

Expanding the Breeding Range: Kirtland's Warbler Habitat on the Ottawa National Forest

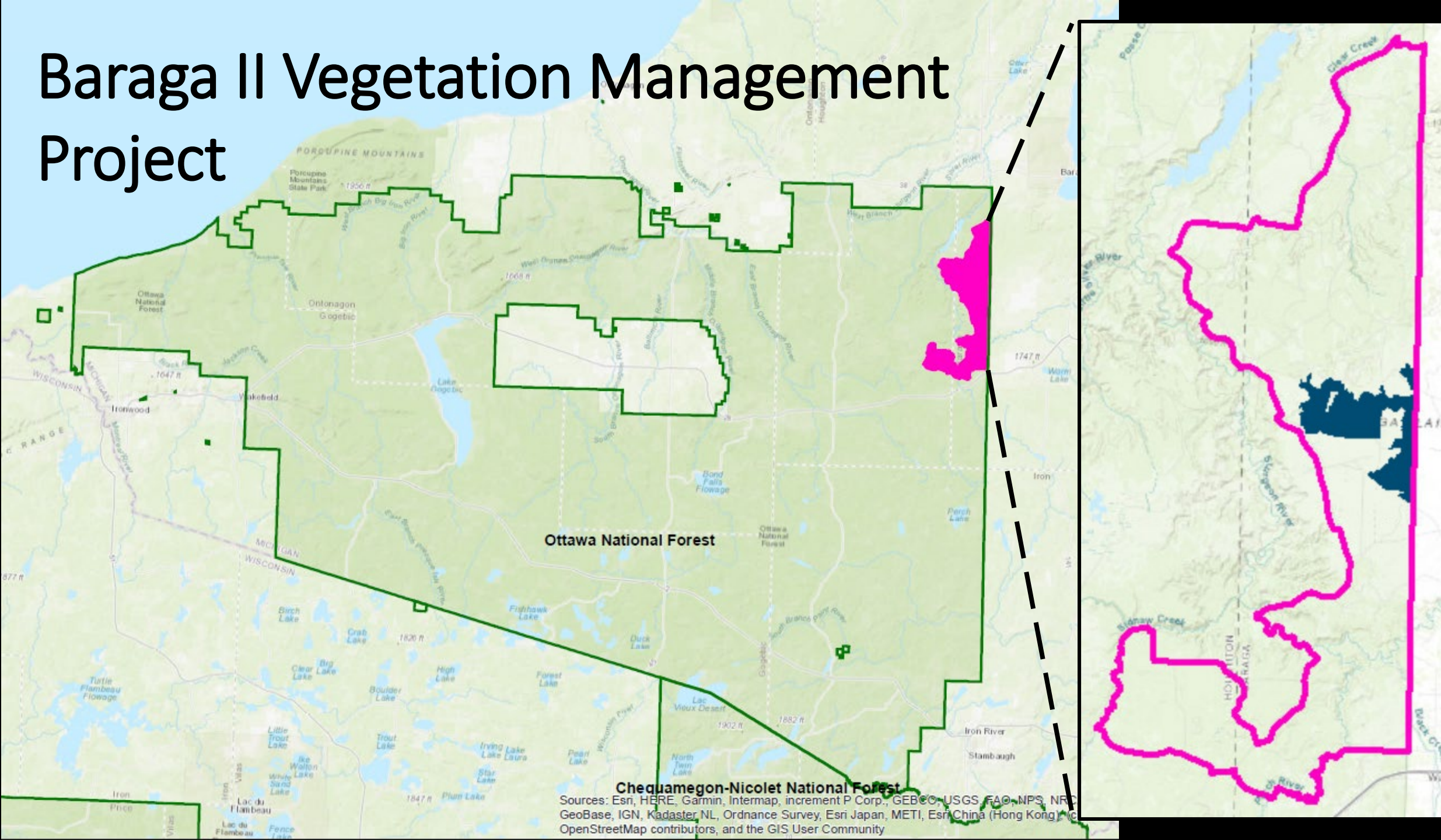
Brianne Boan

Wildlife Biologist

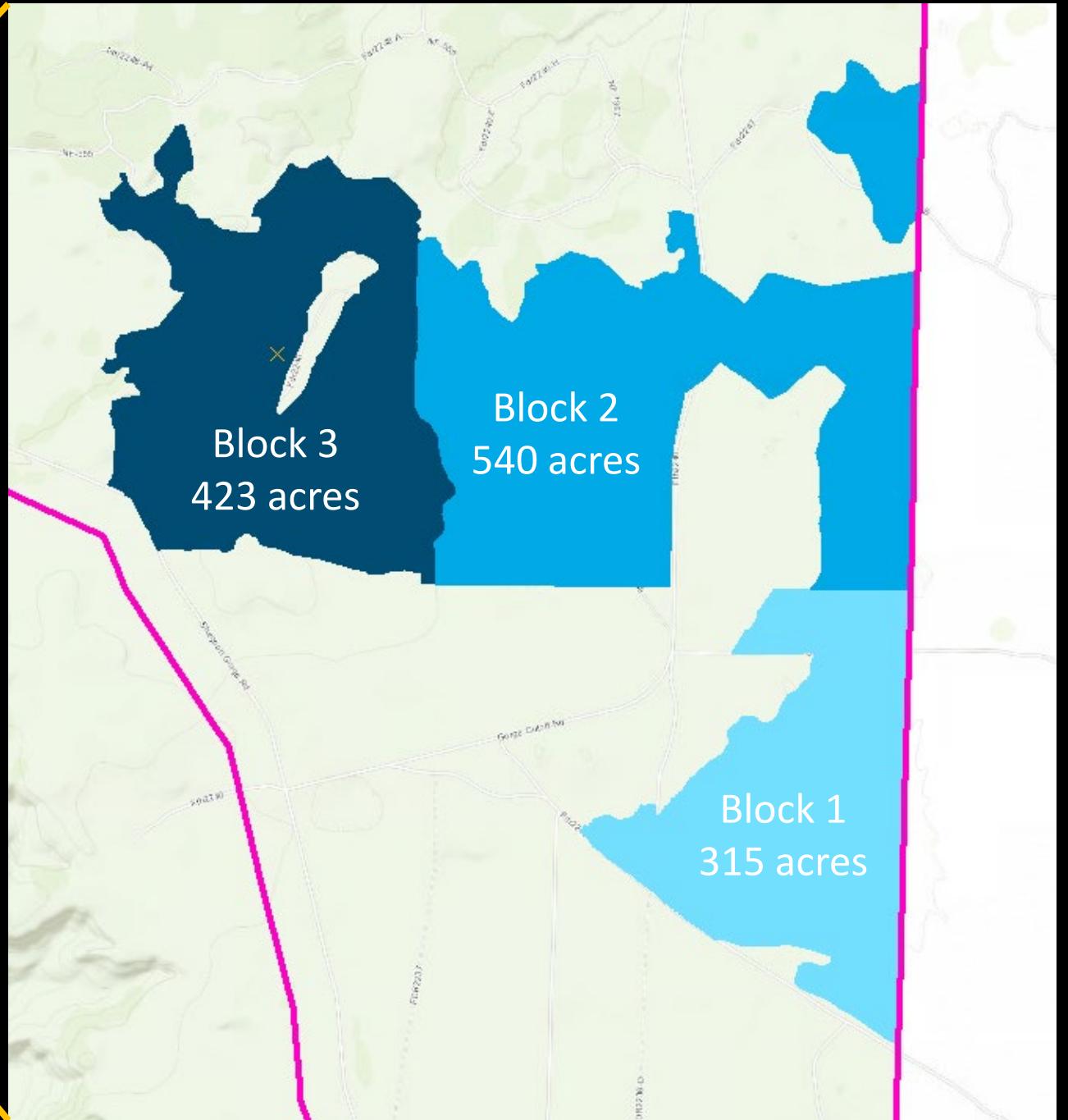
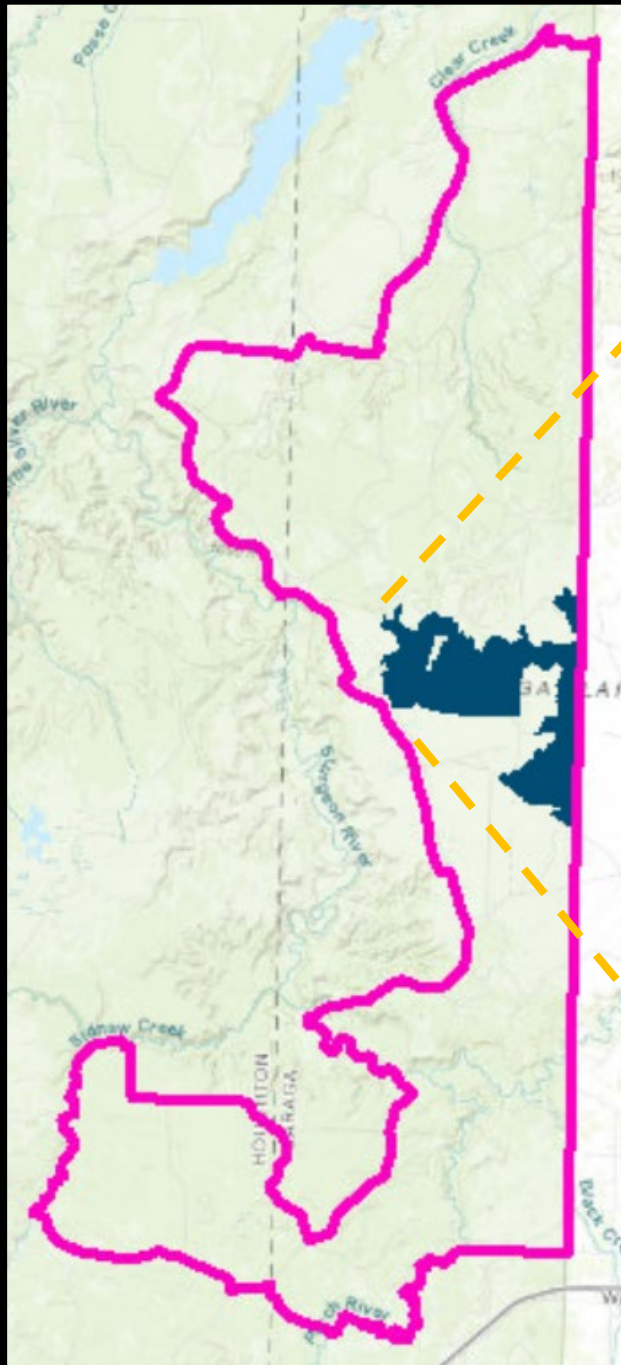


Photo by Aaron Birkemeier

Baraga II Vegetation Management Project



Chequamegon-Nicolet National Forest
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, MNP, NRC, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox Contributors, CNES, and the GIS User Community



Projected Timeline

- Block 1 will be sold in 2024
 - 2027: Begin site prep
 - Rx Fire
 - Roller chopping, anchor chaining
 - 2028: Planting
 - Approximately 450,000 trees at 1,400-1,500 trees/acre
- Tentatively:
 - Block 2 will be sold in 2034
 - Block 3 will be sold in 2044



The Projected Future...

- American Bird Conservancy
- Michigan Tech University
- Michigan Department of Natural Resources
- Ottawa NF: 3 more blocks!
 - 3 now, 3 more in a future VMP
 - Rotational management schedule
 - At least one block will meet suitable habitat criteria any given year

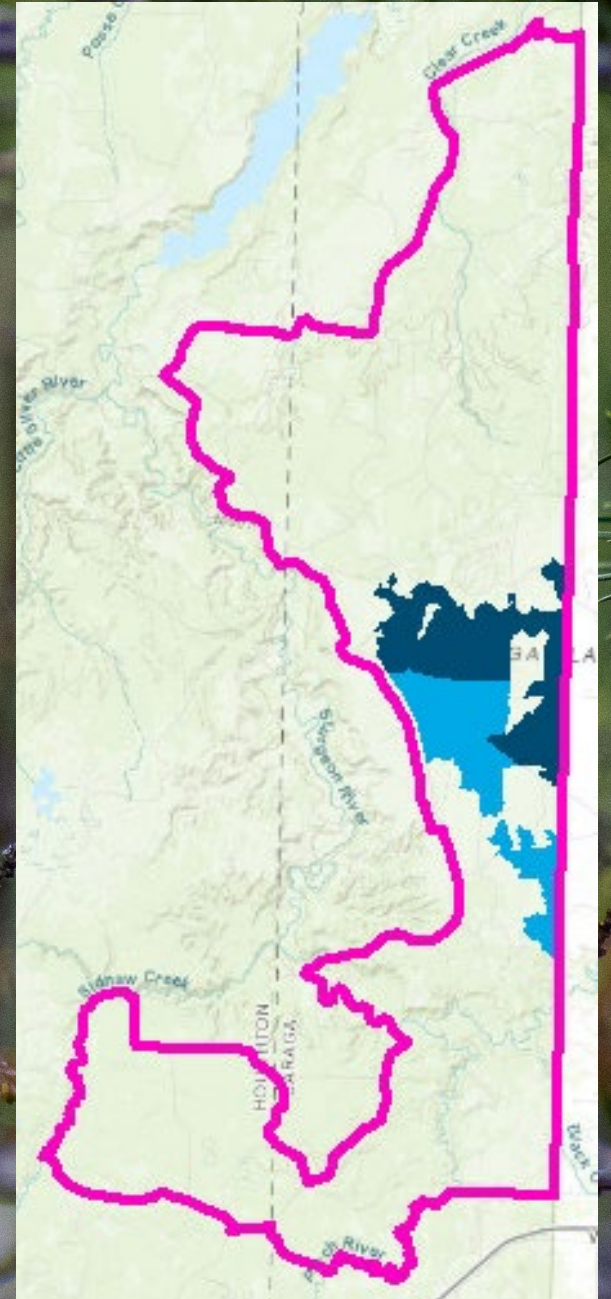


Photo by Aaron Birkemeier

Other KW Habitat Work Happening

- Expanding the Breeding Range Working Group (Kirtland's Warbler Conservation Team)
 - Upper Peninsula
 - Ottawa National Forest
 - Hiawatha National Forest
 - Michigan DNR
 - Wisconsin
 - The Nature Conservancy
 - American Bird Conservancy
 - Wisconsin DNR



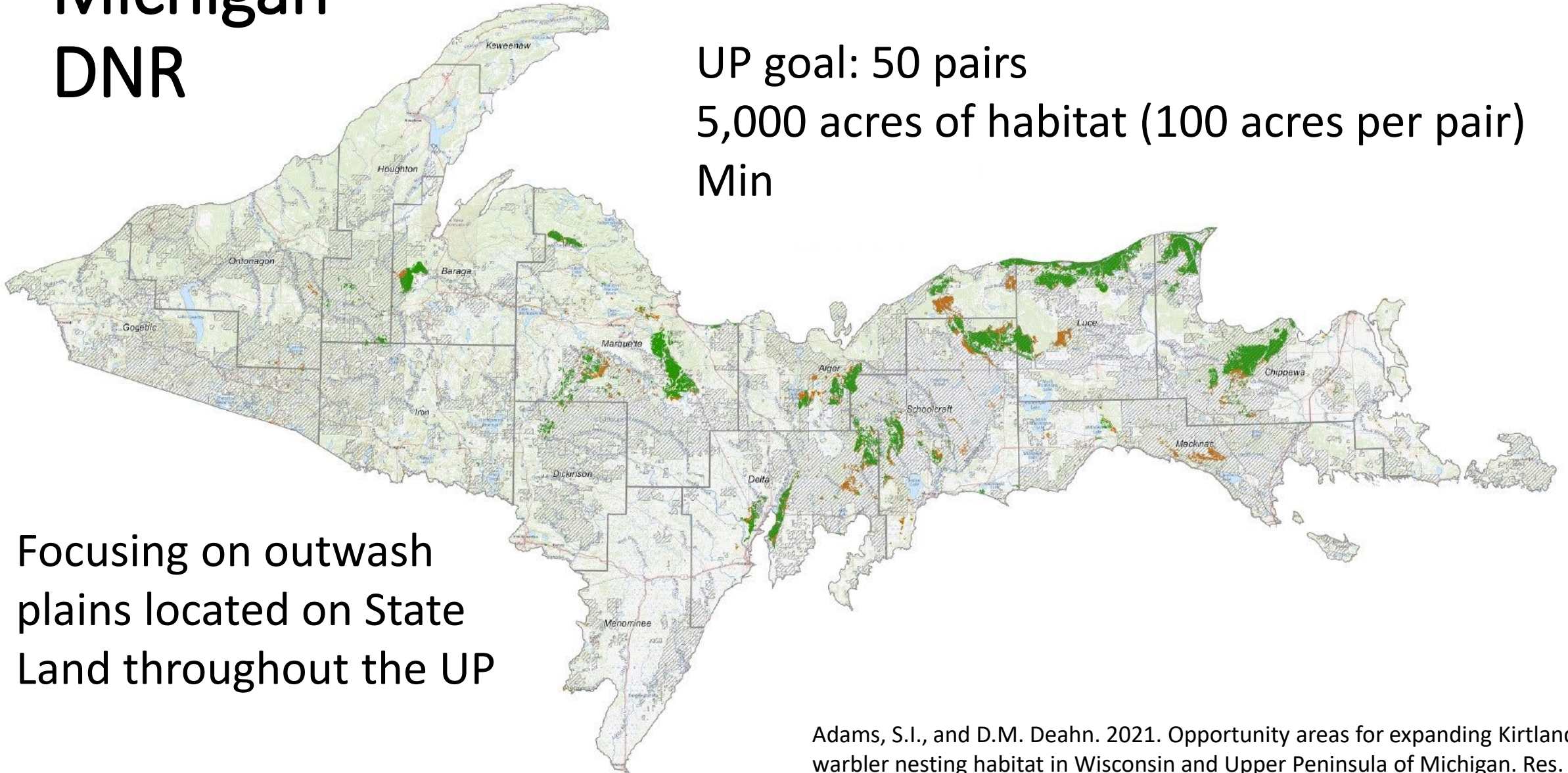
Hiawatha National Forest



- Developing a Programmatic Jack Pine Regeneration Project
 - 15,000 acres next 15 years – currently ground-truthing
 - Habitat blocks of 300-550 acres
 - Natural regeneration, seeding, planting
 - Varying jack pine densities (850-1,400 trees/acre)
 - Variable openings, 0.25-1.25 acres
- Restoring fire in boreal systems
 - Collaborative approach local tribes

Michigan DNR

UP goal: 50 pairs
5,000 acres of habitat (100 acres per pair)
Min

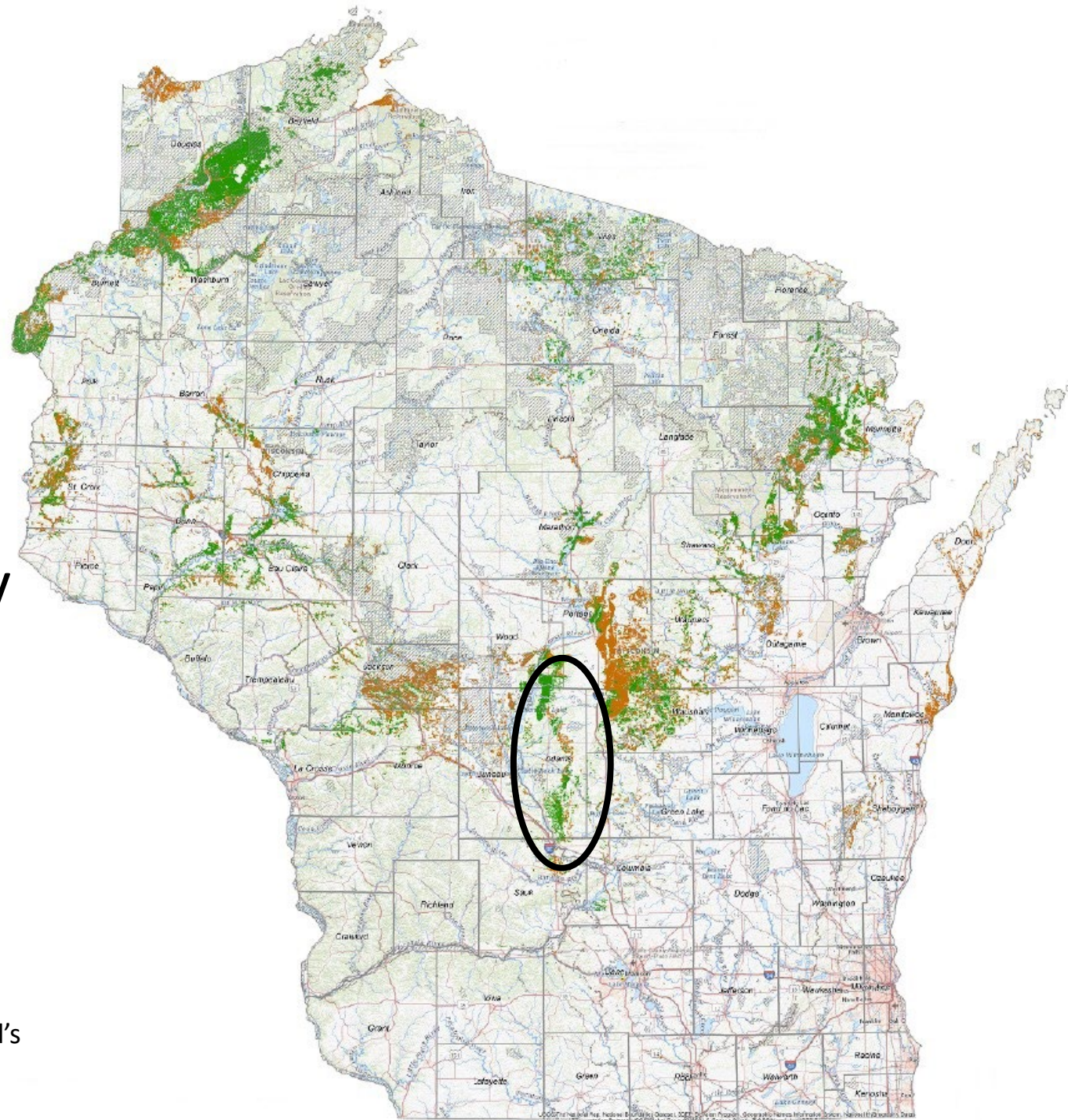


Focusing on outwash
plains located on State
Land throughout the UP

Adams, S.I., and D.M. Deahn. 2021. Opportunity areas for expanding Kirtland's warbler nesting habitat in Wisconsin and Upper Peninsula of Michigan. Res. Map NRS-12. Madison, WI: USDA Forest Service Northern Research Station.

Wisconsin

- The Nature Conservancy
 - 400 acres
- American Bird Conservancy
 - 485 acres
- DNR



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