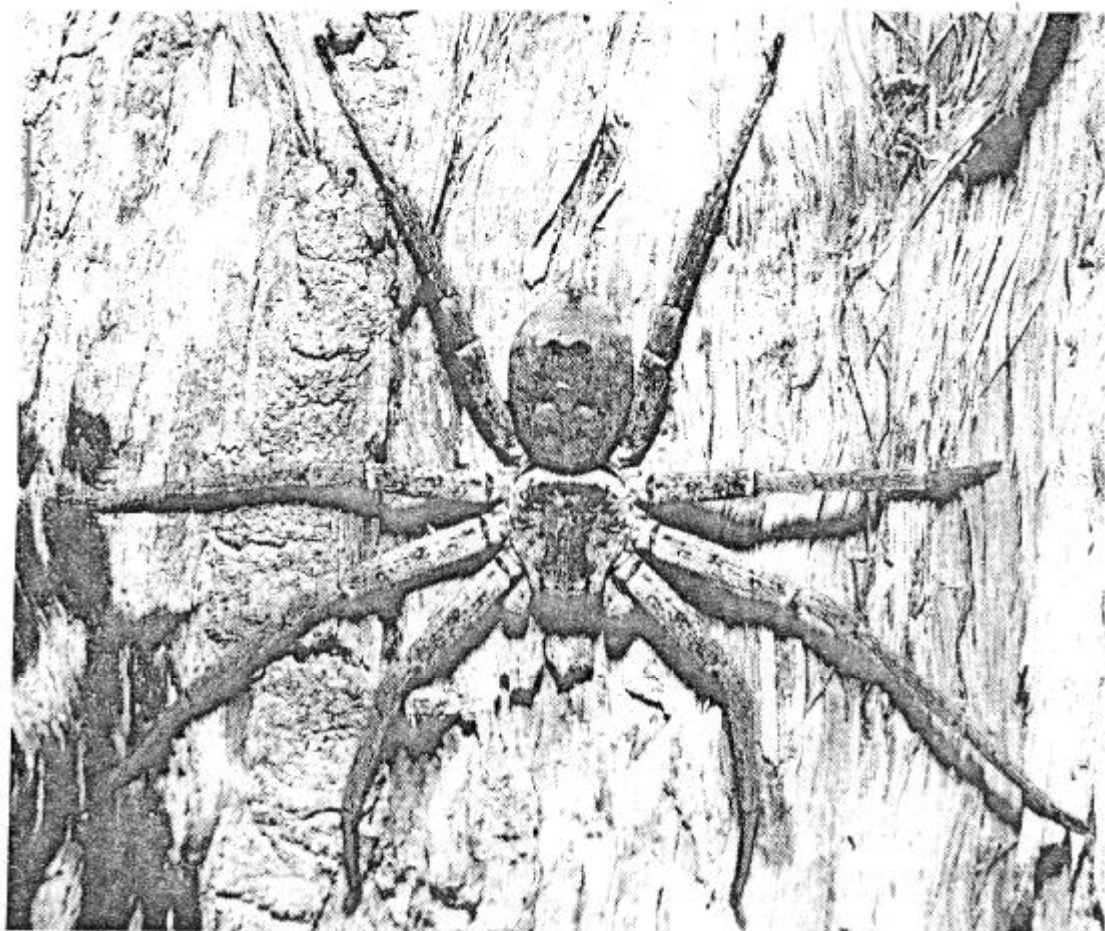


# AUSTRALASIAN



# ARACHNOLOGY : 4

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1  
NEWSLETTER OF THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

MEMBERSHIP

Membership fees for residents in Australia A\$ 2; New Zealand and New Guinea members A\$ 3; other members, airmailed newsletters A\$ 10; surface rate newsletters A\$ 5. Information concerning membership and back issues of Australasian Arachnology are available from Robert J. Raven, Editor, Australasian Arachnological Society, P.O. Box 573, Fortitude Valley, 4006, Q. Australia.

Articles

All articles should be sent to the Editor at the above address, and should be concisely written and neatly typed.

NEW BOOKS

Proceedings of the 8th International Congress of Arachnology, Vienna, 1980. A full list of papers published in the proceedings of the congress is given later. Once again the topics involved covered a broad range: ecology, behaviour, physiology, systematics, phylogeny, arachnidism, anatomy, and ultrastructure; a symposium on Arachnid Biogeography was also held in association with the Congress but those papers presented have yet to be published. A limited number of copies of the proceedings are available from the Naturhistorische Museum, Wien 3, Zoologische Abteilung Postfach 417, Burggring 7, A-1014, Wien, Austria, at a cost of 600 Austrian schillings plus mail costs.

The Collection and Preservation of Insects and Other Terrestrial Arthropods. 3rd edition. M.S. Upton and K.R. Norris, 1980. Aust. ent. Soc. Misc. Publication No. 3. 34 pp. 47 figs. A very useful reference text on the topic with special interest to entomologists but many techniques and preservatives are applicable to arachnids and other arthropods. The booklet covers collecting, killing, fixing, handling, preservation, and storage of specimens, labeling, study of specimens, care of collections, lists of suppliers of entomological equipment, and of entomological societies and journals. I found the booklet very useful and recommend it to curators and similar professionals as well as amateurs who are serious about getting and maintaining collections. Cost is \$ 2.50 (without mail costs) and the publication is available from the Australian Entomological Society, c/- Department of Entomology, University of Queensland, St Lucia, 4067, Q.

Spiders of Australia. A Field Guide. By Ramon Mascord, 1980. Another production by Ramon Mascord allows us to see 294 new colour photographs of no less than 215 species of spiders. The publisher notes that 'many of these photographs are the first-ever published of the species covered, including some spiders not generally known to have occurred in Australia before. The plates are unsurpassed for showing these animals in their web snares, retreats, burrows and so forth.' Eighteen families - Theraphosidae, Ctenizidae, Dipluridae, Barychelidae, Dinopidae, Sicariidae, Amaurobiidae, Dictynidae, Stiphidiidae, Uloboridae, Pholeidae, Agelinidae, Lysderidae, Segestriidae, Theridiidae, Argiopidae, Thomisidae, and Clubionidae - are covered. No doubt a second publication is in mind to fill in the gaps formed by the conspicuous absence of many families. The author provides a general introduction, natural history notes on spiders, and remarks on the treatment of spider bites. Each colour plate of 4-7 colour photograph faces a page that gives brief notes on size, occurrence, behaviour, and natural history of the respective spiders. Overall, the book is a most welcome addition to our knowledge of the spider fauna. However, well-

## AUSTRALASIAN ARACHNOLOGY 4

meaning amateurs should remember that many of the spiders figured had to be preserved and studied carefully before being identified. Therefore, correct identifications from the photographs alone are not always possible.

The book is published by A.H. and A.W. Reed Pty Ltd, 53 Myocora Rd, Terrey Hills, Sydney; 68-74 Kingsford-Smith St, Wellington 3; 11 Southampton Row, London and retails for about \$17.

Spiders and Other Arachnids of South Australia. By D.C. Lee and R.V. Southcott. 1979. In , South Australian Yearbook, 1979. 15 pp. 47 colour plates. A publication useful to both interested amateurs, and the general public and of broad interest to professionals. The booklet covers all arachnid orders occurring in South Australia. Because David Lee is a specialist in Acarina (ticks and mites), that group gets generous coverage. That is good to see because many arachnologists give the Acarina poor treatment even though they are a fascinating and important group, both in terms of abundance and interactions with man. Confirmation of the occurrence of *Koeneria mirabilis*, an introduced microhymenopteran, in South Australia is important. Common names, often neglected in Australasian arachnology, are assigned to all arachnids figured. The booklet gives attention to potentially dangerous arachnids, as well as the ornate groups; natural history notes are also given. This booklet is well-written with clear colour plates and is worthwhile addition to any Australian arachnologists collection. The booklet is available from the South Australian Museum, North Terrace, Adelaide, South Australia,

The Funnelweb. G. Scott, 1980. 67 pp., 55 colour, black and white, and line figures. The book includes 9 chapters: 1, Introducing the funnelweb; 2, Spiders; 3, Funnelweb spiders; 4, The Funnelweb's bite; 5, Is it a funnelweb bite?; 6, Avoiding funnelweb bites; 7, Spiders similar to the funnelweb; 8, Classification of funnelweb spiders; 9, References and Bibliography. The introductory chapter is nominal. Chapter 2 covers the anatomy of spiders in far greater depth than is necessary and the first drawing is incorrectly labelled. Chapter 3 is a more promising chapter, although as the author herself states, at our present state of knowledge little may be said. Then, she presents some of her odd interpretations. What the author does say in this chapter is of interest and value, & is supported by the very clear photographs of Pat Walker who no doubt was of enormous help to the author. Chapter 4 becomes unnecessarily complex, considering that the book is probably designed mainly for the general public, and the author aims too high, lapsing into needless waffling and apparently unsubstantiated arguments to explain various effects. Also, in this chapter, we are treated to delightful but irrelevant photographs of araneomorph spiders, and a page disorder — first paragraph on p. 48 continues on p. 46. Chapter 5 is irrelevant in that most attention should be directed at first-aid. If the spider was a funnelweb (Note: correct spelling) and it successfully delivered a potentially fatal dose of venom then reactions will be obvious and probably immediate. However, in many cases, the spider does not deliver its venom and reactions do not occur unless they are a result of a psychosomatic trauma induced when the victim discovered they had been bitten by a funnelweb spider. The author should have made it abundantly clear that the identification of any spiders should be left to those qualified. The failure to remember this will result in 'funnelweb scares' in areas where funnelwebs do not occur. Again, the author delves to excessive depths. As an example, the value of isoprenaline, nitroprusside and phentolamine in lowering blood pressure and pulse rate and in alleviating peripheral vasoconstriction is lost on all but medical practitioners who should refer back to the original publication to be sure of facts.

## NEWSLETTER OF THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

Chapter 6 is also lost on all but those who live in areas such as Sydney and Toowoomba where encountering funnel-web spiders is not uncommon. This chapter could have been substantially reduced— but so could they all. Chapters 7 and 8 are partial repetitions of 2. The table of comparison of funnel-web and trap-door spiders provides little information and that is obscured by an excess of useless detail.

Some fallacies that the author perpetrates should be examined. The occurrence of *Atrax* in Papua-New Guinea and the Solomon Islands should be ignored until further spiders support the original solitary specimens from each locality. In the case of the Papuan species, *Hadronyche hirsuta*, Rainbow was very doubtful of the origin of that material. His doubts are twice substantiated: first, all of the species attributed to Papua, occurred at or near the home of Macleay, the collector, in Sydney; and secondly, Dr Barbara York Main failed to find any of the spiders recorded from Papua by Rainbow when she collected there recently. The Solomon Island specimen was collected by Frogatt and his locality errors are known among entomologists.

The difference between the venom of male and female funnel-web spiders has suffered repeated mis-quotation. The original research by Dr Wiener showed that the venom of males was from two to five times more toxic than that of females. Whereas Dr Scott states that the male delivers up to five times more venom; in fact, the male delivers less venom than the female.

In all, I found 'The Funnelweb' an odd assembly. I was won by the excellent colour photographs of Pat Walker which to me justifies the purchase (but not the price) of the book. Dr Scott has taken what is an exciting and fascinating animal and drowned it in a mire of words. Moreover, her own illustrations are noteworthy only because they barely resemble the spiders. Why print such illustrations when the author was amply provided with high quality colour photographs? A far briefer presentation would have been adequate but that would not have reaped the benefits of a government book-bounty grant for publications over 65 pages. No doubt that is also the explanation for the inclusion in the text of biochemical and neurotoxicological data which perhaps caters for the more widely-read public.

The 'Funnelweb' is published by the Darling Downs Institute Press, Darling Heights, Toowoomba, 4350, Queensland, and retails for about \$9.

## IMPENDING PUBLICATION

Biogeography and Ecology in Australia. Ed. A. Keast.

This long-awaited book is due to be published on January 30, 1981. The book is virtually out-dated because some chapters date back to 1977. It is in 3 volumes totalling 2000 pages with a 200 page index of scientific names. The cost will be about \$150 per volume plus \$7 for a special map of Australia. I believe there at least two chapters on spiders by Dr B.Y. Main.

## RECENT PUBLICATIONS ON AUSTRALASIAN ARACHNIDA

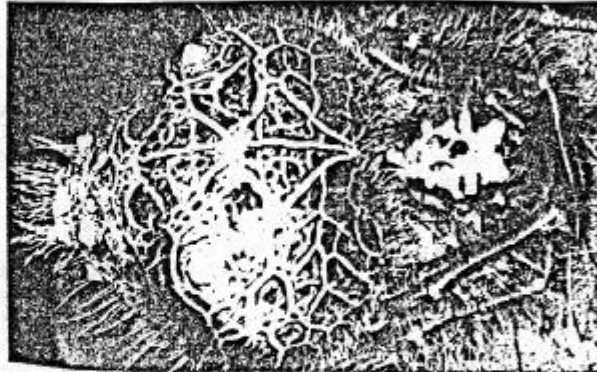
- Bishop, A.L. 1980. The composition and abundance of the spider fauna in south-east Queensland cotton. *Aust. J. Zool.* 28(5/6): 699-708.
- Halse, S.A., P.L. Prideaux, A. Cockson, K.I. Zwicky, 1980. Observations on the morphology and histochemistry of the venom glands of a scorpion, *Urodacus novae-hollandiae* Peters (Scorpionidae). *Aust. J. Zool.* 28(2): 185-94
- Main, B.Y. 1980. Recording the arachnid order Schizomida in Western Australia. *West. Aust. Nat.* 14(B): 236-7.
- Shorthouse, D.J. and T.G. Marples, 1980. Observations on the burrow association of the arid zone scorpion *Urodacus yashenkoi* Birula. *Aust. J. Zool.* 28(4): 581-590.

## REQUESTS FOR MATERIAL

**WANTED:** Live specimens of *Dichrostichus* (photographs on facing page) are

## AUSTRALASIAN ARACHNOLOGY 4

needed by Densey Clyne. Specimens should be sent to Densey Clyne, 7 Catalpa Crescent, Turrumurra, N.S.W. 2074. If any Sydney people can help, then they will be picked up when to ring 449 2974 and give your address.



## THE SPARASSID MARAUDER

Geoff Monteith records some interesting observations on Poecilothomisus speciosus, the striking thomisid on the dust jacket of the new edition of Mascord's "Australian Spiders in Colour". Twice in Cape York Peninsula (at Lockerbie & at Iron Range), he has observed Poecilothomisus feeding at night on sparassids many times its own size. Each time the sparassid was suspended in space from the grip of the feeding thomisid; once the thomisid was still partly in its folded-leaf shelter. Geoff notes that, when handled, Poecilothomisus goes into a rigid state with legs outstretched in a bundle on each side of the body. In this state the legs are occasionally vibrated rapidly in an almost "buzzing" fashion and Geoff speculates that this ability may be used by the spider to lure hunting nocturnal sparassids to its retreat where they are ambushed. Have any readers made similar observations?

## PIPED PIPER PARENT

While walking in a North Queensland rainforest, Dr Valerie Davies and Robert Raven noted a line of web upon which was walking many juvenile Heteropoda. Upon following the line to one of its ends, they saw a female Heteropoda leading the young along her silken trail to a high vantage point from where the young would presumably disperse. This phenomenon was noted a second time with another Heteropoda species which is found in Brisbane.

## FUNNEL-WEB SPIDER MYSTERY

In the Conondale Ranges northwest of Brisbane, funnel-web spiders, Atrax species, are quite common. Most build webs in readily discoverable localities, such as under logs and rocks, in banks, and under bark. However, foresters in the Conondale Range often find very large funnel-web spiders in the heart of Blackbutt trees (Eucalyptus pilularis). The spiders build extensive webs in the debris at the base of the tree and eat large passalid beetles. According to the foresters, no opening may be found up the tree until about 12 metres. So how does the spider get into the tree? Do they establish themselves in the tree when it is young and simply grow with it? Or do they climb at least 12 metres up the tree looking for a hollow space and fall in? Do males re-climb the 'pipe' to search for another female?

## WISH-BONE BURROWS.

Wish-bone or Y-shaped burrows are built by spiders of the mygalomorph genus Dekana. The adaptation presumably prevents the spider from drowning when the burrow is flooded and also provides an escape route from predators which burrow down the main shaft. Originally,

## NEWSLETTER OF THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

Dekana was believed to be only group of spiders that made wish-bone burrows. However, I (editor collecting near Brisbane) was most surprised to find a female Dyarcycops (probably D. pulchellus) at the bottom of such a burrow. Curious to know if this was an isolated case of Dyarcycops displacing Dekana, I examined further burrows only to find more Dyarcycops. It therefore seems likely that this type of burrow is not unusual to Dekana or even to diplurid spiders.

## MACEDON—TYPE-LOCALITY OF MANY OF HOGG'S SPECIES

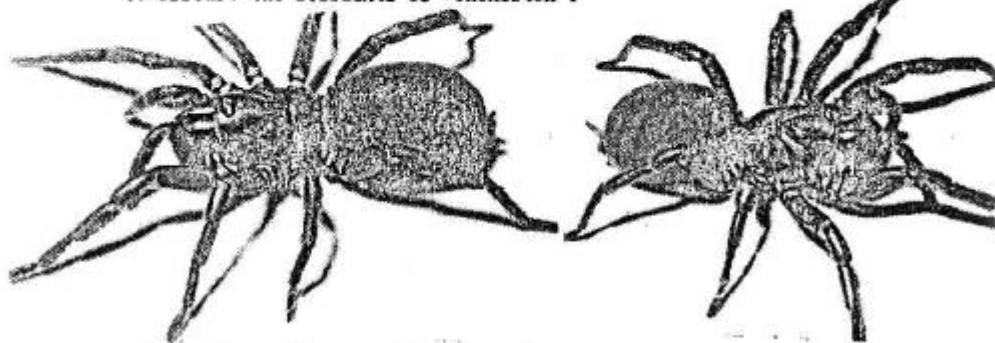
During a recent collecting trip in Victoria I was most anxious to collect more mygalolorpha from Macedon. I was most concerned to collect more material of Chenistonia maculata Hogg — the type-species of Chenistonia. Previous arachnologists who had visited Macedon, C.L. Wilton and V. Salanitri, were unimpressed with the area and felt that perhaps such of the habitat in which Hogg had collected was lost. Thus, when first driving along the road to what is now known as Mt Macedon and seeing the sign to Macedon pointing through low, dry grazing properties, I too was unimpressed and drove on. Then despite over an hour of intensive searching at Mt Macedon, I was sure that I had only collected Stanwellia grisea (Hogg). Dejected I moved on to look at the local sights. Later en route back to Melbourne, my wife, Debbie, and I stopped to drink at a roadside coffee shop. Debbie's inimitable curiosity lead her to read a leaflet advertising a deer zoo in the area. The leaflet also showed a map of the local streets. One of the street names immediately held my attention — Cheniston street. There was the type-locality. So we returned to Cheniston Street, Mt Macedon and a frantic search in the hour of failing light ensued. But no Chenistonia were collected. Then we realised that the map was incorrect and we had yet to get to Cheniston Street which we did. With darkness falling and while posing for a photograph I noted a suspicious web in the earth bank. The spider I obtained from the web later proved to be a juvenile Chenistonia. Further down the street, my jaw dropped when I saw a large well kept property and a small 19th century slate-roofed house.

The name of the house was 'Cheniston' and I felt sure that this was Hogg's home but I returned unsatisfied to Melbourne only to squeeze in another morning near 'Cheniston' two days later. At that time, I achieved my aims and collected male and females of Chenistonia maculata.

Later enquiries of the present owners, Mr and Mrs Goullay, to whom I am most grateful for their efforts, revealed in fact that Henry Houghton Hogg had the house built on land purchased in 1869, on October 8.

Dotted through the lawns of 'Cheniston' are the burrows of Stanwellia grisea. No doubt 'Cheniston's' rockery provides adequate shelter for the burrows of Chenistonia maculata although my specimens were collected beside the road away from 'Cheniston'. It is therefore wise not to leave any stone unturned in the search for a spider or its type-locality.

NOTE: Since C. maculata is not restricted to 'Cheniston' there is no need to disturb the residents of 'Cheniston'.

Chenistonia maculata HoggStanwellia grisea (Hogg)

## LIST OF PAPERS PUBLISHED IN THE 8th INTERNATIONAL CONGRESS OF ARACHNOLOGY

Papers are given in the order in which they appeared and the first page no. of each paper is given in parenthesis.

- Kuhnelt, W. Beiträge österreichischer Forscher zur Kenntnis der Spinnentiere. (1).
- Robinson, M.H. The ecology and behaviour of tropical spiders. (13).
- Célorier, M.-L. Production et consommation alimentaire de Scodra griseipes Pocock, 1897 (Araneae, Theraphosidae). (33).
- Greenstone, M.H. and A.F. Bennett. Non-concordance of resting heart and metabolic rates in spiders: physiological implications. (39).
- Carrel, J.E. Determinants of nocturnal emergence patterns in a wolf spider. (41).
- Bonacic, J.C. Contribution à l'étude du déterminisme hormonal des phénomènes de diapause hivernale chez les nymphes de Pisaura mirabilis Cl. (Araneae-Pisauridae). (47).
- Constantinou and J.L. Cloudsley-Thompson. Circadian rhythms in Scorpions. (53).
- Gabbutt, P.D. & C.W. Aitchison. The effect of temperature and season on the number of hibernation chambers built by adult pseudoscorpions. (57).
- Aitchison, C.W. A preliminary study of the phenology of winter-active spiders. (61).
- Baert, L. Habitat preference, phenology and life-cycle of Gonyglidium rufipes (Sundevall, 1829). (67).
- Maelfait, J.-P. L. Baert, J. Hublé & A. De Kinpe. Life cycle timing, microhabitat preference and coexistence of spiders. (69).
- Funtcher, S. Verteilung und Jahresrhythmik von Spinnen im Zentralalpinen Hochgebirge (Obergurgl, Ötztaler Alpen). (75).
- Curtis, D.J. & E. Signal. Variations in peat bog spider communities related to environmental heterogeneity. (81).
- Rapp, W.F. A study of spider populations in the soil-grass interface. (87).
- van Wingerden, W.R.K.E. Aeronautic dispersal of immatures of two linyphiid spider species (Araneae, Linyphiidae). (91).
- Legel, C.J. & W.K.E. van Wingerden. Experiments on the influence of food and crowding on the aeronautic dispersal of Erigone arctica (White, 1852) (Araneae, Linyphiidae). (97).
- Schaefer, M. Effects of an extensive fire on the fauna of spiders and harvestmen (Araneida and Opilionida) in pine forests. (103).
- Luczak, J. The effect of spiders living in forests on spider communities in crop fields. (109).
- Kajak, A. ? the changes caused in spider communities by the application of fertilizers advance with time? (115).
- Benz, G. & M. Nyffeler. Ecology of spiders in meadows near Zurich (Switzerland). (121).
- van der Ploeg, S.W.F. Environmental disruption and the size of spiders. (133).
- Nentwig, W. Zur ökologischen Bedeutung des Beutefanges netzbauender spinnen. (139).
- Pasquet, A. and B. Krafft. Relations entre la végétation, la répartition des proies potentielles et les sites de construction des toiles par les Araignées. (145).
- Kessler, A. & R. Slings. Microhabitat selection in adults and juveniles of Pardosa purbeckensis F.O.P.-Cambridge (Araneae, Lycosidae). (151).
- Vermeulen, Ch. & A. Kessler. Coexistence of webspiders (Linyphiidae, Argiopidae) in Buckthorn Bushes (Hippophae rhamnoides L.). (155).
- Toft, S. Body size relations of sheet-web spiders in Danish Calluna heaths. (161).
- Vollrath, F. Why are some spider males small? A discussion including observations on Nephila clavipes. (165).
- Czajka, M. Zur Ökologie und Bionomie der spinnen (Aranei) aus dem Sudeten-Vorgebirge. (171).
- Blandin, P. Quelques aspects de la prédation des batraciens et reptiles sur les Araignées dans la savane de Lanto (Côte-d'Ivoire). (177).
- \* Nyffeler, M & G. Benz. The role of spiders as insect predators in cereal fields near Zurich (Switzerland). (127).

- Legendre, R. & G. Morel. Data on the role of Rickettsial and Viral Diseases in the regulation of arachnid populations. (183).
- Lebez, D., Z. Maršić, J. Ladavac & M. Meden. Mesobuthus gibbosus — a potentially dangerous European scorpion. (187).
- González, D. Envenomation by arthropods in Spain. (191).
- Krafft, B. Les systèmes de communication chez les Araignées. (197).
- Leborgne, R., Ch. Roland & A. Horel. Quelques aspects de la communication chez certaines Agelinidae. (215).
- Mertens, J. & R. Coessens. Sex pheromone in Zygiella x-notata (Araneidae). (221).
- Blanke, R. Die verschiedenen bei Kreuzspinnen (Araneidae) auftretenden Bastardierungssperren. (225).
- Schmidt, G. Beobachtung einer Kopulation zwischen Spinnen zweier Gattungen. (229).
- Rovner, J.S. Adaptations for prey capture in oryopid spiders: phylogenetic implications. (233).
- Vlijm, V. & H. Dijkstra. The behaviour of females of Pardosa (Lycosidae) towards a lost egg sac. (239).
- Görner, P. & Ch. Zeppenfeld. The runs of Pardosa amentata (Araneae, Lycosidae) after removing its cocoon. (243).
- Seyfarth, E.-A. & J. Bohnenberger. Compensated walking of Tarantula spiders and the effect of lyriform slit sense organ ablation. (249).
- Ramcuse, R. Temporal patterns of web-building in Araneus diadematus Cl. (257).
- Robinson, B. & M.E. Robinson. Life history and behavioural studies of Iscopoda goliath Chrys. (Araneae, Heteropodidae) from New Guinea. (261).
- Matthiesen, F.A. Biological observations on a Titivus from "Serra do Cipó" (Scorpiones, Buthidae). (267).
- Forster, R.R. Evolution of the tarsal organ, the respiratory system and the female genitalia in spiders. (269).
- Dalingwater, J.E. SEM observations on the cuticles of some Chelicerates. (285).
- Emerit, M. The abdominal sigillotaxy of the Araneidae: its relations with the metamer. (291).
- Kovoor, J. Données nouvelles sur le tubercule anal d'Uroctea durandi (Latrielle) (Araneae: Oecobiidae). (297).
- Lopez, A. & C. Ribera. The sexual dimorphism of Ochyrocera peruana Ribera, 1978 (Araneae, Ochyroceratidae): a histological study. (303).
- Lopez, A.M., Emerit, M. & L. Juberthie-Jupeau. The "clypeal" gland of Argyrodes cognatus (Blackwall, 1877). A theridiid from the Sechelles Islands. (309).
- Hoheisel, U. Anatomie und taxonomische Bedeutung der Legeröhre der Opiliones. (315).
- Muñoz-Cuevas, A. Evolution régressive du genre Ischyropsalis et modifications ultrastructurales de la pigmentation de l'oeil (Opilions, Arachnida). (319).
- Heurtault, J. & J. Kovoor. Ultrastructure du complexe mécanorecepteur des chélicères de Pseudoscorpions. (325).
- Weygoldt, P. Towards a cladistic classification of the Chelicerata. (331).
- Maury, E.A. Usefulness of the hemispermatophore in the systematics of the Scorpion Family Buthidae. (335).
- Quintero, D. Systematics and evolution of Acanthophrynus Kraepelin (Amblypygi, Phryniidae). (341).
- Platnick, N.I. On the phylogeny of Ricinulei. (349).
- Martens, J. Versuch eines phylogenetischen systems der Opiliones. (355).
- Hajer, J. Some findings concerning the ontogenesis of the cribellum of the Cribellatae. (361).
- Levi, E.W. Orb-webs: primitive or specialized. (367).
- Brignoli, P.M. New morphological observations on some interesting genera of spiders. (371).
- Davies, V.T. Malkara loricata, a new spider (Araneidae: Malkarinae) from Australia.
- Sanocka, E. Eyes regression in Porrhonna moravicum Miller & Kratochvíl 1940 (Ar).
- Thaler, K. Die spinnenfauna der Alpen: Ein zoogeographischer Versuch.
- Deltchev, C.D. On the high altitude spiders (Araneae) in Bulgaria. (405).
- Dondale, C.D. The spider fauna of Canada. (411).
- Koponen, S. Epigeic spider fauna of subarctic birch woodlands. (415).
- Schmidt, G. Zur spinnenfauna von Lanzarote und Graciosa. (421).



## NEWSLETTER OF THE AUSTRALASIAN ARACHNOLOGICAL SOCIETY

- Prószyński, J. Symposium on Zoogeography of Arachnida: Introduction. (425).  
 Brignoli, P.M. La valeur biogéographique des Araignées cavernicoles. (427).  
 Deeleman-Reinhold, C.L. & P.R. Deeleman. Remarks on troglotism in spiders. (433).  
 Lamoral, B.H. A reappraisal of suprageneric classification of Recent scorpions and of their zoogeography. (439).  
 Martens, J. Distribution, Zoogeographic affinities, and speciation in Himalayan Opiliones (Arachnida). (445).  
 Prószyński, J. A hypothesis on the origin of continental faunas based on: the research on subtropical Himalayan Salticidae. (451).  
 Prószyński, J. & A. Bohdanowicz. Zoogeographical character of Salticidae of Japan. (455).  
 There follows a series of abstracts of papers to be published elsewhere, and of films and poster presentations.  
 Rambla, M. Neoteny in Opiliones. (489).  
 Lehtinen, P.T. Trichobothrial patterns in high level taxonomy of spiders. (493).  
 Lehtinen, P.T. Arachnological zoogeography of the Indo-Pacific region. (499)

## ANOTHER NEW 'BOOK'

Spiders. A science field guide. By Andrew Austin. 1980. Austin gives a pictorial key to arachnid orders and common spider families. His idea is commendable. Similar keys have been made to New Zealand and American Spiders and they are complex productions requiring careful microscopical examination of the spiders. Austin tries in parts to do without a microscope and the keys are filled with examples like those following. In terminal couplets, the Uloboridae are distinguished from the Araneidae in that uloborids have a dorso-anterior hump on the abdomen and araneids supposedly do not; equally, the Dinopidae differ from the Salticidae in having long and stick-like body and legs, whereas salticids are small, and the body and legs are not long. Whatever happened to a cribellum? Later, Austin divides 14 families into two groups depending upon whether they are 'found on or associated with vegetation; very rarely found on tree trunks' or 'found on the ground, in leaf litter or on tree trunks'. I understand that some time has elapsed since the booklet was first written; it is certainly in stark contrast to Austin's more recent published works. The booklet retails for about \$4.25, which in my opinion is \$4 too much, and is published by Longman Cheshire Pty Ltd, 346 St Kilda Road, Melbourne, 3004.