

# FAS 2024: Global and Regional Perspectives in Fisheries

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**Coordinator and Instructor:** Dr. Debra J. Murie

**Main Office:** Program of Fisheries and Aquatic Sciences, School of Forest Resources and Conservation, 7922 NW 71<sup>st</sup> Street, Gainesville

**Office Hours:** Monday and Wednesday from 11:30-12:30 a.m. in McCarty B Room G109 (on campus), or by arrangement (call or email to set up a time).

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## **Course Description:**

Fish biology, ecology, and habitats relevant to fisheries on both a global and regional (Florida) scale. Follows the fisheries occurring from cold, mountain rivers to the depths of the oceans, with special topics (e.g., invasive species, artificial reefs, fisheries bycatch, aquaculture, marine protected areas). Intended for non-science and science majors.

**Prerequisites:** none.

## **Course Outcomes:**

On completion of this course, students should be able to:

- Discuss and explain general fish biology and basic fisheries concepts with both non-scientists and fisheries professionals alike
- Compare and contrast fish biology, fish habitats, and fisheries that occur in freshwater, estuarine, and marine waters on a regional, national, and global scale
- Understand the processes of large-scale weather patterns, such as El Nino, in relation to fisheries production and food webs
- Discuss the basic principles of fisheries sustainability and management options used in regulating fisheries

## **Course Communication:**

Course information will be posted on Sakai and allow you day-to-day access to lecture outlines and your grades. Information on how to use the Sakai site can be accessed at: <https://lss.at.ufl.edu/>

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## Course Format:

This course is offered for three (3) credits every Fall semester. It consists of three hours of lecture each week and the course meets the requirements for Biology (B) under the general education guidelines. Lectures are based on PowerPoint presentations to facilitate the use of visual representation of fishes, habitats, and fisheries.

Lecture exams will be based on material given during class lectures. Supplemental readings from the recommended textbook (Fish: An enthusiast's guide by Peter Moyle) will aid in understanding this material. Exam questions may include multiple-choice, matching, true/false, list/explain, short answers, and paragraphs. PowerPoint outlines of lecture topics will be posted to Sakai and will need to be brought to class either in print form or viewed on your personal computer during class. It will be your responsibility to take notes to accompany these handouts and to get lecture notes from a classmate if you miss any lectures.

Overall, please conduct yourself in a professional manner and give consideration to your fellow classmates. Do not use electronic devices (e.g., cell phones, iPods) or perform activities (e.g., texting, Facebook, web surfacing, talking) that can interrupt the class. The instructor reserves the right to request that you leave if you engage in distractive behavior.

## Course Grading:

Grade assignments are based on the following: A (93-100%), A- (90-92), B<sup>+</sup> (86-89%), B (82-85%), B- (78-81%), C<sup>+</sup> (74-77%), C (67-73%), C- (63-66%), D<sup>+</sup> (59-62%), D (55-58%), D- (51-54%), and E (<50%), and will be comprised of:

<u>ACTIVITY</u>	<u>% of GRADE</u>
Quarterly Exams	
A } best 2 out of 3 .....	50
B } .....	
C } .....	
D (required) .....	25
Project.....	15
In-class quizzes (best 10 out of 15) .....	10

Exams: These will be given on a quarterly basis. The final grade will be calculated based on the final quarterly exam (Quarterly Exam D) (25%), and the best two out three of Quarterly Exams A, B, or C (25% x 2 = 50%).

# **FAS 2024: Global and Regional Perspectives in Fisheries**

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**Project:** Chose a fish family that has at least one species in it that is harvested and combine sources of information about this fish family into your project. You will need to combine: 1) information on the biology of the fish family (or harvested species in that family); 2) the distribution and habitat of the fish family; and 3) information on its fishery. Your project can be put together as a narrated PowerPoint, a poster, a poem, a music video, a children's book, a cooking show, or ?...whatever drives you creatively while pushing your critical thinking! The project will be graded based on both effort and content. Further information and a grading rubric will be provided during the course.

**In-class Quizzes:** To grasp the comparative aspect of the course, which is based on visiting different habitats and fisheries along an aquatic highway, it is important that you consistently attend lectures. To facilitate this, you will be given in-class quizzes on a random basis throughout the course. These quizzes will consist of 2-4 questions (multiple choice, fill in the blank, short answer) that will be handed out at the beginning of the lecture, answered during the lecture, and handed back in at the end of the lecture. The best 10 of 15 quizzes given during the course will count towards 10% of your final grade.

## **Recommended Text:**

Moyle, Peter B. 1995 (paperback). Fish: An enthusiast's guide. University of California Press, Berkeley, CA. 272 pp.

## **Academic Honesty:**

As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

## **UF Counseling Services:**

Resources are available on-campus for students having personal problems or lacking clear career and academic goals which interfere with their academic performance. These resources include:

1. University Counseling Center, 301 Peabody Hall, 392-1575, personal and career counseling;
2. Student Mental Health, Student Health Care Center, 392-1171, personal counseling;
3. Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, sexual assault counseling; and

## **FAS 2024: Global and Regional Perspectives in Fisheries**

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4. Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

### **Software Use:**

All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

***We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.***

# FAS 2024: Global and Regional Perspectives in Fisheries

DATE	DAY	LECTURE TOPIC	INSTRUCTOR	PAGES IN TEXT
22-Aug	W	Introduction to course/schedule/grading	Dr. Debra Murie	
<b>Part I. Tools of the Trade</b>				
24-Aug	F	Range and diversity of fishes; Basic external features of fishes	Dr. Debra Murie	1-34, 65-98
27-Aug	M	Basic external features of fishes; Feeding	Dr. Debra Murie	13-34
29-Aug	W	Feeding lifestyles	Dr. Debra Murie	5, 35-46, 61-62
31-Aug	F	Fish and their senses	Dr. Debra Murie	1-3, 25-26, 63-64
<b>3-Sep</b>	<b>M</b>	<b>Labor Day: No class</b>		
5-Sep	W	Breathing in water and air; excretion; osmoregulation	Dr. Debra Murie	5, 35-46
7-Sep	F	Muscles; swimming and buoyancy; catch and release mortality	Dr. Debra Murie	42-44
10-Sep	M	Reproduction and reproductive lifestyles	Dr. Debra Murie	35-46, 54-61
12-Sep	W	Reproduction and reproductive lifestyles; Age and growth	Dr. Debra Murie	35-46, 54-61
14-Sep	F	Age and growth	Dr. Debra Murie	33
17-Sep	M	Migration	Dr. Debra Murie	49-52, 206-209
<b>19-Sep</b>	<b>W</b>	<b>QUARTERLY EXAM A</b>	Dr. Debra Murie	
21-Sep	F	Catching fish: gear and fish behavior	Dr. Debra Murie	
24-Sep	M	Catching fish: gear and fish behavior	Dr. Debra Murie	
26-Sep	W	What is a fishery? Features of a fished stock	Dr. Debra Murie	
<b>Part II. The Aquatic Highway: Fish, Habitats, and Fisheries</b>				
28-Sep	F	Environmental factors and fish distribution and abundance	Dr. Debra Murie	99-115
1-Oct	M	Coldwater streams, rivers, and lakes	Dr. Debra Murie	116-129
3-Oct	W	Warmwater streams, rivers, lakes and ponds	Dr. Chuck Cichra	116-162
5-Oct	F	Warmwater streams, rivers, lakes and ponds	Dr. Chuck Cichra	116-162
8-Oct	M	Eutrophication or "What's that green stuff in the water?"	Dr. Chuck Cichra	116-162
10-Oct	W	Climate Change and Fisheries	Mr. Felipe Carvalho	
<b>12-Oct</b>	<b>F</b>	<b>QUARTERLY EXAM B</b>	<b>Dr. Debra Murie</b>	
15-Oct	M	Invasive Aquatics	Dr. Jeff Hill	
17-Oct	W	Aquaculture: The big picture	Dr. Frank Chapman	
19-Oct	F	Importance of aquaculture	Dr. Frank Chapman	
22-Oct	M	Aquaculture practices	Dr. Frank Chapman	
24-Oct	W	Coastal habitats: Estuaries	Dr. Debra Murie	163-171, 179-183
26-Oct	F	Coastal habitats: Marshes	Dr. Debra Murie	163-171, 179-183
29-Oct	M	Coastal habitats: Mangroves and Seagrasses	Dr. Debra Murie	182-183, 191-192
31-Oct	W	Coastal habitats: Rocky Intertidal Zone and Kelp Forests	Dr. Debra Murie	173-179, 184-189
2-Nov	F	Coastal habitats: Reefs	Dr. Debra Murie	186-188, 197-210
5-Nov	M	<b>QUARTERLY EXAM C</b>	<b>Dr. Debra Murie</b>	
7-Nov	W	Artificial reefs	Dr. Bill Lindberg	
<b>9-Nov</b>	<b>F</b>	<b>UF Homecoming: No class</b>		
<b>12-Nov</b>	<b>M</b>	<b>Veteran's Day: No class</b>		
14-Nov	W	Coastal habitats: Reefs	Dr. Debra Murie	186-188, 197-210
16-Nov	F	Large-scale climatic changes and fisheries: El Nino	Dr. Debra Murie	
<b>19-Nov</b>	<b>M</b>	<b>Fisheries Project Worktime (Projects due by end of class)</b>	<b>Dr. Debra Murie</b>	
<b>21-Nov</b>	<b>W</b>	<b>Thanksgiving Holidays: No classes</b>		
<b>23-Nov</b>	<b>F</b>	<b>Thanksgiving Holidays: No classes</b>		
26-Nov	M	Fisheries of the continental shelf and slope (Pelagic)	Dr. Debra Murie	192-195
28-Nov	W	Fisheries of the continental shelf and slope (Demersal)	Dr. Debra Murie	192-195
30-Nov	F	Bycatch; Marine Protected Areas	Dr. Debra Murie	
3-Dec	M	Fisheries Management/Review	Dr. Debra Murie	
<b>5-Dec</b>	<b>W</b>	<b>QUARTERLY EXAM D</b>	<b>Dr. Debra Murie</b>	
***Lecture schedule subject to change				