

Honors 494
E. O. Wilson: Bridging Science, Social Science, and the Humanities
Fall 2018

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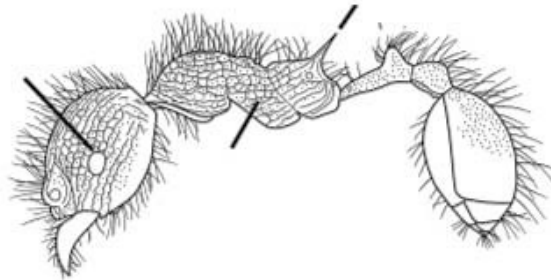
<http://www.mountainsandminds.org/HONR494>

“The god of the bees is the future”

-- Maeterlinck (1901)

Course Overview

This honors seminar focuses on the fusion of disciplines – the sciences, social sciences, and humanities. It does so through the life and work of the greatest living naturalist in the world – Edward Osborne Wilson. Our goal is two-fold: to understand and appreciate the intellectual contributions of E. O. Wilson, and to critically engage the exceedingly controversial themes Wilson introduced into our world. We will begin by fitting Wilson’s work into the history of biology, delve into his many-faceted contributions, analyze the controversies his work has precipitated, and end by engaging these controversies with our own, original research. Thus, our methods are also two-fold: to read and discuss, through primary and secondary literature, the contributions of E. O. Wilson, and to undertake original research at the intersection of science, social science, and the humanities.

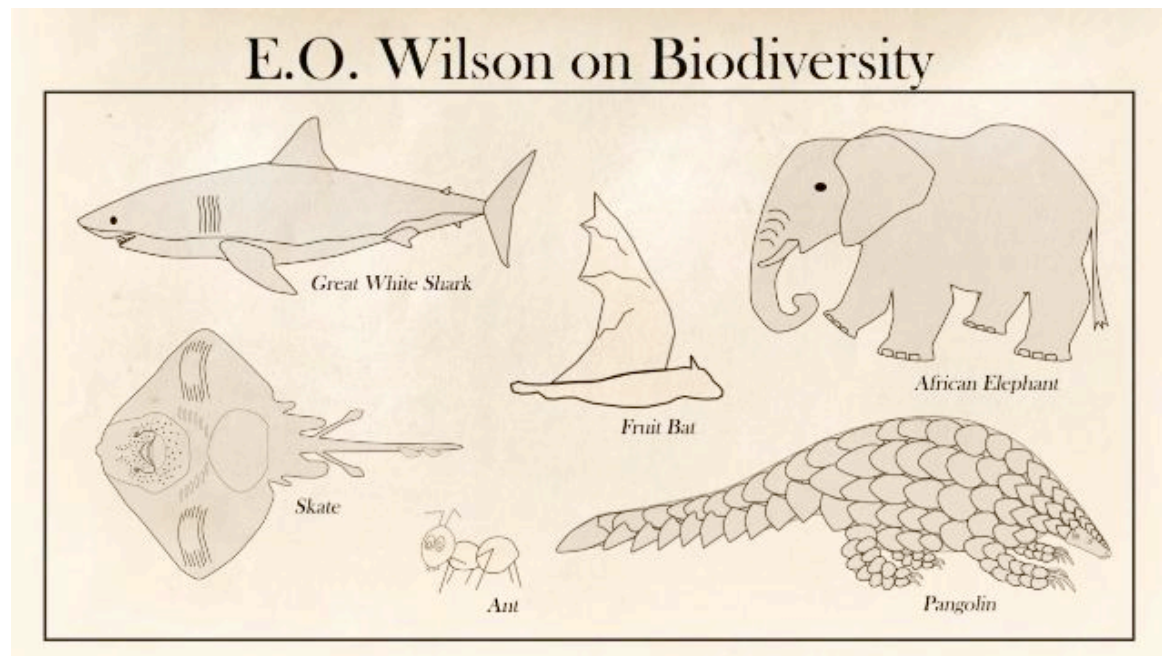


E. O. Wilson’s contributions to science alone would make him worthy of study. His early work on ants fundamentally transformed the science of entomology. Along with his co-researcher, Robert MacArthur, he formulated our modern theory of island biogeography. He single-handedly invented sociobiology as a new discipline. But Wilson is much more than a scientific thinker. He is at heart a philosopher. *On Human Nature* and *The Meaning of Human Existence* are passionate defenses of secular humanism, while *Consilience* argues for a reductionist unification of knowledge under the auspices of biology. He is also a fervent conservationist. His disdain for the human destruction of the environment, and recent championing of biodiversity – in the form of books, articles, popular lectures, and his *Encyclopedia of Life*, a website designed to catalogue

all the earth's species – make him a powerful advocate for the planet. He is also an accomplished educator, twice the winner of the Pulitzer Prize, and author of over thirty books, including a 3D high school biology textbook, *Life on Earth*. But, most of all, he is a synthesizer, bringing population genetics, ecology, and evolutionary biology to bear on questions at the heart of the social sciences and humanities. All of his many traits are perhaps best summarized by a word he coined– “biophilia” – to describe our innate, deep love of nature, our “urge to affiliate with other forms of life.” E. O. Wilson is the premier biophilic.

While few can deny Wilson's significant contributions to science, not everyone would applaud his presence. All of his work raised controversy. He argued unflinchingly that evolutionary theory could (and should) be used as the basis to explain culture as well as nature. His colleagues at Harvard, Richard Lewontin and Stephen Jay Gould, thought his work was ridiculous. At an annual meeting of the prestigious American Association for the Advancement of Science, student protesters began chanting “Racist Wilson, you can't hide; We charge you with genocide.” His work on conservation seems to overlook indigenous peoples and other communities already tied to the land, and some feel his uncritical advocacy of GMOs place him in the pocket of the rich and powerful. His own passionate love of nature is matched by others' deep-rooted feelings of hostility.

The aim of the class is to get to the bottom of it all – to learn about his contributions and to engage in the controversies, to understand his own passion and the passion he ignites in others. We, too, will follow his model; we will be scientists, philosophers, conservationists, educators, and, at the bottom of it all, biophilic. But, most of all, we will be synthesizers: we will draw together the sciences, social sciences, and the humanities in our own quest to understand the life, work, and significance of the world's leading naturalist.



Required Texts

- E. O. Wilson, *Naturalist* (1994)
E. O. Wilson, *On Human Nature* (1978)
E. O. Wilson, *The Diversity of Life* (1992)
E. O. Wilson, *The Origins of Creativity* (Norton, 2017)

Reading on My Website

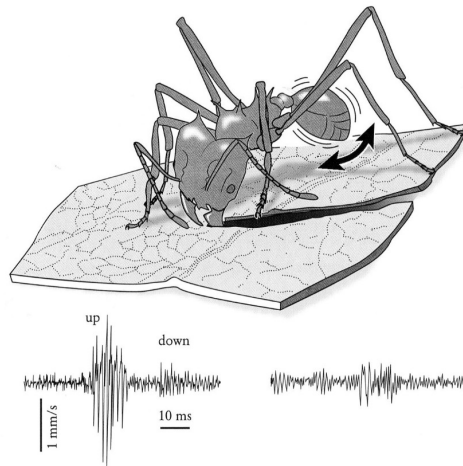
In addition to the above texts, I will be placing readings on the website for the course. You should make your own photocopy of the material and bring it to class.

- Charles Darwin, *On the Origin of Species* (1859) [selections]
Charles Darwin, *The Descent of Man* (1871) [selections]
Charles Darwin, *The Expression of the Emotions in Man and Animals* (1872) [selections]
Julian Huxley, *Evolution: The Modern Synthesis* (1942) [selections]
E. O. Wilson, *Sociobiology: The New Synthesis* (1975 [2000]) [selections]
E. O. Wilson, *Consilience: The Unity of Knowledge* (1998) [selections]
Stephen Jay Gould, "Sociobiology: The Art of Storytelling," *New Scientists*, November 1978, pp. 530-533.
Richard Lewontin, et. al., "In Response to Mindless Societies – A Response to Wilson," *New York Review of Books*, Volume 22, Number 18, November 13, 1975.
E. O. Wilson and Robert H. MacArthur, *The Theory of Island Biogeography* (1967) [selections]
David Quammen, *The Song of the Dodo: Island Biogeography in an Age of Extinction* (1997) [selections]
Michael Reidy, "From Oceans through Islands to Mountains," in John Gillis and Franziska Toma (eds.), *Fluid Frontiers* (2015), pp. 192-210.
Danny Hakim, "Doubts About the Promised Bounty of GMO Foods," *New York Times*, 29 October, 2016.
Alex Mesoudi, Andrew Whiten, and Kevin N. Laland, "Towards a Unified Science of Cultural Evolution" *Behavioral and Brain Sciences* 29 (2006): 329–383.
W. C. Wimsatt, "Genes, Memes and Cultural Heredity," *Biology and Philosophy* 14 (1999): 279–310.

Suggested Readings

- Carroll, McAdams and Wilson (eds.), *Darwin's Bridge: Uniting the Humanities & Sciences* (Oxford University Press, 2016).
Ullica Segerstrale, *Defenders of the Truth: The Sociobiology Debate and Beyond* (Oxford University Press, 2001)
Dan Sperber, *Explaining Culture: A Naturalistic Approach* (Blackwell, 1996)
Tim Lewens, *Cultural Evolution: Conceptual Challenges* (Oxford University Press, 2015)
Peter M. Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution* (University of Chicago Press, 2006).
Sharon Kingsland, *Modeling Nature: Episodes in the History of Population Ecology* (University

of Chicago Press, 1995)
K. Sterelny, *The Evolved Apprentice: How Evolution Made Humans Unique* (Cambridge, MIT Press, 2012)
Peter J. Richerson and Robert Boyd, *Not By Genes Alone: How Culture Transformed Human Evolution* (Chicago: University of Chicago Press, 2005).
Any of the other thirty books authored or co-authored by E. O. Wilson



Assignments and Final Project

Classroom Participation: Regular participation in seminar discussions is required, as this course is a seminar run almost entirely through large-group discussion. Students are expected to attend all classes and come well prepared to discuss the readings assigned for each week. In addition to discussion, participation may take the form of in-class writing assignments and take-home assignments (the 3-2-1). This will count for 50% of your grade.

Final Research Project: A major objective of this course will be to undertake a professional research project. Most will write a paper of about 8,000 words (25 pages), though I am open to other types of projects. The topic is entirely up to you, but it must be a new project, based on primary and secondary material, and related to the overall themes of the course. You are encouraged to meet with me early in the semester to map out your topic and to discuss sources. This will count for 50% of your grade.

Your project will be due the last week of classes, but you will begin much earlier:

Library Assignment: Week Four	(10%)
Research Proposal: Week Eight	(20%)
Research Project: Week Fourteen	(70%)

Tentative Schedule of Topics, Readings, and Assignments

WEEK ONE

Readings: Webpages and Movies

M Aug 27: E. O. Wilson, Why I am Here, and Why You are Here

W Aug 29: Discussion of Wilson on Screen and on the Web

WEEK TWO

Readings: Charles Darwin, *On the Origin of Species* (1859) [selections]
Charles Darwin, *The Descent of Man* (1871) [selections]
Charles Darwin, *The Expression of the Emotions in Man and Animals* (1872)
[selections]

M Sep 3: NO CLASS

W Sep 5: Ever Since Darwin

WEEK THREE

Readings: T. H. Huxley, *Evolution and Ethics* (1893-4)
Petr Kropotkin, *Mutual Aid* (1902)
Charles Davenport, *Heredity in Relation to Eugenics* (1911)
Walter Bagehot, *Physics and Politics* (1916)
Julian Huxley, *Evolution: The Modern Synthesis* (1942)

M Sep 10: From the Modern Synthesis ... (First part of this class, 4:10-5:00, we will meet in the Procrastinator Theater, for a talk on "Creating Perfect Babies")

W Sep 12: ... To the New Synthesis

WEEK FOUR

Readings: E. O. Wilson, *Sociobiology*, Chapter 26.
Stephen Jay Gould, "Sociobiology: The Art of Storytelling," *New Scientists*,
November 1978, pp. 530-533.
Richard Lewontin, et. al., "In Response to Mindless Societies – A Response to
Wilson," *New York Review of Books*, Volume 22, Number 18, November
13, 1975.
Richard Lewontin, *Biology as Ideology*, "Causes and Their Effects" and "A Story
in Textbooks".

M Sep 17: Sociobiology and Its Discontents

W Sep 19: **Discussion of Research Projects**

WEEK FIVE

Readings: E. O. Wilson, *Naturalist* (1994)

M Sep 24: Gould and Lewontin

W Sep 26: From Alabama to Harvard

WEEK SIX

Readings: E. O. Wilson and Robert H. MacArthur, *The Theory of Island Biogeography* (1967) [selections]

M Oct 1: Ant Lab and Project Assignments and Discussion

W Oct 3: NO CLASS

WEEK SEVEN

Readings: E. O. Wilson, *On Human Nature* (1978)

M Oct 8: Secular Humanism

W Oct 10: **Library Assignment Due**

WEEK EIGHT

Readings: E. O. Wilson, *On Human Nature* (1978)

M Oct 15: Altruism

W Oct 17: Human Nature

WEEK NINE

Readings: E. O. Wilson, *The Diversity of Life* (1992)
Danny Hakim, "Doubts About the Promised Bounty of GMO Foods," *New York Times*, 29 October, 2016.

M Oct 22: The Road to Conservation

W Oct 24: The Problems of Conservation

WEEK TEN

Readings: E. O. Wilson, *The Diversity of Life* (1992)

M Oct 29: **Research Prospectus Due**

W Oct 31: **HSS Annual Meeting – NO CLASS**

WEEK ELEVEN

Readings: E. O. Wilson, *The Origins of Creativity* (Norton, 2017)

M Nov 5: Human Creativity

W Nov 7: A Third Enlightenment

WEEK TWELVE

Readings: Alex Mesoudi, Andrew Whiten, and Kevin N. Laland, “Towards a Unified Science of Cultural Evolution” *Behavioral and Brain Sciences* 29 (2006): 329–383

M Nov 12: **Veteran’s Day – NO CLASS**

W Nov 14: Cultural Evolution

WEEK THIRTEEN

Readings: W. C. Wimsatt, “Genes, Memes and Cultural Heredity,” *Biology and Philosophy* 14 (1999): 279–310

M Nov 19: Memes and Things

W Nov 21: **Thanksgiving – NO CLASS**

WEEK FOURTEEN

M Nov 26: No Class

W Nov 28: Presentations

Final Projects Due

WEEK FIFTEEN

M Dec 3: Presentations

W Dec 5: Wrap-Up Discussion