

# ABOUT TROUT

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*Even the Wilderness Act and the Endangered Species Act are not sufficient to protect this rare native trout subspecies.*

## Paiute Cutthroat

Last Labor Day weekend I joined about 50 people on a nine-mile hike to the headwaters of Silver King Creek to participate in a Trout Unlimited-sponsored habitat enhancement project to help the threatened Paiute cutthroat trout. Although the scenic setting of Upper Fish Valley on the east slope of the Sierra, Alpine County, California, where the headwaters of Silver King Creek are located, is magnificent, the lure of the rare Paiute trout, *Salmo clarki seleniris*, must have been a factor to attract so many volunteers.

It is doubtful that any Paiute trout would still exist if they had not been officially endowed with their own subspecific name. This demonstrates a practical aspect of subspecies taxonomy—having a unique name can help save a special form of life from extinction. Official taxonomic recognition facilitates listing under the Federal Endangered Species Act. Such recognition promotes active management and protection programs by federal and state agencies, and also can stimulate volunteers to participate in enhancement activities such as the expeditions to Silver King Creek over the Fourth of July and Labor Day holidays in 1986.

The Paiute cutthroat trout was discovered and named in 1933 when J.O. Snyder of Stanford University received some specimens of trout collected in Silver King Creek above Llewellyn Falls (named after Mrs. Lynn Llewellyn, who caught the specimens). Snyder realized that Silver King Creek is a tributary of the East Carson River of the Lahontan Desert Basin. He knew the trout found



above the waterfall represented an isolated population derived from Lahontan cutthroat trout (*Salmo clarki henshawi*), but he was so impressed by their distinctive characteristic—the absence of spots on the body—that he originally described them as a new species, *Salmo seleniris*. The name *seleniris* for the new trout was selected because it suggested a “fanciful resemblance of its evanescent tints to the lunar rainbow.” Similar to the Lahontan cutthroat, the Paiute trout lacks brilliant colors. The body is typically a pale silvery color with yellowish and greenish tints. The absence of spots on the body distinguishes the Paiute from the Lahontan and all other subspecies of cutthroat trout.

About 25 years after the 1933 description of *seleniris*, I examined the specimens of the original collection and compared them to Lahontan cut-

throat trout. I found the Paiute trout to be identical to Lahontan trout in every character except for the spots on the body.

Obviously, Paiute trout are extremely closely related to Lahontan cutthroat, and their isolation in Silver King Creek from the parent stock in the East Carson River is only a matter of a few thousand years. Subsequent electrophoretic analysis of Paiute trout showed them to be identical in their protein patterns to Lahontan cutthroat. Because of such close relatedness between the Paiute and the Lahontan, some biologists have questioned the validity of the subspecies *seleniris*. I would point out that the subspecific category in taxonomy is a practical device for classifying geographically unique populations or races of a species. There are no rules or standards of quantifiable genetic differentiation to qualify as a subspecies; only that a subspecies should possess one or more unique characters which differentiates it from all other subspecies of a species. Thus, the lack of spots on the body of Paiute trout “validates” the subspecies *seleniris*.

No unique life history or behavioral attributes have been discovered for Paiute trout. They typically spawn when they are two years old. In the small mountain streams where Paiute trout live at elevations of 8000 feet and higher, spawning occurs from May to July at water temperatures of about 42–48 degrees Fahrenheit. An eight-inch female will spawn from 250 to 400 eggs. The eggs will incubate in the redd for about 35 days before hatching. Evi-