Ecosystem Economics and Social Science: Strengths, Challenges and Opportunities
Strengths

• Integrated in Ecosystem Program which provides interdisciplinary research-oriented home focused on ecosystem-based fishery management

• The California Current IEA provides an organizational structure, some funding, and a means of introducing research into the management process

• Broad expertise in economics and social science and extensive experience with fishery management

• Extensive collaborations inside and outside NWFSC
The California Current (CC) as Socio-Ecological System (SES)
CCIEA Human Dimensions Projects/Products

- Currently part of IEA
  - Community Social Vulnerability Indices (CSVI)
  - Diversification of Fishing Vessels and Ports
  - Personal use of seafood
  - Social Wellbeing Indicators for Marine Management (SWIMM) Working Group

- Emerging IEA Projects/Products
  - Community Recreational Dependence and Engagement Indices
  - Coastal community vulnerability to ocean acidification risk analysis
  - Ocean recreational expenditures survey
  - The Dynamics of Adaptation to Climate-Driven Variability in California Current Fisheries And Fishing Communities
Challenges

• Lack of clear legislative mandate for EBFM
• NOAA fisheries influences management of only a small part of what drives outcomes for the marine ecosystem and coastal communities
• Multiple management jurisdictions within the California Current ecosystem (fish and human communities cross these boundaries)
• Priorities, resources, and constraints differ across agencies with management responsibilities (e.g. NMFS, states, tribes, BPA, Corps of Engineers, etc.)
Challenges

• The ecosystem is highly complex and dynamic
• Predictive ability beyond a fairly short time frame is low both for natural and human components of the ecosystem – this is probably unresolvable
• Need to find management strategies robust to uncertainty that consider and balance ecological and social risks
• Communicating risk and uncertainty and determining and applying public preferences for balancing risks is a key challenge
Opportunities and Strategies

• A highly variable ecosystem exhibiting obvious and important changes motivates need for EBFM
• Growing Pacific Council interest in Ecosystem Science to support management
• Recognition that people and communities must be considered part of the ecosystem
• Increasing knowledge and data that enable integration of physical, ecological and social science
Opportunities and Strategies

• Work on finding management strategies robust to uncertainty that consider and balance ecological and social risks
• Explore strategies for EBFM that specify outcomes but allow fishers flexibility in how to achieve them
• Identify and communicate regulatory strategies and institutional design that enable adaptation
• Increase engagement with managers and stakeholders
• Capitalize on Council’s growing interest in ecosystem information to support decision making
• Focus on medium term and models of intermediate complexity
• Collaborate to leverage resources and overcome jurisdictional stovepiping