

## Presentations of new Biology M.Sc. Projects

BIOL5056 Biology Seminars

Tuesday 4 April 2023

Executive Learning Centre FA-386

### 9:00 Opening

*Session 1 Aquatic ecosystems and soils (Chair: Adam Lepage)*

9:05 **Emily Fields.** Patterns in fish biodiversity across acid-recovering drainage basins of northeastern Ontario.

9:20 **Taylor Nicholls.** Mercury, arsenic, and selenium in multiple tissues of subsistence fish from traditional territory of an Indigenous community in Canada.

9:35 **Katheryn Klajman.** The effects of aerial liming reclamation on soil pH, enzyme activities, and microbial community composition in Greater Sudbury, ON.

9:50 **Michael Suszter.** Thermal effects on soil microorganism community structure and associated enzymes in Cu and Ni contaminated soils.

### 10:05 Short break

*Session 2 Vertebrate conservation (Chair: Bryan Hughes)*

10:15 **Brooke Carroll.** Ecology of species at risk turtles and traditional medicines within the footprint of a transmission line and a proposed highway expansion.

10:30 **Sabrina Lounsbury.** Measuring the success of an innovative fence design for mitigating road-mortality of Eastern Foxsnakes (*Pantherophis gloydi*) and other at-risk reptiles in eastern Georgian Bay.

10:45 **Steph Thibeault.** Investigating sexual colour dimorphism in a central Ontario population of spotted turtles (*Clemmys guttata*).

11:00 **Emily Gerling.** Diet and physical condition of bobcats, *Lynx rufus*, at the northern limit of their distribution.

11:15 **Owen Dyer.** Measuring the effects of individual and co-occurring parasite load in urban eastern chipmunk (*Tamias striatus*) with relation to boldness and exploratory behaviors.

### 11:30 Break with refreshments and snacks

*Session 3 Biomedical science and neurobiology (Chair: Alexandra Jameus)*

12:00 **Sarah Feaver.** Investigating cell stress and cell death pathways in intestinal L-cells.

12:15 **Noah Dickinson.** Investigating the molecular mechanisms of radiation resistance in human breast cancer cells via dysregulation of the prostaglandin signaling system.

12:30 **Carlee Chezzi.** A histological analysis of cortical and subcortical structural differences in rat brains with low-energy mechanical insult injuries.

12:45 **Landon Lefebvre.** The potential biological mechanism of protein-patterned electromagnetic fields and their therapeutic potential.

13:00 **Samuel Levac.** Biophoton communication between cancer cells.

13:15 **Benjamin Rain.** Calcium communication: movement patterns in biological systems.

### 13:30 Closing words