Centre for Ecosystem Management Postdoctoral Fellowship

The Centre for Ecosystem Management at the University of Guelph resides on the treaty lands and territory of the Mississaugas of the Credit. We recognize this gathering place where we work and learn is home to many past, present, and future First Nations, Inuit, and Métis peoples. Our acknowledgement of the land is our declaration of our collective responsibility to this place and its peoples’ histories, rights, and presence.

The Centre for Ecosystem Management (CEM) at the University of Guelph invites applications for our inaugural cohort of CEM Postdoctoral Fellows. The CEM Postdoctoral Fellowship program aims to enable creative collaborative research in aquatic ecology that blends curiosity-inspired questions with use-driven research to meet the needs of local management agencies and user groups. The positions are for two years with a salary of $70,000 plus benefits, as well as $5000 for research and travel. The Fellows will be an integral component of the new CEM community. The Fellows will be expected to have an independent research program that bridges the interests of one or two of the CEM faculty research groups (including the Bernhardt Lab (https://www.bernhardtlab.org) and / or the McCann Lab (https://www.mccannlab.ca)) and to contribute to building the CEM community.

About the CEM: The mandate of CEM is to facilitate the application of an ecosystem perspective to better conserve and sustainably manage fisheries and other natural resources across the Great Lakes region. The research activities at CEM will be coordinated with research, management, and outreach activities of the Great Lakes Fishery Commission (GLFC), Government of Canada Department of Fisheries and Oceans (DFO), Quantitative Fisheries Center (QFC) at Michigan State University, and Ontario Ministry of Northern Development, Mines, Natural Resources, and Forestry (OMNDMNRF).

As a CEM Fellow, here’s what you can expect from us:

- Mentoring and support for you in your research, outreach and career goals
- A collaborative and supportive research environment committed to promoting equity, diversity and inclusion
- Opportunities to establish connections and partnerships with our partner organizations (GLFC, DFO, QFC, and OMNDMNRF)
- Opportunities to participate in collaborative working groups through the CEM
- Professional development workshops aligning with CEM Fellows’ career interests
- …. And we are open to hearing what we can do to better support you!
As a CEM Fellow, here’s what we expect from you:

- Establish your own independent research program
- Contribute to building a dynamic and collaborative research community at the CEM by attending lab meetings, seminars and discussion groups, mentoring students
- Contribute to collaborative interactions with our research partners (GLFC, DFO, QFC, and OMNDMNRF) and with resource user groups/stakeholders
- Organize and lead a weekly discussion group or seminar / workshop series

For the 2023 cohort of CEM fellows, we welcome applications aligned with one or two of the following themes:

**Theme 1 - Ecosystem level consequences of invasive species**

Keywords: invasive species, nutrient loading, water quality, fisheries, foundation species

Nutrient pollution and invasive species are two major drivers of ecosystem change in aquatic ecosystems. Invasive species in temperate lakes in Europe and North America are altering nearshore habitats and nutrient and energy pathways with effects on primary and secondary productivity. We are seeking candidates whose research addresses how the fluxes of energy and nutrients in aquatic ecosystems are reshaped by invasive species and how this reshaping determines processes and patterns at larger scales. Successful applicants will work in a highly collaborative environment around themes including 1) ecosystem level consequences of invasive species and 2) identifying management scenarios that balance goals for water quality and fisheries.

**Theme 2 - Adaptation in changing environments**

Keywords: eco-evolutionary dynamics, multiple stressors, adaptation to global change

The global environment is changing at an unprecedented rate, altering conditions for all of life on Earth. Natural systems face an increasing number of environmental stressors, in many cases altering individual performance, population persistence and species interactions. We are seeking candidates whose research addresses population persistence, ecological resilience and/or productivity in the face of multiple dimensions of environmental change and how biological adaptation determines processes and patterns at larger scales. Successful applicants will work in a highly collaborative environment around themes including 1) eco-evolutionary dynamics in systems driven
by human-induced change and 2) evolution of cross-tolerance to multiple dimensions of environmental change.

We anticipate that results of the research generated by the CEM Fellows will be used to inform management decision-making with respect to fish and other aquatic populations (from plankton to benthic organisms) and the CEM Fellows will have the opportunities to work with agencies and stakeholders to inform current management issues in the Great Lakes and beyond.

To apply, please submit as a single PDF by November 1, 2022 (email to joey.bernhardt@uoguelph.ca and ksmccan@uoguelph.ca, with subject line “LastName-CEM-Fellowship-application”):

1) A CV
2) Research statement with a description of past research accomplishments and proposed research including potential faculty mentors (2 pages)
3) A brief description of the proposed workshop, seminar or discussion group series the Fellow would lead (1 page or less)
4) Statement of contributions to diversity, equity, and inclusion (1 page)
5) Copies of 2 publications (preprints are welcome)
6) Contact information for three references

At the Centre for Ecosystem Management and the University of Guelph, fostering a culture of inclusion is an institutional imperative. We invite and encourage applications from all qualified individuals, including from groups that are traditionally underrepresented in employment, who may contribute to further diversification of our institution.