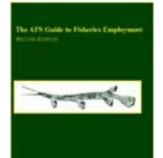
What's Your Next Move? Perspectives on Employment and Post-Graduate Education for Young Fisheries Professionals

Steven J. Cooke – Carleton University Scott G. Hinch – University of British Columbia



Based on Cooke and Hinch. Fisheries Employment in Canada.

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\$12.00 USD

Why Should There be Lots of Fisheries Jobs in Canada?

- Surrounded by three oceans
- 265,500 km of coastline
- 25% of the world's fresh water



- >2 million freshwater lakes covering 7% of Canada's landmass
- >23,000 registered commercial fishing vessels
- >3.6 million recreational anglers
- AND LOTS OF PROBLEMS AND CHALLENGES...

Seven Key Aquatic Stressors (Ken Minns - DFO - CCFFR Plenary 2007)

- Nutrients
- Sediment
- Toxic chemicals
- Habitat loss and modification
- Exotics
- Exploitation
- Climate change



All of these stressors contribute to the biodiversity crisis and emphasize the need for sustainable development

SO – There is a need for talented fisheries professionals to deal with these challenges

Canada is diverse...

- Landscape, peoples, fishes, and fisheries issues
- Therefore, diverse opportunities for fisheries employment (as a fisheries professional)
 - Pathologist, Historian, Gear Technologist, Aquatic Veterinarian, Restoration Ecologist, Urban Planner, Policy Analyst, Engineer, Toxicologist, Culturist, Environmental Lawyer, Anthropologist, Communications Specialist, Observer, Fish Biologist... etc.

30 Years Ago...

• Get a degree in "Fish Biology" and assume a position with a provincial or federal government agency

Today...

- Get a degree in "something", go back for more school (certificate, diploma, M.Sc., Ph.D.) and have a broad range of options – few programs specific to fish or aquatics – more focus on interdisciplinarity (THEME)
- Hands-on fisheries experience usually found outside of the traditional classroom – more onus on the student to acquire relevant experience

How does one obtain relevant fisheries experience outside of the conventional classroom?

- Volunteer with government agencies (CA's, OMNR) and academic labs (fisheries prof at almost every university in Ontario)
- Participate (ACTIVELY) in a professional society (e.g., AFS, CSZ, CSEE, SER)
- Volunteer with an ENGO (TU, OFAH)
- Professional development courses
- (e.g., through AFS certification process)

Desirable Skills for Fisheries Professionals

- Communication skills (oral and written)
- Problem solving skills and creativity
- Critical thinking
- Collaborative team work (ability to interact with a group of diverse team members and partners)
- Project management (from proposal writing to budgeting to HR)
- Strong background in integrated science with understanding of hypothesis testing, experimental design, etc.
- Specialized training in some techniques (GIS, fish ID, biotelemetry, multivariate ecology, social survey design, geomorphology, conflict resolution, outreach, etc.)

Look at AFS Fisheries Certification Program to get an idea of the breadth of experience expected from fisheries professionals

What are the employment options?

- Academia (including grad school)
- Local and regional government
- Provincial and territorial government
- Federal governments
- Transboundary organizations
- Consultancy
- Other (Fisheries sectors, ENGO, utilities, industry)

Employment Opportunities Academia (College and University)

Examples of Positions: Professor, Instructor, Post Doctoral Fellow, Graduate Student (M.Sc., Ph.D.), Field/Lab Assistant/Technician

- Grad Students Get Paid!!!
- Ontario Government pushing for more M.Sc. positions (doubling enrollment at most universities between now and 2010)
- Universities competing for the best students
- Don't look for the word "fish" in advertisements

Employment Opportunities Local and Regional Governments

Examples of Positions: Planner, Environmental Education, Biologist, Environmental Monitoring, Drainage Superintendents

- There are many positions that require knowledge of fish and fish habitat
- Many opportunities outside of the provincial and federal realms

Employment Opportunities Provincial and Territorial Governments

Examples of Positions: Fish biologist, Fisheries manager, Conservation officer, Research scientist, Creel clerk, Policy analyst, Outreach coordinator, Stream ecologist

- Broad training required (usually more than just fish)
- Look beyond the "fisheries agency"
- Contract positions

Employment Opportunities Federal Government

Examples of Positions: Fish habitat biologist, Fisheries manager, Fisheries officer, Research scientist, Park warden, Policy analyst, Science advisor, Stock assessment biologist, Recovery coordinator

- Check out...DFO, Parks Canada, Environment Canada, Agriculture Canada, Dept of Defence
- Geographical restrictions
- Bilingual requirements

Employment Opportunities Transboundary Organizations

Examples...

- Pacific Salmon Commission
- Great Lakes Fisheries Commission
- International Pacific Halibut Commission
- International Commission for the Conservation of Atlantic Tunas
- •Food and Agriculture Organization of the UN

Examples of Positions: Stock assessment

biologist, Policy advisor, Fisheries manager

Employment Opportunities Consultancy

Examples of Positions: Environmental scientist, Fish biologist, Fisheries technician

- Consulting agencies vary in size and focus (even regional differences within an agency)
- Need for professional certification in some jurisdictions (RPBio in BC)

Employment Opportunities Other

Fisheries Sectors – First Nations, Recreational, Commercial

ENGOs – Suzuki Foundation, OFAH, Trout Unlimited, Biodiversity Institute, Project Seahorse (DFO has list of all ENGOs in Canada)

Utilities – OWA, OPG, NYPA, etc.

Fishing Gear Technology and Scientific Instrumentation – research, development, and sales (Hoskin, Hallmark, Lotek, Vemco, etc)

How do you find out about jobs?

Internet sites

KEY EMPLOYMENT WEBSITES SPECIFIC TO CANADA

Federal Government positions - www.jobs-emplois.gc.ca/

Career Owl - www.careerowl.ca

Workopolis - www.workopolis.com/

Monster - www.monster.ca/

Canadian Aquatic Resources Section of the AFS - www.fisheries.org/cars/en/index.htm

University Affairs - www.universityaffairs.ca/careers/index.html

Canadian Association of University Teachers - www.academicwork.ca/

DFO Jobs Site - www-hr.pac.dfo-mpo.gc.ca/pages/career_e.htm

Canadian Conference for Fisheries Research Site - www.phys.ocean.dal.ca/ccffr/

Canadian Society of Limnologists - //uregina.ca/~scl/society.htm

Canadian Society for Ecology and Evolution - www.ecoevo.ca/

Ontario AFS Chapter - www.afs-oc.org/

- Look beyond Canada
- Talk to people ideally through your network of connections (hint...)

Getting the Interview (and the job)

- Competitive job market lots of people with degrees but few with relevant experience
- Hundreds of applicants you have to be exceptional and stand out
- Connect the dots when developing your cover letter (address the points and provide supporting evidence)
- Customize your resume/CV and cover letter each time (do your homework)
- Choose appropriate references (means you have to have people that really know you)
- If you use email, be professional

Questions?

Email me and I will send you a copy of the chapter (includes list of websites for locating "fisheries" jobs) Steven_Cooke@carleton.ca

– OR –

Purchase the book from AFS Bookstore (www.fisheries.org)