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BROOK STICKLEBACK (*CULAEA INCONSTANS* [KIRTLAND 1841]),  
A NEW ADDITION TO THE UPPER COLORADO  
RIVER BASIN FISH FAUNA

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*Key words:* brook stickleback, range extension, nonnative.

Brook stickleback (*Culaea inconstans*) is a small gasterosteid fish native to Arctic and Atlantic drainages in North America. The species native range extends west from Nova Scotia to British Columbia and south from the Northwest Territories to southern Ohio drainages, including the Mississippi-Missouri River above the confluence of the Illinois River (Scott and Crossman 1973). Hubbs and Lagler (1958) reported brook stickleback from the Illinois River in Illinois and the Missouri River in Kansas. Historical accounts exist of relictual populations in the Platte River system, but Cross (1967) noted its absence from Kansas. An isolated, and presumably relict, population occurs in the Canadian River drainage of New Mexico (Koster 1957). Brook stickleback has been collected outside its native range in Alabama (Boschung 1992), Kentucky (Burr and Warren 1986), Tennessee (Etnier and Starnes 1993), the Rio Grande River drainage in New Mexico (Sublette et al. 1990), Colorado (Zuckerman and Behnke 1986), and the Klamath River, California (Peter Moyle, University of California, Davis, personal communication).

Between July and October 1995 we collected 5 brook stickleback from the middle Green River, Uintah County, Utah, the 1st record for the species in Utah (catalog number LFL 24871, Larval Fish Laboratory, Colorado State University). Brook stickleback was first reported elsewhere in the upper Colorado River drainage in 3 small tributaries of the Elk River (South, Coleman, and Deep creeks) in northwestern Colorado in 1993 (Jake Bennett, Colorado Division of Wildlife, personal communication).

One brook stickleback juvenile, 27 mm total length (TL), was collected 18 July 1995 in

a quatrefoil light trap at the outlet of Old Charley Wash, river kilometer (RK) 402 on the Green River (RK measured from the confluence of the Green and Colorado rivers). Four adult fish, (41, 46, 48, 54 mm TL) were collected between 1 October and 12 October 1995 from Old Charley Wash, a wetland on the Ouray National Wildlife Refuge that connects to the Green River during high spring flows. Fish were collected when the wetland was drained (Modde in press); all were found in low or no velocity habitats.

Tyus et al. (1982) cited the establishment of 42 nonnative fishes in the upper Colorado River compared to 13 native species. Brook stickleback is an additional transplanted species, probably the result of human introduction rather than a natural range extension. Brook stickleback introductions elsewhere in the United States were presumably through bait bucket transfers or contaminated game fish stockings (Zuckerman and Behnke 1986, Sublette et al. 1990).

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