

Seminar in Elasmobiology

Course: BSC 6936-008

Instructor: Dr. Stephen Kajiura

Office: Sanson 215; hours: Tue 1:30 - 4:30 pm

Semester: Fall 2007

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An in depth study of the biology, ecology, and behavior of elasmobranch fishes.

Lecture schedule:

Tue 6:00 - 9:00 pm

SC 141

Aug 28 - Dec 04 2007

See attached schedule for details

Required Text:

Carrier, JC, JA Musick & MR Heithaus (eds). 2004. Biology of sharks and their relatives. CRC Press, 608 pp.

Recommended Text:

Castro, JI. 1983. The sharks of North American waters. Texas A&M Univ. Press, 196 pp.

Content:

This graduate course is designed to have a significant student teaching component. Class discussions will focus on contemporary issues in elasmobranch biology through presentations and discussions of assigned readings. The course is comprised of the following assignments:

I. Each student presents to the class a review of their assigned elasmobranch families (see attached schedule). A short handout should be prepared that includes the following information:

- i a description of the diagnostic characters of the family.
- ii a review of the global and habitat distribution of its members.
- iii a brief review of its biology, ecology, food habits, etc.
- iv a bibliography of publications on species of the family. This should include any classical works as well as publications within the last 5 years. Emphasis should be placed on the primary literature, not synoptic texts. Refer to sources such as Web of Science. Some elasmobranch families will require more work than others.

PDF versions of the handout should be made available to the instructor immediately after class for posting on the course website.

II. Each week we will cover a different chapter from the required text. For each session, two students will present a summary of the chapter and lead class discussions on the assigned readings (see attached schedule). Remember, it is the duty of discussion leaders to only answer technical questions about the papers and to keep the discussion moving along. It is the responsibility of each student in the class to critically review each paper and raise their questions to the group. For example, has the author formally stated a hypothesis or question? Is the methodology correct or appropriate? Are the data adequate and have the appropriate statistical analyses been performed? Do the data justify the author's conclusions? *A significant portion of your grade will be based upon your class participation in these discussions for the duration of the course.*

Field trip:

A required field trip to the Keys Marine Laboratory will take place in late September or early October. The field trip will include snorkeling on the reef in search of elasmobranchs, long line fishing, and possibly blue water fishing for large pelagics. Evening lectures and discussions will complement each day's activities. A lab fee of \$110 per person will be assessed to cover accommodations and boat use at the Keys Marine Laboratory.

Students with disabilities:

In compliance with the Americans with Disabilities Act (ADA) students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in SU 133, x73880, and follow all OSD procedures.

Date	Chapter
28-Aug	Intro to class, no chapter
04-Sep	Phylogeny, no chapter
11-Sep	Biomechanics of locomotion
18-Sep	Prey capture behavior
25-Sep	Metabolism
02-Oct	Food consumption
09-Oct	Homeostasis
16-Oct	Reproductive biology
23-Oct	Hormonal regulation
30-Oct	Sensory biology
06-Nov	Age determination
13-Nov	Life history patterns
20-Nov	Genetics
27-Nov	Predator-prey interactions
04-Dec	Assessing habitat use

Hexanchiformes
 Chlamydoselachidae
 Hexanchidae
Squaliformes
 Echinorhinidae
 Squalidae
 Centrophoridae
 Etmopteridae
 Somniosidae
 Dalatiidae
Pristiophoriformes
 Pristiophoridae
Squatiniiformes
 Squatinae
Heterodontiformes
 Heterodontidae
Orectolobiformes
 Parascylliidae
 Brachaeluridae
 Orectolobidae
 Hemiscylliidae
 Ginglymostomatidae
 Stegastomatidae
 Rhincodontidae
Lamniformes
 Mitsukurinidae
 Odontaspidae
 Pseudocarchariidae
 Megachasmidae
 Alopiidae
 Cetorhinidae
 Lamnidae
Carcharhiniiformes
 Scyliorhinidae
 Proscylliidae
 Pseudotriakidae
 Leptochariidae
 Triakidae
 Hemigaleidae
 Carcharhinidae
 Sphyrnidae

Pristiformes
 Pristidae
Rhiniformes
 Rhinidae
Rhinobatiformes
 Rhinobatidae
 Platyrrhinidae
Torpediniiformes
 Narcinidae
 Narkidae
 Hypnidae
 Torpedinidae
Rajiformes
 Arhynchobatidae
 Rajidae
Myliobatiformes
 Plesiobatidae
 Hexatrygonidae
 Urolophidae
 Potamotrygonidae
 Dasyatidae
 Gymnuridae
 Myliobatidae
 Rhinopteridae
 Mobulidae