

BOOK REVIEWS

WHIP SPIDERS (CHELICERATA: AMBLYPYGI) THEIR BIOLOGY, MORPHOLOGY AND SYSTEMATICS

By Peter Weygoldt

160 pages, 302 illustrations. 24 x 17 cm. Hardback. Apollo Books, Kirkeby Sand 19, DK-5771 Stenstrup, Denmark (e-mail: apollobooks@vip.cybercity.dk). 2000. DKK 320.00. ISBN 87 88757 46 3.

The title of this book, *Whip Spiders*, recently initiated another round in the long-running debate on the internet discussion group *Arachnology* on the use of common names in arachnology. Whatever you call them, Amblypygi are fascinating creatures. Though unfamiliar to those who never stray into tropical or subtropical parts of the world (in Europe they are only recorded from Rhodes and Kos, though they occurred in Britain 300 million years ago), they are the closest living relatives to the spiders. However, you would be forgiven for not realising this because, with their flattened bodies, formidable raptorial pedipalps, enormously long antenniform fourth appendages (hence the name 'whip spiders'), and reported hissing and aggressive behaviour, they resemble no familiar spider.

This book will tell you all or just about all there is to know about Amblypygi. Peter Weygoldt is an authority on this small group of arachnids (20 genera, c. 120 species) and this book is a comprehensive account of what he, and therefore just about anybody, knows about the them. Following a couple of short, introductory chapters on what an amblypygid is and the history of their study, the reader is taken into the detailed morphology of the animals. The fourth chapter is a round-up of the amblypygid genera, and then the bulk of the book returns to amblypygid anatomy, as related to their biology. Finally, there are short chapters on the distribution, ecology, endangered species, evolution, and keeping Amblypygi in captivity.

Nearly every section starts with the words '[some aspect of amblypygid biology] has not been studied in detail' or 'Little is known about . . .', which is then followed by a concise, up-to-date summary of all that is known about the subject, which generally turns out to be much more than expected. Weygoldt devotes 36 richly illustrated pages to the fascinating subject of mating in the Amblypygi, covering courtship (which may take 8 hours!), spermatophores, and so on. There are many other interesting facets of their biology, e.g. parthenogenesis has been suggested for the Rhodes species, though more study is needed, of course; the curious ventral sacs might be used to take up water, but this has not been investigated; plastron respiration has been recorded from some species which live in habitats liable to flooding, which needs more research; and are the tarsal pit organs homologous to the tarsal organ in spiders? We don't know (yet).

Because the book covers everything about Amblypygi, it is an excellent reference to their biology, but not a particularly thrilling read, except for the sections in the middle about behaviour. As might be expected among animals with such frightfully armed pedipalps, fighting is a basic behaviour in these generally solitary, possibly territorial (though it needs more study), beasts. The species differ greatly in their fighting behaviour, and there are fine illustrations of these in the book. Not all amblypygid species are sexually dimorphic, but some are and this may be expressed in pedipalp morphology. It might be suggested that sexual selection operates in amblypygids, but this has not been studied in the field. Do you know how Amblypygi mate? Carefully, of course! Mating behaviour is well illustrated in the book, and involves many

hours of tapping and stroking, followed by the male inducing the female to pick up his spermatophore. The courtship and spermatophore morphology differ from family to family, but you can be sure that all the details are explored and illustrated in this book. Females carry the ova in a brood pouch formed by folds of the lateral wall of the opisthosoma; after hatching, the nymphs are carried around on the female's back.

Regular readers of the Newsletter will feel at home with the Souvenir font used throughout the book. The text is clear and almost completely error free; the illustrations, which include line drawings of morphology, electron micrographs, and photographs of behaviour and habitats, are also of high quality. It is well bound in hard covers. Considering the small number of enthusiasts on this group of arachnids, the price is very reasonable. As a summary of current knowledge of Amblypygi, it is indispensable. Anybody looking for a research project will find this book full of ideas, and it is hoped that its publication will spark off new interest in this remarkable, but little studied, group of arachnids.

Paul Selden

SPIDERWATCH IN SOUTHERN AFRICA

By Astri and John Leroy

96 pages, illustrated. 15 x 21 cm. Paperback. Struik New Holland Publishers. 2000. £9.99. ISBN 1 86872 302 X.

I was delighted to see this little book published, having known Astri and John, the authors and dedicated South African arachnologists, for a number of years and having contributed a tiny part of the introductory chapters. This is actually the third book on southern African spiders (that I know of) to be published by Struik in a dozen years. So, was each one an improvement on the previous? Each was intended as an introduction to spiders and to the common species encountered in southern Africa and was aimed at the non-specialist and not intended to be an identification guide. However, even the hardened arachnologist visiting southern Africa for the first time is going to use books such as these as a first step in identifying common spiders, because no other literature exists with colour pictures of the whole spider all in one publication; detailed identification must await long nights at home with the microscope. Each presented an introduction to spider biology for the non-specialist. The first book (Newlands, 1986) presented approximately one family per page, illustrated with colour drawings. Like all of these books, Newlands gave special mention to the identification of potentially harmful species. Martin Filmer's (1991) book attempted to be an identification guide to family and possibly genus, and made much use of symbols (icons in modern computer-speak) to code for size, habitats, collecting methods, and (as first used in Newlands) venomous to man. Sixty-three families were covered by Filmer, illustrated by line drawings and colour photographs; it was an improvement upon Newlands in its coverage of the southern African spider fauna.

Spiderwatch is arranged rather differently from the first two books and, though about the same size as Filmer's, is more attractive to the casual bookshop browser. Unlike Filmer, in which the excellent colour photographs were arranged in two sections of plates, the Leroy book is fully illustrated in colour throughout; even the line drawings are in colour. No doubt the changes we see over the three Struik publications reflect the advances in colour printing technology over two decades. However, whilst the colour

photographs in *Spiderwatch* are beautiful pictures, they are printed at such a small size—almost 35 mm contact prints—they are not seen at their best. The layout, too, is quite different. Following an introduction to spiders with special reference to southern Africa (the smallest and almost the largest spiders in the world hail from Africa), there are chapters on spider evolution (the oldest araneomorph is from South Africa), spider anatomy, senses and sound production, spider behaviour (including mating, web-making, silk, mimicry, etc.), dangerous spiders, and identifying spiders (a simple, well-illustrated identification guide to the commonest families). There are useful appendices on collecting and photographing spiders (all of the photographs except the fossil are by the authors), a list of families, glossary, and further reading. The authors have not attempted to produce an identification guide; indeed, Martin Filmer's book is more comprehensive in this respect. Those wishing to track down specialist identification literature will use Dippenaar-Schoeman & Jocqué (1997: see review in Newsletter 82). *Spiderwatch* is an attractive and well-written book; a compulsory buy for all southern African naturalists and visitors.

References

- Dippenaar-Schoeman, A. S. & Jocqué, R. (1997) *African Spiders. An Identification Manual*. Plant Protection Research Institute Handbook No. 9. ARC-Protection Research Institute, Pretoria.
- Filmer, M. (1991) *Southern African Spiders. An Identification Guide*. Struik, Cape Town.
- Newlands, G. (1986) *Spiders*. Struik, Cape Town.

Paul Selden

DR E.A.G. DUFFEY OBE

Dr Eric Duffey's name and address were missing from the roll of Honorary Members in the Membership List dated November 2000, although they were included in the Overseas Members section. We apologise to Dr Duffey for this omission and assure him that it will not be repeated.

Rowley Snazell, President

RESIDENTIAL FIELD MEETING 2001

A repeat of the very successful members' week held eleven years ago at **Orielton Field Centre, Pembroke, South Wales** has been arranged from **Wednesday 25th July to Wednesday 1st August**. It is primarily intended for B.A.S. members and will not be advertised elsewhere. The Centre is comfortable, friendly, and noted for its good food; there will be no school parties in at that time.

This is not a course. There will be no formal tuition, although the less experienced should find plenty of expert help available, and participants will be expected to bring all their own laboratory and field equipment (a certain amount may be available, but cannot be guaranteed). There is ample laboratory space with good facilities.

The cost for the week is £234, which is the charge made for University non-tutored courses. This includes everything except travel expenses during the week.

For more information about the week's activities, please contact me. Enquiries about bookings should be made directly to Orielton Field Centre, Pembroke, Dyfed, SA71 5EZ; Telephone: 01646 661225.

Stan Dobson, Moor Edge, Birch Vale, HIGH PEAK, Derbyshire, SK22 1BX; Telephone: 01663 743551

A.G.M. AND FIELD WEEKEND 2001

The Society's Annual General Meeting and Field Weekend will be held at the F.S.C.'s **Castle Head Field Centre, Grange-over-Sands, Cumbria, from Friday 1st to Sunday 3rd June, 2001**. Castle Head is delightfully situated in the southern Lake District, amongst a variety of habitats (meadow, oak woodland, moss, limestone pavement, acid moor, saltmarsh, etc.) yet only a few miles from the M6 motorway and with a frequent rail service on the west coast main line (rail travellers can be picked up at Grange station). The weekend will follow the usual pattern: lectures, displays, conversazione, and field excursions, followed by a short A.G.M. on the Sunday afternoon. For full and latest details, see the formal A.G.M. notice included in this mailing.

The inclusive price for accommodation, all meals and facilities, from Friday to Sunday will be £75.20, with a single room supplement of £15. To reserve your place on this weekend, contact the Meetings Secretary (address below). Full payment must be made by **16th April** (cheques made payable to 'British Arachnological Society').

B.A.S. Meetings Secretary, Martin Askins, 69, Savill Crescent, Wroughton, SWINDON, Wiltshire, SN4 9JG; e-mail: martin@askins.fsnet.co.uk

BULLETINS OFFERED

Bill Peck, a longstanding member of our Society from the USA, has offered to donate his complete back-run of *Bulletins of the British Arachnological Society* to a suitable institution or even to an individual. Volumes 1–6 are bound, the more recent (A4) volumes are not. Cost of shipment is negotiable. Please apply by postcard, using air mail, to Dr W. B. Peck, 337, Xanthisma, McALLEN, Texas, TX 78504, USA. Because of the likely response to this generous offer, you will only receive a reply if your bid is successful.

John Parker

HELP AN 'ENDANGERED SPECIES'

This organism has been in existence for over thirty years, regularly invades our homes, has evolved rapidly, and has regularly doubled in size. But, recently, lack of its staple diet has cut its weight by half, and prolonged starvation may threaten its very existence. Putting it another way, I've received alarmingly few contributions for the Newsletter over the winter months. At one stage, I wondered if this edition would reach eight pages, never mind sixteen. At the time of writing (mid February), things have improved somewhat, but only to the extent that I have a few short items towards the July Newsletter. I'm sure that many of our 'regulars' will respond to this latest appeal, but we also need new contributors. So please write now!

J.E.D.

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