ICHTHYOLOGY
Biology 330/530
Spring 2013

Meeting time and place:

Lectures: 51 Halsey Science, Tuesday 1:20-3:20, but we all need a break for a few minutes in the middle of this.

Lab: 51 Halsey Science, Thursday 1:20 - 4:20.

Textbooks:
1. Helfman, Collette, Facey & Brown. *The Biodiversity of Fishes: Biology, Evolution and Ecology* (2nd edition)

2. Rainboth, W.J. 2012 - *Biology 330/530 Laboratory Manual*. (Individual Chapters)

Schedule:
For readings H=Helfman - Chapter : L=Lab Manual Draft - Chapter (to be downloaded from D2L)

Week	Reading	Subject
28 Jan - 01 Feb		
Lecture reference	H-1	Introduction to Ichthyology, historical perspectives
Lab reference	L-1	Fish capture methods, basics for field work
04 Feb - 08 Feb		
Lecture reference	H-2, L-5	Taxonomy, systematics, classification
Lab reference	H-3, L-2	Field studies conclusion, begin external anatomy
11 Feb - 15 Feb		
Lecture reference	H-3, L-5	Classification, integumentary skeleton
Lab reference	H-11, H-4, L-2	Diversity - chordates and first fishes, external anatomy
18 Feb - 22 Feb		
Lecture reference	H-5	Respiration, ventilation, buoyancy
Lab reference	H-13, H-4, L-3	Diversity - lampreys, hagfishes, ext. & int. anatomy.
25 Feb - 01 Mar		
Lecture reference	H-6	Sensory perception
Lab reference	H-12, L-7	Diversity - sharks, begin identification exercise
04 Mar - 08 Mar		
Lecture reference	H-7	Osmoregulation, excretion
Lab reference	H-12, L-7	Diversity - rays and relatives, keying fishes
11 Mar - 15 Mar		
Lecture reference	H-8	Body shapes, locomotion
Lab reference	H-14, L-7	Diversity - Sarcops-Actinops, keying fishes
18 Mar - 22 Mar		
Spring break week		
25 Mar - 29 Mar		
Lecture reference	H-9	Reproduction, genetics
Lab reference	H-14, L-7	Diversity - Elopomorphs to Salmonids, keying fishes

01 Apr - 05 Apr			
	Lecture reference	H-10	Age and growth
	Lab reference	H-14, L-7	Diversity - Ostariophysans, keying fishes
08 Apr - 12 Apr			
	Lecture reference	H-19, 20	Predatory behavior, anti-predation
	Lab reference	H-14, L-7	Diversity - Neoteleosts & Acanthomorphs, keying fishes
15 Apr - 19 Apr			
	Lecture reference	H-21, 22	Reproductive behavior, other behaviors
	Lab reference	H-15, L-7	Diversity - primitive Acanthopterygians, keying fishes
22 Apr - 26 Apr			
	Lecture reference	H-23	Behavior cycles, migration
	Lab reference	H-15, L-7	Diversity - Perciform fishes, keying fishes
29 Apr - 03 May			
	Lecture reference	H-24, 25	Freshwater communities
	Lab reference	H-15, L-7	Diversity - Advanced Perciform fishes, keying fishes
06 May - 10 May			
	Lecture reference	M-24, 25	Marine communities
	Lab reference	L-7	Finish keying, hand in term paper (Field trip?)

Lecture notes: As you can see from the lecture and lab readings, the course is divided into a unity part (lecture) and a diversity part (lab). As this point in time, only a few of the lectures are in Powerpoint, but more will be added as the semester progresses. In as much as it is possible, I will make these files available on D2L in advance of the class presentation. However, in some instances, I will be working on these right up until the class starts, and will post them afterwards.

Quizzes vs. Exams: This course will NOT have giant hourly exams during the lecture periods. Instead, we will have at least ten weekly quizzes handed out at the end of each lab period on Thursday. Quizzes may differ slightly on the number of points, varying between 25 and 30. The quizzes will cover the lecture and lab of the current week AND lecture and lab of the previous week. Quizzes are open book tests and we may be able to have these done as take-home exercises to be turned in on the following Tuesday. There will be no make-ups unless the student has already cleared their absence in advance or there is a physician's note about illness.

Identifying Wisconsin fishes: By the middle of the semester, you will have the chance to see how well you know the fishes, by sorting and identifying a collection of fishes from a North American locality. I will provide appropriate literature. At that time we will set up additional lab hours for those having difficulties. This exercise will be worth 100 points and the full procedure will be dealt with in a handout later in the semester.

Term paper: At the middle of the semester - sometime around spring break - you will declare a subject you wish to examine more thoroughly on your own. You will turn in a term paper on this subject two weeks before the last week of the semester. More information will be supplied on this subject early in the semester.

As you may have guessed, attendance at lecture and lab is mandatory.

Field trips are currently under consideration and be discussed in class. There are a variety of places that can be reached on Saturday but our options are somewhat limited if we try to do it during a lab session. The nearest stream of decent size - Waukau Creek - has may have some problem recovering from recent

drought conditions and what looks at this point to be a near absence of snowpack this winter. Other options may be possible..

Grades: will be recorded numerically, not alphabetically, during the course. Letter grades at the end of the semester will be calculated by totaling the points and finding the percent. There will not be a curve.

100 - 93 = A
92 - 90 = A-
89 - 87 = B+
86 - 83 = B
82 - 80 = B-
79 - 77 = C+
76 - 73 = C
72 - 70 = C-
69 - 67 = D+
66 - 63 = D
62 - 60 = D-
<60 = F

My office hours will be posted outside my office and outside the lab. I am usually in the building or on campus during non-teaching hours and in the evenings until about 6:00PM, however you might have to look around to find me.

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