

Committee: Environmental and Ecological Planning Advisory Committee (Member at Large)

Organization/Sector represented:

Name: **Iain MacKenzie**

Address:

**Apt 411; 217 Sarnia Rd.
London, Ontario
N6G 1N1**

Occupation: **Graduate Student**

Work experience: **My work experience has largely centered around monitoring and managing aquatic ecosystems. To date I've held contract positions with the Ganaraska Regional Conservation Authority, the Ontario Ministry of Natural Resources, and an ecology research lab at Queen's University. As an assistant water resources technician for the Ganaraska Conservation Authority (Port Hope, Ontario) I spent time working to improve watershed management and monitoring in Northumberland County. To this end my responsibilities included measuring stream-flow, monitoring groundwater levels, installing and maintaining automated flow samplers, as well as organizing water-quality and benthic invertebrate monitoring programs for the Port of Newcastle wetland systems. My employment as an assistant fisheries technician with the Ontario Ministry of Natural Resources provided exposure to a diversity of fisheries management techniques. This included netting projects, creel surveys, invasive species mapping, and reintroductions of endangered or extirpated species. Most recently, I held a position as a research assistant and thesis student in the Paleoecological Environmental Assessment and Research Laboratory at Queen's University. While working in the lab I assisted with water and sediment sampling throughout the Adirondack State Park. This sampling program was part of an investigation of regional recovery in the once heavily acidified ecosystems of upstate New York. Currently, I work as a Teaching Assistant at the University of Western Ontario helping to teach a second year environmental biology course.**

Education: **I recently graduated from Queen's University with a BSc.H in Biology (specialization in limnology and aquatic ecology). My undergraduate thesis research focused on algal dynamics and explored how heavily polluted urban lakes recover once pollutant sources are eliminated. Recently, I've shifted my focus towards fisheries ecology and am currently pursuing a Master's of Biology at the University of Western Ontario studying reproductive timing in salmon species. I'm currently an active member of both the Canadian Society for Ecology and Evolution and the American Fisheries Society. I'm also a registered Wilderness Emergency Medical Technician and certified as an Emergency Medical Technician in the state of Alaska. Although somewhat unrelated to biological research, my role as an EMT is something I'm proud of and I continue to be committed to the safety of those in my community.**

Skills: **My employment and educational background have provided me with experience in limnology and aquatic ecosystem science. I'm familiar with the identification and habitat requirements for Ontario's amphibians, reptiles, fish, and aquatic invertebrate species. I have direct experience monitoring different environmental metrics in the field and I have hands-on experience with many aspects of watershed management and fisheries conservation. I'm comfortable analyzing and interpreting raw environmental data and I can critically evaluate environmental assessments. I have experience performing biodiversity surveys and I enjoy communicating science to the public. Finally, I have three years experience researching and monitoring urban ecosystems. This interest in urban ecology has led me to investigate, among other things, the impact of road noise on breeding amphibian populations, the processes of urban lake recovery, and the influence of environmental change on freshwater fish species.**

Interest reason: **I want to make a contribution to my new community and I want to tackle the challenge of promoting sustainable development, wise-management of local resources, and the protection of vulnerable species and ecosystems. London has made impressive strides with urban forestry and is a leader in urban "greening" with well-used and extensive river corridor system. I would be honoured to contribute to the proud legacy of harmonizing conservation agendas and developmental priorities. I feel I could help chart**

the city's environmental future, especially where aquatic ecosystems are concerned. Finally, with a large student population within the city of London, and as a student myself, I feel I could bring a young Londoner's perspective to the table.

Contributions: Having worked both as a field technician and as a researcher I could bring a holistic approach to understanding and solving ecological challenges. I'm comfortable performing literature reviews and can synthesize and present research literature succinctly. I'm also comfortable analyzing and interpreting raw environmental data and I can critically evaluate environmental assessments. I would provide a strong commitment and attempt to balance development agendas with the preservation, protection, and promotion of the cities ecologically important and environmentally sensitive areas.

Past contributions: While I have never formally sat on an advisory committee, I have previously advised on environmental issues. While working at the Ontario Ministry of Natural Resources I served as a liaison between the Ministry and a local volunteer group; the Frontenac Stewardship Council. In my capacity as liaison I was privileged to advise the council on the status of a number of individual lakes in north Frontenac County. This required independent research, literature reviews, analysis of archived OMNR data, and the synthesis of all relevant material into report documents. These reports were then used to by the Frontenac Stewardship Council to set priorities for lake rehabilitation projects and monitoring programs.

Interpersonal: Last year I served as a committee member on the biology "capstone" committee at Queen's University. This committee served to represent the honour's year biology class in discussions with the department and to organize major academic events (presentation days, guest lectures, and seminars) throughout the year. By working closely with five other students, the value of learning and respecting the strengths of all committee members became readily apparent. By playing to each other's strengths and by respecting different methods for accomplishing common goals we optimized efficiency and completed a number of objectives ahead of schedule. Respectful discussion of disparate viewpoints was crucial as it allowed for creativity to influence our problem solving. This experience influenced my abiding belief that the best decisions are born from an appreciation for all viewpoints.

Interview interest: Yes