

Elizabeth A. Nyboer, Ph.D.

Curriculum Vitae

e-mail: elizabeth.nyboer@carleton.ca

website: <https://elizabethnyboer.weebly.com>

EDUCATION

- 2018** **Ph.D., McGill University, Department of Biology**
Title: Climate change adaptation in African inland fisheries
Supervisor: Dr. Lauren Chapman
- 2013** **M.Sc., McGill University, Department of Biology**
Title: Movement, homerange and ecological divergence in the commercially fished Nile perch of Lake Nabugabo, Uganda.
Supervisor: Dr. Lauren Chapman
- 2008** **B.Sc., Simon Fraser University, Double major in the Departments of Biology & Humanities**
Ecology and Evolution
Supervisors: Dr. Elizabeth Elle and Dr. Isabelle Côté

RESEARCH GRANTS AND FELLOWSHIPS

- 2019** FRQNT post-doctoral research grant (\$110,000 CAD)
- 2017** McGill Graduate Writing Fellowship (\$6,000 CAD)
- 2016** Vineberg Fellowship (\$4,770 CAD)
- 2015** International Development Research Centre (IDRC) Doctoral Research Grant (\$20 000 CAD)
- 2013** NSERC Post Graduate Scholarship, Doctoral (\$63,000 CAD)
- 2013** Provost's Graduate Fellowship, Doctoral (\$5,000 CAD)
- 2013** Lorne Trottier Science Fellowship, Doctoral (\$5,000 CAD)
- 2010** NSERC Canada Graduate Scholarship, Masters (\$17,500 CAD)
- 2010** Provost's Graduate Fellowship, Masters (\$1,500 CAD)
- 2010** Lorne Trottier Science Fellowship, Masters (\$2,500 CAD)
- 2007** NSERC USRA Undergraduate Research Fellowship (\$4,500 CAD)

AWARDS

- 2018** QCBS Excellence Award (\$1750 CAD)
- 2017** QCBS Excellence Award (\$1,000 CAD)
- 2017** Graduate Research Enhancement and Training Award, McGill Biology (\$500 CAD)
- 2016** Graduate Travel Award, McGill Biology (\$2,000 CAD)
- 2015** Graduate Travel Award, McGill Biology (\$2,000 CAD)
- 2015** QCBS Intensive Course Award (\$1,297 CAD)
- 2015** Graduate Research Enhancement and Training Award, McGill Biology (\$500 CAD)
- 2014** QCBS Excellence Award (\$1,435 CAD)
- 2014** QCBS Excellence Award (\$1,010 CAD)

- 2014** Graduate Travel Award, McGill Biology (\$2,000 CAD)
2013 Graduate Travel Award, McGill Biology (\$1,500 CAD)
2013 QCBS Excellence Award (\$2,500 CAD)
2012 QCBS Excellence Award (\$1,620 CAD)
2008 PEEC Undergraduate Travel Award, SFU Biology (\$200 CAD)

PEER REVIEWED PUBLICATIONS

- Nyboer, EA** & Chapman LJ. **2018**. Cardiac plasticity influences aerobic performance and thermal tolerance in a tropical, freshwater fish at elevated temperatures. *Journal of Experimental Biology*. DOI: 10.1242/jeb.178087.
- Nyboer, EA** & Chapman LJ. **2017**. Elevated temperature and acclimation time affect metabolic performance in the heavily exploited Nile perch of Lake Victoria. *Journal of Experimental Biology*. 220: 3782-3793.
- Fugere V, **Nyboer EA**, Bleecker J & Chapman LJ. **2016**. Impacts of forest loss on inland waters: A global mismatch among deforestation rates, ecosystem services, and research effort. *Biological Conservation*. 201:277-283.
- Nyboer EA**, Gray SM & Chapman LJ. **2014**. A colourful youth: ontogenetic colour change is habitat-specific in the invasive Nile perch. *Hydrobiologia*, 738: 221-234. ***chosen for the October 2014 issue cover*
- Vaccaro I, Chapman CA, **Nyboer EA**, Luke M, Byekwaso A, Morgan C, Mbabazi D, Twinomugisha D & Chapman LJ. **2013**. An inter-disciplinary methodology to harmonise ecology, economy, and co-management: Fisheries exploitation in Lake Nabugabo, Uganda. *African Journal of Aquatic Science*, 38: 97-104.
- Nyboer EA** & Chapman LJ. **2013**. Ontogenetic shifts in phenotype-environment associations in Nile perch, *Lates niloticus* (Perciformes: Latidae) from Lake Nabugabo, Uganda. *Biological Journal of the Linnean Society*, 110: 449-465.
- Nyboer EA** & Chapman LJ. **2013**. Movement and home range of introduced Nile perch (*Lates niloticus*) in Lake Nabugabo, Uganda: Implications for ecological divergence and fisheries management. *Fisheries Research*, 137: 18-29.
- Molloy PP, **Nyboer EA** & Côté IM. **2011**. Male-male competition in a mixed mating fish. *Ethology*, 117: 586-596.

SUBMITTED MANUSCRIPTS

- Nyboer, EA**, Liang, C & Chapman LJ. 2018. Assessing the vulnerability of Africa's freshwater fishes to climate change: a continent-wide trait-based analysis. Under revision for Biological Conservation. BIOC-2018-1237.
- Nyboer, EA**, Chrétien, E & Chapman LJ. 2018. Divergence in aerobic scope and thermal tolerance of an introduced piscivore is related to local thermal regime. Submitted to Physiological and Biochemical Zoology. PBZ-18142.

INVITED PRESENTATIONS

- 2019** **Nyboer EA**, Chretien E, Kimera S and Chapman L. Planet water: Association for the Sciences of Limnology and Oceanography, San Juan, Puerto Rico. *Tropical*

- fish in a warming world: Effects of elevated temperature on metabolic performance of commercially harvested African fishes.*
- 2016** **Nyboer EA.** Weekly Seminar Series, National Fisheries Resources Research Institute of Uganda, Jinja. *Survey results for climate change adaptation in 5 fishing communities on the Lake Victoria basin: trends and comparison.*
- 2016** **Nyboer EA.** Weekly Seminar Series, National Fisheries Resources Research Institute of Uganda, Jinja. *Thermal tolerance and climate change: what comes next for fisheries of the Lake Victoria Basin.*
- 2015** **Nyboer EA.** Monthly Seminar Series, Aquaculture Research and Development Center, Kajjansi, Uganda. *Using respirometry techniques to investigate the thermal tolerance of commercially-important aquaculture fish species in Uganda.*
- 2014** **Nyboer EA & Chapman LJ.** The future of biodiversity in the Anthropocene, McGill School of Environment Symposium, Montreal. *Thermal tolerance of tropical freshwater fish: Predicting the effects of climate change in equatorial waters.*
- 2014** **Nyboer EA & Chapman LJ.** Weekly Seminar Series, National Fisheries Resources Research Institute, Jinja, Uganda. *Predicting the effects of climate change on the Nile Perch of the Lake Victoria Basin.*

SELECTED CONFERENCE PRESENTATIONS

- 2017** **Nyboer EA & Chapman LJ.** Canadian Society for Ecology and Evolution, Victoria, BC. *Metabolic performance of a commercially harvested tropical freshwater fish at elevated temperatures.*
- 2017** **Nyboer EA & Chapman LJ.** Canadian Conference for Fisheries Research, Montreal. *Metabolic performance and fitness-related responses of a commercially-harvested tropical freshwater fish (Nile perch) to elevated temperatures.*
- 2016** Chapman LJ, Chretien E*, McDonnell LJ*, **Nyboer EA***. 12th International Congress on the Biology of Fish. Texas State University, San Marcos, Texas. *Hot fish in a warming world: Effects of elevated temperature on energetics and performance of equatorial African fishes.* *Equal contributors
- 2015** **Nyboer EA & Chapman LJ.** Global Conference on Inland Fisheries, Food and Agriculture Organization of the United Nations. Rome, Italy. *Thermal tolerance of tropical freshwater fish: Predictions for equatorial fisheries under climate change.*
- 2014** **Nyboer EA & Chapman LJ.** Quebec. Center for Biodiversity Science Annual Symposium, Montreal. *Thermal tolerance of tropical freshwater fish: Predictions for fisheries under climate change.*
- 2014** **Nyboer EA & Chapman LJ.** Genomes to Biomes, CSEE, Montreal. *Thermal tolerance of tropical freshwater fish: Predicting the effects of climate change in equatorial waters.*
- 2013** **Nyboer EA & Chapman LJ.** National Fisheries Resources Research Institute of Uganda, Jinja and Lake Victoria Fisheries Organization. *Movement, home range and eco-morphological divergence in Nile perch (*Lates niloticus*) in Lake Nabugabo, Uganda.*
- 2012** **Nyboer EA & Chapman LJ.** World Fisheries Congress, Edinburgh. *Movement, home range and ecological divergence in the commercially fished Nile perch (*Lates niloticus*) in Lake Nabugabo, Uganda.*
- 2012** **Nyboer EA & Chapman LJ.** Quebec Center for Biodiversity Science Annual Symposium, Montreal. *Habitat-associated divergence of Nile perch in Lake Nabugabo, Uganda. Quebec Center for Biodiversity Science Annual Symposium.*

- 2011** **Nyboer EA** & Chapman LJ. Quebec Center for Biodiversity Science Annual Symposium, Montreal. Movement, home range and vulnerability in the commercially fished Nile perch (*Lates niloticus*) in Lake Nabugabo, Uganda.
- 2010** **Nyboer EA** & Chapman LJ. Quebec Center for Biodiversity Science Annual Symposium, Montreal. Ecological divergence in the commercially fished Nile Perch (*Lates niloticus*) in Lake Nabugabo, Uganda.
- 2009** **Nyboer EA**, McCormick, JA, Courcelles DMM, Palen, WJ, Power ME, McNeely C, Limm M, Finlay J. Pacific Ecology and Evolution Conference (PEEC), Bamfield. *Eating in or going out? Tracing the sources of energy to top predators across a watershed.*
- 2008** **Nyboer EA**, Molloy PP & Côté IM. Pacific Ecology and Evolution Conference (PEEC) (Bamfield). *Big males, red males? Intra-sexual competition and dominance in a mixed mating fish.*

TEACHING

Co-instructor

- 2013** Perspectives in Science (BIOL 210), McGill University (co-instructor and TA)

Teaching Assistant

- 2015** Perspectives in Science (BIOL 210), McGill University
- 2014** Perspectives in Science (BIOL 210), McGill University
- 2013** Canadian Field Studies in Africa (field lecture), McGill University
- 2012** Perspectives in Science (BIOL 210), McGill University
- 2012** Cell and Molecular Biology (BIOL 112), McGill University
- 2011** Perspectives in Science (BIOL 210), McGill University
- 2011** Canadian Field Studies in Africa (field lecture), McGill University
- 2010** Organismal Biology (BIOL 111), McGill University
- 2010** Cell and Molecular Biology (BIOL 112), McGill University
- 2007** Plant Ecology (BISC 404), Simon Fraser University

Guest Lectures

- 2015** BIOL 465, Conservation Biology, McGill University, Montreal. *Thermal tolerance in tropical freshwater fish.*
- 2013** Fisheries Management Course, Makerere University, Uganda. *Implications of climate change for stability in the Nile perch fishery of Lake Victoria.*
- 2013** Canadian Field Studies in Africa, McGill University. *Current research on Lake Nabugabo's Nile perch fishery.*
- 2012** Canadian Field Studies in Africa, McGill University. *Field research methods and techniques at the Lake Nabugabo field site.*
- 2011** BIOL 210, Perspectives in Science, McGill University. *Midterm Review Lecture.*

Student mentorships

- 2018** Chris Liang, Undergraduate researcher, McGill University.
Project title: *Using GIS to predict impacts of climate change on African fisheries.*
- 2017** Stephen Kimera, M.Sc., Makerere University, Uganda.
Project title: *Thermal tolerance of Nile tilapia in the Lake Victoria basin, Uganda.*
- 2017** Luisa Trujillo, Undergraduate honours, McGill University.
Project title: *Using heart and gill measurements provide insight on physiological limitations of commercially harvested tropical fish exposed to elevated temperatures.*
- 2016** Juilia Conzon, Undergraduate researcher, McGill University
Project title: *Using GIS to predict impacts of climate change on African fisheries.*
- 2014** Richard Ddungu, Undergraduate Researcher, NaFIRRI, Uganda
Project title: *Thermal tolerance of Nile perch in the Lake Victoria basin, Uganda*
- 2012** Johanna Bleecker, Undergraduate researcher, McGill University
Project title: *Movement and home range of Nile perch.*
- 2011** Jennifer Sunahara, Undergraduate Researcher, McGill University
Project title: *Ontogenetic colour variation in Nile perch.*
- 2009** Danielle Courcelles & Jodie McCormick, Undergraduate Researchers, SFU.
Project title: *Food web interactions of Pacific salmon.*

SERVICE AND VOLUNTEER ACTIVITIES

Professional affiliations and volunteer activities

- 2019 – present** Member of InFish
- 2019 – present** Member of the Association for the Sciences of Limnology and Oceanography
- 2015 – present** Member of the Canadian Society for Ecology and Evolution
- 2013 – 2016** Student representative for the Canadian Aquatic Resources Section (CARS) of the American Fisheries Society (AFS)
- 2013 – present** Member of the American Fisheries Society
- 2013 – 2017** Student volunteer, QCBS annual symposium
- 2012 – 2015** Biology Graduate Student Association (BGSA) councillor
- 2010 – 2018** Quebec Center for Biodiversity Science (QCBS) student member
- 2014** Co-organizer on student sub-committee for American Fisheries Society (2014) annual meeting

Peer review

Marine and Freshwater Research
Journal of Fish Biology
Hydrobiologia
Biological Journal of the Linnaean Society
Fisheries Research
African Journal of Fisheries and Aquatic Science
International Journal of Fisheries and Aquaculture