

MEDIA REVIEW

An Introduction to Primate Behavioral Ecology Suitable for College Students?

Review of *Primate Behavioral Ecology* by Karen B. Strier. Boston, Allyn and Bacon, 2000, viii + 392 pp, 216 fig., 15 tab., \$37.00.

In her new book, Karen Strier makes a laudable attempt at producing a comprehensive introduction to the field of primate behavioral ecology. Strier is one of the most prolific and respected primatologists of her generation, and her qualifications for writing a text on primate behavioral ecology are unassailable. The text she has written is interesting, generally up-to-date, and sure to be adopted in many college-level primatology classes, though it is not without its weaknesses.

The book appears to be aimed at advanced undergraduates and graduate students with fairly strong science backgrounds. Basic concepts in evolutionary theory and behavioral ecology are covered rapidly and at fairly high levels of sophistication. Nonscience majors in large introductory courses in primate behavior might find the text too difficult, but students with a solid biology background and an interest in animal behavior and ecology will really enjoy this book.

The first four chapters provide the background information necessary to understand primate behavioral ecology. These chapters offer a brief history of primate studies and how they have been influenced by the fields of anthropology, biology, and psychology; a discussion of primate traits, taxonomy, and evolutionary history; and a review of basic evolutionary theory. The middle four chapters cover key topics in primate behavioral ecology, including mating systems, feeding ecology, and female and male strategies and social dynamics. The book concludes with four chapters on disparate topics, including developmental stages from fertilization through juvenility, communication and cognition, community ecology, and conservation. References are cited throughout the text and there is an extensive bibliography at the end.

I found Strier's issues-oriented approach to be a welcome change from the taxonomy-oriented approach to primate behavioral ecology adopted in several other recent texts. She does a nice job of integrating both field and laboratory data on primates and discussing how these data fit with current theory in behavioral ecology. Strier also rightly stresses how many of the recent (and anticipated future) advances in primate behavioral ecology and conservation have come from a combination of observational research and research in molecular genetics and endocrinology. One of the book's most valuable features is its emphasis on how the information gained from field studies of topics in primate behavior and ecology, such as seed dispersal, ranging behavior, and dispersal patterns, can be used when making conservation decisions about primates and their habitats. Through this emphasis, students who might otherwise have viewed primate behavioral ecology as an esoteric academic pursuit are able to see the practical applications of research in this field.

Although the book represents arguably the best existing text for teaching

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primate behavioral ecology, it is not without its flaws. First, I feel the organization of the book could be more user-friendly to students. Key words occasionally appear in bold lettering and there is a nice glossary at the end of the book, but key passages are not highlighted or set aside to signal their importance. Students reading Strier's text may find it more difficult to grasp her main points than, for example, students reading the chapters on primate behavior and ecology in Boyd and Silk's [2000] *How Humans Evolved*, in which "key idea" statements appear every few paragraphs.

I must also take issue with the book's failure to provide more than cursory coverage of the topic of why most primates live in groups. The evolution of group-living, and its benefits and costs, have been the subject of heated theoretical debates and numerous primate field studies over the past 20 years, yet this topic receives little attention in Strier's book. Several other topics fail to receive complete coverage, or are missing references to key studies as well. For example, Strier's discussion of male rank and reproductive success fails to mention Cowlshaw and Dunbar's [1991] review of male dominance and mating success across the primate order, and, more grievously, overlooks Altmann et al.'s [1996] demonstration that variance in long-term reproductive success is related to dominance rank among male yellow baboons at Amboseli, Kenya. In addition, the section on alloparental care fails to mention the extraordinary prevalence of allomothering in colobine monkeys, and discusses only one of the several possible functions of alloparental care in primates.

Despite its weaknesses, *Primate Behavioral Ecology* deserves consideration by any instructor offering a college-level course in primatology. While I believe the primate behavior and ecology sections of the better organized and simpler *How Humans Evolved* make it the best text for use in large classes composed primarily of nonscientists, I believe Strier's *Primate Behavioral Ecology* is the best and most complete text now available for courses on the topic offered to advanced undergraduates and graduate students. Even primatologists not teaching a course in primate behavioral ecology may want to own this book given its readable summary of the field, useful bibliography, and affordable price.

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