12-21-1971

A Carp-Goldfish Hybrid with No Caudal Fin

Richard E. Spieler
Arkansas State University - Main Campus, spielerr@nova.edu

Short Notes

A Carp-Goldfish Hybrid with No Caudal Fin

RICHARD E. SPIELER[1]
Division of Biological Sciences, Arkansas State University, Jonesboro, Arkansas

Dawson (1964, 1966, 1971) lists a number of reports of fish lacking caudal fins. There are several reports of naturally occurring carp. *Cyprinus carpio,* and goldfish, *Garassius auratus,* without tail fins (Fiebiger, 1907; Breder, 1953; Ward, 1965). Apparently this is the first report of a hybrid of these two species with such an anomaly.

The first (ArkSU #624) was seined from an irrigation ditch near Jonesboro, T.13N, R.2E, Sec. 12, Craighead Co. Ark., (Fig. 1).

X-ray plates, not illustrated, show the fin to be lacking directly behind the 33rd vertebra with no apparent malformation. The large foci of scales taken from the end of the tail, as compared to scales above the lateral line, show tail scales to be replacement scales (Creaser, 1926) and indicate the tail was lost relatively late in life. The collecting site

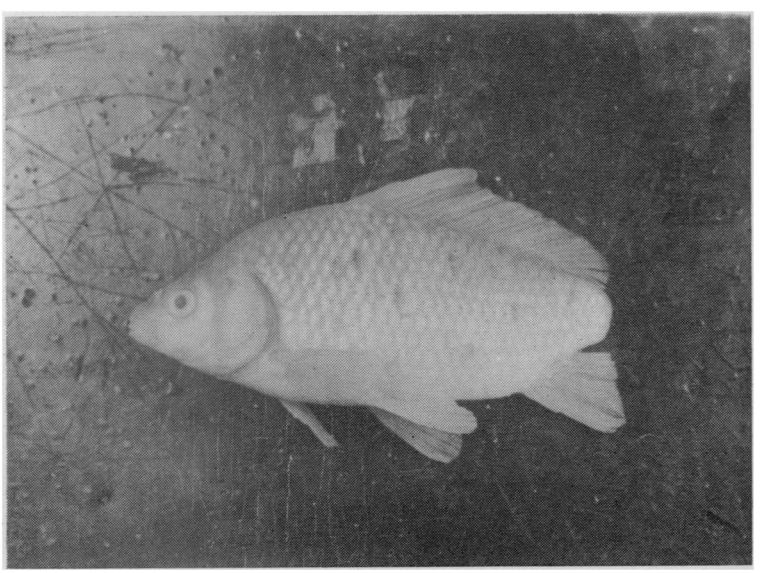

Fig. 1. Decaudate Carp-Goldfish.

Transactions of the Kansas Academy of Science, Vol. 74, No. 3 and 4, 1971. Published December 21, 1972.

[1] Present address: Dept. of Marine Sciences, L.S.U., Baton Rouge, La. 70803.

contained numerous predators capable of inficting such a loss: bowfin, *Amia calva;* gar, *Lepisosteus;* water snakes, *Natrix erythrogaster* and *N. rhombifera;* and snapping turtles, *Chelydra serpentina* were taken from the small body of water (approx 3 × 400m).

The specimen compares well in size (3.7mm head, 6.0 trunk) to 15 other, normal, hybrid individuals of the same age group collected with the specimen (mean: 3.8mm head, 6.2 trunk). In a natural environment with extreme selective pressures, e.g. high predator concentration, the loss of a caudal fin apparently did not greatly hinder the fish's growth, if any, during the period from that loss until collection. Previous research indicates the relative unimportance of the caudal fin to some fish (Lagler *et al.,* 1962).

Acknowledgements

I thank Max Allen Nickerson for critical review of this manuscript, John Lambert and Douglas King for X-ray plates and photography.

References

BREDER, C. M., JR. 1953. A case of survival of a goldfish following loss of its tail. Zoologica, 38(1):49–52.

CREASER, CHARLES W. 1926. The structure and growth of the scales of fishes in relation to the interpretation of their life-history, with special reference of the Sunfish, *Eupomotus giggosus.* University of Michigan, Miscellaneous Publication No. 17, 83pp.

DAWSON, C. E. 1964. A bibliography of anomalies of fishes. Gulf Research Reports, 1(16):308–399.

DAWSON, C. E. 1966. A bibliography of anomalies of fishes. Supplement I. Gulf Research Reports, 2(2):169–176.

DAWSON, C. E. 1971. A bibliography of anomalies of fishes. Supplement 2. Gulf Research Reports, 3(2):215–239.

FIEBIGER, JOSEF. 1907. Ein Karpfen mit fehlender Schwanzflosse. Oesterreichische Fisherei-zeitung, 5:83–85.

LAGLER, KARL F., JOHN E. BARDACH, and ROBERT R. MILLER. 1962. Ichthyology. John Wiley and Sons, Inc., 544 pp.

WARD, JAMES W. and ROSS F. DOODS, JR. 1965. Observations upon a natural population of normal, hemicaudate, and decaudate goldfish, *Carassius auratus.* Jour. Miss. Acad. Sci., 11:191–195.