

# WILDLIFE POLICY—WILD 410

Spring 2019, 9.30—10.50; TR; Room: Chem #102

## Instructor Information

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## Course Description

This course examines wildlife law, policy and politics from multiple perspectives. Students are provided an intense introduction to the legal framework of fish and wildlife management in the United States (with coverage of U.S. and state constitutions, key wildlife statutes, administrative regulations, and case law). The political context of wildlife management is provided so that students can better understand the conflicts and tensions in the field. A major part of the class focuses on the Endangered Species Act. This important law is used as a way to investigate a number of broader challenges and opportunities related to the conservation of biological diversity. The class is organized as a discussion-oriented large seminar with roughly thirty undergraduate students. Most sessions will include a very short background lecture followed by more in-depth class discussions on assigned readings. This is not a lecture-based course and students should feel comfortable with class discussion of readings, working independently and within groups, and engaging in class discussions and presentations.

*WILD 410 or NRSM 422 Natural Resources Policy:* There is no prerequisite for WILD 410 but students are strongly encouraged to first take NRSM 422. The latter provides a foundational introduction to the field of natural resources law and policy, with a wider focus on federal land management, water law, and the National Environmental Policy Act (NEPA). There will inevitably be some overlap between the two courses but WILD 410 is designed to provide students a more narrow and specialized introduction to policy and politics, with a focus on wildlife conservation.

## Required Reading

Eric T. Freyfogle & Dale D. Goble, *Wildlife Law: A Primer* (Washington, D.C.: Island Press, 2009)

All additional required and recommended reading and my lecture notes are available on the course's [Moodle page](#).

\*We will also discuss a number of contemporary issues in wildlife policy. An excellent way to stay up-to-date is to review stories published daily by [EE News and Greenwire](#).

## **Learning Outcomes**

Students successfully completing the course will:

1. Acquire a substantive understanding of U.S. wildlife policy
  - Learn how to read and interpret statutes, administrative regulations, and case law and understand the intersections between them and how they impact wildlife management and conservation on the ground.
  - Understand the legal and political context of U.S. wildlife policy and management
  - Understand the role played by federal, state, and tribal governments in wildlife policymaking and management
  - Understand the basis of enduring conflicts and tensions in the field
2. Be able to think critically about a number of wildlife policy problems and solutions.
  - Understand the nature of wildlife policy disputes and challenges
  - Evaluate the assumptions, strengths, and weaknesses of various reform measures and policy proposals
  - Approach problems and issues in an integrated and intellectually rigorous fashion
3. Have the ability to apply acquired knowledge to their field of study or professional/personal interest(s)

## **Assignments & Assessment**

### **Class Participation:**

I reserve the right to consider class participation and attendance when assigning final grades—a sort of tie-breaker. I will do so especially for those students who may be on the cusp of grade. A student, for example, earning a B+ or 89% in final points could possibly be bumped to an A- if he/she was a fully engaged and informed class participant that never missed a class. On the other hand, if a student rarely participated during the semester and has a shoddy attendance record, a C- score would stay a C- score. Please be fully engaged or at least try to pretend and act as though this is the most exciting and enlightening class that you have ever taken and that you never want it to end.

All students must read the reading assignments prior to class and be ready to discuss the readings on a regular basis. I am seeking input from the entire class, not just from a few committed students. If discussion is poor, unannounced pop-quizzes may be given. Therefore, it is in the collective interest of the class to participate. Any student who misses class for any reason will be held responsible for all materials covered and all announcements made during his/her absence. Do not ask me for missed handouts or about material that was covered unless you have a validated excuse. Chronic tardiness is rude and please shut off your cell phones. Given the amount of discussion expected in this course, showing respect for others is paramount and is taken very seriously. We will strive towards an engaging but respectful open forum in which numerous opinions can be discussed and explored. Personal attacks will not be tolerated.

**2 Exams (100 pts each, 200 pts total):**

There are two written exams consisting of short answer and/or essay questions (in-class or take-home). I will provide possible exam questions two weeks in advance of each exam. The midterm will be scheduled sometime during the middle of the semester (between weeks # 7-9). The final exam is scheduled for **Tuesday, April 30<sup>th</sup> @ 8.00—10.00 am**. Make-up exams will only be given for University policy-excused reasons and they will be re-scheduled at my convenience.

**3 Short Written Assignments: (20 points each, 60pts total):**

Students will be asked to write three 2-3 page written assignments or policy position papers at different points of the semester. The papers will be graded for substance and style and they will be mostly based on our assigned and recommended readings. The papers will test a student’s ability to think and write clearly, efficiently, and critically on contemporary topics in wildlife policy and politics. The papers will include a one paragraph “executive summary” that may be shared verbally with the class and serve as the basis of class discussions. The paper assignments will closely track our class presentations and group discussions.

Papers will be graded on the basis of (1) writing and style (including clarity, level of articulation, and grammar), (2) level of critical analysis, research, specificity and detail, and (3) amount of synthesis and integration of course readings and discussions. I am also looking for formal citation (whatever style you prefer, e.g., parenthetical reference, footnote, endnote, legal, etc., just make sure you are consistent throughout, citing author, title and all publication information).

**Class Presentations/Participation/Class Contributions (5 pts each, 15 pts. total):**

There will be three formal and graded opportunities for students to participate in a class discussion, debate or class exercise. Students will work with groups, in and out of class, before presentations are made. This should be an easy 15 points for those students who show up, share the workload, make an informed contribution to the class, and play well with others. However, points will be deducted if a student doesn’t prepare sufficiently and adds little contribution to the assignment.

**Grading Scale & Points:**

The following scale will be used to translate points into grades.

Grade Range	Description
93-100: A	Points  Written exams: 100pts x 2 = 200 pts Written papers: 20pts x 3 = 60 pts Class presentations: 3 x 5pts: 15 pts total Total points: 275 pts
90-92: A-	
88-89: B+	
83-87: B	
80-82: B-	
78-79: C+	
73-77: C	
70-72: C-	
68-69: D+	
63-67: D	
60-62: D-	
59- F	

## Course Guidelines and Policies

### Equal Access

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors and [Disability Services for Students](#) (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommason 154 or 406.243.2243. I will work with you and DSS to provide an appropriate modification.

### Academic Honesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the [Student Conduct Code](#).

### Plagiarism

The following is taken directly the [UM Catalog \(2015-2016\) Academic Policies and Procedures](#):

“Plagiarism is the representing of another's work as one's own. It is a particularly intolerable offense in the academic community and is strictly forbidden. Students who plagiarize may fail the course and may be remanded to Academic Court for possible suspension or expulsion.

Students must always be very careful to acknowledge any kind of borrowing that is included in their work. This means not only borrowed wording but also ideas. Acknowledgment of whatever is not one's own original work is the proper and honest use of sources. Failure to acknowledge whatever is not one's own original work is plagiarism.”

### Course Withdrawal Deadlines & Policies:

Deadline	Description	Date
To 15 <sup>th</sup> instructional day	Students can drop classes on CyberBear with refund & no “W” on Transcript	January 31, @5 PM
16 <sup>th</sup> to 45 <sup>th</sup> instructional day	A class drop requires a form with instructor and advisor signature, a \$10 fee from registrar’s office, student will receive a ‘W’ on transcript, no refund.	February. 1 - March 15 @5 PM

Deadline	Description	Date
Beginning 46 <sup>th</sup> instructional day	Students are only allowed to drop a class under very limited and unusual circumstances. Not doing well in the class, deciding you are concerned about how the class grade might affect your GPA, deciding you did not want to take the class after all, switching majors, and similar reasons are not among those limited and unusual circumstances. If you want to drop the class for these sorts of reasons, make sure you do so by the end of the 45 <sup>th</sup> instructional day of the semester. Requests to drop must be signed by the instructor, advisor, and Associate Dean (in that order) so if you pursue this request, leave sufficient time to schedule meetings with each of these individuals (generally this will take at least 3-5 working days). A \$10 fee applies if approved. Instructor must indicate whether the individual is Passing or Failing the class at the time of request.	March 16  April 26 @5 PM

### Course Readings & Class Schedule

This syllabus is very tentative and may regularly change. Bring this schedule to each class session for regular updates and additional or subtracted readings. *All readings are to be done before class.* Given time constraints, some areas may have to be sacrificed, and individual reading will have to take its place. Students must be willing to read and be responsible for material that may not be covered in class. Dates have been left open in order to increase flexibility and allow for maximum class participation and discussion. This type of open schedule, however, requires that students come to class to find out where we are and where we're going. I will inform students before upcoming sections of what readings they should pay particular attention.

**About the "Recommended" Reading:** Listed below, and found on the course moodle page, are several recommended readings. Everything not listed as recommended or background reading is required reading. The recommended readings provide a different perspective and/or a more in-depth treatment of a topic. They can also be used in preparing for exams, class presentations and written assignments. If you are having trouble with one of the required readings, be sure to try one of the recommended readings for a different way of presenting material.

**Strategic Reading:** I will make clear what readings I want you to read in depth, so that you can come to class ready to discuss the material. Some material, however, can be read more strategically, so that you can put information together as a way to prepare for the exams and the written assignments.

## TOPICS & READINGS

### **Introduction to Wildlife Law, Policy & Politics**

Primer on structure and forms of wildlife law (and the relationship between U.S. and state constitutions, statutes, regulations/rules, and case law).

Freyfogle & Goble, *Wildlife Law*, Ch. 1; pp. 305-308.

### **1. The Public Trust in Wildlife**

The public trust doctrine and applications to wildlife management; the complicated nature of state sovereign “ownership” of wildlife.

Freyfogle & Goble, *Wildlife Law*, Ch. 2. & 5 (with focus on pp. 96-107)

Michael C. Blumm & Aurora Paulsen, “The Public Trust in Wildlife,” *Utah Law Review* 6 (2013): 1437-1504.

Jeremy T. Bruskotter, Sherry A. Enzler, and Adrian Treves, “Rescuing Wolves from Politics: Wildlife as a Public Trust Resource,” *Science* 333 (2011): 1828-1829.

Recommended: The Wildlife Society, *The Public Trust Doctrine: Implications for Wildlife Management and Conservation in the United States and Canada* (Bethesda, MD: The Wildlife Society, 2010) (please skim)

Recommended: *Center for Biological Diversity, Inc. v. FPL Group, Inc.*, California Court of Appeal, 83 Cal. Rptr. 3d 588 (2008) (wind turbine operations, raptors, and the public trust doctrine in California)

### **A. The Public Trust in Wildlife and Climate Change (*Juliana v. U.S.*)**

Please spend some time watching, listening, or reading about *Juliana v. U.S.* and “Our Children’s Trust litigation,” available at <https://www.ourchildrenstrust.org/>.

Recommended: Michael C. Blumm and Mary Christina Wood, “‘No Ordinary Lawsuit’: Climate Change, Due Process, and the Public Trust Doctrine,” *American University Law Review* 67 (2017): 1-87.

### **2. The Constitutional Context of U.S. Wildlife Management**

Introduction to the U.S. Constitution’s treaty power, property clause, commerce clause, wildlife federalism, federal preemption, and the takings clause

Freyfogle & Goble, *Wildlife Law*, Ch. 6.

### **A. The Property Clause & Commerce Clause**

*Kleppe v. New Mexico*, 426 U.S. 529 (1976) (case focused on the Property Clause as it relates to wild horses and burros on federal land)

Recommended: Wild Free-Roaming Horses and Burros Act, 16 U.S.C. §§1131-1340.

Recommended: Hughes v. Oklahoma, 441 U.S. 322 (1979)

### **B. Treaty Clause (& the Migratory Bird Treaty Act & current political-legal development)).**

*Missouri v. Holland*, 252 U.S. 416 (1920) (case focused on the U.S. Constitution and the Migratory Bird Treaty Act).

Elizabeth Shogren, “Interior cancels decades-old protections for migratory birds,” [High Country News](#) (Jan. 26, 2018).

Recommended: Students interested in the details can see: Dept. of Interior, Solicitor Memo M-37050 (2017) (finding the Migratory Bird Treaty Act does not prohibit incidental take); and Letter to Secretary Zinke from former Interior leadership (Jan. 10, 2018) (finding that it does).

### **C. Federal Preemption (& Alaska wildlife management case study)**

Julie Lurman & Sanford P. Rabinowitch, “Preemption of State Wildlife Law in Alaska: Where, When, and Why,” *Alaska Law Review* 24 (2007): 145-171.

An update to the Alaska case will be provided in class but interested students may wish to see the following: Alaska; Hunting and Trapping in National Preserves, 83 Federal Register, 23,621 (May 22, 2018) and <http://wildlife.org/park-service-proposes-changes-to-alaska-hunting-regulations/>

### **D. Wildlife, Private Property, and the Takings Clause**

Freyfogle & Goble, *Wildlife Law*, Ch. 4 (and review pp. 117-121; background on Eagle Protection and Migratory Bird Treaty Acts on pp. 191-205)

*Andrus v. Allard*, 444 U.S. 51 (1979) (case focused on takings as it applies to the Eagle Protection and Migratory Bird Treaty Acts)

Recommended: *Kafka v. Montana Department of Fish, Wildlife, and Parks*, 201 P. 3d 8 (Mont. Supreme Court, 2008) (case focused on takings as it applies to operation of game farms)

### **3. Wildlife on Federal Lands**

Cases and conflicts between federal and state governments; the National Parks and National Wildlife Refuge Systems; Wildlife on multiple use lands managed by the USFS and BLM; wildlife management in federal wilderness; savings and cooperation clauses in federal statutes.

Freyfogle & Goble, *Wildlife Law*, Ch. 10.

Martin Nie, Christopher Barns, Jonathan Haber, Julie Joly, Kenneth Pitt and Sandra Zellmer, “Fish and Wildlife Management on Federal Lands: Debunking State Supremacy,” *Environmental Law* 47 (2017): 797-932. See also frequently asked questions and project briefing and media materials at <http://www.cfc.umt.edu/bolle/federal-lands-wildlife/default.php>

#### **A. Recent Political Developments (Dept. of Interior Initiatives)**

43 C.F.R. Part 24 (Dept. of Interior Policy on Fish and Wildlife Policy; State-Federal Relationships).

Secretary of Interior Memorandum on State Fish and Wildlife Management Authority on Department of the Interior Lands and Waters (Sept. 10, 2018).

Interior Order No. 3356 (2017)

Recommended: students may find it useful to skim the following two powerpoint presentations and focus on how they view federal and state powers: Kenneth P. Pitt, USDA, Office of the General Counsel, Wildlife Management Jurisdiction on National Forest System Lands (PDF powerpoint presentation, Mar. 23, 2011) and Association of Fish & Wildlife Agencies, The States: Trustees of America's Wildlife (PDF powerpoint presentation).

#### **B. The National Wildlife Refuge System**

The National Wildlife Refuge System Improvement Act of 1997, Public Law No. 105-57 (1997) (the full statute is provided and to be used as a reference as needed).

Robert L. Fischman, "The Significance of National Wildlife Refuges in the Development of U.S. Conservation Policy," *Journal of Land Use & Environmental Law*, 21 (2005): 1-22.

Wyoming v. United States, 279 F. 3d 1214 (10th Cir. 2002) (case focused on the National Wildlife Refuge System and elk management in Jackson Hole, WY) (we will use this case to return to federalism issues and discuss the role of savings clauses in federal land laws).

#### **4. Indian Tribal Rights**

Freyfogle & Goble, *Wildlife Law*, Ch. 8.

Washington v. Washington State Commercial Passenger Fishing Vessel Association, 443 U.S. 658 (1979) (focus on pp. 1-15) (U.S. Supreme Court decision focused on tribal reserved fishing rights in the Northwest)

U.S. v. Washington, 827 F. 3d 836 (9<sup>th</sup> Cir. 2016) (the latest decision on Tribal fishing rights in the Northwest, the so-called "culverts" decision focused on habitat). *See also* "13-35474 USA v. State of Washington," on [YouTube](#) (to view state and federal arguments in the culverts case)

O. Yale Lewis III, "Treaty Fishing Rights: A Habitat Right as Part of the Trinity of Rights Implied by the Fishing Clause of the Stevens Treaties," *American Indian Law Review* 27, no. 1 (2002/03): 281-311.

Recommended/discussion: *Clayvin Herrera v. State of Wyoming* (tribal reserved hunting rights case before the U.S. Supreme Court).

Recommended: Ben Goldfarb, "The Great Salmon Compromise," *High Country News* (Dec. 8, 2014) (discussing tribal fishing rights in the context of the Columbia Basin Fish Accords and the politics of salmon recovery) (pdf on moodle and also available online [here](#))

Recommended: Michael C. Blumm, "Indian Treaty Fishing Rights and the Environment: Affirming the Right to Habitat Protection and Restoration," *Washington Law Review* 92 (2017): 1-38 (an excellent overview of the litigation leading up to the 9<sup>th</sup> Circuit's culvert decision)

Recommended: Brian Upton, "Returning to a Tribal Self-Governance Partnership at the National Bison Range Complex: Historical, Legal, and Global Perspectives," *Public Land & Resources Law Review* 35 (2014): 51-145 (we will discuss the National Bison Range and co-management options in federal lands management, as they pertain to Interior Dept. agencies).

## **5. State Wildlife Governance**

State game laws, wildlife funding and budgets, Pittman-Robertson & Dingell-Johnson Acts, state wildlife commissions, ballot initiatives, the North American Model of Wildlife Conservation (and critique)

Freyfogle & Goble, *Wildlife Law*, Ch. 7.

Martin Nie, "State Wildlife Policy and Management: The Scope and Bias of Political Conflict," *Public Administration Review* 64, no. 2 (2004): 221-233.

A Critique: Kevin Bixby, "An Overview of State Wildlife Governance Today," a talk delivered at the Wildlife for All Summit, Albuquerque, NM, 2018.

Recommended: The Blue Ribbon Panel on Sustaining America's Diverse Fish & Wildlife Resources (2016), available at <https://www.fishwildlife.org/afwa-informs/resources/blue-ribbon-panel>

Recommended: Recovering America's Wildlife Act, Senate Bill 3223 (2018) (proposed federal legislation focused on nongame funding).

Recommended: Paige Blankenbuehler, "Agricultural interests steer Colorado's Wildlife Management," *High Country News* (Aug. 31, 2018).

Recommended: Cynthia A. Jacobson, et al., "A Conservation Institution for the 21<sup>st</sup> Century: Implications for State Wildlife Agencies," *The Journal of Wildlife Management* 74, no. 2 (2010): 203-209.

Recommended: Cindy McKinney, Lauren Ris, Heather Rorer, and Sara Williams, *Investing in Wildlife: State Wildlife Funding Campaigns* (School of Natural Resources and Environment, University of Michigan, 2005)

Recommended: Stacey L. Gordon, "A Solution in Search of a Problem: The Difficulty with State Constitutional "Right to Hunt" Amendments," *Public Land & Resources Law Review* 35 (2014).

### **A. Debating the North American Model of Wildlife Conservation**

J.F. Organ et al., *The North American Model of Wildlife Conservation, The Wildlife Society Technical Review 12-04* (Bethesda, MD: The Wildlife Society, 2012) (we will break into groups to examine the Model's basic principles and applications)

Michael P. Nelson, et al., “An Inadequate Construct? North American Model: What’s Flawed, What’s Missing, What’s Needed,” *The Wildlife Professional* (Summer 2011): 57-60.

Recommended: Kyle A. Artelle, et al., “Hallmarks of Science Missing from North American Wildlife Management,” *Science Advances*, 4 (Mar. 2018), pp. 1-6.

Recommended: The following two documents illustrate how the North American Model is used in a case involving the introduction of non-native mountain goats by the State of Utah that are now on federal property: (1) Proposed Brief of the Association of Fish and Wildlife Agencies as Amicus Curiae in Support of Defendants Appelles and Affirmation (2017); and (2) Declaration of Martin A. Nie, in *Utah Native Plant Society and Grand Canyon Trust v. U.S. Forest Service* (2017). I will also post the Tenth Circuit’s decision if available by this time.

Recommended: Susan G. Clark and Christina Milloy, “The North American Model of Wildlife Conservation: An Analysis of Challenges and Adaptive Options,” in Susan G. Clark and Murray B. Rutherford, eds., *Large Carnivore Conservation: Integrating Science and Policy in the North American West* (Chicago: The University of Chicago Press, 2014), Ch. 9.

## **Part II. The Endangered Species Act**

### **6. Background & Overview**

Including background and contrast to other key federal wildlife laws (Lacey Act, Migratory Bird Treaty Act, and Bald and Gold Eagle Protection Act)

Freyfogle & Goble, *Wildlife Law*, Ch. 9, 11 & 12.

The Endangered Species Act (1973), 16 U.S.C. §1531 (the full statute is provided and to be used as a reference as needed).

George F. Wilhere, “The Role of Scientists in Statutory Interpretation of the Endangered Species Act,” *Conservation Biology*, 31, no. 2 (2017): 252-260.

Alejandro E. Camacho et al., “Assessing State Laws and Resources for Endangered Species Protection,” *Environmental Law Reporter* 47 (2017): 10837-10844.

Recommended: Center for Conservation Innovation @ <https://home.cci-dev.org/directory/> the CCI Directory includes a rich and accessible database on most things ESA, with great tables, graphs, maps and explanatory materials—highly recommended).

Recommended: Jacob M. Malcom and Ya-Wei Li, “Data Contradict Common Perceptions About a Controversial Provision of the U.S. Endangered Species Act,” *Proceedings of the National Academy of Sciences*, 112, no. 52 (Dec. 2015): 15844-15849. (see for empirical review of section 7 consultation process).

Recommended: M. Lynn Corn & Andrea M. Wyatt, *The Endangered Species Act: A Primer* (Congressional Research Service, 2016).

### **A. Case Study: TVA v. Hill (1978)**

Tennessee Valley Authority v. Hill, 437 U.S. 153 (1978)

Zygmunt J.B. Plater, "Classic Lessons from a Little Fish in a Pork Barrel—Featuring the Notorious Story of the Endangered Snail Darter and the TVA's Last Dam," *Utah Environmental Law Review* 32, no. 2 (2012): 211-244.

### **7. Recovery Under the Endangered Species Act**

Dale D. Goble, "The Endangered Species Act: What We Talk About When We Talk About Recovery," *Natural Resources Journal* 49 (2009): 1-44.

Jason C. Rylander, "Recovering Endangered Species in Difficult Times: Can the ESA Go Beyond Mere Salvage?" *Environmental Law Reporter* 42 (2012): 10017-10023.

J.M. Scott et al., "Recovery of Imperiled Species Under the Endangered Species Act: The Need for a New Approach," *Frontiers in Ecology and the Environment* 3, no. 7 (2005): 383-389.

Daniel J. Rohlf, Carlos Carroll, and Brett Hartl, "Reply to Goble and Colleagues," *BioScience* 64, no. 10 (2014): 859-860.

### **A. Case Study: Delisting Grizzly Bears in the Greater Yellowstone Ecosystem**

Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears from the Federal List of Endangered and Threatened Wildlife, 82 Federal Register, 30502 (June 30, 2017) (final rule to delist Yellowstone Grizzly Bears).

*Crow Indian Tribe et al., v. U.S.* (U.S. District Court of Montana, 2018).

I've also placed in the moodle folder the associated briefs and petitions for the case, including the Tribal petition (and other related documents).

### **8. The Future of the Endangered Species Act: Debating ESA (and Wildlife Law & Policy) Reform (Including class group work and presentations in the form of mock congressional hearings)**

Freyfogle & Goble, *Wildlife Law*, Ch. 13.

I'll assign additional and most up-to-date readings and legislation from 116<sup>th</sup> Congress.

Jonathan Wood, Pacific Legal Foundation, Testimony on H.R. 6355 and H.R. 6356, U.S. House of Representatives, (2018).

Damien M. Schiff, "The Endangered Species Act at 40: A Tale of Radicalization, Politicization, Bureaucratization, and Senescence," *Environs: Environmental Law and Policy Journal* 37 (2013-14): 105-132.

John Buse, "A Different Perspective on the Endangered Species Act at 40: Responding to Damien M. Schiff," *Environs: Environmental Law and Policy Journal* 38 (2014-2015): 145-166.

The National Endangered Species Act Reform Coalition @ <http://nesarc.org/>

Endangered Species Act Congressional Working Group, *Report, Findings and Recommendations* (Feb. 4, 2014)

The [Center for Biological Diversity's](#) take on the ESA and ESA Reform.

Additional ESA Resources:

The U.S. Fish & Wildlife Service's Environmental Conservation Online System at <https://ecos.fws.gov/ecp/> (use for all T&E species and their administrative documents).

Center for Conservation Innovation @ <https://home.cci-dev.org/directory/> the CCI Directory includes a rich and accessible database on most things ESA, with great tables, graphs, maps and explanatory materials—highly recommended).

Greenwire (news service) @ <https://www.eenews.net/gw> (be sure to access via Mansfield, the best and most detailed environmental news service, with great coverage of ESA cases).

The Fish & Wildlife Service and NOAA Fisheries have jointly proposed revisions to regulations that implement portions of the ESA. Background on these rulemakings (including powerpoints and videos) and the proposed rules are available @ [https://www.fws.gov/endangered/improving\\_ESA/regulation-revisions.html](https://www.fws.gov/endangered/improving_ESA/regulation-revisions.html).

**FINAL EXAM: Tuesday, April 30<sup>th</sup> @ 8.00—10.00 am.**