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Titolo	Current Trends of Insect Physiology and Population Dynamics: Modeling Insect Phenology, Demography, and Circadian Rhythms in Variable Environments
Pubbl/distr/stampa	Frontiers Media SA, 2018
Descrizione fisica	1 online resource (155 p.)
Collana	Frontiers Research Topics
Soggetti	Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The current eBook collection includes substantial scientific work in describing how insect species are responding to abiotic factors and recent climatic trends on the basis of insect physiology and population dynamics. The contributions can be broadly split into four chapters: the first chapter focuses on the function of environmental and mostly temperature driven models, to identify the seasonal emergence and population dynamics of insects, including some important pests. The second chapter provides additional examples on how such models can be used to simulate the effect of climate change on insect phenology and population dynamics. The third chapter focuses on describing the effects of nutrition, gene expression and phototaxis in relation to insect demography, growth and development, whilst the fourth chapter provides a short description on the functioning of circadian systems as well as on the evolutionary dynamics of circadian clocks.