

ECOPHYSIOLOGY AND CONSERVATION: THE CONTRIBUTION OF ENDOCRINOLOGY AND IMMUNOLOGY

January 6th and 7th, 2004
New Orleans, Louisiana
New Orleans Marriott Hotel
La Galerie 3

Organizers:

Shea Tuberty (Appalachian State University) *Co-Chair*
Robert Stevenson (University of Massachusetts at Boston) *Co-Chair*
Peter deFur (Virginia Commonwealth University; Environmental Stewardship Concepts).
John Wingfield (University of Washington)

Sponsors:

Society of Integrative and Comparative Biology Divisions of Comparative Endocrinology, Invertebrate Zoology, and Developmental and Cell Biology
The National Science Foundation (Grant #034822)
The U.S. Environmental Protection Agency
The Crustacean Society.



The Crustacean Society

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EcoPhysiology and Conservation: The Contribution of Endocrinology and Immunology January 6th and 7th, 2004

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Organizers: Robert Stevenson (UMass Boston), Shea Tuberty (Appalachian State University), John Wingfield (University of Washington) and Peter deFur (Virginia Commonwealth University; Environmental Stewardship Concepts).

Symposium Abstracts

Day 1	Session I	Conservation Physiology: Overviews in Vertebrate Endocrinology and Immunology
Tuesday Jan 6th	La Galerie 3	Chair: Rob Stevenson
12:30	Robert Stevenson	Welcome and Symposium Introduction.
12:40	Susumu Ishii	Endocrine Approaches to Conservation Biology using Classic and Modern Techniques.
1:00	Cynthia Carey	How Physiological Methods and Concepts Can Be Used in Conservation.
1:20	John Wingfield	Field Endocrinology and Conservation Biology.
1:40	Sam Wasser	Integrating Physiological and Genetic Approaches for Landscape Conservation.
2:00	Mickie Powell	Reproductive Hormone Concentrations in the Atlantic Hagfish <i>Myxine glutinosa</i> .
2:20	Louise Rollins-Smith	Antimicrobial Peptide Defenses in Amphibian Skin.
2:40	Tyrone Hayes	Conservation Physiology: The Amphibian Response to Pesticide Contamination
3:00	Cathy Propper	Non-conventional Measures of Endocrine Disruption: From Orphan Nuclear Receptors to Pheromones.
3:20	Michael Baker	Xenobiotics and the Evolution of Multicellular Animals.
3:40	Lou Guillette	Aquatic Species in Ecosystems at Risk: Genomic Approaches for Assessing Normal and Abnormal Endocrine Responses.
3:00-5:30	Poster Session	
Day 2	Session II	Conservation Physiology: Invertebrate Endocrine Disruptors I
Wednesday Jan 7th	La Galerie 3	Chair: Shea Tuberty
7:50	Shea Tuberty	Introduction
8:00	Milton Fingerman	A retrospective look at the development of ecotoxicology from Rachel Carson to the present.
8:20	Enmin Zou	Impact of xenobiotics on crustacean molting.

8:40	Geoff Scott	Agricultural and Urban NPS Runoff Effects on Grass Shrimp Population Life History Dynamics.
9:00	Chuck McKenney	The Influence of Insect JHA's on Metamorphosis and Reproduction in Estuarine Crustaceans.
9:20	Shea Tuberty	Ecdysone responses of two estuarine crustaceans exposed through complete larval development to juvenile hormone agonist insecticides.
9:40	Sandy Raimondo	Population-level response of the mysid, <i>Americamysis bahia</i> , to varying thiobencarb concentrations based on age-structured population models.

Day 2 Session III Conservation Physiology: Invertebrate Endocrine Disruptors II

Wednesday
Jan 7th **La Galerie 3** **Chair: Peter deFur**

10:20	Peter DeFur	Importance of invertebrate models for EDC's in the field.
10:40	Michael Horst	Acute Effects of Methoprene on Survival, Cuticular Morphogenesis and Shell Biosynthesis in the American Lobster, <i>Homarus americanus</i> .
11:00	Tom Wilson	Response of <i>Drosophila melanogaster</i> to insect growth regulator insecticides.
11:20	Koji Arizono	The occurrence of intersex in Japanese freshwater crab.
11:40	Matthew Sanders	Vitellin-like proteins in larval Crustacea: potential biomarkers of xeno-oestrogen exposure.
12:00	Ernie Chang	The Hormones Regulating Crustacean Growth, Metabolism, and Reproduction: Multiple Targets for Endocrine Disruption.

Day 2 Session IV Conservation Physiology: Invertebrate Endocrine Disruptors III

Wednesday
Jan 7th **La Galerie 3** **Chair: Shea Tuberty**

1:00	Ian Callard	<i>Caenorhabditis elegans</i> and <i>Elliptio complanata</i> : steroid responses and potential steroid response pathways.
1:20	Eva Oberdorster	Expression of the peptide hormone APGWamide in imposex and normal snails: A neurotoxicity mechanism for imposex induction.
1:40	Gerald LeBlanc	Testosterone-Fatty Acid Esterification: A Unique Target for the Endocrine Toxicity of Tributyltin to Gastropods.
2:00	Kevin Krajiniak	A survey of invertebrate FMRFamide-Related Peptides: Annelid Endocrine Disruptors.
2:20	Carsten Muller	Pheromonal communication in Nereids and the likely intervention by petroleum derived pollutants.
2:40	Ann Tarrant	Effects of Estrogens on Reef-building Corals: Comparisons with Vertebrates.
3:00	Jennifer Fox	Non-traditional target of endocrine disrupting chemicals: the roots of hormone signaling.
	Sherry Tamone	Effect of Eyestalk ablation on circulating levels of ecdysteroids in the snow crab, <i>Chionoecetes opilio</i>

Symposium Summary
Presenter Contact Information