

Sexual Biology and Reproduction in Crustaceans

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Sexual Biology and Reproduction in Crustaceans covers the structural morphology of the gamete-producing primary sex organs such as the testis and ovary, the formation and maturation of gametes, their fusion during fertilization, and embryonic development leading to the release of larvae. Constituting a diverse assemblage of animals, crustaceans include shrimps, lobsters, and crabs, as well as many less familiar, but biologically important forms. They display diversity in distribution reflected in a fascinating range of reproductive strategies, patterns, and phenomena.

This work covers the variety of ways in which both male and female gametes are produced by evolving different sexual systems in crustaceans, the range of reproductive systems, and the highly diverse mechanistic modes of sex determination. It includes such topics as genetic and environmental factors in sex determination patterns, variability of mechanisms of fertilization among different species, the origin of different mating systems, and the associated mating and brooding behaviors. Additionally, it discusses the adaptive ability for different environmental conditions, with discussion of the evolutionary ecology of social and sexual systems in certain species that have shown eusocial tendencies similar to social insects. Also constituting an important part of the work is discussion of the reproductive ecology of different crustaceans inhabiting different ecological niches.

Sexual Biology and Reproduction in Crustaceans serves as a useful, authoritative reference worldwide for students and researchers in crustacean and invertebrate biology; crustacean reproduction biology; invertebrate reproductive biology and physiology; comparative reproduction and endocrinology; and for aquaculture practitioners in hatchery operations.

Key Features

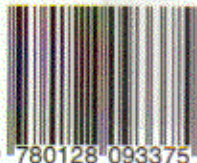
- Demonstrates the ability of crustacean species to offer new perspectives in the comparative study of invertebrate reproduction, to serve as useful model systems for other organisms, and to investigate issues related to sexual conflict, mate choice, and sperm competition
- Features review-style chapters with copious, illustrative examples and information on relevant topics, stimulating ideas to help further research
- Contains the current findings on crustacean reproductive biology and physiology, including data from the author's own research
- Discusses techniques in endocrine research to help aquaculture practitioners develop protocols in the control of reproduction



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