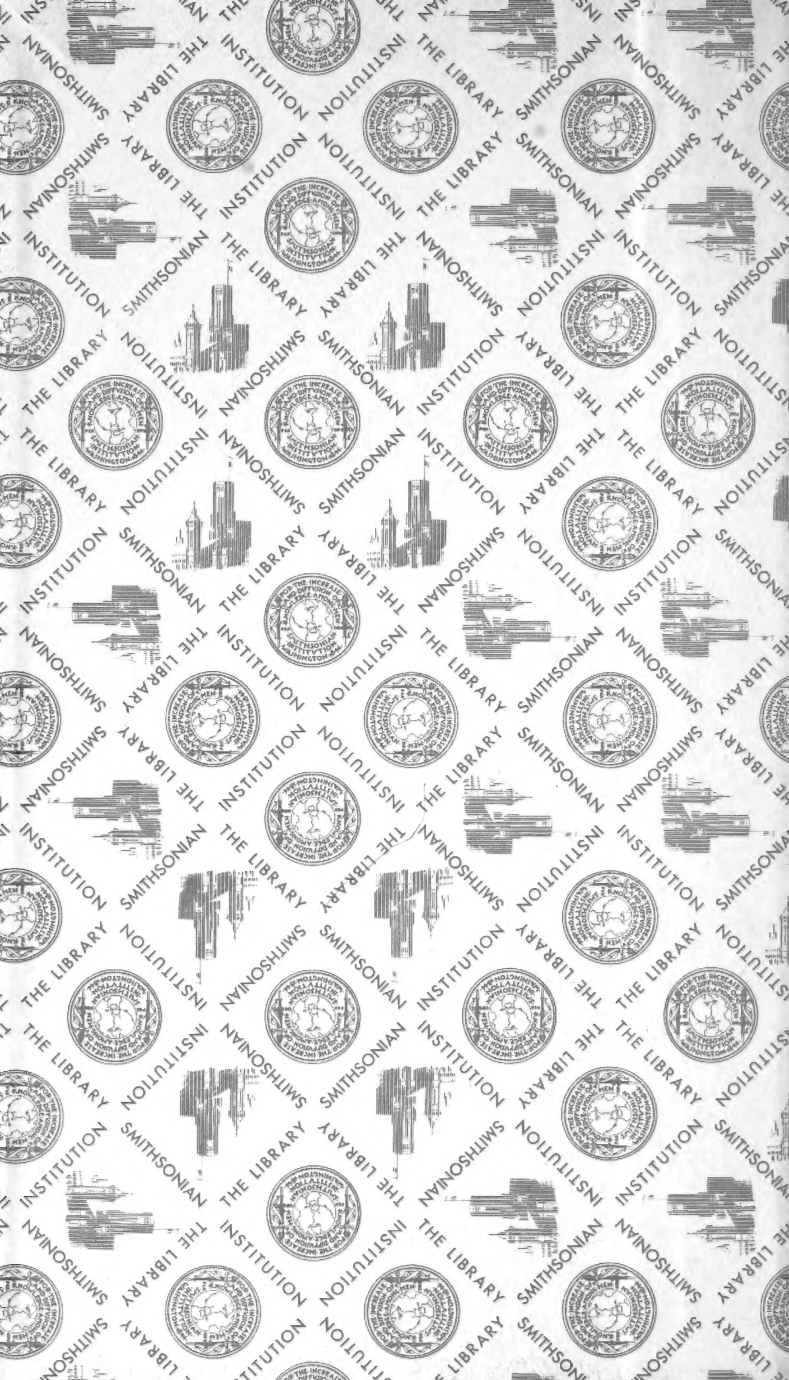
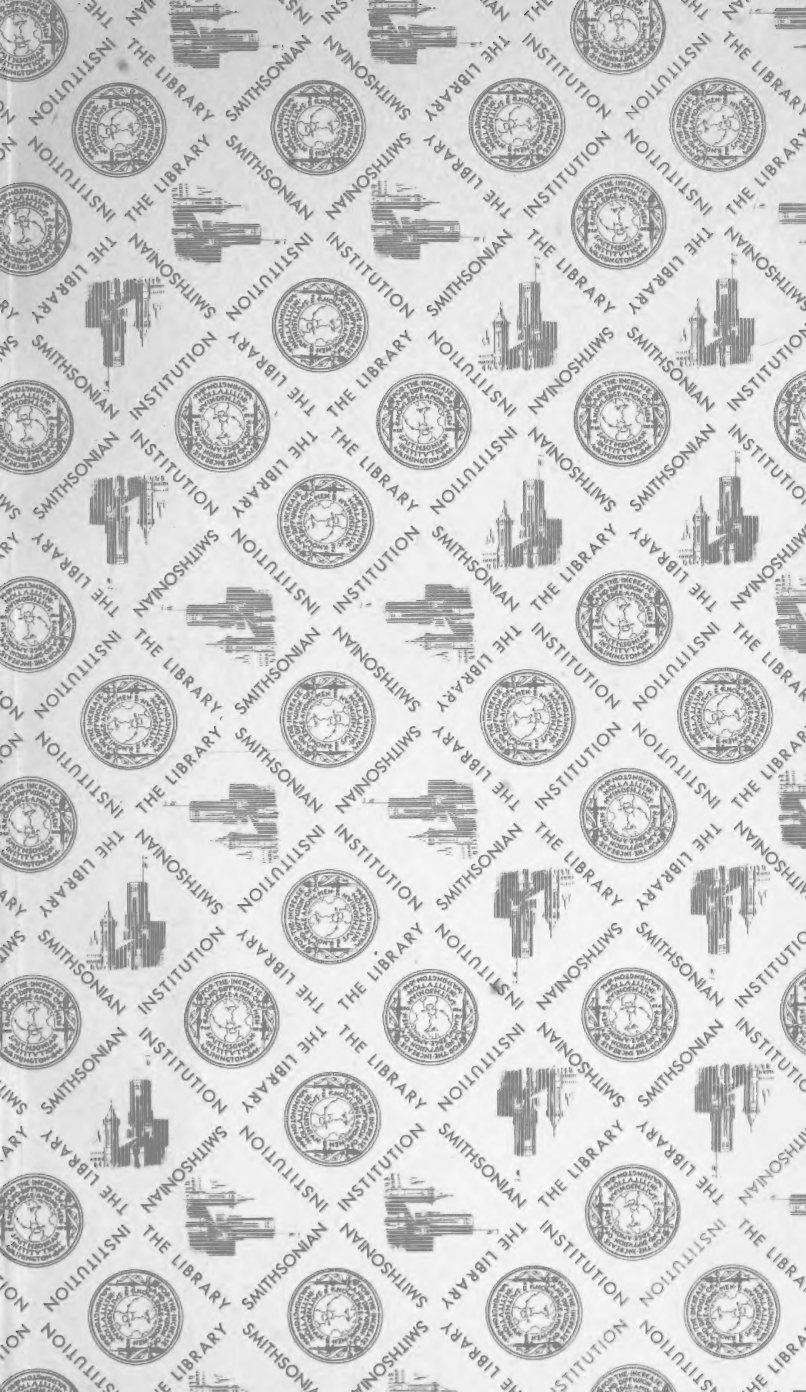


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South  Australia.

THE DEPARTMENT OF INTELLIGENCE.

SPECIAL BULLETIN.

PROTECTED NATIVE BIRDS  
OF  
**South Australia.**

"Hast thou named the birds without a gun?"

PUBLISHED BY THE AUTHORITY OF THE  
HONORABLE CRAWFORD VAUGHAN, *Commissioner of Crown  
Lands and Immigration.*

COMPILED BY T. DUFFIELD, *Secretary and Intelligence Officer.*

INTRODUCTION AND DESCRIPTIONS BY ALFRED GEO. EDQUIST,  
*Lecturer in Nature Study to the Education Department.*

LITHOGRAPHED BY ALFRED VAUGHAN, *Government Photo-lithographer.*

DRAWINGS BY C. WALL, *Government Artist.*



ADELAIDE:

R. E. E. ROGERS, GOVERNMENT PRINTER, NORTH TERRACE.

1910.





## TO THE READER OF THIS VOLUME

Kindly handle this book with the utmost care on account of its fragile condition. The binding has been done as well as possible under existing conditions and will give reasonable wear with proper opening and handling.

*Your thoughtfulness will be appreciated*



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7 vols

South



Australia.

THE DEPARTMENT OF INTELLIGENCE.

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# PROTECTED NATIVE BIRDS

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## EXPLANATION OF PLATES.

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In order to lessen the likelihood of confusion, and to render the work of identification easier, attention is drawn to the following notes :—

- (1) In order to correctly estimate the actual size of the birds and eggs it must be understood that ( $\frac{1}{2}$  natural size) means  $\frac{1}{2}$  the true length and  $\frac{1}{2}$  the true breadth.
- (2) Birds' eggs vary considerably in colouration ; therefore neither a verbal description nor a coloured representation is likely to hold good in every case. The fresh unblown egg is always richer in shades of pink, grey, or green than is a blown egg shell, which is sure to fade in course of time. The most striking instances of this are found in the eggs of the Murray Magpie, Pipit, and Reed-Warbler respectively, the eggs of the last-named bird appearing distinctly greyish-green when fresh.

The printed descriptions are of blown eggs in a collection, while the pictorial representations are slightly strengthened in colour in order to represent more nearly the appearance of the eggs when seen in the nest.



# INTRODUCTION.

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THE purpose of this book is not to catalogue or to scientifically describe our native birds ; but to bring prominently before the public, the police, and others in authority, and more especially the children in our State, those of our protected native birds that most often fall victims to thoughtless boys and sportsmen. The birds have been figured as true to nature as the skill of artist and color printer will allow, in order that they may be readily recognised when met with in the bush or found in the possession of persons who have broken the law.

For the benefit of children all technical terms have been omitted, and the descriptions of the birds couched in the simplest language. The descriptions, it is hoped, will help them to recognise and protect their feathered friends from harm.

This book owes its origin to the efforts of Mr. Thos. Duffield, Secretary to the Commissioner of Crown Lands, who is a true bird lover, and who has been anxious for a long while to prevent the wanton destruction year by year of a great national asset—our native birds.

Fortunately we have in South Australia an ever-increasing number of bird observers, who regard bird protection not only from the point of view of the bird lover, but also from that of the economist, and do all that lies in their power to prevent the extinction of our most valuable birds. Yet it is feared that, unless the importance of bird life be made more widely known, the extermination of some of the species will become inevitable.

Already the *mallee fowl*, otherwise known as the *loruan* and *native pheasant*, is fast becoming extinct owing to the foolish wholesale destruction of the eggs.\* The killing of our wading birds each year not only renders South Australia ever more prone to plagues of grasshoppers, but is most certainly a prime cause of the decline

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\*Also since the introduction of the fox into Australia these birds have greatly diminished in number. The fox destroys not only the birds, but their eggs, which are laid in a depression on the top of a mound of earth and leaves scratched together by the birds.

of our fish resources. In ancient Egypt the *ibis* was valued so much that it was regarded as sacred, and called the *sacred ibis*. Why? Egypt was at times subject to plagues of locusts, and of all birds the ibis helped most to rid the land of the plague by devouring the locusts in thousands. Mr. D. Le Souef, Director of the Melbourne Zoological Gardens, has calculated from results of observation that in a day one ibis is responsible for the destruction of no fewer than 2,410\* grasshoppers, or so-called locusts. Yet each season this lovely and useful bird, together with numbers of cranes (herons), spoonbills, and egrets fall victims to the sportsmen who, in ignorance of their value, shoot them along with ordinary game. It is the decimation of such birds which leads to the ever-increasing multitudes of crustaceans (crabs and yabbies) that destroy fish spawn and young fish hatching out in the Coorong and lakes at the Murray Mouth.

It is sincerely hoped that every person interested in the welfare of our native birds will co-operate in order to stay the destruction of them. In some parts of the State landowners have set aside reserves of timber in which native birds can live unmolested. Whether these gentlemen were prompted to do this purely out of love for the birds, or because they recognised their value to the country, they have rendered themselves benefactors to South Australia. Let us hope that throughout the State many more such reserves will be proclaimed, in which our birds may seek sanctuary from their would-be destroyers.

If this little book becomes instrumental in making our lovely birds better and more widely known and in securing for them the protection of an increasing number of bird observers, those who have given the time and labor necessary to its compilation will feel amply repaid, and the book will have justified its production.

A. G. EDQUIST.

*High School, Adelaide.*

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\* "Wild Life in Australia," by Mr. D. Le Souef, C.M.Z.S.



Since the names shown on page 5 were printed, the following birds have been added to the protected list :—

Bustards (native turkeys).

Bee-eaters.

Native pheasants (mallee hens).

Black cockatoos.

Gang Gang cockatoos.

Pigeons and doves of all species.



# PROTECT OUR BIRDS.

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The native birds of Australia, like other animal life, are sparse, except in isolated places. It therefore behoves us to protect all the insectivorous varieties, not only for the sentiment of their preservation and perpetuation, but also that they may assist in keeping down insect pests that are destructive in our gardens and orchards. To this end the "Birds Protection Act," No. 745 of 1900, was passed into law. It provides that the undernamed birds shall be absolutely protected all the year round, whether on private property or elsewhere, viz. :—

Owls of all species.

Mopokes and night jars of all species.

Swifts of all species.

Swallows and martins of all species.

Laughing jackasses and kingfishers of all species.

Wood swallows of all species.

Diamond birds (or pardalotes) of all species.

Piping crowshrikes (or native magpies) of all species.

Butcher birds, and all species of small crowshrikes.

Magpie larks.

Blue doves, thickheads, shriketits, and bell birds.

Thrushes of all species.

Fantails (or wagtails), and flycatchers of all species.

Robins of all species.

Superb warblers, emu wrens, blue wrens, and wrens of all species.

Native tits of all species.

Tintacks and ephthianuras of all species.

Pipits and larks of all species.

Reed warblers and rush larks of all species.

Bower birds.

Tree creepers of all species.

Cuckoos of all species.

Stone plovers or night curlews.

Ibis and spoonbills of all species.

Herons, bitterns, egrets of all species.

Seagulls of all species.

Terns (or sea swallows) of all species.

Cape Barren geese

Emus.

Swans.

Plovers.

Oyster catchers.

Dottrells.

Kestrels.

Grass parrots.

It is illegal to kill, wound, destroy, or take any of these birds at any time, or to take out of the nest or to destroy in the nest the young or the eggs of any of these birds; nor may any person sell or offer for sale a skin or feather of any protected bird, or any article made therefrom, or in which the same is used.

The foregoing prohibition also applies to wild geese (Cape Barren geese are wholly protected) between June 1st and December 20th of each year; wild ducks, bustards, and native turkeys between August 1st and December 20th; quail, miner, honey eaters, all kinds of doves, native pigeons, parrots, and all other birds not already mentioned, except unprotected birds, between July 1st to December 20th. Quail are further protected south of Bordertown to March 1st, yearly.

It is also punishable to enter on any land for the purpose or intent of doing any of the before-mentioned illegal acts. Exceptions—Aboriginal natives may take birds or their eggs from Crown lands (except in protected districts and reserves) for food, and any person may keep birds as domestic pets. The owner or occupier of any garden, vineyard, or cultivated crop, may take or kill any bird therein, except those mentioned in the first list above.

No swivel or punt or other gun or rifle, except such as can be fired from the shoulder, is to be used for shooting game. An offender not giving his name or address, or giving a false name or address, or not delivering any bird, egg, or gun when required to do so, is guilty of an offence under the Act.

For any of the before mentioned offences the penalty is as high as £25, and £5 for every bird mentioned in the first list, and £2 for each bird in the second list killed, wounded, or taken.

The following birds are not protected, and may be killed or taken at any time, so may their eggs, viz. :—

Crows.	English starlings.
Wattle birds.	English chaffinches.
Silver eyes.	English house sparrows.
Cormorants.	Rosella parrots.
Sulphur-crested cockatoos.	English blackbirds.
Hawks.	English goldfinches.
Snipe.	Pelicans.

To assist persons to know the protected birds at sight, so that they may abstain from killing them, illustrations of such birds have been prepared and will appear, with a description of the same, in this pamphlet. Sportsmen, bird nesters, and all who take an interest in our feathered life, are earnestly appealed to not to destroy any of the protected varieties.

Illustrations have not been made of the magpie, robin, laughing jack, and other familiar birds, as they are known to everyone. The object of giving pictures is to enable the bird to be identified; this is unnecessary in cases where the bird is well known. Efforts will, however, be made to have a complete list ready for a future edition.

Copies of this pamphlet will be forwarded to every public school and institute throughout the State, in order that it may be widely read. To acquire a fondness for bird life and a knowledge of those that are protected is a long way towards preventing their destruction.

A copy of this pamphlet will also be placed in the hands of every police officer, to assist in the enforcement of the law.

The public also is appealed to with a view of general interest being taken to save the already small numbers of our feathered friends.

Thanks are tendered to the Museum authorities for allowing photographs to be taken of the birds, to the Photo.-lithograph Department for the illustrations, and to Mr. Alfred G. Edquist, of the Education Department, for describing the birds. Without these invaluable services it would not have been possible to issue the pamphlet.

T. DUFFIELD, Intelligence Officer.

Crown Lands Office, Adelaide, May 1st, 1910.

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## ACKNOWLEDGMENT.

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In describing the birds and eggs figured in this book as much as possible was done from the actual birds and eggs. My thanks are due to the Director (Professor E. C. Stirling, C.M.G., M.D.), through whose courtesy the collections at the South Australian Museum were placed at my disposal; also to Mr. A. H. C. Zietz, F.L.S., C.M.Z.S., Sub-Director, and Mr. F. R. Zietz, for assistance and valuable advice. I wish to acknowledge my indebtedness to Captain S. A. White for his kindness in lending specimens of eggs of the rarer birds, in order that Mr. C. Wall, the Government lithographic artist, might portray them accurately; and also to Mr. J. W. Mellor, Secretary to the South Australian Ornithological Association.

Use was made of the following books, which proved very useful and provided valuable information:—"Handbook of the Birds of Australia," Gould; "Nests and Eggs of Australian Birds," by A. J. Campbell, Col. Mem. B.O.U.; "The Hand-list of the Birds of Australia," by G. M. Mathews, F.L.S., F.R.S., M.B.O.U.

A. G. EDQUIST.

# DESTRUCTION OF BIRDS.

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WRITTEN EXPRESSLY FOR BOYS.

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“For nature is one with rapine, a harm no preacher can heal;  
The may-fly is torn by the swallow, the sparrow is speared by the shrike;  
And the whole little wood where I sit is a world of plunder and prey.”—*Tennyson*.

These lines of Tennyson's tell us how cruel nature is, and how a constant warfare to the death is going on during both day and night. Do we not see the swallow skimming through the air just before dusk? Have you not heard the sharp click of its bill as it swoops past and snaps up a gnat? Why is the swallow so cruel? Why does it hunt these tiny creatures of the air and destroy them?

There is but one answer. The swallow kills for the same reason as the butcher kills sheep and cattle. The swallow, like the butcher, kills for food. Kills for food, mind, not for sport. For the same reason the butcher bird (shrike) spears the sparrow by impaling it upon a stout thorn such as one sees upon hawthorn or box-thorn. The laughing jackass kills small birds and animals by bumping them against the limb of a tree. The eagle seizes its prey with its talons and kills its victim by tearing out its eyes with its terrible beak. Yet in each case these birds of prey kill smaller and weaker animals simply for food.

Sometimes one bird kills another while fighting, or in its endeavour to protect its nest from the strange intruder. Here, however, we find that the bird kills the other in self-protection, or in order to protect its young. Just as Australian boys would fight an enemy in order to save their homes and loved ones from harm, so the birds fight one with another. Let us remember, then, that in nature animals kill others for food and in self-protection.

Sometimes it is very necessary for *us* to kill animals, not only for food, but for self-protection. It is necessary for us to catch and kill cattle, sheep, poultry, and fish for food. It is also very necessary for the gardener to destroy birds that eat his young plants and spoil his vegetables for market.

The fruitgrower must frighten or kill birds that enter his garden and spoil his fruit. The farmer must shoot the crows, hawks, and eagles that work havoc amongst the eggs, poultry, and lambs. Man kills snakes, sharks, and fierce wild animals that are dangerous. He must kill animals that damage the crops in order to protect his interests; if he did not do so, they would eat him out of house and home. But now come the questions of importance—(1) How shall we kill them? (2) When shall we kill them? (3) Where shall we kill them? Three very important questions, indeed. Let us try to answer these questions fairly to both parties, the gardener and the farmer on the one hand, and the animals on the other.

As this book is concerned with birds only, our remarks will be confined in this direction. The birds must live, and therefore they must have food. Like ourselves, they prefer to live on the best that the garden can grow, therefore they attack the

fruit and vegetables instead of eating only the worthless weeds. They do most damage when the fruit and crops are ripening, a period extending over about four months. But what are they doing the rest of the year? During the remaining eight months they do an immense amount of good by catching grubs and other insects, when there is neither fruit nor grain to steal.

Without the birds the gardener and farmer would find it absolutely impossible to grow any crops at all. Everything in the garden, trees and all, would be eaten up completely by the billions of aphides, grubs, caterpillars, beetles, snails, grasshoppers and locusts that would invade the land, if their natural enemies, the birds, were destroyed. You see that we are indebted to the birds for the very existence of our gardens and field crops.

Again, some birds, such as the swallow and wagtail, do not eat fruit or grain. Must we kill them if they come into the garden? Oh, no! We must distinguish between friends and foes. We must therefore be very careful *never* to use a means for killing our enemies that will also kill our best friends.

This brings us to our second question, "How shall we kill them?" If we set poison in the shape of poisoned wheat or pollard, we kill both friends and foes. Where farmers have used poisoned pollard in order to kill rabbits, they have not succeeded in exterminating them, and have been indirectly responsible for the death of a great number of native birds. A great many farmers and pastoralists, recognising this, have ceased to lay phosphorized pollard, and are digging up the warrens, and in this way completely ridding their lands of bunny. Wherever this process of extermination has been resorted to, a noticeable increase in the number of native birds has been observed. We can, then, lay down this rule: *Never set poison* for birds, but trap them and shoot them if necessary.

Our next question is, "When shall we kill them?" As they do good during eight or nine months of the year by catching and killing troublesome insects, and rob the gardener only during the three or four harvest months, we can easily answer this question fairly to both parties. Kill the birds *only when they are busy damaging* the fruit crops. *Never kill them* at any other time of the year.

The third and last question to answer is, "Where shall we kill them?" If the weeds and grasses of the field that provide food for horses, cattle, and sheep, come up in the garden, you pull them out and destroy them, but you do not destroy them outside the garden and in the field. In the garden they are a nuisance, for they choke and rob the garden plants of much plant food, therefore they must be destroyed. But in the field these same grasses and weeds are valuable as fodder to grazing animals, and must not be destroyed. In a like manner the birds should be treated. When they are stealing eggs, or killing chickens in the farmyard, when they are eating young crops or destroying fruit and grain, they must be frightened away or killed, because they are a nuisance. But when they are met with in their native haunts they should not be injured, for there they are doing an incalculable amount of good. Wage war against them in the garden if necessary, but never push hostilities into their own natural territory, the bush.

A. G. EDQUIST.

# DESCRIPTIONS OF OUR NATIVE BIRDS.

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## SHELLEY'S PROPHECY.

"No longer now the wing'd inhabitants,  
That in the woods their sweet lives sing away,  
Flee from the form of man; but gather round,  
And preen their sunny feathers on the hands  
Which little children stretch in friendly sport  
Towards these dreadless partners of their play."—*Shelley*.

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## BOOBOOK OWL (MOPOKE).

(*Athene boobook*)—*Gould's Hand Book*.

(*Ninox boobook*)—*Mathews' Hand List*.

OTHER SPECIES	}	WINKING OWL ( <i>Ninox connivens</i> ).
IN		
SOUTH AUSTRALIA.		
	}	DELICATE OWL ( <i>Strix delicatula</i> ).

**SIZE.**—The boobook owl, so named from its cry—which has been variously interpreted as boobook, moopook, mopoke, and more pork—is slightly smaller than a white cockatoo, measuring about 16 in. from the beak to the extremity of the tail.

**PLUMAGE.**—The general effect is mottled brown. The head, back, and upper sides of the wings and tail are brown. The wing feathers are spotted with light markings, and the tail feathers are irregularly barred with brown. The breast is colored light brown, which shades off into the dull white on the abdomen. The whole under surface is striped from chin to tail with dark markings that give it an irregularly striped appearance.

**HABITAT.**—The boobook owl prefers well-timbered country and frequents the neighborhood of farm houses.

**FOOD.**—The food of this valuable bird consists chiefly of large nocturnal insects and such small animals as mice and lizards.

**NEST.**—The nest is always in the hollow of a bough or tree trunk. Nidification takes place during November and December.

**EGGS.**—The eggs, which are white, are laid upon rotten wood within the hollow. The number is usually three. In shape the eggs are rounded, and measure about  $1\frac{1}{2}$  in. x  $1\frac{1}{3}$  in.







**TAWNY-SHOULDERED PODARGUS, or "FROGMOUTH."**

(*Podargus humeralis*)—*Gould's Hand Book.*

(*Podargus strigoides*)—*Mathews' Hand List.*

OTHER SPECIES  
IN  
SOUTH AUSTRALIA. } *Podargus cuvieri.*

**SIZE.**—The podargus is about the size of a white cockatoo, and measures from beak to tail about 18in.

**BILL.**—The bill of the frogmouth is leaden colored and very large, but obscured with fine projecting hairlike feathers. The wide open mouth reminds one of that of a frog, hence the popular name frogmouth.

**FEET AND LEGS.**—The feet and legs are greyish brown.

**PLUMAGE.**—The general color varies to some extent. In some localities the podargi are much greyer than in others. This variation in color is probably due to environment, for in the sugargum country of Eyre's Peninsula the grey appearance of the bird matched that of the rough bark of the trees, and no doubt helped to protect the birds when asleep in the daytime. The head is covered with brown feathers, each marked with a thin light stripe and tipped with dull white. The feathers on the back are brown, speckled with grey and dark brown. The wings are light brown, spotted with dark grey and buff. These light markings give the appearance of indistinct bands across the wings. The underside of the wing presents a similarly barred appearance, with dull white markings. The tail feathers are light brown, each having a dark spot near the extremity, which is tipped with white. The whole effect is light brown barred with dark brown. The face and under surface of the body is of a light-grey color marked with brown, each feather having a longitudinal brown streak down the centre, which gives a striped appearance to the plumage.

**HABITAT.**—The podargi prefer country well timbered with eucalypts.

**FOOD.**—<sup>4</sup>Their food consists chiefly of the larger nocturnal insects and of small animals such as mice and birds.

**NEST.**—The nest is composed of light dead twigs, loosely woven to form a shallow plate-shaped nest. The usual place selected by the bird is in a fork made by branches rising from a large horizontal limb. The breeding season lasts from August to January.

**EGGS.**—The eggs, which number two to three in a clutch, are white, oval in shape, and measure about  $1\frac{3}{4}$ in. x  $1\frac{1}{4}$ in.

*Note.*—When the podargus is disturbed during the day time, it points its beak upward and parallel to any limb near it. In this way, by keeping very still and closing its eyes, it mimics a dead branch and saves itself from detection.

## WOOD SWALLOW.

(Artamus sordidus)—*Gould's Hand Book.*(Artamus tenebrosus)—*Mathews' Hand List.*

OTHER SPECIES IN SOUTH AUSTRALIA.	{	GREY-BREASTED WOOD SWALLOW ( <i>Artamus cinereus</i> ).
		BLACK-FACED WOOD SWALLOW ( <i>Artamus melanops</i> .)
		MASKED WOOD SWALLOW ( <i>Artamus personatus</i> ).
		WHITE-BROWED WOOD SWALLOW ( <i>Artamus superciliosus</i> ).

SIZE.—The wood swallow is about 7in. long, measured from the tip of the beak to the tip of the tail.

BILL.—The beak is bluish, but tipped with black.

FEET AND LEGS.—These are of a leaden-grey color.

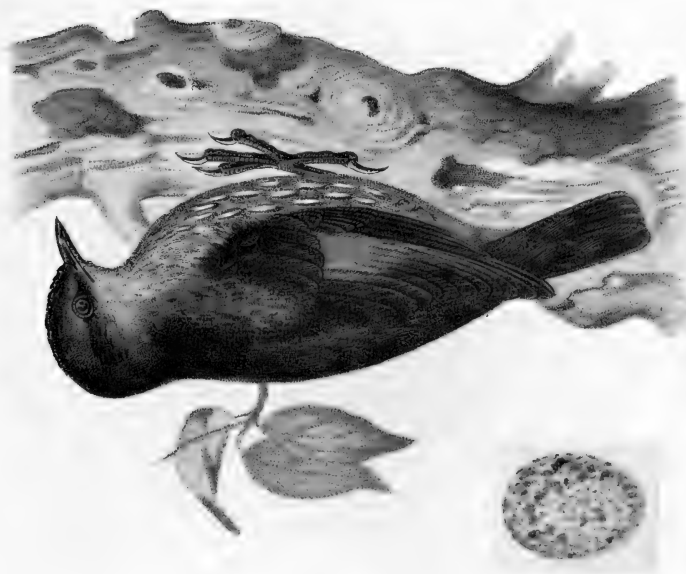
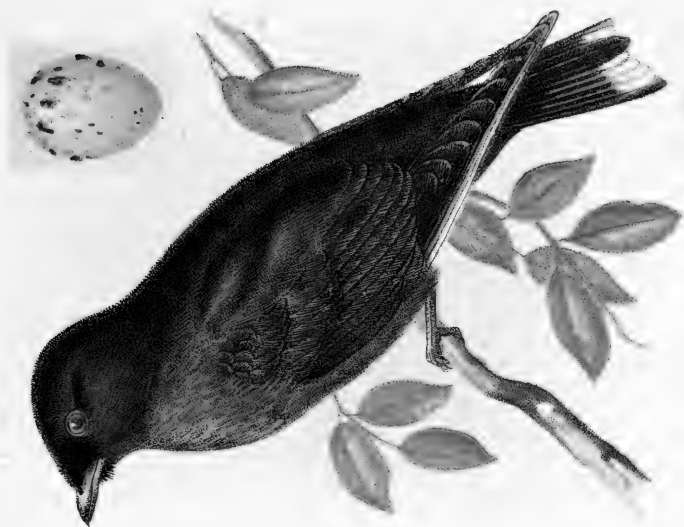
PLUMAGE.—The head, with the exception of a dark-brown spot between the beak and eye, is of a brownish-grey color, so also are the neck and body. The wings, which are dark slate in color, are margined upon the outer edge with white. The tail feathers are dark slate in color, and tipped with white, with the exception of the two central ones.

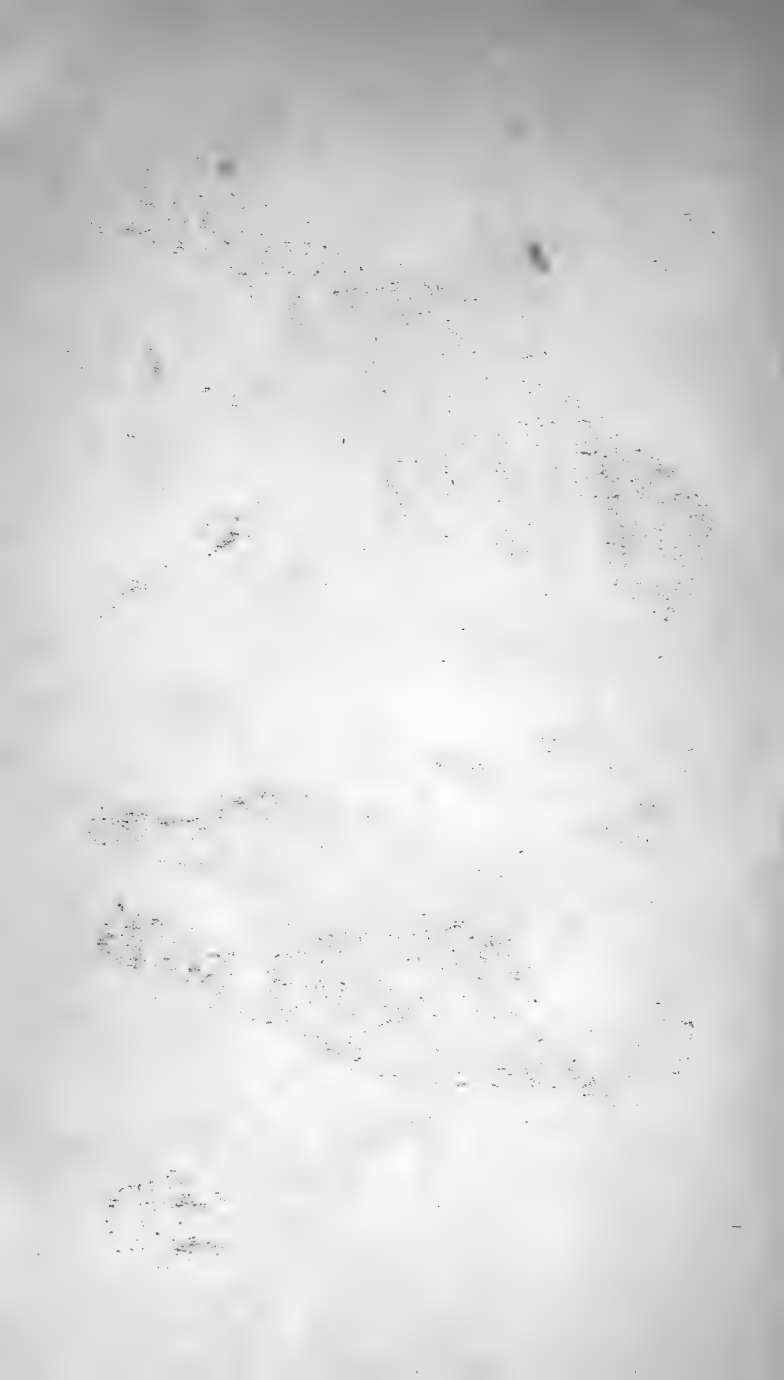
HABITAT.—They are particularly fond of open timbered country, and live together in great numbers, sometimes crowding together upon a bare limb in such numbers as to resemble a giant swarm of bees.

FOOD.—The wood swallow is insectivorous, and one of the most useful of birds to the gardener.

NEST.—The cup-shaped nest is built of fibrous bark and grass, and usually placed in a crevice on the spout of a dead limb. The wood swallow nests during the months of September, October, November, and December.

EGGS.—The number in a clutch is generally four. In color the eggs vary, but are mostly dull white, speckled with very dark brown. The eggs measure about  $\frac{1}{2}$ in. x  $\frac{1}{2}$ in.





## BROWN TREE CREEPER.

(*Climacteris scandens*.)

OTHER SPECIES IN SOUTH AUSTRALIA.	{	RED-BROWED TREE CREEPER ( <i>Climacteris erythroptis</i> ).
		RUFIOUS TREE CREEPER ( <i>Climacteris rufa</i> ).
		WHITE-THROATED TREE CREEPER ( <i>Climacteris picumna</i> ).

SIZE.—In size this little bird resembles the starling.

PLUMAGE.—The plumage is decidedly brown. The top and back of the head are dark brown in color, the side of the head is a russet brown, which gradually merges into the dark spotted fawn color of the throat. The back and tail feathers are russet or rusty colored, the latter being crossed with a dark-brown bar. The wings, which are dark brown, are crossed with a bar of lighter shade. The breast is light brown and striped from the front backward with dull white markings running down the centre of each feather.

HABITAT.—The habitat of the brown tree creeper is the open wooded country, where it may be seen ranging the trunks of trees. It climbs forward or backward, ever taking a spiral course about the tree trunk.

FOOD.—Its food consists chiefly of bark life—insects that live under the loose, dry, clinging bark.

NEST.—The nest is constructed of fine fibrous bark, and lined with some soft material, such as hair from animals. The position usually selected for the nest is a hollow in a branch.

EGGS.—The eggs, which number two, measure about  $\frac{1}{2}$  in. x  $\frac{2}{3}$  in., and are of a reddish color, spotted with brown, and bluish-grey markings, the latter appearing below the surface.

## STRIATED PARDALOTE.

(Pardalotus striatus, or Diamond bird.)

(Pardalotus ornatus.)

OTHER SPECIES	}	YELLOW-RUMPED PARDALOTE ( <i>P. xanthopygius</i> ).
IN		
SOUTH AUSTRALIA.		

SIZE.—This little bird is only about 4in. long, and at first sight looks less than that, owing to its queer short tail feathers.

BILL.—Its beak is short, and grey to black in color.

FEET AND LEGS.—The color of the legs and feet is greenish grey.

PLUMAGE.—The forehead and crown of the head are nearly black. The back of the neck and sides of the face are speckled with white on dark grey, the speckled appearance being due to a short white mark down the centre of each feather. A broad streak, which is orange colored near the nostril, extends backward over the eye, where it merges through yellow into white, until it reaches the ear. The throat and chest are yellow, and the abdomen white, shading into light brown near the tail. The neck and shoulders are brownish grey, the rump being colored a little lighter brown. The wing feathers are nearly black, and edged with white at or near the tip, the white edges giving them a streaked or striated appearance. On the wing is a distinctive red spot. The tail is black, tipped with white, and is very stumpy.

HABITAT.—The pardalote likes those localities that are timbered with eucalypts.

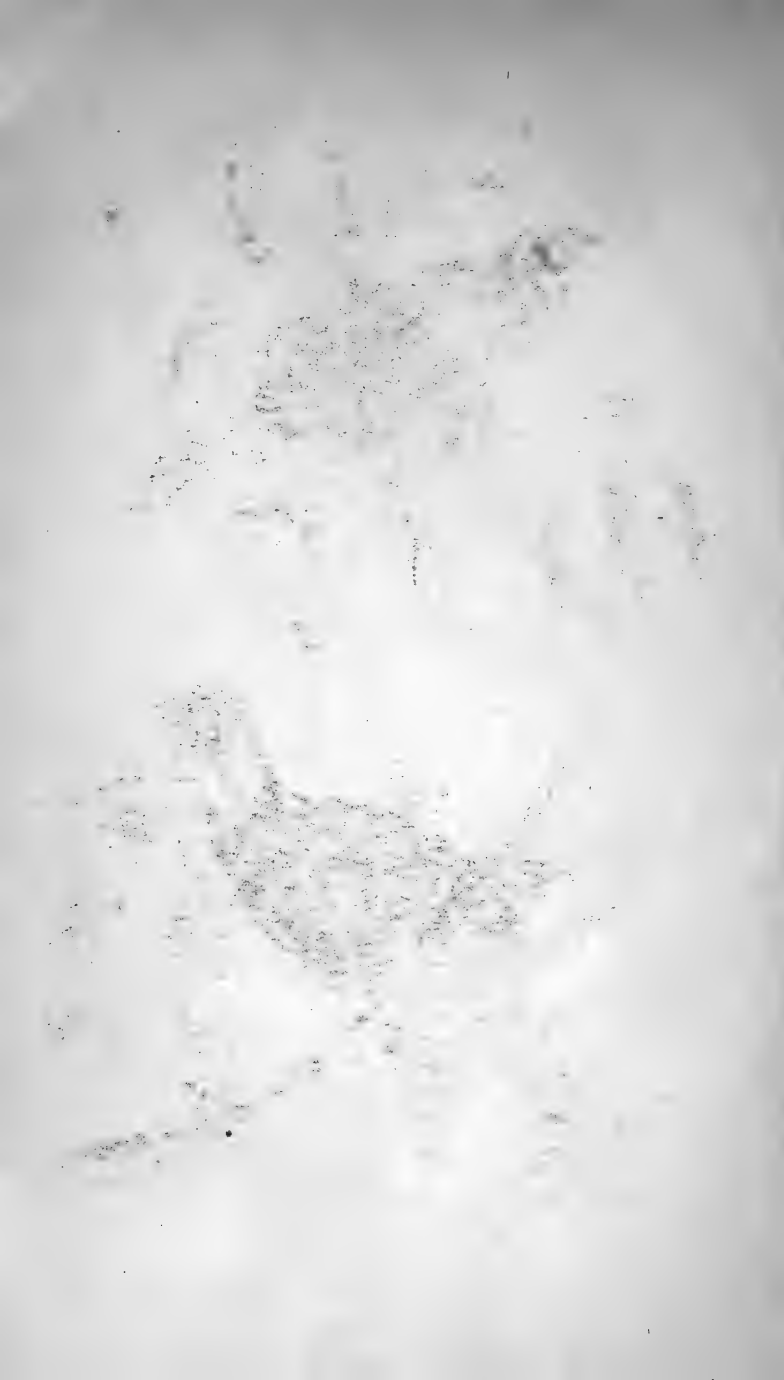
FOOD.—The food of this little bird consists chiefly of insect life.

NEST.—The nest is a small rounded one, made of fine grass, and situated in a hollow either in a river bank or in a dead limb of a tree. The time of nesting is during September, October, and November.

EGGS.—The eggs are white, and usually four in number. They are small, oval, and measure about  $\frac{3}{4}$ in. x  $\frac{1}{2}$ in.







# YELLOW-RUMPED TOMTIT, or YELLOW-RUMPED THORNBILL.

(*Acanthiza chrysorrhœa*.)

(Yellow-rumped *Geobasileus*.)

The little bird sits at his door in the sun,  
 Atilt like a blossom among the leaves,  
 And lets his illumined being o'er-run  
 With the deluge of summer it receives ;  
 His mate feels the eggs beneath her wings,  
 And the heart in her dumb breast flutters and sings ;  
 He sings to the wide world and she to her nest,  
 In the nice ear of Nature which song is the best ?

LOWELL.

OTHER SPECIES  
 IN  
 SOUTH AUSTRALIA.

LITTLE BROWN ACANTHIZA (*Acanthiza pusilla*).  
 CHESTNUT-RUMPED ACANTHIZA (*Acanthiza uropygialis*).  
 WESTERN ACANTHIZA (*Acanthiza apicalis*)  
 RED-RUMPED ACANTHIZA (*Acanthiza pyrrhopygia*).  
 LITTLE ACANTHIZA (*Acanthiza nana*).  
 STRIATED ACANTHIZA (*Acanthiza lineata*).  
 BUFF-RUMPED ACANTHIZA (*Acanthiza reguloides*).

SIZE.—This tiny bird is barely 4in. long.

BILL.—The beak of the tomtit is small, but sharp and well adapted for picking up small insects.

FEET AND LEGS.—Its feet and legs are dark grey.

PLUMAGE.—The forehead is speckled white and black, on account of each black feather being tipped with a white spot. A light streak extends from the nostril over the eye. The back of the head, the neck, back, and wings are greenish brown. The rump is colored bright yellow. The tail feathers are dark grey and tipped with dull white. The sides of the face and throat are light grey. The chest is of a yellowish white color, which merges into the dull white color of the abdomen.

HABITAT.—The small bushes growing on grass land and open timbered country is the favorite haunt of the acanthiza.

FOOD.—For the most part these little tits feed on minute animal life, and may be regarded as insectivorous.

NEST.—The nest of the yellow-rumped tit is dome shaped, and very often has a supplementary open nest on the top, which gives the whole structure a two-storied appearance. While the female is sitting upon her eggs within the lower nest, her male companion may be seen occupying the cup-shaped nest at the top. The whole nest is built of grass, cleverly woven together and lined with feathers and other soft materials procurable, such as wool. The shallow cup at the top is not lined. The entrance to the nest proper is a small round hole at the side, near to the bottom.

EGGS.—The eggs are colored white to flesh pink, and ornamented with very minute pink spots near the broad end. A full clutch contains four or five eggs, each measuring about  $\frac{3}{4}$ in. long x  $\frac{1}{2}$ in.

## REED WARBLER.

(Acrocephalus australis.)

SIZE.—In size this merry little songster is a little larger than the sparrow.

BILL.—Its bill is rather long and pointed, and admirably adapted for catching insects.

FEET AND LEGS.—The legs and feet are of a dark greyish-brown color.

PLUMAGE.—Its plumage is colored in varying shades of russet or rusty brown. The crown, sides, and back of the head, together with the back of its body are russet brown ; the throat and breast are colored light buff.

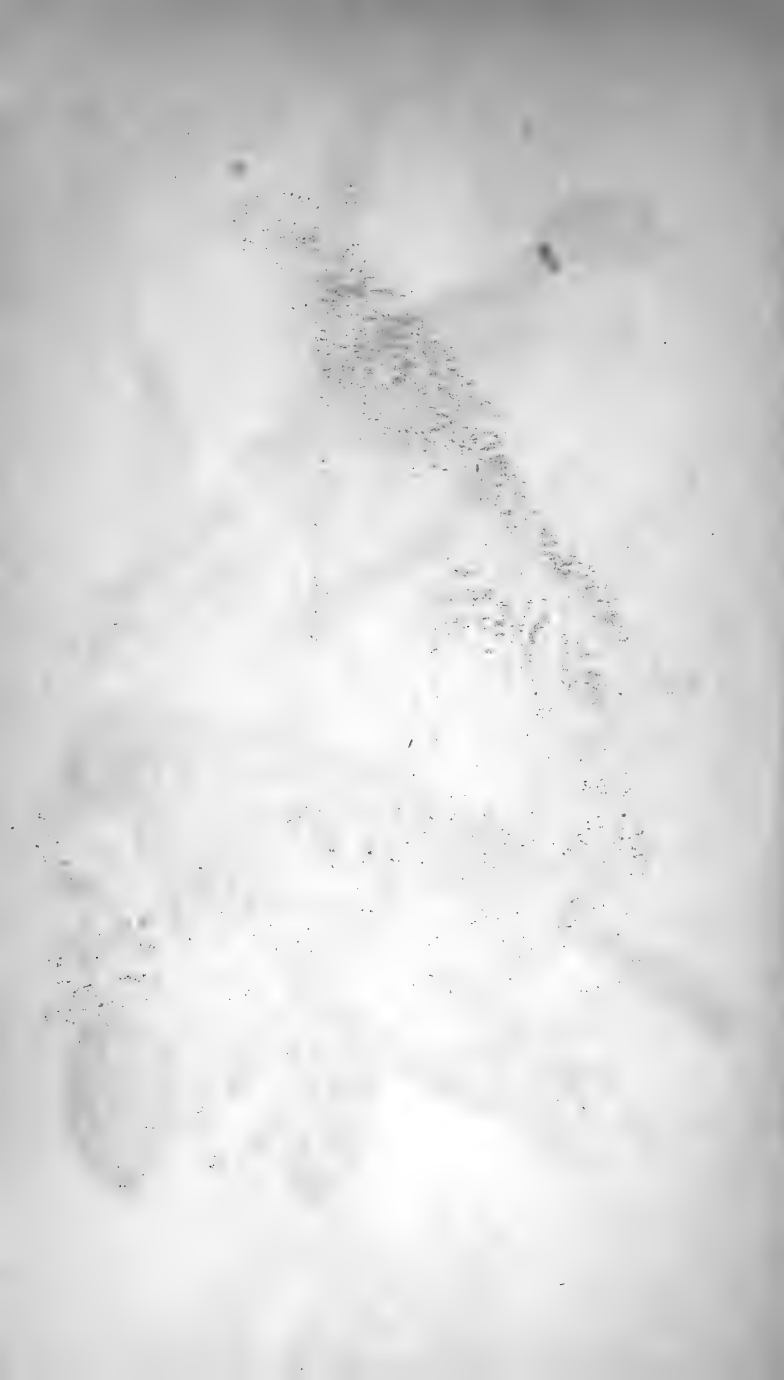
HABITAT.—The habitat of the reed warbler is among the reeds that border lakes, lagoons, swamps, and creeks, where it also builds its nest.

FOOD.—This little songster lives chiefly on insect life.

NEST.—The nest, which is built of soft material stripped from dead reeds and rushes, is about 5in. in diameter. It is usually built between three or four upright reeds, about a foot or two above the water. The reeds pass through the material of which the nest is made.

EGGS.—The eggs, which are generally laid during November or December, are four in number, about  $1\frac{1}{2}$ in. long, and of a dull white color blotched with varying shades of brown.





MAGPIE LARK, MURRAY MAGPIE, PIED GRALLINA,  
MUDLARK, or PEE-WEE.

(*Grallina australis*)—*Gould's Hand Book.*

(*Grallina picata*)—*Mathews' Hand List.*

SIZE.—About the size of a dove; a full-grown bird measures about 10in. in length.

BILL.—Its bill is light grey, tipped with black.

FEET AND LEGS.—The legs are colored dark grey to black.

PLUMAGE.—The general appearance of the bird is black and white, hence the name "*pie'd* mudlark." The top and back of the head are black. The back is black, tinged with bronze green, similar to the greenish tint seen on the feathers of black fowls. The tail feathers are black with white tips. The breast is white. The female has a white face, but the male has a black one. The wing has five feathers tipped with white, making a white bar across it. This bird is a very quick runner, but has rather a heavy flight.

HABITAT.—The mudlark is generally found hunting along the muddy bed of a river or creek. It finds most of its food living on the mud banks of lagoons, marshes, and streams. After a heavy rain, they will hunt for insect life in the fields that border streams.

FOOD.—Insect life. It also eats pond snails, in which liver-fluke develop. On this account it is a most valuable bird.

NEST.—The nest is built of mud, and often reinforced with straw and grass and lined with feathers. It is about 6in. wide, and half as deep. Usually it is placed upon a horizontal limb.

EGGS.—The full clutch of eggs numbers four. They are pinkish white, and generally spotted with light-brown, and bluish-grey markings that appear below the surface. The eggs measure about  $1\frac{1}{4}$ in. x  $\frac{3}{4}$ in. The magpie lark nests during the months of September, October, and November.

Note.—They have a shrill, peevish cry of two syllables which sound like "pee-wee."

**HARMONIOUS SHRIKE THRUSH.**

(*Colluricincla harmonica*)—*Gould's Hand Book.*

(*Collyriocichla harmonica*)—*Mathews' Hand List.*

**SIZE.**—The thrush is about the size of the grass parakeet, being between 8in. and 9in. long

**BILL.**—The beak is nearly black.

**FEET AND LEGS.**—Both feet and legs are dark, almost black

**PLUMAGE.**—The forehead, crown, and back of the head are brownish grey, owing to a brown streak down the centre of each grey feather. Around each eye is a light ring. The back of the neck and the back are dark brown. The rump is grey, and the tail feathers of a darker grey. The feathers in the wings are dark, with lighter grey edges. The white on the throat merges into grey over the chest, each feather having a faint brown streak down the centre. The abdomen is nearly white.

**HABITAT.**—This sweet-voiced bird is well distributed over the State, both in the scrub land and open country.

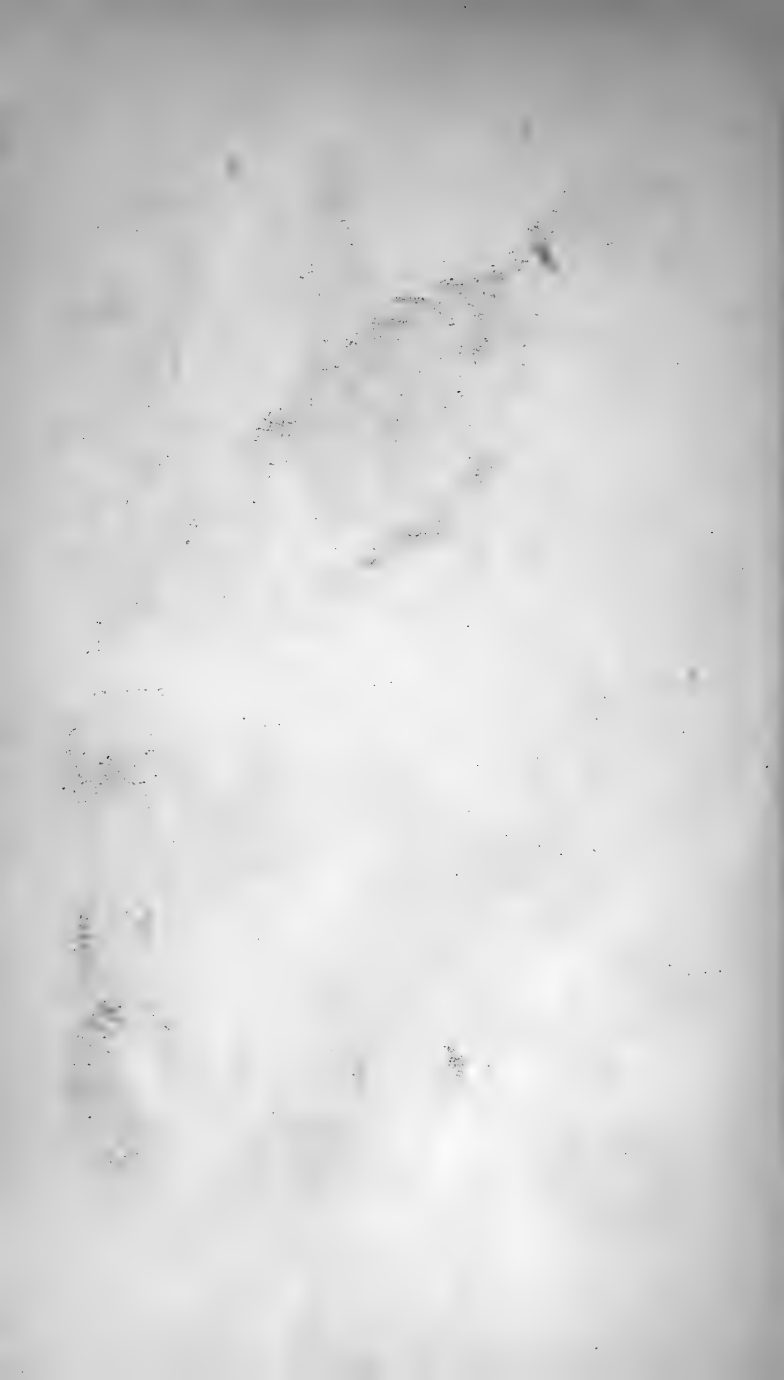
**FOOD.**—Its food is chiefly insectivorous, and often consists of caterpillars.

**NEST.**—The nest is cup shaped, and built of bark and fine twigs. Sometimes the nest is built in a prong of a bough, but is often placed in the hollow at the end of a broken limb.

**EGGS.**—The number varies from three to four. They are pearly white to salmon pink in color, and ornamented with faint light-brown spots and blotches of bluish grey. The egg measures about  $1\frac{1}{8}$ in. x  $\frac{5}{8}$ in.







## BLUE DOVE, or BLACK-FACED GRAUCALUS.

(*Graucalus melanops*)—*Gould's Hand Book*.

(*Coracina robusta*)—*Mathews' Hand List*.

SIZE.—This bird is about the size of a pigeon, being quite 12in. in length when full grown.

BILL.—The bill is leaden grey to black.

FEET AND LEGS.—Both feet and legs are colored leaden grey to black

PLUMAGE.—The forehead, sides of the face, and throat are jet black. The black on the throat shades off through grey on the chest to white on the abdomen. The crown and back of the head, the back, and rump are a delicate slaty grey. The large wing feathers are nearly black, and edged with grey. The tail feathers, with the exception of the two middle ones, are tipped with white.

HABITAT.—These birds prefer open country, where the trees are large.

FOOD.—The graucalus lives chiefly upon large insects, such as mantids, phasmids, and grubs. It is said to be fond of certain native berries and certain species of ants.

NEST.—The nest is a flat saucer-shaped structure, made from twigs and grass, the ends of which are matted together on the outside with spider web. The presence of the web makes it difficult to discover the flat nest, which is usually placed in a fork on a horizontal limb.

EGGS.—The eggs, which number two or three, are of a dull olive-green color, strongly marked with brown spots, and faint bluish-grey blotches that appear below the surface. The eggs measure about  $1\frac{1}{4}$ in. x  $\frac{3}{4}$ in.

## WHITE-FRONTED CHAT.

(Ephthianura albifrons.)

OTHER SPECIES	{	ORANGE-FRONTED CHAT ( <i>Ephthianura aurifrons</i> ).
IN		
SOUTH AUSTRALIA.		

SIZE.—From beak to tail this pretty little bird is about  $4\frac{1}{2}$  in. in length.

BILL.—The beak is black.

FEET AND LEGS.—The feet and legs are dull black.

PLUMAGE.—The face, forehead, throat, and under surface of the male bird are white. A black band crosses the chest, and, running up each side of the neck, expands to form a black patch on the crown of the head. The back is dark grey, slightly tinged with brown. The wings and tail feathers on the upper surface are very dark brown to nearly black, and tipped with white. The female is more soberly colored, the face, head, and back being greyish brown. The throat, chest, and abdomen are dull white, and a black crescent crosses the lower chest.

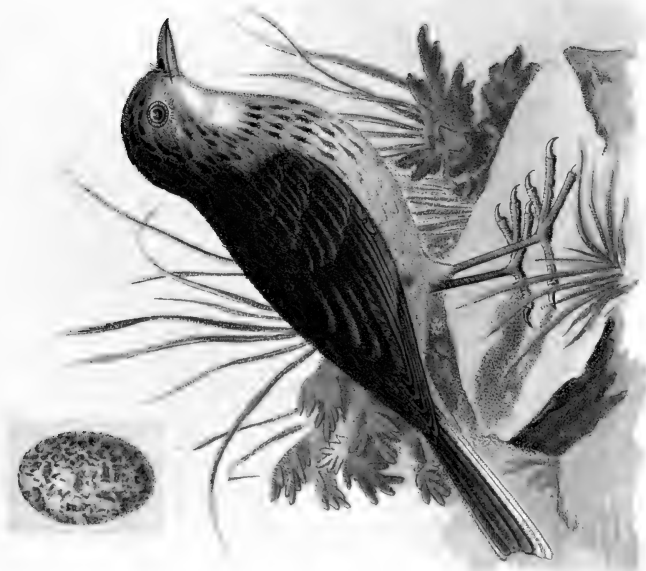
MOVEMENTS.—When disturbed the chat cries “Tang,” and moves away by a series of short, low flights and rapid runs, its tail bobbing as it goes.

HABITAT.—This little bird likes open grass land, where it feeds.

FOOD.—Its food consists chiefly of insects and other minute animals.

NEST.—It makes its nest close to the ground, and for preference in a bunch of rushes on the edge of a watercourse. The nest is open, and cup shaped. It is made of grass and lined with wool or feathers.

EGGS.—The eggs, which number three or four, are of a flesh-pink color, speckled at the broad end with brown spots, which form a zone.





## GROUND LARK, or PIPIT.

(*Anthus australis*.)

SIZE.—The pipit is slightly plumper and longer than a sparrow.

PLUMAGE.—The general appearance is light mottled brown. The head and back and wings are light brown flecked with darker markings, running from the head backwards. The striped effect is caused by a dark-brown central line running the length of each feather. The two outer tail feathers are partly dull white. The throat is dull white, the breast and under tail feathers being light brown to buff.

HABITAT.—Grass land, fields, and open country.

CHARACTERISTIC MOVEMENTS.—The pipit is a fast runner, and flies with a rather heavy undulating movement.

FOOD.—This harmless little bird feeds chiefly upon seeds and insects.

NEST.—The nest, which usually occupies a small depression in the ground, such as a hoof print, is composed of dry grass.

EGGS.—A clutch usually consists of three greyish-white eggs flecked with grey and brown. The pipit rears as many as three broods in a season. They may be found nesting from September until January.

## SPOTTED BOWER BIRD.

(Chlamydodera maculata.)

OTHER SPECIES	}	GUTTATED BOWER BIRD.
IN		
SOUTH AUSTRALIA.		

SIZE.—In size the bower bird is a little smaller than a pigeon, but larger than a dove. A full-grown bird is between 10in. and 12in. long.

BILL.—Its bill is dark brown or black, with a pink shade in the skin at the corners of the mouth.

FEET AND LEGS.—The feet and legs are dark brown to black.

PLUMAGE.—The plumage is mottled brown, relieved by a rose-pink to lilac colored band across the back of the neck. The top, back, and sides of the head are rich brown, each feather being margined with a still darker shade. The back and wings are dark brown, but each feather is marked at the tip with a light spot, which produces a mottled effect. The throat, breast, and underneath tail feathers, which are tipped with buff, are mottled with dark brown. Crossing the back of the neck is a bar of rose-pink to lilac colored feathers, which readily distinguishes it from other birds.

HABITAT.—The habitat of the bower bird is the scrubby and well-timbered dry localities inland. The spotted bower bird has been recorded from the Murray.

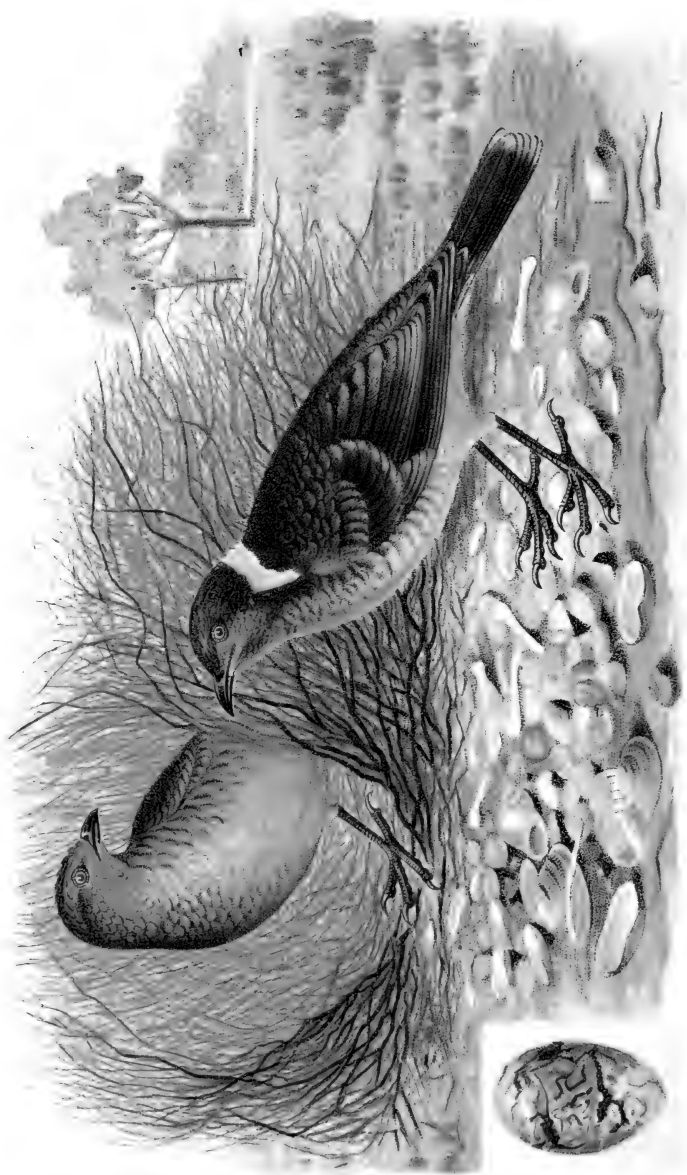
FOOD.—Its food consists chiefly of seeds and berries of native plants.

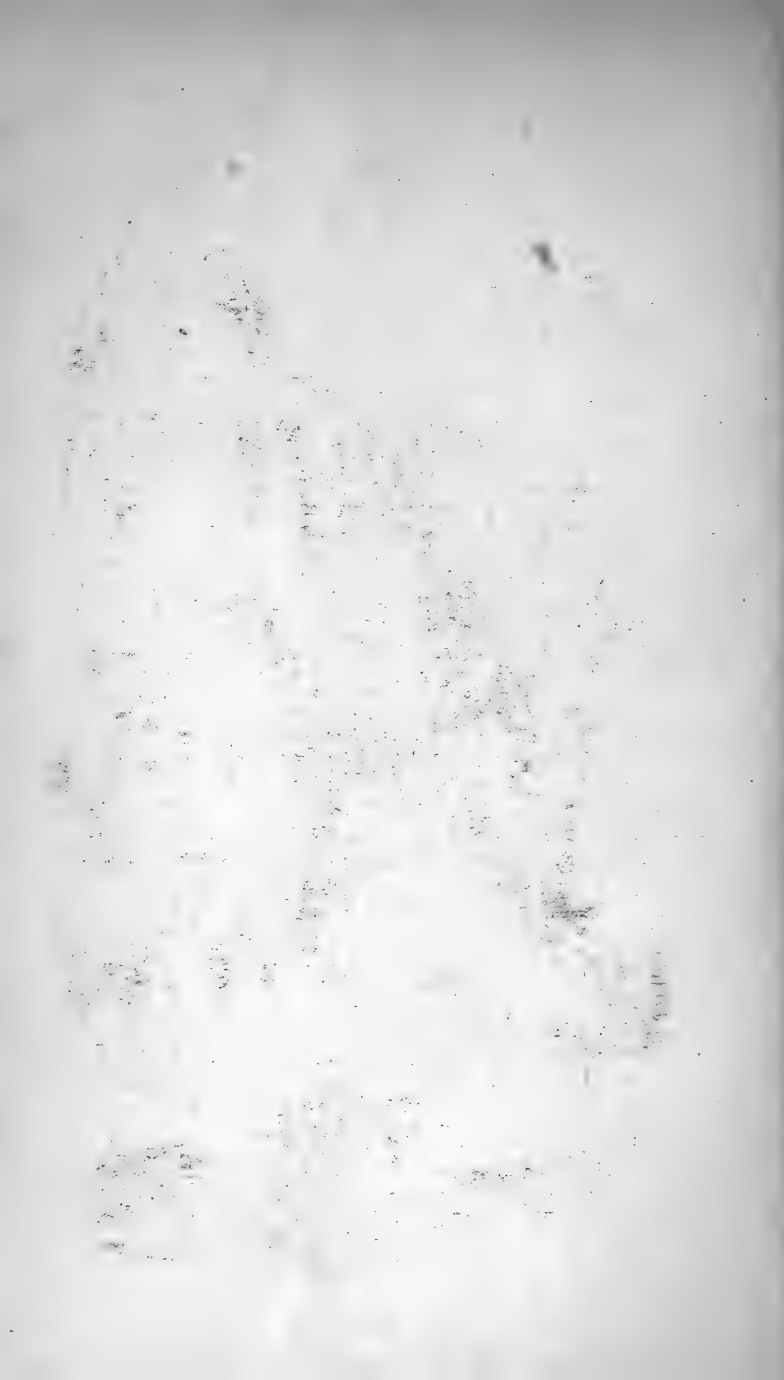
THE BOWER.—The pair of bower birds build a bower or avenue of sticks and grass. This bower is not the nest, but the playground of the birds. They collect pieces of bleached bone, pieces of bright stone, and bits of pearly shell, which they scatter immediately about the entrance of their bower.

NEST.—The nest, which is saucer shaped, is loosely built of twigs and lined with grass. It is usually placed in a thick pine or melaleuca. Nesting operations extend over the months of October, November, and December.

EGGS.—The usual number in a clutch is two. It is, however, not uncommon to find three in a nest. The eggs vary very much in shape and size, but average measurements are about  $1\frac{1}{2}$ in. x 1in. The eggs are light yellowish green, beautifully marbled with reddish brown and dark umber. Bluish grey blotches appear below the surface. The markings often resemble zig-zag brush marks.











# PALLID CUCKOO, or UNADORNED CUCKOO.

(*Cuculus inornatus*.)

OTHER SPECIES IN SOUTH AUSTRALIA.	{	FANTAILED CUCKOO ( <i>Cacomantis rufulus</i> ).
		BLACK-EARED CUCKOO ( <i>Mesocalius palliolatus</i> ).
		BRONZE CUCKOO ( <i>Chalcococcyx plagosus</i> ).
		NARROW-BILLED BRONZE CUCKOO ( <i>Chalcococcyx basalis</i> ).

SIZE.—This bird is as large as a dove. Its long tail, however, makes it appear larger.

BILL.—Its bill is pick-shaped and black pointed, but showing yellow at the sides near the face.

EYES.—The eyes are encircled with yellowish rings.

FEET AND LEGS.—The feet and legs are a dirty yellowish green.

PLUMAGE.—The whole appearance is greyish brown mottled with white. The under wing and tail feathers are barred with white and tipped with white.

HABITAT.—The cuckoo prefers well timbered country.

FOOD.—This bird lives chiefly upon insects.

NEST.—The cuckoo does not build a nest for itself; it prefers to lay its egg in the nest of another bird. The cuckoo selects a different nest each time it lays an egg.

EGGS.—Some bird observers claim that the cuckoo lays quite a large number of eggs in a season. It is, however, a difficult matter to settle. The eggs of the pallid cuckoo are pinkish white, faintly speckled with brown, and measure about  $\frac{7}{8}$  in.  $\times$   $\frac{5}{8}$  in.

## STRAW-NECKED IBIS.

(Geronticus spinicollis)—*Gould's Hand Book.*(Carphibis spinicollis)—*Mathews' Hand List.*

OTHER SPECIES	{	WHITE IBIS ( <i>Ibis molucca</i> ).
IN		
SOUTH AUSTRALIA.	}	GLOSSY IBIS ( <i>Plegadis falcinellus</i> ).

SIZE.—The ibis measures about 28in. from beak to tail. Its long stilt-like legs and large curved bill add to its appearance, and make it quite an imposing bird.

BILL.—The bill is long and curved. It is black, with the exception of a few yellowish bars that cross it transversely near the base.

FEET AND LEGS.—The upper part of the leg is crimson, and the lower portion, together with the feet, dirty brown.

PLUMAGE.—The head and upper neck of the matured bird are bare of feathers and colored black. The back and sides of the neck are covered with whitish down. The back and wings are of a glossy bronze green with a purple sheen. The wings are crossed with several bars of black. The breast, which is colored like the back, is adorned with a plume of long, thin straw-colored feathers, that depend from the lower neck.

HABITAT. The favorite haunts of the ibis are shallow swamps and lagoons. They may be seen feeding on the flat ground in the neighborhood of water areas, especially at that time of the year when grasshoppers are numerous.

FOOD.—This useful bird feeds chiefly on frogs, aquatic insects, and freshwater molluscs. It is especially useful in destroying the freshwater snails, in which the dreaded sheep fluke spends one phase of its existence. As a destroyer of grasshoppers it has, perhaps, no equal among our birds. One ibis was found to have devoured 2,410 grasshoppers, five freshwater snails, and several caterpillars in a single day.\*

NEST.—The ibis makes a nest of flags and reeds on the margin of a lagoon or other freshwater area. Sometimes a few twigs are added in its construction. Nesting takes place from September to December.

EGGS.—The eggs number three to five, and are white. An average sized egg measures about  $2\frac{1}{2}$ in. x  $1\frac{3}{4}$ in.

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\* These observations were taken from "Wild Life in Australia," by Mr. Dudley Le Souef. C.M.Z.S.







## ROYAL SPOONBILL.

(*Platalea regia*.)

OTHER SPECIES IN SOUTH AUSTRALIA.	{	YELLOW-LEGGED SPOONBILL ( <i>Platalea flavipes</i> )—Gould. ( <i>Platibis flavipes</i> ).
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SIZE.—The size of this bird is about that of a crane, and when standing erect would be from about 20in. to 2ft. high.

BILL.—Its bill, which is long, black, and spoonshaped at the end, is the most striking feature, and renders the bird easily recognisable.

LEGS.—Its legs are long and black, and well suited to a bird of wading habits.

PLUMAGE.—The plumage is all white. At the back of the head is a crest of fine white feathers, that can be erected and spread out in all directions at will.

HABITAT.—The habitat of this lovely bird is along the margins of lagoons, rivers, and in swamps.

FOOD.—Its food consists chiefly of frogs, tadpoles, fish, and aquatic insects.

NEST.—The spoonbill builds its flat nest by breaking down the reeds that grow along the margin of freshwater areas. Sometimes a few twigs are placed upon this platform of reeds. The nesting season lasts from October until January.

EGGS.—The eggs, which number three to five, measure about 2½in. x 1½in. They are colored dull white and splashed with reddish brown near the broad end.

## YELLOW-LEGGED SPOONBILL.

(*Platalea flavipes*)—*Gould's Hand Book*.

(*Platibis flavipes*)—*Mathews' Hand List*.

SIZE.—In size this bird equals the ibis, and when standing erect measures from 24in. to 28in. in height.

BILL.—Its bill is yellow and tinged with pink as it approaches the face, which is naked. The end of the bill broadens out into a spoon-shaped expansion, which character gives rise to the name "spoonbill."

LEGS.—The legs are long, naked, and yellow.

PLUMAGE.—Its plumage is wholly white, with the exception of a curious line of black feathers which, crossing the forehead, passes round the back of each eye and thence forward under the bill. On the back, near the tail, and appearing over the wing tips is a thin plume of fine-pointed black feathers. Hanging from the lower portion of the neck and over the chest is a white plume of fine feathers, resembling somewhat the brush of a turkey gobbler, only much more beautiful.

FOOD.—The spoonbill eats chiefly frogs, tadpoles, and other aquatic animals and insects.

HABITAT.—The yellow spoonbill, like its royal brother, associates with ibises and other wading birds, and may be seen in numbers about the lakes of the Murray River and swamps of the South-East. When resting it stands mostly upon one leg, and rests its long bill on its chest, or else it perches upon the bare limb of a tree overhanging the water.

NEST.—The nest is made of flags and reeds trampled down to form a platform just above the water line. The months for nidification are October, November, December, and January, according to locality. Eggs have been found as late as April in Queensland.

EGGS.—The eggs, which are quite white, number from three to five, and on an average measure  $2\frac{1}{2}$ in.  $\times$   $1\frac{1}{2}$ in.



PROTECTED BIRDS OF

YOUNG STARVING EGRETS.  
*The price of a hut*  
(Photo. by A. Mattingley, C.M.Z.S.).



TWO EGGS NEST

# PLUMED EGRET.

(*Herodias plumiferous*)—*Gould's Hand Book*.

(*Mesophoyx plumifera*)—*Mathews' Hand List*.

OTHER SPECIES	{	THE AUSTRALIAN (OR WHITE ?) EGRET ( <i>Herodias timo-</i>
IN		<i>riensis</i> ).
SOUTH AUSTRALIA.		THE LITTLE EGRET ( <i>Garzetta nigripes</i> ).

SIZE.—In size the egret equals the blue crane, or white-fronted heron, being about 2ft. high when standing erect.

BILL.—The bill is a dark yellow or nearly orange color, and the eyes are surrounded with yellow skin.

PLUMAGE.—Its plumage is pure white. On the back, near the base of the tail, is a lovely plume of long, slender, pointed feathers; another plume, equally fine, hangs from the lower portion of the neck over the chest.

HABITAT.—The habitat of the egret is the swampy margins of lakes, lagoons, and rivers.

FOOD.—Its food consists chiefly of frogs, tadpoles, fish, newts, and aquatic insects.

NEST.—The egret builds a loose, flat nest of sticks upon a flat forking limb. Nesting operations extend over the months of October, November, and December.

EGGS.—The eggs of the plumed egret are of a uniform pale greenish-blue color. They closely resemble in appearance the eggs of the blue crane, but are a little smaller.

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Egret plumes are greatly sought after by bird hunters, who ruthlessly slay our handsomest and most useful birds to satisfy the fancy of thoughtless people. The word thoughtless is used because, if many of the ladies who wear the wings, plumes, and skins of birds could but once see the cruel misery and suffering of wounded birds and starving nestlings, they certainly would never wear any but *artificial* feathers and plumes. Observe the poor disconsolate little nestlings, rendered fatherless and motherless by the plume hunters, and waiting to be fed by the parents that can never return.

## WHITE-FRONTED HERON, or BLUE CRANE.

(Ardea novae hollandiae)—*Gould's Hand Book*.(Notophoyx novae hollandiae)—*Mathews' Hand List*.

OTHER SPECIES IN SOUTH AUSTRALIA.	{	COMMON HERON.	
		PACIFIC HERON ( <i>Notophoyx pacifica</i> ).	
		BLUE REEF HERON	
		WHITE REEF HERON	
		NANKEEN CRANE OR NIGHT HERON ( <i>Nycticorax cal- donicus</i> ).	

SIZE.—When standing erect this bird measures about 24in. in height. It is about the size of the bittern, but looks sleeker and more graceful.

BILL.—Its bill is long and pointed. The skin about the eyes is slate or lead colored.

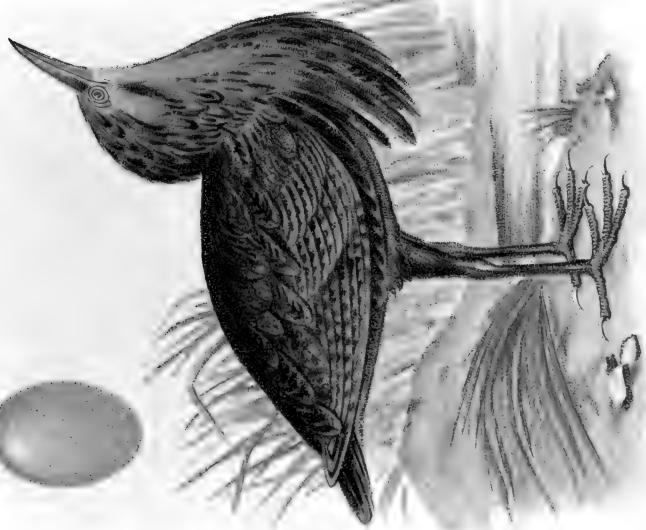
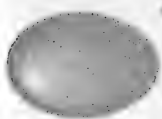
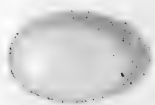
PLUMAGE.—The general appearance is of a bluish slaty-grey color. The feathers on the face and throat are white. The back and wings are bluish slaty grey. The breast is grey, tinged with rusty brown. The feathers on the back and chest are long and pointed, somewhat after the manner of the hackle of a rooster.

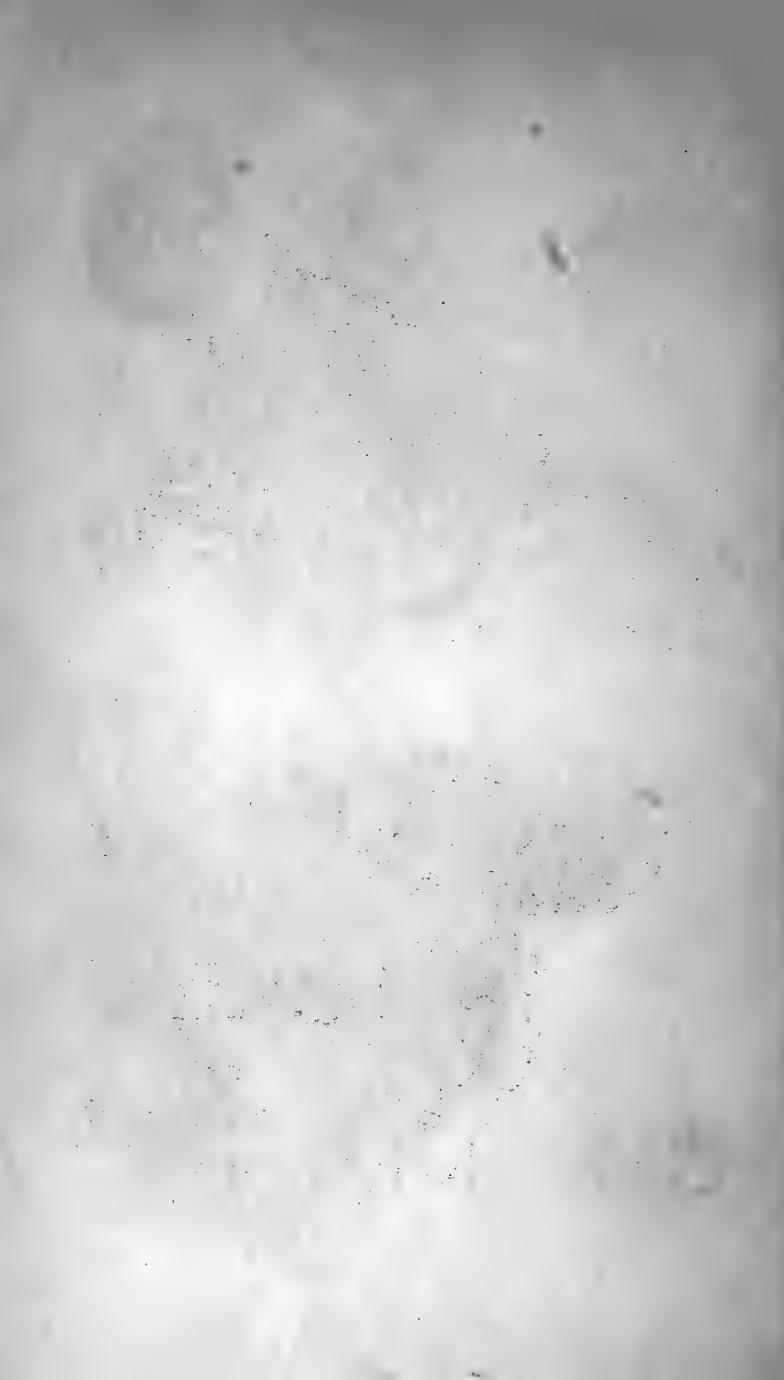
FOOD.—The heron feeds almost exclusively upon fish, crayfish, frogs, and other small water animals.

HABITAT.—Lagoons, lakes, marshes, rivers, and river estuaries.

NEST.—The heron nests during the months of October, November, and December. It builds a nest of sticks lined with leaves in the fork of a tree that grows near the swamp.

EGGS.—The eggs, which usually number four, are of a pale bluish-green color, about  $1\frac{3}{8}$ in. x  $1\frac{1}{4}$ in.







## AUSTRALIAN BITTERN, or BOOMER.

(*Botaurus australis*)—*Gould's Hand Book.*

(*Botaurus poeciloptilus*)—*Mathews' Hand List.*

SIZE.—In size this bird resembles the crane.

BILL.—Its bill is long, pointed, and of a yellow color. The skin around the eyes is yellow, with sometimes a tinge of green.

PLUMAGE.—The plumage is mottled brown and buff. The back is dark mottled brown, but the wings and sides are slightly lighter in color. The breast and neck are lighter still. A most marked and characteristic feature is the crest of long feathers which grows over the back of the head and neck, and can be raised at will.

HABITAT.—The bittern haunts the margins of lakes, lagoons, swamps, and rivers.

FOOD.—It feeds principally upon small freshwater fish, frogs, and aquatic insects.

NEST.—The bittern nests along the margin of a lake or lagoon, usually among the reeds. The nest is constructed out of the flag and other soft parts of reeds, and forms a platform about 6in. above water level. Nidification takes place from November to January.

EGGS.—The eggs number four to five in a clutch. They are light or pale olive in color, and measure about 2in. x 1½in.

*Note.*—The bittern is called “the boomer” on account of the booming noise it makes at night time. When booming it points its bill upward, and repeats its low note three or four times in succession. If attacked, the bittern draws back its head and shoots forward its long bill with great force and rapidity, aiming at its antagonist's eyes.

## MARSH TERN.

(Hydrochelidon fluviatilis)—*Gould's Hand Book.*(Hydrochelidon hybrida)—*Mathews' Hand List.*

OTHER SPECIES IN SOUTH AUSTRALIA.	{	CASPIAN TERN ( <i>Hydroprogne caspia</i> ).
		CRESTED TERN, OR BASS STRAITS TERN ( <i>Sterna bergii</i> ).
		WHITE-FRONTED OR SOUTHERN TERN ( <i>Sterna frontalis</i> ).
		LITTLE TERN ( <i>Sterna nereis</i> ).
		LONG-LEGGED TERN ( <i>Gelochelidon anglica</i> ).

SIZE.—The body is about the size of that of a dove, but the long tail, together with the long pointed wings, make it look much larger. From beak to the tip of the tail it is about 10in. to 12in. in length.

BILL.—Its bill is blood red in color.

LEGS AND FEET.—The legs and feet are also colored blood red.

PLUMAGE.—The forehead, top, and back of the head are black. The back, wings, and chest are a light slaty grey. The sides of the head, chin, and throat whitish. Under the wings and tail the feathers are white. The wings are long, curved, and pointed, and admirably adapted for swift flying.

HABITAT.—Freshwater lakes, lagoons, swamps, and marshes. It is mostly seen flying or hawking over the water, after the manner of the seagull.

FOOD.—Aquatic insects, tadpoles, frogs, and small fish.

NEST.—The nest is built of stalks of aquatic herbage, with a submerged foundation, and fringed about with growing grass (couch) in a lagoon or swamp. "Dimensions over all, including foundation under water, 18in. in depth, diameter of base at waterline 16in. to 18in., diameter of the top, which is slightly concave, 8in."—*Campbell*. Nidification takes place from October to December.

EGGS.—The eggs usually number two, although it is no uncommon sight to see three in a nest. They are of a greyish-green color, strongly spotted with dark brown and dull grey. The average size is about  $1\frac{1}{2}$ in. x  $1\frac{1}{10}$ in.







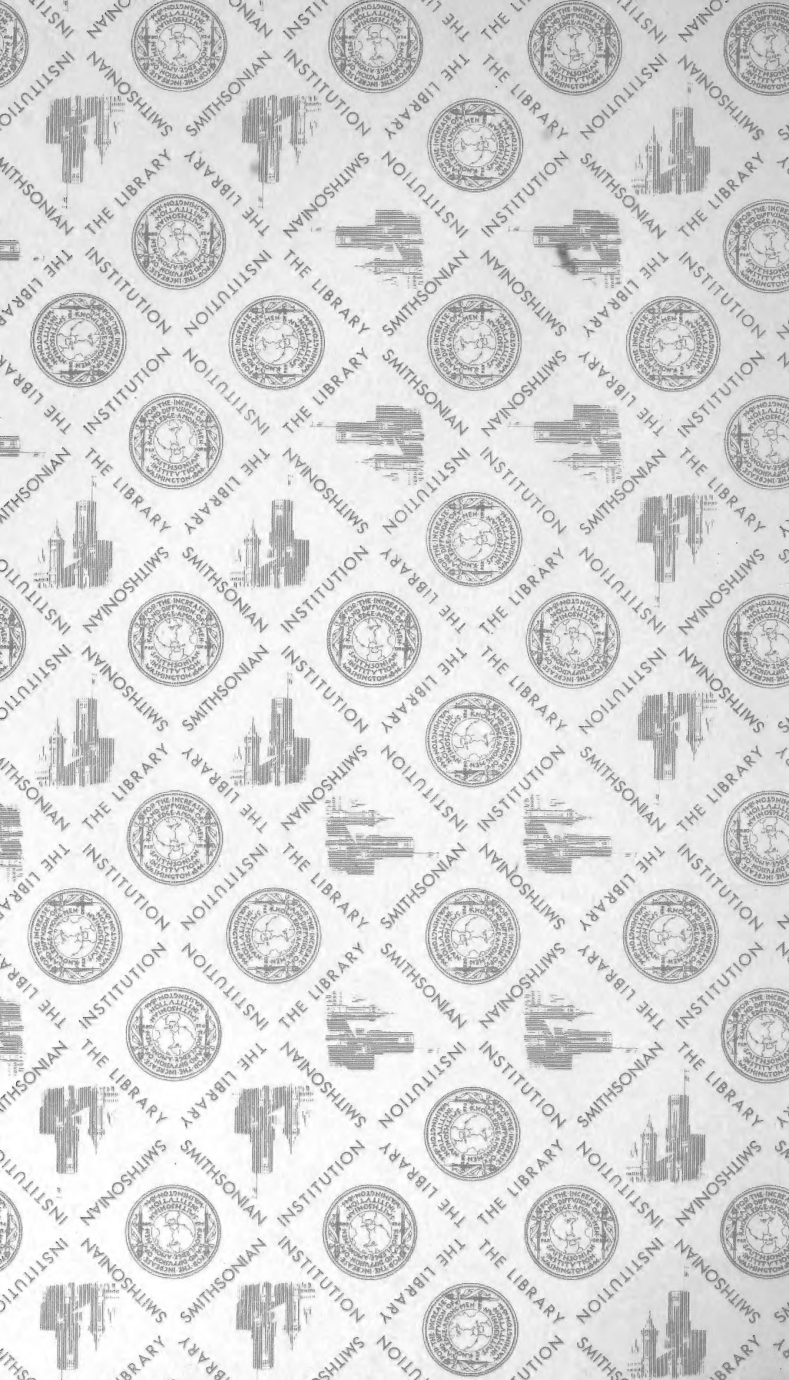


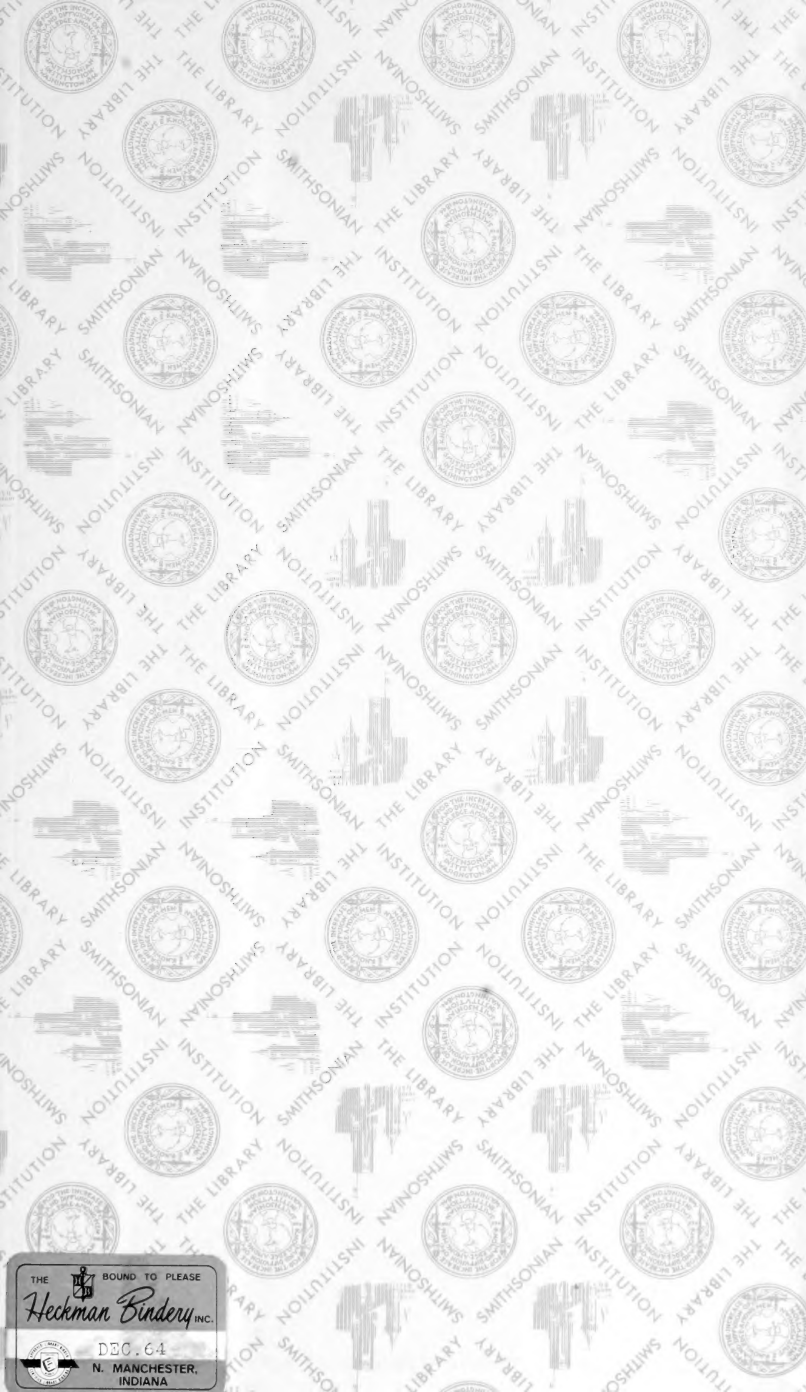












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