



# FORESTS & PEOPLE — 2020

NRC 225 (3 credits)  
SPIRE #: 47124  
Morrill 1, Room N375  
MWF, 12:20-1:10 pm



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Appointments: Please contact me via email or at the beginning or end of class.  
My generic weekly schedule is posted on Moodle.

**Teaching Assistant** — Moussa Siri ([msiri@umass.edu](mailto:msiri@umass.edu)), Doctoral student, Environmental Conservation

## Required Books (Total cost ~ \$32 + shipping, Amazon Books)

1. Broker, Ignatia. 1983. *Night Flying Woman: An Ojibway Narrative*
2. Foster, D.R., and J. F. O'Keefe. 2000. *New England Forests Through Time: Insights from the Harvard Forest Dioramas*
3. Giono, J. 1956. *The Man Who Planted Trees* (20th Anniversary Edition with Foreword by Wangari Maathai, 2004 Nobel Laureate, with wood engravings by Michael McCurdy)

**Optional book:** <https://northernwoodlands.org/shop/item/more-than-a-woodlot> (augments Sections 2, 4 and 5 ...and is a very useful introduction for new forest ecology and conservation students)

## Course Description

Forests are complex and fascinating ecosystems. They have been shaped by ecological processes over 1,000s of years *and* by centuries of human use, abuse, neglect, and care. Forest ecosystems are always changing—sometimes slowly, sometimes very rapidly—while they appear to be changeless. Although forests are essential to human health and well-being, they are typically taken for granted. **Forests & People** seeks to address this cognitive dissonance and nature deficit disorder by exploring the:

- (1) unique, often contradictory, values that forests and natural resources have in our culture;
- (2) key characteristics of forests in the Northeast and how and why they have changed through time;
- (3) historical and contemporary leaders who have shaped the forest conservation movement;
- (4) fundamental principles of forest ecology and sustainable forest management; and
- (5) case studies of sustainable forest management challenges and opportunities in the 21<sup>st</sup> century.

**Forests & People** is designed as second-year class in the core curriculum of the Department of Environmental Conservation and an elective course for Stockbridge School students. It also serves as a comprehensive introduction to forest history, science, and conservation for any interested UMass or Five College student (i.e., there are no prerequisites).

- **Commonwealth Honors College credit is available** for this class via NRC HI225 (SPIRE #: 47182); please contact Professor Barten to discuss honors project ideas before registering. My expectations are modest and flexible with respect to the extra work this should entail.
- **Please contact me if you would like to learn more about the Forest Ecology and Conservation major** and public, private, or NGO careers in sustainable forest management and land protection.

## Presentation and Discussion Topics

### **SECTION 1 — The unique values that trees and forests have in our culture ...and around the world**

**(Readings: Giono book and website)**

- What *is it* about trees and forests ...in art, literature, politics, and the human psyche?
- Forests, people, and cognitive dissonance (the disconnect between rhetoric and behavior)
- What influences our values, attitudes, behavior, and decision-making in relation to forests?

### **SECTION 2 — The key characteristics of forests in the Northeast ...and how *and why* they have changed through time.**

**(Readings: Broker book, Foster and O'Keefe through page 20)**

- The Fur Trade and its profound (little known) influence on forests, people, and the course of history
- Native Americans (and First Nations in Canada) ...forest people ...timeless sustainability lessons
- Was it nature or was it nurture (...or the lack thereof) that changed forest ecosystems?  
(Fisher Museum Dioramas, Harvard Forest, Petersham, MA ...Foster and O'Keefe, 2000)
- How did the transition from exploitation to conservation come about? Why vigilance is needed.

### **SECTION 3 — Historical and contemporary leaders in forest conservation**

**(Readings: class website)**

- Protection, preservation, conservation ...what's the difference? ...and why does it matter?
- Who were some of the key people (and groups) that led the way to the protection and conservation of forests?
- What were some of key events and turning points in public consciousness and political opinion? ...how long did it usually take to bring about lasting change? [Answer: About 20-30 years or one or two generations.] ...how can change be initiated and accelerated?
- What are key traits and methods of people (or groups) that made a lasting difference in forest conservation? What motivated their actions? How long did it take? [their lifetime and legacy]

### **SECTION 4 — Fundamental principles of forest ecology and sustainable forest management**

**(Foster and O'Keefe, 23-55, and class website)**

- A *long*, often unappreciated list of benefits, values, and ecosystem services of forests ...and their inter-relationship and compatibility.
- How can we practically define and consistently implement sustainable forest management?
- Introductory tree physiology ...Forest ecology ...Silvicultural principles and practices
- Primary components and attributes of a forest ecosystem [*not* just timber] management plan
- Non-timber values (e.g., wildlife, water, recreation, etc.) of forests as the defining or primary management goal ...and how active management can be used as the means to these ends.

### **SECTION 5 — Sustainable Forest Management in the 21<sup>st</sup> Century**

**(Readings: class website)**

- Counteracting development pressure and consumptive use with a coordinated approach to urban forestry, forest stewardship, and education and outreach programs
- Protecting or enhancing water supplies, biological diversity, and public health [ecosystem services]
- 21<sup>st</sup> century ideas, approaches, and prototypes ...often drawing upon timeless principles and values.

<b>NRC 225: Forests &amp; People — Spring 2020</b>				
<b>Date</b>	<b>Day</b>	<b>#</b>	<b>Assignment due date ↓</b>	
22 Jan	W	1	Introduction, learning objectives, structure of the course, grading	
24 Jan	F	2	1: Forest Art ...Selling Nature ...perceptions, values, and attitudes	
27 Jan	M	3	1: Disturbance and successional pathways ...a poem and a painting	
29 Jan	W	4	1: John Fowles, Anna Moses ...our values, decisions, and actions	
31 Jan	F	5	1: Past is Prologue ... I = PAT ...Mitigating climate change (with trees)	
3 Feb	M	6	1: Discussion of The Man Who Planted Trees	
5 Feb	W	7	2: When Two Worlds Met: The Fur Trade – Part 1	
7 Feb	F	8	2: When Two Worlds Met: The Fur Trade – Part 2	
10 Feb	M	9	2: Colonial Era → Agrarian Era → Industrial Era	
12 Feb	W	10	2: Industrial Logging: 1880 to 1920 (The Myth of Inexhaustibility)	
14 Feb	F	11	2: The Catskill and Adirondack Forest Preserves ...1885 precedent	
17 Feb	M	-	<i>Presidents' Day Holiday</i>	
18 Feb	Tues	12	2: Discussion of Night Flying Woman	
19 Feb	W	13	2: 21 <sup>st</sup> Century Forests of the Northeast: Challenges and Opportunities	
21 Feb	F	14	2: Trees, Forests, and Climate Change: Challenges and Opportunities	
<b>24 Feb</b>	<b>M</b>	<b>15</b>	<b>Exam 1 – Sections 1 and 2</b>	
26 Feb	W	16	3: The Shakers	
28 Feb	F	17	3: George Perkins Marsh: Prophet of Conservation	
2 Mar	M	18	3: Gifford Pinchot, Theodore Roosevelt and forest conservation	
4 Mar	W	19	3: Henry Graves, Raphael Zon, John Weeks, and Joseph Cannon	
6 Mar	F	20	3: Franklin Delano Roosevelt and the Civilian Conservation Corps	
9 Mar	M	21	3: <i>Green Fire: Aldo Leopold and a Land Ethic for Our Time</i> (56 min. film)	
11 Mar	W	22	3: Sigurd Olson and the Voyageurs (Boundary Waters Canoe Area)	
13 Mar	F	23	3: <i>Taking Root: The Vision of Wangari Maathai</i> (56 min. film)	
14-22 March			<i>Spring Recess</i>	
23 Mar	M	24	4: The growth and development of trees and forests	
25 Mar	W	25	4: Trees, forests, water, nutrients, and carbon sequestration	
27 Mar	F	26	4: Silviculture ...the art and the science of guiding forest change	
30 Mar	M	27	4: Managing forests to restore or enhance wildlife habitat	
1 Apr	W	28	4: Forest Ecosystems and Wildfire	
3 Apr	F	29	4: Fish grow on trees—How forests protect aquatic ecosystems	
6 Apr	M	30	4: Forest → Mill → Manufacturing → Market	
8 Apr	W	31	4: Sustainable Forest Management Principles, Values and Benefits	
<b>10 Apr</b>	<b>F</b>	<b>32</b>	<b>Exam 2 – Sections 3 and 4</b>	
13 Apr	M	33	5: The Man Who Planted Chestnut Trees ...and then some	
15 Apr	W	34	5: Watershed Forest Management: Boston and New York City	
17 Apr	F	35	5: Tropical Forest Conservation in Ecuador (Peter Pinchot)	
20 Apr	M		<i>Patriot's Day</i>	
22 Apr	W	36	5: Modeling Forest Landscapes (Meg MacLean and Malcolm Itter)	
24 Apr	F	37	5: Urban and Community Forestry	
27 Apr	M	38	5: Family Forests of New England (Paul Catanzaro)	
28 Apr	Tues		Assignment 4 due not later than midnight on Moodle	
29 Apr	W	39	5: Trees, Forests, and People for a Better World	
<b>Extra credit opportunity:</b> Write a 1,200 to 1,500-word paper summarizing and building upon any topic in Section 5. Please get approval from Prof. Barten via email by April 27, 2020.				<b>Due: May 5</b>

**Learning and Performance Evaluation**

Component	% of course grade	Due Date
Assignment 1	10	February 5
Assignment 2	15	February 19
Exam 1	25	February 24
Assignment 3	15	March 25
Exam 2	25	April 10
Assignment 4	10	April 29
<b>Extra Credit Paper</b>	up to 15%	May 5

**Assignments are due before midnight on the assigned dates.** Turnitin will not accept assignments after 11:59:59 PM. **DO NOT wait until the last proverbial minute to submit your work.** You have 2 to 3 weeks to complete and submit each assignment. Telling me “my book didn’t arrive in time” after you miss the deadline is not a valid excuse. Hence, late assignments will not be accepted for full credit unless you have a documented excused absence (see below). Otherwise, there will be a 20% deduction. Successful completion of all four assignments is a requirement to complete the course.

**Academic Honesty Policy of the University of Massachusetts Amherst**

[http://www.umass.edu/ug\\_programguide/academicinfo/academicpolicies.html](http://www.umass.edu/ug_programguide/academicinfo/academicpolicies.html) *"An instructor who finds that a student has violated the University's Academic Honesty Policy may lower the student's grade, or fail the student for the course. Students have the right to appeal such grade penalties by instructors. The University Academic Honesty Board, composed of faculty members and undergraduate and graduate students, reviews all student appeals. Students who have been found to have committed acts of academic dishonesty may also face suspension or expulsion from the University."*

**Turnitin** (on Moodle) has a very sophisticated AI algorithm to alert me and the TA to potential plagiarism. It compares your assignment to all other submissions AND also does a comprehensive web search. So, if you and your friend turn in the same or very similar assignments, that will be flagged. If you copy and paste material from web sites or other electronic sources (e.g., those “homework” websites), that will be flagged as well. After discussing the assignment with you, the net result of an unconvincing explanation will be a zero (0) for the assignment

**\*University of Massachusetts Amherst Policy on Class Absence**

<https://www.umass.edu/registrar/students/policies-and-practices/class-absence-policy> ...and all related links ...Please read and abide by these reasonable and comprehensive policies. I will meet my responsibilities as a faculty member to help students with *bona fide* excused absences from class (e.g., illness, family emergency, religious observance, or UMass team sport). The UMass website clearly explains what constitutes an excused absence and how written documentation should be obtained (through the UMass Health Clinic, Athletic Department, or the Student Affairs Office). Please keep me informed (via email), in advance if possible, when you miss class. Class sessions are available on Echo360 on Moodle.

**Accommodation Policy Statement**

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), Learning Disabilities Support Services (LDSS), or Psychological Disabilities Services (PDS), you may be eligible for reasonable academic accommodations to help you succeed in this course. Please have your accommodations letter sent to me and contact me during the first week of the semester to discuss how we can best work together.