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By way of several editions, this manual has evolved from O W Olsen’s Animal Parasites: Their Biology and Life Cycles (1962. 2nd Edition. Minneapolis (MN): Burgess), published in an era when students were encouraged to undertake the experimental study of cycles. Parasitology has changed somewhat in that respect, for as shown in the present edition, prepared slides and commercially available living organisms may be appropriate substitutes for new collections of possibly rare or endangered vertebrates. Students and instructors as well should begin their use of the laboratory manual by reading the two-page preface, where Murray Dailey thoughtfully describes the origins of the work and suggests the importance of an understanding of the fauna that exists in or on, or sometimes incorporates itself into, other organisms that share ecosystems. He has briefly discussed the newer methods applied in taxonomy, facilitated by relatively recent technological advances, but the classical method is that applied in this introductory guide.

The format and content of the earlier versions have been retained in this 6th edition. Fourteen chapters deal with the protozoa; helminths of the five major groups; nematomorpha; annelida; crustacea; acari; insects of five orders; and pentastomida. The last (fifteenth) chapter concerns laboratory techniques. Throughout the volume, the author has employed the currently accepted systematic arrangements of the taxa, including changes in names of higher categories, mainly of protozoa and helminths. The overall length has been slightly decreased, but inclusion of new information was possible by reducing the size of full-page illustrations, and by rearranging figures. Those sections relating to materials and methods appear without change. Chapter 15 discusses calibration of the microscope, suggestions for obtaining specimens, host-autopsy and the collection of parasites, preparation of specimens for study, and application of special procedures (with some very good advice). Three appendixes deal with reagents and solutions, arthropod vectors, and life cycle exercises.

In its comprehensiveness, a laboratory manual is not a textbook, but nevertheless there are instances in this edition in which information about a few organisms is inadequate, incorrect or obsolete. Among the Pseudophyllidea, the cycle illustrated of Diphyllobothrium is not correct, but is instead of Spirometra, which is now recognized as an independent genus. The cycles of members of those two genera are confused in the text as well, and information in Appendix 2 is misleading. Evidently, only a single species of Spirometra has been recognized in North America, while Diphyllobothrium species are numerous and of wide distribution in the Holarctic; their infective stage occurs in fishes, which serve also as paratenic hosts. In the section on the taeniids, two species of Echinococcus (granulosus, causing cystic hydatid disease, and multilocularis, causing alveolar hydatid disease) are considered; because E. granulosus is rare in the contiguous United States, greater discussion would be more appropriately given to E. multilocularis, which is now known to be endemic in wild mammals over a region extending from Ohio to Montana. I noted also that current concepts about speciation in nematodes of the genus Trichinella are not mentioned; only T. spiralis is included.

Useful lists of general and selected references are given with each chapter. All have been expanded in the present edition to include current literature of significance. With respect to the chapters on helminths, the addition of some recently published monographic works would have been advantageous for more advanced students; future editions will no doubt correct those omissions.

Along with a suitable textbook, as intended, this laboratory manual will continue to be an important resource in teaching introductory courses in classical parasitology. The work is well and often beautifully illustrated, so that even students with little knowledge of English would find it useful. Parasitologists will be united in the hope that it will help to attract the interest of students to a branch of zoology that of late has been de-emphasized in the curricula of American universities.

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