PUBLICATIONS BY PEEIR CONSORTIUM TO DATE (to March 2009)

PEEIR CONCEPT & IMPLEMENTATION

Anderson, SL, GN Cherr, SG Morgan, CA Vines, RM Higashi, WA Bennett, WL Rose, A Brooks, & RM Nisbet

*Integrating contaminant responses in indicator saltmarsh species.*

FISH

Rose, WL, JA Hobbs, RM Nisbet, PG Green, GN Cherr, & SL Anderson

*Validation of otolith growth rate analysis using cadmium-exposed larval topsmelt (Atherinops affinis).*

Rose, WL, RM Nisbet, PG Green, S Norris, TW-M Fan, EH Smith, GN Cherr, & SL Anderson

*Using an integrated approach to link biomarker responses and physiological stress to growth impairment of cadmium-exposed larval topsmelt.*
*Aquatic Toxicology* **80** (2005): 298-308.

Rose, WL

*Using an integrated approach to evaluate apoptosis as a biomarker response in estuarine fishes.*

Bano, N, A Smith, WA Bennett, L Vasquez, & JT Hollibaugh

*Dominance of mycoplasma in the guts of the long-jawed mudsucker, Gillichthys miabilis, from five California salt marshes.*

CRABS

Morgan, SG, SA Spilseth, HM Page, AJ Brooks, & ED Grosholz

*Spatial and temporal movement of the lined shore crab (Pachygrapsus crassipes) in salt marshes and its utility as an indicator of habitat condition.*

Spilseth, SA & SG Morgan

*Evaluation of internal elastomer tags for small, mature crabs.*

PLANTS

Fan, TW-M, AN Lane, & RM Higashi

*An electrophoretic profiling method for thio-rich phytochelatins and metallothioneins.*

Li, L, SL Ustin, & MC Lay

*Mapping coastal salt marsh species with multiple endmember spectral mixture analysis*
(MEMSA) of hyperspectral AVIRIS imagery.  

Jensen, Jenny  
**Mercury uptake by a dominant plant species in San Francisco Bay tidal marshes.**  

Mulitsch, Melinda  
**Remote sensing of California estuaries: monitoring climate change and invasive species.**  

Norris, Sarah  
**Biomarkers of cadmium exposure in the wetland plant *Spartina foliosa*: a laboratory experiment with field validation.**  

Rosso, PH, JC Pushnik, MC Lay, & SL Ustin  
**Reflectance properties and physiological responses of *Salicornia virginica* to heavy metal and petroleum contamination.**  
*Environmental Pollution* 137 (2005): 241-252.

Rosso, PH, SL Ustin & AM Hastings  
**Use of LIDAR to study changes associated with *Spartina* invasion in San Francisco Bay marshes.**  

Rosso, PH, SL Ustin, & AM Hastings  
**Mapping marshland vegetation of San Francisco Bay, California, using hyperspectral data.**  

Ustin, SL, MC Lay, & L Li  
**Remote sensing of wetland conditions in West Coast salt marshes.**  

Williams, SL, A Carranza, J Kunzelman, S Datta, & K Kuivila  
**Effects of the Herbicide Diuron on Cordgrass (*Spartina foliosa*) Reflectance and Photosynthetic Parameters.**  

**COMMUNITIES & ECOSYSTEMS**

Brooks, Daniel  
**Microbial community composition and diversity changes in response to storms on the Santa Ana River, California.**  

Cao, Yiping  
**Microbial ecological investigation in salt marshes: impacts of metal and nitrate pollution.**  
Cao, Y, GN Cherr, AL Cordova-Kreylos, TW-M Fan, RM Higashi, MG LaMontagne, KM Scow, J Yuan, & PA Holden
**Relationships between sediment microbial communities and pollutants in two California salt marshes.**

Cordova-Kreylos, AL, Y Cao, PG Green, HM Hwang, JM Kuivila, MG Lamontagen, LC Van de Werhorst, PA Holden, & KM Scow
**Diversity, composition, and geographical distribution of microbial communities in California salt marsh sediments.**

Cordova-Kreylos, Ana Lucia
**Effects of pollutant and antibiotic gradients on salt marsh sediment microbial communities.**

Hechinger, RF & KD Lafferty
**Host diversity begets parasite diversity: bird final hosts and trematodes in snail-intermediate hosts.**

Huspeni, TC & KD Lafferty
**Using larval trematodes that parasitize snails to evaluate a salt-marsh restoration project.**

Huspeni, TC, RF Hechinger, & KD Lafferty
**Trematode parasites as estuarine indicators: opportunities, applications & comparisons with conventional community approaches.**

Lafferty, KD & RD Holt
**How should environmental stress affect the population dynamics of disease?**

Lafferty, KL & EJ Dunham
**Trematodes in snails near raccoon latrines suggest a final host role for this mammal in California salt marshes.**

Lafferty, KD
**Is disease increasing or decreasing, and does it impact or maintain biodiversity?**

Lafferty, KD, RF Hechinger, J Lorda, & L Soler
**Trematodes associated with mangrove habitat in Puerto Rican salt marshes.**

Lafferty, KD, RF Hechinger, JC Shaw, KL Whitney & AM Kuris
**Food webs and parasites in a salt marsh ecosystem.**
LaMontagne, MG & PA Holden

LaMontagne, MG, I Leifer, S Bergmann, L Van de Werfhort, & PA Holden
Assessment of the effect of marine oil seeps on sediment bacterial diversity and community structure by PCR-TRFLP.

Magalhaes, C, N Bano, WJ Wiebe, JT Hollibaugh & AA Bordalo
Composition and activity of beta-Proteobacteria ammonia-oxidizing communities associated with intertidal rocky biofilms and sediments of the Douro River estuary, Portugal.

Ward, JR & KD Lafferty
The elusive baseline of marine disease: are diseases in ocean ecosystems increasing?

**STRESSORS**

Fan, T W-M, AL Lane, E Chekmenev, RJ Wittebort, & RM Higashi
Synthesis and physico-chemical properties of peptides in soil humic substances.

Field, KG, EC Chern, LK Dick, J Fuhrman, J Griffith, PA Holden, MG LaMontagne, J Le, B Olson, & MT Simonich
A comparative study of culture-independent, library-independent genotypic methods of fecal source tracking.

Fleming, EJ, EE Mack, PG Green, & DC Nelson
Mercury-methylation from unexpected sources: molybdate-inhibited freshwater sediments and an iron-reducing bacterium.

Hwang, HM, PG Green, & T Young
Tidal salt marsh sediment in California, USA: (1) Occurrence and sources of organic contaminants.

Hwang, HM, PG Green, RM Higashi & T Young
Tidal salt marsh sediment in California, USA: (2) Occurrence and anthropogenic input of trace metals.

Müllisch, MJ, SL Ustin, & L Li
Effects of global climate change on San Francisco Bay estuary communities.
Pillai, MC, CA Vines, AH Wikramanayake, & GN Cherr
Polycyclic aromatic hydrocarbons disrupt axial development in sea urchin embryos through a β-catenin dependent pathway.

Roepke, Troy
Estradiol and endocrine disrupting compound effects on echinoderm reproduction and development: developmental sensitivities and defense mechanisms.

Steets, BM & PA Holden
A mechanistic model of runoff-associated fecal coliform fate and transport through a coastal lagoon.

INTERPRETATION & POLICY

Cherr, GN
Can we develop and utilize indicators of ecological integrity to successfully manage ecosystems?

Fujiwara, M, BE Kendall & RM Nisbet
Growth autocorrelation and animal size variation.

Fujiwara, M., BE Kendall, RM Nisbet, & WA Bennett
Analysis of size trajectory data using an energetic-based growth model in contaminated environments.

Gurney, WSC, & RM Nisbet
Resource allocation, hyperphagia, and compensatory growth.

Nisbet, RM, E McCauley, WSC Gurney, WW Murdoch, & SN Wood
Formulating and testing a partially specified dynamic energy budget model.

Pawley, AL
Tidal marsh indicators: A progress report with emphasis on the San Francisco Estuary.
Ecohealth. In press.

OTHER PEEIR ACCOMPLISHMENTS

Kellner, Julie
Spatial dynamics of marine reserves: the importance of fish movement and harvester redistribution.
Roepke, TA, MJ Snyder & GN Cherr
Estradiol and endocrine disrupting compounds adversely affect development of sea urchin embryos at environmentally relevant concentrations. 
_Aquatic Toxicology_ 71 (2005): 155-173.

Rose, WL & SL Anderson
**Genetic Ecotoxicology.**

Whitehead, A, K Kuivila, J Orland, B Wilson, & SL Anderson
**Genotoxic effects of agricultural runoff in a California native fish.**
_Environmental Toxicology_ 23 (2004): 2868-2877.