

DEPARTMENT OF HISTORY, UNIVERSITY OF NEW HAMPSHIRE

History 666/866

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Office hours:

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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 maritime 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. But commercial fishing is in crisis today, here and around the world. Fish populations have plummeted and the fundamental nature of coastal marine ecosystems has been transformed. Both fish and fishermen are threatened.

This course investigates the changing nature of commercial fishing, its environmental impact, contemporary concerns about the ocean and policy suggestions, and contemporary 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?

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 does pursuing interdisciplinary study open doors and provide possibilities?
What are the problems of pursuing interdisciplinary study?
What are the similarities (and differences) between the approach to knowledge of journalists and historians?
What are the similarities (and differences) between the approach to knowledge of historians and ecologists?
Are humans a part of nature? Are humans separate from nature? Do questions like this matter for policy making?
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. Daniel Pauly & Jay McLean, *In a Perfect Ocean: The State of Fisheries and Ecosystems in the North Atlantic Ocean* (2003).
4. Brian Fagan, *Fish on Friday: Feasting, Fasting, and the Discovery of the New World* (2006).
5. Callum Roberts, *The Unnatural History of the Sea* (2007).

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

Course Requirements

Each student will serve once as Discussion Leader.

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.

Each student will meet with the professor for discussion and approval of his or her research project no later than October 13.

Each student will make a research presentation (approx 15 minutes) to the class in December on the subject of their research. 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 a higher standard .

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.

Grading

Participation includes attendance, service as discussion leader, and contributions to discussions.

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%

Academic Honesty is one of the foundations of the university community. The UNH on-line pamphlet called *Student Rights, Rules and Responsibilities* addresses academic honesty on pages 41-43. It is available at www.unh.edu/student/rights. If you are caught plagiarizing you will fail the course.

Useful websites

For the 7 volume series published by the US government during the 1880s on *The Fisheries and Fishery Industries* ed. George Brown Goode, see <http://unicorn.csc.noaa.gov/docs/rarebooks/>

The National Marine Fisheries Service (NMFS) northeast region website is at <http://www.wh.who.edu/ro/doc/nero.html>

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?

M Aug 31 Introduction

W Sept 2 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).
 -What are the main points of each? 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?

F Sept 4 Lecture: “The Eternal Ocean? Considering Time and Space in Marine Environmental History.”
Assignment: “Introduction” and “The Gulf an an Ecosystem” in *The Gulf of Maine: Sustaining our Common Heritage* (1989), pp. 9-19.

M Sept 7 LABOR DAY – NO CLASSES

W Sept 9 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 new?
-What has kept knowledge of marine depletion hiding in plain sight?

The order of our scheduled meetings from Fri Sept 11 to Fri Sept 18th is uncertain now because we are on a waiting list for a half-day field trip aboard the UNH research vessel GULF CHALLENGER. On one of those days we will have a guest lecture by Karen Alexander, of the UNH Cod project. On one day we will watch a Nova video, “The Haunted Cry of a Long-Gone Bird,” a documentary about the plight of the northwest Atlantic fisheries. On another day we will watch “American Fisheries, A Cautionary Tale,” a new television documentary by Bailey Pryor. On the remaining day, we will either have the field trip aboard R/V GULF CHALLENGER, led by Dr. Bill Leavenworth, of the UNH Cod Project; or a guest lecture by Dr. Leavenworth. The wrinkle is that we won’t know on which day any of these will occur until the vessel schedule is finalized.

F Sept 11

M Sept 14

W Sept 16

F Sept 18

M Sept 21 Discussion, Pauly & McLean, *In a Perfect Ocean*, xvii-21.
-What is their overall argument? List 3 specific points that contribute to it.
-What is the “bigger machine” that they built, referred to on page xxv?

W Sept 23 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.

FIRST PAPER DUE WED, SEPT 23

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. Drawing on those assignments – and nothing else – write the feature. Although your editor will not include citations when the article is published, he 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 has an argument. It includes evidence to support that argument. It relies on quotations from experts to lend credibility. Have fun. Your article must be typed, double-space, with numbered pages, and printed on single-sided pages.

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

F Sept 25 Discussion: Brian Fagan, *Fish on Fridays*, pp. 1-128. DL: _____

M Sept 28 Discussion, Callum Roberts, *Unnatural History of the Sea*, pp. 1-43.
DL: _____

W Sept 30 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

F Oct 2 Discussion, Bolster, "Putting the Ocean in Atlantic History," *American Historical Review* (2008). DL: _____

M Oct 5 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? (con't next page)
-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.

W Oct 7 Discussion, Leavenworth, "The Changing Landscape of Maritime Resources in Seventeenth-Century New England," *International Journal of Maritime History* (2008). DL: _____

F Oct 9 Discussion, Vickers, *Farmers & Fishermen*, 144-203; and Kurlansky, *Cod*, 76-106. DL: _____

SECOND PAPER DUE WED, OCTOBER 14
"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. You will need an argument, or organizing principle. Think big. You will need both 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.

M Oct 12 OCTOBER BREAK – NO CLASSES

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

W Oct 14 Lecture: “New England Fishing Boat Technology, and the 19th-Century Gulf of Maine Mackerel Fishery”

F Oct 16 Illustrated Lecture, “A Fisheries Revolution: New England Harvesters and Marine Ecology in the Gulf of Maine, 1850-1880.” Assignment: Vickers, *Farmers and Fishermen*, 261-289; 325-327.

TOPIC STATEMENT AND BIBLIOGRAPHY FOR RESEARCH PAPER DUE MON OCT 19

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. This *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. 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.

M Oct 19 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).

- W Oct 21 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: _____
- F Oct 23 Discussion, Grasso, “What Appeared Limitless Plenty: The Rise and Fall of the Nineteenth-Century Atlantic Halibut Fishery,” *Environmental History* (2008).
DL: _____
- M Oct 26 Discussion, Judd, *Common Lands, Common People*, pp 173-194; 229-266.
DL: _____
- W Oct 28 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?

- F Oct 30 Lecture: Historians’ Ruminations on the Challenge of Writing Nature into History
- M Nov 2 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). DL: _____
- W Nov 4 Discussion: William Cronon, “A Place for Stories: Nature, History and Narrative,” *Journal of American History* vol. 78 (March, 1992).
DL: _____
- F Nov 6 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: _____

THIRD PAPER – DRAFT FOR CIRCULATION DUE IN CLASS MONDAY, NOV 9

“Changing Trends in Northwest Atlantic Fisheries, 1800 to 1900”

Drawing on *Farmers and Fishermen* (pp. 261-289; 325-327); 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? (con’t)

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

M Nov 9 Writing Workshop. We will read each other's papers, and work to revise them.

W Nov 11 VETERANS' DAY – NO CLASSES

Part 6. Sweeping the Ocean Clean

F Nov 13 Lecture: "Early Attempts at Fisheries Science, Conservation and Management"
FINAL DRAFT OF THIRD PAPER DUE IN CLASS ON FRIDAY, NOV 13

M Nov 16 Lecture: "Technological Change in 20th-Century Fisheries, Including the Rise of Distant Water Factory Trawlers"

W Nov 18 Lecture: "Late 20th-Century Conservation and Management"
Assignment: Roberts, *Unnatural History of the Sea*, 185-213; 273-302; 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/>

F Nov 20 Discussion, Roberts, *Unnatural History of the Sea*, 305-377. DL: _____

M Nov 23 Discussion, Pauly & McLean, *In a Perfect Ocean*, pp. 23-90. DL: _____

FOURTH PAPER DUE WED NOV 25

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 Pauly & McLean, Roberts, and Lotze et. al. (all of whom were trained as biologists), 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.

W Nov 25 Discussion, Pauly & McLean, *In a Perfect Ocean*, pp. 91-120; and Heike Lotze, et. al., "Depletion, Degradation, and Recovery Potential of Estuaries and Coastal Seas," *Science* (2006). DL: _____

F Nov 27 THANKSGIVING BREAK – NO CLASS

M Nov 30 Lecture: "Lobstering and Swordfishing Today: Different Trajectories for Historic Industries."

W Dec 2 Research Presentations
_____, _____, _____, _____

F Dec 4 Research Presentations
_____, _____, _____, _____

M Dec 7 Research Presentations
_____, _____, _____, _____

W Dec 9 Research Presentations
_____, _____, _____, _____

F Dec 11 Where do we go from here? Current policy discussions, including the controversy over aquaculture.

F Dec 18 RESEARCH PAPERS DUE BY NOON IN MY HISTORY DEPT MAILBOX