



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



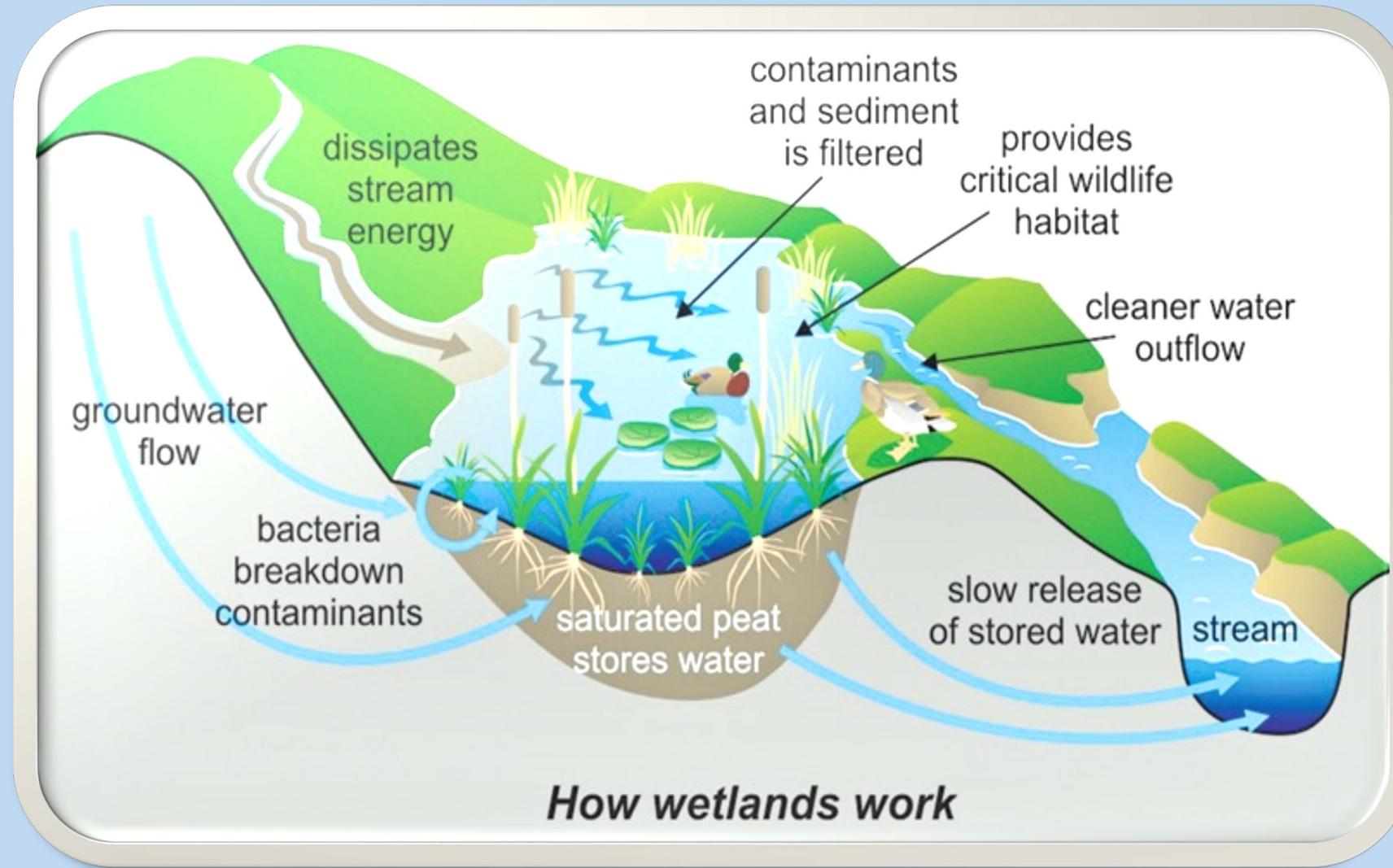
- SUNY Plattsburgh
 - M.S. Natural Resources and Ecology (2024)
 - Wetland Ecology focus
 - Wetland delineation certification
 - Internship





Benefits of Wetlands

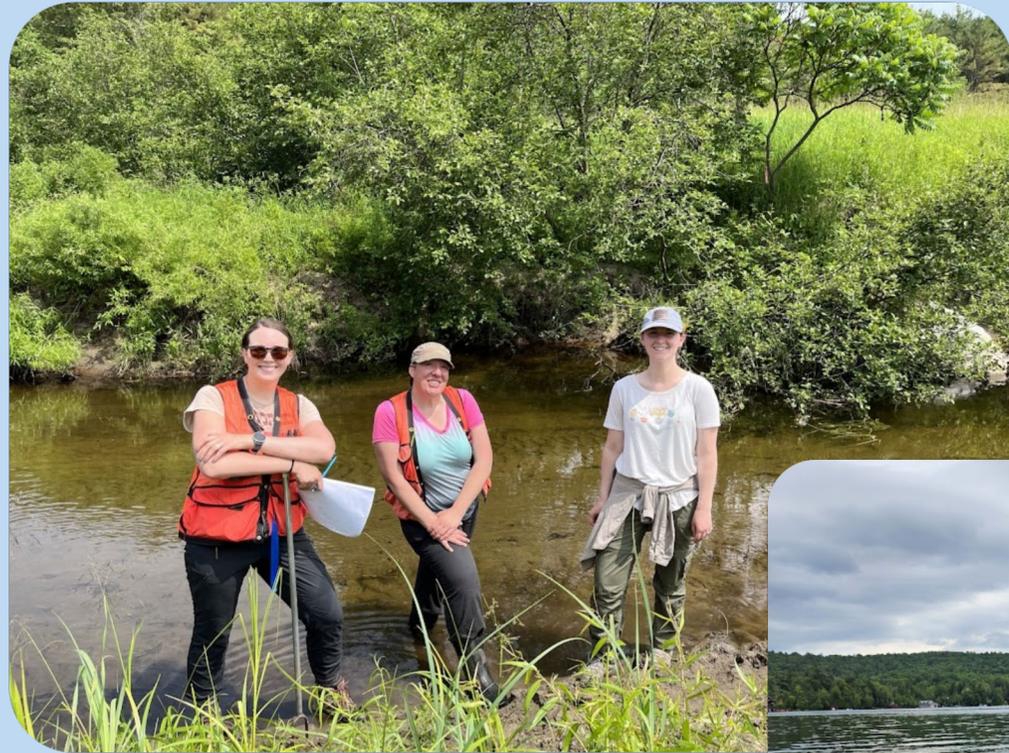
- High storage capacity
- Prevents/slows erosion
- Brita filters of the ecosystem
- Carbon storage





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



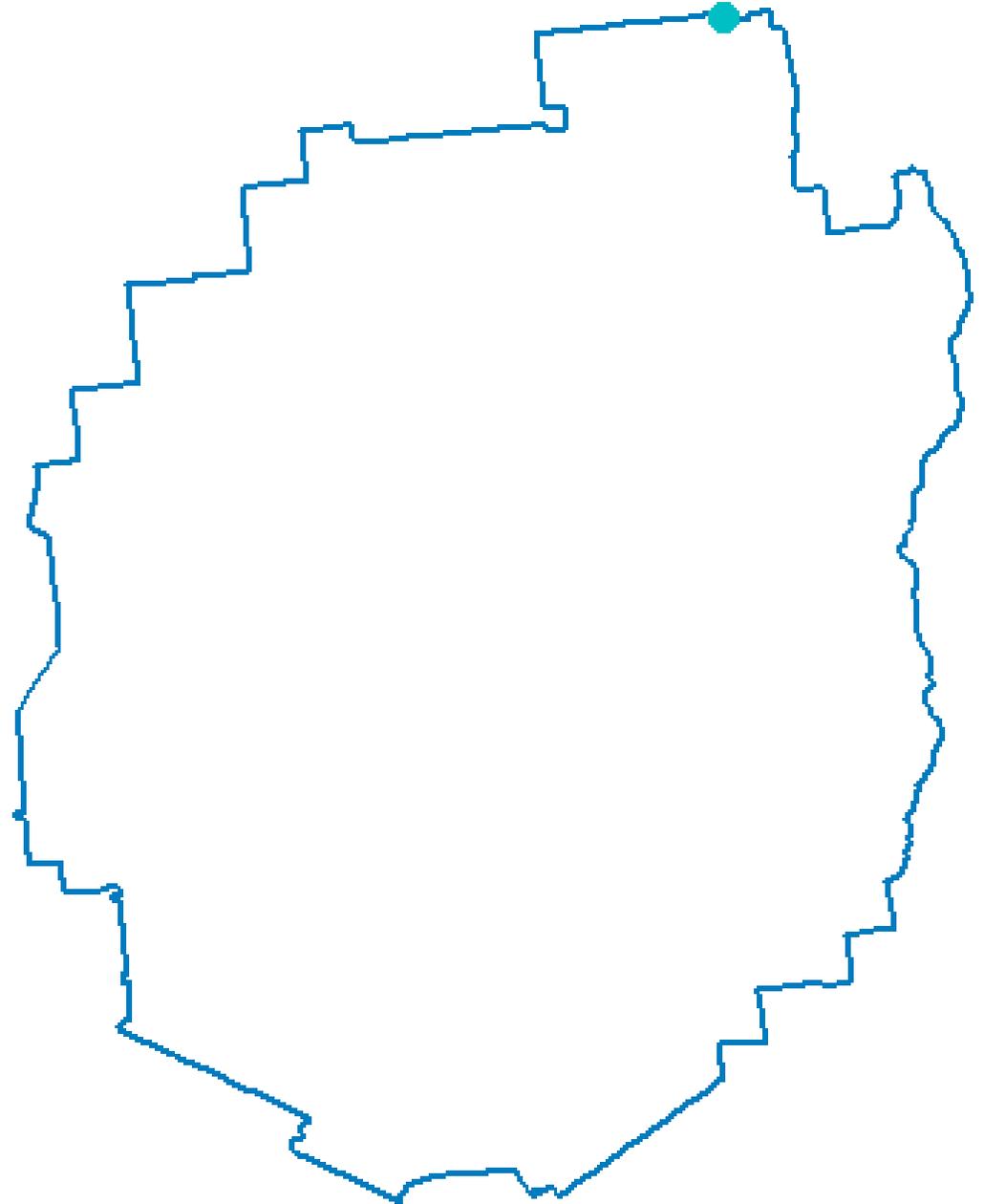
Goals

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**

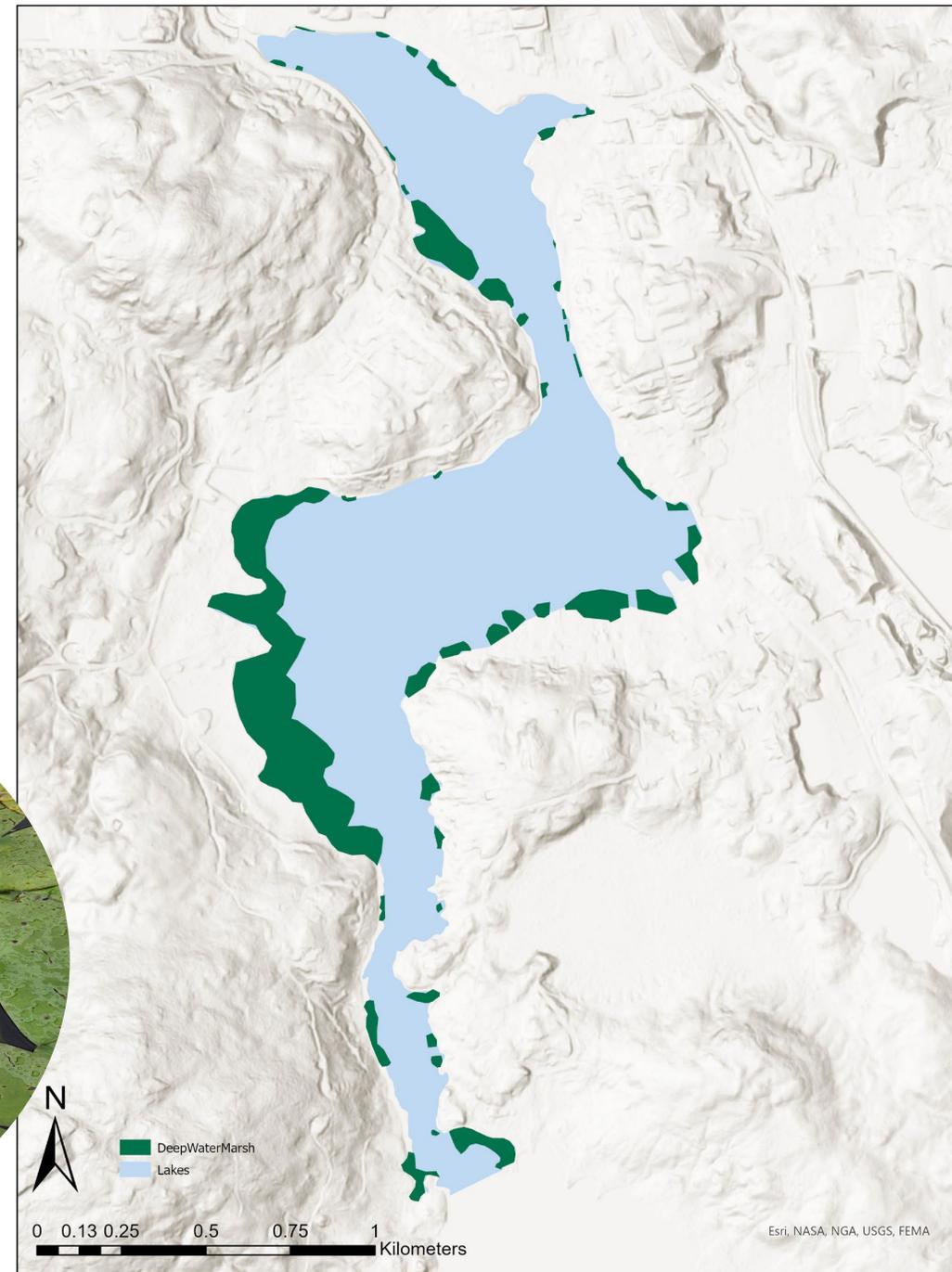
Methods

- 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



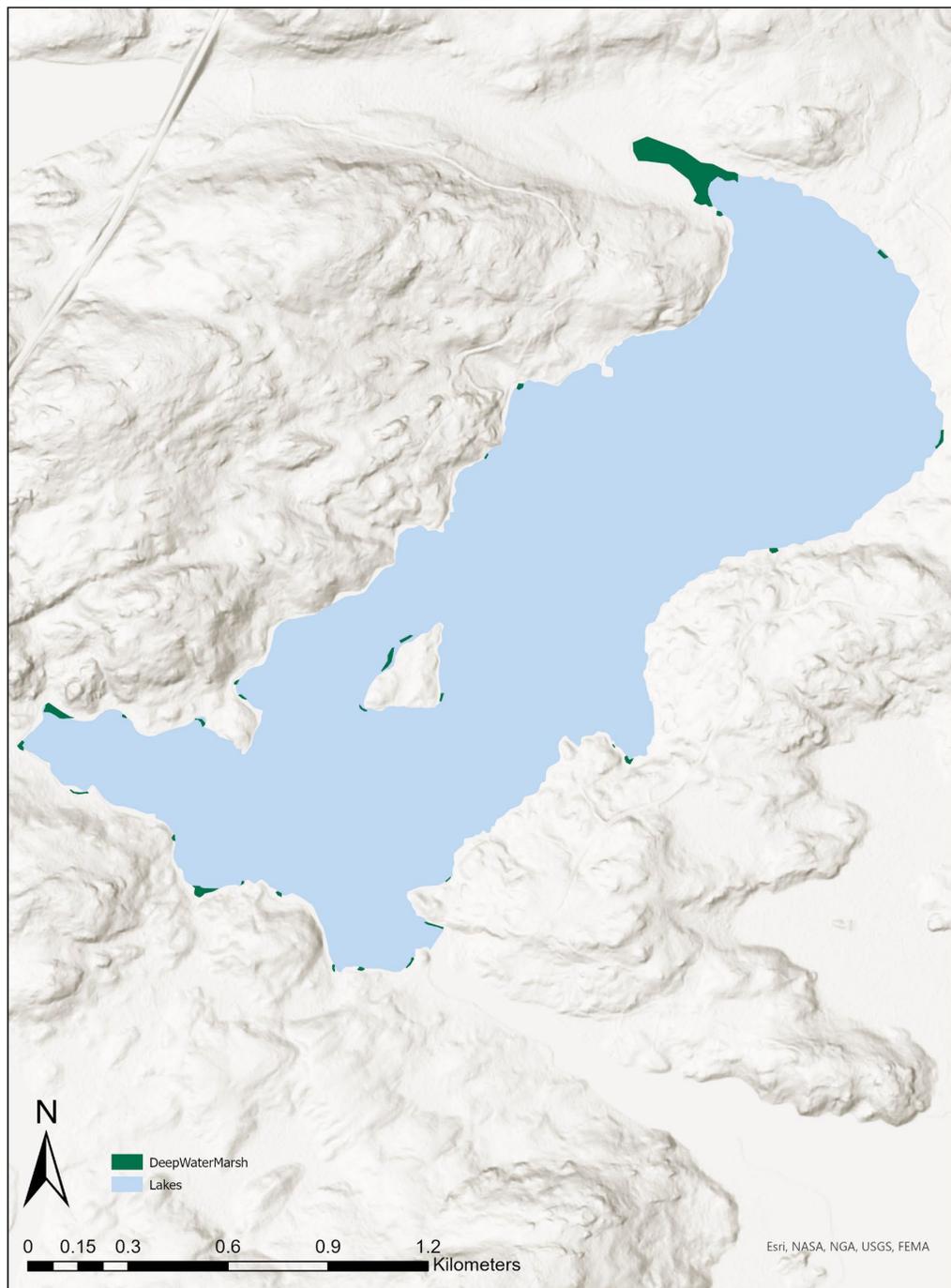
Lake Flower

- 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



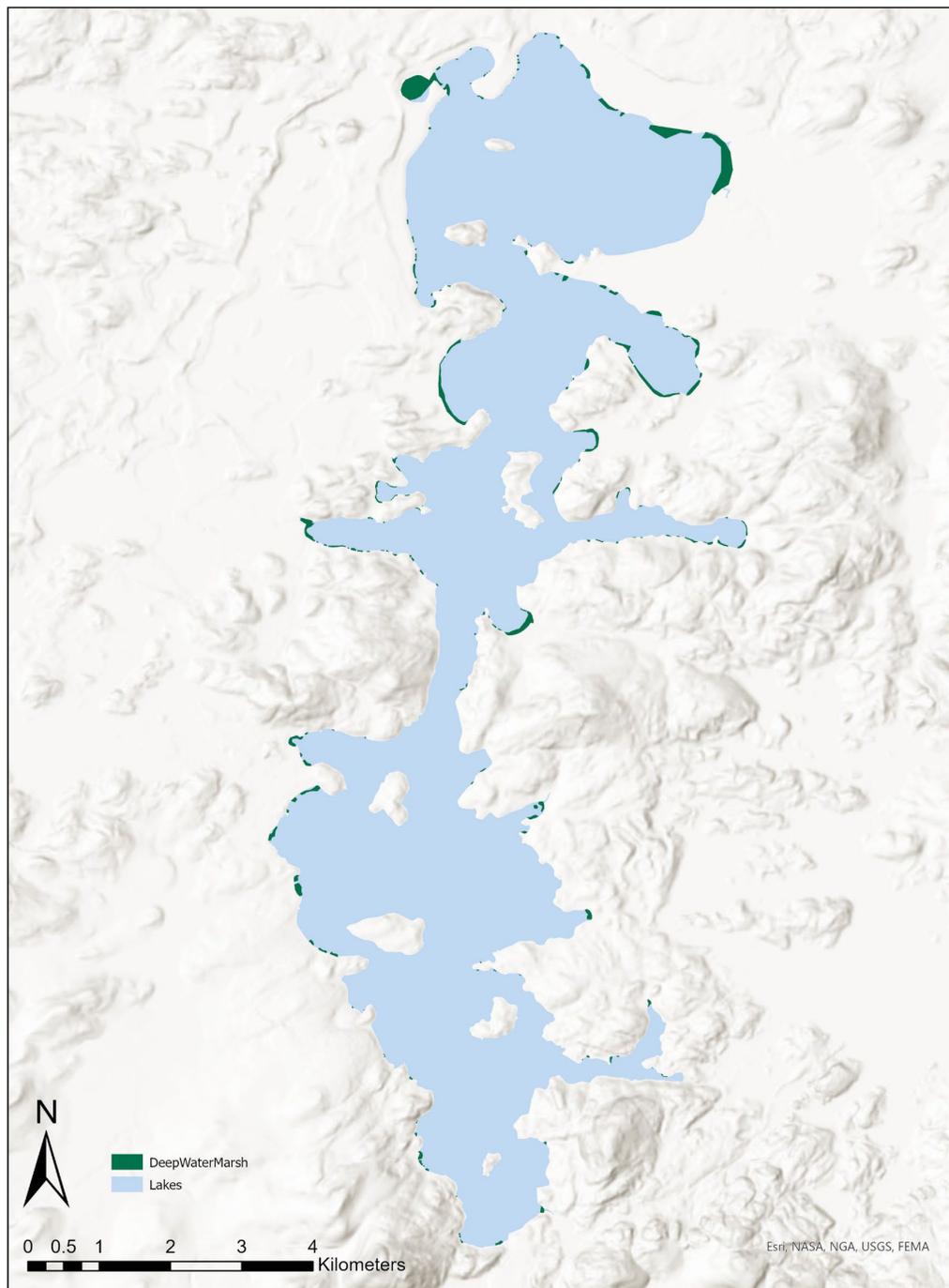
Kiwassa Lake

- 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



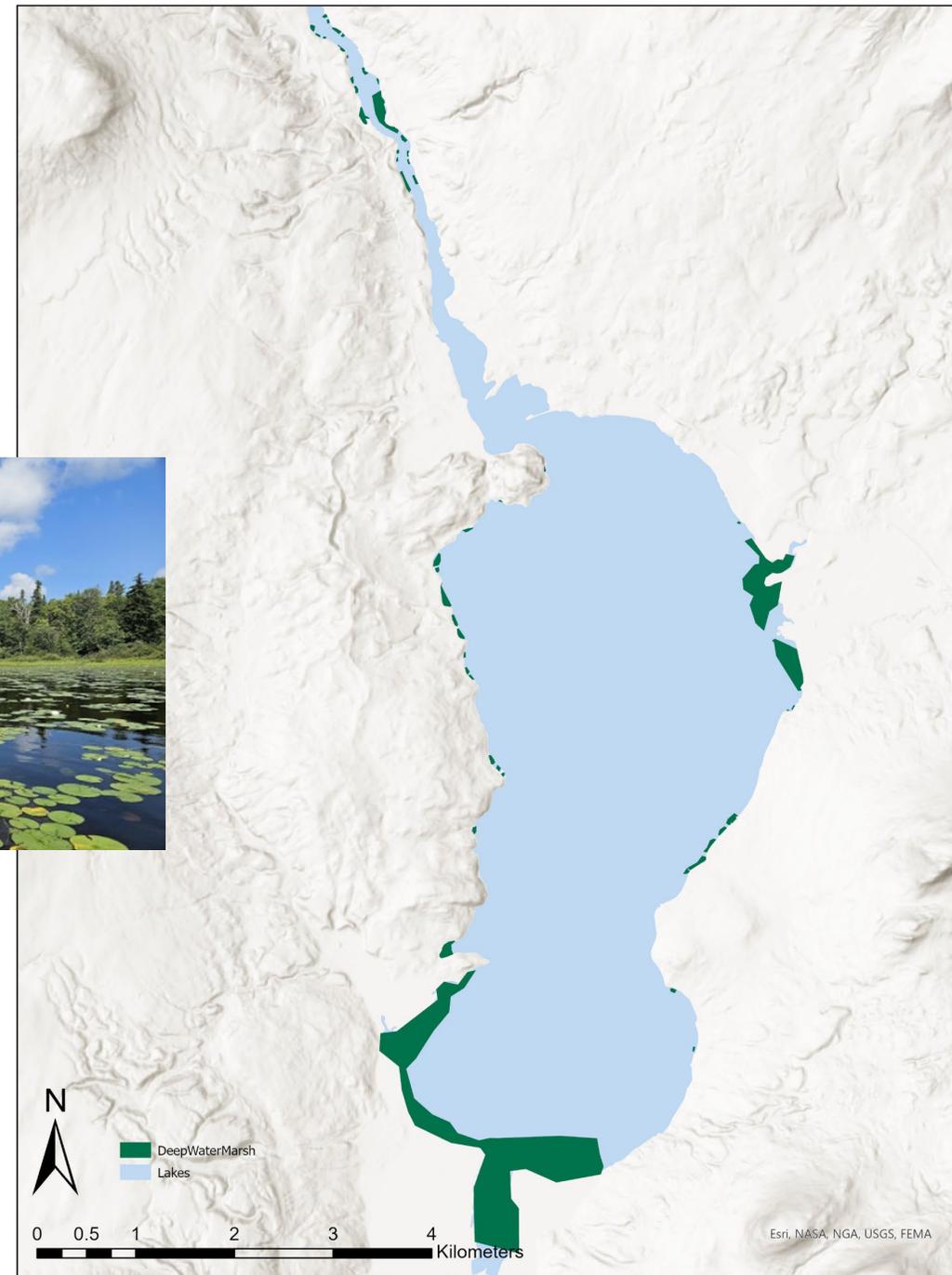
Chazy Lake

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



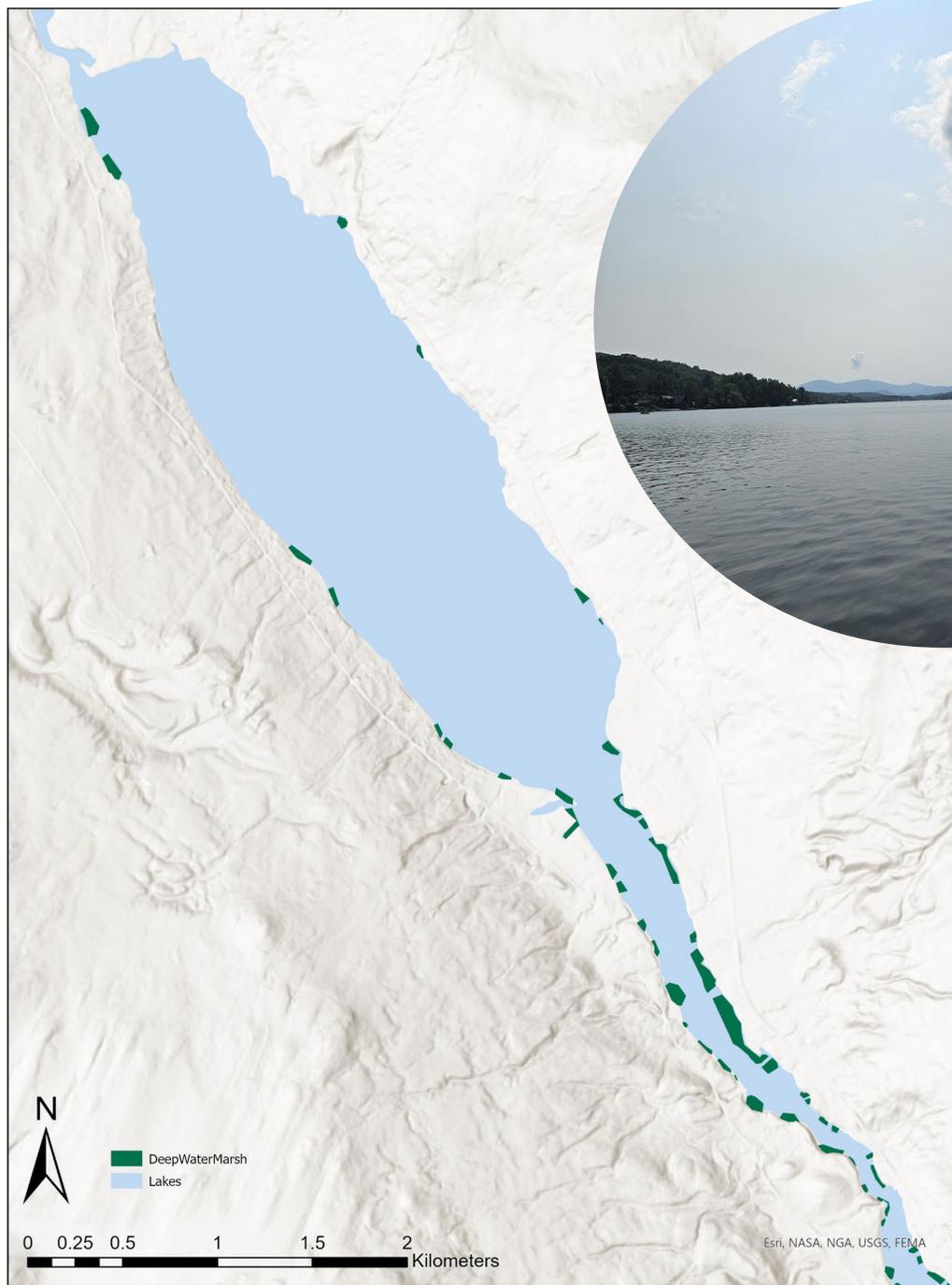
Upper Chateaugay Lake

- 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

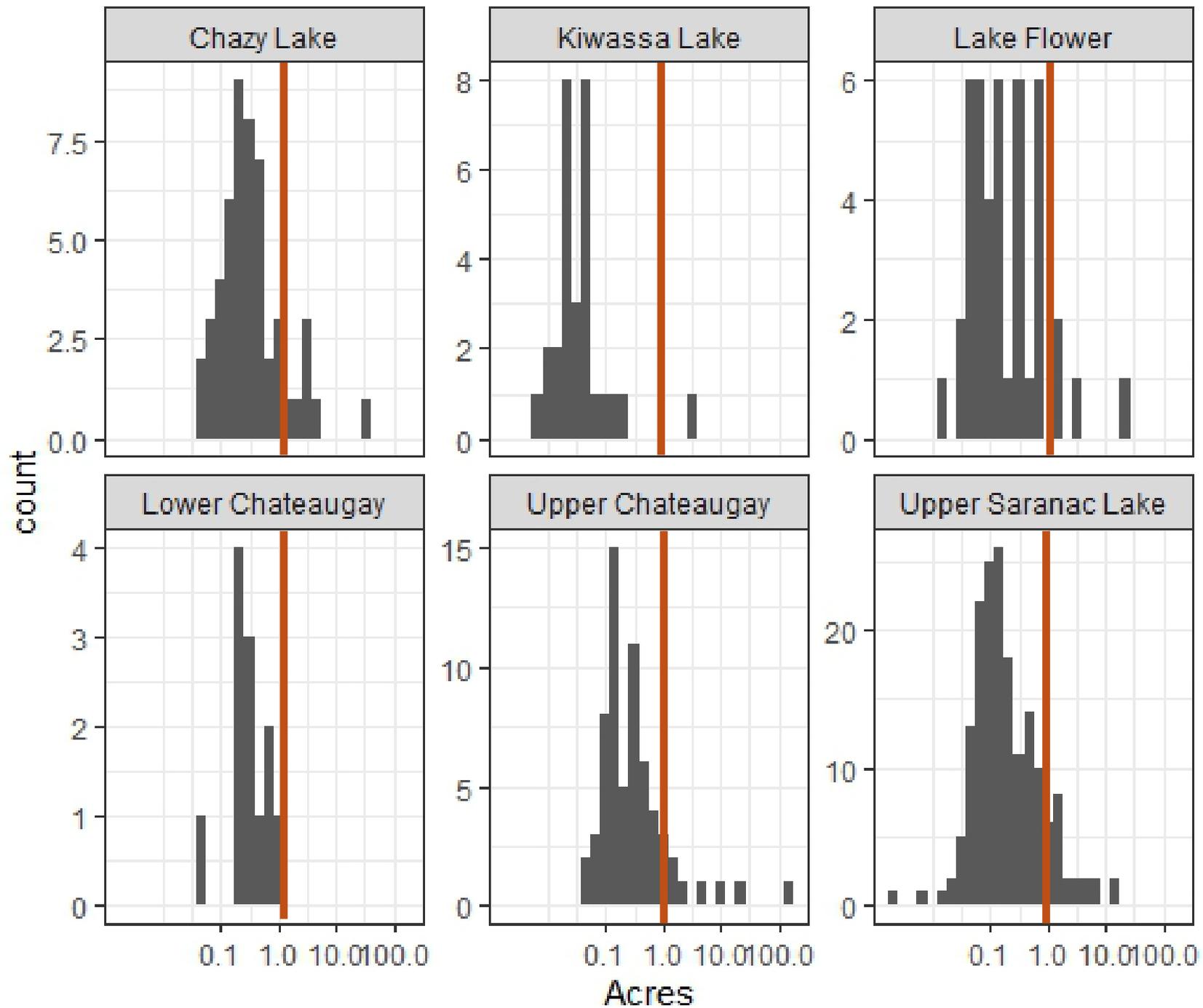


Lower Chateaugay Lake

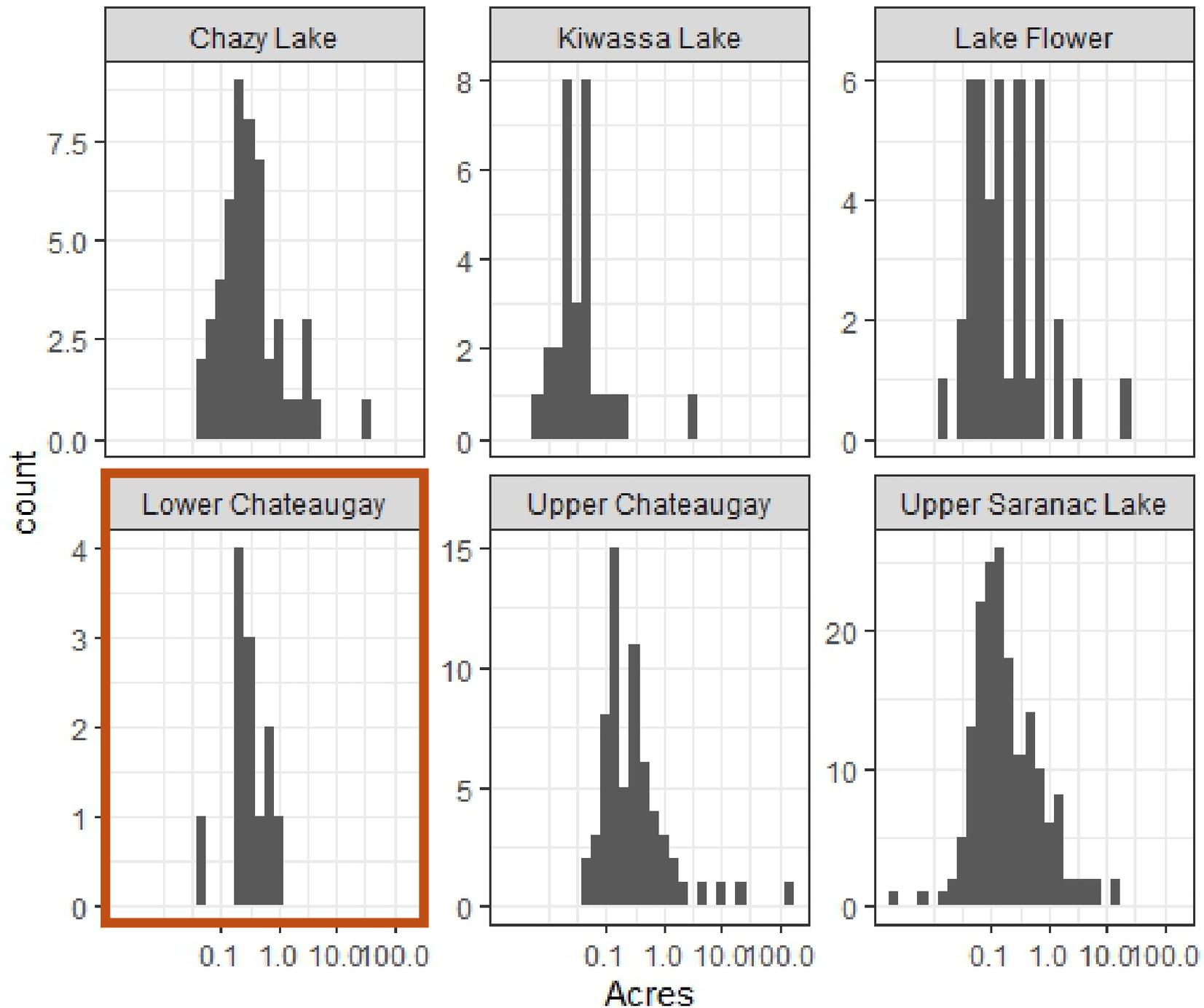
- Location: Bellmont
- Area: 583 acres
- DWM cover: 0.8%
- Eurasian watermilfoil
- Sandy/rocky bottom
 - Avg. depth 12ft
 - Max. depth 26ft



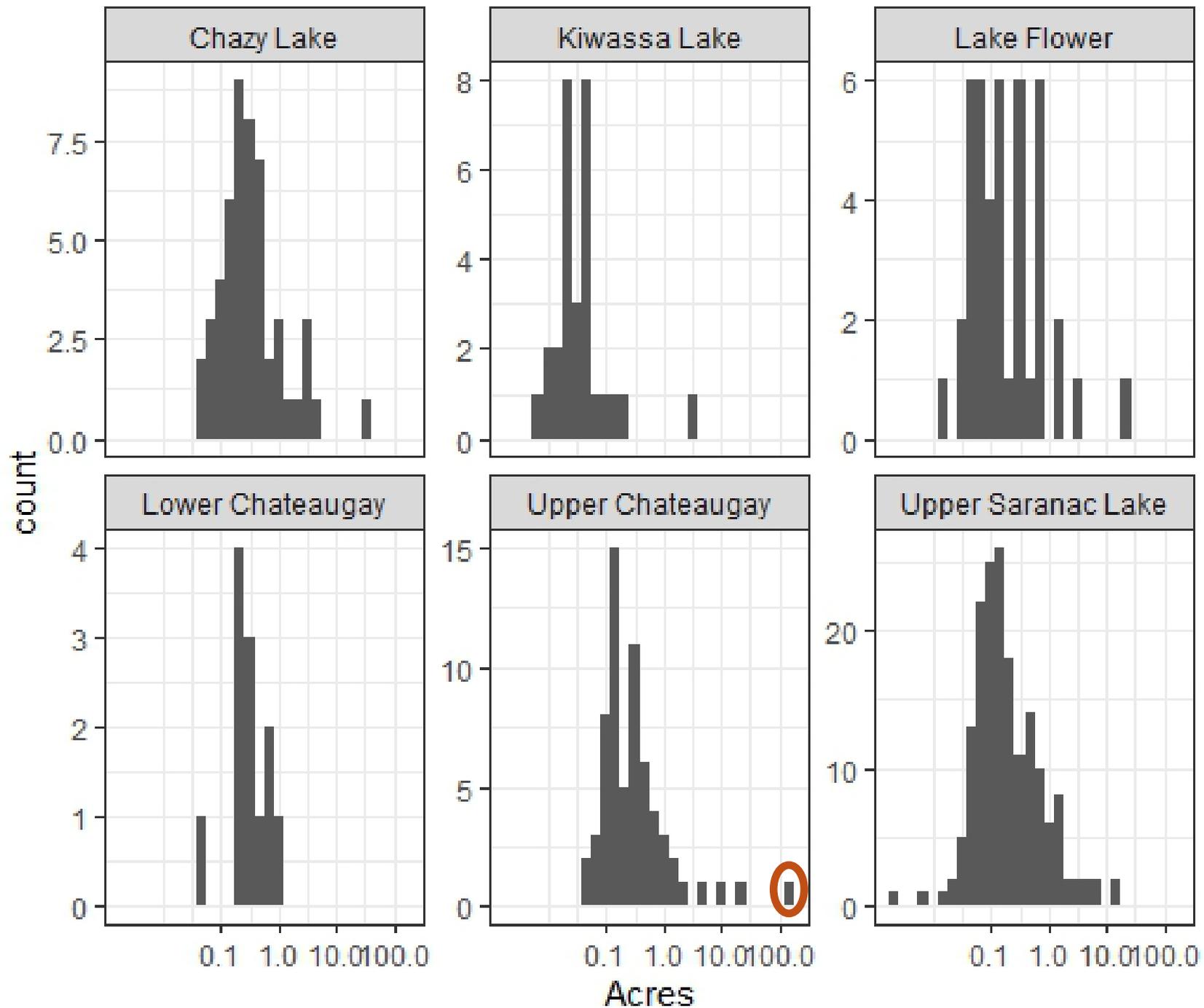
- Across all lakes, most DWMs are **≤ 1.0 acre**
- All Lower Chateaugay marshes are < 1.0 acre
- Upper Chateaugay has one of the largest DWMs



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



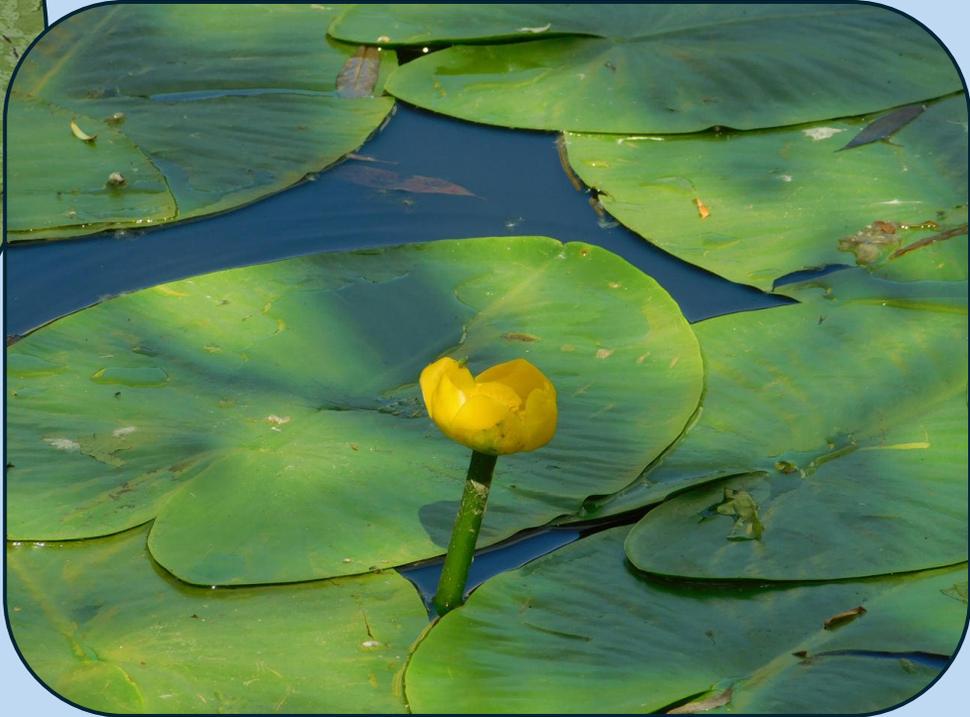
Common Species



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 first-person perspective from the front of a green canoe on a calm lake. The water is dark blue with gentle ripples. On the left, a dense forest of evergreen trees frames the view. In the distance, a range of low mountains is visible under a pale blue sky with light, wispy clouds. The word "Questions?" is centered in the upper half of the image in a white, sans-serif font.

Questions?