

# Current Students

## Curry Cunningham



Curry is a former Bristol Bay commercial fisherman and received his B.S. in Animal Biology from the University of British Columbia, Vancouver. His current graduate research at the University of Washington may be partitioned into four categories. First, the evolutionary ecology of sockeye salmon in Bristol Bay Alaska, specifically evaluating interactions between selective pressure from predation, harvest, competition, and sexual processes. Second, statistical approaches to allocating catches of Bristol Bay sockeye and estimating interception rates among spatially segregated fishing districts with the purpose of reconstructing annual return sizes, as necessary for analyzing underlying spawner-recruitment relationships. Third, improving established techniques for preseason and real-time forecasting of sockeye salmon returns, by incorporating biological and environmental data. Fourth, modeling the population dynamics of threatened and

endangered Chinook salmon populations in California's Sacramento River watershed, to determine the critical environmental drivers of survival from anthropogenic and natural sources, and evaluate the effect of competition with hatchery reared stocks.

## Allan Hicks



Allan Hicks grew up fishing in Alberta and California, and working at a fish market on the pier in Avila Beach, CA. He has earned a B.S. in Fisheries with an Applied Math Minor from Humboldt State University and a M.S. in Statistics from the University of Idaho. While working in New Zealand for the National Institute of Water and Atmospheric Research he met Dr. Ray Hilborn. Shortly thereafter, in 2004, he started working towards a Ph.D. in Fisheries with a focus on issues related to the stock assessment of orange roughy in New Zealand. He is nearly finished his dissertation, which is focused on the utility of CPUE data when managing long-lived fish stocks, and expects to defend soon. While finishing his

dissertation, Allan has been working at the Northwest Fisheries Science Center, a research center for NOAA Fisheries, as a stock assessment scientist. However, he does not recommend working while finishing a dissertation. Anything quantitative interests him, as well as fishing, competing in triathlons, and playing the saxophone.

## **Kotaro Ono**



Kotaro Ono spent 18 years of his life living in Africa (Morocco and Senegal) following his father who is working in fishery management. Since early, he was immersed in the world of fish and fishery and one of his favorite activity was to go observing and harvesting shellfish along the coast (still quite pristine at that time). After finishing his French "baccalaureat", he moved to France to keep studying and got his equivalent MS at the "Ecole National Superieure Agronomique de Rennes" with a specialisation in Aquatic Science. Thereafter, he came to the US and obtained his second MS in Fishery Science at the University of Washington working on anthropogenic impacts on juvenile salmon behavior with a focus on the effect of overwater structures.

He started his Phd with Prof Ray Hilborn in 2010 with a focus on issues related to multi-species fishery management and methods to improve stock assessments.

Some of his work include the use of management strategy evaluation to assess the use of multi-species rebuilding plan, developing CPUE standardization methods for multi-species fishery and the use of vessel dynamic models. Anything quantitative topics interests him.

## **Megan Stachura**



Megan began as a M.S. student in the School of Aquatic and Fishery Sciences in 2010 and is co-advised by Ray Hilborn and Nate Mantua. She is originally from Michigan and earned a B.S. in Marine Science and Biology from the University of Miami. For her M.S. thesis she is studying environmental influences on Northeast Pacific marine fish during their early lives. She is using multivariate analysis to identify common patterns in recruitment related to environmental forcing. She is also using Bayesian hierarchical modeling to identify drivers of recruitment variability

for groups on stocks with similar susceptibility to environmental forces.

## **Katyana vert Pre**



Katyana grew up in Martinique in the Caribbean, and completed her master's in fishery sciences at the Higher School of Agronomy of Rennes in 2008. She spent the past 4 years doing marine ecology research, working with professional fishermen in the Caribbean, and traveling. She is working on her M.S. and joined the School of Aquatic and Fishery Sciences in 2010 under Pr. Ray Hilborn supervision. Her research focuses on global scale analysis in fisheries. She is trying to evaluate the relative importance of population abundance or environmental regime shifts in determining fish productivity and recruitment. She is also trying to assess lost yield from overfishing and underfishing through fitting mathematical model to data. She is also getting involved with the ICES Strategic Initiative on Stock Assessment Methods (SISAM) in winter 2013

## **Current Staff**

### **Matt Baker Ph.D. Post-Doctoral Fellow**



Matt is a research scientist with the Resource Ecology and Fishery Management Division of the Alaska Fisheries Science Center, NOAA Fisheries, appointed through the University of Washington Joint Institute for the Study of the Atmosphere and Ocean, working with Anne Hollowed, M. Elizabeth Clarke, and Ray. Matt earned a Masters at Columbia University in Environmental Science and Policy and a PhD from the University of Washington in Fisheries Science, where he examined indirect fishery mortality on salmon stocks and its effects on ecology, population dynamics, and optimal management. Previously he worked with the Pew Institute for Ocean Science and Wildlife Conservation Society Marine Programs on marine conservation and with the National Democratic Institute for International Affairs on international political development. He also taught marine ecology at the University of Washington Friday Harbor Laboratories in the San Juan Islands. Current interests include community ecology and spatial management. Specifically, Matt is researching methods to integrate physical oceanographic data and biological data on species distributions to inform spatial management and applying multivariate models to distinguish relative effects of density dependence, compensation and the environment as drivers of community dynamics in north Pacific ecosystems.

## Jeannette Banobi Research Scientist



Jeannette is a research scientist collecting data on management strategies and on social and economic performance measures of fisheries. She is conducting detailed telephone interviews with fisheries scientists, fisheries managers, and fishermen from across the country, as well as gathering information from stock assessments and online management documents.

Jeannette has a B.S in physics from Pennsylvania State University, an M.A in teaching ESL, and a Certificate in Wetland Science and Management from the University of Washington.

## Chris Boatright M.S. Research Scientist



Chris is the Chief Scientist and Program Manager for the Alaska Salmon Program. He keeps Rays' life sane. He also likes to eat any form of *Sus scrofa domesticu*. and is a master of the Green Egg.

## Jason Ching Research Scientist



Jason is a graduate of the University of Washington's Aquatic and Fishery Sciences. He has worked as an assistant research scientist with the Alaska Salmon Program since 2007 where he assists with various research projects in the field in Alaska, and in the lab and on the computer back in Seattle. He now also works as an assistant to Ray Hilborn, helping out with a variety of tasks including website development, and database material.

## **Michael De Alessi, Ph.D Research Scientist**



Michael is a research scientist collecting and analyzing data on cooperation and coordination in fisheries worldwide for the project "Legal and Institutional Dimensions of Fisheries Success: Fishing Rights, Cooperative Frameworks, and the Use of Science". Funded by the Walton Family Foundation, the Environmental Defense Fund, the Kingfisher Foundation, and a private donor, the project is looking for correlations between specific dimensions of coordination with fisheries sustainability, and also includes work on contractual design and implementation of cooperative institutions. Michael

received his PhD from the UC Berkeley Department of Environmental Science, Policy, and Management and was a Fulbright Indonesia Senior Scholar in 2011-12, where he also worked on the legal and institutional dimensions of sustainable fisheries.

## **Daniel Hively M.S. Research Scientist**



Daniel is a research scientist in the School of Aquatic and Fishery Sciences working on administering and updating the RAM Legacy Stock Assessment Database, which consolidates stock assessment estimates and data from around the world. He also performs analyses on stocks from the database, such as detecting depensation through surplus production or recruitment relationships. He obtained a M.S. in Applied Mathematics and Statistics from the University of California, Santa Cruz where his research included constructing methods to analyze the impacts of data availability and biological/model assumptions on stock assessment model accuracy.

**Mike Melnychuk Ph.D.** Post-Doctoral Fellow



Michael has been a post-doctoral researcher in the School of Aquatic and Fishery Sciences since 2009, first in the Essington lab and currently in the Hilborn lab. His research has focused on quantifying how diverse fishery management strategies and tactics impact marine populations and the fisheries they support. Using a meta-analysis approach and drawing from the RAM Legacy Stock Assessment Database, he is evaluating the relative effects on fish stock status of management attributes such as catch shares, harvest control rules, seasonal and spatial closures, by-catch constraints, and industry involvement in the management process.

Previously, Michael completed his Ph.D. at the University of British Columbia, working with Carl Walters and Villy Christensen. He worked with the Pacific Ocean Shelf Tracking Project to study the migration patterns of juvenile salmon entering the ocean from their natal rivers in southern British Columbia. His thesis research involved assessing effects of hatchery-rearing, solar ultraviolet exposure, and migration behavior on salmon survival, as well as developing methods for estimating survival and detection probabilities from acoustic tag detection data.