

Search for the Fabled Mountain Nymph

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nymph is a beautiful woodland and mountain creature of fable and myth. It's something straight out of a fairy tale or Tolkien's Middle Earth. It's a more-than-appropriate name for the mountain redbelly dace (*Phoxinus oreas*).

On the crisp fall morning of November 15, 1998, Bob Bock and his son, Eric, Dave Jones of Delaware, and I set out for Powhatan County, Virginia, about 45 miles west of Richmond, in search of the mountain redbelly dace. We caravaned in two vehicles from Arlington, Virginia, looking forward to the two-hour drive and its possible rewards. Our first challenge was acquiring Virginia fishing licenses for all the out-of-staters. Due to my lack of knowledge concerning the Richmond area tackle/gun shops, we lost a little time but we eventually found an awesome tackle shop called Green Top located on Rt. 1, off of I-95. Once properly licensed, we finished up the last leg of the journey along I-64 west to Rt. 522 south, then to Rt.13. We finally arrived at Sallee Creek next to Powhatan Wildlife Area just past the town of Macon.

P. oreas is termed a headwater cyprinid, and is found in intermittent and permanent streams. It is characteristic of cold to warm creeks and small streams in mountain and upland regions where it inhabits mostly rocky, gravelly, and sandy areas. They are found in pools and often in slow runs.

Sallee Creek, a typically clear foothill creek, was inundated with fallen foliage, creating a slow-moving, slightly tannic stream littered with leaves. The general habitat could be described as a low gradient, headwater woodland stream, flowing through a patchwork of oak and hickory Piedmont forest and agricultural fields.

The main pool where we found *P. oreas* measured about 30 feet long by 10 feet wide, and was from 6 to 24 inches deep. A small channel flowed into its head and a submerged

rock ledge ran the length of one side of the pool providing the perfect structure for the secretive dace.

At first, it seemed our quarry was to escape us in these types of conditions, but after a few passes with our seine through the deeper pools, just after riffles, the mountain redbellies began turning up in our nets.

Since it was mid-November, the larger *P. oreas* were only slightly colored and the smaller specimens were difficult to identify properly. Luckily, the telltale signs—slightly broken or broken black lateral band and slighter build than the rosy-side dace at the same location—helped us identify the species correctly in most cases (90%).

Sallee Creek's substrate consisted of sand and gravel and was covered with a layer of leaf litter several inches thick. Water values were the following: temperature of about 50°F, a pH of 7.1, and total hardness of 110 ppm (55 ppm carbonate and 55 ppm general hardness).

Other species occurring with *P. oreas* included creek chub (*Semotilus atromaculatus*), northern hog sucker (*Hypentelium nigricans*), blacknose dace (*Rhinichthys atratulus*), rosyside dace (*Clinostomus funduloides*), pirate perch (*Aphredoderus sayanus*), johnny darter (*Etheostoma nigrum*), fantail darter (*Etheostoma flabellare*), and an assortment of unidentified species of tadpoles and crayfish.

We sampled *P. oreas* only in the headwaters of Sallee Creek. Two other larger, slower creek locations in the area did not produce any redbellies. Even further downstream Sallee Creek, closer to the James River, we did not find *P. oreas*.

In the past, successful acclimation of this species has proved to be very difficult. Even with aeration and water changes during the trip back home, we've experienced losses of up to 75%, most likely due to excessive heat and inadequate transportation for the fish. Some of these heat-sensitive fishes



Fig. 1.
Mountain redbelly dace, *Phoxinus oreas*, nuptial male.
Photo © William Roston.

have experienced fin and tailrot even after a patient, well-planned acclimation process using additional water from the collection site.

On this day the weather was relatively cool. To be completely sure we didn't lose any dace, Dave brought the most formidable transport unit I had ever seen. Coolers equipped with power heads, quick filters and multiple stress relieving chemicals worked like a charm for transportation. In reserve was our not-so-secret weapon.

Just a few days prior to the trip, Mark Binkley from Columbus, Ohio, graciously provided some tetracycline to battle the fin and tailrot. Dave dosed his coolers that evening for his trip home to Delaware and from what I understand he has seen no signs of tail or finrot. I dosed my aquarium that evening and did not experience any cases either. Thanks, Mark.

In the aquarium, *P. oreas* requires cool, well-aerated water. Water changes are essential to keep the species healthy. In the wild, mountain redbellies eat algae, detritus and insect larvae; in the aquarium they do well on spirulina flakes and freeze dried tubifex worms. Frequent feedings and live foods help to condition the cyprinid for spawning.

P. oreas spawns on the gravel pit-mound nests of *Nocomis* and *Semotilus* chubs. These gravel mounds are easily simulated in the aquarium. One way is to take a plastic container the size of a Cool-Whip tub and fill it with gravel or marbles into the shape of a mound. Place the container directly under or slightly away from the filter return flow. *P. oreas* will broadcast their eggs into the mound. Remove the parents after the eggs are laid, or lift the entire nest mound container and relocate it to a bare, well-aerated tank.

Collecting the beautiful mountain nymph seems almost like a fantasy adventure. As Dave said, "The mountain redbelly is one of the most beautiful piscine displays that North America has to offer." It even rivals the colors and hues of marine fishes.

Luckily for us, this species is fairly common throughout central Virginia and northern North Carolina. If you are ever in these areas, I highly recommend you take the time to search for the fabled mountain nymph and make your fantasy adventure come true. 🐟

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