

Sampling Infested Waters

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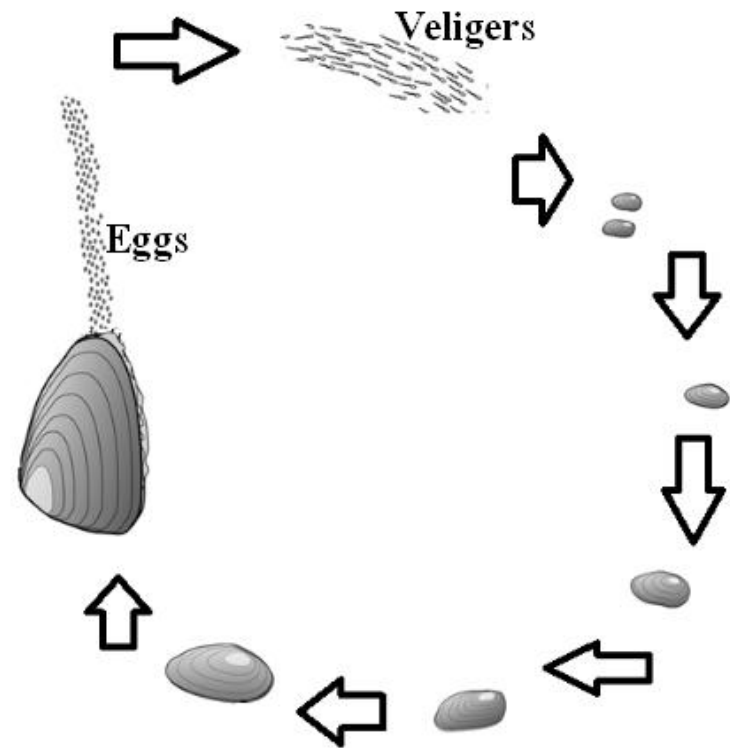
RRB Aquatic Invasive Species

- Zebra Mussel
- Quagga Mussel
- Eurasian Watermilfoil
- Flowering Rush
- Spiny Water Flea
- Faucet Snail



Zebra Mussel Life Cycle

- Female zebra mussels produce 100,000 – 500,000 eggs per year
- Fertilized eggs develop into microscopic, free-living organisms
 - Difficult to detect
- After growing a small shell and forming byssal threads, the mussels attach to submerged structures, often in colonies



Why they Thrive

- Prolific breeding capabilities
- No natural predators*
- Generalist feeding capabilities (filter feeding)
- Difficult to detect until established
- A challenge to eradicate



State of the Basin: Zebra Mussels

- Designated Infested pre-2015:
 - Pelican River, from Bucks Mill Drive downstream to the Otter Tail River, including 500 feet upstream into its tributaries
 - Otter Tail River from 500 feet upstream of the confluence of the Pelican River downstream to the Bois De Sioux River, including 500 feet upstream into its tributaries
 - Lake Winnipeg
- Designated Infested 2015:
 - Red River mainstem (headwaters to Canadian border)



USGS Decontamination Protocol

- Dedicated equipment is always the best option
- Visually inspect all equipment after each use, especially in infested waters; remove any debris/biotic material
- Rinse Sonde, sampler, and other tools (inside and out) that come in contact with rivers using tap water followed by distilled water
- Use pH 4 solution to decontaminate Sondes after sampling infested waters*
- Schedule designated infested sites at the end of the day when possible
- Pour extra water from samplers and secchi tubes on the bank or bridge as an added precaution
- During winter sampling, allow augers and other freeze-safe tools to freeze between and after AIS site sampling
- ***Always verify with your project manager and supervisor; one size does not fit all!**



Lab Protocol

- Label bottles with “AIS” (preferably red Sharpie) clearly on side and neck
- Note “AIS” in comments section of COCs for appropriate advice
- Follow lab supervisors’ advice




Awareness is Key

- Pay attention to new infested water body designations (MNDNR)
- Be vigilant at both AIS and non-AIS sites
- Use common sense



Stay Informed

Minnesota Department of Natural Resources (DNR) List of Infested Waters - February 11, 2020					
Water body name	County or counties	Listed for aquatic invasive species	Year listed as infested	Year species was first confirmed, or connected water body	DOW number
Adley	Otter Tail	zebra mussel	2016	2016	56-0031
Adley Creek from Big Birch to the Sauk River	Multiple (Todd and Stearns)	zebra mussel	2016	connected to Big Birch (77-0084) and Sylvia (73-0249)	NA
Alexander	Morrison	Eurasian watermilfoil	2004	2003	49-0079
Alexander	Morrison	zebra mussel	2019	2019	49-0079
Alice	Washington	Eurasian watermilfoil	2013	2012	82-0287
Alimagnet	Dakota	Eurasian watermilfoil	2014	2012	19-0021
Alstead Mine	Crow Wing	zebra mussel	2017	connected to Mahnomen Mine Pit	18-0440-06

Pain in the A*S

