

**MSc/PhD positions available in  
Comparative and Evolutionary Biomechanics**  
Standen Lab, University of Ottawa  
[www.standenlab.com](http://www.standenlab.com)

The Standen lab is looking for highly motivated and enthusiastic individuals interested in pursuing a masters or doctoral degree in comparative and evolutionary biomechanics at the University of Ottawa.

Our lab is interested in understanding how animal behaviour and evolutionary processes are constrained by functional morphology. Using primarily fish as a model, we examine how both sudden and long-term exposure to severe environmental changes affect morphology, physiology, behaviour, and biomechanics. We have numerous projects currently underway, including studying how short- and long-term exposure to terrestrial environments affect skeletal morphology and material properties and muscle morphology, activation patterns, and physiological (contractile) properties in walking and swimming bichirs (*Polypterus senegalus*).

We use cutting-edge techniques and equipment for these and other avenues of research including synchronized high-speed cameras for capturing the 3D kinematics of locomotor behaviour, electromyography for the quantification of muscle activity, force plates to quantify forces produced during walking, particle image velocimetry for the visualization of fluid forces, and a state-of-the-art Aurora setup that allows us to characterize *in situ/in vitro* muscle contractile properties. Successful applicants will have the opportunity to develop familiarity and expertise in the use of these techniques and will gain an integrative perspective of research in the fields of physiology, biomechanics, and evolution. Initiative is highly encouraged and actively fostered in the lab - students will be aided in the development of exciting thesis projects that cater to their interests and expand their strengths.

Interested Canadian and international applicants should email 1) a cover letter expressing your interest, 2) curriculum vitae, and 3) unofficial transcripts to Dr. Emily Standen ([estanden@uottawa.ca](mailto:estanden@uottawa.ca)). The Standen lab has funding available for exceptional MSc and PhD candidates. However, students are also encouraged to explore and apply for external funding (there are numerous scholarship opportunities offered through uOttawa and other agencies: see <http://www.uottawa.ca/graduate-studies/students/awards>).