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Nota di contenuto	Chemical mediation of host-plant specialization : the papilionid paradigm / May R. Berenbaum and Paul P. Feeny -- Evolution of preference and performance relationships / Timothy P. Craig and Joanne K. Itami -- Evolutionary ecology of polyphagy / Michael S. Singer -- Phenotypic plasticity / Kailen A. Mooney and Anurag A. Agrawal -- Selection and genetic architecture of plant resistance / Mary Ellen Czesak, Robert S. Fritz, and Cris Hochwender -- Introgression and parapatric speciation in a hybrid zone / J. Mark Scriber, Gabe J. Ording, and Rodrigo J. Mercader -- Host shifts, the evolution of communication, and speciation in the Enchenopa binotata species complex of treehoppers / Reginald B. Cocroft, Rafael L. Rodriguez, and Randy E. Hunt -- Host fruit-odor discrimination and sympatric host-race formation / Jeffrey L. Feder and Andrew A. Forbes -- Comparative analyses of ecological speciation / Daniel J. Funk and Patrik Nosil -- Sympatric speciation : norm or exception? / Douglas J. Futuyma -- Host-plant use, diversification, and coevolution : insights from remote Oceanic islands / George K. Roderick and Diana M. Percy -- Selection

by pollinators and herbivores on attraction and defense / Lynn S. Adler -- Adaptive radiation : phylogenetic constraints and ecological consequences / Peter W. Price -- Sequential radiation through host-race formation : herbivore diversity leads to diversity in natural enemies / Warren G. Abrahamson and Catherine P. Blair -- The oscillation hypothesis of host-plant range and speciation / Niklas Janz and Soren Nylin -- Coevolution, cryptic speciation, and the persistence of interactions / John N. Thompson -- Cophylogeny of figs, pollinators, gallers, and parasitoids / Summer I. Silvieus, Wendy L. Clement, and George D. Weiblen -- The phylogenetic dimension of insect-plant interactions : a review of recent evidence / Isaac S. Winkler and Charles Mitter -- Evolution of insect resistance to transgenic plants / Bruce E. Tabashnik and Yves Carriere -- Exotic plants and enemy resistance / John L. Maron and Montserrat Vila -- Life-history evolution in native and introduced populations / Robert F. Denno ... [et al.] -- Rapid natural and anthropogenic diet evolution : three examples from checkerspot butterflies / Michael C. Singer ... [et al.] -- Conservation of coevolved insect herbivores and plants / Carol L. Boggs and Paul R. Ehrlich.

Sommario/riassunto

The intimate associations between plants and the insects that eat them have helped define and shape both groups for millions of years. This pioneering volume is a comprehensive, up-to-date treatment of the evolutionary biology of herbivorous insects, including their relationships with host plants and natural enemies. Chapters focus on the dynamic relationships between insects and plants from the standpoint of evolutionary change at different levels of biological organization-individuals, populations, species, and clades. Written by prominent evolutionary biologists, entomologists, and ecologists, the chapters are organized into three sections: Evolution of Populations and Species; Co- and Macroevolutionary Radiation; and Evolutionary Aspects of Pests, Invasive Species, and the Environment. The volume is unified by the idea that understanding the ecological framework of the interactions between herbivorous insects and their host plants is fundamental to understanding their evolution.