

Forester's Log: Leaping Leopard Frogs

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*Northern Leopard Frog. Photo by Bruce Christman.*

Alluringly located along one of the most traveled hiking trails on the Philmont Scout Ranch in northern New Mexico, Cimarroncito Reservoir's clear water sparkles in the midday sun. More than one trail weary, grungy hiker who has sported a backpack for numerous days, has gazed down on these forbidden waters and nursed a hatred for the rule that making the lake off limits to swimming.

It is no consolation that the policy has been in effect for at least a half century. The primary obsession for the ban has been human-centric...the reservoir provides the source of drinking water for the town of Cimarron. Grungy scouts would muddy the water and provide a possible source of infectious diseases. Thus, tucked up next to the very charismatic Cathedral Rock, the lake provides a scenic backdrop for postcard perfect pictures and impossible daydreams of midday plunges.

The lake also provides prime habitat for the Northern Leopard Frog. Bruce Christman, an amphibian expert in New Mexico, was recently surveying the area and found a population of the frogs. “This really is remarkable,” Christman commented regarding the Scout-owned, high mountain lake. “If the policy had allowed swimming, all the sunscreen and bug dope on the thousands of scouts that cooled off in the waters would have adversely affected the water quality, making it less hospitable for amphibians.”

The Northern Leopard Frog was once a common resident throughout New Mexico, but their numbers (and appropriate habitat) are dwindling. Years ago, increasing populations of bullfrogs were topping the list of reasons for Leopard Frog decline. The bullfrogs, introduced to the state for their large legs which are considered a delicacy, would outcompete the native frogs, eat their young and take over their habitat.

Bullfrogs also help spread the most recent threat to Leopard frogs. In addition to reduced habitat and water quality issues, frog populations are suffering serious decline due to a chytrid fungus named *Batrachochytrium dendrobatidis*. Although chytrid fungi are among the planet’s oldest organisms, this one—abbreviated as *Bd*—was first identified in 1999 and is now detrimentally impacting the majority of the world’s 6,000 species of amphibians. The fungus stimulates a disease that causes a thickening of the skin. Since amphibians exchange electrolytes and intake water through their skin, imbalances caused by the disease can be fatal.

In addition to surveying the region for frogs, Christman collects samples to test for the fungus. Scientists suspect the fungus, which may naturally occur in amphibian populations in eastern North America, is new to the West. Although the zoospores that transmit the disease can be carried by birds and other wildlife, people often unknowingly carry the disease on their boots and equipment. For example, an angler who fishes one lake with the fungus can take it to the next lake if she doesn’t clean her gear in between the two destinations. Likewise, releasing unwanted pet frogs into the wild can provide another avenue for unknowing disease spread.

Until the tissue samples are analyzed, we don’t know if the frogs of the sparkling Cimarroncito Reservoir are fungus-free. These results may take months. Now, when asked why no swimming is allowed, one can still cite the domestic water source issue, but even more understandable to the sweaty hiker is the knowledge that swimming is allowed, but only for frogs, fish and other wildlife that depend on clean waters.