



New Zealand Mudsnail in Arizona Best Gear Cleaning Practices

Native and Wild Trout Conference
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New Zealand mudsnail

Potamopyrgus antipodarum

Description

- Small freshwater snail
- Less than 1/8" in length
 - Typically 3-7mm
- Native to: New Zealand

Preferred Habitat

- Streams, reservoirs with low velocities
- Found adjacent to riffles
- Gravel, cobble beds
- Aquatic vegetation beds

Diet

- Plant and animal detritus
- Algae
- Diatoms



New Zealand mudsnail

Potamopyrgus antipodarum

Reproduction

- Asexual – all female clones
- Born with developing embryos

Survivability

- Damp surface: Up to 50 days
- Dry surface: Up to 30 days

Mode of transport

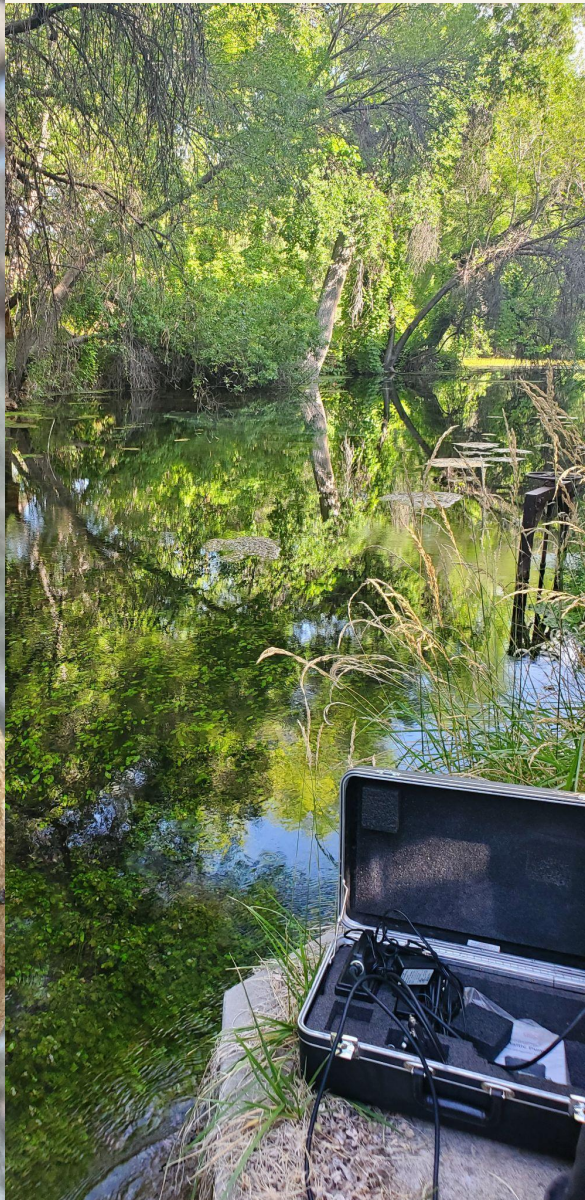
- Contaminated fishing gear/footwear/boats



Impact

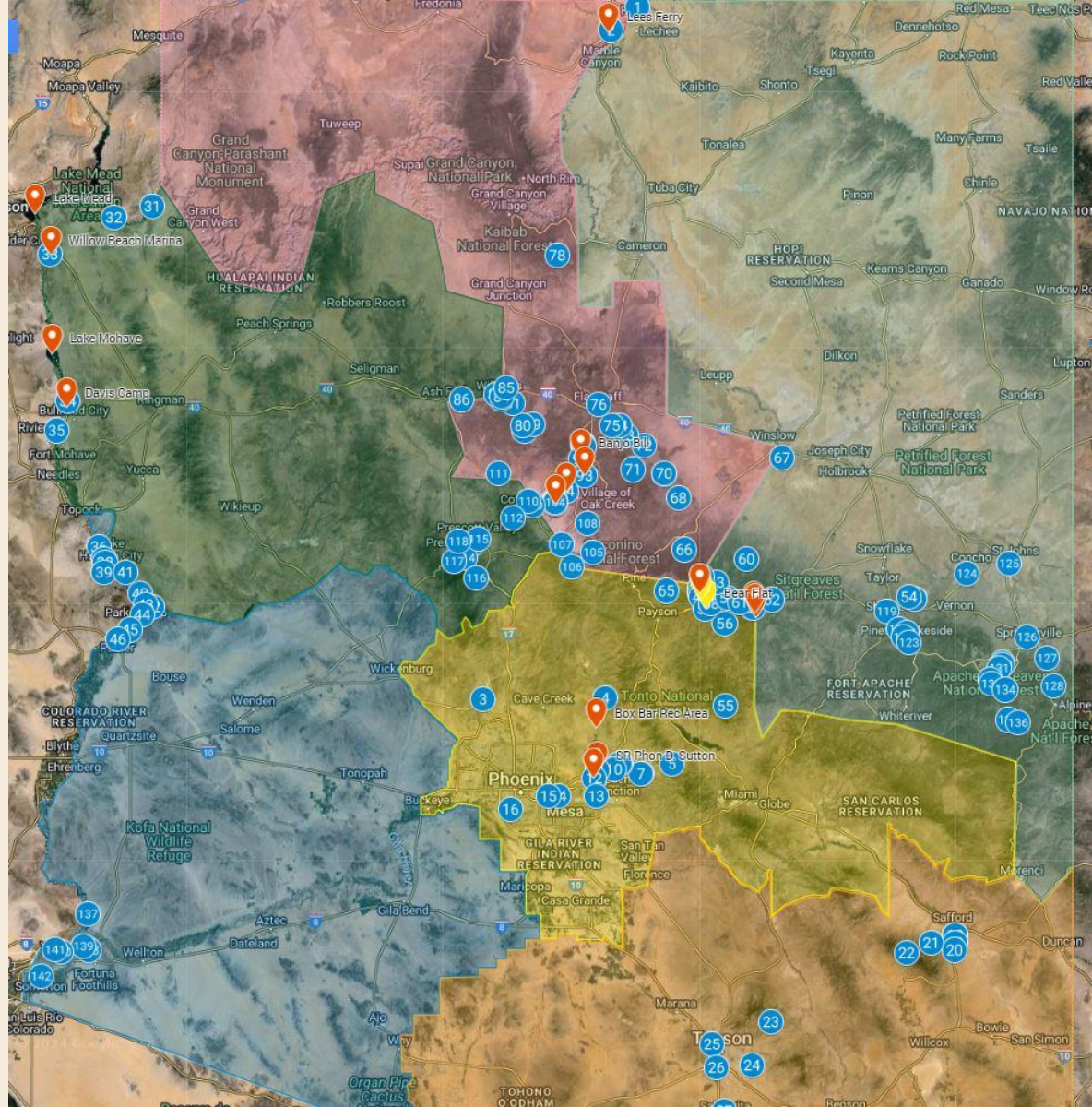
- Compete other aquatic grazers (primary consumers)
 - Competes with native snails
- Biomass/Nutrient Sequestration
 - Dense populations can change nutrient availability
- Reduction in the growth of fishes and other higher-level consumers
 - Operculum allows NZMS to pass through gut unharmed





NZMS Distribution

- ★ Oak Creek
- ★ Canyon Creek
- ★ Tonto Creek
- ★ Colorado River
 - Lees Ferry
 - Lake Mead
 - Lake Mohave
 - Below Davis Dam



Director's Orders Updates - 2023

- Effective February 27, 2023, DO 1 and 3
- Effective June 19, 2023: DO 2

- Director's Order 1 & 3: No changes. Updated contact information.

- Director's Order 2: For NZMS added:
 - Oak Creek
 - Canyon Creek
 - Tonto Creek
 - Verde River below Bartlett Dam to confluence of Salt River
 - Salt River at Granite Reef
 - Colorado River below Davis Dam to I-40 Bridge



Director's Order 3: Ways to Decontaminate Gear

Remove any visible plants, algae, animals, and mud, and disinfect the equipment using one or more of the following decontamination methods:

Option 1: Submerge waders and gear in a large tub filled with a quaternary ammonia-based institutional cleaner. If using consumer-grade 409*, the solution does not need to be diluted. If using a product such as Super HDQ Neutral, mix 6 ounces per gallon of water. Equipment must be soaked for at least 20 minutes, scrubbing and inspecting all items before rinsing. The rinse water must be from a source free of AIS (to avoid re-exposure), and the chemical bath must be properly disposed of away from the body of water.

Option 2: Place waders and boots in a freezer overnight between uses.

Option 3: Dry waders and equipment completely for seven consecutive days (May through October) or 18 consecutive days (November through April).

Option 4: Spray or soak waders and gear with 140 degree Fahrenheit water for at least 10 minutes.

Complete Director's Orders available on azgfd.gov/AIS

* AZGFD does not endorse any particular product. Mention of any brand is for example only.



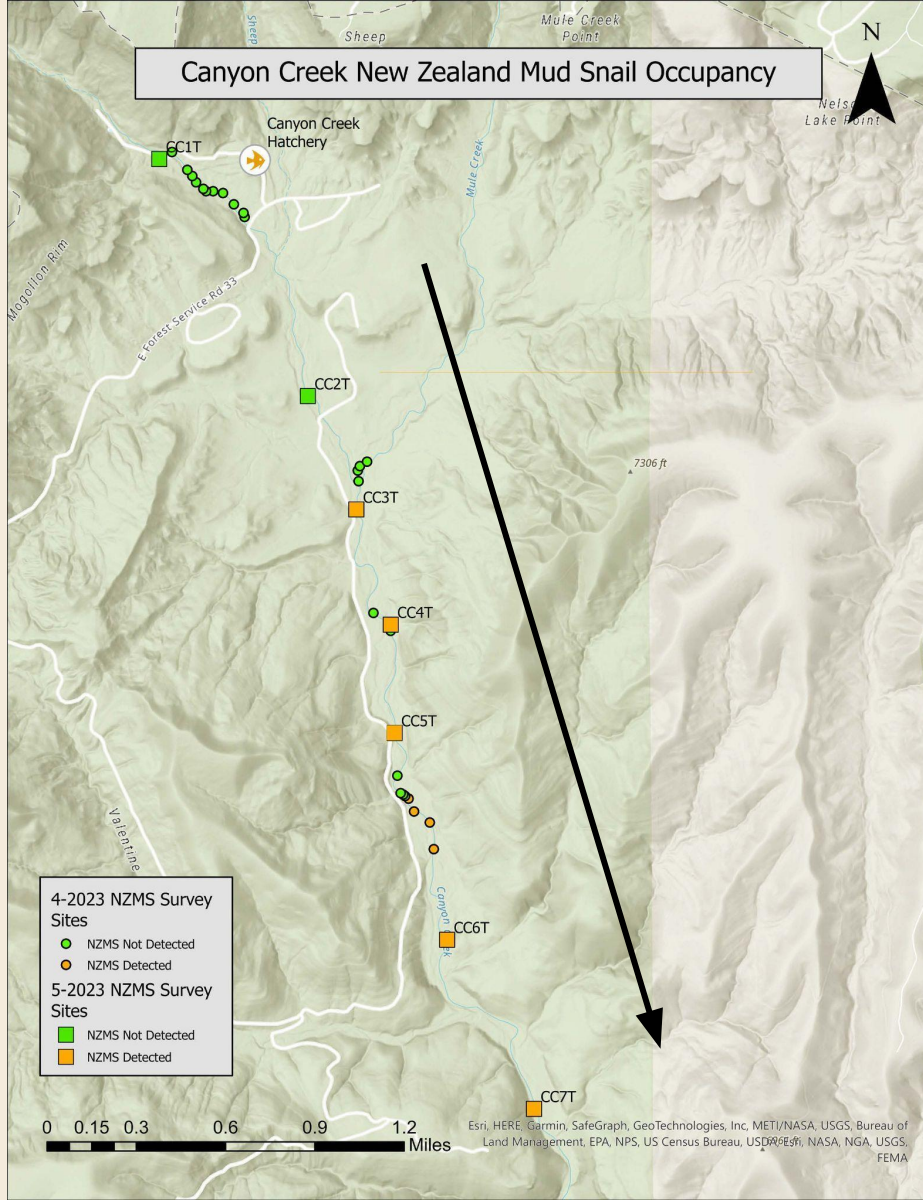
Angling Techniques to Reduce Spread of NZMS

Options to help minimize the spread of these aquatic invasive species

- Start your fishing trip at the most upstream point, then move downstream
- When fishing in multiple lakes/streams on the same trip
 - A second pair of wading equipment (waders and wading boots) is recommended until-gear can be properly cleaned and decontaminated.
- Avoid felt-bottom boots and waders to prevent the spread of pathogens and aquatic invasive species.

Available on azgfd.gov/AIS





- Start fishing from upstream
- Work way downstream
- Use caution fishing near hatcheries

Angling Techniques

Options to help minimize the spread of these aquatic invasive species

- Start your fishing trip at the most upstream point, then move downstream to avoid introducing aquatic invasive species into unoccupied areas.
- When fishing in multiple lakes on the same trip, a second pair of wading equipment (waders and wading boots) is recommended until gear can be properly cleaned and decontaminated.
- Avoid felt-bottom boots and waders to prevent the spread of pathogens and aquatic invasive species.



Bottom Line... CLEAN DRAIN DRY

No MUD

No ANIMALS

No PLANTS





THANK YOU

