

# Introduction

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# Who am I?

- Ecologist & limnologist
  - Use palaeo as a tool
- Statistical ecologist
- Not an ecological statistician
- Used to teach the “ECRC Numerical Course” with John Birks
- Now a research scientist at IECS, U Regina
- Interested in
  - ecosystem response to environmental change
  - community dynamics
  - effects of N deposition on remote oligotrophic lakes
  - effects of nutrient enrichment on prairie lakes
  - C & N dynamics
  - statistical modelling



**Figure 1:** Me on a miserable summers day in Greenland

We want to use methods that are

- ecologically plausible
- simple without being too simple
- not unduly complex

John Birks' legacy on quantitative palaeoecology

Yet as a field we haven't moved with the times — squandering John's legacy

What was simple / not too complex 20 years ago may not be the best “simple-non-complex” way now

As a field we are crap at training

Who here could reproduce the analyses for their

- terminal degree disertation?
- last paper?

For a worrying example, see Richard Telford's blog for his ongoing attempts to reproduce results from Lake Żabińskie (LaroqueTobler et al, 2015, *QSR* **111** 35–50)

Lectures 0930–1200 Lunch 1200–1300 Computers 1300–you give up

- Monday
  - Intro to R
  - Linear models
- Tuesday
  - GLMs
  - GAMs
- Wednesday
  - Ordination
- Thursday
  - Stratigraphic data
  - Time series
- Friday
  - GLMMs
  - Requests from the audience

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