Melanism in Longnose Gar, Lepisosteus osseus Linnaeus (Lepisosteidae)

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Coloration in fishes is primarily due to skin pigments. The usual coloration in fishes is the prevalent lightness on the ventral body surface, darkness on the back, and gradual shading on the sides from light below to dark on the back (1). There are many exceptional features in the color array of fishes. One of these is color uniformity due to an excess of pigment as found in melanistic fishes. Melanism is the occurrence of individuals that are black they have an excess of the pigment melanin. A group of dark pigments found in the skin, the black pigment melanin is formed in melanoblast cells through the oxidation of certain amino acids (2).

During our yearly examination of several hundred fish collections from Oklahoma waters we found many fish with varying degrees of melanism. On 20 July 1975, a completely black longnose gar was collected using a overnight gill net in the Muddy Boggy River, 8 km southeast from Lane in Atoka County (TS03S R13E S06). A normally pigmented longnose gar also was collected (Fig. 1). Both gars were released after they were photographed.

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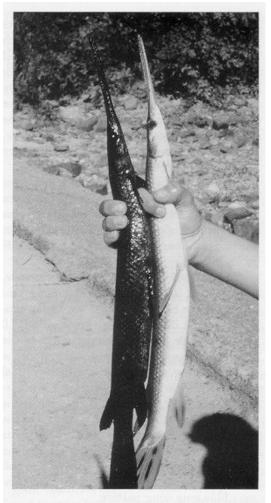


Figure 1. Comparison of normal pigmentation and melanism in longnose gars.

REFERENCES

- 1. Lagler KF, Bardach JE, Miller RR. Ichthyology. New York: John Wiley; 1962. 545 p.
- 2. Allaby M, Attenborough D. The Oxford dictionary of natural history. Oxford (U.K.): Oxford University Press; 1985. 688 p.

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