

# THOMAS PRETTY, MSc in Integrative Biology

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## PERSONAL SUMMARY

- For over 6 years, I conducted international work in 5 different countries (Australia, China, Uganda, USA, and South Korea).
  - I volunteered on many projects, including fundraising and building clean water facilities (Uganda), invasive species research and water quality (Canada), and bird stewardship (USA).
  - Biologist during the Gulf of Mexico oil spill of 2010. I have experience working as a regional and provincial government field biologist, monitoring water quality and habitat assessments.
  - I have worked in remote locations in Canada's Arctic and the outback of Australia for extended periods.
  - Communication and time management skills were developed as I worked as a science, economics, and English teacher for over 6 years (China and South Korea).
  - I also have amassed over 10 years' experience working with construction and farm operations, making me a versatile employee capable of multiple disciplines.
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## EDUCATION

**MSc in Integrative Biology**, Wilfrid Laurier University, Waterloo, Ontario, Canada. **2018-2019**

**BSc Honours in Biology with a Joint-Major in Business Administration**, Trent University, Peterborough, Ontario, Canada. **2004-2009**

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## ENVIRONMENTAL MONITORING EXPERIENCE

**Forest fire researcher. 01/2018 – 02/2020**, Wilfrid Laurier University, Sahtú Lands, NWT. Canada

- Analysed forest fire impacts to subarctic lake ecosystems.
- Field lead and co-supervised undergraduate students.
- Soil, sediment, and water chemistry analysed.
- Methylmercury and isotopic analysis of soil, sediment, surface water, and biota.
- Collected and identified zooplankton to genus and benthic invertebrates to family.
- Statistic modelling (R-Programming).
- Analysed watershed area, dNBR, and NDVI using ArcGIS and Google Earth Engine.

**Research assistant. 07/2019 – 08/2019**, Wilfrid Laurier University, Fort McPherson to Tuktoyaktuk, NWT. Canada

- Cumulative Impact Monitoring Program (CIMP): Monitoring lakes along the Dempster highway.
- Bathymetric mapping and collected and identified fish, benthic invertebrates and zooplankton.

**Research assistant. 05/2018 – 06/2018 and 05/2019 – 06/2019**, Wilfrid Laurier University, Fort McPherson and Tsiigehtchic, NWT. Canada

- Impacts of ferry landings on water quality and fishing opportunities in the MacKenzie and Peel Rivers.
- Working with indigenous communities.
- Sampling bedload and dissolved suspended sediment collected and analysed in rivers.
- Bathymetric mapping and benthic invertebrate collected.

**Deep Water Horizon biological response. 05/2010 – 06/2010**, British Petroleum/Matrix New World Engineering, Grande-Isle, LA, USA

- Located, identified, and collected birds with oil contamination.
- Monitored bird and sea turtle species at risk populations.

**Aquaculture technician. 01/2017 – 07/2017**, Blaslov's Group Tuna Farm Aquaculture Fisheries, Port Lincoln, SA. Australia

- Monitored and maintained the well-being of Bluefin tuna.

- Conducted proper aquaculture techniques to double the size in less than 5 months.

**Wildlife control technician. 01/2014 – 06/2014**, Skeddaddle Humane Wildlife Control, Ottawa, ON. Canada

- Monitored, and removed wildlife from homes.
- Informed about the behaviour of wildlife, including raccoons, squirrels, mice, and birds.

**Fish specialist. 09/2009 – 02/2010 and 01/2011 – 08/2011**, Big Al's Aquarium Services, Ottawa, ON. Canada

- Water chemistry analysed.
- Fish care and identified.

**Fisheries technician. 05/2007 - 08/2007**, City of Ottawa, Ottawa, ON. Canada

- Hydrology stream assessed using water distilling facilities and flow monitoring probes.
- Benthic invertebrate and fish collected and identified.

**Fish and wildlife assistant. 05/2006 – 08/2006**, Ontario Ministry of Natural Resources, Kemptonville, ON. Canada

- Fish collected, identified, and population report created.
- Released and monitored farm-raised Lake Trout in lakes.
- Mammal (Fisher) population and age assessed through X-ray.
- Bear safety program and monitor.
- Raptor bird populations assessed.
- GIS maps created.

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## POLICY ADVISING EXPERIENCE

**Water monitoring policy advisor. 08/2019**, Wilfrid Laurier University, Sahtú Lands, NWT. Canada

- Consulted leaders and citizens of the Dené first nations on the creation of a citizen run water monitoring program.
- Helped document and raise an enactment to form an inquiry committee.

**Natural resource advisor. 06/2010 – 12/2010**, British Petroleum/Matrix New World Engineering, Grande-Isle, LA., Biloxi, MS., and Gulf Shores, AL. USA

- Monitored and created legal documentation of oil spill cleaning operations, in compliance with US environmental laws and best management practices (BMP).
- Dune and beach ecosystem restoration.

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## LEADERSHIP AND TRAINING EXPERIENCE

**Teaching assistant in biology. 01/2018 – 12/2019**, Wilfrid Laurier University, Waterloo, ON. Canada

- Utilized analytical and observant skills to assess marks in class.
- Enforced health and safety policies for laboratory operations.
- Conducted lectures.

**Biology, environmental, and economics high-school teacher. 08/2014 – 07/2016**, American Lee International Academy of Shanghai, Shanghai, China

- Designed various curriculums based on the Next Generation of Science Standards for Life Sciences, Earth and Space Science, and Economics.
- Designed and implemented a full laboratory.
- Tripled studentship.

**Science and English teacher. 09/2011 – 09/2013**, Sangnok Elementary School, Seoul, Korea

- Prepared lesson plans, clear objectives, demonstrated solid classroom managerial skills and completed reports and other documentation required by administration.
- Taught students from Kindergarten to Grade 6.

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## OTHER EXPERIENCES

**Construction Labourer. 01/1997 – 06/2017**, Ron's Reno, Kemptonville, ON. Canada

- Managed small construction and labour crews

- Performed various labour intensive tasks under small time frames.

**Farm Labourer / Husbandry Caretaker. 01/1997 – 12/2016,** Various Farms, Canada and Australia

- Cattle and horse husbandry, including dairy
- Square hay bale and grain harvest
- Operated tractors and All-Terrain vehicles.

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## COMMUNITY VOLUNTEER EXPERIENCES

**Biograd and Graduate Student Association. 09/2018-05/2019,** Laurier University, Waterloo, ON. Canada

- Coordinated events and helped run the student committee.

**Design change for a living. 03/2018 and 03/2019,** World Wildlife Fund, Toronto, ON. Canada

- Team design challenge for projects based on ecological sustainability.

**Aquaculture consultant and Water supply, Sanitation, and Hygiene (WASH). 09/2017 – 12/2017,** Africa Sustainable Tourism Care Foundation (NGO) (Volunteer), Khang Village, Uganda

- Fundraised and built clean water wells and latrines for impoverished villages in Africa.
- Designed, built, and trained locals on aquaculture practices and fish farming.

**Bird stewardship. 03/2010 – 05/2010,** Audubon Society, St. Augustine, FL. USA

- Surveyed bird species at risk populations.

**Community services consultant. 01/2009 – 03/2009,** City of Peterborough, Peterborough, ON. Canada

- Interviewed various employees working for the City of Peterborough.
- Helped develop a mission statement for the City of Peterborough's Community Services department.

**Limnological surveying of lakes recovering from acidification. 07/2008 – 08/2008,** Killarney Provincial Park, Killarney, ON. Canada

- Zooplankton and benthic invertebrate collected and identified.
- Water chemistry analysed.
- EC50 assessment of copepods to low pH.

**Aquatic invasive species research. 06/2008,** Ontario Federation of Anglers and Hunters, Peterborough, ON. Canada

- Monitored stream populations of invasive species.

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## MAJOR ACADEMIC AWARDS AND SCHOLARSHIPS

- ArcticNet 2nd Place Poster for Terrestrial Research
- WWF Design Change for a Living 2<sup>nd</sup> Place
- Trent National Scholarship

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## CONFERENCE PRESENTATIONS

- **Canadian Conference for Fisheries Research (CCFFR). 2020,** Halifax, N.S. Canada
  - **American Geophysical Union (AGU). 2019,** San Francisco, CA. USA
  - **ArcticNet. 2019,** Halifax, N.S. Canada
  - **Cold Regions Research Center. 2019,** Waterloo, ON. Canada
  - **Global Water Futures (GWF). 2019,** Saskatoon, SK. Canada
  - **Wilfrid Laurier World Water Day. 2019,** Waterloo, ON. Canada
  - **Association for the Sciences of Limnology and Oceanography (ASLO). 2019,** San Juan, PR. USA
  - **ArcticNet. 2018,** Ottawa, ON. Canada
  - **Cold Regions Research Center. 2018,** Waterloo, ON. Canada
  - **McMaster Water Week. 2018,** Mississauga, ON. Canada
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## PUBLICATIONS

**How does forest fire affect water quality and invertebrates in subarctic lakes? (in prep.)**, Canadian Journal of Fisheries and Aquatic Sciences

- **Pretty T.J.**, Chanyi C., Kuhn C., Gray D.K.

**Which physiochemical variables should zooplankton ecologists measure when they visit a lake? (in review)**, Journal of Plankton Research.

- Elmarsafy M., Vucic M.J., Teillet M, **Pretty T.J.**, Cohen R., Huynh M., Gray D.K.
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## CERTIFICATES

- Ontario Driver license (G-Class)
  - Canadian Firearms license
  - Pleasure Craft Boaters Operation license
  - Ontario Benthos Biomonitoring Network (OBBN) identification to family training
  - Electrofishing certification – Class II backpack
  - Bear Aware Safety certification: Working in Bear Country
  - Wilderness First Aid certification and CPR
  - Working in SWIFT water certification
  - Advanced Water Scuba license (PADI)
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## LANGUAGES

- English (Mother tongue)
- French (Proficient)
- Korean (Read)