

Notes from the field

By David Smuin

October 1, 2007

What has warts, is the color of Hershey's chocolate, smells like peanut butter, and hides in dark muddy places? If you guessed boreal toad (*Bufo boreas*), also known as western toad, then you are right. Now imagine yourself walking slowly through knee-high marsh grass and ankle-deep (sometimes thigh-deep) mud around a lake 10,000 feet above sea level in the southern Utah Mountains. What are you doing there? Why looking for boreal toads, of course. These toads may never have been abundant, but they were once widespread in the Utah Mountains and they have now been on the decline for decades due to habitat loss, chytrid fungus, and who knows what else. Thus, since the toad is listed as a "state sensitive species", each year there is a volunteer effort led by the Utah Division of Wildlife Resources (UDWR) to visit known and potential toad breeding sites to monitor the toad populations.



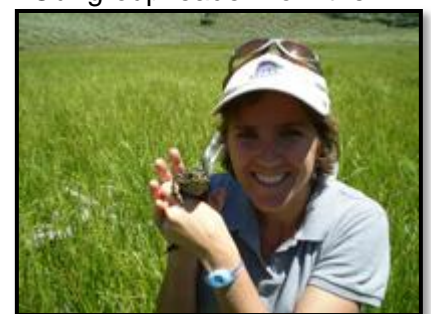
Due to the toad's sensitive species status, the UDWR has developed a conservation plan to protect, enhance, and recover the boreal toad. The plan requires that high priority areas be protected and enhanced for toad habitat. Since there is a known affinity of boreal toads for both natural springs and beaver pond areas, the UDWR effort complements the Grand Canyon Trust's ("Trust") Utah Watersheds Program and Three Forests Initiative. Both of these Trust programs are directed at recovering key riparian and stream habitats in southern Utah. Beavers need to be a part of the recovery and efforts are under way to ensure they have a future in southern Utah. Beaver, the West's keystone hydrological engineer and once a key element in all riparian systems throughout the west, are functionally absent from the area. Beaver dams are essential for trapping sediment in incised streams, reducing flooding, reconnecting streams to their floodplains, and creating healthy riparian corridors. In turn, the healthy floodplains and riparian areas contain wetlands and ponds for native fish, amphibians, and waterfowl. They also increase water storage in the uplands which helps to ensure perennial stream flow throughout the hot summer in the lowlands. Beaver and boreal toads are linked in that beaver-created habitat provides important breeding and rearing habitat for the toads. A recent Canadian study done by researchers from the University of Alberta found 29 times more western toads at beaver ponds than on nearby free-flowing streams over a two year period. It seems only natural then that Trust staff would want to be a part of the annual toad survey.

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This year David Smuin and Mary O'Brien, two of the Trust's Utah Staff, their spouses, an intern and a volunteer joined one week of this year's toad survey. Our group leader from the UDWR was Kevin Wheeler, a gentle natured aquatics biologist, whose advice was to consider the weeklong toad hunt to be a vacation to be enjoyed, not work to be done. Several other conservation-minded folks also joined our group. We employed all of our senses in this toad hunt.

Unfocused, wide angle vision, allows one to sense the slightest motion in the grass within a 180 degree hemisphere. Your eyes then automatically focus on any source of movement, hopefully a lethargic, lumbering toad. These toads do not hop like the toads you might have chased in your youth. Rather they clamber and crawl along, making them easy to catch once they are located.





The toads make almost no sound, but your sense of hearing comes into play if you have captured a male toad. If the toad you've turned upside down makes a low chirp, it is almost certainly a male.

Your sense of smell is rewarded with the musky odor of peanut butter released by the toads, often setting your thoughts to the taste of the peanut butter and jelly sandwich residing in your daypack.

Your sense of touch is used to feel the wartiness of the hide and to distinguish the soft body of the toad from the other soft squishy things you might have grabbed when you plunged your hand into the dark muck of the toad's hiding place. Yuck!

All-in-all hunting toads is good training for the senses and once you have all five senses working in synchronization with a quiet mind, then your sixth sense kicks in and you start to find toads even though you have no conscious realization of how. You just seem to know where they are.

In a week's time we covered parts of several mountain ranges in the Dixie and Fishlake National Forests and visited 38 sites.



We were treated with spectacles of other wild creatures, including a variety of breeding waterfowl, spawning trout, mule deer moms and their new fawns, bull elk with their rapidly growing velvet antlers, and a pair of young badgers who companionably grunted as Maureen Smuin talked back to them in their own tones.



Our final tally for the week included 48 toads, over fifteen hundred toad tadpoles, and three previously unknown toad populations. Just to be in these mountains among the aspen and spruce/fir forests was a treat. Finding toads was icing on the cake.