

New Zealand Mudsnails (*Potamopyrgus antipodarum*)

University of California
Agriculture and Natural Resources
Cooperative Extension Natural Resources Program
Los Angeles and Ventura Counties



New Zealand Mudsnails (NZMS) are tiny freshwater snails that were first detected in the US in the Snake River drainage, Idaho, in 1987. They were found in California's Owens's River in the late 1990's and by 2006 had spread to Malibu and Piru Creeks in Los Angeles and Ventura Counties, bringing with them damage to native habitats.

New Zealand mudsnails reproduce by cloning. Females give live-birth and can produce broods of up to 120 young several times a year. The snails can reach very high densities – over 750,000 per square meter. New Zealand mudsnails graze for algae and in doing so, may crowd out native invertebrates that provide food for fish (research is under way). They are not good fish food themselves, as the shells can't be digested - in fact, they can survive passage through a trout's digestive tract (and can be spread through hatchery stocking).

Adult New Zealand mudsnails only grow to 5mm in length – juveniles are smaller and very hard to distinguish from grains of sand. They move around on sticky feet, and can survive out of water for a very long time - several weeks in moist environments - due to the presence of an operculum, a tiny bit of shell they can use to seal themselves up in the main shell. Taken together, their small size, stickiness, and ability to survive tough situations makes it very easy to spread them around on boots, shoes, and equipment used in the water.



You can help prevent the spread of New Zealand mudsnails and other aquatic invasive species. Stay out of infested streams, and do not to go from one stream to another in wet gear. If you must go into an infested stream, have dedicated clothes and gear that you don't wear anywhere else. Scrub all gear with a stiff brush before you leave an infested site; mudsnails are experts at hiding, so you can't trust a visual inspection.

Decontamination

Decontamination can be done through chemical or physical means – but the chemical methods can damage gear and have the potential to cause harm to the environment.

DRY: Let all gear dry completely between visits – 48 hours in dry conditions, longer in humid environments, or use a clothes dryer on high for 30 minutes

FREEZE: Freeze gear for a minimum of six hours between uses at a temperature at or below 26° F.

For more information visit our website at <http://ucanr.org/sites/uccenzms/>. If you think you have seen New Zealand mudsnails in a stream, please contact the California Department of Fish and Game or your Cooperative Extension office.

Photos by Ken Davis (top left, bottom left) and Sabrina Drill (middle right).