

Discovering Desert Fishes: A Family Affair

Christopher Scharpf

1107 Argonne Drive, Baltimore, MD 21218
ichthos@charm.net

It wasn't the kind of ichthyological expedition you'd see in a Jacques Cousteau documentary. No aqualungs were involved. No submersibles. No boats. In fact, there was scarcely any water. In 1934, University of Michigan ichthyologist Carl Hubbs (1894-1979), assisted by his wife Laura and their three children, Frances, Clark, and Earl, loaded the family Chevy with nets and buckets and camping equipment and set out to make ichthyological discoveries in the least likely of places. The American desert.

The driving—there were few paved roads in the desert back then—was brutal. The constant jostling caused tires to blow, brakes to lock, and the battery to jar loose. Holes in the gas tank were patched with chewing gum. To keep the kids happy Hubbs paid them an “allowance” for the fishes they caught. Each species was worth five cents. New species and subspecies were worth one dollar. And new genera and subgenera brought in the biggest bounty, five dollars apiece!

Frances, Clark and Earl made a small fortune. During the 46 days of the expedition over 20 new fishes were discovered, including Pit-Klamath lamprey (*Lampetra lethophaga*), Alvord chub (*Gila alvordensis*), Borax Lake chub (*G. boraxobius*), White River spinedace (*Lepidomeda albivallis*), shorthead sculpin (*Cottus confusus*), and Pit sculpin (*C. pitensis*). The kids' favorite fish must have been the relict dace (*Relictus solitarius*). For this new genus they each received a five dollar bill.

Four years later the Hubbs returned to the desert, accompanied by a young ichthyology student named Robert Rush Miller. This time the expedition lasted 62 days. Travel conditions had not improved. Bumpy roads made Frances seasick. Flat tires had to be changed every 3-5 days. One day the car got stuck in a dry river bed when the temperature was 55°C (131°F). Three fishes new to science were collected on

this expedition: Moapa dace (*Moapa coriacea*), Big Spring spinedace (*Lepidomeda mollispinis pratensis*), and the now-extinct Las Vegas dace (*Rhinichthys deaconi*).

But the expedition yielded discoveries beyond new fishes. Reptiles, amphibians, aquatic insects, dragonflies, butterflies, and Indian artifacts were also collected and carefully recorded. “Dad had dibs on all the lizards on one side of the car,” Frances Hubbs wrote in her diary, “and Earl those on the other side. We stopped every 50 feet for a long time” (Miller et al., 1991). Hubbs and Miller mapped pluvial lakes and streams that remained undiscovered by geologists for more than a decade. And they interviewed locals about the abundance and distribution of fishes in previous decades. One important discovery was that ranchers and Indians had been stocking exotic fishes in desert streams as far back as 1873.

Hubbs and Miller and other family members visited the desert many times over the ensuing years, discovering more new fishes and documenting the desert biota before the onrush of humans scarred the landscape forever. Clark Hubbs followed in Dad's footsteps and became a renowned ichthyologist himself. Miller joined the Hubbs family permanently. By the time she returned to the desert in 1942, Frances Hubbs was now Mrs. Robert Rush Miller!

Literature Cited

- Miller, R. R., C. Hubbs, and F. H. Miller. 1991. Ichthyological exploration of the American west: the Hubbs-Miller era, 1915-1950. In: Minckley, W. L., and J. E. Deacon (Eds.). *Battle against extinction: native fish management in the American West*. Tucson: University of Arizona Press. 