An Update on the UC Santa Barbara Workgroups

(Doesn't he mean NCEAS groups?)

What Is The Effort About?

- Bring new thinking and tools to bear on the POD issues
- Started in 2007 at National Center for Ecological Analysis and Synthesis
  - Erica Fleishman founding director of the Conservation and Resource Management program at NCEAS

What Happened to the NCEAS Workgroups?

- Erica Fleishman changed affiliation to Bren School of Environmental Science and Management
  - Only technical support from NCEAS
- Level of staff support unchanged with switch to UCSB
- Future of NCEAS unclear
  - Current NSF funding ends 8/11

What is NCEAS work?

- Usually work done under NCEAS grant
  - POD process different
- No review process
- No requirement of NCEAS staff involvement
- NCEAS support with our model:
  - Use of facilities**
  - Data support**
  - Staff support

How Do the Workgroups Work?

- Volunteers (and assigned agency folks) working on interesting problems
- Participants choose the topics (with guidance for POD)
- Payoff is publications (NO SALARY!)

Project Structure

- Steering Committee
  - General guidance and oversight
- Working group on system dynamics
- Working group on contaminants
  - Subgroup on pyrethroids
- Working group on estuary-ocean interactions

Systems Dynamics Working Group

- First meeting October 2007
- State and federal agencies, universities in California and Australia
- Expertise includes ecology, population biology, conservation, modeling

System Dynamics Working Group

Thomson, J.R., W.J. Kimmerer, L.R. Brown, K.B. Newman, R. Mac Nally, W.A. Bennett, F. Feyrer, and E. Fleishman. In press. Bayesian change-point analysis of abundance trends for pelagic fishes in the upper San Francisco Estuary. Ecological Applications.

Mac Nally, R., J.R. Thomson, W.J. Kimmerer, F. Feyrer, K.B. Newman, A. Sih, W.A. Bennett, L.R. Brown, E. Fleishman, S.D. Culberson, and G. Castillo. In press. An analysis of pelagic species decline in the upper San Francisco Estuary using multivariate autoregressive modeling (MAR). Ecological Applications.

System Dynamics Working Group

- Ecopath with Ecosim (EwE)
  - Initial model done (1982)
  - Simulations started
  - Manuscript planned for 2010
  - TALK BY HOWARD TOWNSEND THIS SESSION

Systems Dynamics Working Group

- Presentations
  - CALFED Science Conference, 2008
  - Ecological Society of Australia, Sydney, 2008
  - IEP workshop "Modeling the Pelagic Organism Decline" 2009 (5 presentations + 2nd day)
  - IEP workshop 2010 EwE

Contaminants Working Group

- First meeting January 2008
- State and federal agencies, universities in California, Illinois, Wyoming, Maryland, Virginia
- Expertise includes but not limited to pesticides, wastewater, histopathology, quantitative methods, population biology, ecology, conservation

Contaminants Working Group

Stoms, D.M. In Press. Change in urban land use and associated attributes in the Upper San Francisco Estuary, 1990-2006. San Francisco Estuary and Watershed Science

In Review

Scholz, N., et al. Pesticides and the decline of pelagic fishes in western North America's largest estuarine ecosystem. Conservation Letters.

Brooks, M., et al. Potential contributions of contaminants to the decline of pelagic fishes in the San Francisco Estuary, California, U.S.A. Frontiers in Ecology and the Environment.

Contaminants Working Group

In Preparation

Schlenk, D., et al. Temporal site-specific risk assessment of pyrethroid insecticides in the Eastern San Francisco Estuary.

Topic of talk yesterday

Nat Scholtz talk canceled

Ocean-Estuary Working Group

- First meeting December 2008
- State and federal agencies, universities in California
- Expertise includes but not limited to oceanography, physical and biological modeling, quantitative methods, ecology, conservation

Ocean-Estuary Working Group

- Three products planned
  - Exploring the correlation between the North Pacific Gyre Oscillation and interannual variability of demersal fish, crabs, and shrimp in central San Francisco Bay (NEXT TALK BY KATHY HIEB)
  - Ocean effects on the Sacramento-San Joaquin Estuary (started by J. Jund)
  - Connections between the benthic community and processes in the Pacific Ocean and San Francisco Bay (J. Thompson)

New Tasks

- Regime shift group
  - Core from systems dynamics
  - Expertise from other systems/regions
- Communications
  - Translate science for the public
  - Explain uncertainty