ON THE GENERIC RELATIONS OF BELONE EXILIS GIRARD.

By DAVID S. JORDAN and CHARLES H. GILBERT.

The "needle-fish" (Belone exilis Girard), of the California coast, differs from the type of the genus Belone in the development of the gill-rakers. In Belone vulgaris the gill-rakers are well developed, long, and slender, and a patch of teeth is present on the vomer. In Belone exilis the gill-rakers are entirely wanting, and there are no vomerine teeth. The gill-rakers are also wanting in the Atlantic species, Belone longirostris (Mitch.), Belone latimana Poey, Belone melanochira Poey, Belone notata Poey, and Belone hians (Cuv. & Val.), and probably also in Belone cantraini, which is the type of the genus Tylosurus Cocco. The generic name Tylosurus may therefore be provisionally adopted for the species of Belone without gill-rakers. The caudal keel on which the genus Tylosurus was based, and which is developed in T. exilis as in T. cantraini, has apparently no systematic importance.

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NOTES ON A COLLECTION OF FISHES FROM UTAH LAKE.

By DAVID S. JORDAN and CHARLES H. GILBERT.

A short visit to Provo, Utah, on Utah Lake, enabled one of the writers to make a small collection of the fishes of that locality. This collection has been since supplemented by an excellent series of the different species, presented to the United States National Museum by Peter Madsen and sons, fishermen at Provo. Four of the thirteen species obtained seem to be new to science.


Two specimens. Professor Cope says of his type: "Skin prickly above the lateral line, smooth below it posteriorly." Our specimens are villous above and below, as in Cottopsis asper, from which C. semiscaber differs chiefly in the less number of rays in the vertical fins.

The genus Cottopsis is distinguished from Centridermichthys mainly by the absence of a slit behind the fourth gill, which, as I am informed by Dr. Günther, is present in Centridermichthys fasciatus. Centridermichthys uncinatus, of the North Atlantic, agrees with Cottopsis in this respect, and should probably be referred to it. The American genera of Cot-