

cal, and military context. The authors document, for instance, how military considerations tend to predominate over environmental considerations in the formation of a regulatory regime. Events in the Middle East, especially the wars of 1967 and 1973, set in motion a chain reaction, including changes in transportation routes and the size and fragility of tankers, that exacerbated the problem. The authors completed their study too early to note similar consequences due to events in Iran and Afghanistan in 1979. All proposals to control pollution that would affect military movements or trade in strategic goods have so far been unacceptable to the major oil-consuming and shipping nations. Similarly, developing nations are reluctant to accept environmental standards they feel threaten their economic development.

The authors end by making recommendations to improve the regulatory regime that is emerging through such conferences as those called by IMCO, the U.N. Environmental Program (UNEP), and the interminable yet useful sessions of the Third U.N. Conference on the Law of the Sea. These include strategies to deal with factors "intrinsic" and "extrinsic" to the oil pollution issue. The former include improved chartering contracts to provide greater accountability from oil companies for the behavior of independently owned tankers flying flags of convenience and increased port-state powers to deal with substandard vessels and crews. Recent versions of a draft comprehensive ocean treaty emerging from the Law of the Sea Conference point in the direction the authors prescribe. An enlarged IMCO with a more efficient legislative process than is afforded by traditional conference diplomacy and with greater secretariat initiative is also urged. Among the extrinsic factors discussed are the importance of technological and economic growth, especially among the developing countries (the Group of 77) and economic strategies to internalize environmental costs. Last but not least, the authors urge the introduction of alternative energy sources or a slowdown in energy demand in the developed world. All in all, they have contributed a useful study on the general problem of world order by focusing in commendable but judiciously selected detail on one aspect of one problem—ocean pollution.

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## Lemurs

**Nocturnal Malagasy Primates.** Ecology, Physiology, and Behavior. P. CHARLES-DOMINIQUE, H. M. COOPER, A. HLADIK, C. M. HLADIK, E. PAGES, G. F. PARIENTE, A. PETER-ROUSSEAU, and A. SCHILLING. Academic Press, New York, 1980. xii, 216 pp., illus. \$27.50. Communication and Behavior.

This collection is the work of nine French biologists of the Museum National d'Histoire Naturelle, Brunoy. Half the chapters report on a series of visits of one or two months' duration (between November 1973 and July 1974) to a western sclerophyllous and deciduous forest near Morondava, Madagascar. Most of the reports discuss lemuriform primates that have seldom been studied in the wild; many of the observations are preliminary reports on the natural history of these lemurs. Five of the perhaps 11 species of nocturnal Malagasy lemurs are dealt with, and tantalizing glimpses of their "eco-ethology" are provided. The remaining five chapters report laboratory observations of learning and annual cycles; some reports summarize three years of work at Brunoy. Though well presented, much of this material is available elsewhere. The book will be welcomed as a convenient English summary of much of the French research on nocturnal lemurs. Unfortunately, it is not a summary of what is known about nocturnal lemurs, because much previous work is not given adequate citation.

The authors have made an admirable attempt to integrate their field and laboratory observations. However, these observations are intertwined to an extent that it is often difficult to determine whether or not a particular behavioral or physiological pattern has actually been observed under natural conditions. For example it is stated that *Cheirogaleus medius* hibernates "for at least 6 consecutive months and, in some instances, up to 8 months" (p. 53). When, where, and how often was this observed? Here torpor is claimed to be an adaptation to a seasonally variable food supply while another plausible hypothesis—that torpor is a response to microclimatic change—is not explored. With the exception of the introductory chapter, which outlines the flora and climate of the study site, the field reports are primarily anecdotal. Information on hours of observation and sample sizes, tables of raw data, statistical tests, and standard ecological indices are almost entirely absent. For example, the statements that "seasonal variation in diet follows food availability" (p. 55),

that two lemur species collect the "same absolute quantity of animal prey" (p. 60), and that "allogrooming is frequent between males, females, and juveniles" (p. 85) are presented without supporting data. Many of these assertions may be insightful, but there is danger that such untested generalizations will become established in the literature because they are the only statements extant about these rarely studied taxa.

Overall, this book can serve neither as a general review of nocturnal Malagasy lemurs nor as a detailed reference. But, though the authors generally fail to provide adequate hypotheses and tests, their observations could serve as a basis for framing hypotheses. Sadly, very few field studies of Malagasy lemurs have been attempted during the last five years. The lemurs may become extinct before we can pursue hypotheses derived from preliminary studies such as these.

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## Annelids

**Aquatic Oligochaete Biology.** Proceedings of a symposium, Sidney, B.C., Canada, May 1979. RALPH O. BRINKHURST and DAVID G. COOK, Eds. Plenum, New York, 1980. x, 530 pp., illus. \$55.

In *Aquatic Oligochaete Biology* the editors have succeeded in presenting an overview of what is known, and unknown, about their favorite organisms. The book is the proceedings of a meeting held at the Patricia Bay facility, British Columbia. It demonstrates clearly the variety of interest in and approaches taken to oligochaete biology by what amounts to a who's who of specialists on the group. There are taxonomic reviews (Harman, Erséus), zoogeographic reviews (Timm), and reviews of reproductive biology (Brinkhurst) and of various aspects of ecology (Caspers, Diaz, Giere), in addition to a series of papers reporting original research on a variety of topics from morphological variability to sensitivity to chemical pollutants. A series of papers demonstrate the influence of various anthropogenic agents on the populations of worms, and there is even a review of the content of the book in the form of a postscript by Brinkhurst.

For me, as a polychaete systematist and biologist, the most impressive feature of the book is the amount and quality of information available about some of