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Sicklefin Chub, Hybopsis meeki, in the Mississippi River Bordering Arkansas

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RANGE EXTENSION OF THE SILVER CARP, *Hypophthalmichthys molitrix*

The silver carp, *Hypophthalmichthys molitrix* (Valenciennes), is listed as an exotic fish formerly established or of local occurrence (Robins, C. R., R. M. Bailey, C. E. Bond, J. R. Brooker, E. A. Lachner, R. N. Lea, and W. B. Scott. 1980. A List of Common and Scientific Names of Fishes from the United States and Canada. 4th Ed. Am. Fish. Soc. Sp. Pub. No. 12 p. 96). Single specimens were taken from the Ohio River below Smithland Dam on April 7, 1982 (B. McLemore, pers. comm.), from the Ohio River below Union Town Dam on February 19, 1982 (D. Bell, pers. comm.) and from a small canal between Wham Brake and LaFourche Canal Systems in Ouachita Parish, Louisiana on April 1, 1981 (J. Hughes, pers. comm.). On June 8, 1982, a single 4.1 kg specimen was collected in a trammel net by R. E. Lee, a commercial fisherman from Tomato, Arkansas, and deposited in the Arkansas State University Fish Collection (no. 9383). The specimen was an adult female, 70 cm in total length, 59 cm in standard length; it possessed 8 dorsal fin rays, 15 anal fin rays, 18 pectoral fin rays, 8 pelvic fin rays, and 109 scales in the lateral line.

This female specimen represents the first definite record of *H. molitrix* occurring in the Arkansas water of the Mississippi River, at river mile 804. Its previous distribution was reported to be limited to the Arkansas and White River Systems (Freeze, M. and S. Henderson, 1982. Distribution and Status of the Bighead Carp and Silver Carp in Arkansas. N. Am. Jour. Fish. Mgr. 2:197-200).

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SICKLEFIN CHUB, *Hybopsis meeki*, IN THE MISSISSIPPI RIVER BORDERING ARKANSAS

The sicklefin chub, *Hybopsis meeki* Jordon and Evermann, was collected December 29, 1980 in the Mississippi River bordering Arkansas at river mile 813.0, 15 river miles downstream from the Arkansas-Missouri state line. *H. meeki* was first reported in the Missouri River near St. Joseph, Mo. in 1884 (Pflieger, 1975). Also, Cross and Collins (1975) reported it rare in Kansas and collected only following floods on a few occasions. Conner and Guillory (1974) reported the Mississippi River range to extend downstream to the vicinity of Vicksburg, Mississippi. Additional specimens of *H. meeki* have been reported from Iowa, Nebraska and South Dakota (Moore, 1968).

The two specimens reported here were collected on a very cold, windy day by Allen Carter, Tom Buchanan, and Sam Henry. They were collected with a 3.2 mm mesh nylon seine and have been deposited in the Arkansas State University Museum of Zoology, lot #9366. They were caught over a sandy bottom in moderate current at depths of 0.5 to 1.5 m at approximately noon. The water temperature was approximately 2 °C. Both specimens were juveniles measuring 3.4 and 2.9 cm in total length, 2.5 and 2.2 cm in standard length. They had 8 dorsal fin rays, 8 anal fin rays, 14 pectoral fin rays, 7 pelvic fin rays, and 43 and 41 scales in the lateral line. These two specimens represent the first definite records of *H. meeki* for the Arkansas water of the Mississipi River. Not much is known about their feeding and reproductive habits. The mouth has many taste buds and it is believed that food is sorted from river bottom material that is taken indiscriminately (Davis and Miller, 1967). Pflieger (1975) reports that young have been found in the Missouri River during July, suggesting a spring spawning season.

Other fishes collected with the sicklefin chub included: rainbow smelt *Osmerus mordax* (Mitchill), speckled chub *Hybopsis aestivalis* (Girard), silver chub *Hybopsis storeriana* (Kirtland), emerald shiner *Notropis atherinoides* Rafinesque, river shiner *Notropis blennius* (Girard), silverband shiner *Notropis shumardi* (Girard), and bluegill *Lepomis macrochirus* Rafinesque. The authors wish to thank Dr. Henry W. Robison of Southern Arkansas University, for his verification of the specimens.

LITERATURE CITED

CONNER, J. V., and V. A. GUILLORY. 1974. Notes on the Distribution of Fishes in the Lower Mississippi River. The ASB Bulletin, 21(2) p. 48.

CROSS, F. B., and J. T. COLLINS. 1975. Fishes in Kansas. Museum of Natural History, University of Kansas, Lawrence, Kansas. p. 54.

DAVIS, B. J. and R. J. MILLER. 1967. Brain patterns in minnows of the genus *Hybopsis* in relation to feeding habits and habitat. Copeia, 1967 (1):1-39.

MOORE, G. A. 1968. Fishes. In Blair, W. F., A. P. Blair, P. Brodkorb, F. R. Cagle, and G. A. Moore, Vertebrates of the United States, McGraw-Hill Book Company, Inc., New York. IX + 616pp. Part II, p. 70.

PFLIEGER, W. L. 1975. The Fishes of Missouri. Missouri Department of Conservation, Columbia, Missouri. pp. 140-141.

SMITH, P. W. 1979. The Fishes of Illinois. Univ. of Illinois Press. p. 81.

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PRAIRIE PHENOLOGY AND SEED GERMINATION

One of the more striking features of a prairie is the ever changing display of flowers amid the majestic grasses providing each season with new brilliance and delicate beauty until frost and winter when the bronze-colored grasses dominate the landscape. These cyclic phenomena are determined by environmental factors such as water and temperature. As flowers bloom, fruits develop and seeds mature, plant material diminishes and falls to the ground adding to the leaf litter where fungi and bacteria hasten decay in returning nutrients to the soil for reuse by still other prairie flora. Not only is there constant change in the vegetation, but the fauna associated with the prairie ecosystem are likely to come and go according to their various cycles; the vole, the quail, the rabbit and many birds add life to this biome.

This study was conducted in conjunction with the ongoing prairie restoration project of the 1.5 hectare field within the Jewel E. Moore Nature Reserve located on the University of Central Arkansas campus in Conway. (Data more accurately describing this prairie site can be found in: Wright