EUROScholars
European Undergraduate Research Opportunities

Reconstructing Geomorphology, Hydrology, and Ecology of Floodplains

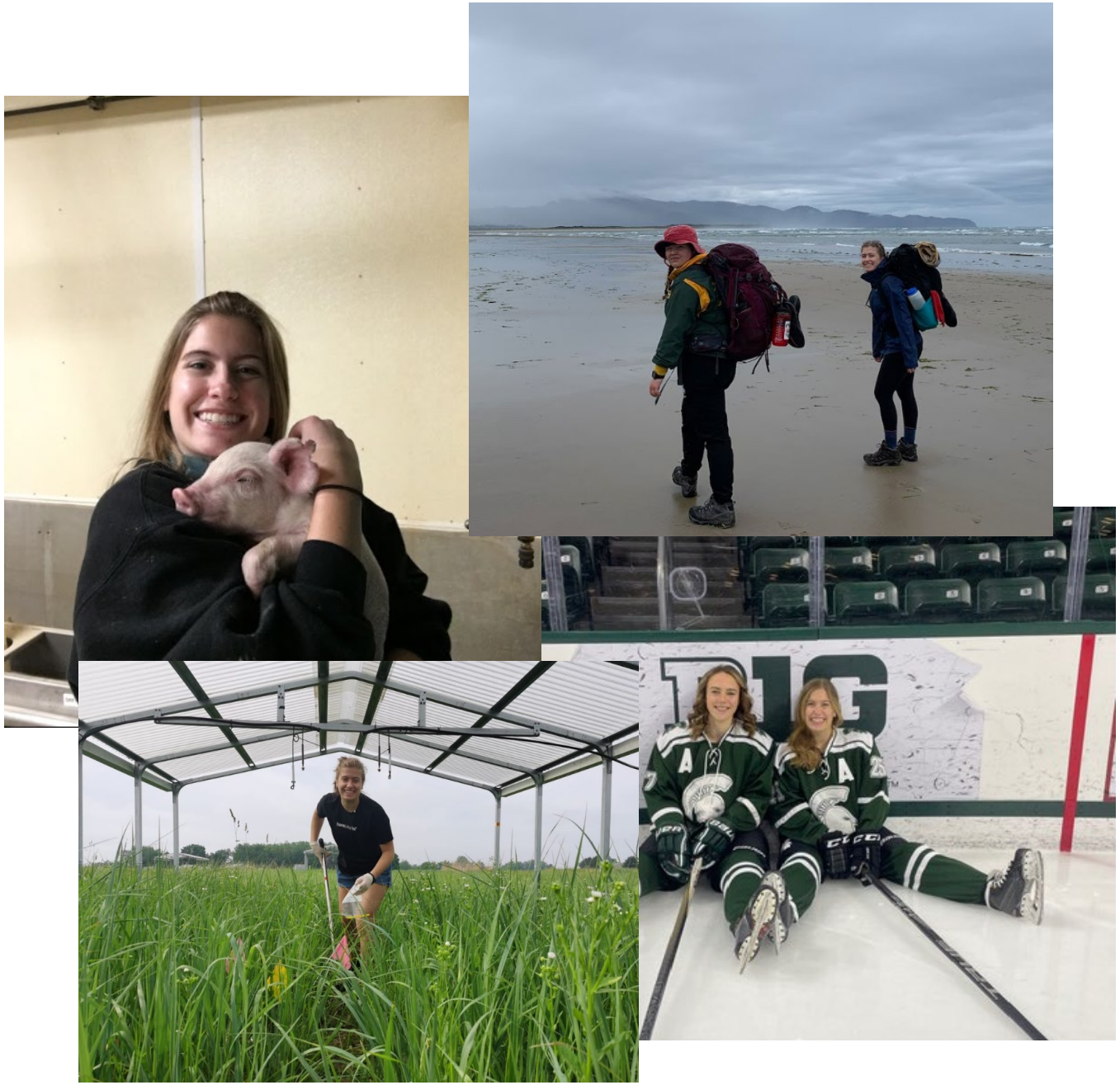
Understanding the origin and evolution of regional peatlands

KU LEUVEN

Claire Bott
Michigan State University
KU Leuven Supervisors: Dr. Gert Verstraeten, Renske Hoovers

EUROScholars
European Undergraduate Research Opportunities

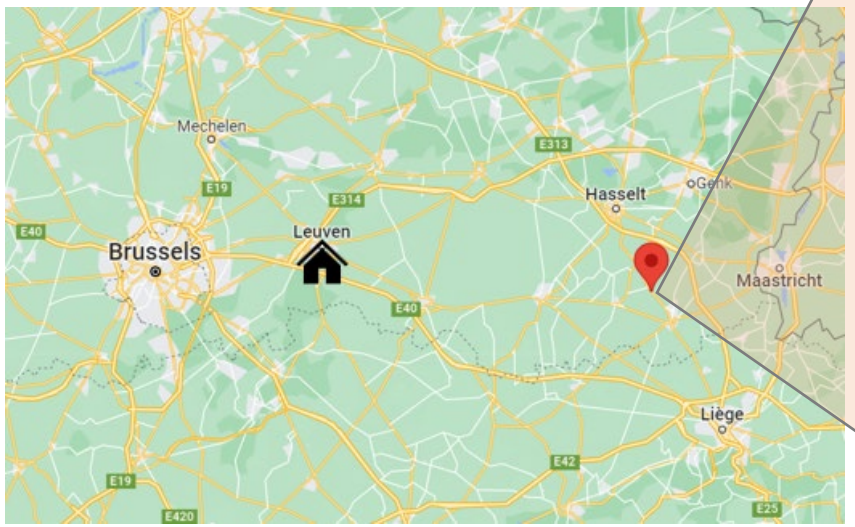
Hometown: Ann Arbor, Michigan
Michigan State University: Senior in Animal Science and Sustainability
Future goals: Sustainable Ag Management, Extension work, Graduate School



What is peat and why do we care?

Peat is an accumulation of partially decayed organic matter found in wetlands
-Stores large amounts of carbon
-Help purify water and control flooding
-Supports biodiversity

Study Site: Eggertingen Peat Bog



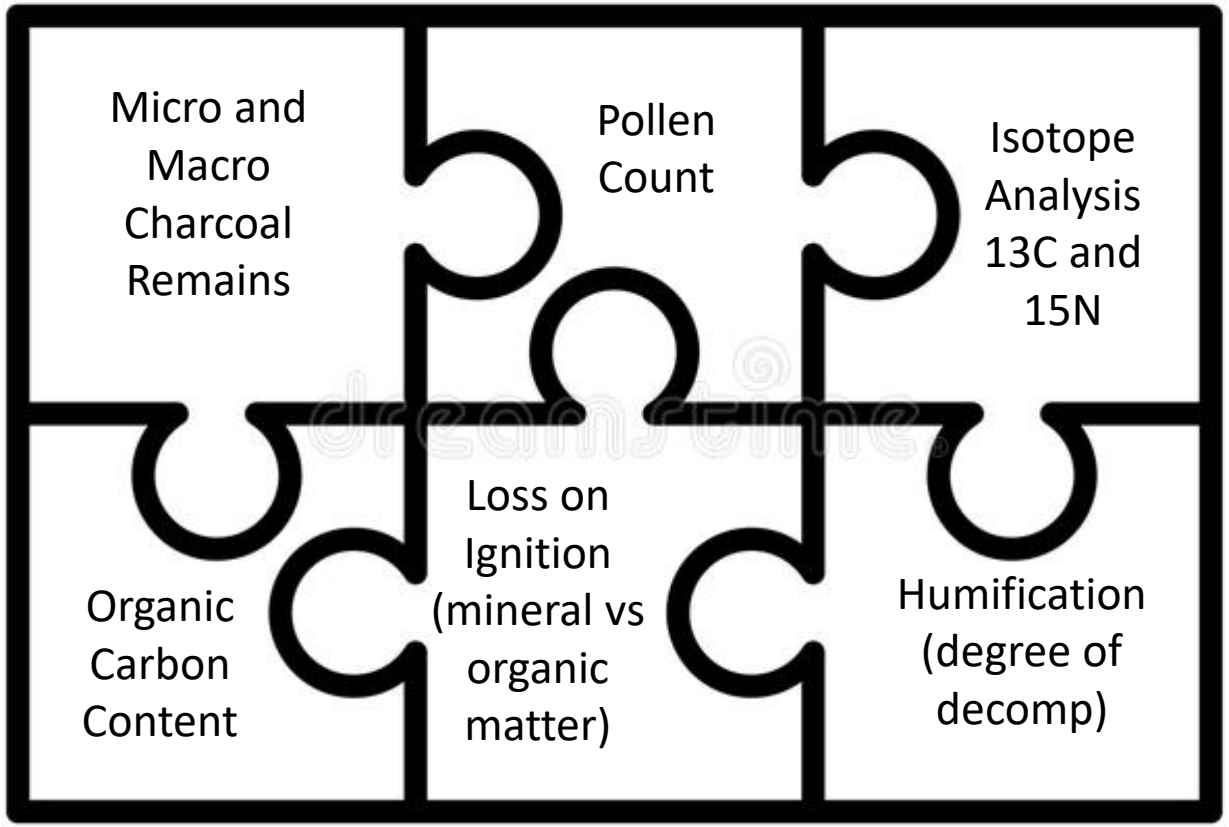
Field Data

- 24 Soil coils in 5 transects
  - Cored the Holocene age (11,000 yr BP) until late glacial sediment
- Used 1m soil auger and larger detailed core
- Area of the peat land is overestimated
- Peat quality was highly degraded
- Soil map is outdated

Lab Data

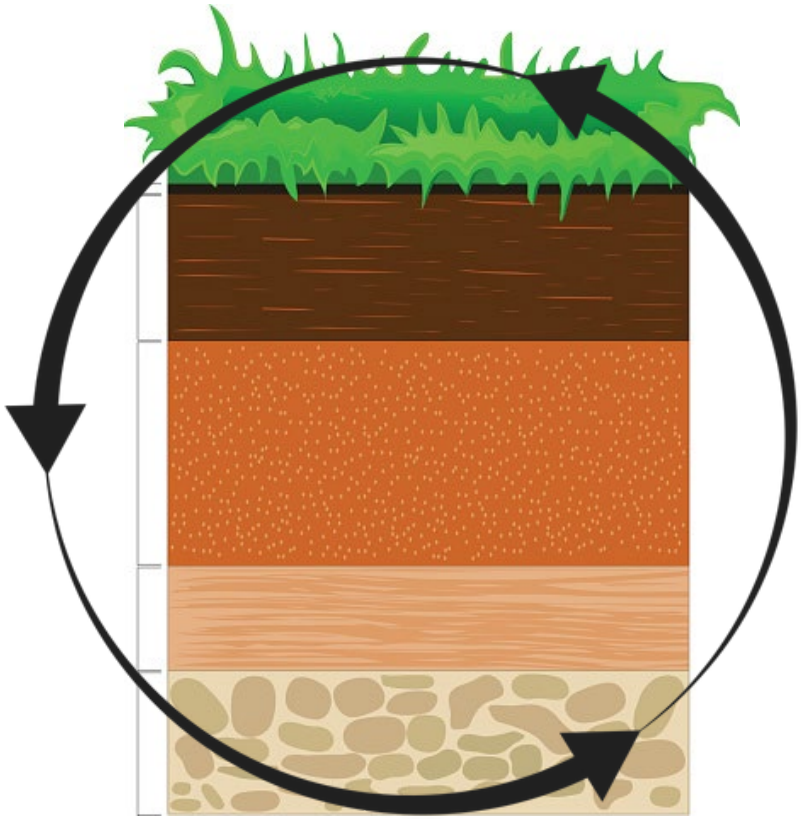
Analyze using multiple different proxies

Perform carbon dating to form a complete picture of the area



What do the results tell us?

1. Calculate the carbon stock held
   Useful for restoration and preservation purposes
2. Better define the bounds of the peatland
3. Understand regional and local changes in vegetation over time
4. Understand hydrological changes that have happened in the past
5. Understand human influence on the landscape



EUROScholars
European Undergraduate Research Opportunities

Questions?