

BIOLOGY 335 AUTUMN 2006 ICHTHYOLOGY (Biology of Fishes)

Lecturer: Dr. T. E. Reimchen, Office-Cunn 251, Phone 721-7101 reimchen@uvic.ca

Lab Co-ordinator - Ian Thornton, Cunn. Bldg. Room 136B, iant@uvic.ca

Laboratory: Petch 110

Lecture: 0830-0930, Tues, Wed, Fri; Cornett A121. Labs: Petch 110

Overview- The diversity and evolution of fishes: emphasis on form and function, ecology, reproductive strategies, sensory modes, adaptation, temperate and tropical fish community comparisons, fishery management, global crises in fisheries, marine protected areas.

Generalized Outline of Lecture Topics

History of Ichthyology, external and internal anatomy

Fish diversity and evolutionary trends

Swimming hydrodynamics

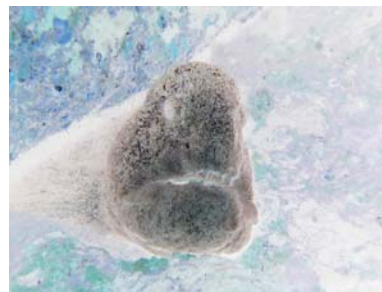
Physiology of fishes -osmoregulation, vision, olfaction

Behavioural ecology - reproduction, foraging, temperate and tropical fish community comparisons

Adaptation

Concepts of maximum sustainable yield and the commercial fisheries crisis

Marine protected areas and no-take zones



Course reading material:

Text Book: Fishes: An introduction to Ichthyology. Authors: Moyle and Cech, 2004. Cost- ca. 120\$.

(5th edition or earlier); Texts in Reserve Reading Room (McPherson Library)- Authors: Helfman, Collette and Facey, 1997, The diversity of fishes; Moyle and Cech; Fishes: An Introduction to Ichthyology; Nelson: Fishes of the World; Aleyev: Nekton; Most overheads used in the lectures are available from the Biol 335 Website.

Students are expected to browse the ichthyological content of at least 2 current biological periodicals in McPherson Main Floor on a weekly basis. Examples include Canadian Journal of Zoology, Copeia, Ecology, Ecological Monographs, Evolution, Nature, New Scientist, Science, Scientific American, American Scientist, Trends in Ecology and Evolution. **Useful web site:** <http://www.fishbase.org>. Students are expected to contribute to classroom discussions on topics relevant and interesting to the course.

Labs: Labs will examine external and internal anatomy, standard ichthyological measurements, aging techniques, physiology, hydrodynamics and body form, identification of marine and freshwater fishes of British Columbia and the world. Student groups will be required to construct and label a 3-D fish skull.

Grades*

Lectures(55%)

Mid-term Exam-20% (Oct 20)

Final Exam 35% (TBA**)

Laboratory (45%)

Note: Students not wanting their marks posted using ID# should notify me at the beginning of the term. It is the student's responsibility to meet the ADD/DROP dates from the Uvic calendar. Students are responsible for checking their own records and registration status, available via WebView (www.uvic.ca/reco).

Grades are assigned as follows: A+ 90-100; A 85-89.9; A- 80-84.9; B+ 75-79.9; B 70-74.9; B- 65-69.9;

C+ 60-64.9; C 55-59.9; D 50-54.9; F 0-49.9. A supplementary exam is not permitted for those who get F in the course.

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