

FW 300 Biology and Diversity of Fishes



Instrucr

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Required Materials

- Helfman, G., B.B. Colette, D.E. Facey and B.W. Bowen. 2009. The diversity of fishes, second edition. Wiley-Blackwell, Hoboken, NJ.
- FW300 lecture slides and required readings (on Canvas). These are copyrighted materials so you may not duplicate or distribute any of them, they are solely for your use in the course.

Prerequisites

A beginning course in basic biology (LIFE103 or BZ111).

Credits and Instructional Methodology

This is a 2 credit class presented in traditional classroom lecture format.

Learning Objectives

Students will understand concepts and forge interrelationships in eight areas basic to fish biodiversity: anatomy, taxonomy, phylogeny, physiology, ecology, behavior, zoogeography, and conservation biology. Students will learn how to infer evolutionary relationships. Students will know how an understanding of evolutionary history and functional morphology apply to the conservation of fishes and their ecosystems.

Additional sources and readings

Bond, C.E. 1996. Biology of fishes. Saunders College Publishing, Fort Worth, Texas.

Bronmark, C. and J.G. Miner. 1992. Predator-induced phenotypical change in body morphology in Crucian carp. *Science* 258:1348-1350.

Brooks, J.L. and S.I. Dodson. 1965. Predation, body size and composition of plankton. *Science* 150: 28- 35.

Moyle, P.B. and J.J. Cech, Jr. 2004. Fishes: an introduction to ichthyology. Fifth edition. Prentice-Hall, Upper Saddle River, New Jersey.

Rahel, F.J. 2000. Homogenization of fish faunas across the United States. *Science* 288: 854-856. Werner, E.E. and D.J. Hall. 1976. Niche shifts in sunfishes: experimental evidence and significance. *Science* 191:404-406.