

1. Record Nr.	UNINA9910141610703321
Titolo	Endocrine disrupters [[electronic resource]] : hazard testing and assessment methods / / edited by Peter Matthiessen
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2013
ISBN	1-118-35596-2 1-299-24236-7 1-118-35594-6
Descrizione fisica	1 online resource (412 p.)
Classificazione	SCI013060
Altri autori (Persone)	MatthiessenPeter
Disciplina	615.3/6
Soggetti	Endocrine disrupting chemicals - Toxicity testing Endocrine disrupting chemicals - Environmental aspects Endocrine toxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	ENDOCRINE DISRUPTERS; CONTENTS; PREFACE; CONTRIBUTORS; CHAPTER 1 Ecotoxicity Test Methods for Endocrine-Disrupting Chemicals : AN INTRODUCTION; 1.1 BACKGROUND; 1.2 REGULATORY CONCERNS; 1.3 INVERTEBRATES; 1.4 VERTEBRATES; 1.5 TESTING SCHEMES FOR EDCs; REFERENCE; CHAPTER 2 Endocrine Disruption in Wildlife : BACKGROUND, EFFECTS, AND IMPLICATIONS; 2.1 BACKGROUND TO ENDOCRINE DISRUPTION; 2.1.1 Introduction; 2.1.2 Brief Account of the History of Endocrine Disruption; 2.1.3 What Are Endocrine-Disrupting Chemicals?; 2.1.4 Vertebrate Endocrine System; 2.1.5 Invertebrate Endocrine System 2.1.6 Mechanisms of Endocrine Disruption2.1.7 Endocrine Disrupters in the Environment; 2.2 EFFECTS OF EDCs ON WILDLIFE; 2.2.1 Mammals; 2.2.2 Birds; 2.2.3 Reptiles and Amphibians; 2.2.4 Fish; 2.2.5 Invertebrates; 2.3 WEIGHT OF EVIDENCE AND ECOLOGICAL SIGNIFICANCE OF ED EFFECTS; 2.4 IMPLICATIONS FOR EFFECT ASSESSMENT AND TOXICITY TESTING; 2.5 NEED FOR MORE FIELD STUDIES AND AN INTEGRATED APPROACH; 2.6 CONCLUDING POINTS; REFERENCES; CHAPTER 3 The Regulatory Need for Tests to Detect EDCs and Assess Their Hazards to Wildlife

3.1 EMERGING CONCERNS AND POLICY RESPONSES: FOCUSING ON EDCs AS A LARGE PSEUDO-UNIFORM GROUP OF SUBSTANCES3.1.1 Regulatory Action Among Public Concern, Policy, Stakeholder Interests, and Scientific Complexity: The Starting Point; 3.1.2 Policy Responses to the Initial General Concern: General Strategies; 3.2 GENERAL APPROACHES IN SUBSTANCE-RELATED REGULATORY FRAMEWORKS (EU); 3.2.1 Highlighted Role of ED Properties in General Parts of Regulatory Frameworks; 3.2.2 REACH: Authorization in Cases of "Very High Concern"
3.2.3 Plant Protection Products: Major Change from Directive 91/414 to New Regulation 1107/20093.2.4 Biocides; 3.2.5 Pharmaceuticals; 3.2.6 Other Regulatory Frameworks Not Primarily Related to Substances; 3.3 HOW TO MAKE EDC DEFINITIONS OPERATIONAL FOR SUBSTANCE-RELATED REGULATORY WORK; 3.4 FUTURE PERSPECTIVES; 3.5 CONCLUSIONS; REFERENCES; CHAPTER 4 Techniques for Measuring Endocrine Disruption in Insects; 4.1 INTRODUCTION; 4.1.1 Insects; 4.1.2 Insect Hormones; 4.1.3 Endocrine Disruption and Insects; 4.1.4 Development of Insecticides Targeting the Endocrine System; 4.2 METHODS
4.2.1 Mechanistic Assays4.2.2 Apical Assays; 4.3 DISCUSSION; 4.3.1 Mechanism and Effect; 4.3.2 Exposure Considerations; 4.4 CONCLUSION; 4.5 ACKNOWLEDGMENTS; REFERENCES; CHAPTER 5 Crustaceans; 5.1 INTRODUCTION; 5.2 BACKGROUND TO CRUSTACEAN ENDOCRINOLOGY; 5.2.1 General; 5.2.2 Overview of the Crustacean Endocrine System; 5.3 STATE OF THE ART: WHAT DO WE KNOW ABOUT ENDOCRINE DISRUPTION IN CRUSTACEANS?; 5.3.1 General; 5.3.2 Daphnia sp.; 5.3.3 Barnacles; 5.3.4 Copepods; 5.3.5 Amphipods; 5.3.6 Mysids; 5.3.7 Other Studies Using Larger Crustaceans
5.4 AVAILABLE SUBCHRONIC/CHRONIC STANDARD TEST PROTOCOLS

Sommario/riassunto

"This book describes methodology and applications for endocrine disrupter toxicity testing, an issue of considerable urgency, because of international regulatory authorities currently considering such testing schemes. The coverage examines major animal groups for sensitivity to endocrine disrupting chemicals (EDCs), identifying endpoints and procedures for testing guidelines. Three EDC screening methods (two using fish and one using amphibians) are examined in detail for their efficacy and applicability. Edited by, and with contributions from, a leading participant in regulatory efforts, the book outlines methods that combine sensitivity, efficiency, statistical power, acceptable cost, and minimum ethical concern"--
