

# Corte Madera Creek's (Almost) Invisible Threats

by Andrew Bartshire

We are all familiar with the idea of invasive plants, the local list being headed by French broom. However, invasive species also lurk in our creeks and lakes, where they can cause havoc in the ecosystem. Here are profiles of two found in our area.

**New Zealand mudsnail** (NZMS) is an aquatic snail species that is now found across the world. It is tiny—less than a quarter of an inch long—and cone shaped. It can survive for 24 hours out of the water. Because these snails may blanket the creek bed at densities up to half-a-million per square yard, it is considered an invasive species in California waters. It is found in all the Bay Area counties, and northward in the coastal counties. According to the National Park Service it has been found in Rush Creek in Marin County. NZMS has been reported in the lower Corte Madera Creek watershed but this has not been confirmed.



*A mass of tiny snails—probably the New Zealand mud snail—was found in San Anselmo Creek in Fairfax.  
Photo by Gary Leo*

**Chytrid fungus** has been the cause of drastic declines to many amphibian populations including the foothill yellow-legged and endangered red-legged frogs. The fungus clogs the amphibian's skin pores, effectively suffocating the creature. According to a 2010 MMWD report, the fungus has been identified on frogs in Little Carson Creek near the waterfall. It occurs in central and western portions of California.

Both of these species are thought to be spread by people traveling between infected and uninfected watersheds without properly disinfecting gear. This is especially true for NZMS that can live for up to 50 days in damp environments such as in the tread of a boot.

## **What you can do to prevent spreading these invasive species:**

### **Option 1 (simple & effective)**

Remove gear (boots, waders, fishing nets, etc) that came in contact with creek or lake water, brush off any mud and rinse. Allow to completely dry for at least 48 hours.

### **Option 2 (takes less time)**

Submerge gear in solution of QUAT, bleach or other disinfectant for five minutes then rinse with tap water. Please dispose of waste water responsibly. Freezing will not kill chytrid.

When moving from one creek to another or within a creek system, make sure to follow these decontamination procedures.