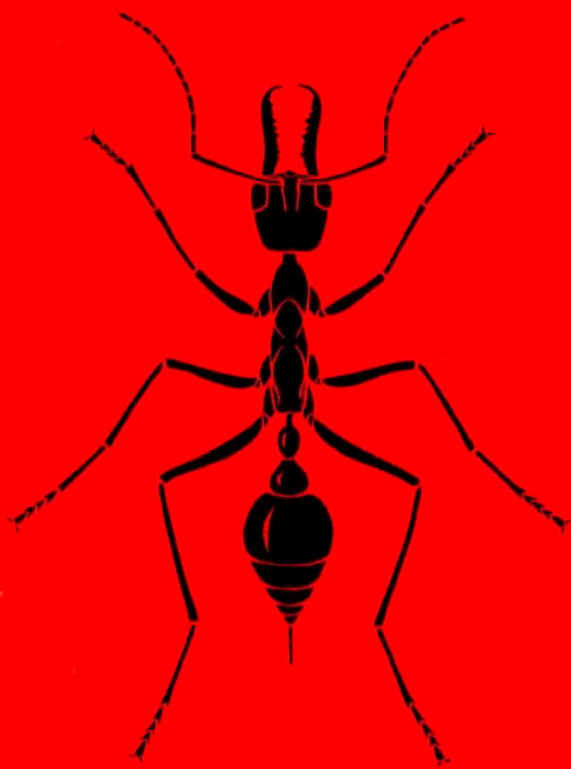


**AUSTRALIAN
ENTOMOLOGICAL
SOCIETY**



NEWS BULLETIN

Volume 7, Part 2, May, 1971

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AUSTRALIAN ENTOMOLOGICAL SOCIETY
NEWS BULLETIN, VOLUME 7, PART 2, MAY, 1971

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- Chief Editor:* Dr. B.R. Champ, CSIRO, Long Pocket Laboratories,  
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- Queensland:* Mr. J.G. Brooks, P.O. Box 354, Cairns, Queensland, 4870.
 Dr. J. Nolan, CSIRO, Long Pocket Laboratories,
 Private Bag No. 3, Indooroopilly, Queensland, 4068.
- N.S.W.:* Dr. M.A. Bateman, Zoology Building, University of
 Sydney, Sydney, N.S.W. 2006.
 Professor E.T. Giles, Department of Zoology, University
 of New England, Armidale, N.S.W. 2351.
- A.C.T.:* Mr. M.S. Upton, Division of Entomology, CSIRO,
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 P.O. Box 310, South Melbourne, Victoria, 3205.

- Tasmania:** Mr. K.L. Taylor, CSIRO, Regional Laboratory,
Stowell Avenue, Hobart, Tasmania, 7000.
- S.A.:** Mr. P.G. Allen, Department of Agriculture,
133 Gawler Place, Adelaide, South Australia 5000.
- W.A.:** Mr. S.J. Curry, Department of Agriculture, Jarrah
Road, South Perth, W.A. 6151.
- T.P.N.G.:** Mr. T.L. Fenner, Entomology Section, D.A.S.F.,
Konedobu, T.P.N.G.

REPRESENTATIVE COUNCILLORS

- Entomological Society of Queensland:** Dr. E.M. Exley, Department of Entomology,
University of Queensland, St. Lucia, Queensland, 4067.
- Royal Zoological Society of New South Wales:** Dr. C.N. Smithers, Australian Museum, College
Street, Sydney, N.S.W. 2000.
- Entomological Society of Victoria:** Appointment to be advised.

EXECUTIVE APPOINTMENTS

- Bulletin Editor:** Dr. F.J.D. McDonald, Department of Agricultural
Botany, The University of Sydney, Sydney,
N.S.W. 2006.
- Assistant Secretary:** Mr. P. Ferrar, Division of Entomology, CSIRO,
P.O. Box 109, Canberra City, A.C.T. 2601.
- Assistant Editor:** Dr. R.W. Sutherst, Division of Entomology, CSIRO Long
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Queensland, 4068.
- Auditor:** To be appointed.

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Articles, Notes, Letters to the Editor and other material for the
News Bulletin should be sent to the News Bulletin Editor, or to
your Regional Councillor.

EXECUTIVE REPORT

MEETINGS:

The Executive met on February 16, March 16, and April 22.

MEMBERSHIP:

At April 30 membership of the Society stood at 408 with the following distribution by States:-

Qld.	89	Vic.	52	W.A.	20
N.S.W.	82	S.A.	27	Tas.	14
A.C.T.	67	T.P.N.G. & N.T.	23	Overseas	31
Address unknown	3				

Details appear below of 5 resignations and 10 new elections recorded since the last report.

It may interest members to know the distribution of our overseas members, who are now quite widely dispersed. Of the 31 listed above we have 10 in the United States, 6 in Canada, 2 in the United Kingdom, 2 in Uruguay, and 1 each in East Malaysia (Sarawak), Egypt, Fiji, France, Ghana, Ireland, Japan, Mauritius, New Zealand, South Africa and Zambia.

JOURNAL:

Volume 10 No. 1 was published on March 31. The Editor reports that ample material has been received for Nos. 2 and 3 of this volume, and No. 2 is expected to appear on schedule.

CONCESSIONS ON SUBSCRIPTIONS:

At present we have 17 student members and 14 retired members paying reduced rates of subscription (\$3.00 p.a. with Journal; \$1.00 p.a. without Journal). Although these are subsidised rates, the Executive offers the concessions because of the heavy burden of a full subscription to a member who is not gainfully employed. Application for such a concession should be made to the Executive. In the case of students a printed form must be completed annually, and endorsed by the Head of the student's Department or College; these forms can be obtained by writing to the Secretary.

STUDENT AWARD:

In 1970 the Executive invited undergraduate and post-graduate students to submit papers on an entomological subject for possible presentation to the Society's 4 AGM. The winner was to be

invited to attend the meeting, read his paper, and receive a small cash prize.

Four entries were received, and these were read by a panel of three referees who unanimously recommended that the award be given to Mr. P.G. Allsopp for his paper "Differential Susceptibility of the Sexes of the Speckled Cockroach to Diazinon".

MAILING OF JOURNAL TO UNFINANCIAL MEMBERS:

In the past, members' names were not removed from the mailing list of the Journal until their subscriptions were 12 months in arrears. Now that there are four issues each year, the Executive has decided to reduce this period of grace. Members whose subscriptions have not been paid by September 30 will not be sent copies of part 3 of the Journal, due to be published on that date. As before, copies will be held and forwarded to members when their subscriptions are received.

CHANGE OF BUSINESS MANAGER:

Dr. Mervyn Bengston, who leaves on an overseas trip in early June, has tendered his resignation as Business Manager as from May 23. We are most grateful to Dr. Bengston for his services to the Society during the past two years, and wish him a profitable and enjoyable trip.

It is very pleasing to report that Dr. Gordon Hooper has accepted appointment as Business Manager. Dr. Hooper is well qualified for the task, for he served the Society as both Treasurer and Business Manager from 1965-1968.

RESIGNATIONS

Messrs. J.S. Barnes (Vic.), P.J. Christian (N.S.W.), P.H. Colman (N.S.W.), D.R. Holmes (Vic.) and E. Little (Vic.) have resigned from membership of the Society.

NEW MEMBERS

We are pleased to welcome the following new members:-

Elected 12.1.71

Mr. S.T. bin Syed Hassan, St. Albert College, University of New England, Armidale, N.S.W. 2351. Mr. Hassan is working for a B.Sc. with Honours in Entomology.

Elected 16.2.71

Mr. M. Casimir, 16 Tudor Place, Carlingford, N.S.W. 2118.

Mr. Casimir is working with the N.S.W. Department of Agriculture on the biology and control of grasshoppers, especially the Australian plague locust, *Chortoicetes terminifera*.

Dr. J. Edgar, CSIRO, Division of Applied Chemistry, P.O. Box 4331, Melbourne, Vic. 3001. Dr. Edgar is interested in the pheromones of Danaine butterflies, and also in the role of ascorbic acid in metamorphosis.

Mr. R.W. Kerr, CSIRO, Division of Entomology, P.O. Box 109, Canberra City, A.C.T. 2601. Mr. Kerr works on insect toxicology and resistance to insecticides, in particular the genetics of resistance in *Musca domestica*.

Dr. A.T. Marshall, Zoology Department, La Trobe University, Bundoora, Vic. 3083. Dr. Marshall is Senior Lecturer in the Department, and is interested in insect physiology and ultrastructure, with particular reference to sensory receptors and to salt and water regulatory systems.

Dr. R.M.M. Traynier, CSIRO, Division of Entomology, P.O. Box 109, Canberra City, A.C.T. 2601. Dr. Traynier's interests include host-plant relations of insects, and physiological aspects of insect behaviour, especially pheromones.

Elected 16.3.71

Mr. M.M.K. Chaudhry, Department of Entomology, University of Queensland, St. Lucia, Queensland. 4067. Mr. Chaudhry is an Assistant Entomologist in the Department, and is interested in the control of insect pests of deciduous fruit trees and field crops.

Dr. R.J. Milner, CSIRO, Private Mail Bag, Armidale, N.S.W. 2350. Dr. Milner works in the field of insect pathology; he studied Microsporidia in *Tribolium* sp. for his Ph.D., and is currently working on diseases of scarabs.

Elected 22.4.71

Mr. A.A. Calder, 10 Cole Avenue, East Kew, Vic. 3102.

Mr. Calder is an undergraduate at La Trobe University, and is interested in the taxonomy of Coleoptera, Hemiptera and Hymenoptera.

Mr. B.A. Franzmann, Department of Primary Industries,
P.O. Box 20, South Johnstone, Queensland. 4859.
Mr. Franzmann is interested in agricultural and general
entomology, and in particular the entomology of bananas.

CHANGES OF ADDRESS

(State of previous residence shown in brackets)

Dr. H.J. Banks, Division of Entomology, CSIRO, P.O. Box 109,
Canberra City, A.C.T. 2601. (Vic.)

Mrs. C. Brock, 375 Warners Bay Road, Charlestown, N.S.W.
2290 (N.S.W.).

Mr. A. Catley, 157 Norfolk Road, North Epping, N.S.W. 2121.
(N.S.W.)

Mr. B. Conroy, Biology Department, Queensland Institute of
Technology, P.O. Box 246, North Quay, Queensland 4001.
(N.S.W.)

Mr. H.J. Elliott, C/- Department of Agricultural Botany,
University of Sydney, Sydney, N.S.W. 2006. (A.C.T.)

Mr. P.G. Fontana, 72 Carlton Street, Carlton, Vic. 3053.
(Vic.)

Mr. J.G. Gellatley, Matcham Road, Matcham, N.S.W. 2251.
(N.S.W.)

Mr. N. Gough, Waite Agricultural Research Institute, Private
Bag No. 1, Glen Osmond, S.A. 5064. (T.P.N.G.)

Mr. P.L. Grant, Kingsthorpe, Queensland. 4400. (Qld.)

Mr. J.F. Hutchinson, Scoresby Horticultural Research Station,
Burwood Highway, Ferntree Gully, Vic. 3156. (Vic.)

Mr. C.J. Irvine, Forests Commission, Public Offices Building,
Treasury Place, Melbourne, Vic. 3002. (Vic.)

Mr. D.S. Kells, C/- Biology Department, Queensland Institute
of Technology, George Street, Brisbane, Qld. 4000. (Vic.)

Dr. R.N. McCulloch, Skyline Terrace, Burleigh Heads,
Queensland, 4220. (N.S.W.)

Dr. W.A. McDougall, 14 Juster Street, Annerley, Queensland,
4103. (Qld.)

Mr. R.A. McLachlan, C/- Post Office, Beerwah, Queensland,
4519. (Qld.)

Dr. E.G. Matthews, South Australian Museum, North Terrace,
Adelaide, S.A. 5000. (A.C.T.)

Mr. I.S. Misko, Department of Zoology, School of General
Studies, Australian National University, Canberra, A.C.T.
2600. (A.C.T.)

Mr. K.M. Moore, Cutrock Road, Lisarow, N.S.W. 2251. (N.S.W.)

Mr. N.D. Murray, Department of Genetics, La Trobe University,
Bundoora, Vic. 3083. (N.S.W.)

Mr. D.L. Porter, Flat 4, 2 Garton Street, West Parkville,
Vic. 3052. (Vic.)

Mr. D.P. Sands, C/- CSIRO, Mrs. Macquarie's Road, Sydney,
N.S.W. 2000. (N.S.W.)

Sri H. Soewarno, 18 Roma Avenue, Kensington, N.S.W. 2033.
(Overseas)

Mrs. S. Spencer, P.O. Box 218, Pukekohe, North Island, New
Zealand. (Overseas)

Mr. R. Sticka, 3 Yarraga Place, Yowie Bay, N.S.W. 2228.
(N.S.W.)

Mr. F.G. Swindley, C/- Department of Entomology, University
of Queensland, St. Lucia, Queensland, 4067. (Vic.)

Unknown addresses

The Secretary would be glad to hear from anybody who knows
the present addresses of Miss M.J. Gillett, formerly of the Department
of Parasitology, University of Queensland, St. Lucia, Queensland 4067,
and of Mr. P.R. Gunner, formerly of Flat 3, 27 Locksley Road, Ivanhoe,
Victoria 3079.

COST OF "THE INSECTS OF AUSTRALIA"

It has been brought to our notice that some booksellers are
charging over \$24 for copies of "The Insects of Australia". The
standard retail price of this volume is \$19.80; this is the price
charged by most booksellers and by the Melbourne University Press.
Members who find difficulty in obtaining the book at its normal price
should approach alternative booksellers or write direct to the
Melbourne University Press, 932 Swanston Street, Carlton, Vic. 3053.

INTERNATIONAL CONGRESS

The organization of the 14 International Congress of Entomology to be held in Canberra from 22nd-30th August 1972 is now well advanced. First circulars were sent to 10,000 entomologists, institutions and societies throughout the world; letters were also sent to institutions and societies, and notices were placed in "Nature" and "Science". Two thousand, four hundred people have indicated their interest in attending the Congress, 1,661 as full delegates and 739 as guests. Probably no more than 50 per cent of these will in fact attend.

Considerable thought has gone into the preparation of a programme, to include opening and closing plenary sessions (to be addressed respectively by Dr. E.F. Knipling and Dr. J.S. Kennedy), 15 sections covering the whole range of entomology, and 22 symposia on a variety of interesting topics. A convener is responsible for organizing the papers to be presented in each section, and an organizer for each symposium. The symposia are planned for morning sessions and sectional papers will be given in afternoon sessions. Most of the symposia are already at an advanced planning stage, and are expected to include well known authorities in each field.

The plenary sessions will be held at the Canberra Theatre, and other sessions at the Australian National University. Small meeting rooms will also be available for informal meetings. The programme will include a presidential reception to follow the opening plenary session, a Congress dinner, and a symphony concert. A ladies' programme is also being arranged. The Congress will provide an information centre, a bank, a travel bureau and a post office, and transport will be provided from the airport to Congress hotels and from the hotels to the various Congress activities.

The official agents for the Congress will be QANTAS, Ansett, Avis and the Commonwealth Banking Corporation. QANTAS has kindly made its computer available to the Congress. A number of pre-Congress and post-Congress tours, as well as shorter mid-Congress tours, have been arranged and a tours brochure is available. Tours will cater for both tourist and entomological interests, and will provide opportunities for visiting entomological institutions and meeting individual entomologists.

In conjunction with the Organizing Committee of the Congress, the Society is arranging for the manufacture of a supply of ties which will be sold to Congress members. The tie carries an Australian bull-ant motif, and is expected to sell at about \$1.50.

Accommodation is being arranged at various hotels and motels within 2 miles of the Congress centre (at the Australian National University), and at University halls of residence.

The cost of full membership of the Congress has been set at \$30.00, and student and associate membership at \$10.00. In addition to membership fees, financial support for the Congress has been given by the Commonwealth and State Governments, by industry and by private subscribers. About \$10,000 will be used to assist invited overseas members who will be key speakers at major sessions.

A second Congress circular will have been sent out in May to all who have expressed interest in attending the Congress. It is hoped that Australian entomologists will assist the organizers by returning their forms promptly, so that the work load can be spread as broadly as possible.

Members will be interested to learn that the Entomological Society of New Zealand is holding a special meeting from 6th-8th September, following the Congress, at Lincoln Agricultural College near Christchurch. Details of this meeting will be available with the second Congress circular.

Any members who are interested in obtaining further information on the Congress, and who have not already received the first circular, should contact the Organizing Secretary (Dr. C.N. Smithers, Australian Museum, College Street, Sydney, N.S.W. 2000).

C.N. SMITHERS

NEWS FROM AFFILIATED SOCIETIES

ENTOMOLOGICAL SOCIETY OF QUEENSLAND

Activities since the last report include the following:

November 9, 1970: Main business was an address by Dr. P.R.B. Blood of the Entomology Department, University of Queensland, on "Integrated Control".

December 14, 1970: Notes and exhibits evening in which the range, interest and quality of contributions led most people present to consider this the best meeting of the year. At the meeting, the student winners of prizes donated by the Society and the Annual Schools Science Contest exhibited their entries and were presented with their prizes. For the first time, part of the prize in the Senior Section was an Honorary Associate Membership of the Society for one year.

The Society has been seeking ways of encouraging interest in entomology amongst students and is currently conducting an essay competition amongst students of tertiary institutions in the State.

March 8, 1971: Annual General Meeting at which the following officers were elected:

Dr. M. Bengston (President)
 Professor D.S. Kettle (Vice President)
 Mr. G. Swaine (Secretary)
 Dr. G.W. Saunders, Dr. B.F. Stone and Mr. G.B. Monteith (Councillors)
 Dr. K.L.S. Harley delivered his presidential address "The Food of one animal may be poison to another".

April 13, 1971: Professor D.S. Kettle, Department of Entomology, University of Queensland, spoke on "Biting fly research in Jamaica".

The Entomological Society of Queensland will celebrate its Golden Jubilee in 1973 and is at present considering how best to mark the occasion.

VISITORS TO FAR NORTH QUEENSLAND

The 1971 weather so far has not been very encouraging for visitors. At the time of writing these notes Cairns has had thirty rainless days for the year, most of them in January.

10-26 March: Duane Norris of the University of Sydney visited Cairns and Kuranda. Kuranda gave him a wet welcome with over nine inches of rain on his first day there. We managed one night free of rain for "light" collecting, but the countryside was very wet, the night cold and collecting poor.

28 March-3 April: Keith and Mrs. Carnaby of Wilga S-W.A. were in the area but their movements were restricted by continuous rain. They travelled from the west via the Nullarbor, Darwin and Mt. Isa and reached Cairns ten days ahead of schedule, which was a remarkable feat as the western Queensland roads have been trafficable for very short periods during the past couple of months. Their collecting interests are Coleoptera, specialising in Buprestidae. They have their main collection with them in a trailer and intend visiting museums and collectors throughout the eastern States before returning to the West.

17 April: Dr. E.N. (Pat) Marks of Brisbane arrived in Cairns to spend about a fortnight disturbing the mosquito population at various widely dispersed localities in the area. I was pleased to be able to assist her to assemble the roof net for her car, before she proceeded on her way.

7-17 May: My elder son and I hope to visit the Iron Range area for an extensive collecting trip. The weather of the past couple of months is causing great concern. It is impossible to drive from Cairns at this time of the year so we are shipping ourselves and a Land Rover to Portland Roads and back on the "Maluka". I hope to have a report of the trip for the next issue of the News Bulletin.

J.G. BROOKS.

DEPARTMENTAL NEWS

CSIRO DIVISION OF ENTOMOLOGY

Mr. Keith G. Wardhaugh, seconded to the Division from the Anti-Locust Research Centre in London, has just moved from Trangie to Canberra. He has recently concluded 3 years of field studies at Trangie on the effects of temperature and moisture on the survival and development of eggs of the Australian Plague Locust (*Chortoicetes terminifera*); in Canberra he will be doing experimental work on the induction of diapause in the eggs.

Mr. R.A.H. Davies, also seconded from the Anti-Locust Research Centre, opened a small field station in January at Longreach, Queensland. Together with one Technical Assistant he will be commencing a general survey of locust activity in the area, and will also make population genetic studies on the Australian Plague Locust for comparison with similar studies made in the central west of New South Wales and in the far south-west of Queensland.

OVERSEAS TRIPS

Dr. R.J. Roberts left in April to spend a year at the Imperial College field station, Silwood Park, England, where he will work with Dr. G. Conway on the application of computer techniques to pasture insect management studies. En route, Dr. Roberts will visit the agricultural experiment station at Zurich, and workers in France who are studying the ecology of soil faunas. He will return via the U.S.A. in August 1972.

Dr. R.H. Wharton also left in April, on a 6-month overseas tour of centres engaged in veterinary pest research. He is visiting laboratories in North and South America, several parts of Africa, Europe and Asia. At the end of June he will attend a Livestock Insects

Conference in Texas, and in early September an Acarology Congress in Prague. He will return to Australia in mid-September.

Dr. M.J. Whitten went to India for 2 weeks from the end of March, to attend a meeting of the Technical Review Committee of the World Health Organization in New Delhi. The committee was discussing a joint WHO/Indian Council of Medical Research project on the use of various genetical methods to control a number of different mosquito species.

VISITORS TO THE DIVISION

Dr. Günther Becker, the well-known authority on termites, visited the Division briefly at the end of February in the course of a world tour. Dr. Becker is the German government's authority on testing of materials for resistance to termites, and is particularly concerned with methods of rearing and testing under laboratory conditions.

Professor Henry A. Bess of the Entomology Department of the University of Hawaii, Honolulu, visited Canberra with his wife from April 20 to May 9. Professor Bess is best known for his work on the population ecology of Gypsy Moth and Fruit Flies. He spent some time visiting the Division of Entomology, especially the biological control projects and the Termite section, in which he has a particular interest.

UNIVERSITY OF QUEENSLAND - DEPARTMENT OF ENTOMOLOGY

Dr. G.H.S. Hooper has returned to the Department after two years working at the Siebersdorf Laboratory of the International Atomic Energy Agency in Austria, on radiation sterilization of the Mediterranean fruit fly.

Dr. E.J. Reye recently visited Fiji to investigate an infestation by biting midges of a tourist resort in the Leeward Islands. The infestation was due to *Culicoides belkini*, a natural population of which had been augmented by the clearing of a mangrove swamp. Control by exclusion of tide water from the swamp has already been undertaken.

The biting midge research project at the Department of Entomology is supervising an investigation and control programme on the Brunswick River, N.S.W. where a land development company has employed one of our recent graduates as midge advisory officer. This is significant in that it is the first such full-time position in Australia.

There are currently 38 students enrolled in Entomology for postgraduate studies (5 Honours, 24 Masters, 8 Ph.D. and 1 higher

Doctorate). Two whole day meetings were held in March to acquaint new students with Departmental and University requirements in respect of postgraduate Honours and Masters Qualifying examinations. Students came from as far afield as Rockhampton in the North, Stanthorpe in the West, and Wollongbar in the South.

Mr. John Toop, winner of a University medal, has been awarded a Commonwealth postgraduate research scholarship and is studying the ecological genetics of the Australian sheep blowfly towards a Ph.D. degree.

Mr. E.R. Sinclair has joined the Department from C.S.R. Broadwater, N.S.W. to work on Biological control in Macadamia towards a Ph.D. degree.

Miss Penelope Kerridge visited Gove in the Northern Territory in January to take part in a study of biting midge and mosquito problems in co-operation with staff from the School of Public Health and Tropical Medicine, Sydney.

UNIVERSITY OF SYDNEY - AGRICULTURAL ENTOMOLOGY

Mr. Andrew Beattie and Mr. Humphry Elliott have both been awarded Commonwealth Scholarships for postgraduate study. Mr. Beattie will continue with his studies on chemosterilization of *Lucilia cuprina* (Wied.) and associated problems. Mr. Elliott will carry out research on the problems involved with resistance of plants to insects and the relation of plant nutrition to attack by insect pests.

Mr. Duane Norris graduated with First Class Honours in Entomology, B.Sc.Agr. He has been awarded a CSIRO Postgraduate Studentship and a Canadian Government Scholarship. He is at present working for the Bernice P. Bishop Museum at their field station in Wau, T.P.N.G.

NEWS FROM STATES

WESTERN AUSTRALIA

Mr. M.M.H. Wallace, CSIRO, Perth travelled by car to Millstream via Carnarvon returning via Mt. Newman and Meekatharra. Using a power operated trucking machine, good collections of Collembola, Sminthuridae and predatory bdellid mites were obtained.

The revision of the Bdellidae of Australia is now in progress and should be completed at the end of this year.

Mr. E.F. Riek of Canberra fitted in a week of collecting in the south-west of W.A. before accompanying Mr. Wallace to Millstream,

Mr. Steve Curry has been nominated as the new regional councillor for Western Australia.

A.N. SPROUL.

THREE LITTLE-KNOWN SPECIES OF CHRISTMAS BEETLE

In revisions of the Australian Rutelinae (Carne 1957, 1958) the known specimens of *Anoplognathus rhinastus* Blanch., *A. multiseriatus* Lea and *Trioplognathus griseopilosus* (Ohaus) were listed. The *Anoplognathus* were known from six specimens of each species, and the *Trioplognathus* from three specimens only. Although few of these specimens bear dates of collection, circumstantial evidence suggests that all the *Anoplognathus* specimens were collected prior to 1923, and those of *Trioplognathus* prior to 1919. This note records the collection, after a lapse of nearly 50 years, of specimens of all three species.

Anoplognathus rhinastus Blanch.

Carne (1957) recorded one specimen in the Queensland Museum, four in the collection of the Entomology Department of the University of Queensland, and one in that of the N.S.W. Department of Agriculture. Their localities were given as Brisbane and Bulimba, Queensland, and Prospect, N.S.W.

In 1967, one of us (PBC) installed a light trap 2.5 miles west of Bonville, near Coffs Harbour, N.S.W. The trap has been operated nightly from November to February inclusive since then. In November 1967, a male of *A. rhinastus* appeared in the catch. During the period November to December 1968, a further nine specimens were taken; and between late November 1969, and early February 1970, 56 more were obtained. Of the total of 66 specimens, 60 were males. The light trap is situated in a clearing among plantations of *Eucalyptus pilularis* and *E. grandis*, 30 to 60 ft. in height. The beetles presumably feed on the foliage of these trees. Final instar larvae, believed to be *A. rhinastus*, were collected while soil sampling in another plantation of *E. grandis*, also in the Bonville area, in December 1970.

Anoplognathus multiseriatus Lea

Records for this species were (see Carne 1957): Uki on the Tweed River (N.S.W.), Bribie Island and Gordonvale (Qld.). Specimens are in the Queensland Museum, the National Museum of Victoria, the

Australian National Insect Collection, Canberra, and in the private collection of Mr. C.F. Deuquet of Hurstville, N.S.W.

During a recent collecting excursion by the Entomological Society of Queensland to the Cooloola area in southern Queensland (see Weir & Monteith, News Bulletin of the Ent. Soc. Qld. No. 70, October 1970, pp. 16-18), a series of 22 males of this species was taken by one of us (GBM) and Mr. D.L. Hancock. Collections were made on the 16th and 17th October 1970 as the beetles flew at dusk among the dense *Banksia aemula* surrounding the campsite of Tewah Creek, some six miles south of Tin Can Bay. Although two 160 watt mercury vapour lights were being operated in the immediate vicinity, none of the beetles came to them. This lack of attraction to lights of a species belonging to a genus normally collected by light traps may partially explain the rarity of *A. multiseriatus* in collections.

The vegetation of the Tewah Creek locality is of the type common on infertile sandy soils of coastal southern Queensland and northern New South Wales, and known as "wallum", a name taken from the aboriginal word for *Banksia aemula*, one of the dominant trees of the wallum country. Since the collection of the Cooloola material of *A. multiseriatus*, a further male has been found in the University of Queensland collection bearing the data "Currimundi, Qld., 14 October 1962, E.N. Marks". Currimundi is also a wallum locality with *Banksia aemula*, and lies about fifty miles south of Tewah Creek. It is also interesting to note that the plesioallotype male of *A. multiseriatus*, collected by Mr. C.F. Deuquet at Uki in northern New South Wales, is labelled "taken on leaves of *Banksia serrata*". *Banksia serrata* is a species closely related to, and almost indistinguishable from, *B. aemula*.

Trioplognathus griseopilosus (Ohaus)

This species was previously known only from the male holotype from Sydney in the Zoologisches Museum of the Humboldt University in Berlin, and from the type pair of Arrow's species *Anoplognathus antiquus* from Richmond River, N.S.W. Carne (1958) placed these names in synonymy.

A single further male was collected (by GBM) at a mercury vapour light in Victoria Park, a small reserve about five miles south of Alstonville in northern New South Wales, on 1st December 1970. The specimen is in the University of Queensland collection.

Victoria Park, about five acres in area and surrounded by cleared dairy farms, has been preserved as one of the few remnants of the "Big Scrub" rainforest which once covered large areas of the far Northern Rivers district of New South Wales. The former extent of the "Big Scrub", and its subsequent annihilation by cedar getters and settlers in the late 1800's, have been graphically described by Webb (1966). It was probably from this habitat that the type specimens of *A. antiquus* were taken. Should the last relics of this rainforest

formation be lost, as seems inevitable, the species could well become extinct.

T. griseopilosus has a strong superficial resemblance to the common *Anoplognathus velutinus* Boisd. We suggest that members who collect this group should critically examine any specimens labelled *A. velutinus* for the possible presence of a "foreigner". Whereas the mesosternal process of *A. velutinus* extends to the level of the forecoxae, and each elytral puncture bears several white scales, the mesosternal process of *T. griseopilosus* scarcely extends beyond the mid coxae, and each elytral puncture bears a single white hair.

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CATALOGUE TO COLEOPTERA DESCRIBED BY A.M. LEA

There is now available in the Coleoptera section of the ANIC, Canberra, a card catalogue of species and genera of Coleoptera described by A.M. Lea. The catalogue is arranged in alphabetical order and gives the reference, type locality and systematic position. The catalogue includes about 5,600 cards (a block of cards 5 ft. 7½ ins long). Any member interested in using the catalogue should contact Dr. E.B. Britton in the first instance.

A VISIT TO AUSTRALIA BY A NEW ZEALAND LEPIDOPTERIST

Support from Division of Entomology, CSIRO, and the Royal Society of New Zealand enabled me to visit Canberra and parts of southeast Australia during November-December 1970. One reason for coming here was to see something of the mainland Australian alpine biotope and to compare it (admittedly superficially) with that in New Zealand. I am most grateful to my host, Dr. Ian Common, who made sure I saw as much as possible.

In mainland Australia, I take the alpine biotope to be that land above the limit of smooth-capsuled snow gum (*Eucalyptus niphophila*) and in New Zealand that land (in part) above the limit of beech (*Nothofagus* spp.). The alpine biotope is a minor one in Australia (c. 30,000 acres) but a major one (12,500,000 acres) in New Zealand. Both areas have a similar alpine history and endemism is present in both.

Considering only higher plants and the associated phytophagous insects, the three basic differences that struck me were:-

1. The alpine communities of Kosciusko are largely an extension uphill of the underscrub and frost hollow communities within the *E. niphophila* forest; some phytophages on *Cassinia*, *Podocarpus*, *Hovea*, *Phebalium* seemed not to persist beyond the 6,000 ft mark. In New Zealand, the division (in forest areas) is extraordinarily sharp, floristically and faunistically.
2. While alpine swards on Kosciusko are dominated by short *Poa*, with shrubs of Leguminosae, Rutaceae, and Proteaceae, in New Zealand *Poa*-dominant swards are rarer, with tall-tussock (*Chionochoa*, roughly equivalent to giant wallaby grass) more usual; shrub communities are dominated by Compositae, Epacridaceae, Scrophulariaceae.
3. The shared alpine, subalpine plant genera *Aciphylla*, *Astelia* and *Celmisia* either have no phytophages specific to them (*Aciphylla*, *Astelia*) or very few (*Celmisia*) on Kosciusko, whereas these genera in New Zealand have many species (often genera or suites of species) of phytophages restricted to them.

These distinctions aside, there are similarities between Kosciusko and the Otago block mountains which also have easy relief, a subcontinental climate, short *Poa* swards, stone stripes and solifluxion terraces. Similar flightless scarabaeids, leaf-scraping chrysomelids, rosette or tiller-dwelling weevils and tortricids utilise this bleak environment in both countries, except that tortricids

with completely concealed larvae are not known from Kosciusko swards (two genera at least in New Zealand, with one entirely subterranean, feeding on the rootstocks of its hosts). "*Choreutis*" ("*Simaethis*" in New Zealand) (Glyphipterygidae) have the same habits on rosette Compositae in both countries, as do sward-dwelling Hepialidae, crambine and scopariine Pyralidae.

The resemblance is not an admission of close relationship however, for, in the tortricids, the one group of *Archipini* dominant in Australian alpine swards is unrelated to the group dominant (exclusive, in Otago) in similar New Zealand swards. As interest develops in this fascinating biotope, so knowledge of the natural history and relationships in other insect groups will increase on both sides of the Tasman, and, I hope, Bass Strait.

J.S. DUGDALE.

BOOK REVIEW

A handbook of Field Methods for research on rice stem borers and their natural enemies. T. Nishida and T. Torii 1970 132 pages 35s. (Oxford:Blackwell Scientific Publications).

This is a highly specialised little book dealing with field sampling techniques and identification of the major pests of the rice plant. It has a short but useful section on the identification of the pests by means of well illustrated keys. The major part of the book is concerned with sampling methods. The methods are clearly and concisely described, any apparatus used has been illustrated. This is a carefully prepared section and biometrical procedures have been well treated. The charts for sequential sampling for binomial distribution at various risk levels are especially useful.

This book will be an invaluable aid to research workers on rice pests but will also be a very useful guide to sampling methods for similar pest problems on other crops.

F.J.D. McDONALD.

OBITUARY - MR. J.J. DAVIS

The many colleagues and friends of Jack Davis in the Queensland Department of Primary Industries, the University and other scientific organizations, members of various growers' associations and farmers in general were saddened recently at the news of his death at the age of 38 years.

Mr. Davis was a graduate of the University of Queensland with Honours in Entomology for which a very sound basis in secondary education was gained at the Ipswich Grammar School.

He was appointed to the Entomology Branch of the (then) Department of Agriculture and Stock on 1 January 1953. After a short period in Head Office he was placed at the Toowoomba Entomology Field Station where he was responsible for investigations on aspects of the fruit fly problem in south Queensland and his work on fruit fly chromosomes formed part of his Honours Thesis. At this centre he gained a wide experience on pests of deciduous fruits in the Stanthorpe district, cereal and other grain crops on the Darling Downs and field crops in the Lockyer Valley.

During 1954 and 1955 Mr. Davis spent some time assisting the Forestry Department with problems of native rats attacking young plantations of hoop pine in the Brisbane Valley and this work also formed part of an Honours Thesis.

He spent the next three years (1955 to 1958) in Brisbane carrying out research on pests of vegetables and stored grain.

In 1958 Mr. Davis was placed in charge of the Entomology Field Station at Ayr, where he was responsible for the Departmental entomological research and extension work over a large part of north Queensland, particularly on pests of tobacco, cotton, tomatoes and eggfruit.

In 1963 he took charge of the Entomology Field Station at Nambour, where investigations included pests of bananas, citrus, strawberries, pineapples and tobacco.

More recent work was directed to a survey and detailed taxonomic study of the spider mites of economic importance in Queensland. The taxonomic study was extended to include the whole group of spider mites and assistance was given to other States and New Guinea. A wealth of information on these mites was made available through a series of papers published in journals of the Department of Primary Industries, the Australian Entomological Society, and the Memoirs of the Queensland Museum.

This study led to Mr. Davis being granted a Studentship in the Louisiana State University in Entomology for a postgraduate course leading to the Degree of Doctor of Philosophy. While overseas he became ill and returned to Queensland for further medical attention.

In the professional field Mr. Davis possessed an ability to conduct research work with depth and clarity of thought and soundness in practical application always marked by success. A total of twenty eight technical papers and advisory articles was completed.

As an individual he possessed a likeable personality and pleasant demeanour which endeared him to all those who knew him. He will be sadly missed and the deepest sympathy is extended to Mrs. Davis and the children.

A.R. BRIMBLECOMBE.

OCCASIONAL PUBLICATIONS
OF THE AUSTRALIAN ENTOMOLOGICAL SOCIETY

HANDBOOK NO. 1

"Methods of Collection and Preservation of Insects"

by

K.R. Norris

CSIRO Division of Entomology

This Handbook is indispensable for all,
whether amateur, professional or student,
who collect insects.

40 pp. Price: \$A1.00

MISCELLANEOUS PUBLICATION NO. 1

"The Entomology of Citrus in New South Wales"
(W.W. Froggatt Memorial Lecture)

by

P.C. Hely

N.S.W. Department of Agriculture.

20 pp. Price: \$A1.00