be glad to have particulars. They would like to point out that *Tanagra ornata* and *Tanagra episcopus* are names that have sometimes been applied to the same species, although the two are really quite distinct. *Tanagra ornata* was formerly called the " Archbishop Tanager " in the list of the Zoological Society, although this name is more properly applied to *Tanagra episcopus*.

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