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Titolo	Evolution of Venomous Animals and Their Toxins [[electronic resource] /] / edited by P. Gopalakrishnakone, Anita Malhotra
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ISBN	94-007-6727-7
Descrizione fisica	1 online resource (Approx. 550 p. 30 illus., 15 illus. in color.)
Collana	Toxinology, , 2542-761X
Disciplina	610
Soggetti	Medicine Pharmacology Pharmaceutical technology Life sciences Biochemistry Animal physiology Biomedicine, general Pharmacology/Toxicology Pharmaceutical Sciences/Technology Life Sciences, general Animal Biochemistry Animal Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	A Critique of the Toxicoferan Hypothesis -- Evolution of Resistance to Toxins in Prey -- Evolution of Separate Predation- and Defence-Evoked Venoms in Carnivorous Cone Snails -- Evolutionary Context of Venom in Animals -- Functional and Genetic Diversity of Toxins in Sea Anemones -- Independent Origins of Scorpion Toxins Affecting Potassium and Sodium Channels -- Mutation, Duplication, and More in the Evolution of Venomous Animals and Their Toxins -- Parasitoid Wasps and Their Venoms -- The Strategic Use of Venom by Spiders -- Toxicity in Cephalopods -- Venom Use in Mammals: Evolutionary Aspects -- Venom as a Component of External Immune Defense in Hymenoptera -- Phylogeny of Annelida -- Systematics and Evolution of

	the Conoidea -- Systematics of Cephalopods -- Systematics of Siphonophores -- Evolution of the Snake Venom Delivery System -- Evolution, Morphology and Development of the Centipede Venom System -- Evolutionary History of Venom Glands in the Siluriformes.
Sommario/riassunto	In recent years, the field of Toxinology has expanded substantially. On the one hand it studies venomous animals, plants and micro organisms in detail to understand their mode of action on targets. While on the other, it explores the biochemical composition, genomics and proteomics of toxins and venoms to understand their three interaction with life forms (especially humans), development of antidotes and exploring their pharmacological potential. Therefore, Toxinology has deep linkages with biochemistry, molecular biology, anatomy and pharmacology. In addition, there is a fast developing applied subfield, clinical toxinology, which deals with understanding and managing medical effects of toxins on human body. Given the huge impact of toxin-based deaths globally, and the potential of venom in generation of drugs for so-far incurable diseases (for example, Diabetes, Chronic Pain), the continued research and growth of the field is imminent. This has led to the growth of research in the area and the consequent sc.