



If We lose the Hemlocks... We Lose the Lake

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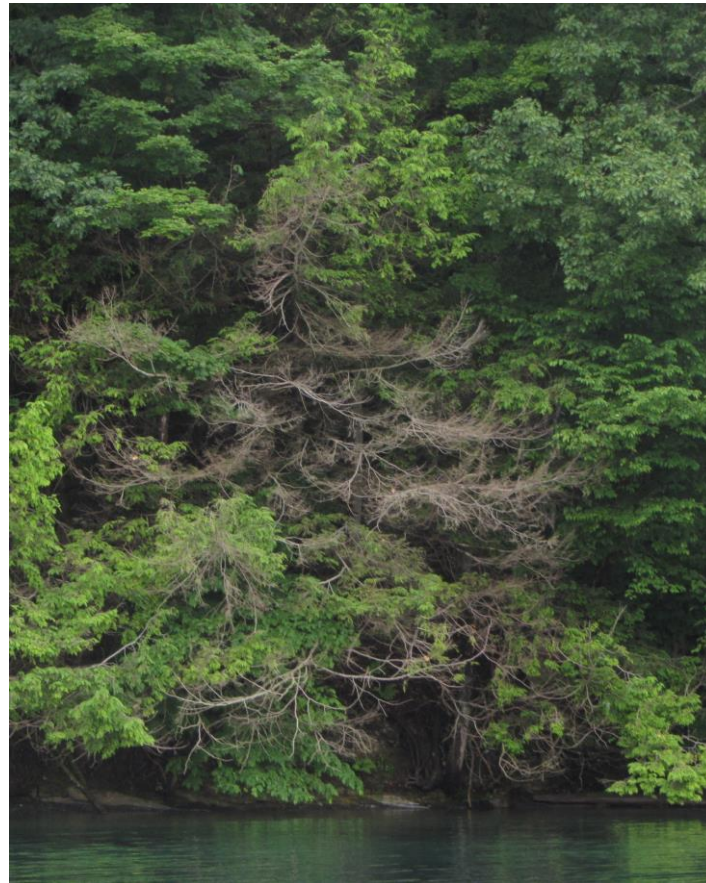
Bob Brower Memorial Symposium

Eastern Hemlocks are Threatened by Hemlock Woolly Adelgid (HWA)

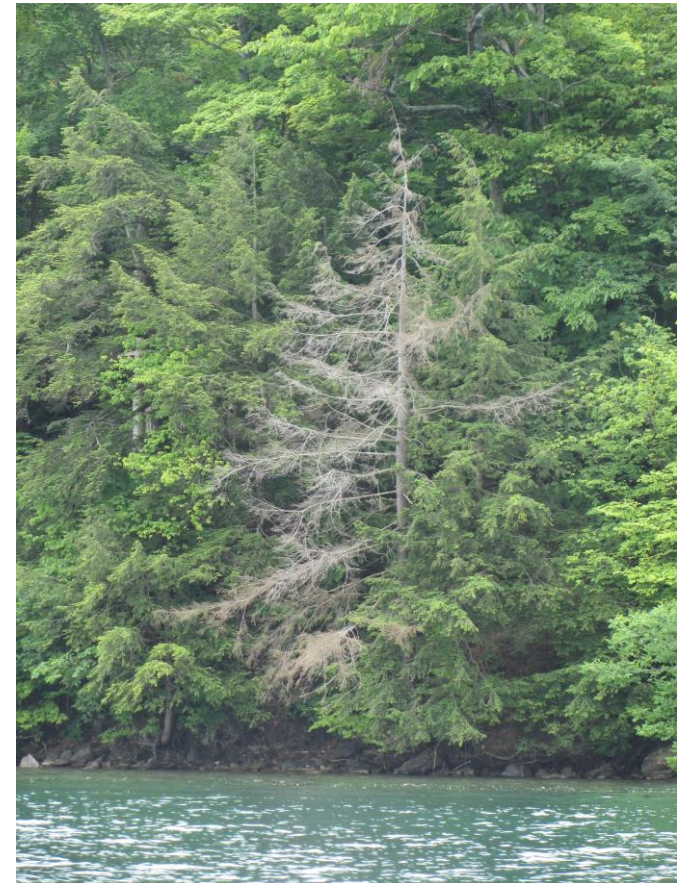
Healthy



Sickly



Lost





HWA Winter Clusters

HWA Feed
Where the
Needles Attach
to Twig

Tiny, Tiny, but
Deadly

HWA Emerging
After Winter



Why Are Hemlocks Critically Important?



Grow in dense stands; Roots interlock;
Help prevent erosion



Where does that matter most?
Answer: Watershed Ravines and Gorges
draining down to the Lake



Hemlocks also shade streams for fish
and provide food and cover for wildlife



But HWA in Eastern Hemlocks have no
insect predators!

Key Questions

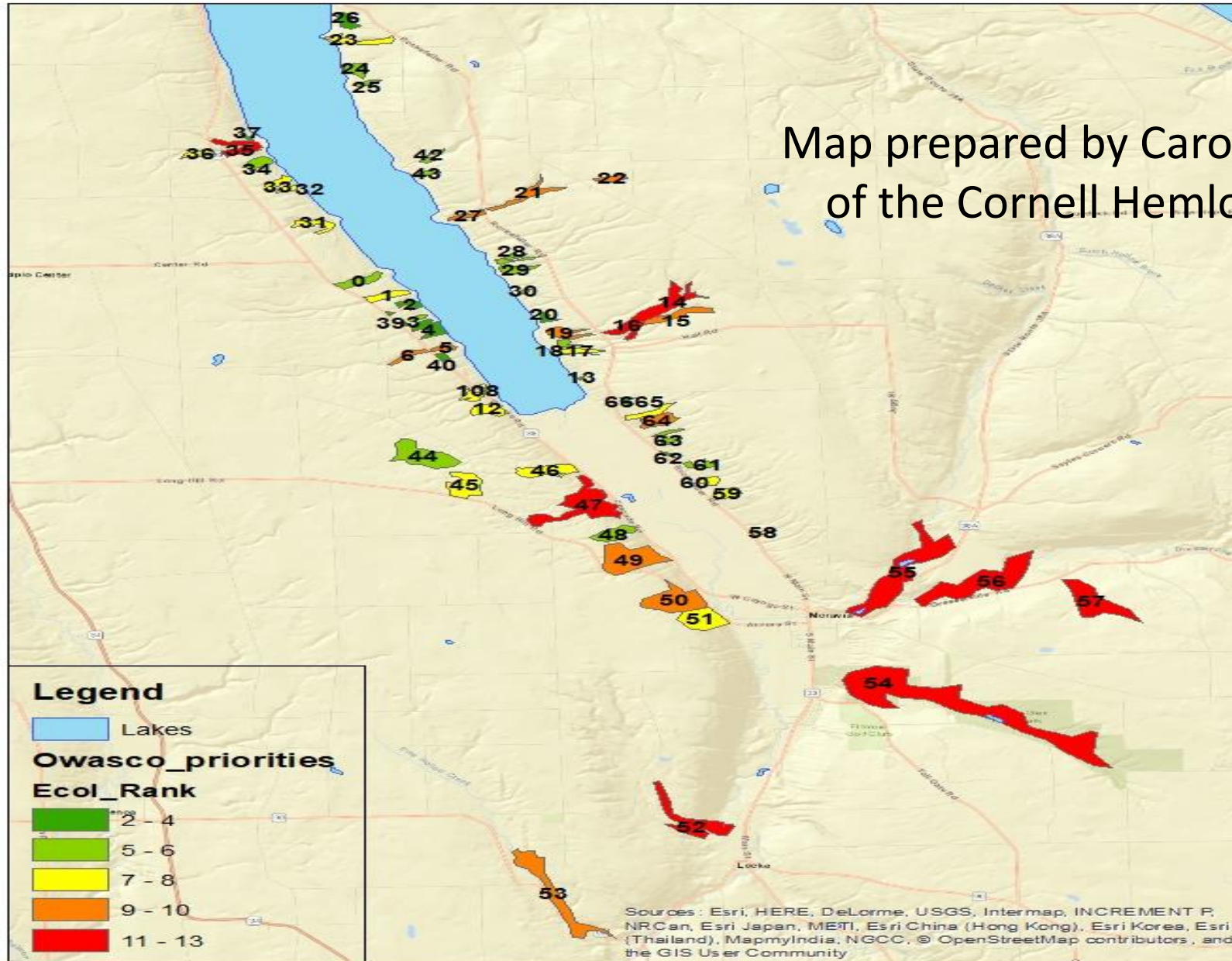
Where are the watershed's gorges, gullies, ravines, and glens?

Are they populated with hemlocks?

Are the hemlocks healthy?

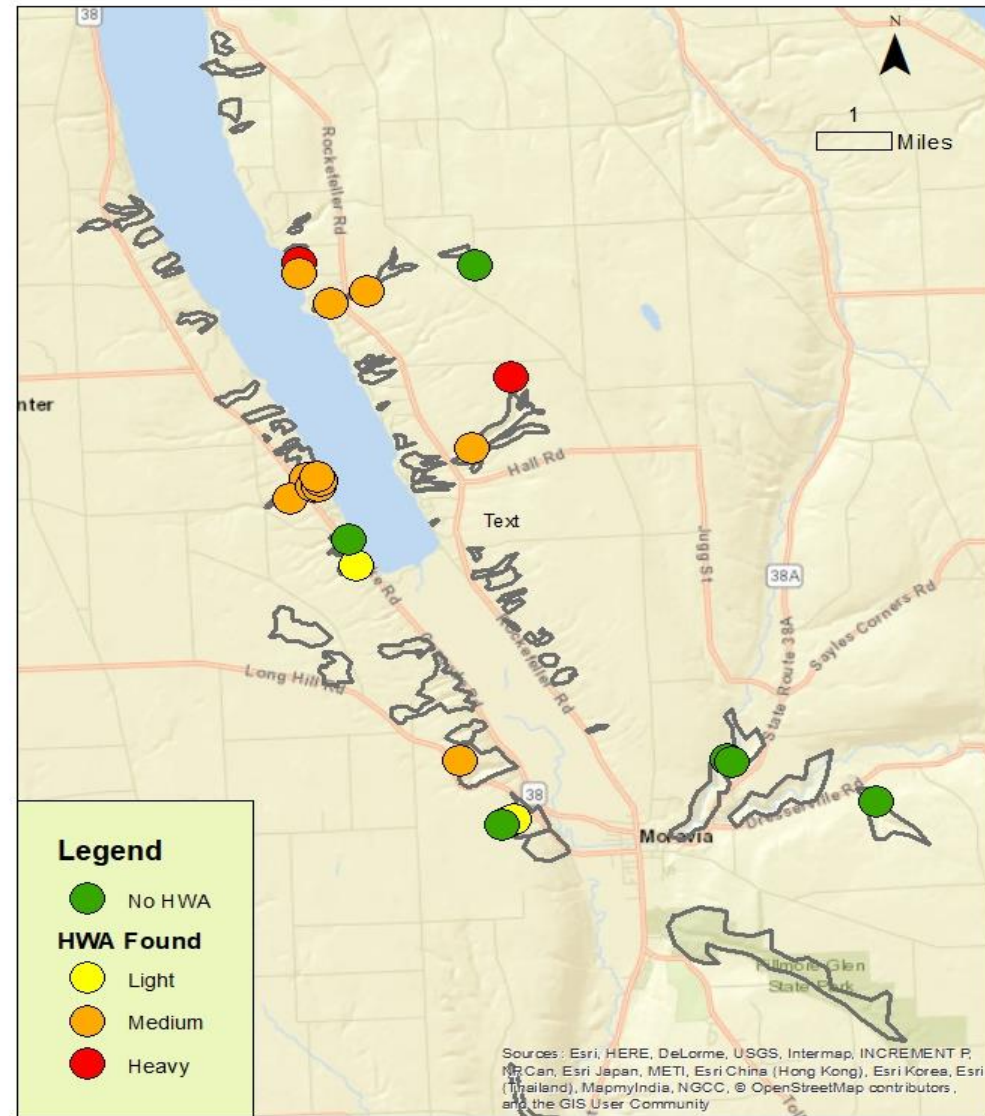
Owasco Lake Stand Prioritization inc Flats

Map prepared by Caroline Marschner
of the Cornell Hemlock Initiative



January 2021 Hemlock Woolly Adelgid (HWA) Survey
Owasco Lake Watershed
Looked at 17 Locations

- Conducted by small team of volunteers. All trained by Cornell
- Surveyed 17 watershed properties. Focused on ravines/gullies/gorges/glens
- All on private property
- Found 1000s of hemlocks along and down the steep sides
- **But 2/3 of locations have hemlocks infested with HWA**



Survey conducted by Owasco Hemlock Hunters
Dana Hall, Peter Rogers, Carl Weber, Nate Bareham, Drew Snell, and DEC forester Jake Weddington







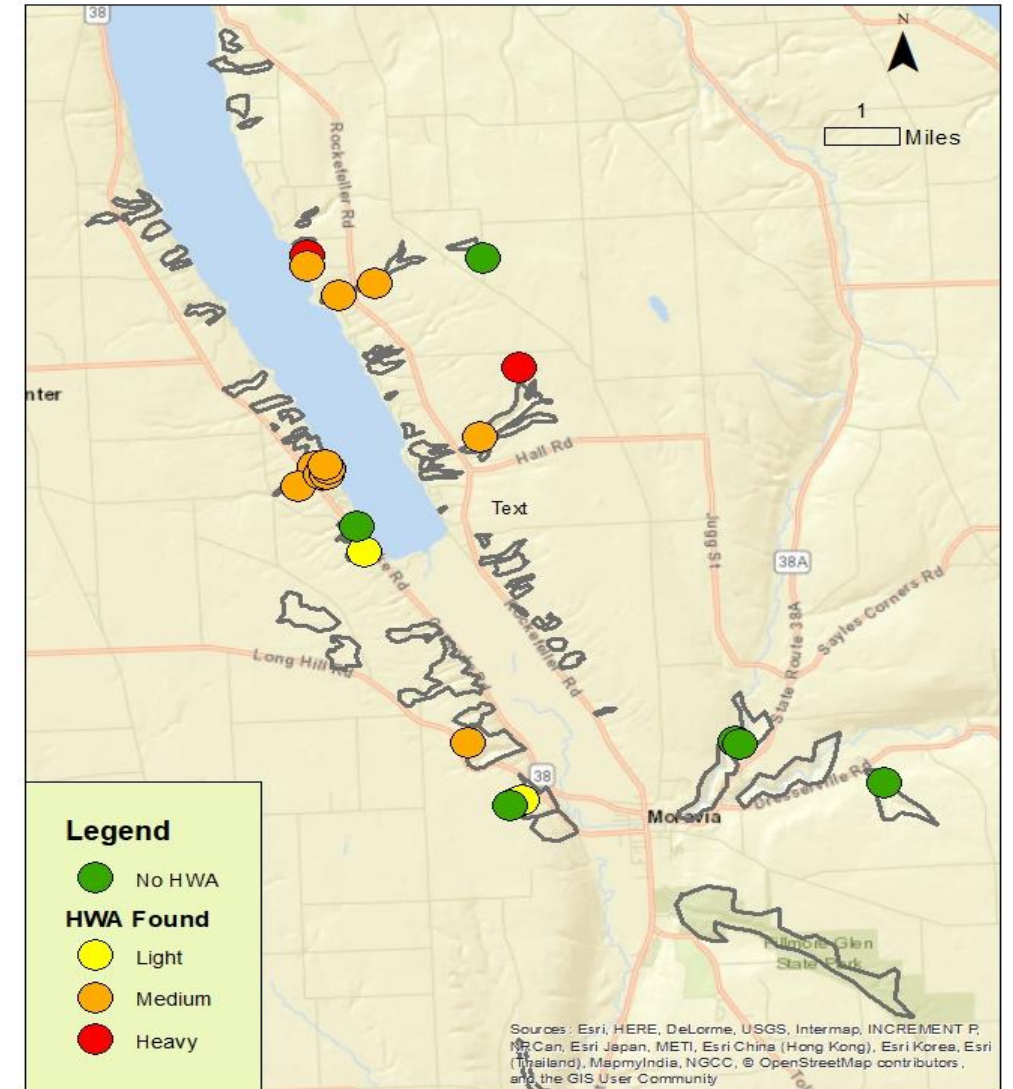
So, Where Are We Right Now on This?

- A representative hemlock inventory now exists for the watershed
- There are 1000's of hemlocks lining the dozens of ravines, gullies, gorges, glens.
- Most hemlocks appear to still be healthy
- HWA invasion is in its initial “here, but not there” phase
- If WE are going to take preventive measures, now is the time
- If WE don't intercede, things don't look good for water quality in the lake 10 to 20 years from now

What Can We Do?

- No natural insect predators (yet)
- Only solution is targeted insecticide applied by NYS certified professionals
- Can treat in spring and fall
- Treatment stops HWA. Lasts 5-7 years?
- Focus first on hemlocks most critical to preventing soil erosion toward the lake. “Red” sites, then “Orange”
- Expensive! \$50,000 will do 1200 trees?
- OWLA has donated \$25,000. We are starting treatments this month.

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