FLORA CORDOLEANI

Project Scientist

@ flora.cordoleani@noaa.gov +1 (530)-750-9934 2205 7th Avenue Santa Cruz, CA www.floracordoleani.sitew.us
in www.linkedin.com/in/flora-cordoleani-8431a9b0/

EXPERIENCE

Chair of the IEP Spring-Run Chinook Project Work Team
(https://www.water.ca.gov/Programs/Environmental-Services/Interagency-Ecological-Program)

Southwest Fisheries Science Center – NOAA & UC Santa Cruz

June 2017 – Ongoing Santa Cruz, CA

- Created a task force for scientists from diverse universities, federal, and non-federal agencies to coordinate and synthesize findings on listed California Chinook salmon populations, and to provide recommendations for improving their monitoring and management
- Served as a liaison between scientists and stakeholders to discuss future restoration and management efforts for listed Chinook populations recovery

Project Scientist

Southwest Fisheries Science Center – NOAA & UC Santa Cruz

June 2013 – Ongoing Santa Cruz, CA

- Developed a life cycle model to assess the impact of water management, fishing and climate change on the survival of listed California Chinook salmon populations
- Designed and implemented an acoustic tagging study to identify freshwater mortality hot spots for out-migrating juvenile Chinook salmons
- Designed and managed an isotope analysis project to use adult Chinook salmon otoliths (ear bones) to identify the successful juvenile rearing strategies observed in adult spawner fish
- Participated to the development and implementation of a multi-agency project that studied juvenile Chinook growth and lower trophic food production in an important California's floodplain
- Managed science teams, and organized meetings and workshops with collaborators to discuss projects advancements and results
- Mentored graduate students

Postdoctoral Fellow

Wildlife Fish and Conservation Biology Department, UC Davis

September 2012 – July 2013 Davis, CA

- Used a salmon population stochastic model and wavelet analysis to study how the decline of Columbia River Chinook salmon stocks, due to overfishing and alteration of their freshwater habitat, have increased their sensitivity to environmental perturbations.
- Collaborated on a study to assess the influence of Marine Protected Areas implementation along the California Coast on the recovery of rockfish stocks

Teaching Assistant

Aix-Marseille University

September 2008 – December 2011 Marseille, France

- Taught computer programming, ecological modeling, and statistic tools for biologists to bachelor students in marine ecology

Volunteer

"Pronatura Peninsula de Yucatan" NGO

July 2004 Holbox Island, Mexico

- Participated to the survey and protection of endangered sea turtle populations through adult tagging
- Communicated with local populations about endangered sea turtle conservation program in Holbox through grassroots campaigns

WHO I AM

- **Passionate environmentalist**
- **Excellent networker and team manager**
- **Independent worker and fast learner**

TECHNICAL SKILLS

Programming
R Matlab

Office Software
Microsoft Office Access LaTeX

Mapping
ArcGis

LANGUAGES

English
French
Spanish

EDUCATION

PhD in Oceanography (Honours)

Aix-Marseille University

Sept 2008 – Dec 2011

M.Sc. in Oceanography (Summa Cum Laude)

Aix-Marseille University

Sept 2006 – June 2008

B.Sc. in Sciences and Technology (Magma Cum Laude)

Aix-Marseille II University

Sept 2003 – June 2006

HOBBIES

Climbing, Scuba Diving (level 3*CMAS), Photography, Volunteering (Com&Sea student assocation, Pronatura, Ventana Wilderness Alliance)

SELECT PUBLICATIONS

Journal Articles

- **Cordoleani F.**, Nerini D., Gauduchon M., Morozov A. and Poggiale J-C. (2011). Structural sensitivity of biological models revisited. Journal of Theoretical Biology, 283, 82-91.
- **Cordoleani F.**, Nerini D., Morozov A., Gauduchon M. and Poggiale J.C. (2013). Scaling up the predator functional response in heterogeneous environment: when Holling type III can emerge? Journal of Theoretical Biology, 336, 200-208.
- White W., J. Nickols K. J., Malone D., Carr M. H., Starr R. M., **Cordoleani F.**, Baskett M. L., Hastings A. and Botsford L. W. (2016). Fitting state- space integral projection models to size-structured time series data to estimate unknown parameters. Ecological Applications, 26, 2677-2694.
- **Cordoleani F.**, Notch J., Mc Huron A., Ammann A., Michel C.J. (2018). Movement and survival of wild Chinook salmon smolts from Butte Creek during their outmigration to the ocean: comparison of a dry versus wet year. Transaction of the American Fisheries Society, 147,171-184.
- Satterthwaite W. H., **Cordoleani F.**, O'Farrell M., Kormos B., Mohr M. (in press). Central Valley spring Chinook salmon and ocean fisheries: data availability and management possibilities. San Francisco Estuary and Watershed Science.

Reports

- **Cordoleani F.**, Phillis C. C., Sturrock A. M., Whitman G., Johnson M. R., Johnson R. C. (2018). Exploring the life history diversity of outmigrating juvenile spring- run Chinook salmons from Mill and Deer Creek through the use of adult otoliths. CA Sea Grant Report.
- **Cordoleani F.**, Notch J., Mc Huron A., Michel C., Ammann A. (2018). Movement and Survival rates of Butte Creek spring-run Chinook salmon smolts through San Francisco Bay from 2015 to 2017. USBR Drought Grant Report.

SELECT TALKS

- Sensitivity of predator-prey dynamics to functional responses in a chemostat. Conference on Computational and Mathematical Population Dynamics, Bordeaux (France), 2010.
- Combined effects of the Pacific Decadal Oscillation and cohort resonance on Chinook salmon dynamics. MPDE'13, Osnabruck (Allemagne), 2013.
- Declining survival increases sensitivity of salmon populations to synchronizing environmental forcing through cohort resonance. ESA Annual Meeting, Sacramento (USA), 2014.
- Movement and Survival rates of Butte Creek spring-run Chinook salmon smolts throughout their migration to the Ocean. 8th Spring-run Chinook Symposium (**guest speaker**), Chico (USA), 2016.
- Salmonid use of the Sutter Bypass and opportunities for salmon resiliency. IEP Annual Workshop (**guest speaker**), Folsom (USA), 2018.
- Tracking of spring-run Chinook salmon juveniles throughout their migration to the Ocean. Presentation for the Santa Cruz Fly Fishermen association (**guest speaker**), Santa Cruz (USA), 2018.

GRANTS & FELLOWSHIPS

State Water Contractors Grant - $159,044 (PI)

2018 – 2020

Life history diversity in Central Valley Butte Creek spring-run Chinook salmon population: implications for future management

State Water Contractors Grant - $35,620 (Co-PI)

2018 – 2019

Development of baseline data for fish growth and lower trophic production on the Sutter Bypass in support of the Central Valley spring-run Chinook life cycle model

California Sea Grant Program Development Awards - $9,720 (PI)

2016 – 2017

Isotope analysis of Mill and Deer Creek adult spring-run Chinook salmon otoliths

US Bureau of Reclamation Drought Grant - $442,325 (PI)

2015 – 2017

California Central Valley (Butte Creek) juvenile spring-run Chinook salmon survival study

California Sea Grant and National Science Foundation Postdoctoral Research Fellowship

2012 – 2013

French Ministry of Higher Education and Research PhD Fellowship

2008 – 2011