Adaptive dynamics of infectious diseases : in pursuit of virulence management /

Dieckmann, Ulf (1966-),
editor

Monografía

Emerging diseases pose a continual threat to public health. Short multiplication time and high variability allow pathogens to evolve very rapidly. It is therefore imperative to incorporate evolutionary considerations into longer-term health management plans. The evolution of infectious disease is also an ideal test-bed for theories of evolutionary dynamics. This book combines both threads, taking stock of our current knowledge on the evolutionary ecology of infectious diseases, and setting out the goals for the management of virulent pathogens. Throughout the book, the fundamental concepts and techniques underlying the modelling are carefully explained in a unique series of integrated boxes. The book ends with an overview of novel options for virulence management in humans, farm animals, plants, wildlife populations and biological control schemes. Written for graduate students and researchers, Adaptive Dynamics of Infectious Diseases provides an integrated treatment of mathematical evolutionary modelling and disease management

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