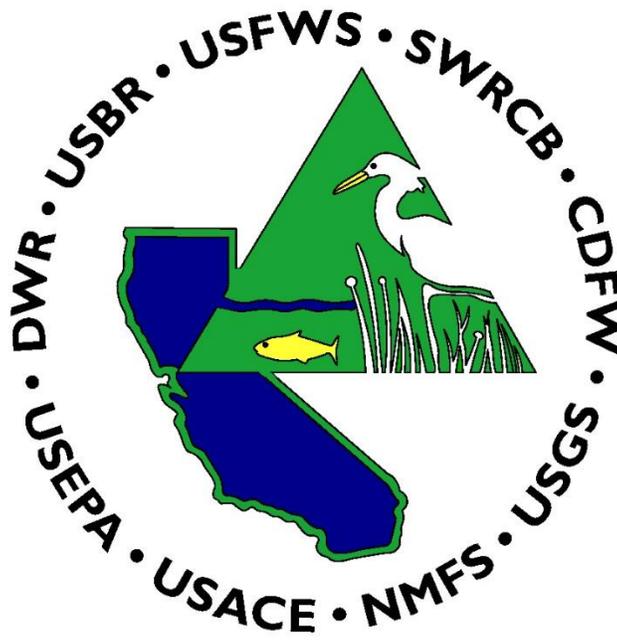


Interagency Ecological Program 2022 Annual Workshop

Mentor Luncheon: Mentor Bios

MARCH 23, 2022



Interagency Ecological Program

COOPERATIVE ECOLOGICAL
INVESTIGATIONS SINCE 1970

Mentor Luncheon

The Interagency Ecological Program has always strived to offer opportunities for early career scientists to interact with career professionals working in the environmental sciences. This includes environmental scientists, hydrologists, ecologists, engineers, and others who help to manage, restore, and monitor the San Francisco Estuary.

Mentoring opportunities occur at various venues such as Project Work Team meetings, training classes, the annual workshop, and the annual mentoring luncheon.

The mentoring luncheon usually occurs during the IEP Annual Workshop. IEP member agencies and partners ask representatives to volunteer to be a mentor. These mentors set aside time during the lunch hour to sit and discuss their educational and work experiences with early career scientists. This is a great opportunity for early career scientists to ask questions of and seek advice from mentors.

Virtual Luncheon Format

Although the workshop is virtual this year, we have eight career scientists that have volunteered to participate in a virtual luncheon. The lunch will be held in a Zoom Meeting where mentors will be in assigned breakout rooms. Registered attendees are welcome and invited to mingle between all the breakout rooms. Attendees are encouraged to check out the mentor bios ahead of the luncheon.

Registration

The link to register is included on the [IEP Annual Workshop](#) page. Registration closes March 18.

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MENTOR: GEOFF STEINHART



Education: BS Zoology (UW-Madison); MS Aquatic Ecology (Utah State University); PhD Aquatic Ecology (Ohio State University)

Job Title: Supervisory Fish Biologist

Agency: U.S. Fish and Wildlife Service (USFWS)

Current Position

I lead our Data Management and Special Studies group. My team helps coordinate permitting, reporting, and summarizing data for our long-term monitoring programs.

Job Experience

I have worked a variety of positions in my career. I have been a professor at both a small, undergraduate university and a large, research university. I worked for a non-governmental organization as a biologist and educator. I have been employed by both state and federal agencies and worked with a variety of partners from all these sectors.

Interests

I grew up wanting to be the next Jacques Cousteau, but living in the Midwest, I was far from the ocean. Instead, I followed my love of fishing into a career in aquatic ecology. However, I have been able to work in freshwater and marine systems all around the country. I am interested in research that directly informs or impacts conservation and management. Within that, I enjoy questions involving fish behavior, bioenergetics, and predator-prey dynamics.

Something I've Learned Along the Way

The aquatic ecology community is small, so cultivate your professional network. Always put forth your best effort, and don't burn bridges – you never know when you will interact with someone again, but you likely will!

I also recommend actively seeking to improve your skillset and trying different things. I have received job offers because of specific skills I developed along the way (e.g., hydroacoustics or modelling) and because of my experiences working in specific ecosystems (e.g., rivers or lakes) or with certain species (e.g., T&E species, salmonids). The more you learn and experience, the more doors will open.

MENTOR: GONZALO CASTILLO

Education: Marine Biology (B.S.; Post-BS); Fisheries Science (MS; PhD)

Job Title: Fish Biologist

Agency: US Fish and Wildlife Service (USFWS)

Current Position

I analyze IEP monitoring data to evaluate the responses of Delta fish populations to human and natural drivers; coordinate tagging studies for Delta Smelt; participate in IEP Syntheses efforts (e.g., climate change, flow alteration), and evaluate entrainment risk for Delta Smelt and Longfin Smelt in coordination with state and federal agencies.

Job Experience

Habitat Restoration coordinator (coordinated implementation of habitat restoration actions for anadromous fishes in California's Central Valley); Faculty research assistant (conducted surveys to evaluate year class-strength of Sablefish).

Interests

My initial motivation was to understand physical and biological interactions that could explain changes in recruitment and abundance of fish populations. As graduate research assistant, I analyzed fish and invertebrates in two Oregon estuaries to evaluate differences in species introductions; I also analyzed otoliths, fisheries data and oceanographic variables to evaluate the recruitment of Petrale Sole off Oregon and Washington.

Something I've Learned Along the Way

Continuous learning and keeping a long-term vision in mind are crucial for promoting and communicating the increasing need to conserve fish and wildlife populations and their habitats.

MENTOR: KRISTI AREND



Education: BA, Oberlin College; MS, Ohio State University; PhD, Cornell University

Job Title: Biologist

Agency: U.S. Bureau of Reclamation

Current Position

I work in the Bay-Delta Office's Science Division, which is responsible for helping USBR meet environmental compliance responsibilities related to the Central Valley Project. My responsibilities range from scientific activities like working with data and models and synthesizing research findings to program-level activities such as planning and facilitating meetings, assisting with programmatic decision-making, and managing contracts and agreements. All of the work I do requires a lot of coordination and collaboration within and outside of my agency, which allows me to interact with a lot of different professionals.

Job Experience

I have held multiple positions throughout my career, including in academia and at state and federal agencies. This experience has provided me with a combination of skills and knowledge in education, research, outreach, and program management primarily related to coastal ecosystems and conservation. I also have gained insight into a variety of career paths and the rewards and challenges of each.

Interests

I am interested in how fish communities and food web dynamics are shaped by ecosystem characteristics such as the surrounding land use, water quality, and habitat. I enjoy research and collaborative projects aimed at understanding coastal ecosystem services and improving coastal management and conservation.

Something I've Learned Along the Way

Don't be afraid to explore different career options and allow your interests to evolve over time. Many of the skills and experiences you gain in one job or career path are more broadly applicable and can provide you with unique perspectives and approaches in another.

MENTOR: MELINDA BAERWALD

Education: B.S. in Biology from Indiana University; Ph.D. in Genetics from UC Davis

Job Title: Environmental Program Manager

Agency: California Department of Water Resources

Current Position

I work in the Division of Integrated Science and Engineering and manage the Collaborative Science and Innovation Section within the Ecosystem Monitoring, Research, and Reporting Branch. I supervise and mentor staff with diverse skills in aquatic and terrestrial ecology, statistics, and genetics. Some of the projects I am currently managing include use of enclosures for Delta Smelt experimental releases and testing of management actions, development of the Rio Vista Estuarine Research Station and associated educational outreach program, and the use of new genetic technology to aid in species monitoring.

Job Experience

Before DWR, I worked at the UC Davis Genomic Variation Lab as a Project Scientist and USDA postdoctoral fellow and focused on topics such as whirling disease, salmonid migration, and the San Joaquin River Restoration Program. My Ph.D. dissertation focused on the population genetics of the Sacramento splittail. Prior to graduate school, I worked for several years as a molecular biologist in the biotechnology industry.

Interests

I enjoy being a member of multidisciplinary teams that seek to improve ecosystem conditions for native species in the Bay-Delta. For me, two of the essential ingredients to a happy work situation include working with capable and passionate people that are working cooperatively towards a common goal and seeing the direct relevance of my work for ecosystem conservation. I've been committed to making a difference for wildlife conservation since I was a little girl and learned about amazing female conservation-focused scientists, such as Jane Goodall and Dian Fossey. Instead of studying primates in Africa, I've chosen to study the aquatic community of the Delta! Outside of work, I like to hike, garden, and spend time with my family.

Something I've Learned Along the Way

So many of the things we work on fail multiple times before we succeed. I've learned to accept roadblocks as a natural part of the process, and when one pathway is blocked seek creative solutions for finding a new path forward. The best science often requires a lot of determination, problem-solving, and teamwork.

MENTOR: ROSEMARY HARTMAN



Education: St. Mary's College of Maryland -2004-2008– BA in Biology and Chinese Language (double-major); University of California, Davis – 2010-2014 – PhD in Ecology

Job Title: Environmental Program Manager

Agency: CA Department of Water Resources

Current Position

I am currently the lead for the Interagency Ecological Program Synthesis Team. I put together multi-agency teams to answer questions in estuarine ecology and management, such as: “What are the impacts of climate change on the estuary?”, “How does the environment respond to droughts?”, “Has our management increased abundance of harmful algal blooms?” and other things like that. I also help increase our capacity for synthesis by helping to run the IEP Data Utilization Work Group, the Data Science Project Work Team, and helping organize workshops and trainings.

Job Experience

After undergrad, I did seasonal field work for two years, going from the mountains of Idaho to the wetlands of Florida to the veldt of Botswana. My PhD dissertation work was on the impacts of fish stocking on mountain lakes. After my PhD I worked at CDFW for five years with the Fish Restoration Program Monitoring team, monitoring the effectiveness of tidal wetland restoration sites for at-risk fishes.

Interests

I like working on big-picture ecology, studying how communities work together and respond to rapid changes. I am particularly interested in zooplankton and benthic/epiphytic invertebrates, but I try not to get pigeon-holed into any particular taxonomic group. One of these days I am going to find an excuse to study the freshwater sponges we have in the Delta, but until then I'm focusing on trying to get all the fish people to realize fish are only one part of a broader ecosystem. I also enjoy making stained glass art work, hiking with my partner and dog, and riding my bicycle further than is sensible.

Something I've Learned Along the Way

Don't be afraid to have a sense of humor. Cat memes are appropriate in 95% of scientific presentations.

MENTOR: STEVEN CULBERSON



Education: BA Oberlin College; MS UCD; PhD UCD (Ecology)

Job Title: Lead Scientist (PM III)

Agency: Interagency Ecological Program (Delta Stewardship Council)

Current Position

I help coordinate 9 agency science and monitoring efforts on behalf of the Interagency Ecological Program member agencies. Top priorities include science communication, support of Program coordination, understanding and communicating about monitoring and research science associated with the San Francisco Estuary.

Job Experience

From college laboratory instructor to Peace Corps Volunteer to Environmental Scientist at several State and Federal agencies I have always understood an important role for applied science in helping to solve community and natural resources challenges.

Interests

Computer modeling and sensor technology have always been an interest, and as a “science administrator” I have come to understand the role of data management in helping shape effective science stewardship among agencies and on behalf of the public, whom we serve.

Something I’ve Learned Along the Way

As much as I wanted to believe that SOMEBODY knew what we were supposed to be doing, or knew exactly how we should do it, it turns out that most times we’re inventing what we need as we go along, and that science is a process, and is only one small piece of the human puzzle when confronting resource issues in our communities.

MENTOR: VANESSA TOBIAS



Education: PhD (Louisiana State University), MS (University of Michigan), BA (UCLA)

Job Title: Supervisory Mathematical Statistician

Agency: US Fish and Wildlife Service (USFWS)

Current Position

My job varies from day to day because I work on a lot of different projects, but it all fits under the umbrella of data science. Some of the things I'm working on now are leading the data analysis for the Longfin Smelt Species Status Assessment, helping with the Delta Smelt tagging studies, designing a study to test methods for trapping for invasive Large Scale Loach, and consulting on studies to test a new fixative for Delta Smelt. I also supervise a team of fish biologists and statisticians.

Job Experience

Before I joined FWS, I was a Senior Environmental Scientist (Specialist) on the Synthesis Team at CDFW. Prior to that, I was a postdoc at UC Davis where I did several projects with monitoring data collected by the National Wildlife Refuges. My PhD project was on identifying biogeochemical indicators of stress in wetland grasses that could be used as an easy way to tell what kind of restoration actions would be most effective.

Interests

I really enjoy getting together with other people who are excited about the San Francisco Estuary to figure out how to use our data to answer questions. I love being able to find the patterns that are hidden in a dataset. I think it's really cool to go from a spreadsheet of numbers to answering questions that can help us understand the Estuary better. My background is in wetland and estuarine ecology. (None of my degrees are in stats.) I moved towards the quantitative side of ecology because estuaries and wetlands are fascinating, complicated places and I found that I needed to learn more sophisticated stats methods to be able to answer the questions that I wanted to ask with the data that were available.

Something I've Learned Along the Way

It's ok to say, "I don't know." In fact, it's more than ok because then you can say, "but let's find out" and that's really how all fun science journeys gets started.

MENTOR: AMANDA (MANDI) FINGER



Education: PhD

Job Title: Associate Project Scientist

Agency: UC Davis, Genomic Variation Lab

Current Position

I use genetic data to help managers answer questions about threatened and endangered species in CA and NV. I also mentor graduate students and write grants to fund my research at UC Davis.

Job Experience

PhD and Postdoc at the Genomic Variation Lab, UC Davis.

Interests

I've always been interested in knowing the names of things, even as a kid. Somehow after a very roundabout three years after college of climbing, doing field work, and working odd jobs, I started looking at faculty for graduate school. I met my adviser, Bernie May, who told me I needed to get lab experience in order to go to graduate school. After applying for a few jobs and not succeeding, I returned to him and offered to volunteer while working a second job. Bernie threw me a lifeline and offered to give me a job, which was a major turning point. Immediately I loved the work I was doing on Owens pupfish and Paiute cutthroat trout conservation genetics. I'm still working in the same lab and working on the same projects, in addition to delta and longfin smelt, desert fishes and additional native trout. I now mentor graduate students and secure contracts to support myself, the students and technicians. Bernie has long since retired but is still a major force in my life when I run into trouble.

Something I've Learned Along the Way

Take advantage of opportunities and don't expect a straight path. Networking is critical! Always follow through on your word and respond to emails.