

# FAS 6932: Trophic Ecology of Fishes (Spring 2017)

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**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:** Please email me with your questions or concerns and I will respond within 24 hrs at the latest. Many times I will be able to respond to your emails much quicker, except when I am in the field.

**Telephone:** (352) 273-3601: My phone at Fisheries is equipped with Voice IP so if you leave a message then I should receive it as an email notification and I will respond within 24 hrs, but most likely earlier if I am not in the field.

**E-mail:** [dmurie@ufl.edu](mailto:dmurie@ufl.edu)

## **Course Description:**

Trophic ecology of fishes, including: food habit analyses, food chains and webs, trophic cascades, isotopic analysis of trophic pathways, foraging behavior, prey selection, digestion and evacuation of prey, estimating consumption, feeding bioenergetics, tradeoffs among feeding, growth & reproduction, bioaccumulation, and a discussion-based introduction to ecosystem-based trophic models.

**Prerequisites:** Biology of Fishes (or equivalent) and STA 6166 (or equivalent)

## **Course Outcomes:**

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

- Discuss and explain central concepts in fish trophic ecology
- Critically evaluate the primary literature on trophic ecology of fishes
- Apply metrics and models of trophic dynamics to interpret feeding ecology of fishes

## **Course Communication:**

Course information will be posted on our Canvas site and allow you day-to-day access to modules, the discussion board, assignments, and grades. All due dates will be posted on our Canvas site. Information on how to use the Canvas site can be accessed at: <http://elearning.ufl.edu/>

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## Course Format:

This course is offered for 3 credits in the Spring semester of odd years. It consists of 13 modules with associated activities. Each module has one or more narrated PowerPoint lectures in combination with a weekly assignment that is either: 1) a written review of a journal article; 2) a group discussion of a journal article posted to an online discussion board; or 3) a homework exercise applying the methods and metrics discussed in the lectures. There are no formal exams in this course.

Please note: The modules, reviews, group discussion boards, and lab exercises have a weekly schedule of completion so that everyone progresses through the course sequentially and everyone is able to contribute significantly to the group discussions.

## Primary Literature Reviews:

A selected journal article from the primary, peer-reviewed literature will be posted to our Canvas site, along with a review assignment based on this paper. The review assignment is based on discussing 2-3 directed questions on the methods used, interpretation of the results, biases introduced, etc., rather than a summary of the entire paper. Reviews average around 3 double-spaced pages (with a maximum of 5 pages). There will be 4 reviews worth 25 points each.

## Group Discussion:

A selected journal article from the primary, peer-reviewed literature will be posted to our Canvas site and will act as a focal point for a group discussion on our online bulletin board. Each student is expected to participate fully by contributing to the ongoing discussion board a minimum of three times during the open comment period. Your grade for each group discussion will be based on the level of your contribution to the discussion thread, with quality preferred over quantity of postings. For example, responding to a point posted by another student or starting a new thread of questioning will facilitate the discussion, but re-stating the same point that another student has already posted will not add to a constructive discussion. I will periodically be injecting points as well to move the discussion forward. There will be 5 discussion threads worth 20 points each.

## Homework Exercises:

Several modules will have lab exercises associated with them that require calculations and interpretation of data. Students will work through the exercises and upload their responses online as a written document. There will be 5 homework exercises worth 20 points each.

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## Course Grading:

<u>Activity</u>	<u>Points</u>
Primary Literature Reviews.....	4 @ 25 pts
Discussion Threads .....	5 @ 20 pts
Homework exercises.....	5 @ 20 pts
Total.....	300 pts

**Late Assignments:** Review and homework assignments that are posted to our Canvas site later than the due date and time will be decreased by 10% per day (any portion of 24 hr after the due date, and thereafter). The group discussion bulletin board will close on the due date and time and therefore no additions can be made after it closes. If you have a legitimate reason (e.g., jury duty, etc.) for having a late assignment then please contact me before it is due so that we can work out an alternative arrangement.

<b>Grade</b>	<b>%</b>	<b>Points</b>
A	93-100	279-300
A-	90-92.9	270-278
B+	86-89.9	258-269
B	82-85.9	246-257
B-	78-81.9	234-245
C+	74-77.9	222-233
C	67-73.9	201-221
C-	63-66.9	189-200
D+	59-62.9	177-188
D	55-58.9	165-176
D-	51-54.9	153-164
E	<51	<153

## Recommended Text:

There is no required texts for this course. Reviews and discussion boards will be based on papers from the primary literature.

## 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 it 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."

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All students are expected to follow the University of Florida Honor Code.

## **UF Counseling Services:**

Resources are available 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; [www.counsel.ufl.edu](http://www.counsel.ufl.edu) ([Links to an external site.](#))
2. Student Mental Health, Student Health Care Center, 392-1171, personal counseling; [www.shcc.ufl.edu/smhs/](http://www.shcc.ufl.edu/smhs/) ([Links to an external site.](#))
  - a. Alcohol and Substance Abuse Program (ASAP)
  - b. Center for Sexual Assault / Abuse Recovery & Education (CARE)
  - c. Eating Disorders Program
  - d. Employee Assistance Program
  - e. Suicide Prevention Program
3. Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, sexual assault counseling; and
4. Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling; [www.crc.ufl.edu/](http://www.crc.ufl.edu/) ([Links to an external site.](#))

## **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.*