

FOELIX, R. F. 1996. *Biology of Spiders*. Oxford Univ. Press; New York. Second edition. 330 pp. ISBN 0-19-509593-6. Hardback. \$60.00 (also ISBN 0-19-509594-4. Paperback. \$29.95).

Ten well-written chapters with outstanding illustrations quickly give the reader the sense that this author knows his subject and knows how to convey this information. An introductory chapter explains some gross morphological features, discusses numbers and types of spiders, and introduces some of the more common families. The remaining chapters cover anatomy, metabolism, neurobiology, webs, locomotion and prey capture, reproduction, development, ecology, and phylogeny and systematics. The coverage is sufficiently thorough for an introductory text. This book would have to be the primary textbook for an arachnology course, and it would be an excellent supplement for an entomology or invertebrate zoology course.

This second edition has been updated and expanded from the original edition published in 1982. Particularly Chapter 4 on neurobiology has had considerable new material added, such as sections on temperature perception, peripheral nerves, and the sub- and supraesophageal ganglia. Chapter 10 on phylogeny and systematics briefly discusses the most current hypothesis about phylogenetic relationships available at the time. However, it is clear from the coverage that the author's strengths are in morphology and physiology. Other chapters vary in the amount of updating that has been done, which is reflected in the changes, or lack thereof, made in the nomenclature of suborder, family, genus, and species names. On p. 4, the author explains why the suborder names Orthognatha and Labidognatha are no longer in use, then proceeds to use them on p. 16. Other names no longer in use, such as *Eurytelma* and *Dugesiella* among the tarantulas, are still cited on several occasions. Elsewhere, both the old and new names are given (e.g., *Lycosa pullata* = *Pardosa pullata*, p. 236). More consistency in making these changes would have been helpful. Distances given for jumping spider (Salticidae) visual and stalking distances (pp. 11, 90) are low and do not reflect recent research. The

idea that jumping spider courtship is always primarily visual is maintained, with no mention of the vibratory courtships which can be performed in complete darkness. One jumping spider is misidentified as a lynx spider (Oxyopidae) (Fig. 13b, p. 16); another is misspelled: *Phiddippus* is correctly *Phidippus* (p. 197). Another misspelling (p. 5) is Scytotidae (= Scytodidae), the family of spitting spiders. The bolas spider *Mastophora* is not credited with using pheromones to attract prey (p. 147), which is well-known, but a relative is so credited. Ctenidae (wandering spiders) are surprisingly still sometimes classified as a subfamily of Lycosidae (wolf spiders) (p. 9). The characterization of wandering tarantulas (Theraphosidae) versus climbing tarantulas (Aviculariidae) on p. 165 is simply wrong. Aviculariidae (proper spelling) is a synonym of Theraphosidae. Genera and species names are not italicized on several occasions, especially in figure legends. A glossary would have been useful.

The above criticisms are relatively minor and likely only to be noticed by another arachnologist. They do not detract from the flow of the book, and can be corrected by an instructor or through follow-up with the bibliography provided. Unfortunately, the bibliography does not directly cite some of the more useful volumes (e.g., *Ecophysiology of Spiders*, 1987, ed. Nentwig; *Spider Communication*, 1982, eds. Witt and Rovner), so that one has to search for articles cited from these books in order to find the book itself.

No book can be all things to all people, and certainly individual subjects are covered in more depth elsewhere. Nevertheless, this is the most complete summary of what is known of spider biology presently available. I would highly recommend it.

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