

Yellow Flag Iris Management

Bois Brule River, Douglas County, WI



Photo credit: Brule River Preservation
Amateur photoshop work by Z Stewart

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Photo Z. Stewart

Outline

- The Bois Brule system
- YFI invasion
- 3 phase project overview:
 1. EDRR
 2. APM Planning
 3. Long-term control
- Control
 - Challenges and solutions
- Mechanisms of Spread
- Importance of watershed-scale approach





Americanwhitewater.org

Wiisaakode-ziibi

(The Bois Brule River)

- Burnt forest river
- 71 km / 127 m
- 47,000-acre State Forest
- Cold water fishery (33,000/year)
- Summer flows
- Public access, recreation
- ORW / Douglas Co priority



<https://dnr.wisconsin.gov/sites/default/files/topic/Fishing/13-streamside.jpg>



Wetlands and Floristic Quality

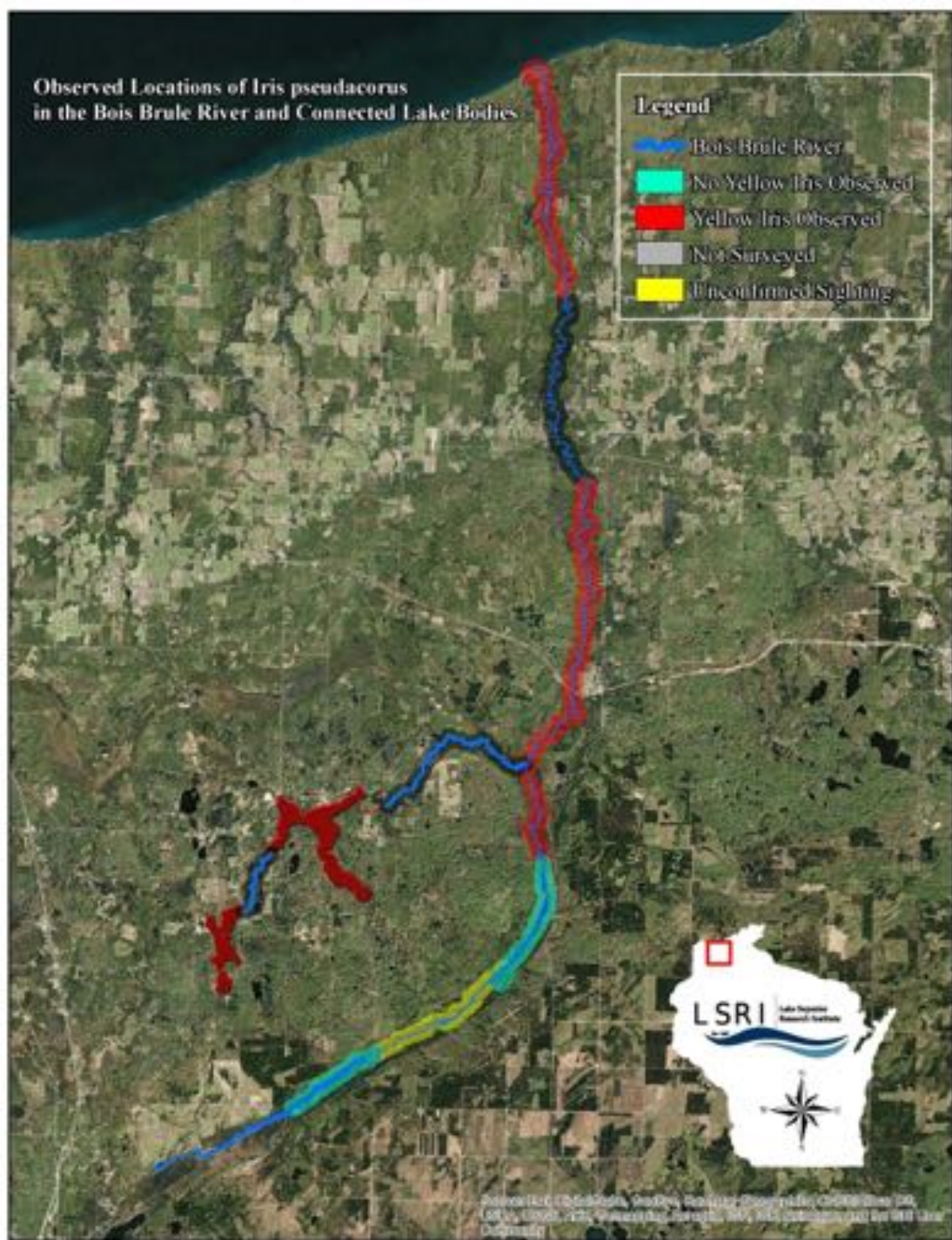


- 21,000 acres (Hlina *et al.* 2017)
 - Reduce sedimentation
 - Habitat
 - Recreation
- Rare plants and animals (WI DNR, 2016).

“impressive richness, diversity, and floristic quality”

(Hlina et al 2018)





Known YFI Infestation

- *Iris pseudacorus* NR 40 restricted
- Documented in 2017
- Anecdotal reports of increase
- High resolution mapping in 2021

- Awarded EDRR funds to begin higher resolution mapping and control



Brule Yellow Flag Iris Management Project Overview



- 35 km reach
- Three phases
 1. YFI mapping and EDRR response
 2. APM Planning
 3. Watershed-scale control as needed





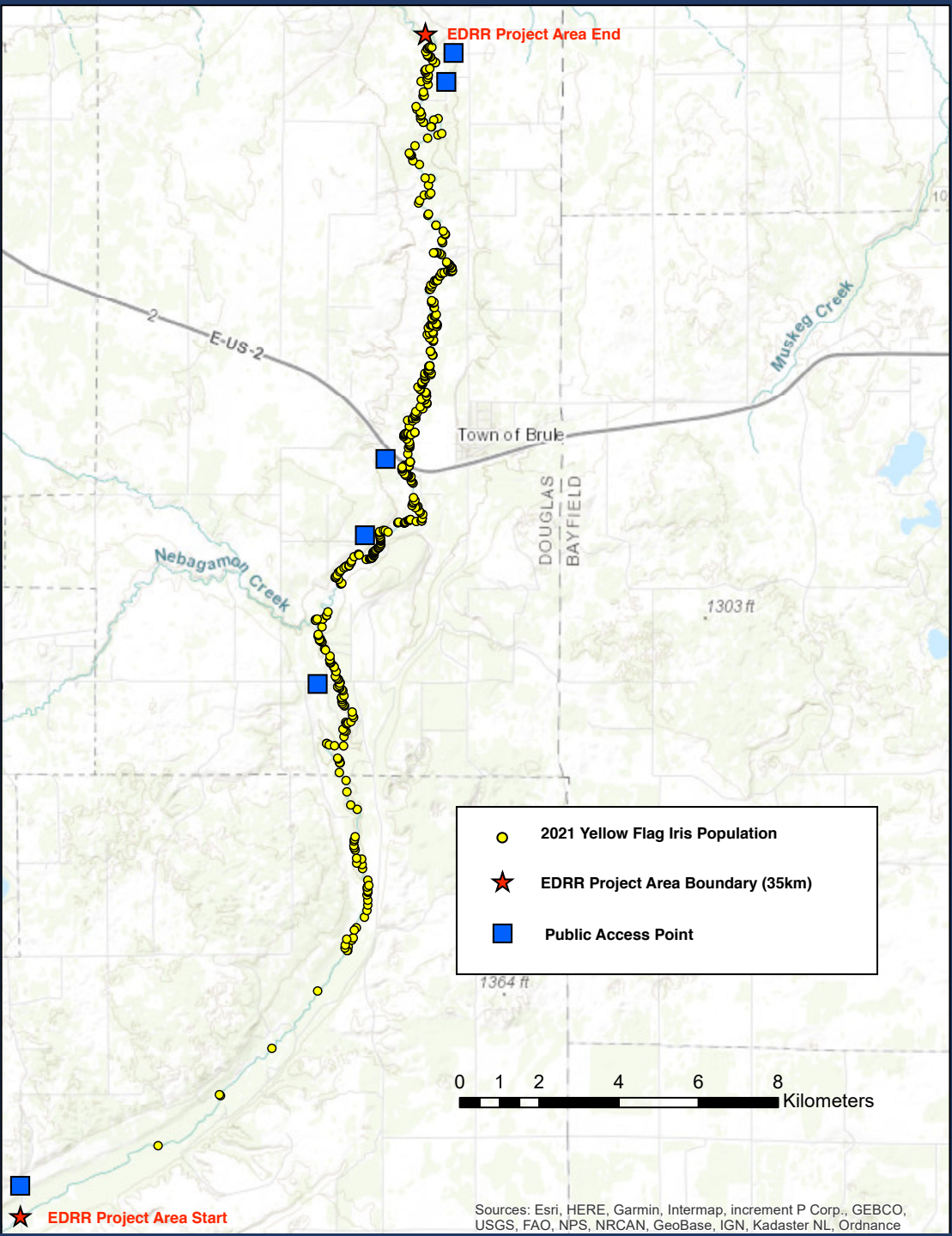
Phase One: YFI EDRR

- 3-year duration (2021-2023)
- Focused on YFI
- 35 km project area

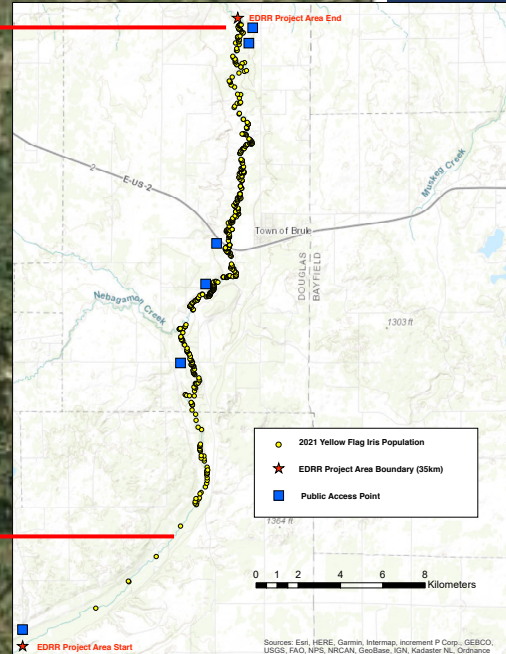


Phase One: YFI EDRR

- Completed (2021)
 - High-res mapping
 - 493 individual infestations
 - Minnesuing Creek infestation
 - Coordinate landowners and plan control work



Observed Locations of *Iris pseudacorus* in the Bois Brule River and Connected Lake Bodies



Phase One: EDRR

- Completed (2021)
 - 493 individual infestations
 - Minnesuing Creek infestation
 - Coordinate landowners and plan control work
- Next Steps (2022, 2023)
 - Continue outreach and education
 - RR Control "significant reduction"
 - Surveillance



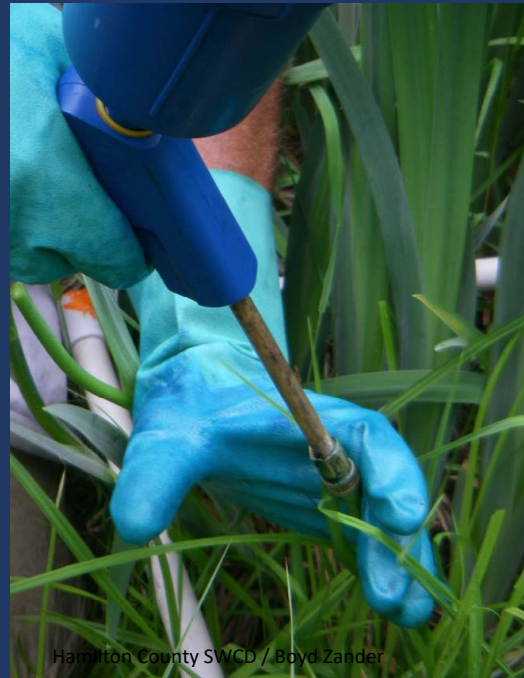
Control

Challenges and solutions

- Ownership/perceptions
- Remote access
- Sheer volume

Methods

- Manual digging
 - Volunteers
- Targeted herbicide?
 - Stem injection
 - Cut stump
- Seedhead removal





Phase Two: APM Planning

- 2021 SWG application
- 2022, 2023 goals:
 - Lit review
 - Identify AIS stressors
 - Write APM plan
 - Public input, plan approval
 - Goal: clear strategy and “buy in”





Photo: Z. Stewart

Phase Three: Strategic AIS Control

- Implement APM plan
- Long-term strategic management
- Protect
 - Water quality
 - Ecosystem integrity
 - Rare plants
 - Recreation
- Continued community outreach



Spread and Strategy

- Observations
 - Seeding
 - *Ex-situ* clusters
- Relationship to coastal wetland
- Importance of 3 phases
 - long-term
 - watershed scale



Photo: Z. Stewart



Photo: Z. Stewart



Photo: Z. Stewart

Conclusion

- Quality resource
- Significant infestation
- Spread and interconnectedness
- Importance of 3 phase strategic approach
- Partners (TNC, BRP, WI DNR, landowners, rec)



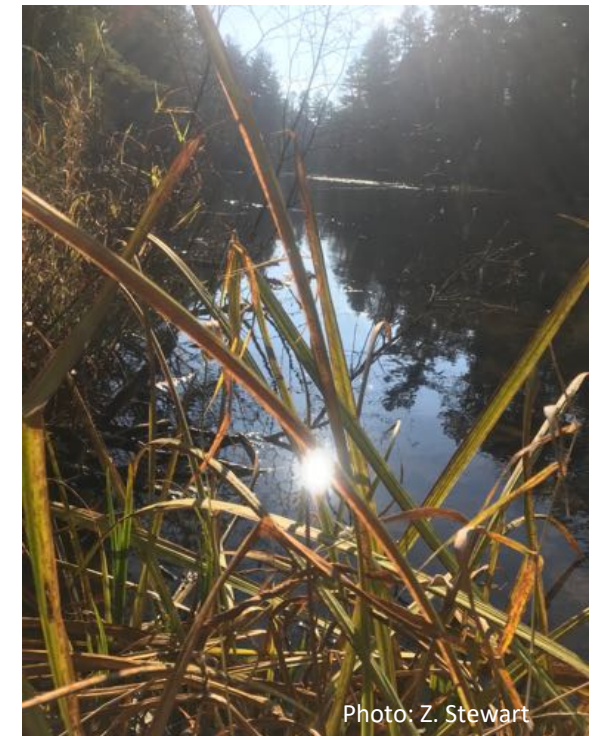


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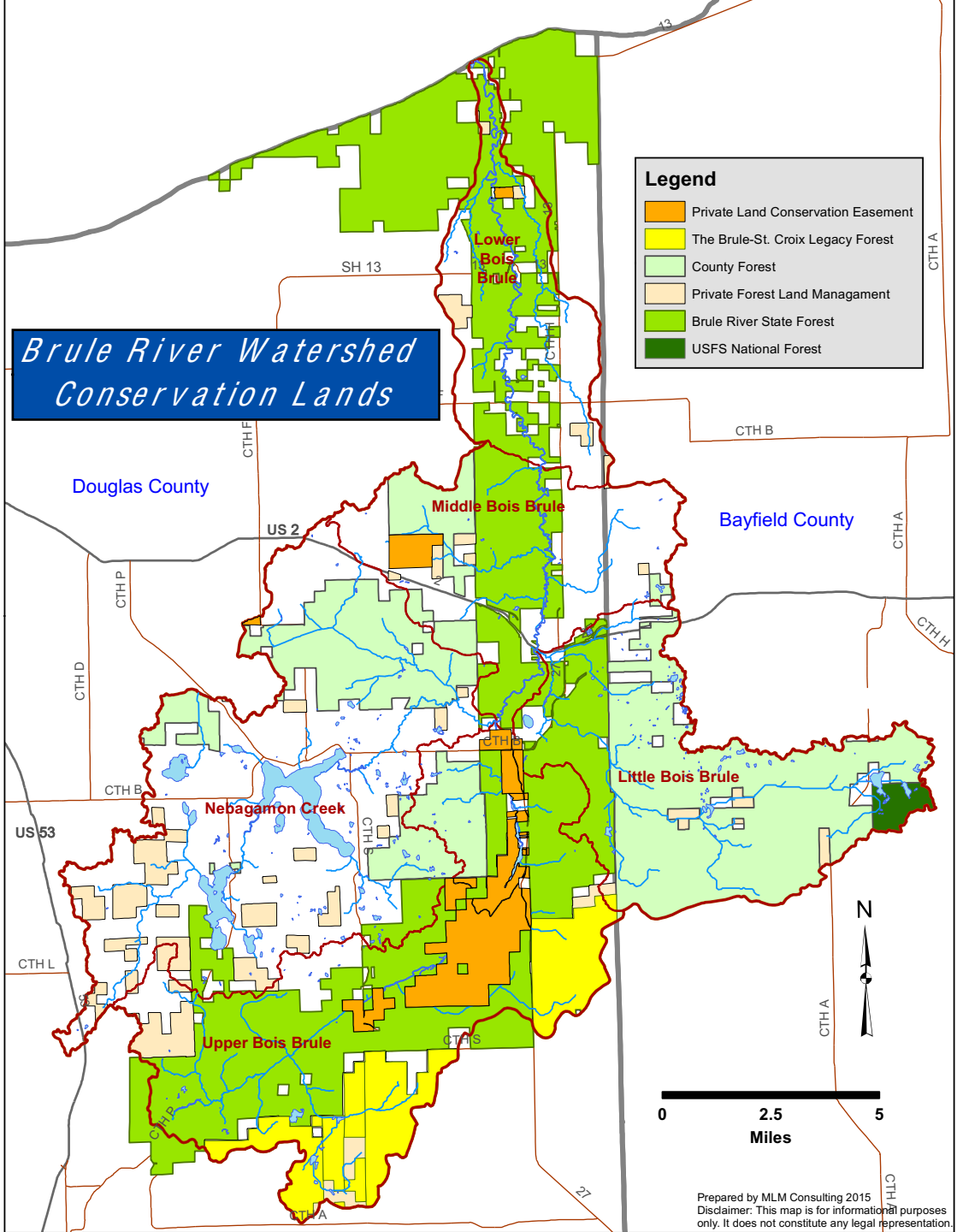




Brule River Watershed Conservation Lands

Legend

- Private Land Conservation Easement
- The Brule-St. Croix Legacy Forest
- County Forest
- Private Forest Land Management
- Brule River State Forest
- USFS National Forest



Prepared by MLM Consulting 2015
Disclaimer: This map is for informational purposes only. It does not constitute any legal representation.