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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Respiration and Circulatory System -- Locomotion and Dispersal -- Immune system and pathogens -- Chemical Communication and Reproduction -- Venom -- Silk -- Colouration -- Nutrition -- Ecotoxicology -- Applications.
Sommario/riassunto	With over 43,000 species, spiders are the largest predacious arthropod group. They have developed key characteristics such as multi-purpose silk types, venoms consisting of hundreds of components, locomotion driven by muscles and hydraulic pressure, a highly evolved key-lock mechanism between the complex genital structures, and many more unique features. After 300 million years of evolutionary refinement, spiders are present in all land habitats and represent one of the most successful groups of terrestrial organisms. Ecophysiology combines

functional and evolutionary aspects of morphology, physiology, biochemistry and molecular biology with ecology. Cutting-edge science in spiders focuses on the circulatory and respiratory system, locomotion and dispersal abilities, the immune system, endosymbionts and pathogens, chemical communication, gland secretions, venom components, silk structure, structure and perception of colours as well as nutritional requirements. Spiders are valuable indicator species in agroecosystems and for conservation biology. Modern transfer and application technologies research spiders and their products with respect to their value for biomimetics, material sciences, and the agrochemical and pharmaceutical industries.