

EEB 474 Ichthyology Lab Syllabus: Fall 2017

Location: Hesler Biology Building 603
Time: Mon. and Wed. 10:10 am – 1:10 pm **OR** Tue. and Thu. 9:40 am – 12:25 pm
TAs: **Sam Borstein** sborstei@vols.utk.edu
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Lab Assessment:	Practical 1	50 points
	Practical 2	50 points
	Practical 3	80 points
	Practical 4	80 points
	Practical 5	100 points
	<u>Quizzes and Assignments</u>	<u>40 points</u>
	Total	400 points

New fish will be introduced at the beginning of lab and time spent in the lab is very closely related to how well you do on the lab tests. Don't just pick up the jar and look, you need to pull the fish out and hold it. Be sure to return fish to the correct jars and be sure to keep specimens moist. A few copies of the most useful books for lab (listed below) will be provided.

Schedule (subject to change):

Aug. 28&29	Morphology and Nomenclature	Oct. 18&19	Percidae II
Aug. 30&31	Dichotomous Keys	Oct. 23&24	Review
Sept. 4&5	<i>Labor Day: No Labs</i>	Oct. 25&26	Review
Sept. 6&7	Little River Field Trip	Oct. 30&31	Sight ID Practical 3
Sept. 11&12	Marine & Exotic FW Families	Nov. 1&2	Cyprinidae I
Sept. 13&14	Marine & Exotic FW Families	Nov. 6&7	Cyprinidae II
Sept. 18&19	Review	Nov. 8&9	Catostomidae and Ictaluridae
Sept. 20&21	Sight ID Practical 1	Nov. 13&14	Review
Sept. 25&26	Small NA Freshwater Families	Nov. 15&16	Review
Sept. 27&28	Small NA Freshwater Families	Nov. 20&21	Sight ID Practical 4
Oct. 2&3	Review	Nov. 22&23	<i>Thanksgiving: No Labs</i>
Oct. 3&4	<i>Fall Break: No labs Florida?</i>	Nov. 27&28	Practical 5: Key Sample
Oct. 9&10	Sight ID Practical 2	Nov. 29&30	Practical 5: Key Sample
Oct. 11&12	Cottidae, Centrarchidae, Moronidae	Dec. 4&5	Practical 5: Key Sample Due
Oct. 16&17	Percidae I		

Books: None are required, but all are recommended

Etnier, D.A. and W.C. Starnes. 2001. *The Fishes of Tennessee*. University of Tennessee Press, Knoxville. ISBN: 0870497111. Available for free: http://trace.tennessee.edu/utk_utpress/2/

Page, L.M. and B.M. Burr. 2011. *Peterson Field Guide to Freshwater Fishes*. 2nd Edition. Houghton, Mifflin, Harcourt, Boston. ISBN: 0547242064

Ray, C. and C.R. Robins. 1999. *Peterson Field Guide to Atlantic Coast Fishes: North America*. Houghton, Mifflin, Harcourt, Boston. ISBN: 0395975158

Specimens:

Fish that have detailed collection labels that are on the TA's lab table are part of the David A. Etnier Ichthyological Collection at UT and are valuable scientific specimens. Never open more than two jars at a time, keep the specimens moist, and make sure to return the specimens to the correct jar. Fish in buckets with detailed labels of specimens should only be opened one at a time.

Sight ID practicals:

During lab practicals, you will largely be tested over the information on your lab handouts. If only family level information was provided for a group of specimens, only family level identification will be required. If genus or species information was given on the handout, then the ability to look at a specimen with no label and return its genus and species on the practical will be expected. Other possible test questions will include the diagnostic character for a species, genus, or family level name that we might ask for about a specimen or name. Also, questions about general fish morphology and etymology are fair game. **You will have no more than 90 minutes to complete the sight ID practicals.**

It is also crucial that you learn to spell the taxonomic names correctly. With few exceptions, only correct spellings will be accepted on tests. *Macropterus salmoides* and *Micropterus salmonica* will not be considered acceptable spellings of our friend *Micropterus salmoides*. If we can't read the names, they will be counted wrong on tests as well. Also, remember that if you want a re-grade, take the practicals in pen.

We realize it is difficult to know whether you know the specimens "well enough". Our suggestion is to pretend you have a pile of dead fish in a jar with no knowledge of where they came from or what they are related to initially, and you need to give a species name for every fish in that random jar. If you leave lab thinking you could do this, you are probably on track. Since this will basically be the fifth and final lab practical, if you cannot do this, you might think about spending a little more time in the lab.

Key practical:

The final practical will consist of identifying 20 to 60 random fish you might encounter in a Tennessee stream. We will provide a jar of fish with a locality, and point it out on a map so you can use geography to narrow your list of possible species. The points deducted for misidentification varies based on the taxonomic level, and these will be explained before the exam.

Field Trips:

- 1) **Little River at 411 bridge.** There will be a day trip to the Little River at the 411 bridge during lab time the 6th and 7th of September. We will take UT vans from The Hill to the river; leaving at the normal lab start time. The vans will be packed, so please leave anything you can in the lab. Generally, we don't wear waders, but bring some if you feel like it. We usually swim to the far bank to sample, but it's perfectly acceptable to only sample near the access point and stay relatively dry. Many of the species we see here will be on the sight ID and key test practicals, some might even be the actual specimens on the tests.
- 2) **Florida?** We may have the opportunity to go to Seahorse Key Marine Lab off Cedar Key, FL. The trip will be over Fall Break in mid-October, tentative itinerary: leaving the evening of Wednesday the 4th, arriving at the lab on Thursday morning, and then returning Saturday the 7th. Sampling will be mostly seining, angling, and snorkeling. There will be a fee for lodging and food, usually around \$100, and any unused portion will be returned after the trip.