

ANIMAL STUDIES

The Private Life of Spiders. By Paul Hillyard. 2011. Princeton University Press, Princeton, NJ. (ISBN 978-0691150031). 160 pp. Paperback reprint edition. \$19.95.

This book is worth buying just for the gorgeous, well-lit, crisp color photographs of a wide variety of spiders in their natural habitat. If spiders don't sound like the subject of gorgeous art imagery to you, then you need to see this book. You will be amazed and surprised. I know I was: some spiders have golden teeth, some mimic ants, some cart around air bubbles underneath water, bola spiders fish for prey using dripping lines with sticky attractive globules, and some orb-web spiders catch sunbirds in their webs. How did the author get all these fantastic pictures? It is very obvious that Hillyard has spent many, many years carefully observing these animals. There is a brief but apt caption with each picture, and either scientific names or the genus is typically provided. While the main draw of the book is its pictures, the informative accompanying text is clearly written and well phrased, in a tone that is full of love and respect for these animals without being sappy. Hillyard does not assume that the reader knows much about spiders, and starts with a nice overview of their morphology, fossil record, modes of feeding, and predators. The book discusses various aspects of spider ecology, with separate chapters on spiders that hunt, spiders that build webs, tarantulas and trapdoor spiders, the silk factory, mating and breeding, the use of venom, and social spiders. The last chapter briefly discusses human-spider interactions, including many people's fear of spiders, the ways human engineers are inspired by spiders, and the need to conserve spiders.

The book is not perfect. The text is densely packed, which makes reading it difficult for all but the most advanced school-aged students. The font is small, single-spaced, and often runs more than half a page. It is broken into two columns in newspaper format, which helps. There are some typesetting gaffes that

exacerbate the problem: odd word spacing to allow the left and right text justification of the columns and some missing spaces between words. Reading this book late at night rapidly tired my eyes, so that after a few pages I put it down, despite being interested in the subject. Every few pages a key quote is pulled out in larger, bolded text, and larger font sub-headings also help guide the reader through the topics. Sadly missing from this book are any references to scientific works and studies, even though it is obvious that the author relied heavily on them to write the text. How else would he know that a wandering spider "delivers a bite within 0.2 seconds of grabbing the prey" (p. 21) or that "the European Cave Spider (*Meta menardi*) consumes only one-eighth the oxygen of a similarly-sized Garden Spider" (p. 22)? I would have loved to be able to follow up and learn how scientists determined this information. When scientific names are provided, the reader could look up research on those species, but that is a lot of work and requires scientific-article databases that are not widely available. If the exact citations had been provided, it would have allowed many people to obtain the sources through interlibrary loans. Given that the author is clearly writing the book for readers interested in learning more specifics, or hoping to make the casual reader into one of those people, it would have been nice if some of the citations had been provided. There are suggested further readings and some useful websites, but these are all very general spider books or sites. There is a glossary and index, as well as short (half-page each) sections on how to observe spiders and how spiders are named, and a brief family tree of spiders.

For many people there is definitely an aspect of the creepy to this book, which is unavoidable given its subject. I must admit that the image of a cluster of social spiders attacking a grasshopper, and the picture of an extended human hand with a tarantula spider on it larger than the hand itself, sent shivers down my spine. But it also caused me to look in fascination for quite a long

time. And isn't that what we are looking for in a book? Something that shows us things we aren't used to seeing, and that expands our opinions as to what is interesting? I had no idea that spiders themselves can be so beautiful or that decorated webs could be so varied – and I teach Invertebrate Zoology, like to look at spiders in my yard, and have a young son who is fascinated by them. I plan to scan in a number of the images for use in my lectures. Reading through the text, I learned many facts that I added to my arsenal of "wow them" information for my classes, as well as cemented some of my traditional background information on spiders. Although spiders are a specialized topic that won't form a large component of most general classes, younger students would benefit from a unit on them. Older students would certainly benefit from a reduction of their arachnophobia and a deeper knowledge of the diversity of spiders, in terms of their species, ecology, and benefits to mankind. Students (and adults) of a broad age range will enjoy perusing this book, so it makes a great addition to any library, either in a school or a personal collection. I cannot believe that the price of this book is as low as it is, given the plethora of color images.



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