

The most complete treatment available of virus ecology across kingdoms of host species

Viruses are the most abundant organisms on the planet, occurring in every conceivable ecosystem. A growing part of the scientific community has come to view viruses as highly evolved biological entities with an organismal biology that is complex and interwoven with the biology of their hosting species. *Studies in Viral Ecology, Volume II* explains the ecology of viruses by examining their interactive dynamics with their animal hosts, including the types of transmission cycles that viruses have evolved encompassing principal and alternate hosts, vehicles, and vectoring species. Examining virology from an organismal biology approach, it focuses on the concept that viral infections represent areas of overlap in the ecologies of the involved species.

Compiled by field expert Christon Hurst and featuring internationally recognized contributors, this volume begins with background information designed to bring readers to a common base of comprehension, defining viral ecology and the basic biology of viruses. Then, viruses with animal hosting species are discussed, including:

- Coral viruses
- Viruses infecting marine molluscs
- The viral ecology of aquatic crustaceans
- Viruses of fish
- Ecology of viruses infecting ectothermic vertebrates—the impact of ranavirus infections on amphibians
- Viruses of insects
- Viruses of terrestrial mammals
- Viruses of cetaceans
- The relationship between humans, their viruses, and prions
- Ecology of avian viruses

This volume also helps readers understand how information gained from molecular techniques is used to comprehend these various aspects of virology. Additionally, this set of books contains information on the ecology of viroids and prions, which are molecularly related to and share common ecological aspects with the viruses.

Studies in Viral Ecology, Volume II is essential for advanced undergraduate and graduate-level students studying viral ecology and environmental genomics. It also serves as an authoritative reference for professionals in the fields of virology, microbial ecology, infectious diseases, and disease transmission relative to humans, animals, and plants; this includes virologists, microbiologists, physicians, veterinarians, and agriculturalists.

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