

## 474 Ichthyology Syllabus: Fall 2013

**Course Description:** Evolution, classification, collection, identification, distribution and biology of fishes with emphasis on freshwater fauna of eastern North America.

**Central Learning Objectives:** Learn the basic biology of fishes and how to identify major groups of fish from around the world with a concentration on Tennessee fish.

**Degree Level Learning Objectives:** Laboratory and Field skills as well as Scientific Writing

**Professor:** C. Darrin Hulsey

MW: 9-10 am

Office: Hesler 527

Phone: 865-974-2189

email: [chulsey@utk.edu](mailto:chulsey@utk.edu)

Office Hours: 1-2 pm Mondays

**TAs:** Phillip Hollingsworth

Lab MW: 10:10-1:10am

Office: 528 Hesler

Phone: 865-974-1948

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Office Hours: announced in lab

Max Rupp

Lab TTh: 9:40-12:25am

Office: 528 Hesler

Phone: 865-974-1948

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Office Hours: announced in lab

**Fish in the News:** Find one current (published within the preceding month) news article online concerning fish that is at least 250 words. A few examples might be a News Sentinel report concerning the conservation status of the “Snail Darter”, the spread of invasive grass carp, a scientific study that uses the zebrafish to study alcoholism, or sticklebacks and risk-taking behavior. Once you find the article, you will need to do two things: 1) Shorten the article to about 250 words and 2) Write out a question that you think the class should be able to answer once you have read the 250 words in class. You should send both of these (the shortened 250 article and the question) as well as the URL to the article to me a week before the day of your class sign up date (i.e. if you are doing the Fins on Monday 21<sup>st</sup> October, send it on Monday 14<sup>th</sup> of October). I will post it to Blackboard once you send it to me. Bring a hard copy of the article with you to class on the day you present. You will read the 250 words to the class.

Required Books: *The Fishes of Tennessee (FOT)* David A. Etnier and Wayne C. Starnes <http://www.newfoundpress.utk.edu/pubs/fishes/>

**Lecture Schedule:**

<b>Date</b>	<b>Topic</b>	<b>Reading</b>
21st Aug	Introduction	
26th Aug	Systematic Ichthyology	Agassiz and the Fish.pdf
28th Aug	What is a Fish?	FOT pp. 53-58
2nd Sept	Labor Day / NoClass	NA
4th Sept	Locomotion / <b>Fish Choice</b>	FOT pp. 39-40
9th Sept	Feeding I	FOT pp. 31-47
11th Sept	Feeding II and Soft Anatomy	FOT pp. 31-47
16th Sept	Anti-Predator Defenses	FOT pp. 47-49
18th Sept	Respiration / <b>Five Citations Due</b>	FOT pp. 49-50
23rd Sept	Sensory Systems	FOT pp. 48-49
25th Sept	Homeostasis	TBA
30th Sept	Development & Early Life History	FOT pp. 51-52
2nd Oct	Reproductive Strategies	TBA
7th Oct	<b>First Exam</b>	
9th Oct	Agnathans	FOT pp. 87-97
14th Oct	Chondrichthys	FOT pp. 29-32
16th Oct	Bichirs, Lungfish, & Latimeria	FOT pp. 29-32
21st Oct	Sturgeons, Gar, & Amia / <b>Introduction Due</b>	FOT pp. 98-115
23rd Oct	"Basal" Teleosts!	FOT pp. 116-128
28th Oct	Trout & Tetraploidy	FOT pp. 332-352
30th Oct	Ostariophysans I	FOT pp. 129-259
4th Nov	Ostariophysans II	FOT pp. 259-331
6th Nov	Extreme Environments	FOT pp. 352-383
11th Nov	Marine vs. Freshwater Fishes	FOT pp. 3-16
13th Nov	Acanthopterygii	FOT pp. 383-397
18th Nov	Perciformes	FOT pp. 402-603
20th Nov	Labroidei	TBA
25th Nov	Fish Ecology / <b>Papers Due</b>	TBA
27th Nov	Evolutionary Ecology	TBA
2nd Dec	<b>Second Exam</b>	

**Total Course Grade (50% Lecture / 50% Lab):****Lecture** (You can give 110%)

Participation = 20%

First Exam = 20%

Final Exam = 20%

Paper = 40% Total (Citations = 5%, Abstract = 10%, Paper = 25%)

FINs = 10%

**Lab**

One Page Reviews = 10%

Lab exercises = 10%

Practicals (4) = 80%

Participation includes active role in Discussions and Lectures both in Lab and Lecture components of the class as well as comments on Fish in the News assignments. Disruptive behavior and frequent tardiness will reflect poorly on participation.

\*No laptops in class \*All tests should be taken in pen. No regrades will be accepted if in pencil \*All students are expected to uphold the University's Honor Statement in all academic work and should read the Academic Standards of Conduct with respect to plagiarism. \*Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the Office of Disability Services at 865-974-6087 in Hoskins Library to coordinate reasonable accommodations for students with documented disabilities.