

Controversy in Fisheries Science EVPP 991: Syllabus Fall 2021

Meeting Time: M 4:30-6:20 PM

Location: Enterprise Hall 77

Instructor: **Dr. T. Reid Nelson**, tnelso3@gmu.edu
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Office hours: Wednesdays 1:00 – 3:00 pm and by appointment



Course Web Site: Go to <http://mymason.gmu.edu>, log in with your Net ID and password and then select EVPP 692/991 Controversy in Fisheries Science.

Course Description and Goals: Our course is an overview of the current controversies in fisheries science. We will begin with discussions about fisheries sustainability and whether our oceans are being depleted to unrecoverable levels. Next, we will move into various fisheries management strategies, highlighting tactics that have been utilized to prevent overfishing and bolster fisheries populations. We will discuss a case study from the Chesapeake Bay to highlight how management decisions may outpace research, but need to be reassessed as new scientific information comes to light. Finally, we will close with the state of global fisheries and discuss the future of fisheries in a changing world. I have selected discussion topics that have opposing views from top fisheries scientists, and encourage you all to think critically about these issues forming your own informed opinions. As the course name suggests these topics are controversial and provide a platform for friendly academic debate. After the course, you will be familiar with current controversies in fisheries science and approaches to regulate and manage fisheries, from single species to ecosystem-based fisheries management. This course will advance your critical thinking, scientific communication, presentation, and discussion skills.

Course Content and Instructional Methods: Given that this is a seminar course, the main backbone of this course will be the in-class discussions of the assigned scientific papers and controversies. These topics are engaging and pertinent to conservation of our valuable marine resources as well as ensuring that the world is fed both now and in the future. As such, I am certain that everyone will be engaged, well read, and ready to discuss the topics during each class period (50% of grade). To build scientific communication skills, students will give two 15-20-minute presentations during the semester and be the discussion lead for the corresponding class period (20% of grade). You will get to pick the two controversies that you are most interested in (by the 2nd week of class) and I will provide the seminal paper for each controversy for those weeks. In addition to the papers that I provide, you will assign two additional papers during your lead weeks, one on each opposing side of the controversy. On weeks without a student lead I will provide all three papers for reading. In instances where there are multiple short comments and responses on a single paper, we may have a bit more assigned readings, but they will be short communications, and need to be approved by me prior to assignment. On many of these controversies there are tomes of literature and I encourage you to look into papers outside of the assigned readings as well. To help with discussion preparation, you will bring a short summary of assigned papers and the current controversy (< 1 page) to me each week (10% of grade) that you are not the discussion lead. Finally, each of you will choose one of your discussion lead controversies to delve deeper into with a term paper, based on the peer reviewed literature (20% of grade). We will read a good example of a term paper for the 2048 controversy in the second week that you all may use as a template. I do not like to impose length limits on papers, instead I hope that you all will demonstrate a

thorough knowledge and complete synthesis of the topic you choose. However, a good rough range would be between 10 – 20 pages double spaced with at least 20 citations from the primary literature.

Grading	EVPP 991
Participation	50%
Presentations/Discussion Lead	20%
Weekly Summaries	10%
Term Paper	20%

Weekly Controversies

Week	Date	Topic
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| 1 | 8/23 | Intro to Class, Critical Thinking, History and Principals of Fisheries Management |
| 2 | 8/30 | The 2048 Prediction (instructor presentation and discussion lead) |
| 3 | 9/6 | Labor Day Holiday (No Class) |
| 4 | 9/13 | Fishing down marine food webs, is it pervasive? |
| 5 | 9/20 | Have large predatory fishes declined by 90%? |
| 6 | 9/27 | Is more than half the ocean fished each year? (Nikita Lad) |
| 7 | 10/4 | Marine Protected Areas, do they work? (Kiel Stone) |
| 8 | 10/12 | Ecosystem vs. Single Species Management (Jazmin Golden) |
| 9 | 10/18 | Should fisheries involve balanced harvesting? (Nikita Lad) |
| 10 | 10/25 | Catch share fisheries |
| 11 | 11/1 | The science of Seaspiracy (Rotating class b/c of baby Nelson!) |
| 12 | 11/8 | Aquaculture in fisheries management (Kiel Stone) |
| 13 | 11/15 | Will global warming cause shrinking fish? |
| 14 | 11/22 | Shark/Cownose Ray, trophic cascade |
| 15 | 11/29 | The state of global fisheries and the future of fisheries in a changing world (instructor presentation, no weekly summary due) |

The last day of class is 11/29. There is no final exam for this course, but term papers on the controversy of your choosing are due on this date.

There is no assigned textbook for this course. However, in addition to the papers we will cover in this course, much of the material from this course has been adapted from the below website and I encourage everyone to check this site out and the corresponding tabs!

<https://sites.google.com/a/uw.edu/most-cited-fisheries/fisheries-controversies>

Honor Code: Mason is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process (see below for the student pledge). In this course the honor code applies as follows, when you are responsible for a task, you will perform that task. When you rely on someone else's work in presentations, discussions, or written assignments, you will give proper citation to that work in the acceptable format. Another aspect of academic integrity is the free play of ideas. Given that this is a discussion-based course, I welcome vigorous discussion and debate in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

Student Pledge: To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University Community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set for this Honor Code: Student Members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

Gender identity and pronoun use: If you wish, please share your name and gender pronouns with me and how best to address you in class and via email. I use he/him/his for myself and you may address me as Reid or Dr. Nelson in email and verbally.

Safe Return to Campus Statement: First of all, I want to address that these are new and uncertain times for everyone. Over the course of the pandemic, I have dealt with my own anxiety and stress management issues and strongly encourage everyone to practice good self-care and try to consciously maintain a healthy mental state. For anyone that is feeling anxious or overwhelmed by the return to campus, the state of the world in general, or any other issues, please reach out to the CAPS center and seek help as needed <https://caps.gmu.edu/covid19/>. Speaking from personal experience, talking to someone and getting strategies to maintain good mental health can be paramount to our well-being, happiness, and intellectual pursuits.

All students taking courses with a face-to-face component are required to follow the university's public health and safety precautions and procedures outlined on the university Safe Return to Campus webpage (<https://www2.gmu.edu/safe-return-campus>). Similarly, all students in face-to-face and hybrid courses must also complete the Mason COVID Health Check daily, seven days a week. The COVID Health Check system uses a color code system and students will receive either a Green, Yellow, or Red email response. Only students who receive a "green" notification are permitted to attend courses with a face-to-face component. If you suspect that you are sick or have been directed to self-isolate, please quarantine or get testing. Faculty are allowed to ask you to show them that you have received a Green email and are thereby permitted to be in class. Students are required to follow Mason's current policy about facemask-wearing. As of August 11, 2021, all community members are required to wear a facemask in all indoor settings, including classrooms. An appropriate facemask must cover your

nose and mouth at all times in our classroom. If this policy changes, you will be informed; however, students who prefer to wear masks either temporarily or consistently will always be welcome in the classroom.

Absenteeism Policy: Please inform me in advance if you will be absent from class due to sickness or other reasons. We will work to ensure that you can participate remotely or complete an assignment in lieu of discussions as needed.

Disability Accommodations: Disability Services at George Mason University is committed to upholding the letter and spirit of the laws that ensure equal treatment of people with disabilities. Under the administration of University Life, Disability Services implements and coordinates reasonable accommodations and disability-related services that afford equal access to university programs and activities. Students can begin the registration process with Disability Services at any time during their enrollment at George Mason University. If you are seeking accommodations, please visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email:ods@gmu.edu | Phone: (703) 993-2474.

Sexual Harassment, Sexual Misconduct, and Interpersonal Violence: George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote community well-being and student success. We encourage students and employees who believe that they have been sexually harassed, sexually assaulted or subjected to sexual or interpersonal misconduct to seek assistance and support. University Policy 1202: Sexual Harassment and Misconduct speaks to the specifics of Mason's process, the resources, and the options available to students and employees.

Notice of mandatory reporting of sexual or interpersonal misconduct: As a faculty member, I am designated as a "Non-Confidential Employee," and must report all disclosures of sexual assault, sexual harassment, interpersonal violence, stalking, sexual exploitation, complicity, and retaliation to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-993-3686 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance or support measures from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.