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The Distribution of *Hybognathus* (Cyprinidae) in Montana\*

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The general distribution of the three species of *Hybognathus*, the brassy minnow (*H. hankinsoni* Hubbs), the plains minnow (*H. placitus* Girard), and the silvery minnow (*H. nuchalis* Agassiz), found in Montana has been reported (Brown, 1962) but detailed distributions have not been attempted because of the difficulties involved in identifying sympatric specimens of the latter two species (Moore, 1957).

Differences in the number and appearance of scale rows across the bellies (Bailey and Allum, 1962) and in the shapes of the pharyngeal processes of the basioccipitals (Niazi and Moore, 1962) between *H. nuchalis* and *H. placitus* have been recently described. On the basis of this information, the collections of *Hybognathus* at Montana State University were re-examined during 1964 and 1965 to more precisely define the distribution of each of the three species in Montana (Figure 1).

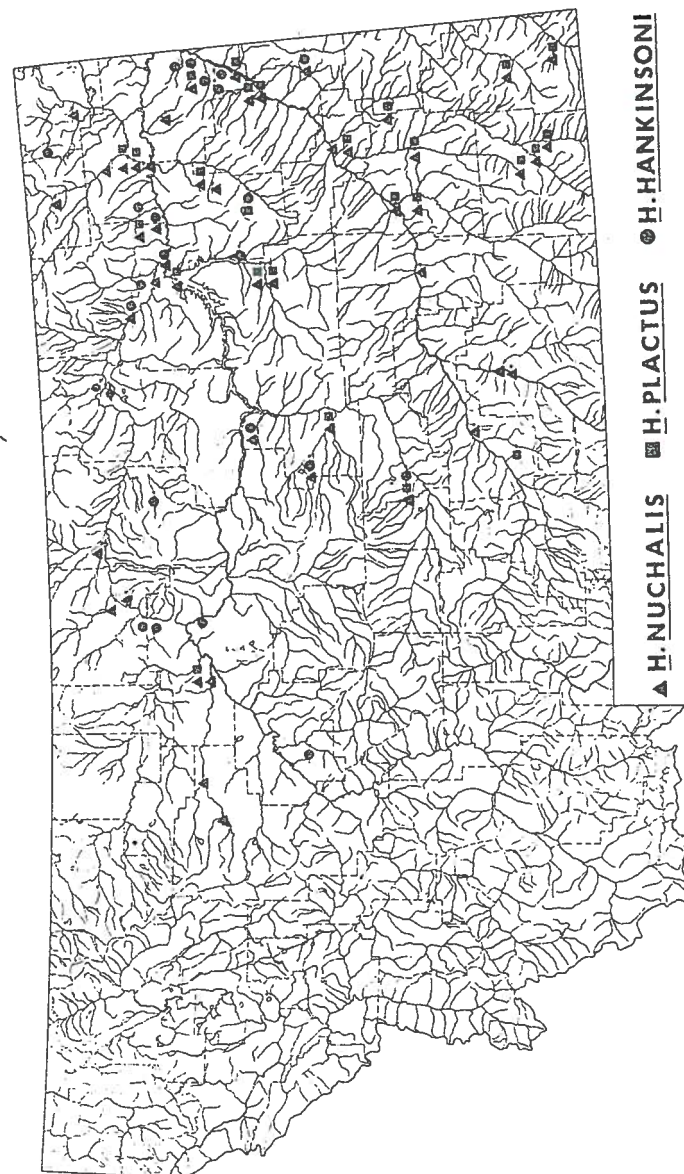
All three species of *Hybognathus* were limited to the plains region of central and eastern Montana. None were collected in mountain streams.

The brassy minnow was confined to the Missouri River drainage and lower tributaries of the Yellowstone River. The primary tributaries of the Missouri River that contained the brassy minnow were: Big Muddy River, Redwater River, Milk River, Big Dry Creek, Musselshell River, and Smith River while those of the lower Yellowstone drainage were Fox Creek and Third Hay Creek.

The plains minnow was collected in both the Missouri and Yellowstone River drainages. It was taken in the following primary tributaries of the Missouri River: Little Missouri River, Poplar River, Redwater River, Big Dry Creek, Musselshell River, and Marias River. In the Yellowstone River drainage this species was taken in O'Fallon Creek, Powder River, and Tongue River. Al-Rawi and Cross (1964) have also reported the plains minnow from the Powder River in Wyoming and Little Missouri River in South Dakota.

The silvery minnow was widely distributed throughout the Missouri River and Yellowstone River drainage. This species was taken from the Little Missouri River, Big Muddy River, Poplar River, Redwater River, Milk River, Big Dry Creek, Musselshell River, Marias River, and Teton River of the Missouri River drainage; and O'Fallon Creek, Powder River, Tongue River,

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Gould and Brown: The Distribution of *Hybognathus* (Cyprinidae) in MontanaFigure 1. Distribution of *Hybognathus* in Montana

and the Big Horn River of the Yellowstone River system.

Examination of the 81 collections of *Hybognathus* at Montana State University disclosed that the brassy minnow was more often taken alone (21 times) than in association with either the plains minnow (5 times) or the silvery minnow (7 times). The plains minnow was most often collected with the silvery minnow (26 times) and only infrequently exclusive of other species in the genus (3 times). The silvery minnow occurred alone of its genus 25 times. All three species were taken together only three times.

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