



# Borror and DeLong's Introduction to the **Study of Insects**

By Norman F. Johnson, Charles A. Triplehorn







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First published in the 1950s by the late James Borror and Dwight Moore DeLong, this classic text, INTRODUCTION TO THE STUDY OF INSECTS 7TH EDITION, combines the study of insects with clear and current insect identification. In this new edition (available in a bundle with InfoTrac College Edition), Johnson and Triplehorn supply updated information on phylogeny using systematics while adding a greater emphasis on insect biology and evolution. This greater concentration on insect systematics necessitated many content changes including an added chapter for a newly described order, the Mantophasmatodea, as well as a new chapter reclassifying Order Homoptera (Cicadas, Hoppers, Aphids and Hoppers Psyllids) into Order Hemiptera. Nearly every order has been modified, sometimes substantially, to reflect new discoveries and scientific hypotheses. Many new families have been added throughout the book, some reflecting revised classifications, but many are the result of the discovery of new groups within the United States and Canada, particularly from the New World tropics. These include the families Platystictidae (Odonata), Mackenziellidae (Collembola), Mantoididae (Mantodea), and Fauriellidae (Thysanoptera). The results of molecular analyses are beginning to substantively contribute to the development of a robust and predictive classification. Thus, the phylogeny of insects has changed drastically from the last edition due to the incorporation of molecular data. The most conspicuous of these changes, for example, is the recognition that the order Strepsiptera is most closely related to the true flies (Diptera), rather than to the Coleoptera. Since it was first published in the 1950s, this text has played an important role in understanding and preserving the diversity of the insect world. This title's long history, coupled with the authors' passion for currency and accuracy, make it once again the classic text and reference.



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#### **Editorial Review**

#### Review

1. Insects and Their Ways. 2. The Anatomy, Physiology, and Development of Insects. 3. Systematics, Nomenclature, and Identification. 4. Behavior and Ecology. 5. Phylum Arthropoda. 6. Hexapoda. 7. The Entognathous Hexapods: Protura, Collembola, Diplura. 8. The Apterygote Insects: Microcoryphia and Thysanura. 9. Order Ephemeroptera: Mayflies. 10. Order Odonata: Dragonflies and Damselflies. 11. Order Orthoptera: Grasshoppers, Crickets, and Katydids. 12. Order Phasmatodea: Walkingsticks and Leaf Insects. 13. Order Grylloblattodea: Rockcrawlers. 14. Order Mantophasmatodea. 15. Order Dermaptera: Earwigs. 16. Order Plecoptera: Stoneflies. 17. Order Embidina: Webspinners. 18. Order Zoraptera: Zorapterans, Angel Insects. 19. Order Isoptera: Termites. 20. Order Mantodea: Mantids. 21. Order Blattodea: Cockroaches. 22. Order Hemiptera: True Bugs, Cicadas, Hoppers, Psyllids, Whiteflies, Aphids, and Scale Insects. 23. Order Thysanoptera: Thrips. 24. Order Psocoptera: Psocids. 25. Order Phthiraptera: Lice. 26. Order Coleoptera: Beetles. 27. Order Neuroptera: Alderflies, Dobsonflies, Fishflies, Snakeflies, Lacewings, Antlions, and Owlflies. 28. Order Hymenoptera: Sawflies, Parasitic Wasps, Ants, Wasps, and Bees. 29. Order Trichoptera: Caddisflies. 30. Order Lepidoptera: Butterflies and Moths. 31. Order Siphonaptera: Fleas. 32. Order Mecoptera: Scorpionflies and Hangingflies. 33. Order Strepsiptera: Twisted-Winged Parasites. 34. Order Diptera: Flies. 35. Collecting, Preserving, and Studying Insects.

#### About the Author

Norman F. Johnson is a professor of biology at Ohio State University and curator of the Ohio State University insect collection. His research interests include the systematics of parasitic Hymenoptera and in particular the Proctotrupoidea. His focus to date has been on the Scelionidae, a speciose group important as biological control agents of their hosts. In 1992 he assumed the position of director of the OSU Insect Collection.

Charles A. Triplehorn is emeritus faculty at Ohio State University and his broad interests include systematics and biogeography of Coleoptera. His research is primarily on the large family Tenebrionidae, especially those of the Western Hemisphere. Since his retirement from Ohio State in 1992, he has concentrated on two major projects: a revision of the genus Eleodes and of the Neotropical Diaperini. Triplehorn is the former president of the American Entomological Society.

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