

INSECT METAMORPHOSIS

FROM NATURAL HISTORY TO REGULATION OF DEVELOPMENT AND EVOLUTION

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Insect Metamorphosis: From Natural History to Regulation of Development and Evolution explores the origin of insect metamorphosis, how the different types of metamorphoses evolved, and how they are regulated, delving into misconceptions and past treatments. With most of the present biodiversity on Earth composed of metamorphosing insects—approximately 1 million species currently described, with another 10–30 million still waiting to be discovered—metamorphosis is presented as one of the most successful innovations in insect evolution. This success has been largely due to the exquisitely precise mechanisms that regulate metamorphosis, such as that underlying the action of the juvenile hormone, a recently unraveled mechanism of paramount importance.

Researchers and students in insect biology, developmental biology, and general entomology will find this to be a comprehensive and updated review on insect metamorphosis, covering historical, naturalistic, biological, physiological, and molecular facets, with an emphasis on evolutionary aspects.

Key Features

- Aids researchers and students in biology, developmental biology, or entomology dealing with general development, growth, and sexual maturation
- Features current findings on the mechanisms of action of the juvenile hormone, the main doorkeeper of insect metamorphosis
- Provides applied entomologists with the latest data, especially on regulation, to better face the problems of pest control and management
- Gives general evolutionary biologists context on adult morphogenesis in its larger scope, including updated information that modifies the present conceptions on the evolution of complete metamorphosis



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