

DESCRIPTION OF THREE NEW FISHES FROM KANSAS.

By CHARLES H. GILBERT.

The material upon which the following descriptions are based was collected in the tributaries of the Kansas and Arkansas Rivers, in the State of Kansas, by Prof. F. W. Cragin. The species were described by me in a paper on the Fishes of Kansas, published in the "Bulletin of the Washburn Laboratory of Natural History" for September, 1884, pp. 10-16, the descriptions being republished here for convenience of reference.

Amiurus cragini,* sp. nov.

Closely related to *Amiurus brunneus* Jordan. Body rather high and compressed, much as in *A. catus*, which the present species much resembles in appearance. Profile straight, but not steep, from snout to front of dorsal. Head depressed, flat and narrow, becoming little narrower forwards, its greatest width $1\frac{2}{3}$ in its length, the depth at occiput $1\frac{1}{3}$. Upper jaw the longest, conspicuously projecting beyond the lower. Outline of gape strongly convex forwards, the width of mouth equaling interorbital width, slightly less than half length of head. Eye small, $3\frac{2}{3}$ in interorbital width, $7\frac{1}{3}$ in head. Maxillary barbel reaching beyond basal third of pectoral spine; inner mental barbels scarcely reaching margin of branchiostegal membrane, the outer slightly beyond it. Top of head with a longitudinal median groove extending from snout to occiput, bounded by two strong, nearly parallel ridges.

Dorsal fin high, its longest ray $\frac{2}{3}$ in head, the spine weak, not serrated, $2\frac{2}{3}$ in head, slightly more than half the space between dorsal and adipose fin. Pectoral spines short, with a few weak serræ on inner margin, smooth without, their length about equaling dorsal spine. Ventrals nearly reaching the front of the anal, which is short, its base 5 in length. Caudal somewhat mutilated, apparently emarginate, with the upper lobe the longest.

Head $3\frac{2}{3}$ in length; depth $4\frac{1}{3}$. A. 17.

Color in spirits: Very light brownish above and on sides, belly and lower side of head silvery; the back and top of head darker than the sides, which are dusted with fine brown points. Fins and barbels dusky.

A single specimen, 5 inches long, from "the Lake" (a blind arm of the Arkansas River), at Garden City, Kans.

Type specimen numbered 36814 on the catalogue of the U. S. National Museum.

* On examination of more material, and comparison with specimens from various localities, this proves to be a synonym of the widely distributed *Amiurus melas* Raf. The small size of the spines has not before been pointed out as a mark of this species. In specimens from the same locality as the one above noted, the anal fin has 19 rays.

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Cliola (Hybopsis) topeka, sp. nov.

Body compressed, the back elevated, the anterior profile convex from dorsal forward to occiput, which is depressed. Snout rather blunt, not at all projecting beyond the mouth, which is terminal, oblique, and very small; maxillary not reaching beyond vertical from nostril, about $4\frac{3}{4}$ in length of head. Eye equaling snout, $4\frac{1}{2}$ in head; interorbital width $2\frac{3}{4}$. Teeth 4-4, with well-developed grinding surface.

Insertion of ventrals directly under origin of dorsal, which is much nearer tip of snout than base of caudal; highest dorsal ray $1\frac{1}{2}$ in head. Caudal broad with many rudimentary basal rays above and below, the longest ray about equaling head. Pectorals reaching ventrals, and the latter to vent (both these fins shorter in one specimen).

Scales large, not high nor very closely imbricated, of uniform size throughout; 14 scales before dorsal; lateral line straight, not at all decurved, rising very slightly immediately behind head.

Head 4 to $4\frac{1}{2}$ in length; depth $3\frac{3}{5}$. D. 8, A. 7; Lat. l. $35\frac{1}{2}$.

Olivaceous, more or less silvery on middle of sides, scales of back with dusky margins; a dark vertebral streak; a dusky streak, formed by coarse dark points, runs from snout through eye across opercles and along middle of sides to tail, where it ends in a small dusky spot. Fins unmarked. This species resembles somewhat *Cliola straminea*, but differs conspicuously in the greater depth, smaller eye, and in its terminal, oblique, smaller mouth.

Three specimens, $2\frac{1}{2}$ inches long, from Shunganunga Creek, tributary of Kansas River.

Type specimen numbered 36609 on the catalogue of the U. S. National Museum.

Minnilus (Lythrurus) nigripinnis, sp. nov.

Body very high, the back moderately compressed, and much elevated, rising in a strong curve from occiput to front of dorsal; supra-orbital region depressed, the profile of top of head concave; snout convexly rounded, rather short and blunt. Mouth terminal, wide, very oblique, the lower jaw slightly included, its tip not projecting; maxillary scarcely reaching front of orbit, $2\frac{2}{3}$ in head. Eye moderate, its diameter nearly equaling snout, $\frac{2}{3}$ interorbital width, 4 in head. Teeth 2-4-4-2, with strong hook, and visible grinding surface.

Dorsal fin inserted behind front of ventrals, its origin midway between tip of snout and base of median caudal rays (slightly nearer base of caudal in a younger specimen, a female, with back less elevated). Base of dorsal $\frac{2}{3}$ its height, the longest ray $1\frac{1}{2}$ in head. Base of anal but little shorter than its longest ray, which is $\frac{2}{3}$ length of head. Caudal rather short, less than length of head. Ventrals reaching vent, $1\frac{2}{3}$ in head; pectorals reaching base of ventrals, $1\frac{1}{4}$ in head.

Scales much higher than long, very closely imbricated, becoming very small on nape; about 30 scales before dorsal; lateral line much decurved anteriorly.

Peritoneum bright silvery.

Head 4 in length; depth $2\frac{3}{8}$. D. 8, A. II, 10 or 11; Lat. 1. 40.

Color olivaceous, everywhere thickly dusted with fine black specks, lighter on belly and below; no dark stripe on back; snout and upper anterior profile dusky; traces of orange red along scales of belly. Fins all jet black, most intense on anterior rays of vertical fins, and on outer rays of paired fins. Caudal paler. Some of the scales along sides still showing fine tubercles, which in life doubtless covered sides of body and top of head.

The specimen serving as type of this description is an adult male, 3 inches long, from Shunganunga Creek. A smaller female specimen is also in the collection from the same locality. This latter is filled with ripe spawn, the depth being $3\frac{1}{2}$ in length. The profile rises in an almost straight line from snout to base of dorsal, and the fins are uniformly pale, with the exception of a dark spot at base of anterior dorsal rays. No trace of this dusky blotch is visible in the male.

Type specimen numbered 36613 on the catalogue of the U. S. National Museum.

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DESCRIPTION OF A NEW RACE OF THE RED-SHOULDERED HAWK FROM FLORIDA.

By ROBERT RIDGWAY.

Buteo lineatus alleni, subsp. nov.

SUBSP. CHAR.—Smaller than *B. lineatus*, the adult much paler in color, with no rufous on upper parts, except on lesser wing-coverts; the young decidedly darker than in true *lineatus*.

Adult male (type, No. 99538, Tampa, Fla., May 20, 1878): Head and neck above brownish ash-gray, the feathers with very distinct blackish shaft-streaks; all the feathers white at the base, this showing, in places, on the occiput, where the feathers are decidedly darker than on the crown; some of the feathers slightly tinged with ochraceous. Back and scapulars ash-gray, each feather with a large terminal spot (occupying most of the exposed portion) of dusky brown; the longer scapulars barred, chiefly on the concealed portion, with white and light grayish. Lesser wing-coverts bright rufous, varied with dusky shaft-streaks; middle and greater wing-coverts brownish gray, transversely spotted and barred with white; secondaries similar, but darker terminally, broadly tipped with white, and crossed by three bands of the same; primaries dusky, the outer webs distinctly spotted with white. Tail brownish black, narrowly tipped with white, and crossed by two narrow