

**Management of Wild Living Resources
EVPP 622 – 001 Spring 2020**

Preliminary Course Syllabus Part I
(See also Syllabus Part II, Guide to Citations and References)

Instructor: Professor Lee M. Talbot

Teaching Assistant: Cheryl Rash Jones (last name = Rash Jones. No hyphen)

Class Meets: 6-10 pm, January 9, 10, 13,14,15: Innovation 328, Fairfax Campus, GMU
6-10 pm, March 9, 10, 11, 12, 13: Innovation 328, Fairfax Campus, GMU
6-10 pm, date TBD session in May: location TBD, Fairfax Campus, GMU

To Contact Instructor:

Office: 3048 David King Hall

Office Hours: by appointment, normally on class days, but if this is not possible I will be happy to arrange other times and places to meet students' schedules.

Telephone: (703) 993 4037; I do not check this number too frequently. In case of really urgent matters only, call 703 734 8576.

E-Mail: ltalbot@gmu.edu

Fax: 703 734 8576

To Contact Teaching Assistant Cheryl Rash Jones:

Office: I don't have an office, but am happy to meet in the Johnson Center or elsewhere.

Office hours: by appointment, normally afternoons before class; other times possible.

571 205 3654 (cell phone) If you text me, be sure to let me know who you are.

E-Mail: crashjon@gmu.edu

Course Website (Blackboard): Go to <http://mymason.gmu.edu>. Log in using your Blackboard (Bb) user ID and password. (NOTE: Although this is the same user ID that you use for accessing your email account, it is not the same password.) Then click on the courses tab near the top, and choose EVPP 622 from the menu on the side. Course content - including the syllabus, many readings, and assignments - can be accessed from the links on the menu to the left of the screen. If you are having trouble accessing files, check to make sure that your pop-up blocker is disabled, or that you have added this site to your list of trusted sites.

Please let Cheryl know (crashjon@gmu.edu or 571-205-2654), if you have any problems accessing or using this site. Mozilla Firefox and Google Chrome internet browsers work well with Blackboard. Both are free to download and use.

Files will be uploaded to Bb for your use (Syllabus Parts I & II, readings, etc.) and may be updated during the semester. The schedule for discussion leaders and presentations will be announced in class and posted in Bb. If you are using a PowerPoint for your presentation, please bring a copy to class on a USB drive; you may also email it to yourself (not the professor or TA) as a backup. Please also upload your presentation to Bb.

General Policies:

Contract: This Syllabus is in effect a contract between the instructor and the students - read it well – know it well - so you will know what we expect of each other. Failure to follow the instructions in the syllabus will lead to reduced grades.

Prerequisites: A minimum of 8 hours of graduate course work with graduate courses in environmental science including ecology, and environmental or public policy. In practice this means a minimum of one year of graduate course work. If you do not have the prerequisites you must get the instructor's approval.

Attendance: You are expected to attend every class session and to be there on time. If you have a legitimate excuse for missing a class or being late please let Professor Talbot and Cheryl know, in advance if possible. Unexcused absences or lateness will result in a lowered grade.

Submit dates: The date and time for submitting topics, preliminary statements of papers, case study papers, tests, etc., will be clearly stated. Unless you have cleared with Professor Talbot in advance with a really good reason for delay, late submissions will not be accepted.

Disabilities: If you are a student with a disability and you need academic accommodations, please see Dr. Talbot and contact the Office of Disability Services (ODS) at 703 993 2474. All academic accommodations must be arranged through the ODS office: <http://ods.gmu.edu>.

1. Objective of the Course and Overview:

The principal objective is to provide students with a broad overview of the management of wild living resources and an understanding of the scientific and policy issues involved. The course will provide an understanding of what management of wild living resources involves, what is the present status of the resources which are being managed, what are the factors that have led to the present situation, including how and why management has evolved, and what may be required to achieve more effective and sustainable management. This is not a “how to” course on management of a particular resource.

Wild Living Resources are free-living terrestrial and aquatic animals and plants. They include marine and freshwater fisheries, terrestrial wildlife, forests, and rangelands. These are resources of great economic, ecological, nutritional, social, and scientific value. Yet in the face of expanding human numbers and activities, most such wild living resources have been or are being depleted. This is true both for resources managed for consumptive purposes (such as fisheries, hunting, lumbering), and for non-consumptive purposes (such as national parks, tourist viewing, and protection of endangered species).

There are several reasons for this situation. Some of the past exploitation of wild living resources has not involved *management* in the strict or scientific sense of the word. Where management has been attempted, a single-species approach usually has been adopted as the basic concept, even though such an approach is widely recognized by scientists as inappropriate, in part because it does not take the ecosystem into account. In almost all cases there is incomplete

basic scientific knowledge, yet there appears to be adequate knowledge to provide the basis for substantially more effective management if the knowledge was more effectively applied. In many cases there is insufficient integration of scientific knowledge into management, and in most cases there are insufficient links between existing biological/ecological knowledge and the socio-economic factors that drive the management. To achieve sustainable management of these resources, and where appropriate, to achieve their recovery, is a major worldwide environmental challenge which will require major revision of many present forms of management.

The management of each type wild living resource – for example, wildlife, range, fisheries, and forests – represents a separate discipline, each of which has its own set of sub-disciplines. Each of these disciplines has its own scientific and management literature, policies and institutions, professionals and professional societies, education and training. Each is the subject of many academic courses.

This course does not seek to duplicate these or cover the same ground in detail. Instead, the objective of this course is to provide students with a broad overview of the management of wild living resources and an understanding of the scientific and policy issues involved.

2. Course Content:

Among the concepts and topics to be considered are:

Wild Living Resources

“Wild” - Definition and considerations.

“Living Resources” - Definition, characteristics and considerations:

Marine

Mammals, Fishes, Invertebrates, Plants

Freshwater

Fishes, Invertebrates

Terrestrial Animals

Vertebrate, Invertebrate

Terrestrial Plants

Forests, Range, Others

“Resources” - Definitions and considerations

Present Status of the Resources

Sustainability, Conservation and Management

Definitions, Factors included.

Considerations of Sustainability

Management objectives

Increase, Decrease, Continue Yield, Leave it Alone

Fundamental Decisions

Goal of management - value judgment

Options for Management - technical judgment

Actions to achieve management - technical judgment

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Reasons for management of wild living resources

Consumptive - food, other resources, related economic considerations.

Recreation

Conserve biodiversity

Control pest species

Rationale for management of wild living species

Utilitarian

Aesthetic

Moral

Ecological

Present Status of Management

Management of Aquatic Living Resources

Marine Resources

Freshwater Resources

Principles Applied

Myth of Maximum Sustainable Yield

Policy, Law and Institutions Involved

Current Status

Terrestrial Vertebrate Resources

Principles Applied

Species Management

Habitats - Ecosystems Management

Historical Overview of Management Approaches

Policy, Law and Institutions Involved

Current Status

Rangeland Resources

Nature, Characteristics, Distribution

Composition

Principles involved; rangeland dynamics

Grazing/Browsing

Fire

Management Approaches

Current Status

Forest Resources

Nature, Characteristics, Distribution

Composition

Principles involved.

Lumbering

Other forms of clearance

Policy, Law and Institutions

Current Status

Other Resources

Types

Nature, Characteristics, Distribution

Management Involved

Current Status

Overview

Past Management Paradigms

New Perspectives

Role of Economics and the Political Process

Role of Science

Uncertainty

Where are we now?

Where do we go from here?

3. Texts:

The principal texts will be:

Fryxell, John M., Anthony R.E. Sinclair, and Graeme Caughley. 2014. *Wildlife Ecology, Conservation and Management*. 3rd Ed. Wiley Blackwell Publ. Paperback ISBN-13: 978-1-1182-9107-8; ISBN-10: 1118291077 [GMU Bookstore]

Weber, Michael L. 2002. *From Abundance to Scarcity*. Island Press. 245pp. Paperback ISBN-13: 978-1559637060; ISBN 10: 1-55963-706-4 [GMU Bookstore]

Levin, Simon. (ed.). 1996. *Conservation of Wild Living Resources. Forum. Ecological Applications 6(2):337-372. [on Bb]*

Talbot, Lee M. 1996. *Living Resource Conservation: An International Overview*. U.S. Marine Mammal Commission Monograph. [on Bb]

Other reading will be assigned. Required reading other than books (journal articles & monograph) will be posted to Blackboard.

4. The Approach to Learning in this Course; Instructional Methods:

This course approaches its objectives through:

1. Providing students with **substantive information and understanding** about Management of Wild Living Resources;
2. Fostering **critical thinking**; and
3. Promoting **effective oral and written communication**.

Critical thinking implies independent analysis of the issues. Students are expected to ask themselves (or the class or professor as appropriate) questions such as “is this statement or analysis true?” “How do I know it is true?” “Are there other factors involved?” “Given the facts, do I reach the same conclusion?” “Is this statement based on scientific research, personal opinion, advocacy, hearsay, faith, or what?” Simply accepting and repeating what someone else has written or said is not critical thinking, and it can lead to repeating past mistakes.

Effective oral and written communication: A person’s success in almost any career is determined very largely by that person’s ability to communicate. This principal applies especially to environmental, policy, scientific and other academic careers. Consequently, there will be strong emphasis in this class on effective **oral and written communication**. To be successful in this class students must -- or must quickly learn to -- communicate effectively.

While this is a course, not a seminar, lectures will only be a part of the course process. The subject of the course will be explored and developed through active class discussions as well as through the case histories. The only way students can contribute to the class discussions is to discuss, i.e., participate. Consequently, there will be very strong emphasis on active and effective **participation** in class discussions, not only during the paper presentations and discussion periods following these presentations but also throughout all the other class periods. 20 per cent of your grade is based on participation (other than discussion leading and case history presentations), so the message is, don’t sit quietly.

At the same time, talking for the sake of talking also is counter-productive. What students say shows what they know and how they are thinking, and especially whether or not they are applying critical thinking to the subject. So lots of talk with little substance is not the way to contribute to class discussions or to improve grades. In all class discussions students are expected to raise their hand to be called on if they wish to speak. All students must have the chance to speak if they wish to; consequently students who have spoken once will not be called upon until all others who wish to speak have been called upon.

I recognize that many people do not feel that they are born communicators. Many of us feel that we are not naturally articulate and find it difficult to speak in front of class. If a student has trouble or needs assistance, Cheryl and I will be happy to try to help. Let us know; we can meet and discuss it and see what we can do. But don’t just sit quietly.

5. Case Study Presentation and Paper:

During the semester each student will prepare a case study. Thirty five percent of a student’s grade – and a particularly important part of the learning from this course – comes from the case studies and associated presentation. For their case studies each student is expected to choose an example of management of wild living resources, illustrating the central themes of this course, and to prepare a paper and oral presentation and defense of it. The topic should be one which allows the student to address both the scientific and the policy perspectives of management of wild living resources.

The purpose of case studies is to explore in detail the different dimensions of the management of wild living resources, and through this gain in-depth understanding of one part which then provides perspective on whole subject.

Subject and Content of the Case Study:

The case study should involve one species or group of species of wild living resources which has been (or is being) managed for consumptive or non-consumptive purposes. The study should be based on review of the relevant literature and, where practical, also on consultations with key individuals and organizations. The study should: (1) describe the resource and management involved; (2) describe the present status of the species or group involved; (3) provide relevant history or background; (4) analyze the management activities and other factors which have led to the present status; (5) assess the success of the management to date, especially from the standpoints of the original management objectives and the sustainability of the management; and (6) where the results of the management have been less than successful, describe what could have been done to achieve success and make recommendations on how to better assure success in such management in the future; where the results of the management have been successful, discuss the key elements which contributed to that success and make recommendations, if appropriate, for ways to improve the process.

The studies must explicitly address how the subject illustrates or relates to the central themes of the course. There should also be consideration of whether or not the case history applies to other types of management and other types or groups of living resources. The subject and content of the papers will be discussed in further detail in class. If a student has questions about what is relevant for a case study subject I will be happy to discuss them.

Students should obtain the instructor's approval for the subject of their case history by the third class session by email, telephone or in person.

A brief statement of the approved subject with a preliminary list of references should be turned in by the fourth class. The statement can be one or more paragraphs, not more than one page double-spaced, and the references are initial or preliminary, not the final bibliography, since, hopefully, additional references will be found as the student proceeds with the study. The references should be in the form specified by Part II of this Syllabus.

Oral Presentation

All students will give an oral presentation of their case study, followed by a class discussion/question and answer period. The oral presentation will be a maximum of 30 minutes, followed by up to 20 minutes of class questions and discussion. The presentation can be illustrated, for example, with slides, overheads, or computer-generated displays. Each presentation should be accompanied by a handout – a written outline with bibliography. The presentations should be of the type and quality for submission at a professional, scientific, or academic conference or symposium. Following their presentation of the case study the students will chair a question and answer period. They should be sure to call on everyone who wishes to speak, who has not spoken before, prior to calling on someone who already has spoken.

Written Paper

All students will also prepare a written paper on their case study. This should be a minimum of 15 pages, maximum 17 pages, single sided, double spaced, Times New Roman 12 pt. font, plus references. The style should be guided by appropriate journals. Number the pages, and put your name on each page. All papers must have an abstract as part of the text, and a proper bibliography with all references correctly cited in the text. Read and follow the guide to citations and references in Part II of this syllabus. The most common errors I find in case study papers are in the citations and bibliographies. The bibliography documents where a student found the information and cites the authority for opinions or hard data in the text; it indicates how thorough the student has been in his or her research; and it shows that the student knows how to use and cite sources – which is absolutely basic for professional research and writing. The paper should be the type and quality for submission to a professional or scientific journal. Each student will submit a hard copy of their paper that will be graded and returned, and post an electronic copy to Blackboard (in document format) that can be submitted to the available plagiarism software.

Note that while some references from the internet are scientifically valid, the vast majority are not and many web references are ephemeral. Consequently, no more than 30 percent of the references cited for a term paper should be from the internet. Electronic copies of peer reviewed journal articles and federal and state legislation accessed via the internet are not counted in the 30% guideline. If in doubt, ask me.

A digital copy of the case study submitted to Blackboard, and a hard copy submitted to Professor Talbot, are due by the date listed in the schedule below at the latest. Earlier submissions are accepted and welcome.

If students provide a self-addressed, stamped envelope we will mail back your graded papers. Otherwise they will be available in the students' pickup box in the ESP Department office in King Hall, at a time to be announced.

6. Midterm Examination and Final Quiz:

There will be a comprehensive take-home, closed book examination given near the middle of the term, and a shorter take-home quiz near the end of the term. They will include instructions on when and how to return the answers. Professor Talbot will acknowledge receipt of answers by email. If he has not done so within three days after the due date, please contact both him and Cheryl by email.

7. Text Discussion Leaders:

There will be reading assignments from the text books and from other sources. Students will serve as leaders for class discussion (30 min. ea.) of some reading assignments. From the assigned reading they will identify key issues and subjects which they believe should be considered by the class, and they will lead the class discussion on that part of the text material. The discussion leader may highlight some key points, but most of their time should be spent in discussion by class members. Although an assigned student leads the discussion, every student is

responsible for having read and being able to discuss the reading assignment. Each student will be expected to serve as discussion leader at least once during the course. In addition to assigned readings, each student will find a journal article (relevant to this class) for which you would like to serve as discussion leader. Leading discussions will account for 10% of the grade.

8. Basis of Grading

| | |
|---------------------------|-----|
| Leading Class Discussions | 10% |
| Other Participation | 20% |
| Paper | 25% |
| Presentation & Q&A | 10% |
| Mid Term Exam | 25% |
| Quiz | 10% |

Grading Scale

| | | | |
|----|----------|----|---------|
| A+ | 98 - 100 | C+ | 77 - 79 |
| A | 94 - 97 | C | 74 - 76 |
| A- | 90 - 93 | C- | 70 - 73 |
| B+ | 87 - 89 | D | 65 - 69 |
| B | 84 - 86 | F | <65 |
| B- | 80 - 83 | | |

The major criteria for grading the **papers** include content, i.e., the substance including adequacy of references; responsiveness to the instructions in this syllabus (especially pages 6-8); knowledge and understanding of the subject; quality of analysis and critical thinking applied; organization and presentation, including use of English; writing style, and treatment of references.

Criteria for grading the **oral presentations** include the same factors plus oral presentation effectiveness, visuals and handout, time management, and handling of the question and answer period following the presentation. Among other things, the question and answer periods provide further indication of the students' knowledge and understanding of the subject and ability to communicate.

The criteria for grading **discussion leaders** include identifying and understanding key issues, critical thinking, communication skills including presentation style, time management, and most important, how effectively the class is brought into the discussion.

9. Résumés:

Since a major purpose of this course is to explore the different dimensions of the subject by class discussions, the experiences and (where appropriate) professional knowledge of the members of the class can contribute significantly. Consequently, please provide a brief (two-

page or so) résumé by the start of the second class at the latest. It can be sent by email, fax, or brought to class. The résumé can be one that already exists or it can be prepared for the class, and it should include telephone number (home and work), mailing and email addresses.

10. GMU Policies

GMU Email Accounts

Students must use their Mason email accounts to receive important University information, including messages related to this class. See <http://masonlive.gmu.edu> for more information. GMU requires students to utilize the GMU email system. You can set up this email to forward to a different email address. Your GMU email address will be used for all contact regarding this course

Academic Integrity: GMU is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously, and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged 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. For information on Plagiarism please visit: <http://writingcenter.gmu.edu/?p=499#more-499>

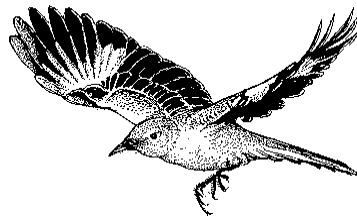
Other Useful Campus Resources:

Writing Center: Robinson Hall B 213; (703) 993-1200; <http://writingcenter.gmu.edu>
University Libraries "Ask a Librarian": <http://library.gmu.edu/mudge/IM/IMRef.html>
Counseling and Psychological Services (Caps): (703) 993-2380; <http://caps.gmu.edu>

University Policies

The University Catalog, <http://catalog.gmu.edu>, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at <http://universitypolicy.gmu.edu/>. All members of the university community are responsible for knowing and following established policies

Cell phones: As a courtesy to your classmates, professor and guest speakers, please turn your cell phone off during class. If you are experiencing a medical or family situation where you need to receive an incoming call, please let us know, mute the ring on your phone, and feel free to exit the class to receive your call.



11. Provisional Course Schedule

This is a provisional schedule, subject to change.

| Date | Content |
|---|---|
| Thur., January 9 | Introduction and overview of the course. Lecture and class discussion. |
| Fri., January 10 | Lecture and class discussion. Résumés due. |
| Mon., January 13 | Lecture and class discussion. Case study topics should be approved. |
| Tue., January 14 | Lecture and class discussion. |
| Wed., January 15 | Review of course to this point. Lecture and class discussion. Take-home Midterm Exam distributed Case Study Description & preliminary references due. |
| Wed., January 22 | Take-home Midterm Exam due by 11:59 pm (email & Blackboard) |
| Fri., January 31 | Proposed Discussion articles due by email |
| Mon., March 9 | Lecture: Presentation tips & expectations Discussion of Midterm results Article Discussions |
| Tue., March 10 | Case Study presentations (slides due to Blackboard beforehand) Article Discussions |
| Wed., March 11 | Guest Speaker: Dr. Al Sample (Article Discussions?) |
| Thur., March 12 | Case Study presentations (slides due to Blackboard beforehand) Article Discussions |
| Fri., March 13 | Case Study presentations (slides due to Blackboard beforehand) Article Discussions Quiz distributed |
| Fri., March 20 | Quiz due by 11:59 pm (email & Blackboard) |
| Fri., April 24 | Case Study papers due by 11:59 pm (email & Blackboard) |
| Fri., May 1, 7:20-10 pm LOCATION TBD | Discussion of quiz results. Quizzes and papers returned. Course wrap-up. |