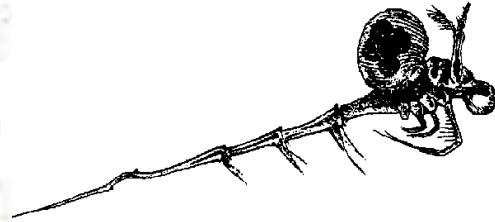


“From Eurasia With Love”

Aquatic Invaders in Wisconsin Lakes



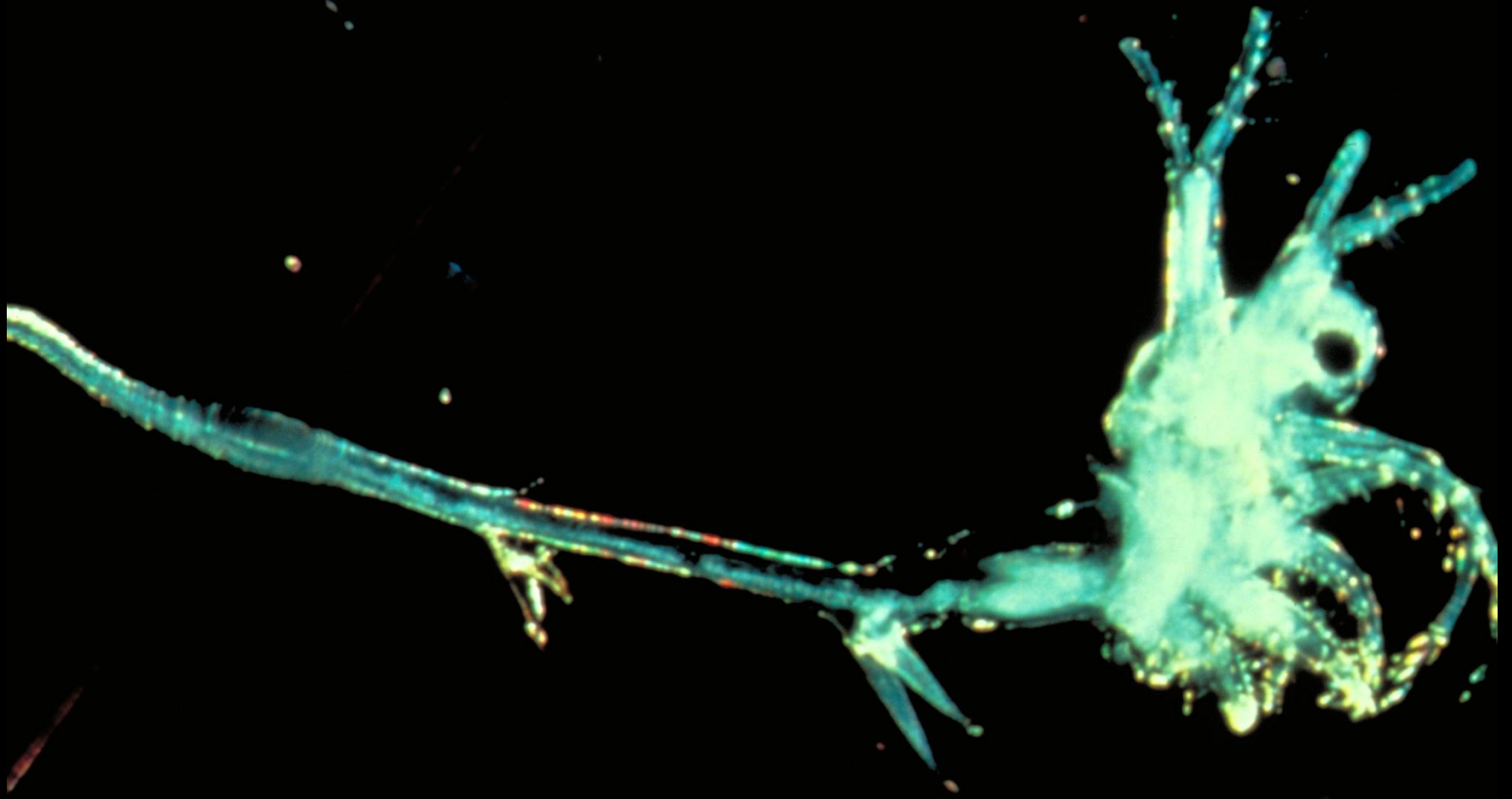
*Jeff Maxted, UW-Madison
Center for Limnology
2008 Crew VII Lake Leaders*



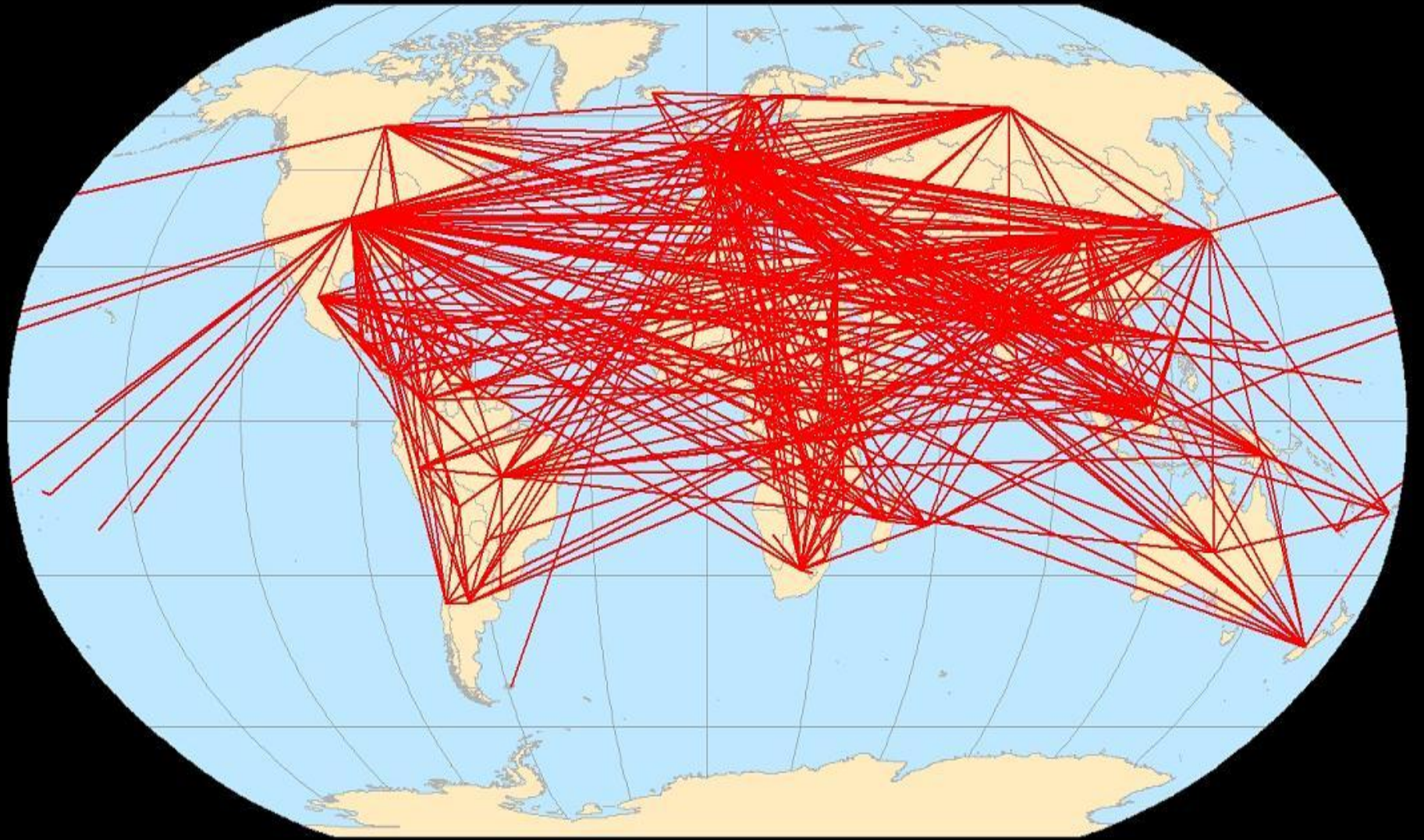












The costs...

- Great Lakes: \$100 – 400 Million to manage zebra mussels (Great Lakes Environmental Research Lab)
- Across the U.S.: Damage and control costs exceed \$137 billion. (Pimental et al, 2000)
- Where do we go from here?

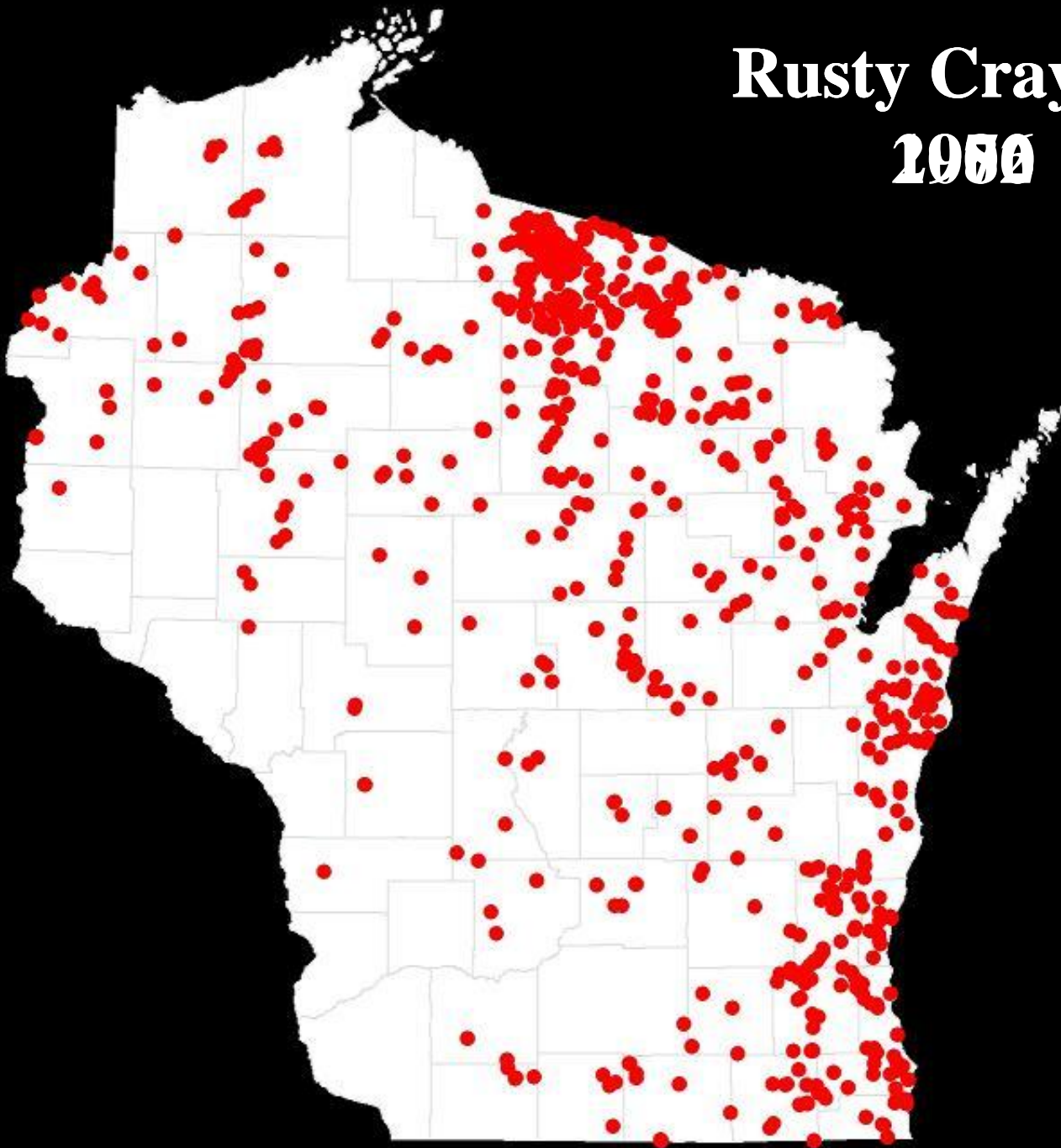
Today's plot...

- Project 1: Removal of a current invader
- Project 2: Targeted prevention of future invaders
- Collaboration is the key



Rusty Crayfish

2000

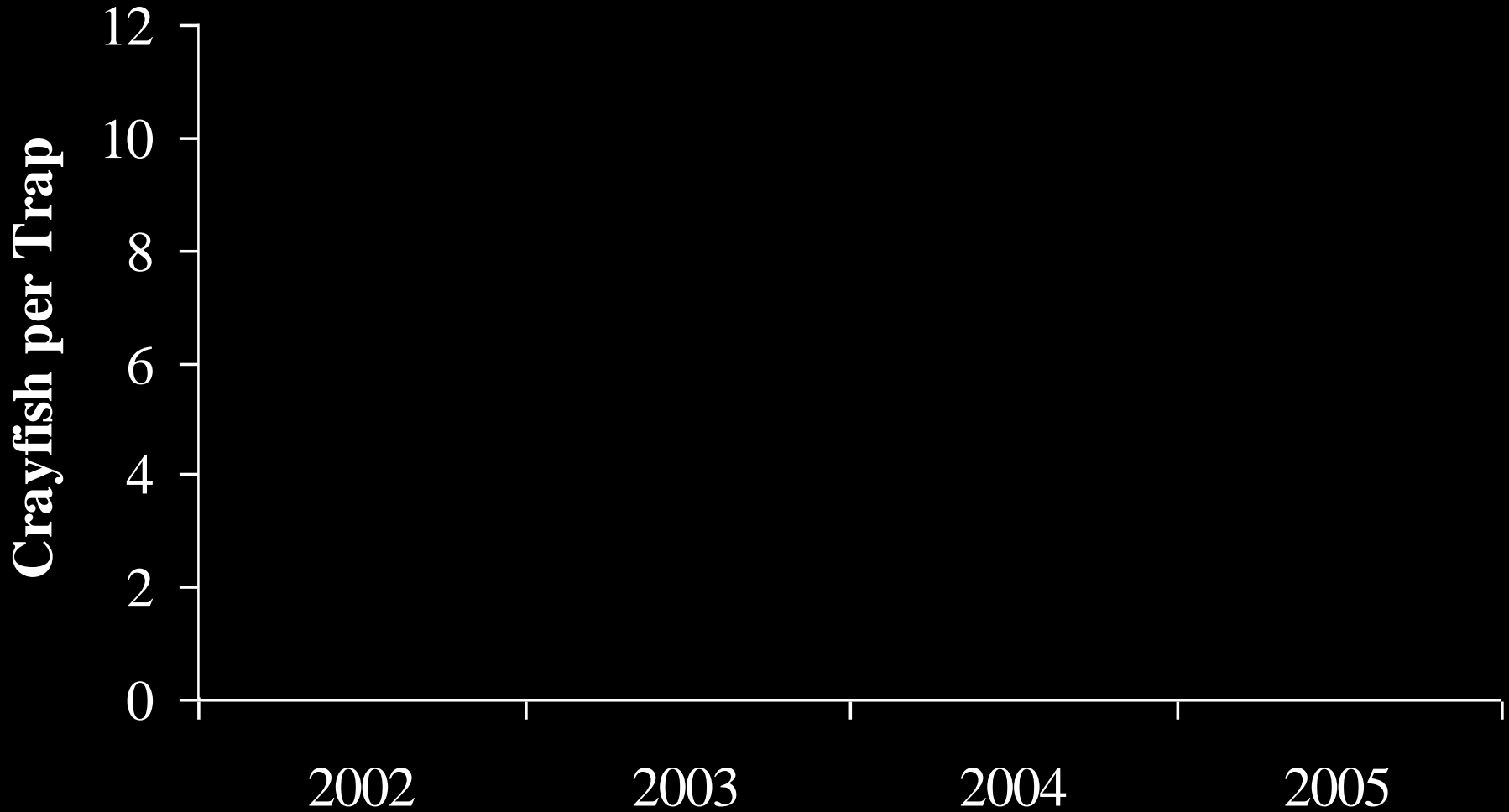


Sparkling Lake Experiment

- 158 acre lake in Vilas Co.
- Changed fishing regulations to favor more and larger smallmouth bass
- Intensive trapping for 4.5 years



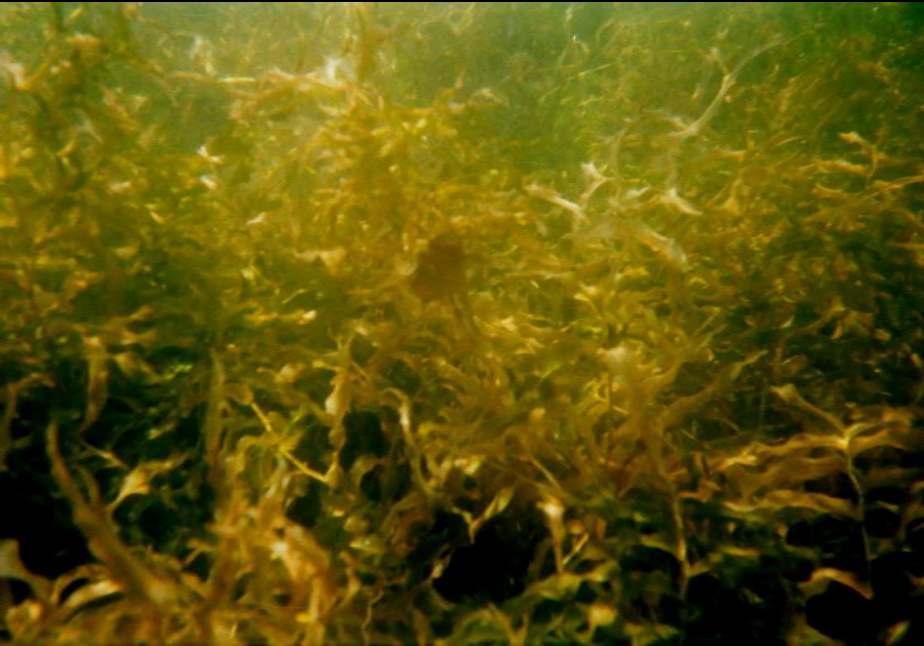
Rusty Crayfish in Sparkling Lake



From This...



To This...



Lessons from Sparkling Lake

- Removal and increased predation resulted in a population decline and plant recovery
- Cooperation and patience was key
- This was just one experiment – not a “magic bullet”

**“An ounce of prevention is worth
a pound of cure”**

- old adage

Where to direct prevention efforts?

15,000 lakes

40,000 + miles of stream

Rainbow Smelt

- Introduced by hand(?)
- Live in large, clear lakes
- Have impacts on walleye reproduction



Colonization

Can it get
there?

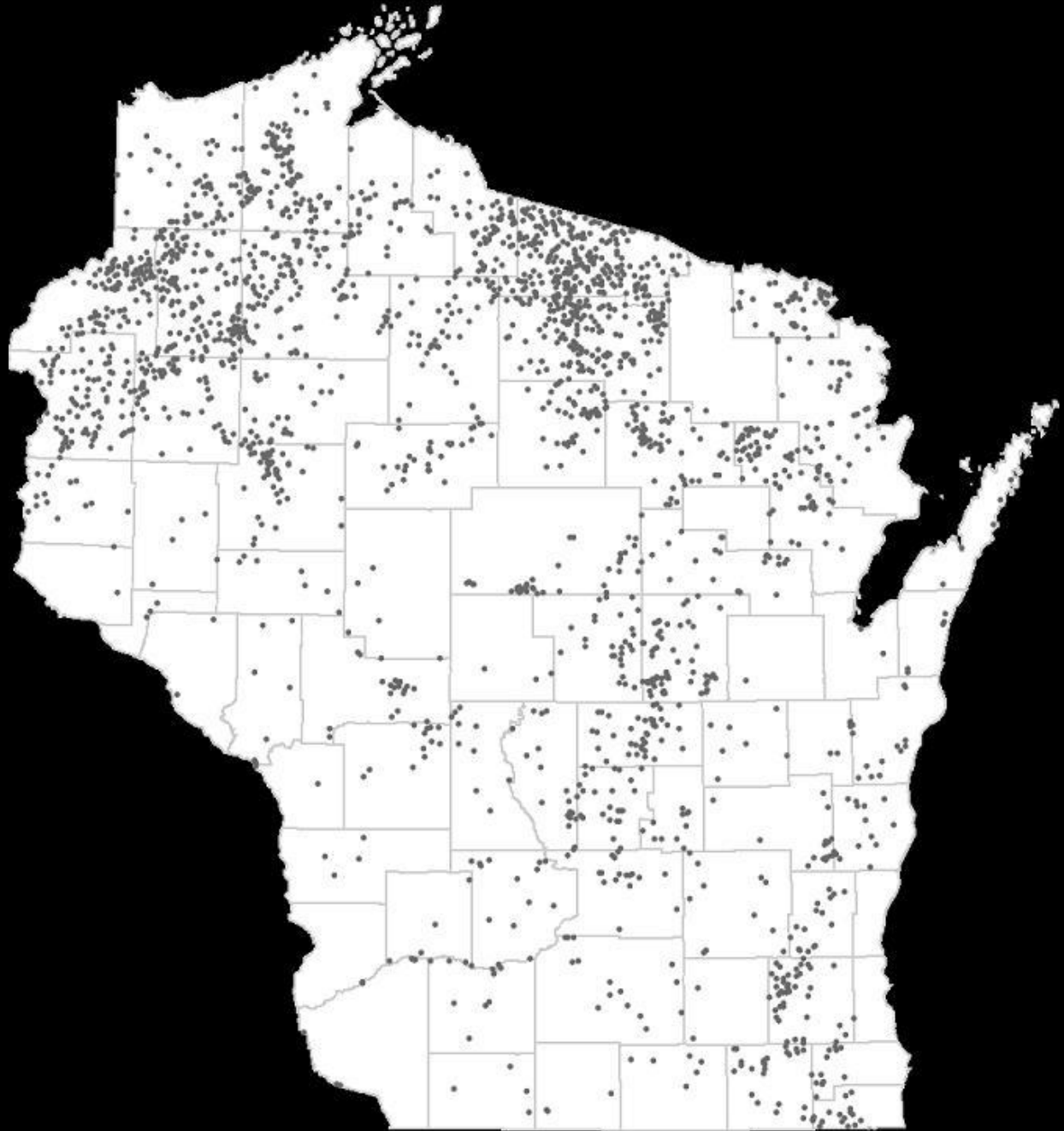


All Lakes



5100

Can smelt
get there?



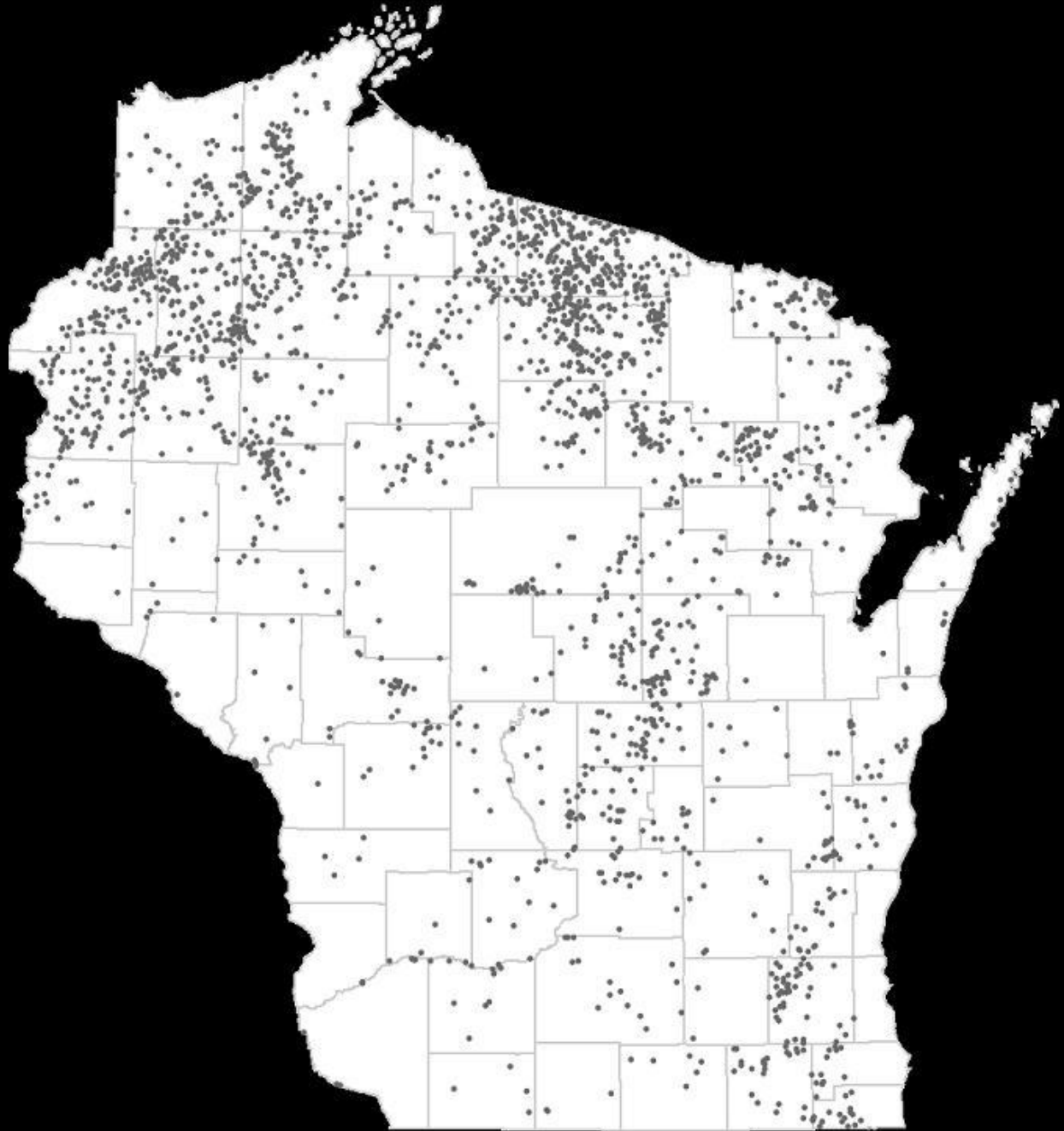
2200

Establishment



Can it establish a
new population?

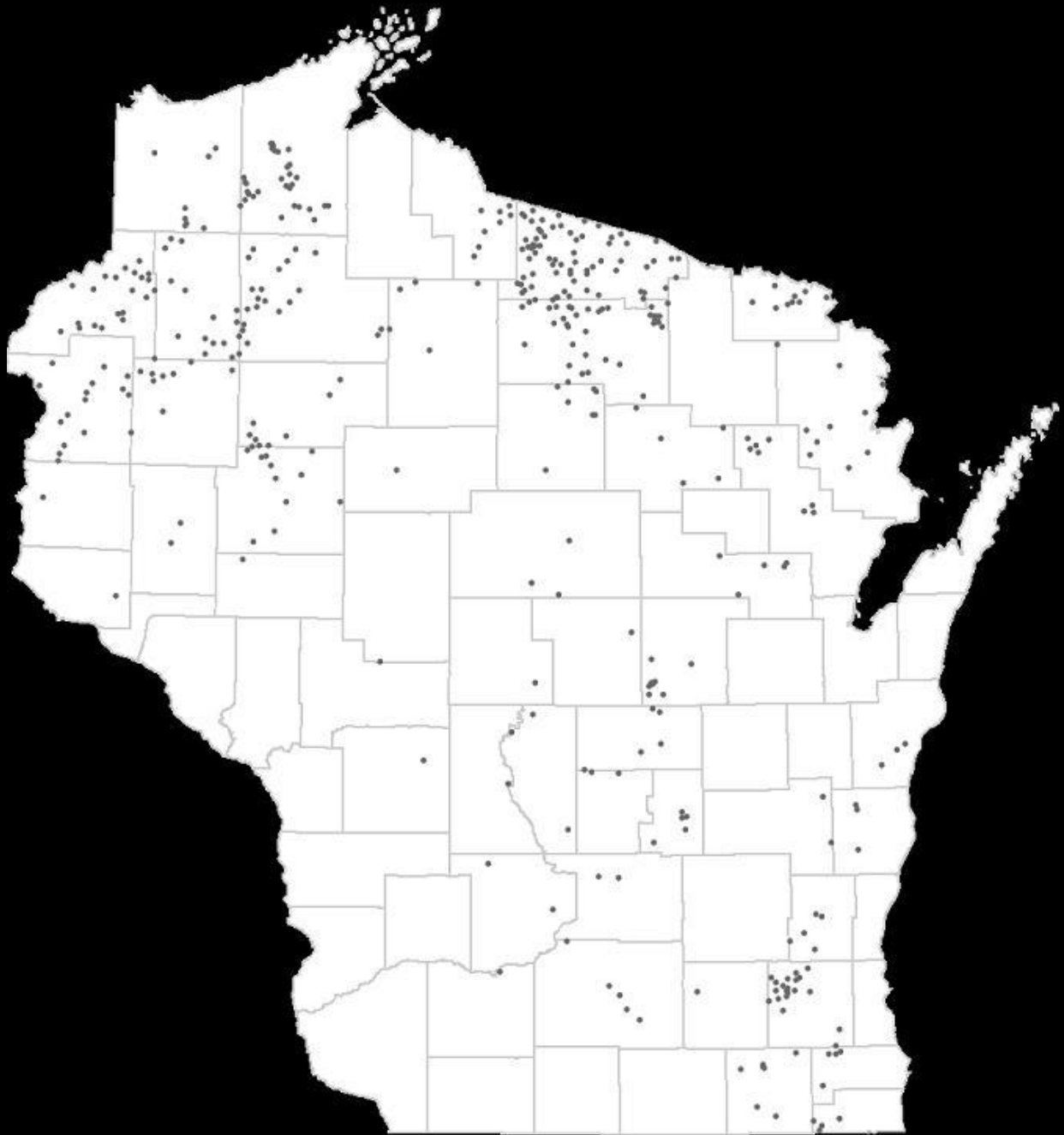
Can smelt
get there?



2200

Can smelt
live there?

530



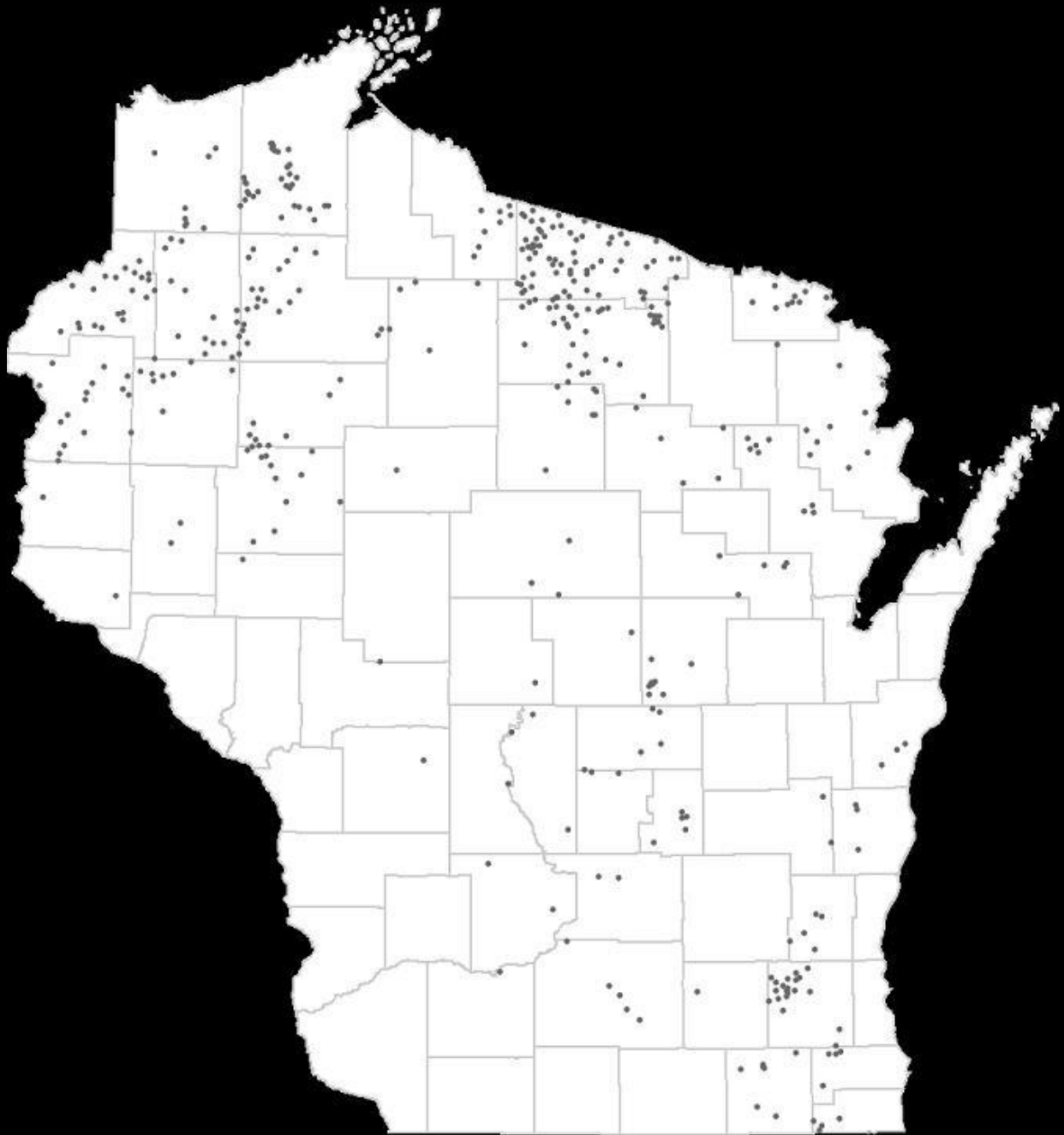
Impact

Will it have an
adverse impact on
native species?

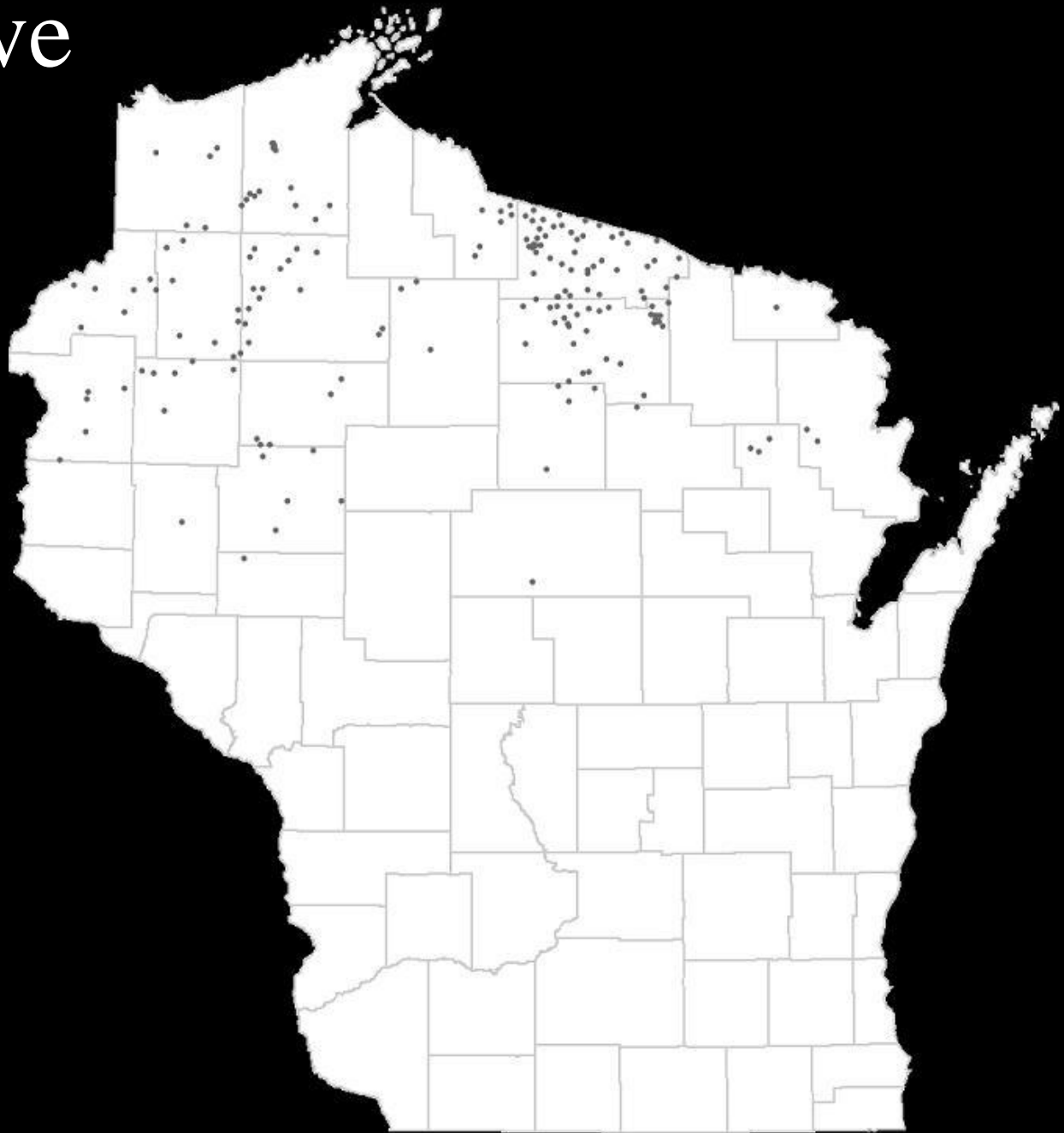


Can smelt
live there?

530

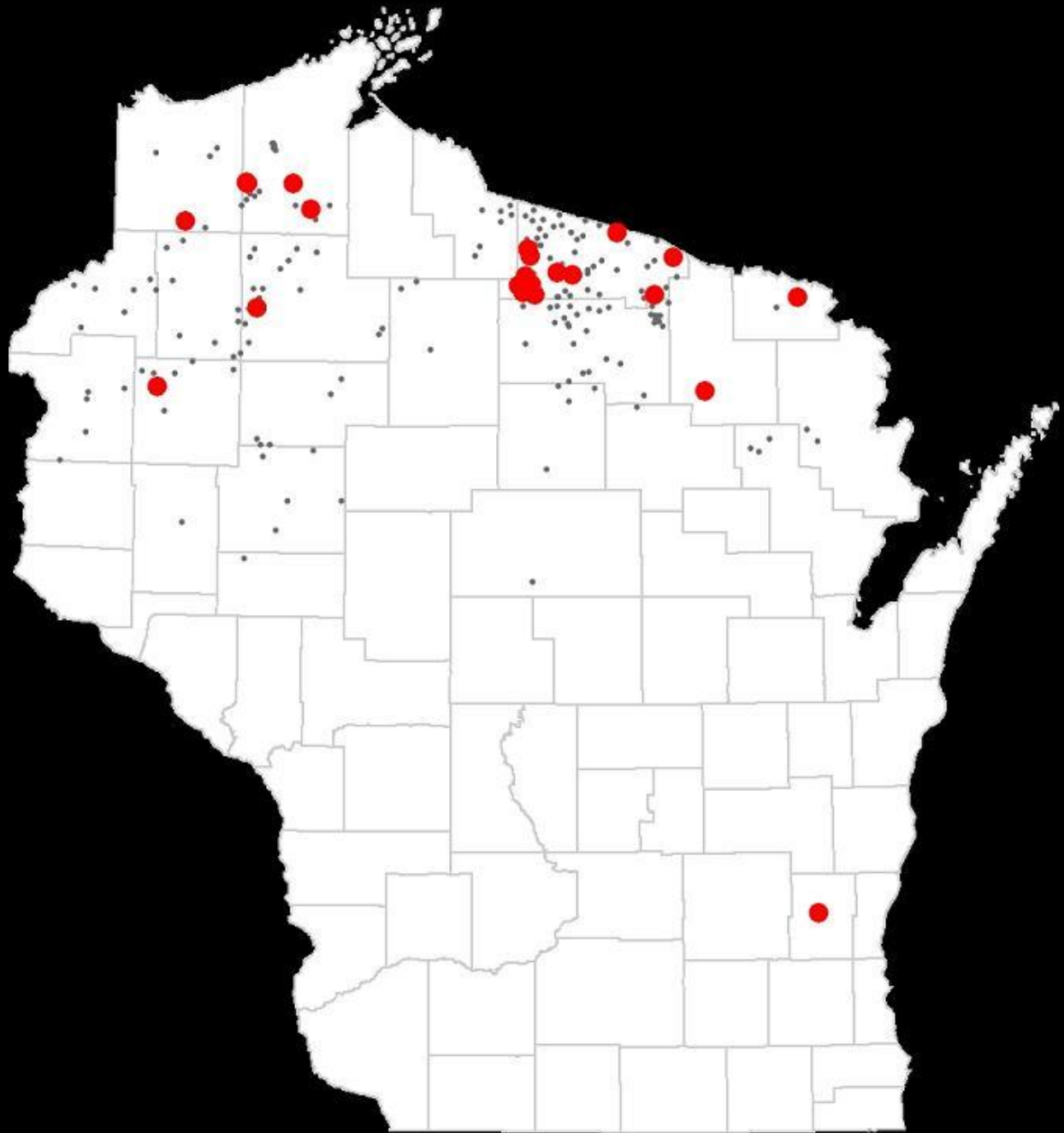


Will smelt have
an impact?



180

Where are
smelt now?



14%



All Lakes

Zebra Mussel

1100



Can it live
there?

Zebra Mussel

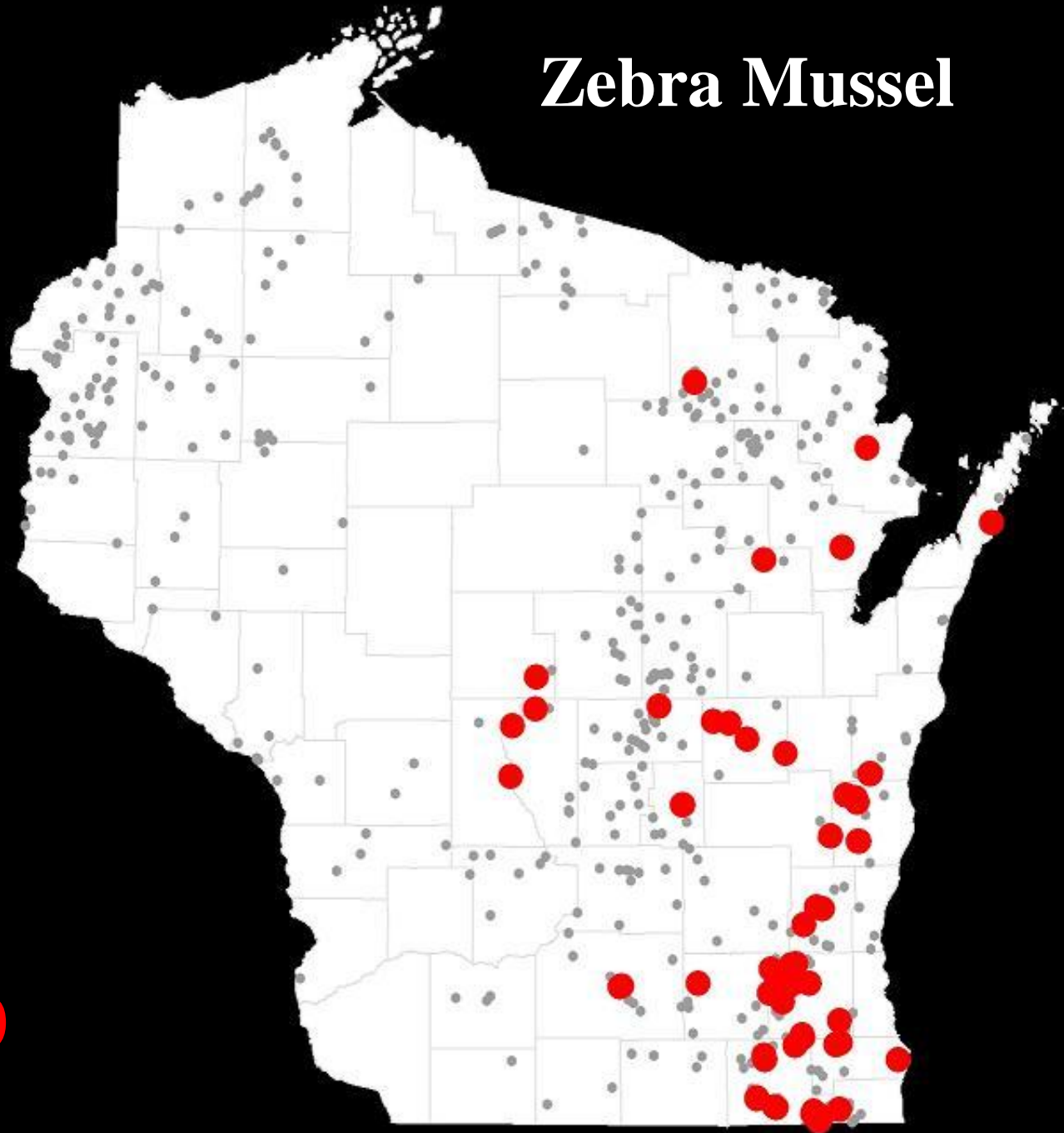


460

Where are
they now?

Zebra Mussel

13%



**Your mission...should you choose to
accept it...**

- Inspect boat and remove plants
- Drain water
- Dispose of bait in trash

**Your mission...should you choose to
accept it...**

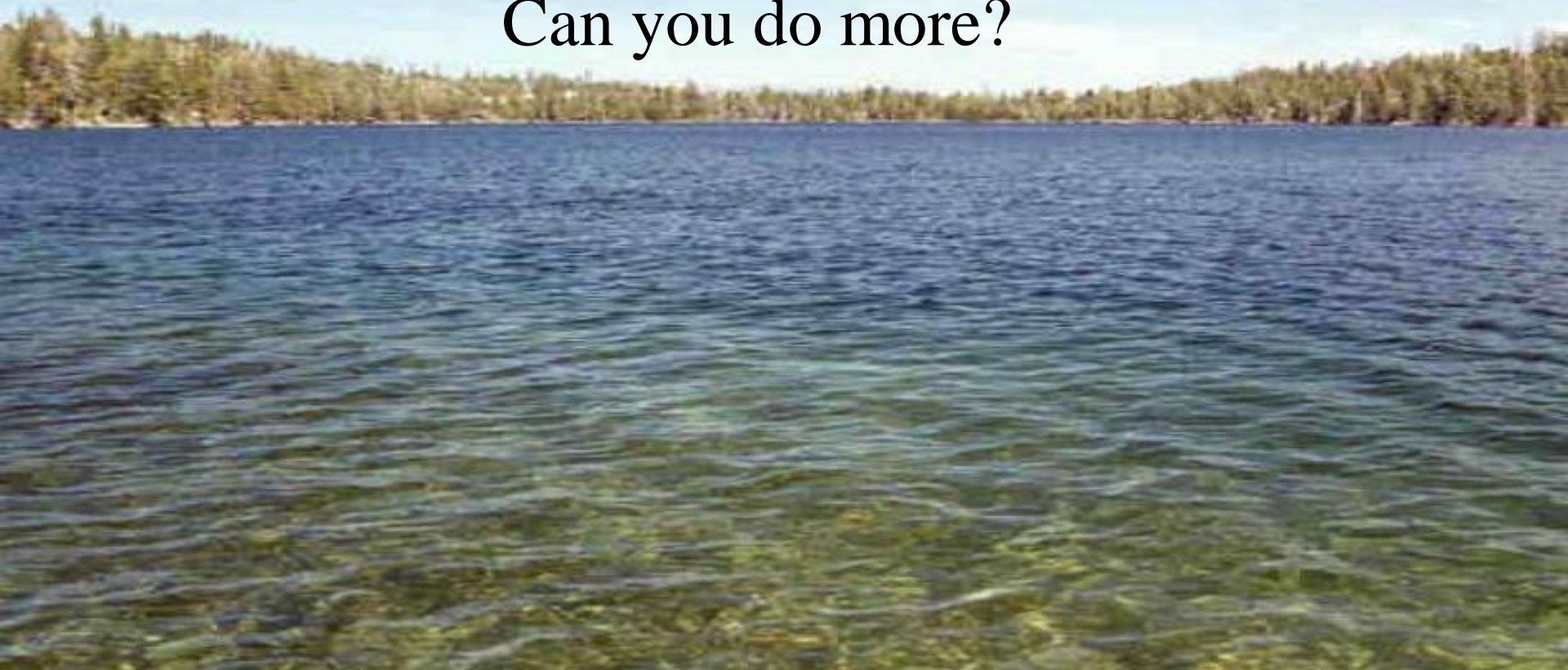


Moral of the story...

Don't Panic. Plan.

Practice prevention

Can you do more?



Thank you...

- Wisconsin Lakes Partnership
- Department of Natural Resources
- Citizens Lake Monitoring Network
- Water Action Volunteers
- Wisconsin Coastal Management Program
- Sea Grant
- Great Lakes Indian, Fish, & Wildlife Commission
- Students at the UW-Madison Center for Limnology

