图书基本信息

书名:《生态学及群体生物发展中的VOLTERRA-HAMILTON模型VOLTERRA-HAMILTON MODELS

IN》

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内容概要

This book begins with the modeling of evolutionary constraints on morphological diversity in ecology and then extends to development and evolution. The authors have used tractable, traditional models and mathematics, and carefully linked traditional ecological equations with production and consumption. This book contains new, more powerful models and has applied them, for example, in chemical ecology of coral reef. The production space serves as an appropriate background space from which the environmentally induced curvature in the allometric relations of superorganisms such as siphonophores, polymorphic bryozoans and ants can be measured. Projective differential geometry is used to formula dynamical models of evolution by heterochrony and by symbiosis and a theory of stable and weakly chaotic production, important in ecology and in modeling the evolution of individuality is developed.

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