



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Novel methods for incorporating ecosystem considerations into fisheries advice

Government of Canada Postdoctoral Research Program

Fisheries and Oceans Canada (DFO) is seeking a Postdoctoral Fellow to lead a research project on methods for incorporating ecosystem considerations into fisheries advice. The Principal Investigators on the project include [Robyn Forrest](#), [Carrie Holt](#), [Andrew Edwards](#), [Sean Anderson](#), Jaclyn Cleary, Chris Rooper, [Jennifer Boldt](#), and Cameron Freshwater (DFO, Pacific Biological Station).

Project overview: Recent amendments to the Canadian *Fisheries Act* require accounting for environmental conditions when providing science advice on the management of fish stocks. This project will develop novel and robust methods for incorporating ecosystem considerations into fisheries advice for single stocks while accounting for uncertainty and risk. One focus of the project will be accounting for time-varying productivity in stock-status advice for Pacific herring and groundfish species. Additional topics—depending on time, interest, and the successful candidate’s background—include exploring modifications to stock assessment models to account for unexpected (“black-swan”) environmental events and applying short-term forecasting methods using equation-free models (empirical dynamic modelling) to address data-limitations.

Essential and asset qualifications: Applicants must have completed a PhD in fisheries science, ecology, statistics, or a related discipline within the past three years and have demonstrated expertise in statistical modelling and the R programming language. Prior experience with stock assessment, management strategy evaluation, Bayesian data analysis, ecological modelling, or reproducible research are also desirable. Successful candidates will be self-motivated and have a proven track record of publishing their research in peer-reviewed journals. The position is available for candidates of all nationalities but qualified candidates who are not Canadian citizens or permanent residents of Canada must satisfy Canadian immigration requirements.

Location: Pacific Biological Station, Nanaimo, British Columbia. The west coast of Canada, and Vancouver Island in particular, is known for its rainforests, beaches, and mountains. It is a destination for sea kayaking, hiking, surfing, skiing, diving, biking, and camping.

Position details and how to apply: This fellowship is available to start in the fall of 2019 with funding for approximately two years and a salary based on the [Research Scientist \(SE-RES-1\) pay scale](#); it includes medical benefits, pension, and equipment support. The [Canadian Government Postdoctoral Research Program](#) is administered by Natural Resources Canada.

Contact: Applicants should email a CV and a brief cover letter outlining their interest in the project and their experience and skills to robyn.forrest@dfo-mpo.gc.ca and sean.anderson@dfo-mpo.gc.ca. Short-listed applicants will be invited to develop a full application through the Natural Resources Canada system. Applications will be reviewed beginning August 1st, 2019.