

Quantitative Fisheries Ecologist

Intermediate / Senior
Vancouver, BC or Ottawa, ON
Full-Time

The Opportunity

If you are a quantitative fisheries ecologist who enjoys understanding how the environment influences fisheries and aquatic systems, this posting is for you! This is a full-time opportunity where you will apply your advanced knowledge of fisheries and aquatic science to help make better decisions. We require a strong mix of quantitative skills including statistical analysis, modelling, experimental design, and decision-support tool building, as well as strong written and verbal science communication.

This is a full-time opportunity to join the Fisheries and Aquatic Sciences Team at ESSA from our Vancouver, BC, or Ottawa, ON offices. You will have immediate professional development support and room for future advancement. Our total rewards program for employees provides competitive compensation, medical benefits, flexible working arrangements including a hybrid model, and vacation, plus support for professional development.

You will have access to our total rewards program which offers competitive compensation, medical benefits, flexible working arrangements (hybrid workplace and opportunities for future home office placement), support for professional development, interoffice travel support to visit colleagues outside of Vancouver and Ottawa, and generous vacation (three weeks plus paid time off between Christmas and New Year's Day).

About Us

ESSA Technologies Ltd. (ESSA) is an employee-owned Canadian environmental consulting company with offices in British Columbia and Ontario. We envision a world where creativity, a focus on learning, and systems thinking are the foundation of innovative solutions to environmental challenges. Our corporate mission is to *"bring together people, science and analytical tools to sustain healthy ecosystems and human communities"*. We achieve this mission by helping clients deal with tough, emerging problems, applying a neutral, thorough evaluation of evidence, encouraging diverse participatory processes, and collaboratively guiding our clients to make informed decisions that are designed to learn over time. Learn more about us at www.essa.com.

At ESSA, we are passionate about what we do and enjoy working with professionals who share our values and mission. ESSA's staff are purpose-driven problem solvers, big-picture critical thinkers, evidence-driven and motivated by an aspiration to become trusted advisors to our clients and make a difference in the world. The magic of ESSA's mission is "bringing together" diverse groups of clients around our three pillars: people, science and tools. ESSA is a bridging organization with progressive values focused on providing impartial, rigorous scientific advice striving to maximize our positive impact in the world. We do this by being inclusive to a diversity of perspectives, worldviews and ways of knowing to help build a sustainable future. Diversity of perspectives also arises from considerations including experience, race, gender identity, age, disability status, sexual orientation, and religion amongst others. Another way we are inclusive is welcoming a diversity of clients.

Our team is deliberately reflective about the kind of culture we are building. We maintain deep curiosity and skepticism and understand that while imperfect the scientific method is uniquely capable of delivering a self-correcting system of knowledge production that elevates truth and reason over opinion. Because we strive to remain impartial, with care and compassion our people know to separate the "is" from the "ought" and record the distinction. In addition to diverse clients and our passion for what we do at ESSA you will be surrounded by a rich intellectual inheritance and colleagues committed to collaboration and mentorship. You will be part of a team that is:

- Working on a wide variety of inter-disciplinary research that focuses on complex interactions in biological and human systems, taking a holistic rather than reductionist perspective in organizing and understanding data
- Delivering rigorous professional-level advice both to our clients and internally to our own staff
- Resolving scientific uncertainty by combining analytical methods and technical facilitation, often in an adaptive management framework.

Your Responsibilities

As a quantitative fisheries ecologist, you will provide analytical support for a variety of projects, and you will mentor other staff as appropriate on design and implementation of appropriate mathematical models and statistical methods. You will work on environmental issues including adaptive management, climate change adaptation, fisheries and aquatic resource management, ecosystem restoration, environmental impact assessment, cumulative effects assessments, and decision support system development.

Your day-to-day responsibilities may include

- Project support:
 - Developing rigorous monitoring plans to assess fisheries and aquatic systems in collaboration with your colleagues and clients.
 - Collaborating with clients and project participants in workshop settings to design statistical analyses and models.
 - Reporting on project progress and results during workshops and client meetings using easy to understand language and images.
 - Proposing suitable aquatic ecosystem modelling programs and interpreting their results.
 - Over time as you advance, the successful candidate will be coaching, supporting, and mentoring other ESSA staff working on complex technical projects, enabling other individuals to do their best and grow.
 - Occasionally travelling to attend and participate in client meetings, workshops, and study site visits in North America and abroad (no fieldwork).
- Business Development support:
 - Contributing to business development efforts and proposal writing (e.g., developing the study design or approach for a proposal).
 - Contributing to the development of training materials.
 - Developing business opportunities through networking (e.g., by attending conferences) as you advance.

Requirements

- You possess or are about to complete a [Master's or Ph.D. degree](#) in Ecology, Biology, Applied Science, or Resource Management with a focus in the fisheries and aquatic sciences domain.
- You have real-world experience (i.e., non-course-based) applying quantitative methods and frameworks in natural resource management.
- You can perform statistical analysis in R using frequentist approaches, and report results using clear data visualization in a fisheries context.
- You can develop mathematical and simulation models.
- You have advanced knowledge of fish biology at both the individual- and population-level in marine, coastal, or freshwater environments (especially salmonids).
- While we envision that these responsibilities can be handled by an intermediate quantitative aquatic ecologist (2-3 years of work experience); we encourage exceptional junior and senior candidates to also apply.

Your differentiating skills may include the following:

- Registration or eligibility for registration with the College of Applied Biologists within six months.
- Experience performing Management Strategy Evaluation (MSE)
- Stock assessment experience, including estimating biological carrying capacity, recruitment, and viability
- Experience with Bayesian statistical approaches
- Knowledge working with the Ecopath and Ecosim software
- Prior experience in a private consulting environment or research institute, where multiple projects happen at once
- Spanish-language or French-language skills



Applying

We look forward to welcoming the successful candidate to our team. We offer a welcoming, inclusive workplace and commit to working with staff to help them thrive and prosper. Our total rewards program for employees provides competitive compensation, medical benefits, flexible working arrangements, and vacation, plus support for ongoing professional development.

Please email a cover letter and résumé to careers@essa.com by **November 30, 2022** with “**Quantitative Fisheries Ecologist**” in the subject line. We will review applications and contact selected candidates by **December 1, 2022**. Interviews will be conducted between **December 9-15, 2022**. The expected start is **January 16, 2023**.

All applicants must be eligible to legally work in British Columbia at the time of applying.