

DEPARTMENT OF HISTORY, UNIVERSITY OF NEW HAMPSHIRE

History 666/866

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Office hours:

M&W 2-3pm; & by appointment

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**From Abundance to Aquaculture:
A Social and Environmental History of Commercial Fishing
in the Northwest Atlantic**

The commercial fishery is the oldest sustained economic activity conducted by people of European descent in North America. Historically the fishery was central to economic development, community life, and identity-formation in coastal New England and Atlantic Canada. As a result, it has inspired paintings, such as those of Winslow Homer; literature, including Rudyard Kipling's *Captains Courageous* and Sebastian Junger's *The Perfect Storm*; folklore, film, and a highly respected body of work in fisheries science and marine ecology. In fact, the Gulf of Maine is one of the best-studied coastal ecosystems in the world. Ironically, despite such study, commercial fishing is in crisis today, not just in the Gulf of Maine, but around the world. Fish populations have plummeted and coastal marine ecosystems have been transformed through human activities. Fish and fishermen are threatened.

This course investigates the changing nature of commercial fishing in the northwest Atlantic. We will examine changing technologies, changes in targeted species, environmental impacts, contemporary concerns about the ocean, current ocean policies, and recent literature in American environmental history. At the heart of the course is a perennially American question: what is, and has been, the relationship of people to non-human nature? But rather than ask this question in light of the rich resources of the American continent, we will pose it in light of the "eastward frontier," the coastal ocean stretching from Cape Cod to the Grand Banks of Newfoundland, and into the Atlantic beyond. It is a work in progress: the entire field of marine environmental history is new and evolving very quickly.

Defining the Problems

What is the state of the living ocean today? (Consider terms such as: pristine; natural; stable; eternal; depleted; fluctuating.)

What are environmental drivers of change in the ocean? What are anthropogenic causes of change?

How does a historical perspective contribute to our knowledge of the ocean?

What is a historical perspective? What does it mean to "think historically?"

What is the difference between "the past," "heritage" (such as "our fishing heritage,") and "history?"

Disputes over access to marine resources and stewardship of marine resources in New England are very old. How might we periodize those disputes? What are the significant turning points? (con't)

Given that the Gulf of Maine is one of the most thoroughly studied marine ecosystems in the world, and that those studies have been on-going for more than a century, how did a fisheries crisis develop here?

How dire is the state of living resources in the Gulf of Maine, and the ocean at large, today?

Required Books

The following texts are required and available at Durham Book Exchange & UNH Bookstore.

1. Daniel Vickers, *Farmers and Fishermen: Two Centuries of Work in Essex County, Massachusetts, 1630-1850* (1994).
2. Richard W. Judd, *Common Lands, Common People: The Origins of Conservation in Northern New England* (1997).
3. Brian Fagan, *Fish on Friday: Feasting, Fasting, and the Discovery of the New World* (2006).
4. Callum Roberts, *The Unnatural History of the Sea* (2007).
5. Matthew McKenzie, *Clearing the Coastline: The Nineteenth-Century Ecological and Cultural Transformation of Cape Cod* (2010).
6. Jeremy B.C. Jackson, Karen E. Alexander, and Enric Sala, eds., *Shifting Baselines: The Past and Future of Ocean Fisheries* (2011).

Other required readings, both journal articles and book chapters, are on Blackboard in the External Links folder or Course Documents folder.

Course Requirements

Attendance is required. (“80% of success in life is showing up.”) Each student is allowed two unexcused absences, because sometimes life gets complicated. Thereafter each unexcused absence will reduce your final course grade by a + or -.

Each student will serve once as Discussion Leader. You’ll need to be able to talk knowledgeably about that day’s assigned reading.

Each student will write 4 short papers (approx 1000 words) on assigned topics.

Each student will write 1 research paper (approx. 3000 words, or 12 pages, plus bibliography) on a topic of his or her choice. That topic must have a historical component and an environmental or ecological component.

Each student will meet with the professor for discussion and approval of his or her research project no later than Monday, March 5, the Monday prior to Spring Break.

Each student will make a research presentation (approx 15 minutes) to the class in April or May. Power Point may be an appropriate tool for this presentation, but is not required.

Grad students will do the same workload as undergrads, but will be held to higher standards.

Good writing matters a great deal in this course. Spelling, grammar, and mechanical correctness count. You will need to write, re-write, and re-write yet again to achieve the desired results.

There will be no Incompletes (IC) without prior approval of the instructor. If you are getting behind, come see me and we will try to make a workable plan.

Sometimes we will precede discussions with a brief writing assignment on the reading. Grades on those quizzes will be part of your “Participation” grade. You can’t participate if you don’t know the material.

Grading

Participation includes service as discussion leader, contributions to discussions, and pre-discussion quizzes.

Participation	20%
1st paper	10%
2 nd paper	10%
3 rd paper	10%
4 th paper	10%
Research paper <i>précis</i>	10%
Research presentation	10%
Research paper	20%

Papers will be graded as follows:

- A Insightful papers notable for impressive accuracy, elegant expression & thoroughness
- B Accurate papers with some creativity & no serious mechanical or organizational errors
- C Papers partially addressing the topic, with mechanical & organizational errors
- D Papers lacking thought & marred by consistent mechanical & organizational errors, and/or by lack of citations to evidence
- F Papers that are sloppy, inaccurate and mechanically flawed, or which deviate far from the assignment

Academic Honesty is one of the foundations of the university community. The UNH on-line pamphlet called *2011-2012 Student Rights, Rules and Responsibilities* addresses academic honesty on pages 22-23. It is available at www.unh.edu/student/rights If you are caught plagiarizing you will fail the course. You may wish to see the tutorial on plagiarism on the College of Liberal Arts website: <http://www.unh.edu/liberal-arts/plagiarism/plagiarismHome.cfm>

In the interest of education, I reserve the right to reject unacceptable work, and the right to retain written work and to share it (anonymously) as examples for others.

UNH is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with Disability Services for Students (DSS). Contact DSS at (603) 862-2607 or disability.office@unh.edu If you have received Accommodation Letters for this course from DSS, please provide Prof. Bolster with that information privately in his office so that we can review those accommodations.

Cellphones, Smartphones, iPods, laptops, Blackberries, and other such devices are not appropriate for class. Imagine being unconnected for 50 minutes. Please turn off your devices and put them away beforehand.

Useful websites

The US government published an extraordinary 7 volume series during the 1880s on *The Fisheries and Fishery Industries of the United States* ed. George Brown Goode. Search for them on Google Books.

The National Marine Fisheries Service (NMFS) northeast regional office website is at <http://www.nero.noaa.gov/nero>

The New England Fishery Management Council is <http://www.nefmc.org>

The Island Institute, dedicated to sustainable island life and environmental stewardship in the Gulf of Maine, is www.islandinstitute.org

Schedule of Meetings

Part 1: What is the current state of marine environmental history and historical marine ecology? What is an ecosystem? How do coastal marine ecosystems function in terms of primary productivity, energy transfer, food webs, and physical characteristics?

- W Jan 25 Introduction
- F Jan 27 Discussion of 2 articles: Jackson, “What was natural in the coastal oceans?” *Proceedings of the National Academy of Sciences USA* (2001); Bolster, “Opportunities in Marine Environmental History.” *Environmental History* (2006).
-Come to class with some facts, and some opinions!
-What are the main points of each article? Note 3 specific points which contribute to making that main point.
-Compare the approach of the ecologist and that of the historian. What are the similarities and the differences?
- M Jan 30 **10:00 am** Herring Workshop, Strafford Room, MUB
No class today. Please attend the Herring Workshop in the MUB from at least 10 – 12, if you can, and hopefully longer. This is an extraordinary opportunity to observe a diverse group of stakeholders from New England discussing future directions for river herring (anadromous fish, including alewives and blue-back herring) conservation and management. This workshop will operate at the intersection of history, science, and policy.
- W Feb 1 Lecture: “The Eternal Ocean? Considering Time and Space in Marine Environmental History.”
Assignment: “Introduction” and “The Gulf as an Ecosystem” in *The Gulf of Maine: Sustaining our Common Heritage* (1989), pp. 9-19; Karin E. Limburg and John R. Waldman, “Dramatic Declines in North Atlantic Diadromous Fishes,” *BioScience* vol. 59, no. 11 (Dec., 2009), 955-965.

- F Feb 3 Discussion of 4 articles: Ackerman, “Depletion in New England Fisheries,” *Economic Geography* (1938); Pauly, “Anecdotes and the Shifting Baseline Syndrome,” *Trends in Ecology and Evolution* (1995); Jackson, et. al. “Historical Overfishing and the Recent Collapse of Coastal Ecosystems,” *Science* (2001); Carlton, “Apostrophe to the Ocean,” *Conservation Biology* (1998).
 -What are the main points of each article?
 -Is concern about depletion of fisheries resources just a recent issue? Pay attention to the date of publication of each article.
 -What has kept knowledge of marine depletion hiding in plain sight?
- M Feb 6 Discussion, *Shifting Baselines*, pp. 1-42.
 What facts or interpretive positions struck you as novel? Take some notes. Be prepared to refer to points in the chapters specifically by authors.
- W Feb 8 Lecture: Crucial Concepts in Coastal Marine Ecology Assignment: K.H. Mann, *Ecology of Coastal Waters, With Implications for Management* Ch 1, “The Subject and the Approach,” pp. 1-15.
- F Feb 10 Writing Workshop – DRAFT OF FIRST PAPER DUE IN CLASS

You are a journalist assigned by your editor to write a feature article of 1000 words on “The State of the Living Ocean Today.” As preparation you only have time to read the assignments we have read so far in this class. With a little luck, you were able to attend the Herring Workshop. Drawing on that material – and nothing else – write the feature. Although your editor will not include citations when the article is published, she wants to see them. Use the short form and embed citations in your text as appropriate, ie. (Mann, 14) or (*Gulf of Maine*, 10). No bibliography is necessary: our syllabus will suffice. A good feature article pulls readers in from the very first line. It cultivates tension. Ultimately it has an argument. It includes evidence to support that argument. And it relies on quotations from experts to lend credibility. Have fun. Imagine yourself as a writer, not a “student.” Your article must be typed, double-space, with numbered pages, and printed on single-sided pages. We will read each others’ drafts in class on Friday, working together to improve them. FINAL VERSION OF FIRST PAPER DUE IN CLASS ON MONDAY, FEB 13. Attach the draft that your classmates read on Friday, and include a memo to me about the changes you made.

Part 2: Connecting Ancient and Medieval Christian Concepts of Atonement and Mortification with the Renaissance Discovery of North America

- M Feb 13 Discussion: Brian Fagan, *Fish on Fridays*, pp. 1-128. (I will show a few slides of the Lofoten Islands fishery.)
 DL: _____
- W Feb 15 Discussion, Callum Roberts, *Unnatural History of the Sea*, pp. 1-43; Richard C. Hoffman, “Economic Development and Aquatic Ecosystems in Medieval Europe,” *American Historical Review* 101 no. 3 (June 1996), 631-669.
 DL: _____

F Feb 17 Discussion, Fagan, *Fish on Fridays*, 129-290.
DL: _____

Part 3: The 17th- and 18th-Century Fishery in Newfoundland and New England: Labor Organization, Ecological Implications and Mythogenesis

M Feb 20 Discussion, Bolster, "Putting the Ocean in Atlantic History," *American Historical Review* (2008). DL: _____

W Feb 22 Discussion, Vickers, *Farmers & Fishermen*, pp 1-30; 85-142.
DL: _____
-Why was it difficult for settlers in New England to create a commercial fishery?
-What was a "servant fishery?"
-Explain the business arrangements central to the early New England fishery, especially "the merchant patron," and the significance of credit.
-Explain clientage. Were fishermen free laborers? What systems for organizing labor exist today? What systems existed in the 17th-century in the New World?
-How did fishing contribute to New England's economic diversification and its ultimate wealth?
-Be prepared to describe the hallmarks of the 17th-century fishery in terms of technology, target species, bait, length of trips, preservation of fish, business arrangements, markets, and repercussions on coastal communities.

F Feb 24 Discussion, Leavenworth, "The Changing Landscape of Maritime Resources in Seventeenth-Century New England," *International Journal of Maritime History* (2008). DL: _____

M Feb 27 Discussion, Vickers, *Farmers & Fishermen*, 144-203. DL: _____

W Feb 29 FIRST DRAFT OF SECOND PAPER DUE IN CLASS WED, FEB 29.
Topic: "North Atlantic Fisheries Before 1800"
Historians manage the unwieldy past by disaggregating it into discrete periods and by emphasizing turning points, when appropriate. However this must not be done randomly. Each period and turning point must have an intellectual justification based on evidence. Such evidence might include major cultural or religious changes; demographic changes; technological changes; environmental changes; new discoveries; or diplomatic or political changes resulting from wars, coups, or revolutions. Drawing on all of the reading assigned in Part 2 and Part 3 of this course, and writing from the vantage point of a marine environmental historian, prepare a paper of only 1000 words that assesses more than 1000 years of North Atlantic fishing prior to the year 1800. This will be a challenge! You will need an argument, or organizing principle. Think big. You will need to generalize, and to be specific, using specific examples to sustain your generalizations about periodization, turning points, anthropogenically-induced changes to the marine environment, and environmental change. This paper should be typed, double

space, with numbered pages, and printed on a single side of the page. Use short form citations, ie. (Fagan, 145). Our syllabus will suffice as a bibliography. We will use class on Feb 29 as a Writing Workshop to improve these drafts.

FINAL DRAFT IS DUE IN CLASS ON FRIDAY MAR 2. Attach the draft that your classmates edited, and include a memo to me about the changes you made.

Part 4: The 19th-Century Fishery: Technological Revolutions & Questions about Sustainability

- F Mar 2 Lecture: “The Sea Serpent and the Mackerel Jig: Gloucester, MA, 1815-1820
- M Mar 5 Lecture: “New England Fishing Boat Technology, and the 19th-Century Gulf of Maine Mackerel Fishery”
- M Mar 5 ***Last day to meet with Prof. Bolster for approval of research paper topic***

TOPIC STATEMENT AND BIBLIOGRAPHY FOR RESEARCH PAPER

Based on your previous discussions with me, and approval of your topic, submit a 500 word *précis*, with working title and bibliography, on your proposed project in marine environmental history or historical marine ecology. Your topic must have a historical dimension, and it must examine an ecological or environmental question. Your *précis* should be an elegant introduction to a worthy project. It should explain what you are going to investigate, why you believe it is worthwhile, and how you propose to do it (in terms of papers or books read, interviews conducted, websites consulted, museums visited, etc). You will need to demonstrate some familiarity with these sources, and their arguments. That means you cannot dream this up the night before it’s due. You may include a hypothesis or synopsis of the argument you believe you will make. Expect, of course, that as the research proceeds, this argument may change – a little, or a lot. Take this assignment, and yourself, seriously. Writing an elegant 500 word *précis* requires considerable thought, and editing. You will need multiple drafts to pull it off. Go for it. I am happy to look at a draft prior to Wed, March 7. Your *précis* will be due on Monday, March 19.

- W Mar 7 Lecture, “Abundance and Distribution of Cod on the Nova Scotian Shelf in the 1850s.” Assignment: Rosenberg, et. al., “The History of Ocean Resources: Modeling Cod Biomass Using Historical Records,” *Frontiers in Ecology and the Environment* (2005); Bolster, Alexander, Leavenworth, “Historical Abundance of Cod on the Nova Scotian Shelf,” in *Shifting Baselines*, pp. 79-114.
- F Mar 9 Discussion, Judd, *Common Lands, Common People*, xi-12 and 121-172.
Question: How might we periodize the last 200 years of thought re access and sustainability of natural resources? Is the story simply one of depletion and lack of concern? DL: _____

SPRING BREAK

M Mar 19 Discussion, Grasso, "What Appeared Limitless Plenty: The Rise and Fall of the Nineteenth-Century Atlantic Halibut Fishery," *Environmental History* (2008).
DL: Derek

Research Paper Topic Statement and Bibliography due in class Mon Mar 19.

W Mar 21 Discussion, Judd, *Common Lands, Common People*, pp 173-194; 229-266.
DL: _____

F Mar 23 Lecture, "A Fisheries Revolution: New England Harvesters and Marine Ecology in the Gulf of Maine, 1850-1890." Assignment: Vickers, *Farmers and Fishermen*, 261-289; 325-327; Karen Alexander, et. al., "Gulf of Maine Cod in 1861: historical analysis of fishery logbooks, with ecosystem implications," *Fish and Fisheries* (2009).

M Mar 26 Discussion, Matthew McKenzie, *Clearing the Coastline* (2010), Intro, Chapters 1,2, & 3.

W Mar 28 Discussion, McKenzie, *Clearing the Coastline*, chs. 4, 5, 6, and Conclusion.

F Mar 30 Film: "The Haunted Cry of a Long-Gone Bird," a NOVA documentary about the extinction of the Great Auk and its implications for our contemporary fisheries crisis.

M Apr 2 Discussion, Roberts, *Unnatural History of the Sea*, pp. 130-170.
DL: _____

Part 5. What are the theoretical and rhetorical problems with writing nature into history?

W Apr 4 Lecture: Historians' Ruminations on the Challenge of Writing Nature into History

F Apr 6 Discussion: Donald Worster, "The Ecology of Order and Chaos," in *The Wealth of Nature: Environmental History and the Ecological Imagination* (Oxford Univ. Press, 1993), pp. 156-170; and Richard White, "Are You an Environmentalist, or Do You Work for a Living?" in *Uncommon Ground: Rethinking the Human Place in Nature* (1996). See study guide on Bb. DL: _____

M Apr 9 Discussion: William Cronon, "A Place for Stories: Nature, History and Narrative," *Journal of American History* vol. 78 (March, 1992).
DL: _____

W Apr 11 Discussion: Arthur F. McEvoy, "Toward an Interactive Theory of Nature and Culture: Ecology, Production, and Cognition in the California Fishing Industry," in *The Ends of the Earth: Perspectives on Modern Environmental History* (1988).
DL: Emma

THIRD PAPER – DRAFT FOR CIRCULATION DUE IN CLASS FRIDAY, APRIL 13

"Changing Trends in Northwest Atlantic Fisheries, 1800 to 1900"

Drawing on *Farmers and Fishermen* (pp. 261-289; 325-327); *Clearing the Coastline*; the pages assigned in *Common Lands, Common People*; the paper in *Frontiers in Ecology*; and Grasso's paper on North Atlantic halibut, in addition to class notes, explain the changing trends in northwest Atlantic fisheries between 1800 and 1900. What were the themes, or stories? How did the species targeted by fishermen change? How did technology change, and how did that matter? To what extent did different fishing communities recognize, or protest, depletions in stocks on which they relied? Is it possible to sort out the impact of non-human natural factors from the impact of overfishing or habitat destruction? What else should be included in this analysis? If you think that any of the selected reading in our next section on the theoretical and rhetorical aspects of writing nature into history will contribute to your paper, please incorporate them. This challenge is especially appropriate for graduate students.

Your paper should be approximately 1000 words, typed double-space, with short form citations, ie. (Judd, 143). No bibliography is necessary. Our syllabus will suffice

F Apr 13 Writing Workshop. We will read each other's papers, and work to revise them.

Part 6. Sweeping the Ocean Clean

M Apr 16 Lecture: "Early Attempts at Fisheries Science, Conservation and Management"
FINAL DRAFT OF PAPERS DUE IN CLASS MON APR 16. Please attach the draft that your classmates edited, and a memo to me explaining changes you made.

W Apr 18 Lecture: "Technological Change in 20th-Century Fisheries, Including the Rise of Distant Water Factory Trawlers."

F Apr 20 Lecture: "Late 20th-Century Conservation and Management"
Assignment: Roberts, *Unnatural History of the Sea*, 185-213; 273-302; *Shifting Baselines*, pp. 177-192; Kirsten Weir, "The Great Haddock Revival," *The Scientist.com* vol 23 issue 7, p. 40 accessible at <http://www.the-scientist.com/article/display/55774/>

M Apr 23 Discussion, Roberts, *Unnatural History of the Sea*, 305-377. DL: _____

W Apr 25 Discussion, *Shifting Baselines*, pp. 59-76, 135-174. DL: _____
What themes emerge that your generation will need to address? How might thinkers and activists change the terms of the debate?

F Apr 27 Discussion, *Shifting Baselines*, pp 193-206; and Heike Lotze, et. al., "Depletion, Degradation, and Recovery Potential of Estuaries and Coastal Seas," *Science* (2006). See study guide on Bb. DL: _____

FOURTH PAPER DUE MON APRIL 30

Because of your expertise in marine environmental history and historical marine ecology, you have been asked by the Secretary General of the United Nations to write a brief position paper for government leaders and policy makers on the future of the living ocean. Drawing on *Shifting Baselines*, Roberts, and Lotze et. al., make an optimistic case for the recovery of the world's living ocean resources, or a pessimistic assessment that the downward trend will continue. Consider what categories of analysis are appropriate for this task. What decisions or conditions will affect the outcome? How might the outcome vary by place? 1000 words, typed, double-space. (No Writing Workshop.)

M Apr 30 Lecture: "Lobstering and Swordfishing Today: Different Trajectories for Historic Industries,"

W May 2 Research Presentations

_____ *Rachel* _____, _____ *Derek* _____

F May 4 Research Presentations

_____ *Emma* _____, _____ *Clancy* _____

M May 7 Where do we go from here? Current policy discussions, including the controversy over aquaculture. Course evaluations.

F May 11 RESEARCH PAPERS DUE IN MY HISTORY DEPT MAILBOX BY 4 pm