



Getting My Feet Wet: A graduate internship mapping wetlands with the Adirondack Park Agency

Lydia Harvey

My Background

- Paul Smith's College
 - B.S. Biology (2020)
 - Wetland Ecosystems and Management

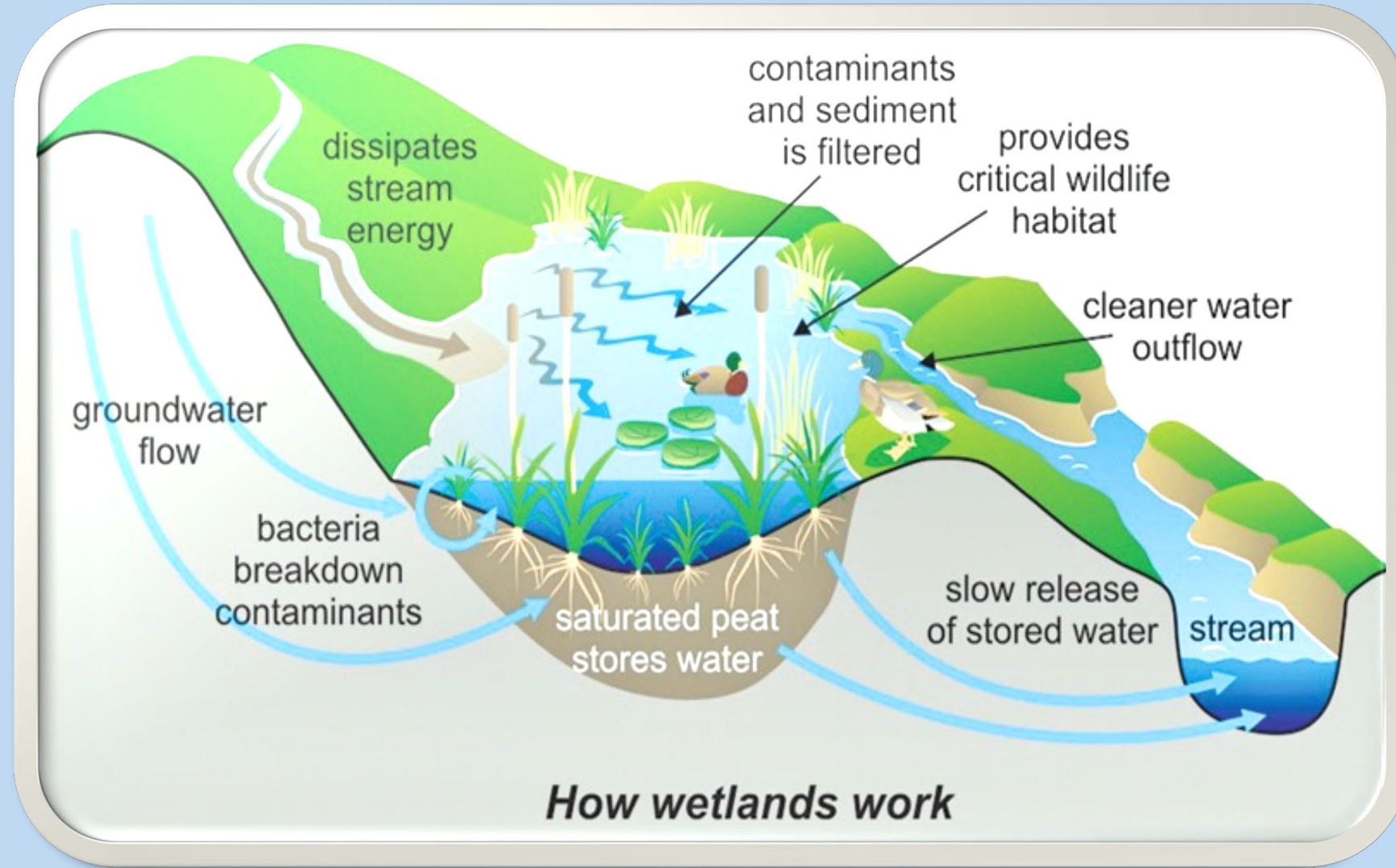


- SUNY Plattsburgh
 - M.S. Natural Resources and Ecology (2024)
 - Wetland Ecology focus
 - Wetland delineation certification
 - Internship



Benefits of Wetlands

- High storage capacity
- Prevents/slows erosion
- Brita filters of the ecosystem
- Carbon storage





Summer Internship

1. Wetland site visits with RASS
2. Deep-water marsh surveys





2024 Field Season-RASS



Site Visits With RASS

- Wetland Delineations
 - Vegetation
 - Soil
 - Hydrology
- Data collection
 - Survey123
 - Avenza



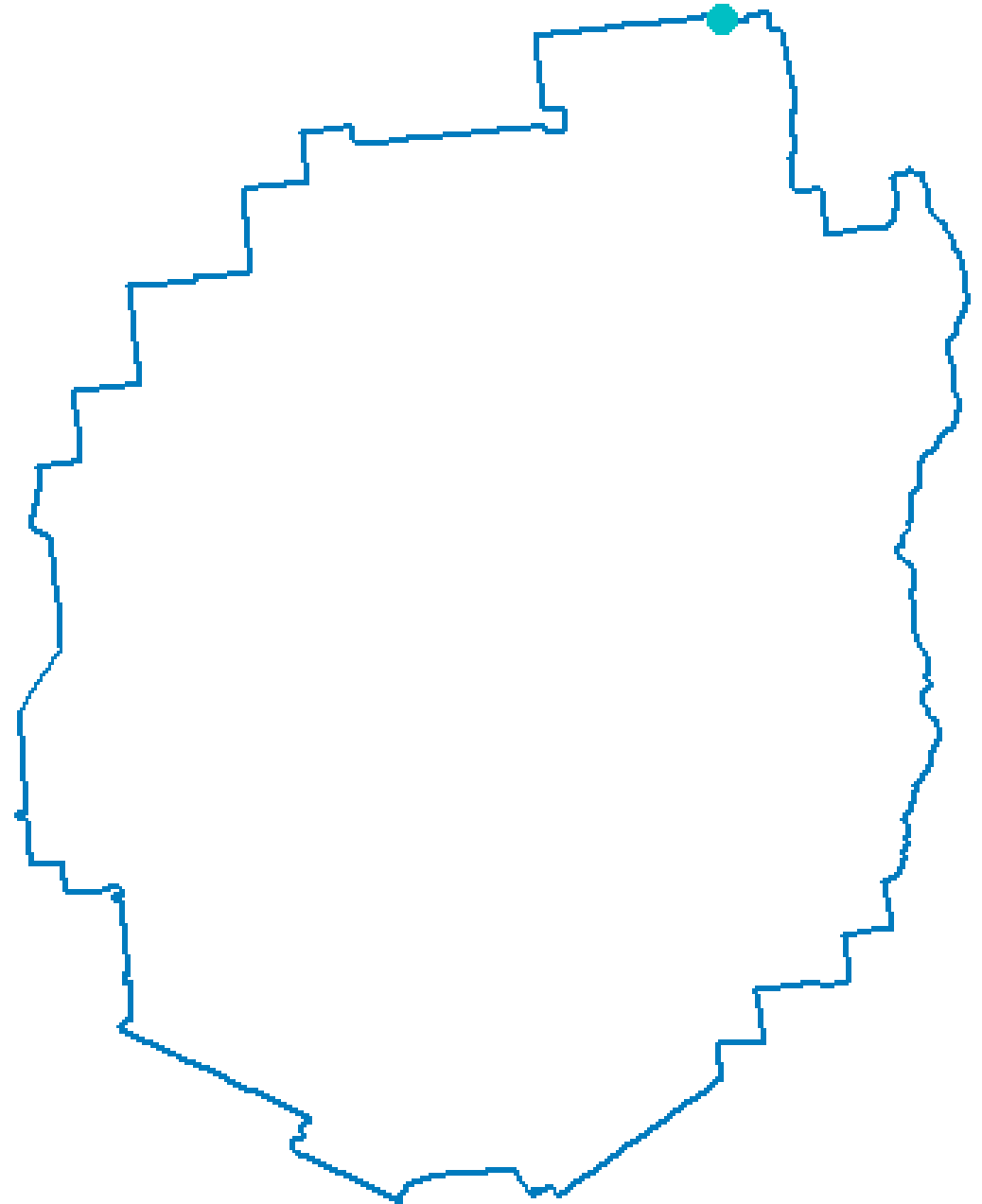
Goals

1. Investigate the volume and distribution of wetland site visits
2. Produce a map that the APA could use in an annual report



2024 Field Season

- May-October
- 110 wetland site visits
- 50 towns
- Most site visits:
 - North Elba
 - Long Lake
 - Chester





Deep-water Marsh Surveys



What are deep-water marshes?

- Permanent standing water
15cm-2m
- Free interchange with surface water
- Dominated by submergent and floating aquatic vegetation
- Short growing season
Vegetation emerges in July





Goal

- **Map deep-water marshes** in lakes with mostly **private land**

List created by RASS based on site visit history

- Benefits to the APA
 - Land use **planning**
 - Ecological **monitoring**
 - Wetland **conservation**

Methods

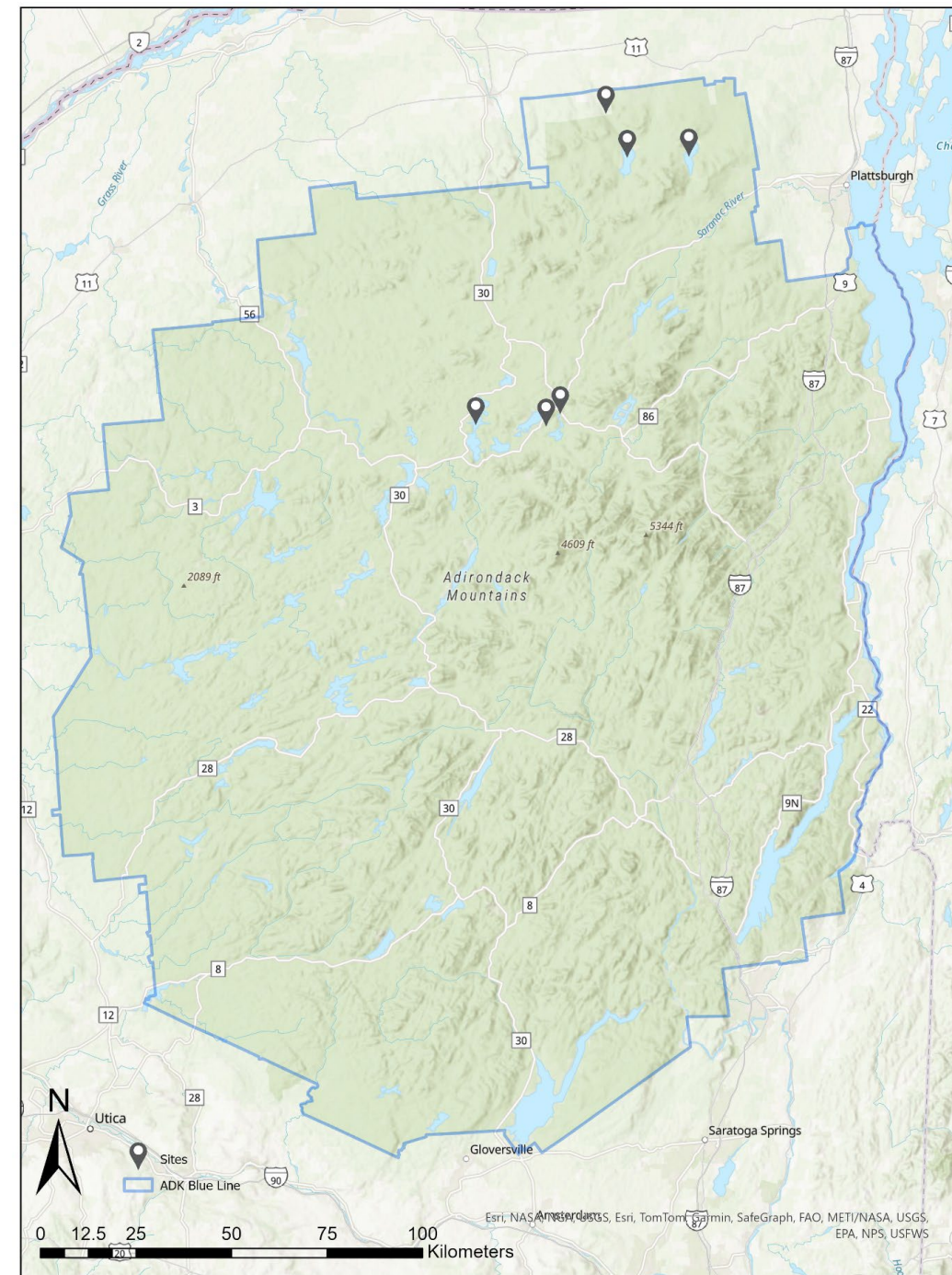
- Surveyed on clear, calm days
- Vegetation rake
 - Measure water depth
 - Help determine vegetation density
- Canoe/motorboat
 - Follow shoreline looking for vegetation
- Plotted boundary on Avenza
- Survey123
 - 3 most dominant species
 - Invasive species
 - Notes about the lake



Results

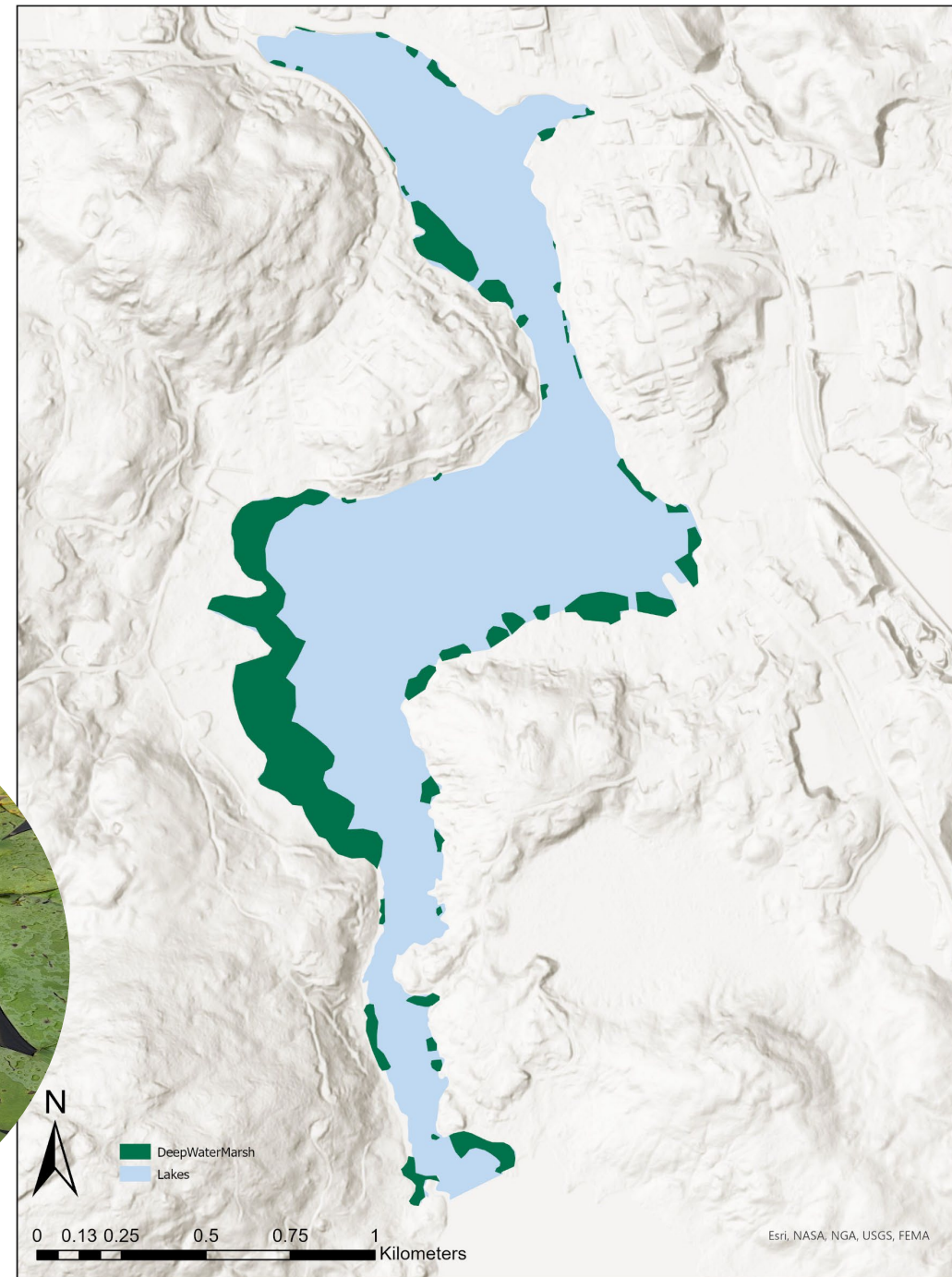
6 lakes surveyed

- Lake Flower
- Kiwassa Lake
- Upper Saranac Lake
- Chazy Lake
- Upper Chateaugay Lake
- Lower Chateaugay Lake



Lake Flower

- Location: Saranac Lake
- Man-made
 - Saranac River dammed in 1827
- Area included in survey: 185.5 acres
- DWM cover: 18.9%
- Eurasian watermilfoil
- Shallow
 - Avg. depth 5ft
 - Max. depth 10ft



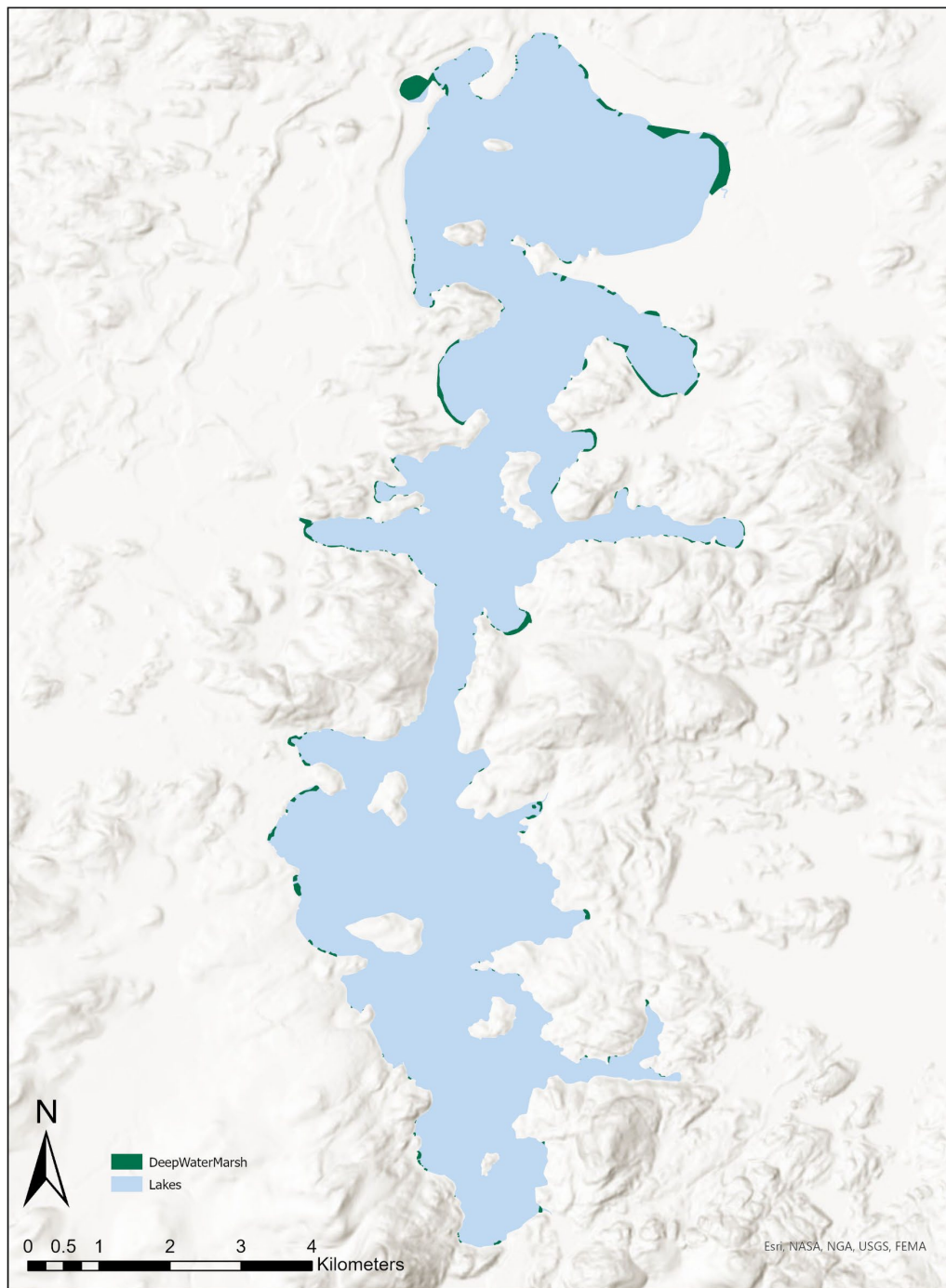
Kiwassa Lake

- Location: Saranac Lake
- Originally called Lonesome Pond
- Area: 283.0 acres
- DWM cover: 1.4%
- Steep shores with large rocks
 - Avg. depth 21ft
 - Max. depth 40ft



Upper Saranac Lake

- Location: Saranac Lake
- Approx. 50% of shoreline privately owned
- Area: 4,879 acres
- DWM cover: 2.2%
- Eurasian watermilfoil
- Deep and rocky
 - Avg. depth 33ft
 - Max. depth 80ft



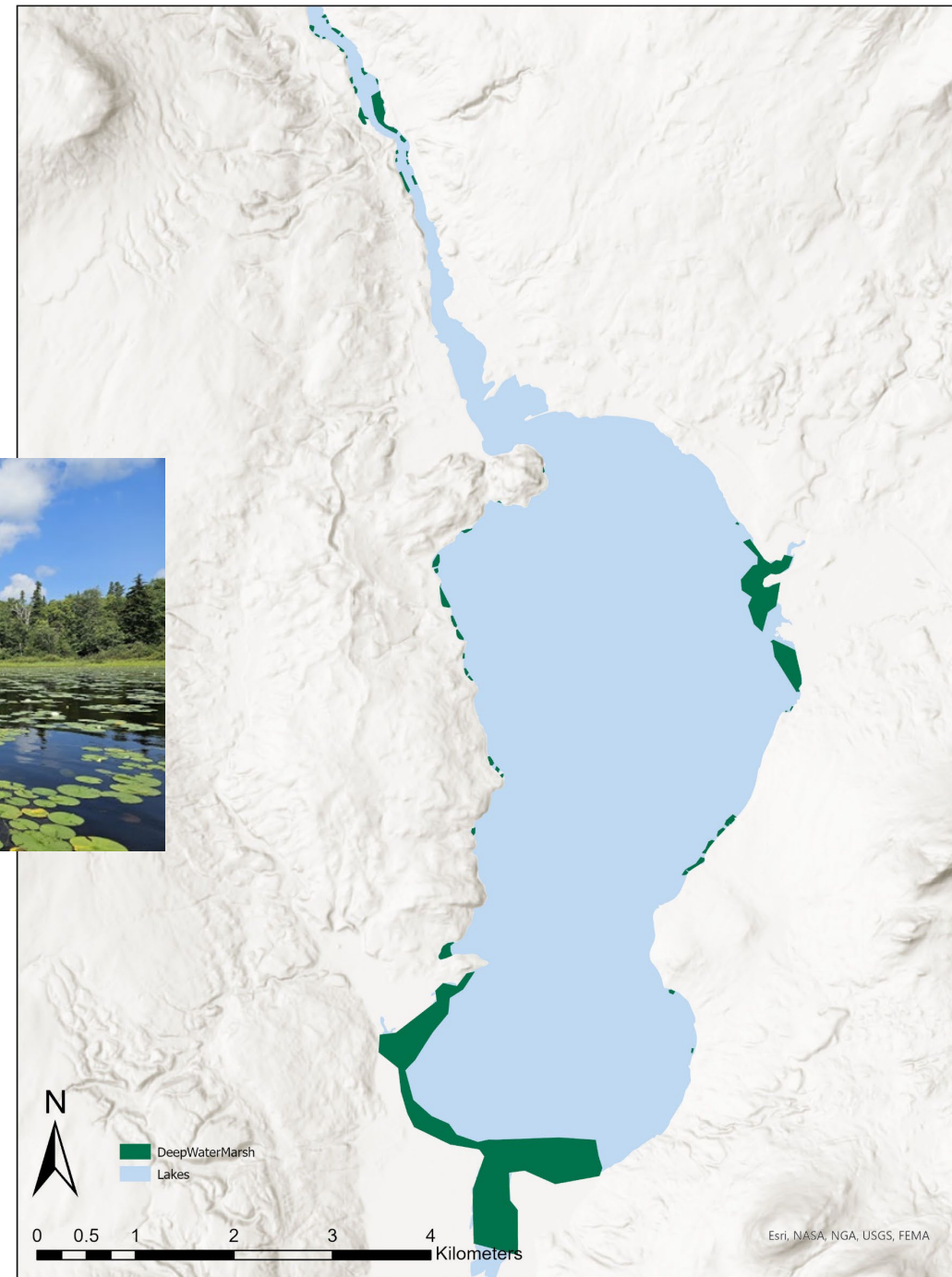
Chazy Lake

- Location: Dannemora
- Area: 1,845 acres
- DWM cover: 3.7%
- Eurasian watermilfoil
- Rocky/sandy shorelines
 - Avg. depth 33ft
 - Max. depth 72ft



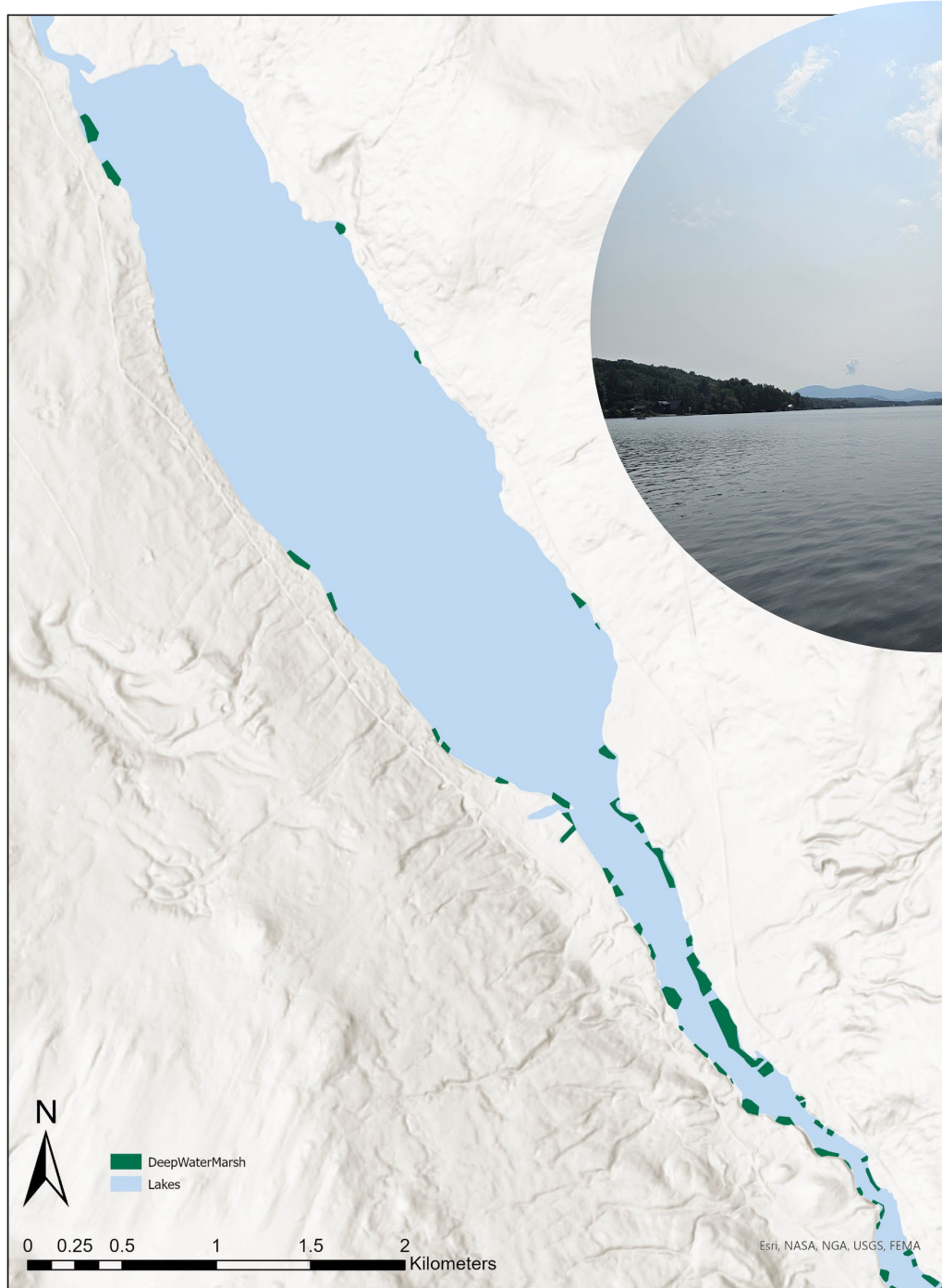
Upper Chateaugay Lake

- Location: Dannemora
- Very large wetland in the southern end
- Area: 2,494 acres
- DWM cover: 8.5%
- Eurasian watermilfoil
- Shallow in the southern end
 - Avg. depth 33ft
 - Max. depth 78ft

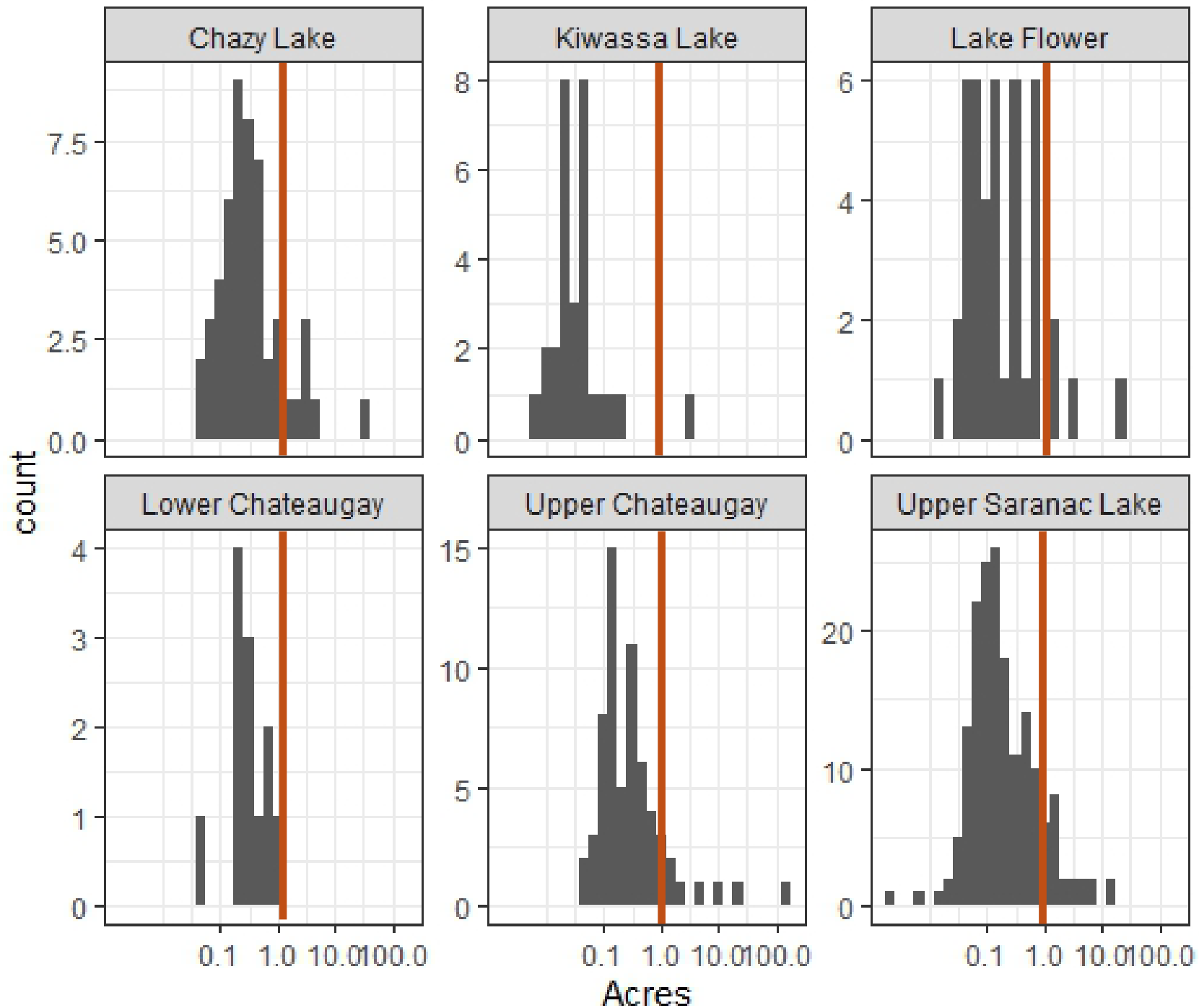


Lower Chateaugay Lake

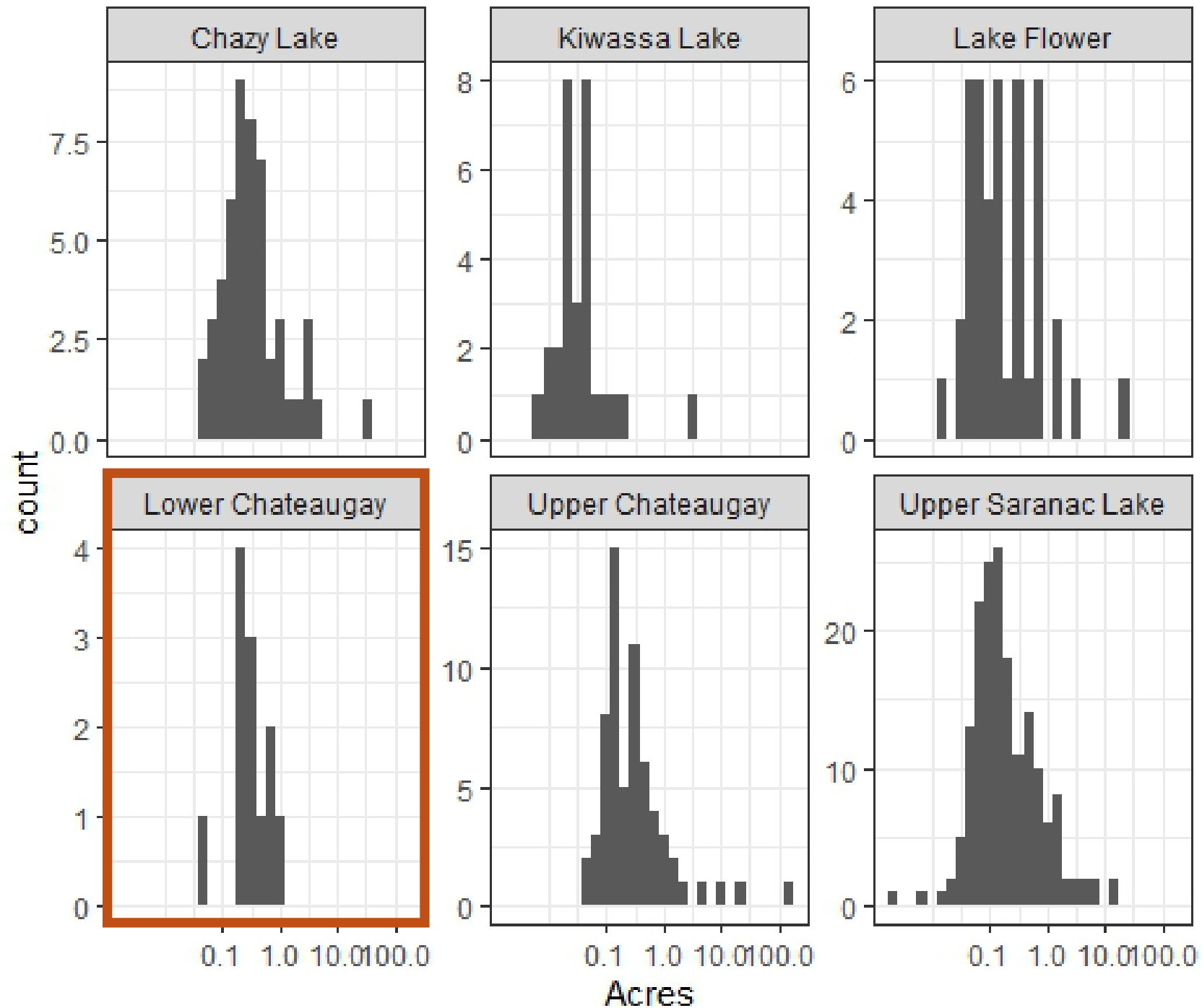
- Location: Bellmont
- Area: 583 acres
- DWM cover: 0.8%
- Eurasian watermilfoil
- Sandy/rocky bottom
 - Avg. depth 12ft
 - Max. depth 26ft



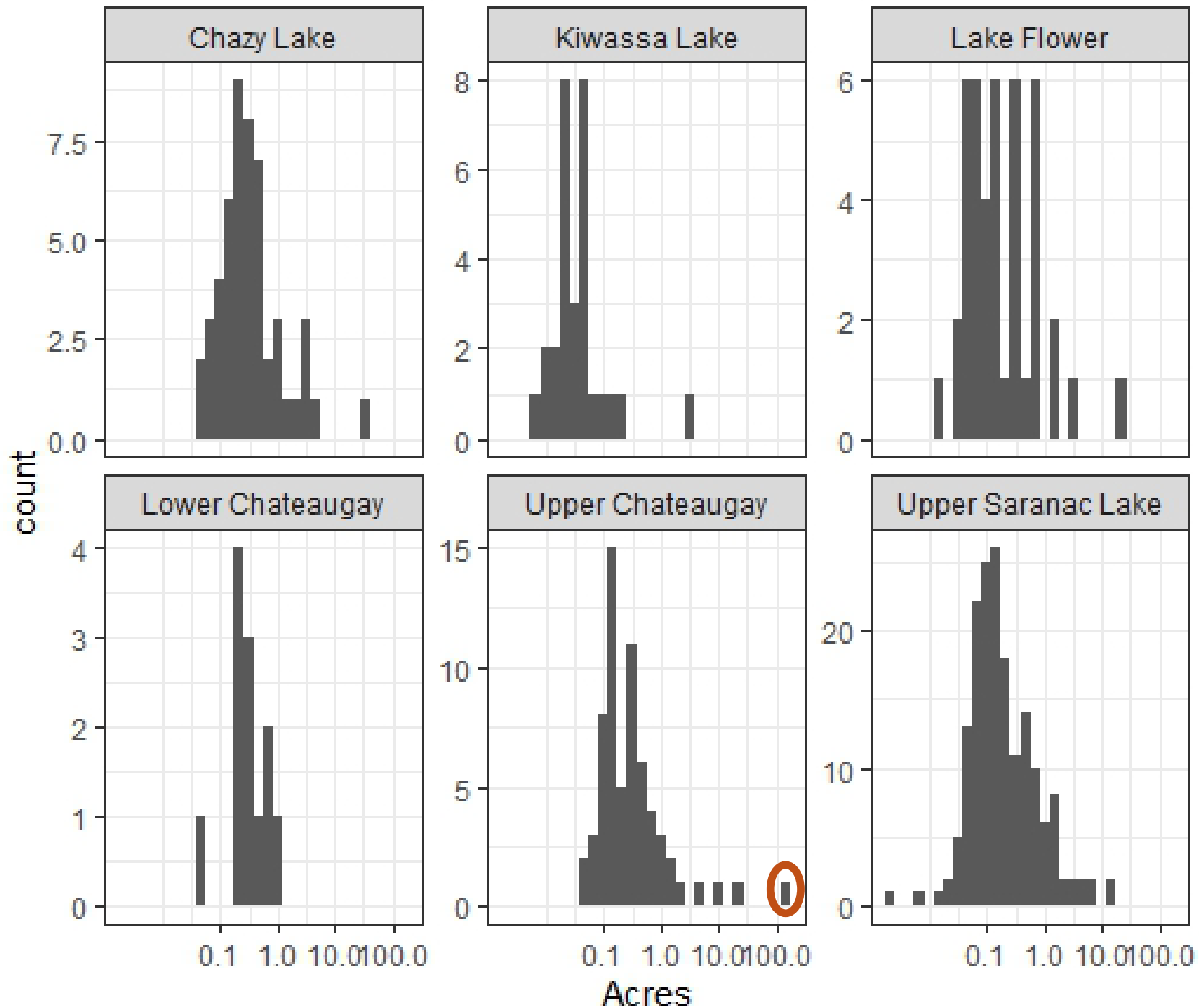
- Across all lakes, most DWMs are **≤ 1.0 acre**
- All Lower Chateaugay marshes are < 1.0 acre
- Upper Chateaugay has one of the largest DWMs



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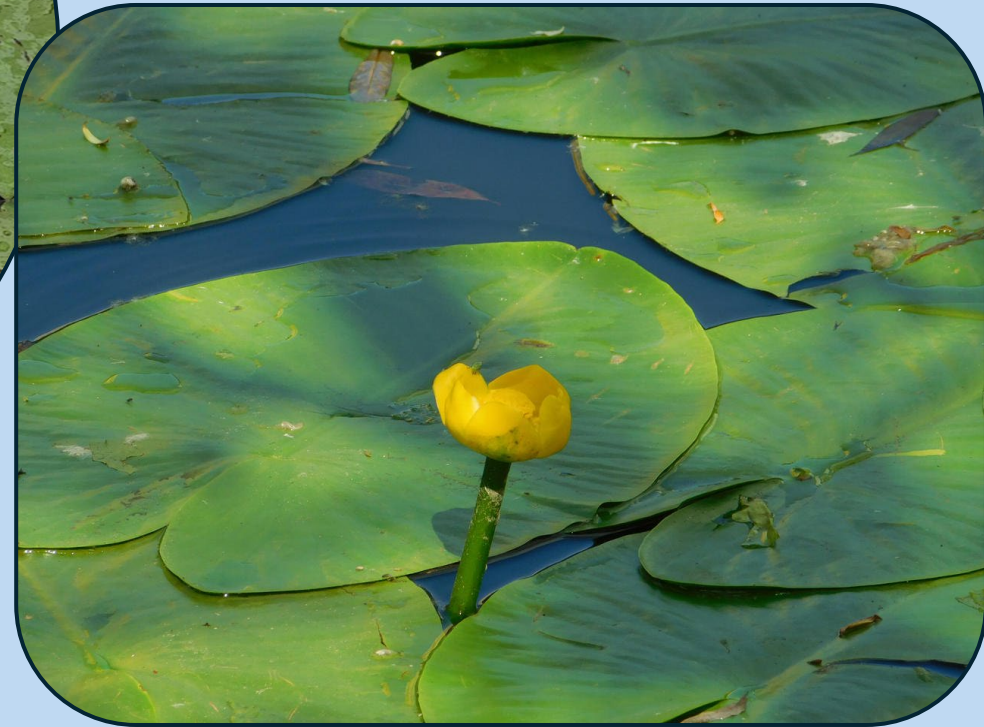
Common Species



Potamogeton sp.



Nymphaea alba



Nuphar lutea



Internship Outcomes

- Experience with site visits
- Permitting process
- Use of surveying tools
- DWM mapping experience

Acknowledgements



Dr. Mary Alldred



Dr. Danielle Garneau



Dr. Lizz Schuyler



RASS Team and
the rest of the
APA Staff

A scenic view from the perspective of someone in a canoe on a calm lake. The canoe's bow is visible in the foreground, pointing towards the center of the frame. The water is still, reflecting the sky and the surrounding greenery. On the left, a dense forest of evergreen trees lines the shore, with some fallen branches visible. In the distance, a range of low mountains or hills is visible under a clear blue sky with a few wispy clouds. The overall atmosphere is peaceful and serene.

Questions?