



ARTICLE

Invasive New Zealand Mudsnails Found at Muir Beach

Golden Gate National Recreation Area (<https://www.nps.gov/goga/>)



Invasive New Zealand mudsnails in Utah. Golden Gate National Recreation Area biologists recently discovered large numbers of these snails in Redwood Creek at Muir Beach. So far, they seem to be confined to the area downstream of the Pacific Way bridge.

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September 2019 - This month, Golden Gate National Recreation Area and [San Francisco Bay Area Network](https://www.nps.gov/im/sfan/index.htm) (<https://www.nps.gov/im/sfan/index.htm>) biologists discovered a large population of [invasive New Zealand mudsnails](https://www.wildlife.ca.gov/Conservation/Invasives/Species/NZmudsnail) (<https://www.wildlife.ca.gov/Conservation/Invasives/Species/NZmudsnail>) in Redwood Creek at Muir Beach. A taxonomist at California State University, Chico helped confirm the snails' identity.

New Zealand mudsnails are, as their name implies, native to waterways in New Zealand. They first arrived in the US in the 1980s, and in California in 2000. In 2017, they were [found at Mountain Lake](https://www.inaturalist.org/observations/7877124) (<https://www.inaturalist.org/observations/7877124>) in the Presidio. They are shades of brown and gray, and they're tiny. The largest of them only grow up to six mm in length. However, they can become remarkably abundant, reaching densities of more than half a million snails per square meter. And, since they reproduce clonally, they can spread fast from just a single individual. In the western US, all New Zealand mudsnails are females. Each one is born already carrying embryos, and can go on to produce over 200 clones each year.

In addition, New Zealand mudsnails are survivors. They can tolerate a wide range of temperatures, and thrive in both fresh and brackish water. They can survive being eaten by fish. They can even survive for weeks on

damp boots, waders, or fishing gear, which is probably how they have spread to so many waterways across the western US. Once they colonize a waterway, there are no known ways of removing them. With nothing in US waterways to keep them in check, New Zealand mudsnails outcompete other native macroinvertebrates. Fish populations may be impacted by having the insect larvae populations they depend on for food diminished by competition with high densities of the mudsnails (which are of little to no nutritional value given that many survive being eaten).

The good news is that so far, biologists haven't found any New Zealand mudsnails upstream of the Muir Beach area. With some new procedures in place, they hope to keep it that way. For example, those who work in multiple parts of the Redwood Creek watershed are now working upstream to downstream to keep from spreading the mudsnails to upstream locations. Biologists and volunteers are also taking [steps to decontaminate their gear](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22574&inline) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22574&inline>) in between creek visits throughout the park. Visitors can also help reduce the spread of this snail by staying out of park creeks and lagoons.

Soon, biologists plan to follow up with an inventory all of Golden Gate's wetland and stream sites to check for the presence of New Zealand mudsnails. Have questions? Contact [Darren Fong](https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4F84C9A998DD90BA9BB5148FF707B8E3419250&r=/articles/invasive-new-zealand-mudsnails-found-at-muir-beach.htm) (<https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4F84C9A998DD90BA9BB5148FF707B8E3419250&r=/articles/invasive-new-zealand-mudsnails-found-at-muir-beach.htm>) to learn more.

[See more from the Bay Area Nature & Science Blog](https://www.nps.gov/rlc/pacificcoast/blog.htm) (<https://www.nps.gov/rlc/pacificcoast/blog.htm>).



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