WANTED: Your help to understand the diversity of Cottus in western North America

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“In our studies of the freshwater cottid fishes of western North America we have encountered four unnamed species. Our systematic review is still incomplete, but it is expedient to publish descriptions of the new species at this time. Our investigations on these fishes dictate considerable modification of current ideas on relationships. These may be implemented in part by the recognition of several species groups. [emphasis added]”

— Reeve Bailey & Carl Bond, 1963

The last major attempt to understand the diversity of sculpins in this region was over a half-century ago. With your assistance, we would like to renew the efforts to finish characterizing the sculpins of western North America.

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2. . . but it is expedient to publish descriptions of the new species at this time. . .

3. . . These may be implemented in part by the recognition of several species groups. . .

Figure 1. A maximum-likelihood phylogenetic tree based on sequences of cytochrome oxidase I.

In western Montana and Idaho, there are:
• 12 lineages, but...
• only 5 may have valid names

In 1932, these fish were described as C. tubulatus, are confined to the Clearwater River, and could be a distinct species.

This clade contains 3 taxa (C. hubbsi, C. extensus, and C. sp.) that differ little genetically.

Shorthead sculpins in the Sinks basins are morphologically, genetically, and geographically distinct from those in the Salmon.

C. bairdii appearing in multiple clades indicates a flawed taxonomy and misidentified vouchers

Data wanted: fin clips (on chromatography paper [provided], in coin envelopes, or in ethyl alcohol) or whole-body specimens (in ethyl alcohol), GPS data, date, and your name.

To participate, contact Michael Young (mkyoung@fs.fed.us; 406-396-1209) or Dan Isaak (disaak@fs.fed.us; 208-373-4385)