Cynthia Virginia Garcia

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EDUCATION

Washington State University, Pullman, WA

Bachelor of Science in Earth and Environmental Science

Major: Wildlife Ecology and Conservation Science; Minor: Forestry

GPA: 3.4

Awards: Presidents Honor Roll Spring 2019, Spring 2020, and Spring 2021.

Relevant Coursework: Organismal Biology, Introduction to Statistical Methods, Statistical Methods in Research I, Cell Biology and Genetics, Population Ecology, Habitat Ecology, Measurement and Analysis of Natural Resources, Biology and Ecology of Pacific Salmon, Geographic Information Systems, and Wildlife Genetics.

Relevant Experience

Incubation Lead – Riverence Brood

Rochester, WA

- Hands-on experience rearing Coho, Steelhead, and Atlantic salmon.

- Responsible for overseeing and training the Riverence Brood incubation team.

- Primary responsibility in incubation, resulting in in-depth knowledge of fertilization techniques and incubation technologies.

- Able to quickly recognize abnormal behavior indicative of sickness or genetic deformity in salmon and trout.

- Experience with managing genetic data to develop and maintain broodstock populations.

- Pit tagging, vaccination, fin clipping, and formalin treatment experience.

- Experience assisting in health certification sampling. Collecting a wide variety tissue samples for various types of pathogen testing.

- Well-versed in methyl-testosterone treatment protocol for Steelhead, Coho, and Atlantic salmon.

- Proficient in the triploid process.

Aquaculture Technician Intern – Hudson Valley Fisheries

Hudson, NY

- Performed health samples and assisted in collecting various data points to compose reports that account for Steelhead Trout quality.

- Became familiar with the necropsy process and recognizing internal and external signs of diseases and deformities.

- Obtained experience in nursery systems by being involved in egg intake, pondings, and routine system maintenance.

- Culling and reporting of diseased and deformed fish in nursery, smolt, and grow-out systems.

- Enhanced focus on trout health and quality within a recirculating facility.

Aug 2018 – May 2022

Aug 2023 – Present

Sep 2022 – March 2023

Research Projects

Riverence Brood LLC

Rochester, WA Use of Morpholino for Rainbow Trout Sterilization Assisted the Riverence Chief Science Officer in conducting various experimental methods of introducing Morpholino into Rainbow Trout eggs prior to fertilization. Project is ongoing, pending results.

Riverence Brood LLC / NOAA

Rochester, WA Tetraploidy in Rainbow Trout

Assisted in the rearing, sampling, and data analysis of an experimental stock of tetraploid rainbow trout. The objective of the project is to evaluate the quality of triploid offspring produced by the tetraploid stock, compared to triploids generated through pressure chamber treatment.

Hudson Valley Fisheries

Hudson, NY Farmed Steelhead Deformity Study

Designed and executed a study focused on reducing skeletal deformities in the early stages of Steelhead Trout development. The project examined current speed and its influence on bone development. This entailed analyzing water quality, whole-body mineral composition, growth trends, salmonid skeletal development and mortality reports.

SKILLS

Academic Writing: Experience writing research papers in academic and work settings. Demonstrated ability to comprehensively review scientific literature, analyze data, and communicate findings effectively through written reports. Experience using proper formatting and citations for scientific writing in wildlife literature.

Trout and Salmon Health Management: Two years' experience in an aquaculture setting. Easily able to identify abnormal fish health and behavior and respond with an appropriate solution.

Water Quality Monitoring and Assessment: Experience testing alkalinity, nitrite-nitrogen, carbon levels, water hardness, chlorine, and ammonia nitrogen levels. Able to interpret test results and determine if they're within the necessary parameters to ensure optimal water quality.

GIS: Prior experience using both QGIS and ArcGIS, with specific experience in habitat range modeling. **R Studio:** Experience using R in the classroom setting for population and habitat modeling.

Jan 2024- Ongoing

Aug 2023 - Ongoing

Sep 2022 – March 2023