Rory Spurr

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Summary of Qualifications

Data analyst and fisheries scientist with 1+ years programming experience and 2+ years research experience. Highly knowledgeable in R packages such as Shiny, ggplot2, Tidyverse, and Simple Features. Experience conducting research in quantitative fisheries and molecular ecology. Knowledge of natural resource management systems and policy. Strong passion to help the marine environment using the tools of data science.

Education

University of Washington, Seattle, WA 09/21 – 03/23
Master of Marine Affairs
Capstone Project: Creating an interactive tool to visualize ESA-listed fish research and support the decision-making efforts of the West Coast Protected Resources Division

University of Washington, Seattle, WA 09/16 - 06/20
Bachelor of Science in Aquatic and Fishery Sciences
Minors: Quantitative Science and Marine Biology
Capstone Project: Evidence for selection and spatially distinct patterns found in a putative zona pellucida gene in Pacific cod, and implications for management

Work Experience

University of Washington **Seattle, WA**
Teaching Assistant – Quantitative Science Department (20 hours per week) 09/21 - Present
- TA for Hypothesis Testing and Estimation for Ecologists and Resource Managers (2 quarters) and Introduction to Probability and Statistics (3 quarters)
- Responsible for leading lab sections and enhancing student understanding of statistical concepts

Research Assistant – Aquatic and Fishery Sciences (20 hours per week) **Seattle, WA** 10/20 - 09/21
- Fit stock recruitment models to data using maximum likelihood methods
- Analyzed fits using AIC to determine best supported model

Whooshh Innovations **Seattle, WA**
Research and Development Intern (40+ hours per week) 04/20 - 10/20
- Synthesized research to inform the engineering of safe and efficient fish passage solutions
- Responsible for analysis of photograph identification data
- Wrote two documents highlighting the efficiency of the Whooshh juvenile eel traps

Bay Laurel Catering **Seattle, WA**
Student Coordinator 01/18-04/20
- Led, mentored, and trained new and current staff to improve customer satisfaction and efficiency.
- Responsible for setting up and leading banquet events, as well as engaging directly with clients and guests to ensure customer satisfaction.

Research Experience

Creating an interactive tool to visualize ESA-listed fish research and support the decision-making efforts of the West Coast Protected Resources Division. (20 hours per week; UW School of Marine and Environmental Affairs; Project partner: Alana Santana, Advisors: Anne Beaudreau, UW & Diana Dishman, NOAA) **Seattle, WA** 01/22 - Present

- Created an interactive web application displaying spatial and temporal data on authorized and reported take of ESA-listed fishes using R Shiny and Leaflet
- Visualized data to identify areas of high research impact on endangered and threatened species along the U.S. west coast
- Collaboratively managed project timelines and tasks; developed metadata records; and generated code for future application to ESA permitting issues
- Communicated findings to NOAA agency staff and university audiences (3 public presentations; January-February 2023)
- Project to be adopted by NOAA's Protected Resources Division for internal use upon completion (March 2023)

Evidence for selection and spatially distinct patterns found in a putative zona pellucida gene in Pacific cod, and implications for management. (10-20 hours per week; UW School of Aquatic and Fishery Sciences) **Seattle, WA** 02/19 - 06/20

- Responsible for data curation, methodology, and investigation
- Processed genetic samples through DNA extraction, PCR, and gel electrophoresis according to strict protocols
- Helped with methodology and creation of a balanced study design

Published manuscripts and code

Spurr, R., & Santana, A. (2023). Visualizing ESA-Listed Fish Research on the West Coast (Version 1.0.0) [Computer software]. https://doi.org/10.5281/zenodo.7718894

Spies, I., Drinan, D. P., Petrou, E. L., Spurr, R., Tarpey, C., Hartinger, T., Larson, W., & Hauser, L. (2021). Evidence for selection and spatially distinct patterns found in a putative zona pellucida gene in Pacific cod, and implications for management. Ecology and Evolution, 11(23), 16661–16679. https://doi.org/10.1002/ece3.8284

Presentations

- School of Marine and Environmental Affairs Capstone Symposium, Seattle, WA. 2/23/23
- NOAA Protected Resources Division Speed Talk, Seattle, WA. 2/6/2023
- NMFS R User Group Lightning Talk, Seattle, WA. 1/31/2023
- UW Undergraduate Research Symposium, Seattle, WA. 5/17/2019

Skills

- Data Analysis
- R Programming (Tidyverse, Shiny, Simple Features)
- Scientific Writing
- Spatial Analysis (ArcGIS, R)
- Project Management (Kanban, agile methods)
- Inferential Statistics