

WILDLIFE 321 -- PRINCIPLES OF CAPTIVE WILDLIFE MANAGEMENT
SYLLABUS -- FALL SEMESTER 2019

INSTRUCTOR: Dr. Shelli A. Dubay, Ph.D.; TNR 325 (346-4178); e-mail: sdubay@uwsp.edu. Hours: Mon., Fri. 11:00 am – 12:00 pm and by appointment.

OBJECTIVES: At the end of the course, students should be able to 1) Identify uses of wild animals for human purposes, 2) Explain issues relating to humane treatment of wildlife, 3) Give examples of how captive wildlife contribute to conservation efforts, research, economics, recreation and education, 4) Explain relationships between confinement and diseases, nutrition and behavior, and 5) Understand legislation and regulations relating to the housing, transport and capture of wild animals. This class also provides a foundation for the Captive Wildlife Techniques class and internship involving captive wildlife.

ATTENDANCE POLICY: **Material and class attendance are your responsibility. Students are responsible for and may be tested on all information presented in lectures, discussions, and assigned readings.** Numerous absences in this class will reflect negatively on your performance as much material is presented only in lectures. You may be expected to attend occasional lectures or trips outside of the regularly scheduled class meeting time. Arrangements to make up exams should be made as soon as possible and are the student's responsibility.

GRADING: Three exams worth 100 points each, a term paper worth 50 points and class participation and attendance worth 50 points. The final exam will be comprehensive. Exams consist of essay, short answer, matching and occasional True/False questions. You can track your grade in Canvas.

LECTURES: Class will meet at 11:00 T, R in TNR 255. You are expected to come prepared to discuss assignments and actively participate in discussions. Exams will be based partly on material covered in our discussions, so excessive absences will lower your grade substantially.

READINGS: Hosey, G., V. Melfi, and S. Pankhurst. 2013. Zoo animals, behavior, management, and welfare, second edition. Oxford University Press, Oxford, United Kingdom, 643 pp.

Grading scale

Grade	%	Grade	%	Grade	%
A	92+	B-	80-82	D+	67-69
A-	90-92	C+	77-79	D	63-66
B+	87-89	C	73-76	D-	60-62
B	83-86	C-	70-72	F	≤59

TOPICAL OUTLINE AND **TENTATIVE** SCHEDULE

DATE	TOPIC	READING
Sept 3	Intro, Roles of Captive Wildlife	Chapter 1, handouts
Sept 5	Ethics of Captive Wildlife	Section 2.6, Ch. 7
Sept 10	Pain	Box 7.1
Sept 12	Wildlife rehabilitation – Mandy Kamps	Handouts
Sept 17	Animal Identification	5.1 – 5.5
Sept 19	Animal Learning	Pages 77 – 86, 13.4
Sept 24	Activity budgets, Stress and behavior	Box 7.2, 7.3.2, 7.3.3, 8.3
Sept 26	Behavior continued	Sect. 4.3 – 4.5
Oct 1	Exam I	
Oct 3	Animal Behavior and Enrichment	Ch. 8
Oct 8	Enrichment and Play	Ch. 8
Oct 10	Preventative Medicine	11.4
Oct 15	Diseases	11.5
Oct 17	Catch up	
Oct 22	Feeding ecology and Gastrointestinal Tracts	12.1
Oct 24	Nutrition and dietary requirements	12.2, 12.4, 12.8
Oct 29	Conclude Nutrition	12.8
Oct 31	Exam II	
Nov 5	Reproductive biology/endocrinology	9.1 – 9.4
Nov 7	Signs of parturition	9.1.5, 9.3
Nov 12	Studbooks and SSPs	9.7
Nov 14	Conservation Strategies, Legislation (PAPERS)	Sections 3.2, 3.5, 3.6
Nov 19	Conservation Genetics I	handouts
Nov 21	Conservation Genetics II	handouts
Nov 26	Black-footed ferrets - Travis Livieri	handout
Nov 28	No class	
Dec 3	Guidelines – using ZAA as an example	Guidelines
Dec 5	Regulations – Mandy Kamps	Handouts
Dec 10	Catch up	
Dec 12	Final exam review	
Dec 18	Final Examination	2:45-4:45 pm

I will be using Canvas. You will be able to track your grade in the course and obtain information from me as well.

Learning Outcomes for Wildlife 321

Students completing the course will:

Be familiar with concepts involved with animal welfare, including

- pertinent definitions
- issues relative to animal “rights”

Be able to relate aspects of animal behavior to captive animals, including:

- critical distances
- list and describe abnormal behaviors observed in captive wildlife
- define enrichment and apply the concept to minimize behavioral problems

Describe in detail how reproduction and behavior impact management of captive wildlife

- description of mating systems
- hormonal cycles associated with reproduction
- timing of breeding and parturition
- breeding, post-partum, brooding, and parental care
- conservation genetics concerns

Describe conservation strategies, including

- how genetics, data management, and demographics relate to captive breeding strategies

Describe nutritional provisions for wildlife in captivity, including

- listing essential nutrients and their role in proper function of the organism
- contrasting how trophic levels relate to providing proper nutrition in a captive setting
- list nutritional deficiencies and other problems common in captive settings
- discuss management techniques designed to avoid nutritional problems

Describe how management facilities cope with diseases in captive animals, including

- management techniques to prevent and contain diseases
- listing types of cleaning agents and their properties

Be familiar with legal aspects of captive wildlife management, including

- names and authority of agencies governing care and housing of captive animals
- requirements and compliance guidelines for housing and transporting animals
- basic captive wildlife regulations in Wisconsin

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- A. Select a topic concerning captive wildlife in general, say disease importation, behavior, or ethics.....
- B. Narrow down the topic such that you can cover the basics in 8 typed pages. Here are some examples:
1. Risks for importation of viral diseases into captive facilities
Look at regulations in place (AZA, ZAA), diseases that are common problems, etc. and how you might prevent the problem in your facility.
 2. Can fish feel pain?
Give evidence on both sides of the issue, including pain receptors, brain structure, etc. and end with why you think they can or cannot feel pain.
 3. Proper environmental enrichment in primates/weasels/giraffes
List why behavioral enrichment is used, what it is, if it works, some examples of common methods, and end with what you would do if you were designing an enrichment regime at a zoo.
 4. When should captive breeding be explored as a management technique?
Many zoos have excellent captive breeding programs, list why and when this works and end with how you would work through the process if a species was identified to have only 10 or so individuals remaining in the wild.
- C. Papers must be word-processed with double-spacing using 12-font type. **Length should be no more than 8 pages, including references.** Illustrations may be additional.
- D. Use information from professional sources, such as journal articles, agency publications, or professional organization literature, not popular articles or the internet. **You must use at least 8 professional references, only 3 can be websites.**

If you **MUST** use electronic information, the sources must be legitimate professional sources and the reference should take the following form: “Author(s). Year. Title. URL. Date accessed.” For example:

Wisconsin Department of Natural Resources [WDNR]. 2016. Captive wildlife regulations and licenses. <http://dnr.wi.gov/topic/wildlifehabitat/captive.html> . Accessed September 23, 2016.

YOU MUST REFERENCE EVERY FACT IN THE PAPER.....PERIOD.

E. Grading will be based on accuracy of information, neatness of work, grammar, and writing style. Writing style should follow scientific format with the following guidelines:

1. Citations in the “Literature Cited” section should take the following form: “Author(s). Year. Title. Source.” For example:

Chitwood MC, Swingen MB, Lashley MA, Flowers JR, Palamar MB, Apperson CS, Olfenbuttel C, Moorman CE, DePerno CS. 2015. Parasitology and serology of free-ranging coyotes (*Canis latrans*) in North Carolina, USA. *J Wildl Dis* 51:664–669.

2. Literature citations in the text should be cited as Author and year (Jones 1999), NOT with footnotes. If 2 persons co-authored the paper, the citation should list both (Coleman and Witt 1986) and if more than 2 authors wrote an article, the citation should list the first author followed by “et al.”, as in (Klimstra et al. 1997). Note that in the Literature Cited section, all authors must be cited instead of using “et al.” Put citations in alphabetical order.
3. **Do not use quotes – put information in your own words.**
4. Do not use contractions – do not instead of don’t.
5. Data were....

F. **Due Date:** The polished paper is due **14 November** when you come to class.

Some sources of regulation information (AND GOOD STARTING POINTS) are:

Wisconsin’s Administrative Codes

http://docs.legis.wisconsin.gov/code/index/index/c/captive_wildlife

Wisconsin Statutes and Annotations – (See Chapter 169)

<http://docs.legis.wisconsin.gov/statutes/statutes/169>

Wisconsin DNR

<http://dnr.wi.gov/topic/wildlifehabitat/captive.html>

U.S. Fish and Wildlife Service

<http://endangered.fws.gov/>

<https://www.fws.gov/international/laws-treaties-agreements/regulations.html>

U.S. Department of Agriculture

http://www.aphis.usda.gov/animal_welfare/index.shtml

http://www.aaalac.org/accreditation/RefResources/euthanasia_2013.pdf

American Association of Zookeepers: <https://www.aazk.org/>

American Zoo and Aquarium Association: <http://www.aza.org>

Zoological Association of America: <http://zaa.org/>

American Veterinary Medical Association:

<https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>