

Starry Stonewort: A New Species of Concern in Minnesota



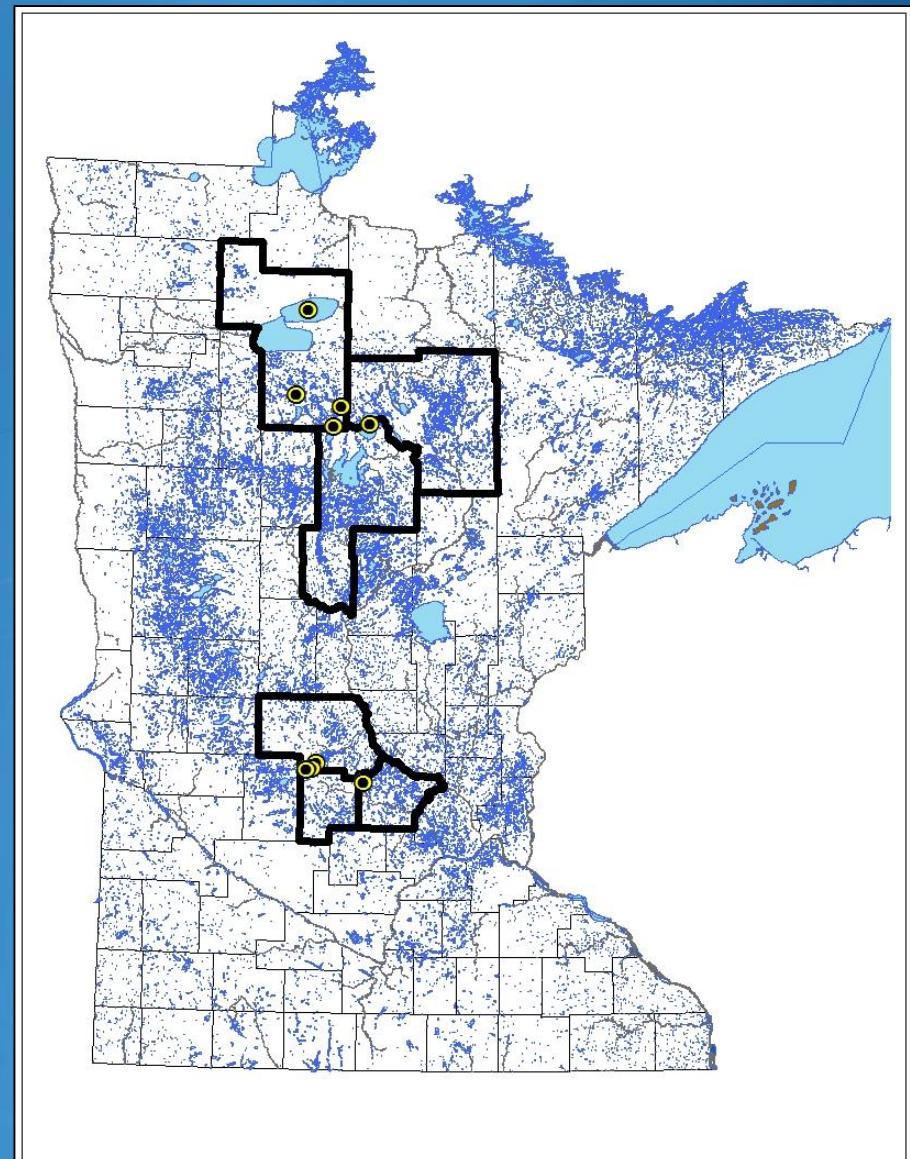
Christine Jurek, Tim Plude, Nicole Kovar, Courtney Millaway

Invasive Species Program
Minnesota Dept. of Natural Resources



Distribution in Minnesota

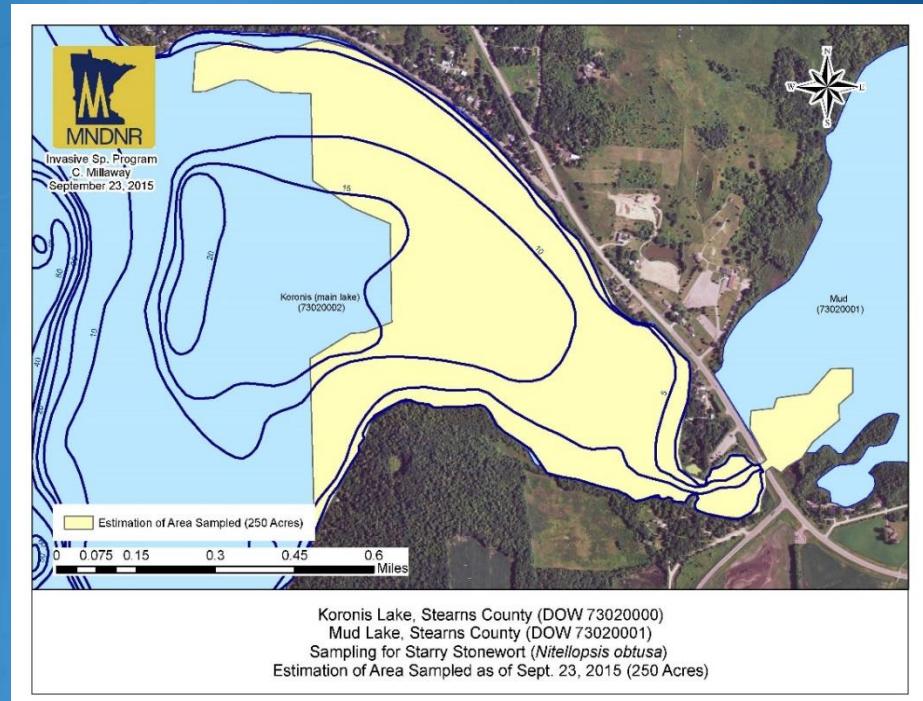
- 2015
 - Koronis
 - Mud
- 2016
 - Turtle
 - Upper Red
 - Cass
 - Winnibigoshish
 - Moose
 - Rice
 - West Sylvia



Koronis Lake

Stearns/Meeker Counties

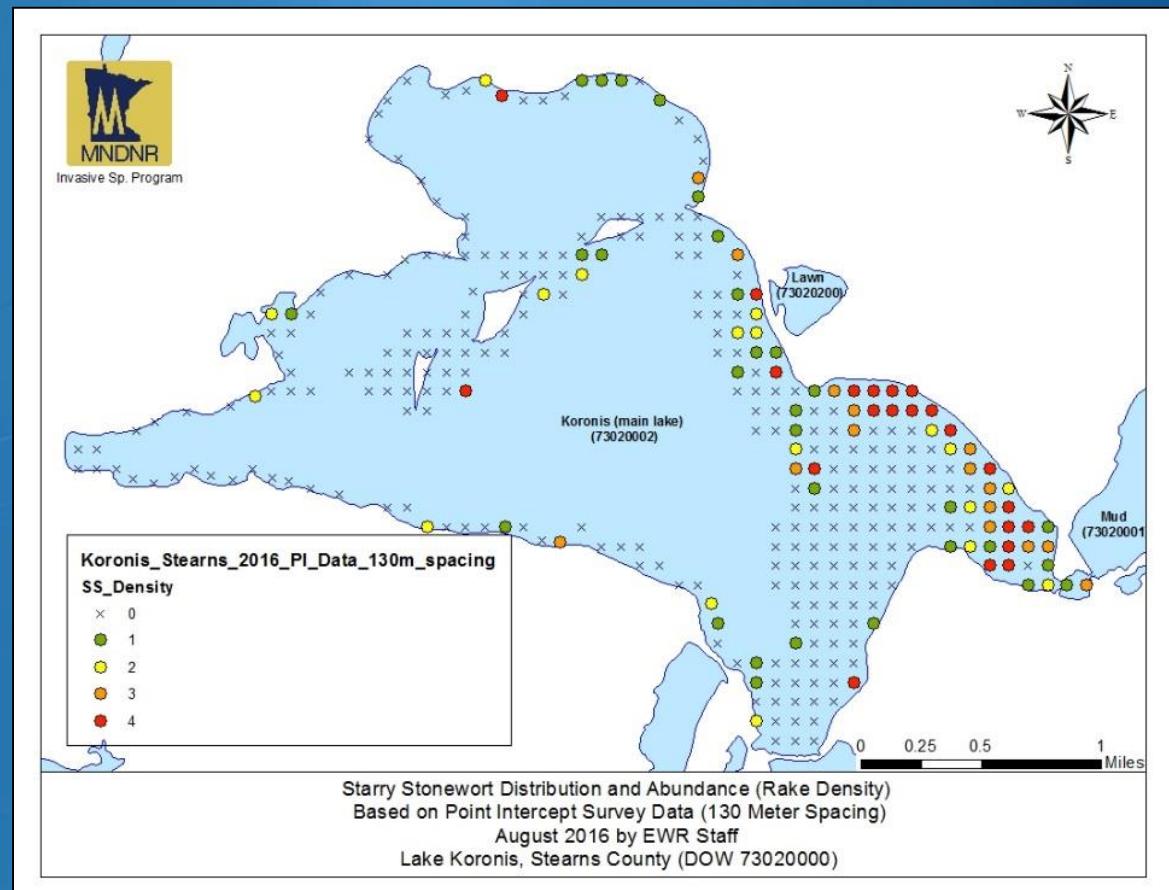
- 2,968 acres
- 1st MN listing
- Discovered:
 - Aug. 18, 2015
- Known extent:
 - Lake-wide delineation
 - >250 acres
 - Max depth: 15.1 ft.
 - Mud Lake



Koronis Lake

Stearns/Meeker Counties

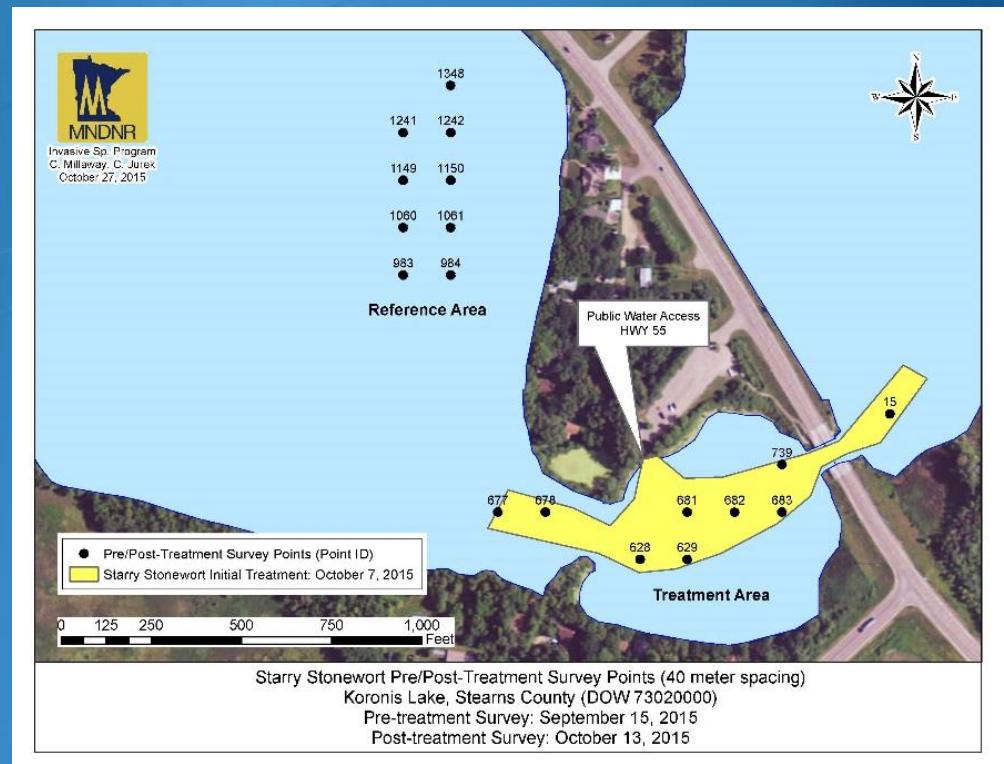
- Actions:
 - Continuous monitoring
 - Point-intercept surveys
 - 2015 PI: 17%
 - 2016 PI: 30%



Koronis Lake

Stearns/Meeker Counties

- Actions:
 - Management focus
 - DNR access: reduce biomass, spread
- Pre/post treatment monitoring
- Relative abundance
- Frequency

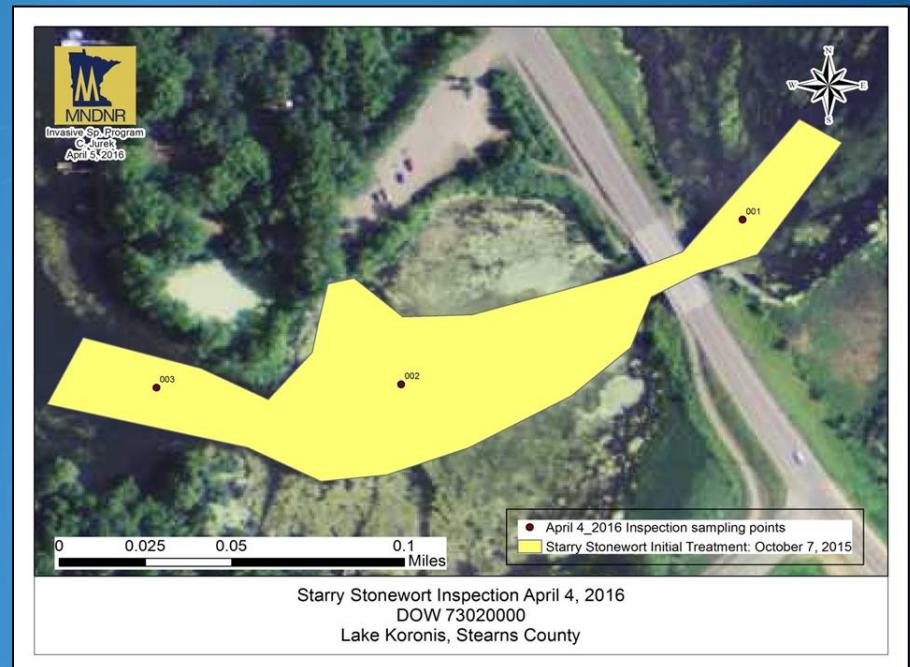


Koronis Lake

Stearns/Meeker Counties

- Actions cont' :

- Pesticide treatment at PWA
 - 4 acre plot
 - Fall 2015: liquid copper/ hydrothall 191
 - Spring 2016: granular copper
 - Cu concentration monitoring
 - Observations



Koronis Lake

Stearns/Meeker Counties

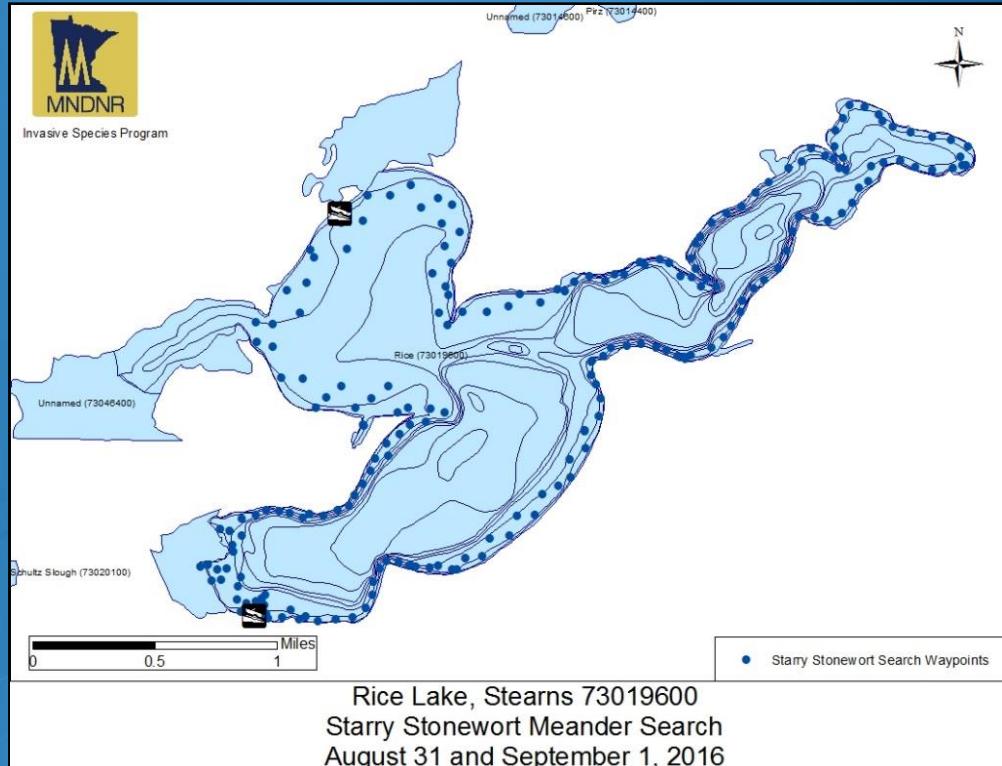
- Actions cont' :

- KLA
 - Harvester/Divers
 - Copper (liquid/granular)



Rice Lake Stearns County

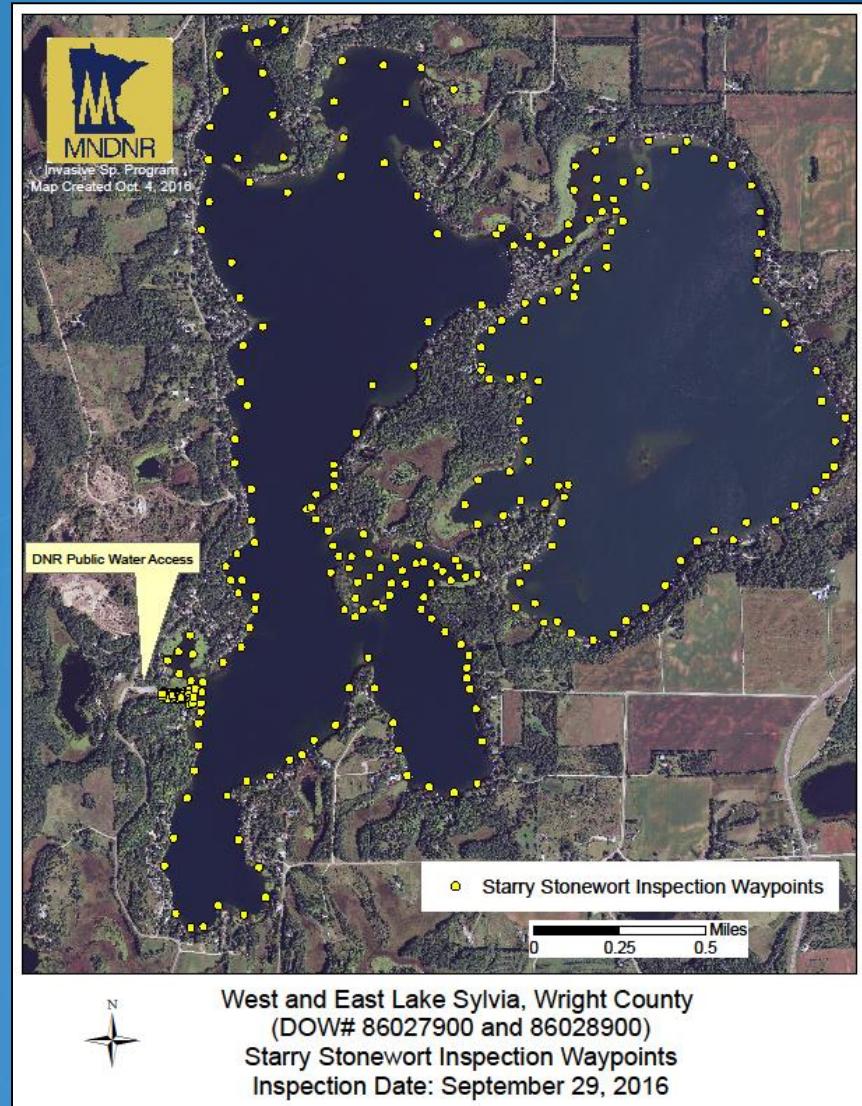
- 1,509 acres
- Discovered:
 - Aug. 31, 2016
- Known extent:
 - 0.15 acres
(360 ft. perimeter)
- Actions:
 - Lake-wide delineation
 - Pre/post treatment monitoring
 - Barrier
 - Suction Dredge
 - Pesticide treatment
 - Copper (granular)/ diquat
 - Cu concentrations



West Sylvia Lake

Wright County

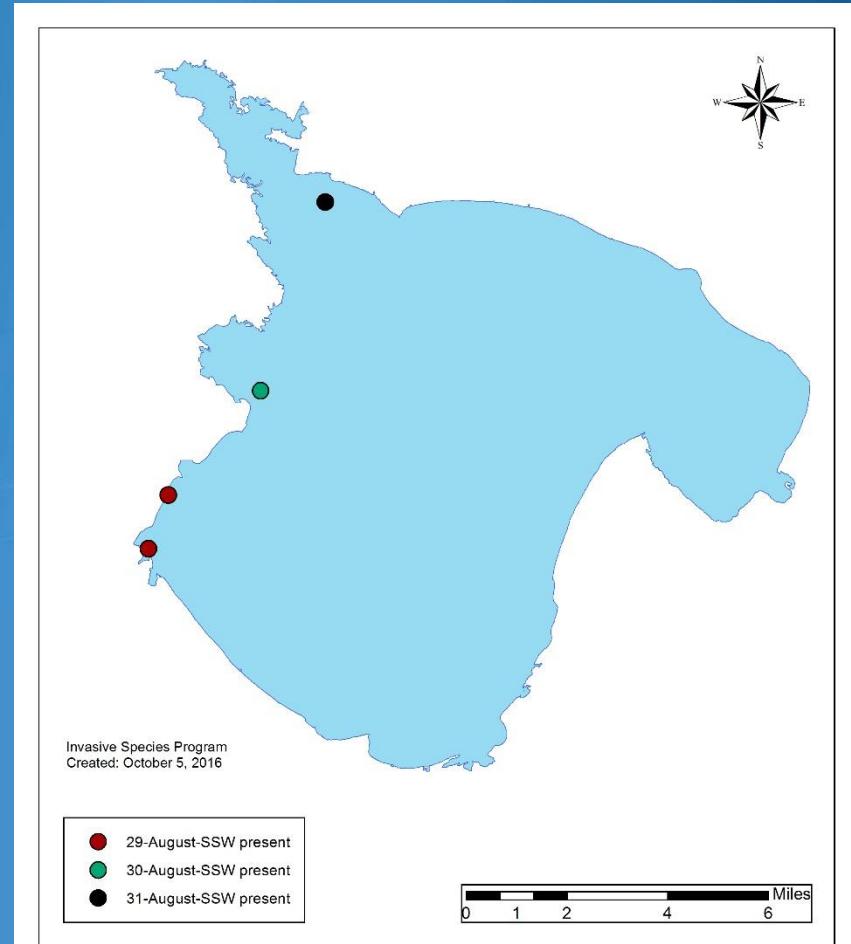
- 904 acres
 - East Sylvia: 669 acres
- Discovered:
 - Sept. 26, 2016
- Known extent:
 - 0.07 acres
(400 ft. perimeter)
- Actions:
 - Lake-wide delineation
 - Pre/post treatment monitoring
 - Barrier
 - DASH
 - Copper treatment



Winnibigoshish Lake

Cass and Itasca Counties

- 56,471 acres
- Discovered:
 - Aug. 29, 2016
- Known extent:
 - West shore
- Actions:
 - TBD



Lake Winnibigoshish (DOW 11014700)
Cass and Itasca Counties
Starry Stonewort Found as of Aug. 31, 2016

Turtle Lake

Beltrami County

- 1, 606 acres
- Discovered:
 - Aug. 05, 2016
- Known extent:
 - ~0.75 acres
- Actions:
 - Lake-wide Delineation
 - Barrier
 - Suction Dredging
 - Copper treatment
 - TBD-Excavation of near shore missed areas



Upper Red Lake

Beltrami County

- 119, 294 acres
- Discovered:
 - Aug. 18, 2016
- Known extent:
 - Two Private Harbors
 - 1st Harbor- 0.7acres
 - 2nd Harbor- ~0.03 acres
- Actions:
 - Harbor Searches
 - 1st Harbor treatment:
 - Copper
 - Copper/Flumioxazin
 - 2nd Harbor:
 - TBD



Cass Lake

Beltrami County

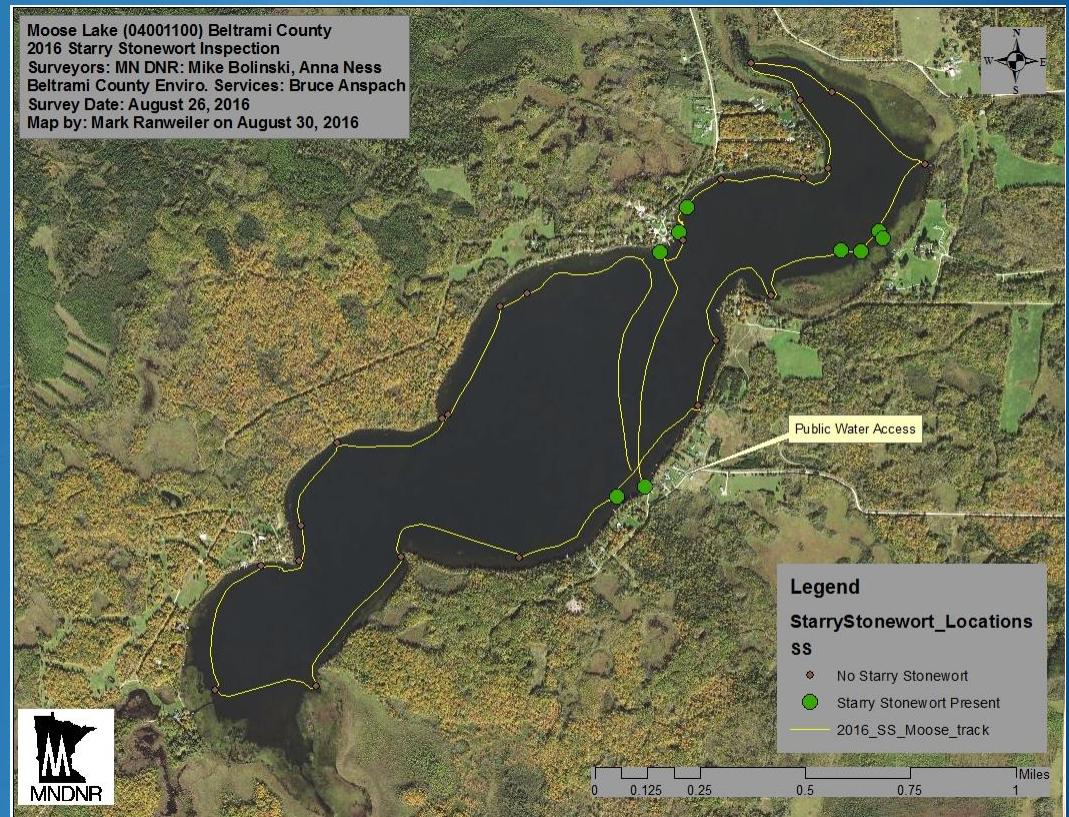
- 15,958 acres
- Discovered:
 - Aug. 22, 2016
- Known extent:
 - 2.0 acres
- Actions:
 - Copper treatment



Moose Lake

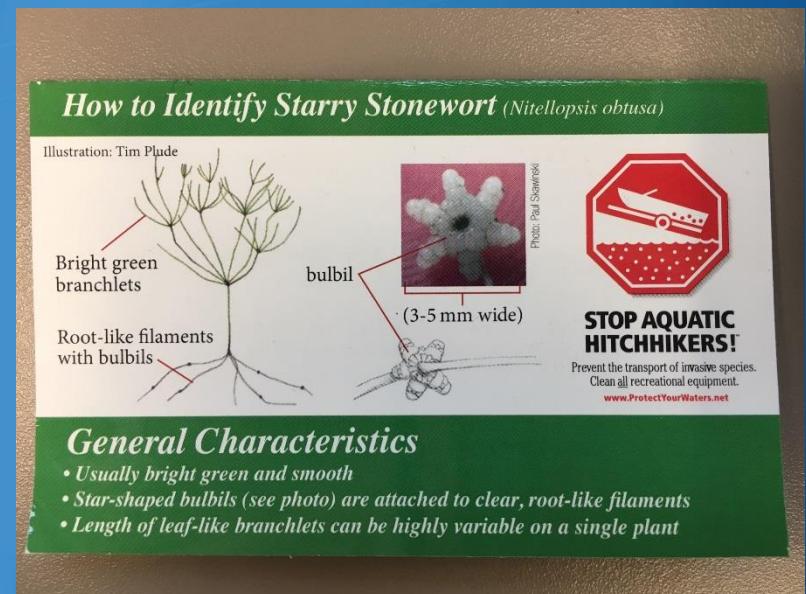
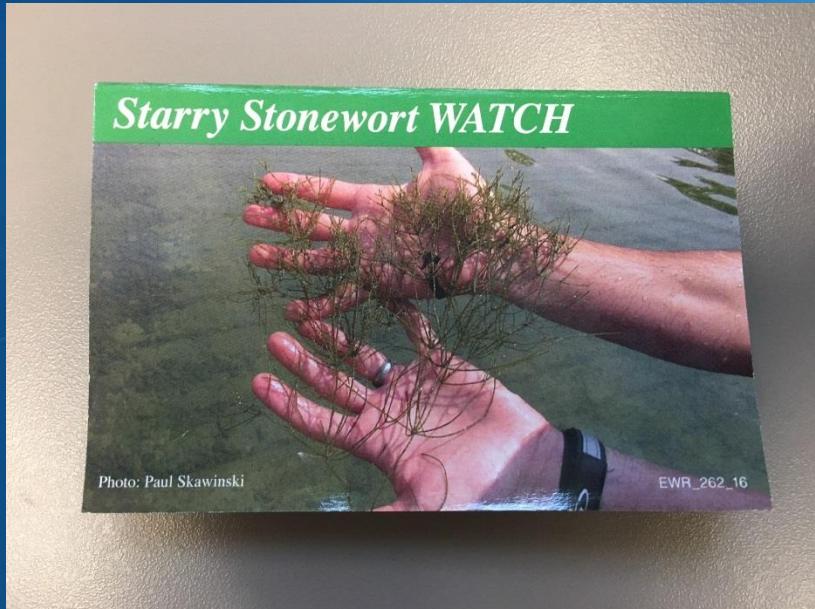
Beltrami County

- 600 acres
- Discovered:
 - Aug. 26, 2016
- Known extent:
 - Dense areas found
 - Not localized
- Actions:
 - TBD



Outreach and Prevention Efforts

- Watch cards, factsheets
- PWA searches (214 lakes)
- Increase watercraft inspectors



Future Actions

- Evaluate current monitoring efforts
- Monitor regrowth of SSW
- Monitor native plants
- Continue SSW PWA searches
- Collaborate with MAISRC and other partners on research projects to expand knowledge of SSW

Thank you



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Counties: Beltrami, Cass

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Koronis, Rice, Sylvia
Counties: Stearns, Wright

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