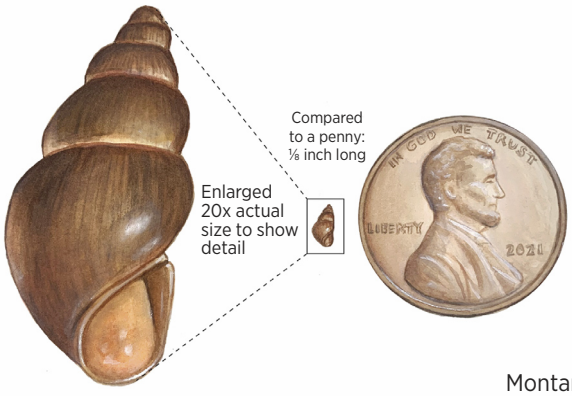
New Zealand Mudsnail

Potamopyrgus antipodarum



What they are

These are tiny aquatic snails, originally from New Zealand, that range in size from a grain of rice to ⅛ inch long.

Where they are

In Montana, these minuscule snails now live in most major trout rivers east of the Continental Divide, as well as in Yellowstone National Park. Recently they were also found at Spring Meadow Lake in Helena.

How they spread

Too small to be noticed by most anglers and boaters, New Zealand mudsnails move from one waterbody to another in mud attached to boats, waders, wading boots, and other fishing gear. The gastropods can live for 24 hours without water, and for up to 50 days on damp surfaces. Female mudsnails are self-reproducing and are born with developing embryos inside them, meaning that a single mudsnail can establish an entire new colony.

Why we hate them

New Zealand mudsnails consume vast amounts of algae needed by native mayflies, caddis flies, and other aquatic invertebrates. In Yellowstone National Park rivers, researchers from Montana State University reported densities of up to 850,000 mudsnails per square meter.

New Zealand mudsnails provide no nutritional value for fish or birds. By closing a "trap door" in their shell opening, they pass through other animals' digestive tracts unharmed.

How to get rid of them

It's tough. These invasive snails first showed up in the Madison River in 1995. Once colonies become established in a stream, removing them is not feasible. The first line of defense is preventing them from spreading in the first place. That's why FWP urges anglers to clean, drain, and dry all equipment after each use, especially after visiting infested waters. If you see what looks like a New Zealand mudsnail, report it at CleanDrainDryMT.com. ■

Illustration by Liz Bradford

THE MICRO MANAGER

A quick look at a concept or term commonly used in fisheries, wildlife, or state parks management.

"Recruitment"

Recruitment is a concept in wildlife management that refers to the number of baby elk, deer, moose, and other animals that survive to adulthood (breeding age), which for most species is one year old.

Recruitment largely determines whether a population grows or declines during a given year. If recruitment is high—for instance, when lots of elk calves and deer fawns are born and survive their first year, thus "recruiting" into the adult population—a population will usually increase (if adult mortality remains unchanged). But if recruitment is low (with steady adult mortality), a population will usually decrease.

During their first year, and especially their first winter, young big game animals are particularly vulnerable to dying from starvation, predation, or disease. But once they make it past that first year, survival greatly improves, as does their chance to breed and contribute to future population numbers. This key life-stage milestone is when wildlife biologists consider young deer and elk as part of populations.

Many things affect recruitment rates, which with elk are measured each spring by the number of calves per 100 cow elk (such as 10:100, a low recruitment rate, or 40:100, a high rate). These include whether a cow even becomes pregnant in the fall, the condition of a pregnant cow during winter and spring (which affects the health of the newborn calf), the number of predators in an area, and the harshness of the calf's first winter.

FWP biologists can't control weather, but they can help improve recruitment rates—if the goal is to increase a population—by protecting and improving elk summer habitat and winter range and, if necessary, reducing predator numbers. ■

A cow helps her newborn calf stand. If this young elk survives its first winter, biologists consider it to have "recruited" into the population.

CINDY GOEDDEL