Askew limits his treatment to parasites of animals, legitimately restricting the book's size. Whether a parasite exploits plant or animal food the basic feeding strategy is the same, however, and this treatment may lead to some misconceptions. The classification of Hymenoptera Askew uses includes, in the suborder Apocrita, the division Parasitica, in which he states that the superfamilies Chalcidoidea (chalcid wasps) and Cynipoidea (gall wasps) contain "many" and "some" parasitic species respectively. Actually, almost all the species of these superfamilies are parasitic, some feeding on plant tissues and others on animal tissues.

It is clear that parasitic insects and parasitoids play an important role in natural populations and in human ecology. Askew has helped us focus attention on this 10 percent of all animal species. He concludes, "I doubt if any group of animals can exceed the scope offered by parasitic insects to the diligent researcher. The field is wide open, the prospect inviting." I can only concur, and in endorsing this fine book I hope others will come to this realization.

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Worms

The Behaviour of Nematodes. Their Activity, Senses and Responses. NEIL A. CROLL. Saint Martin's, New York, 1971. x, 118 pp. + plates. $8.25.

Among nematodes there are harmless inhabitants of soil and water as well as dangerous parasites of plants, animals, and man. The damage caused by plant parasites alone is estimated at over $1.5 billion in the United States. Although the negative aspects of the nematodes have given rise to many investigations and publications, as yet no survey of their behavior has been available. Croll's book is a contribution to the closing of this gap. Its appearance is therefore to be welcomed. It must, however, be borne in mind that the study of nematode behavior is, to use the author's words, still in its infancy. We may only mention that no electrophysiological investigations exist in this field.

The first three chapters of Croll's book are concerned with "Approaches to nematode behaviour," "Movement," and "Activity, aggregation and swarming," the following six with responses to light, temperature, chemicals, electricity, gravity, and mechanical stimuli, and the last two with "The mechanism of orientation" and with "General considerations." Responses to hatching stimuli are unfortunately not included. On the other hand, all nematode groups —zooparasitic, phytoparasitic, and nonparasitic—are referred to. The presentation has the character of a review, chief importance being attached to completeness of literature coverage rather than to elaboration of general statements and theories. It is in fact striking how few clear statements can be made on certain matters, either because only a few investigations are available or because many have been carried out without clear premises. This holds, for instance, for the effects of light, gravity, and temperature on behavior. The author presents the many gaps and contradictions, and herein lies one of the book's main merits. It is to be hoped that it will indeed help to "form a background to more sophisticated and exact experimental work," one of its declared aims. Many blanks have yet to be filled in on the map of nematode behavior.

The existence of several misprints as well as errors in the literature list must be mentioned. In addition, German names of authors are written consistently without an umlaut, which might lead to confusion. A more serious objection concerns the author's use of the term "klinokinesis," which was coined by Gunn but later rejected by him.

In spite of these objections, Croll's book will render good service to those interested in nematodes and their behavior.

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Termites as Ecological Agents

Termites and Soils. K. E. LEE and T. G. WOOD. Academic Press, New York, 1971. x, 252 pp., illus. $11.50.

In the tropics the termites replace earthworms as the chief decomposers of litter and turners of the soil. Although the two groups are often viewed as ecological analogs in this special sense, the authors of *Termites and Soils* establish that profound differences exist in their modes of action. The termites, being well-organized social insects, select soil grains preferentially for transport to the surface and other parts of their nests. They penetrate more deeply into the soil (according to one Soviet report, to as much as 70 meters), and they typically cement soil particles into hard casements that are very resistant to erosion. Being dependent on plant remains for nutrition, they concentrate calcium, magnesium, and potassium in and around their nests. These various activities alter the vegetation locally, render biotopes more patchy in distribution, and set off other, ramifying ecological effects that extend up the food chains all the way to the mammals.

The authors, who are soil scientists employed by the Australian government at Adelaide, have drawn these and many other interesting conclusions from their own recent studies and those of previous researchers. In addition they provide detailed and careful reviews of the food habits, nest architecture, and economic importance of termites, only parts of which overlap related chapters in the well-known 1969 treatise *Biology of Termites* (volume 1) edited by Kumar Krishna and Frances M. Weesner. *Termites and Soils* will prove useful not only to specialists on social insects but also to pedologists and biologists interested in the tropical and subtropical land environments.

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Advanced Calculus with Linear Analysis. Joseph R. Lee. Academic Press, New York, 1971. xiv, 218 pp., illus. $8.50.

Advances in Cell Biology. Vol. 2. David M. Prescott, Lester Goldstein, and Edwin McConkey, Ed. Appleton-Century-Crofts, New York, 1971. xii, 330 pp., illus. $19.95.

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