



**2nd Annual Latin American Fisheries Fellowship Workshop:
“Emerging Fisheries Research & Management Tools for Latin America”
January 15 – January 21 in La Paz, Baja California Sur, Mexico**

Thursday January 16, 2014 – Data-Poor Stock Assessment

7:45 am – Shuttle from Hotel La Perla leaves for Hotel Costa Baja

8:30 am – Welcome & Introductions (Dr. Steve Gaines & Dr. Chris Costello)

9:00 am – Status of Global Fisheries (Dr. Steve Gaines)

9:30 am – Status of Latin American/Mexican Fisheries (Dr. Chris Costello)

10:00 am – Break

10:30 am – Data-poor Assessment: Motivation and overview of data-poor methods, applications, limitations, emerging techniques (Dan Ovando)

11:30 am – Applying Data-poor Methods: The Environmental Defense Fund’s 6 step Adaptive Framework (Dr. Kendra Karr)

12:00 pm – Lunch

1:00 pm – Concurrent breakout sessions:
PSA approach (Dr. Kendra Karr)
Length-based methods (Sarah Valencia)

3:00 pm – Break

3:45 pm – EDF Decision Matrix (Dr. Karr & Sarah Valencia)

4:15 pm – Adaptive management (Dr. Karr)

4:45 pm – Discussion & wrap-up

5 pm – Shuttle leaves for Hotel La Perla

7:00 pm – Welcome reception at Mangle



Friday January 17, 2014 – Financially Motivating Large-Scale Fisheries Reform

7:45 am – Shuttle from hotel leaves for El Mangle

8:00 am – Breakfast at El Mangle

8:30 am – “Reduction of Environmental Impact from Tropical Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management” (Dr. Petri Suuronen)

FAO’s Petri Suuronen will give an overview the key results of FAO’s Southeast Asia trawl management project (REBYC-II CTI) and introduce the multi-year initiative beginning in Latin American & the Caribbean (REBYC-II LAC). After, participants will work in groups on assigned discussion questions.

10:30 am – Break

10:45 am – Breakout group presentations & discussion

11:45 am – “Fisheries reforms: The recovery gap and how to fund it” (Dr. Ragnar Arnason)

12:30 pm – Lunch

2:00 pm – “Addressing Ecosystem-Level Impacts of Fisheries Bycatch on Marine Megafauna: Biodiversity Conservation through Mitigation, Policy, Economic Instruments, and Technolgical Change” (Dr. Dale Squires)

2:45 pm – “Aligning Ocean Health and Human Well-being: The Role of The World Bank Group” (Dr. Jim Anderson)

3:30 pm – Break

4:00 pm – Panel Discussion: Bridging the recovery gap

5 pm – Shuttle leaves to Hotel La Perla



Saturday January 18, 2014 – Science & Management in the Field

7:45 am – Shuttle from Hotel La Perla leaves for El Mangle

8:00 am – Breakfast at El Mangle

8:30 am – Whale Shark field trip (optional – bring snorkel gear if you want to get in the water)

12:30 pm – Lunch

2 pm – Panel Discussion: “*Vaquita* conservation and fisheries management in the upper Gulf of California”. Experts will summarize the efforts to conserve the *vaquita marina* (*Phocoena sinus*), the most endangered marine mammal in the world; and the recent change in Mexico’s national fisheries law mandating a switch in fishing gear specifically to protect the *vaquita*. Participants will then discuss in groups the implications of the recent change.

4:00 pm – Breakout group presentations & discussion

5 pm – Shuttle leaves for Hotel La Perla



Sunday January 19, 2014 – **Integrating Aquaculture into Fisheries Management**

8:45 am – Shuttle from hotel leaves for El Mangle

9:00 am – Breakfast at El Mangle

9:45 am – “Food security, Fisheries & Aquaculture” (Dr. Steve Gaines)

10:30 am – “Restoring Depleted Fisheries with Ecological Tools” (Dr. Hunter Lenihan)

11:15 am – Break

11:45 am – Panel Discussion: Future of aquaculture and fisheries

12:30 pm – Lunch

2:30 pm – Small-scale aquaculture case studies: Ola Azul & Catarina Scallop

2:45 pm – Breakout groups: Ola Azul and Bren master’s students will present their proposed approaches to sustainable small-scale aquaculture. In groups, participants will identify opportunities and challenges relating to the connection between aquaculture and wild fisheries, site selection, and scaling up aquaculture.

4:30 pm – Breakout group presentations & discussion

5:30 pm – Shuttle leaves for Hotel La Perla



Monday January 20, 2014 – **Institutions and Communities**

8:15 am – Shuttle from hotel leaves for El Mangle

8:30 am – Breakfast at El Mangle

9:00 am – “Property Rights and Social Norms” (Dr. John Lynham)

9:45 am – “Cooperatives as Fisheries Management Institutions” (Dan Ovando)

10:30 am – Break

11:00 am – *Free time for groups to work on final project presentations.*

12:30 pm – Lunch

2 pm – Final Presentations

4:30 pm – Close

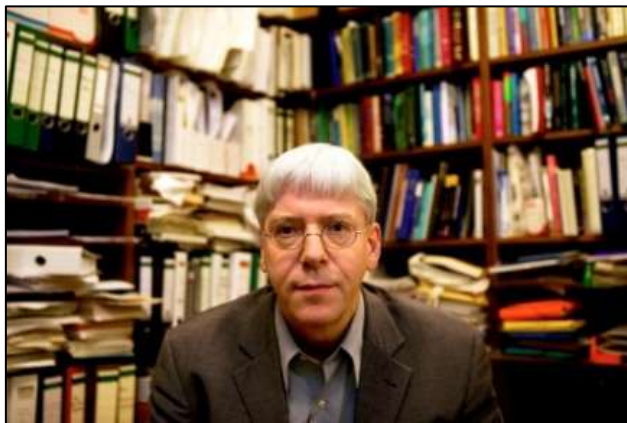
5:00 pm – Shuttle leaves for Hotel La Perla

6:30 pm – Closing dinner



About the Speakers

James L. Anderson is Advisor for Oceans, Fisheries and Aquaculture and leader of the Global Program on Fisheries and Aquaculture (PROFISH) and the public-private partnership The Alliance for Responsible Fishing (ALLFISH). Prior to joining the Bank in 2010, he chaired the Department of Environmental & Natural Resource Economics at the University of Rhode Island. He has published numerous articles related to environmental and natural resource management, fisheries and aquaculture economics, seafood markets and international trade including *The International Seafood Trade* (2003) and *The Great Salmon Run: Competition between Wild and Farmed Salmon* (2007). Recent work has focused on the role of seafood in food security, constraints to aquaculture development, and evaluating how aquaculture and well-designed public-private partnerships changing the global seafood sector in both developed and developing nations. He was co-director for the Blue Ribbon Panel report *Indispensable Ocean: Aligning Ocean Health and Human Well-being* (2013). He was the editor of the international journal, *Marine Resource Economics* 1999 through 2011 and has served on three National Academy Sciences/NRC committees. He earned his B.S. in biology/economics from The College of William and Mary and his Ph.D. in agricultural and natural resource economics from the University of California, Davis.



Ragnar Arnason is a professor of fisheries economics and the chairman of the Institute of Economic Studies at the University of Iceland. Professor Arnason has primarily conducted his research in the area fisheries economics and fisheries management where he has a publication record of over 150 scientific articles and several books. Professor Arnason has played an important role in the development of the Icelandic tradable fisheries quota system (ITQs) and has provided advice on fisheries management and environmental issues to governments of several countries. He developed the bioeconomic model which was used to In the World Bank-FAO report, the *Sunken Billions* to estimate the economic loss in the global ocean fishery.



Chris Costello is a Professor of Environmental and Resource Economics at the Bren School at UC Santa Barbara. He joined UCSB after receiving his PhD from UC Berkeley in 2000. His research is primarily in the area of natural resource management and property rights under uncertainty, with a particular emphasis on information, its value, and its effect on management decisions. He is also interested in the process and design of adaptive management programs in which learning (to resolve uncertainty or asymmetric information) is actively pursued. Topical interests include fisheries management, biological diversity, introduced species, regulation of polluting industries, and marine policy. Costello frequently collaborates with researchers outside of economics such as statistics, ecology, biogeography, and mathematics. Costello serves as a science adviser to the Ocean Protection Council, the Marine Life Protection Act Initiative, and the Communication Partnership for Science and the Sea, and he is a Faculty Research Fellow at the National Bureau of Economic Research.

Steve Gaines' research focuses on marine ecology and conservation, sustainable fisheries, the design of marine reserves, and the impact of climate change on ocean ecosystems. He has served as director of the UC Santa Barbara Marine Science Institute, and as UCSB Acting Dean of Science and Acting Vice Chancellor for Research. Steve became Dean of the Bren School in January 2010 and currently serves as a science advisor for the Joint Ocean Commission and is a lead investigator for the Sustainable Fisheries Group, which seeks market-based solutions to achieve economic revitalization of fisheries. Steve earned a BS in Biology from the University of California, Irvine and a PhD, in Ecology from Oregon State University.





Hunter Lenihan is a Professor of Applied Marine Ecology at the Bren School of Environmental Science and Management at UC Santa Barbara. His primary research interests lie in the fields of applied population and community ecology, especially in connection with marine fisheries management, restoration, and ecotoxicology. Lenihan and his students collaborate with fishermen, managers, NGOs, and industries in research designed to advance small-scale fisheries and aquaculture, for example using marine reserves in spatial management of data-poor fisheries, community-based aquaculture, and the restoration of overfished populations and degraded habitat. Lenihan is also exploring how natural and anthropogenic disturbances influence coral reef communities, with the goal of developing new techniques for coral reef restoration and fisheries management. Lenihan is lead scientist with the UC Center for the Environmental Implications of Nanotechnology (UC CEIN), where his research group is examining the ecotoxicological impacts of nanomaterials in coastal marine food webs. His overall objectives are to generate theory and methods for enhancing marine resource management, and to train young scientists interested in solving environmental problems.



John Lynham is an Assistant Professor in the Economics Department at the University of Hawai'i at Mānoa. He is also an Affiliated Researcher at the Center for Ocean Solutions at Stanford University and has held regular Visiting Professor appointments in the Economics Department and the Program in Human Biology at Stanford. His research interests are in environmental/ resource economics, marine ecology and behavioral economics. In 2012, he served as a Pacific Century Fellow, Hawaii's version of the White House Fellows.



Dan Ovando received his BS in Ecosystem Science and Policy as well as Biology the University of Miami in Coral Gables. Afterwords, he worked as the program coordinator and lab manager for a shark research program based out of the Rosenstiel School of Marine and Atmospheric Science in Miami. In this role, Dan conducted research on the ecology of south Florida sharks and developed community awareness of these keystone predators. Dan earned a Master's degree at the Bren School of Environmental Science and

Management, pursuing his interest in developing practical solutions to the challenges facing marine ecosystems. For his thesis work, he conducted an analysis of the economic viability and ecological sustainability of a proposed red abalone fishing cooperative, as part of an effort to support the development of community managed fisheries in the Santa Barbara region. He currently works as fisheries research for SFG, where his work centers on the design and use of catch shares, marine spatial planning, and developing innovative tools for the assessment and management of fisheries lacking in data or resources.

Dale Squires is a Senior Scientist with NOAA Fisheries, Adjunct Professor of Economics at the University of California San Diego, and on the Scientific Advisory Committee of the International Seafood Sustainability Foundation. He has taught at universities in Australia, Asia, Europe, and the USA, authored over 80 peer-reviewed publications (including Science, Review of Economics and Statistics, Rand Journal of Economics, Journal of Law and Economics, Journal of Econometrics,



Journal of Environmental Economics and Management), and co-authored or co-edited 8 books and manuscripts. He has worked with OECD, Inter-American Development Bank, World Bank, World Fish Center, most of the tuna Regional Fisheries Management Organizations, numerous governments, IUCN, World Wildlife Fund and other environmental NGOs, US Department of State on international treaty negotiations in the Pacific, FAO, UN Special Rapporteurs, is Handling Editor for Conservation Biology,, and worked on high seas, deep sea, coastal, and artisanal fisheries. His current interests are in marine biodiversity conservation, technological change, and global tuna fisheries.



Petri Suuronen has a Ph.D in fisheries science from the University of Helsinki and 30 years of professional experience in fisheries research and development. His special field of expertise is the development and practical implementation of technical management measures and the evaluation of ecological and socio-economic impacts of these measures. Since mid 1980s he has been an active member of the ICES (International Council for the Exploration of the Sea) Fishing

Technology Working Group focusing on the reduction of ecosystem impacts of fishing activities. In early 1990s Petri was a visiting scholar in the School of Fisheries at the University of Washington (USA, Seattle) where his projects were dealing with the development of bycatch reduction measures in Alaskan trawl fisheries. He have also worked as a research professor at the Institute of Marine Sciences (Barcelona) with projects aiming to reduce the ecosystem impacts of fishing operations in the western Mediterranean. In 2000s his research activities focused on projects that attempted to solve the seal and fishery conflict in the Baltic Sea by operational improvements in fisheries. In 1996-2009 Petri was the Director of the Fisheries Research at the Finnish Game and Fisheries Research Institute. Since 2009 he has worked at FAO Fisheries and Aquaculture Department's Fishing Technology and Operation Service (FIRO). Petri has some 80 scientific publications on various fields of technical fisheries management measures.



Course Venue

El Mangle: Reflexión y Acción

Acceso ZOFEMAT 3230 (end of Sinaloa Street)
Colonia El Manglito
La Paz, B.C.S.
Phone: 612-125-5262

About El Mangle:

El Mangle enables, scales and accelerates meaningful, positive actions that engage civil society in social change, restore natural resources, and create economic prosperity and wellbeing. The Mangle campus is located in the historic fishing neighborhood of El Manglito, just next to downtown La Paz, on the site of a restored industrial area. With the 2014 addition of a two-story, professional meeting and event building, this is the first season El Mangle is hosting larger national and international convenings.



El Mangle and its partners seek to incubate innovative organizations and businesses to create sustainable well-being. Our core proposition is that “smart”, purpose-driven spaces, together with enabled leaders, can create scalable solutions for meaningful change. Though early in its development, the campus offers an array of offices for partner organizations and initiatives, meeting and social spaces for events and convenings, and extensive grounds and waterfront access to support learning, active lifestyles, reflection, and resource restoration. The Mangle website is under development and can be seen at: <http://elmangle.org/new>

Directions from Downtown La Paz to El Mangle: 1.5 miles, 6 minutes driving

Go west on Paseo Alvaro Obregon

0.3 mi — Road name changes to Calzada Mariano Abasolo

0.9 mi— Turn right onto Sinaloa. El Mangle is located at the end of Sinaloa.

From La Paz Airport to El Mangle: 6.6 miles, 17 minutes driving

Depart toward Chametla-Las Palmas

0.2 mi — Bear right onto Chametla-Las Palmas

1.8 mi — Take ramp for MEX-1/Carretera La Paz-Ciudad Constitucion/Carretera Transpeninsular toward La Paz/Cabo San Lucas

1.4 mi — Keep left onto Boulevard Constituyentes de 1975

2.7 mi — Road name changes to Calzada Mariano Abasolo

0.1 mi — Turn left onto Sinaloa. El Mangle is located at the end of Sinaloa.



Arrival & Transportation Information

On January 15th there will be a morning and afternoon shuttle pick-up at the La Paz airport to take participants to the hotel. There will also be a shuttle pick-up at San Jose del Cabo on the 15th to drive participants to La Paz. If you would prefer not to wait for the shuttle, there are taxis (about ~\$18 per person) at the La Paz airport that can take you to the hotel. If you are flying into San Jose del Cabo and prefer not to wait there are hourly buses that can take you to La Paz: <http://www.ecobajatours.com/>

Upon arrival to La Paz on January 15th, participants can check into their double rooms at Hotel Perla, centrally located in downtown La Paz on the malecón. Checkout will be the morning of January 21st, and there will be an airport shuttle to take people to both the La Paz and San Jose del Cabo airports.

During the workshop, participants have the option of walking to El Mangle (it is a 30 minute walk), or there will also be a shuttle in the morning and end of the day to take people to and from the hotel.

Hotel Perla
Álvaro Obregón 1570
La Paz
Baja California Sur, México

(612) 122-0777
<http://www.hotelperlabaja.com/>



For more information about the Latin American Fisheries Fellowship Program visit:

http://www.bren.ucsb.edu/admissions/LAFF_overview.htm



