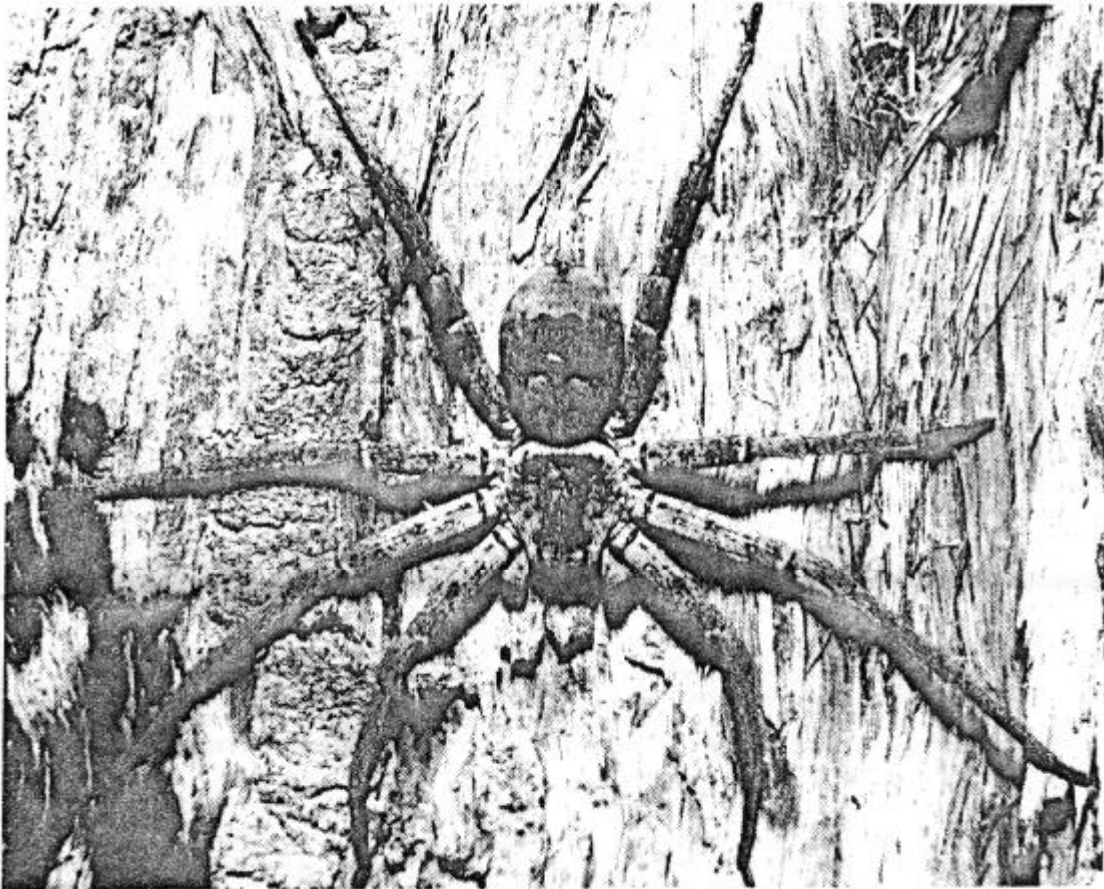


AUSTRALASIAN



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NEWSLETTER OF THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

MEMBERSHIP

Membership fees for residents in Australia A\$2; New Zealand and New Guinea Members \$3; other members \$5, airmailed newsletters, \$10. Information concerning membership is obtainable from the Editor, Australasian Arachnological Society, P.O. Box 573, Fortitude Valley, 4006, Q.

We are now exchanging newsletters with the Spider Club of South Africa.

BOOKS

The Red-back Spider and other Venomous Creatures, by L.E. Koch, Head, Department of Arachnology, Western Australian Museum. The booklet, published by the Western Australian Museum, contains information on and black and white stipple drawings of 23 venomous spiders and related species; and scorpions, centipedes, millipedes, ticks and venomous ants, bees, wasps and irritating caterpillars are similarly treated. The booklet serves as a good general introduction to some arachnids and conveys information on the effects of bites, if harmful. It retails for \$2.40 at leading bookshops as well as museum bookshops in Perth, Fremantle and Albany.

Proceedings of the 8th International Congress of Arachnology, Vienna, has been published. I have not had time to read all of the proceedings; however, the egg-burying behaviour reported by Dr M. Robinson will be of interest to many Australasian arachnologists. Some of the papers published in the proceedings are listed below; a more complete list may appear in the next newsletter.

FUNNEL-WEB ANTIVENENE

Congratulations to Dr Struan K. Sutherland (Head, Immunology Research, Commonwealth Serum Laboratories) and his research team whose work has resulted in the discovery of an anti-venene for the bite of the Funnel-web spider, Atrax species. The anti-venene is now being made marketable by government health authorities.

NO MORE TOURNIQUETS

There still seems to be some resistant or isolated individuals who do not realize that tourniquets are not advised in the case of Funnel-web spider bites. Again, Dr Sutherland has found that a crepe bandage wrapped around the bitten limb from the point closest to the heart towards the end of the limb successfully immobilises the venom. Remember, tourniquets are dangerous.

PEOPLE

Mr Clyde Coleman, noted north Queensland arachnologist, visited Brisbane during June and collected spider with Dr V. Davies and R. Raven.

Dr Robert Jackson will return to Australia to continue his research on salticids with Dr David Blest.

Dr David Blest is expecting to visit Brisbane in December.

Yael Lubin, noted araneid ethologist resident in New Guinea, hopes to spend some of her time in Queensland in December.

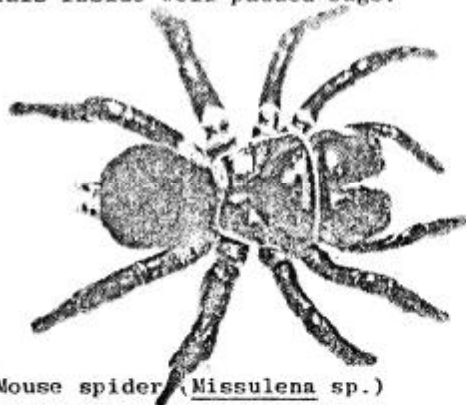
RECENT PUBLICATIONS ON AUSTRALASIAN ARACHNIDA

Davies, V.T. 1980a. Malkara loricata, a New Spider (Araneidae: Malkarinae) from Australia. Proc. 8th Int. Cong. Arach.: 377-82.
1980b. Two large Australian orb-weaving spiders, Eriophora transmarina (Keys, 1865) & Eriophora biapicata (L. Koch, 1871). Mem. Qd. Mus. 20(1): 125-33.

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- Lehtinen, P.T. & M.I. Saaristo, 1980. Spiders of the Oriental-Australian region. II. Nesticidae. Ann. Zool. Fenn. 17:47-66.
- Levi, H.W. 1980. Orb-webs: Primitive or specialised. Proc. 8th Int. Cong. Arach.:367-71.
- Lubin, Y.D. 1980. The predatory behaviour of Cyrtophora (Araneae, Araneidae). J. Arachnol. 8(2):159-186.
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- Robinson, M.H. 1980. Life history and behavioural studies of Isopoda goliath Chrys. (Araneae, Heteropodidae) from New Guinea. Proc. 8th Int. Cong. Arach. 261-6.
- Robinson, M.H. 1980. The ecology and behaviour of tropical spiders. Proc. 8th Int. Cong. Arach.:13-32.
- Sutherland, S.K. 1979. Clinical and experimental aspects of arachnid poisoning in Australia. pp.151-60. In, Neurotoxins. Fundamental and Clinical Advances. eds. I.B. Chilos & L.B. Geffen. Flinders University of South Australia.

REQUESTS FOR MATERIAL

1. Egg sacs of the 'colonial' 'tent spider', Cyrtophora mollucensis, for studies on flies parasitising the egg. Send sacs to Brian Cantrell, Entomology, Department of Primary Industries, Long Pocket Rd, INDOOROOPILLY, 4068, Q.
2. Mouse spiders (Missulena spp.) are needed by Dr Struan K. Sutherland, (Head, Immunology Research, C.S.L., 45 Poplar Dr, PARKEVILLE, Melbourne, Vic., 3052) for venoms research. Spiders should be packed with moist (not SOGGY) cotton wool or padding in plastic or glass vials inside well-padded bags.



Mouse spider (Missulena sp.)



Curtain-web spider (Cethegus sp.)

3. Curtain-web spiders (Cethegus spp.) . The editor, Robert J. Raven, is revising this complex genus and would appreciate any material—preserved or alive. Spiders should be sent to the Queensland Museum, Gregory Terrace, FORTITUDE VALLEY, 4006, Q.

LETTERS TO THE EDITOR

Red-back spiders and preservatives. I worked for 10 years (hobby time) on the moults counts of the Red-back, Latrodectus hasselti, and preparing slides ... to understand the animal's potential in venom administration, also I searched for solutions to colour retention in abdominal pattern... Can anyone offer more information for me? COLLECTING CASES. The collecting case I constructed to house 96 McCartney screw cap bottles which are ideal for most spiders enabling them to be kept intact and in good condition up to a week in the field and are then freeze-killed back at the museum with all data gum-labelled to each bottle. My most satisfactory technique is as follows: (1) freeze-kill overnight or longer; (2) thaw the specimen and carefully inject near spinnerets a saturated solution of borax and 4% formaldehyde (10 parts of 40% formaldehyde, pH 8.2, plus 90 parts distilled water). According to the size of the specimen inject enough fixative to extend the legs fully, when 10 or more specimens are under preparation this allows an overlap of time and the first injected will be relaxed back to normal posture and once checked can be attached to glass plates with warm gelatin and preserved in the same strength formaldehyde in suitable sized bottles for storage. Another formula I would be interested to hear use of is: 0.5ml propylene phenoxetol; 4.5ml propylene glycol; 5.0 ml 40% formaldehyde; 90ml distilled water. (That solution comes from DR. H.F. Steedman, Bath, U.K.)

H.D. Barker, Preparator/Taxidermist, Tasmanian Museum and Art Gallery, 5 Argyle Street, HOBART, Tasmania.

Steedman's Fixative is a valuable fixative in museums because it is not flammable. However, I do not hear of any museums rushing to use it. That may be because of the high cost and poor availability of propylene phenoxetol in Australia. The other useful aspect of the fixative is that it can be carried on airlines as a non-flammable concentrate and diluted for use when in the field. In my own experience, fixation in big mygalomorphs has been too slow and in hot climates maceration appears inevitable, the following reference may be of interest: Kaston, B.J. 1970. Comparative biology of American Black Widow Spiders. Trans. San Diego Soc. Natural History 16(3):33-82. Ed.

FEEDBACK

On limited tests Pampel's fixative (AA2, p.4) seemed a very useful fixative for mygalomorphs—colour retention was excellent. On this basis, I took a 'daring' step and used Pampel's fixative exclusively during a 3 week collecting trip in south eastern Australia. Unfortunately, however, I was unable to maintain the regimen of changing the preservative to 70% alcohol after 8-12 hours as David Rentz had suggested. In some cases, the change was made within 6 hours of killing; in other cases, it was extended to several days. Nevertheless, the results were most encouraging. In no case did the formaldehyde sufficiently harden the spider to make it difficult to work open legs and fangs. The most appealing aspects of Pampel's fixative were that it was not offensive to smell, it did not deteriorate over time, and most of all, it was not necessary to maintain a high volume of fixative to a small volume of spiders—as it is with many fixatives. Although spiders were 'crammed' into vials, fixation was not impaired and colour retention was good. Robert J. Raven, Queensland Museum.

HINTS ON PHOTOGRAPHING WEBS

Having had limited success in photographing webs, I have looked for alternatives and recently, a Brisbane morning mist gave me an idea which had been suggested independently by an American arachnologist. A hand-spray or atomiser that may be filled with water and can be adjusted to produce a fine mist is available from most hardware stores. Hold the spray about 30-50 cms from the web so as not to upset the spider, and rapidly pump the spray. Then use your flash and you will have created a false mist that highlights the web.



If you have difficulty focusing on the spider in the darkness, then add a flash bracket but not the flash. In the flash mount on the end of the bracket impress some plasticine and then push a 'short' penlite torch onto the plasticine. By changing the angle that the bracket makes to the film plane to can adjust the torch beam to bear upon the spider and so focus more readily. None of the spiders I have so photographed have shied away from the torch because it is not a bright beam. When photographing dark spiders, remember to allow at least one extra stop, possibly two, to account for the more light absorbing darker surface. If you are doing a lot of flash photography, it is worthwhile buying rechargeable nickel-cadmium batteries and a charger. In the long run, NiCads are cheaper and they recycle faster and take more flashes per charge than even the alkaline batteries.



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- Mrs K.M. Alcock, 40 MacDonnell St, NARACOOORTE, South Australia, 5271.
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Mr H.D. Barker, Tasmanian Museum and Art Gallery, G.P.O. Box 1164 M, HOBART, 7001, Tas.

AUSTRALIAN GOVERNMENT RESTRICTION ON THE EXPORT OF SPIDERS

There appears to be some confusion regarding the regulations affecting the export of spiders from Australia. Accordingly, the following is reprinted from an information sheet produced by the Department of Science and the Environment. This reprinting infers nothing about the attitudes of any member of the Society or the Society itself.

GUIDELINES FOR PERSONS WISHING TO EXPORT INSECTS, TICKS AND SPIDERS

Introduction 1. The export of insects from Australia is subject to certain Commonwealth and State controls. The Customs (Prohibited Exports) Regulations affect the export of all insects. The export of some butterflies classified as endangered is controlled under the Customs (Endangered Species) Regulations. The export of honey bees is subject to health certification under the Quarantine (Animals) Regulations. In Queensland the Fauna Conservation Regulations control the removal of several protected species of butterflies.

2. Regulation 13A of the Customs (Prohibited Exports) Regulation made under the Customs Act 1901 prohibits the exportation from Australia of live or dead insects, ticks and spiders except with the approval of the Minister for Science and the Environment or an Authorised person. The Regulation, which came into operation on 26 July 1973, is intended to ensure as far as possible that holotypes of native Australian insects, ticks and spiders designated in the future will be located in suitable institutions in Australia for ready access by Australian entomologists.

3. Regulation 6 of the Customs (Endangered Species) Regulations made under the Customs Act 1901 and operative from 27 October 1976 prohibits the exportation from Australia of a specimen of a species included in Appendix I or Appendix II to the Convention on International Trade in Endangered Species of Wild Fauna and Flora unless the minister for Business and Consumer Affairs grants an export permit in respect of the specimen. The only insects listed under the Convention are certain species of butterflies, two of which are native to Australia.

Interpretation. 4. When the word "insects" is used hereafter in these guidelines, it refers equally to ticks and spiders.

Advice to persons wishing to export insects. 5. A person wishing to export insects in categories 8(a-g) below must make a signed declaration on an Insect Export Label (see para 19), and then obtain the approval of an Authorised person (see Para 18). An approved Insect Export Label is required on every package containing insects.

6. A person wishing to export insects in category 8(f) below must, in addition to and before complying with the provisions of 5 above,

(a) lodge an application for an export permit under the Customs (Endangered Species) Regulations with the Senior Inspector Export Control, Bureau of Customs-Department of Business and Consumer Affairs, Canberra, A.C.T. 2600 ;and

(b) in Queensland only, in respect of the butterfly species Ornithoptera priamus and Ornithoptera richmondia, lodge an application for a permit to remove fauna under the Fauna Conservation Regulations with the Director, National Parks and Wildlife Service, P.O. Box 190, Brisbane North Quay, Qld, 4000.

7. A person wishing to export insects in category 8(g) below must, in addition to complying with the provisions of 5 above, provide brief details of the consignment on the Insect Export Label prior to obtaining the approval of the Authorised person.

8. Categories: (a) insects being sent on loan; (b) insects on loan being returned; (c) insects not native to Australia; (d) paratypes; (e) well known species of insects intended for research involving destruction of or for release for biological, or derived from laboratory breed stocks; (f) species of insects listed in Appendix II to the Convention on International Trade in Endangered Species of Wild Fauna and Flora; (g) insects other than the above, such as new collections, collections being sold, exchanged or donated etc.

9. An Authorised Person to whom application is made shall approve export provided that: (a) in the case of material in categories 8(a-e), he is satisfied that it is as described; or (b) in the case of material in category 8(f), an export permit has been issued by the Bureau of Customs and, where applicable, a permit to remove fauna has been issued by the Queensland National Parks and Wildlife Service; or (c) in the case of material in category 8(g), (i) the material is certified, by a person deemed by the Authorised Person to be competent, as belonging to named species; or (ii) in Queensland only, in respect of the butterfly species Papilio ulysseus, a permit to remove fauna has been issued by the National Parks and Wildlife Service; or (iii) the overseas addressee is listed in the Schedule described in Para 14; or (iv) the Authorised Person has been advised by the Department that it has accepted a Restricted Holotype Declaration from the addressee (see Para 15).

10. Persons within Australia wishing to export material in categories 8(f) or 8(g) should, before entering into any contractual arrangements, ensure that a permit to export will be obtainable having regard to the provisions of 9 above. Persons exporting such material from which new holotypes may be designated should also make adequate arrangements with the prospective recipient to ensure subsequent identification and return of any resulting holotypes.

11. In order to facilitate the entry of specimens into the country of destination and to reduce the risk of accidental destruction during examination on entry, intending exporters of butterflies in all cases are advised to write to the Bureau of Customs requesting, in respect of each consignment, a certificate of exemption from or an approval under the provisions of the Customs (Endangered Species) Regulations. Details of the common and scientific names of the species to which the specimens belong should be included.

Holotype declaration. 12. A prospective recipient of material in category 8(g) above may fulfil the conditions under which export of such insects can be most readily approved by submitting to the Department a Holotype Declaration on a form obtainable from the Department or any Authorised person.

13. A Holotype Declaration may be made by a prospective recipient in two ways. It may state: (a) being a General Holotype Declaration, that all holotypes designated from native Australian insects received by him or his institution after the date of the Declaration shall become the property of an Australian museum or the Australian National Insect Collection, or (b) being a Restricted Holotype Declaration, that all holotypes designated from native Australian insects included in a specified consignment or consignments shall become the property of an Australian museum or the Australian National Insect Collection.

Schedule of approved recipients. 14. The Department will maintain and circulate to all Authorised Persons a schedule of persons and institutions from whom General Holotype Declarations have been accepted. Copies of the Schedule may be obtained, on request, from the Department.

15. The Department will advise the relevant Authorised Persons of details of Restricted Holotype Declarations limited to specific consignments. Where a Restricted Holotype Declaration has been made in respect of a specified consignment, an exporter must, when seeking approval to export, provide the Authorised Person with evidence that the material presented for export is that for which the Department has accepted the Declaration.

Advice to overseas institutions and collectors. 16. Overseas institutions or persons wishing to acquire native insects from Australia for permanent retention, either by personal collecting or by arrangement with an Australian source of supply, should ensure that the relevant requirements for obtaining approval to export under Australian Regulations have been met before making arrangements to that end.

17. Requests for the retention, on loan, of holotypes designated as in 13 above for the purpose of continuing studies may be made to the Australian institution concerned in which the material will be deposited, not to the Department of Science and the Environment.

Register of Authorised Persons. 18. The Department maintains a Register of Authorised Persons who have been Authorised by the Minister for Science and the Environment to approve the export of insects under Customs (Prohibited Exports) Regulation 13A. Information from the Register may be obtained from the Department or the Chief Curator of the Australian National Insect Collection or the Curator of Insects in any State Museum.

Insect export labels Insect export labels are available from the Department or any Authorised Person. The label is illustrated in the attachment. (Not reprinted herein)

Inquiries

20. For further information or advice, or in relation to any difficulties encountered, write to the Secretary, Department of Science and the Environment, P.O. Box 449, Woden, A.C.T. 2606, marking your letter "Control of Export of Insects", or telephone the Department in Canberra on (062) 45 2343.

Issued under the authority of the Minister for Science and the Environment.
Canberra 24 December 1979

Editor's Note: I will be happy to reprint, in full, any succinct comments on the above.