

UC BERKELEY GRADUATE SCHOOL OF JOURNALISM

EARTH JOURNALISM: Introduction to Environmental Reporting (J-130)

Monday, Tuesday, Wednesday 9-11 am; Thursday 9:30-11 am
July 2-August 9
Hearst Gym Building, #242

Instructor: Mark Schapiro

Office hours (B-42, North Gate Hall): 2-4 Tuesday/3-5 Thursday.

GSI: Drew Costley

Office hours (B-42, North Gate Hall): 4-6 Wednesday/3-5 Friday.

Contact info:

mschapiro@berkeley.edu dcostley@berkeley.edu

Course Overview

Living as we now do in the so-called Anthropocene Era, in which human activities are having an increasingly significant impact on our local environment and the planet as a whole, it has become more important than ever to communicate and improve public understanding of global challenges such as climate change, loss of biodiversity, environmental health, sustainable agriculture and food systems, and much more. But reporting on these topics – which often play out slowly and lack obvious news hooks – can be a challenge.

Learning Objectives

This is a class aimed at learning about environmental issues, devising strategies for reporting on them and telling the stories in a compelling way, whatever the medium. We combine developing deeper knowledge of the major environmental challenges of our time, through lectures, reporting exercises, on-scene reporting, presentations by experts, and attention to the science underlying all environmental matters. The aim is to further develop your reporting skills and apply them to probing into the environment. That includes enhancing your familiarity with some of the fundamental science that is at the foundation of our understanding of environmental conditions on the planet, the potential stress points, and their intersection with multiple spheres of modern life, including politics, business, technology, economics, the law and culture.

Classroom Decorum Policy

Students must turn off the ringers on their cell phones before class begins. Please keep your mobile phone out of sight and in your bag. We have a “screens down” policy, in which computers will not be used in class unless you have received prior approval from an instructor. Checking email, social media sites like Facebook, Twitter, Reddit or other websites during the lecture portions of the class will result in a public admonishing, and students will be given marks against their class participation grade at the discretion of the instructor.

Materials, Texts and Readings

Readings will be assigned each week for individual class sessions, and will provide a basis for discussion. We will discuss and critique the readings in class—what they tell us about the particular topic at hand, and the strategies used by the journalist in reporting and writing the story.

Learning Objectives Grading Policy and Breakdown

All readings should be completed before the class. We’ll be discussing readings, and hope that you will offer comments, critiques, observations based upon them in class.

Late assignments will have a direct impact on the grade, knocking it down one full letter grade every 24 hours up to three days. Unless otherwise arranged with instructors, Assignments will not be accepted more than 72 hours late unless there is a legitimate excuse as noted under the absence policy.

If you know you will be late in turning an assignment in (or absent on the day the assignment will take place), you are expected to turn that assignment in prior to your absence to receive full credit. Lack of access to or technical difficulties with computers (including failure to publish or include email attachments) are unacceptable excuses for late or missed assignments. In-class participation and submission of writing assignments are essential for learning and success in this class, and this weight is appropriately reflected in the grading.

GRADING:

Final Project = 30%

Writing/Reporting Assignments = 30%

Attendance = 20 %

Participation = 20%

Late assignments will decrease your grade by one full-letter.

Computer/mobile phone use during class will be factored into your attendance record.

Everyone in the class **must** schedule an appointment during office hours with either Mark or Drew before the third week of class. This will enable us to discuss your final project, and your engagement with the journalistic principles and practices covered in the class.

A note on grading your assignments: Since everyone begins the class with differing skill levels, grading on your writing/reporting assignments will be based partially on demonstration of progress, which means responsiveness to Instructor critiques and integration of class subject matter into your work.

Academic Dishonesty and Plagiarism

Students will abide by the Student Code of Conduct <http://students.berkeley.edu/uga/conduct.asp>. There is a zero-tolerance policy for work that is submitted without proper attribution and that constitutes plagiarism. If students are unsure about the expectations regarding the Student Code of Conduct, please seek advice from the instructors.

Assignments

Subject to change based on the needs of the class (please check Bcourses: all assignment due dates will be posted on the first day of class). Additional information will be provided on all assignments during class.

CLASS OVERVIEW

Each week of the six week course will be divided roughly between emphasis on learning the fundamentals about an environmental topic—climate change, biodiversity, water, etc—and on the craft of journalism—interview techniques, source documentation, facility with scientific literature, etc. Each class for a given week will address both the topic area and the craft aspect, placed within the context of the topic at hand. In this regard, we will jump into the methodologies of reporting—the development of a critical eye, how to identify a story, and the steps to reporting it out, including identification of potential document and human sources, as well as on the scene observation, and use these tools to follow the evidentiary thread of our theme of the week.

We will also focus on the multi-disciplinary knowledge necessary for environmental reporting—crossing into realms of science, geo-politics, finance and the law. We will read relevant articles and papers, and analyze how they do, or do not, communicate effectively. We'll also consider the implications for journalists of the new Trump administration's expected roll back of many national and international environmental initiatives.

Students will be assigned to produce a written work each week, and a final project, which will be reviewed and critiqued by the instructors, with an eye toward journalistic verisimilitude and story-telling skill.

Our goal is to make this class as interactive and useful as possible to students with all sorts of backgrounds interested in learning how to report on and communicate these important but challenging topics. It offers you new ways to understand the fundamental environmental conflicts and issues of our time, and how to approach them journalistically. Class discussion about relevant current events and your reporting ideas is greatly encouraged. When we indicate 'lecture'--by an Instructor or Guest Lecturer--we imply that there is also questioning and discussion involved. Be a journalist inside as well as outside of class.

OVERVIEW

WEEK 1:

TOPIC: Environmental Journalism

CRAFT: Where the Stories Are

WEEK 2:

TOPIC: Climate Change

CRAFT: Finding and Sourcing the Story

WEEK 3:

TOPIC: Water

CRAFT: Asking the Right Questions

WEEK 4:

TOPIC: Toxic Chemicals and Public Health

CRAFT: Understanding science

WEEK 5:

TOPIC: The Future of Food in Era of Climatic Disruption

CRAFT: Interviewing

WEEK 6:

TOPIC: Biodiversity + Reflections on Environmental Journalism

CRAFT: Narrative Strategies

WEEK 1

July 2:

INTRODUCTIONS To the class and to the Instructors Mark Schapiro; and GSI, Drew Costley.

Logistics of the course over coming weeks: Grade criteria, class basics, intro to readings, etc.

Organizational principle of the class: Each week we will emphasize a different TOPIC that is central to environmental journalism, and a part of the CRAFT that is central to the practice of journalism.

We'll identify our thematic areas, and explain class assignments.

Explain our daily 'news updates'. We'll divide into groups, and each group will begin the day's class with the latest 'news' Can be from local sources; from their hometown newspapers; from their home nation sources.

Jump off the newspaper or news is fine too.

Where stories come from: Read. Listen. Observe.

Notice the world around you and seeing it all as sources of stories.

Lecture, MS:

INTRODUCTION TO ENVIRONMENTAL JOURNALISM.

MS on the fundamentals of environmental journalism—from the local to regional to state to national level. Importance of science in understanding the basics of environmental journalism. Evolution of environmental journalism. Areas of tension and potential for journalistic intervention

And what is the 'environment'? Deal with the presumption that its something 'out there.' Identifying where the stories are.

Writing Assignment: In 150-200 words explain your interest in environmental journalism. Ungraded. Due July 3, at 4:00 p.m.. (All other writing assignments for this course will be due at the end of the week they are assigned)

July 3:

As illustration of where stories come from, MS and DC share their Environmental Stories of the Day, from previous 48 hours.

Students will do this in groups every morning to begin class for the rest of the semester:

Part 1: *Lecture/DC*

On the local environmental stories—key players and situations.

Part 2: *Lecture/MS* on Journalism Methodology and the Scientific Method.

The similarities between journalism and science, using similar methodologies to get at the truth. How paradigms are established, and challenged.

Where are the stories? We'll start local and work our way outward:

July 4: Holiday. No Class.

July 5:

Organize seven groups of four students each for 'Environmental News of the Day' presentations, This will be the way we start everyday in the class—with the 'environmental news' menu of the day. Email links to stories to DC by 7 p.m. the night before you are due to present. This will begin the following week, on July 9.

Discussion on ideas you've seen/heard about.

Lecture, MS: How to find the story: Key sources for environmental stories.

READINGS THIS WEEK:

[The Right Way to Remember Rachel Carson](#), by Jill Lepore, The New Yorker (read or listen to the audio version, also at hyperlinked site)

“[The Messengers: How do we get People to Care About the Environment?](#)”, by Brooke Jarvis, *Pacific Standard*.

“[Stephen King, Ledes and Reporting on the Environment](#)” by David Poulson, Knight Center for Environmental Journalism

“[Who’d Be a Journalist](#),” by Hector Tobar, New York Times, Opinion section.

Sources for local and for environmental news to keep an eye on:

[East Bay Express](#)

[SF Gate](#)

[Grist](#)

[YaleEnvironment 360](#)

[East Bay Times](#)

WEEK 2:

TOPIC: CLIMATE CHANGE: The Science and the Response

CRAFT: ASKING THE RIGHT QUESTIONS.

TOPIC:

Climate change is the biggest story of this century. It affects virtually every environmental issue you can think of and is already having major socio-economic impacts. The media, however, has a difficult time covering the issue, given its incremental nature and the uncertainty surrounding its impacts. This week will effectively serve as an introduction to the topic, which will arise repeatedly through the many subjects we cover all semester long.

We’ll consider the most up to date climate science; the state of international climate negotiations; the effect of President Trump’s withdrawal of the United States from the process; the impact of climate change on everything from growing food to planning cities; and the multiple ways in which climate change is unsettling the political, economic and environmental landscape—and thus creating multiple entry points for journalists.

ASKING THE RIGHT QUESTION: Seems simple but it’s not. Often the course of your reporting will be determined by the nature of the question you seek out to answer. If you come up with the correct question, your path for reporting will be clear. We’ll discuss strategies for sculpting the question that is most likely going to lead you in a promising direction.

July 9:

CLIMATE CHANGE:

Lecture, MS: How climate change is the defining phenomenon of our time and is shaping our politics, economics, business, technology, international relations, culture. We will discuss the efforts to grapple with the increasing dis-equilibrium in the natural order.

Writing/Reporting assignment for the week:

Identify one climate related story on local, regional, state, international level, and its intersection with business, technology, law, urban life, politics, economics, finance, food—or any other intersections with how we live.

July 10:

Group 2: Environmental ‘News’ of the Day.

Lecture & Discussion: Reporting strategies for locally-based climate stories—and development of the right ‘question’ to ask, which will determine reporting strategy.

Guest Lecture: [Adrienne Alvord](#)/Western States Director, Union of Concerned Scientists. How California is Responding to Climate Change.

July 11:

Group 3: Environmental ‘News’ of the Day.

Lecture, MS: Asking the Right Question. How to formulate a question that will propel your reporting in a productive and fruitful direction.

Film screening: Carbon Offsets—the Principles and the Practice. Film screening (20 minutes): ‘The Carbon Hunters,’ PBS FRONTLINE/World segment on life in a carbon offset in Brazil, Mark Schapiro-correspondent. .

What does this story of carbon offsets in Brazil tell us about climate responses in California? San Francisco? UC Berkeley?

July 12: Idea for Final Project is Due by this Date, Please submit in 1-3 paragraphs.

Group 4: Environmental ‘News of the Day’

Guest film/: Climate refugees in India. (Erin Stone, tbc)

What do stories from distant locations dealing with climate disruptions tell us about how we are experiencing climate change, and suggest about strategies for journalistic inquiry.

READINGS THIS WEEK:

Chapter 1 in [THE END OF STATIONARITY: Searching for the New Normal in the Age of Carbon Shock](#), by Mark Schapiro. (relevant chapters will be distributed in class)

[“When I Talk About Climate Change, I Don’t Talk About Science,”](#) by Andrew David Thaler, *Southern Fried Science*

[“Climate Change: Stationarity is Dead: Whither Water Management,”](#) by PCD Milly, et al *Science Magazine*.

[“How We Know It was Climate Change,”](#) by Noah S. Diffenbaugh, *New York Times*. _

[“Prying Open the Financial Risks of Climate Change,”](#) by Mark Schapiro, *Newsweek*

[“The Unique Burden of Covering Climate Change in the Middle East,”](#) by Mark Schapiro, *Pacific Standard*.

[“Climate Change: How to Report the Story of the Century,”](#) by James Fahn, *SciDev.net*

[“EXXON: The Road Not Taken,”](#) *Inside Climate News*

Check out:

[Anthropocene Magazine](#)

[Climate Central](#)

[Inside Climate News](#)

WEEK 3:

TOPIC: Water

CRAFT: Understanding Science.

Topic: The earth’s most fundamental element sits at the root of many of the most dramatic conflicts of our time. As water patterns get more volatile, the tensions around water are accelerating—making them prime territory for journalistic intervention. Water, say real estate developers, equals money. Water, say ecologists, is the fundamental ingredient from which life springs. We will explore the vast terrain between those two perspectives.

Craft: At the root of most environmental stories is science. Scientific inquiry offers us a glimpse into the stresses being experienced on ecosystems. A basic familiarity with the language of science is essential to environmental journalism. You don’t have to be a scientist to understand. We’ll aim to demonstrate how scientific journals need not be intimidating, and are often rich source material for stories.

Exercise: Homework: Write an article due by end of the week which is based on at least one scientific study. Explain the findings, put them in a local/state/national context. And

tell us who you would seek out to discuss the implications--How you would set out to do the story.

As source material, you may use any scientific journal (we'll review some in class) or publications that report on the findings in scientific journals—*Discover*, *Scientific American*, *Pacific Standard*, *Nautilus*, etc.

July 16:

Group 5: Environmental News of the Day.

Lecture, MS: Water Unpredictability.

What it means that water no longer flows predictably. Follow that from local to state to national to international level to water access as a source of conflict.

Lecture and Group Discussions, MS/DC: Getting acquainted with science journals. Show how stories evolve from scientific findings with examples, tracing the story back to the Journal. Introducing potential source material from science. How to deal with scientists, engage with them, what to watch out for.

July 17:

Group 6: Environmental 'News of the Day'

Lecture and Discussion: DC on the world's one river—the Atrato—with legal rights.

Guest Speaker [James Fahn](#), Executive Director of the Earth Journalism Network; and Lecturer, UC Berkeley Graduate School of Journalism. Sensor Journalism: How new technologies can be used by journalists to monitor environmental conditions, the health of waterways, and track environmental polluters.

July 18:

Group 7: Environmental 'News' of the Day.

Guest speaker: Dr. [Faith Kearns](#), water scientist, California Institute for Water Resources, UC Berkeley. Kearns is an expert on water systems, and will discuss the spectrum of issues raised by water access, and innovations she and others are working on to deal with increasingly unpredictable water flows in the state and in the west.

July 19: **Outline for Final Project is Due on this day.** ≈

Group 1: Environmental 'News' of the Day

Field trip to on-campus water source.

DC on how to find nutrients and pollutants in water, drawing on his experience with the Woods Hole research center.

Questions and discussion on final project.

READINGS TK:

[Five Key Facts About the California Drought and How We're Responding to It](#), *Hippo Reads*, by Faith Kearns

[Life Amid the Levees: Will the California Delta Survive a Thirsty State](#), by Jacob Shea, *Earth Island Journal*

[How do We De-Toxify California's Poison Tap Water? More Democracy](#), by Jacques Leslie, *Los Angeles Times*

[AQUEDUCT--Water Risk Atlas](#), World Resources Institute

["How Big Wireless Made Us Think That Cellphones are Safe: A Special Investigation,"](#) by Mark Hertsgaard and Mark Dowie, *The Nation*

For consideration on the tripwires of science and how the scientific method can be manipulated to sow doubt.

WEEK 4:

TOPIC: TOXIC: Toxic Chemicals and Public Health

CRAFT: The Backstory

Environmental health and industrial pollution are rich terrain for journalists. Reporting on environmental health threats has become even more challenging as global supply chains have become more complex and global, and regulatory regimes diverge. We will consider the reporting strategies for following a trail from consumers in the United States to producers in other countries, and tactical strategies for reporting on the global dimensions of environmental health stories.

Consider climate impacts on public health (CEH).

Craft:

Revealing the environmental and health consequences on everything from the sources of pollution to the contents of your shampoo requires diving into the backstory. We'll discuss the how-tos of diving into the backstory.

Writing/Reporting Exercise:

Choose a product, any product, and write a story about its ingredients. Where they come from? What their health consequences might or might not be? How many ingredients and where they come from. You can choose anything, from your shampoo to your makeup to your breakfast cereal—tell us the story.

July 23:

Group 2: Environmental News of the Day.

Lecture, MS: The meaning of 'Silent Spring'.

There are toxic substances all around us. How to devise reporting strategies for reporting on the risks and health hazards, understand enough science to report on the risks, and how the US differs from other countries in acting upon risk.

Writing/Reporting assignment: Look around you. Find a chemical in one or another of the things around you—make up; cleaning solutions; sofas; homes. ID a chemical and do a short history, how it got there. Interview an expert if you can. Due: end of the week.

July 24:

Environment ‘News’ of the day.

Guest Speaker: Dr. Bill Pease, Chief Scientist for [Good Guide](#) (guide to toxics in consumer products)

Dr. Pease will discuss how they identify toxics, toxic regulation, and the impacts of Good Guide’s approach to informing the public about the toxics in their products.

July 25:

Environmental ‘News’ of the day.

The use of scientific, legal, government, NGO and other sources to identify dangerous chemicals.

MS and DC. More examples of using scientific journals as the backdrop and evidence for your stories.

July 26:

Environmental News of the Day.

Finding the narrative for stories on toxics.

Based on chapter 7 in EXPOSED: The Toxic Chemistry of Everyday Products and What’s at Stake for American Power, by Mark Schapiro.

(to be distributed in class)

READINGS THIS WEEK:

Read Chapter 1, “Hard Power, Soft Edge” and Chapter 7, “Chemical Revolution” in Exposed: The Toxic Chemistry of Everyday Products and What’s at Stake for American Power, by Mark Schapiro [will be distributed in class]

“[How ‘Silent Spring’ Ignited the Environmental Movement](#),” by Eliza Griswold, New York Times Magazine

Check out:

[Environmental Health News](#), provides ongoing coverage of environmental health issues.

WEEK 5: TOPIC: FOOD

CRAFT: NARRATIVE STRATEGIES

July 30: FOOD/AGRICULTURE.

Environmental News of the Day

Lecture, MS: The Search for Resilient Seeds in a Time of Climate Disruption. We'll consider the impact of two powerful converging forces: Climate disruptions in our food growing lands and unprecedented consolidation of the seed industry in the hands of agricultural chemical companies.

Exercise: Story behind the story of your food: Where does food come from? Do a story—go to a café on campus; talk to cafeteria officials.

Select an item and write about it.

Talk to farmers/scientists/cafeteria workers/food professionals.

July 31:

Lecture, DC: Food as Medicine story and what it says about food access in Oakland and the rest of the East Bay.

Guest Speaker: Haleh Zandi, Co-Founder and Outreach Director for [Planting Justice](#). Zandi will speak about food access and urban greening in Oakland and the work that Planting Justice is doing to food, economic, environmental and social justice.

August 1:

Environmental 'News' of the Day

MS: Narrative Strategies for Telling the Story, and in different media.

Film screening: Heat & Harvest/KQED, Mark Schapiro: How climate change is impacting California agriculture.

August 2: Field trip to the UC Botanical Garden. In which we'll learn of the fantastic spectrum of plant species and the ecosystems in which they thrive, with a guided tour through the on-campus botanical garden. (We'll meet at the Hearst Mining Circle to catch the shuttle to the Gardens).

READINGS:

“[How Change Is Going to Come to the Food System](#)” by Michael Pollan, *The Nation*.

Read, “[Syria Holds the Secret to Our Species' Survival](#),” by Mark Schapiro, *Mother Jones*

View [Heat & Harvest](#), by Mark Schapiro, *KQED* documentary

“[Individual foods can have wildly different footprints, depending on how they're produced](#),” by Emma Bryce, *Anthropocene Magazine*.

Reference Materials and Suggested Readings:
“[Pesticides – A Primer](#)” by the Pesticide Action Network

August 3: FINAL PROJECTS DUE.

WEEK 6:

TOPIC: BIODIVERSITY

CRAFT: INTERVIEWING

Writing/Reporting Assignment: Write about an animal/plant. Give us a portrait of its behavior and relationship to other creatures, and its role in the larger ecosystem, and potential threats it faces.

August 6:

Environmental News of the Day.

Lecture, MS: What is Biodiversity and Why is it Important?

Lecture, DC: Measuring and Understanding Biodiverse populations.

Discussion about final papers.

August 7:

Environmental News of the Day

MS & DC: Interviewing: Strategies and techniques for friendly and/or hostile interviews.

Role playing exercises in groups.

August 8:

MS, lecture: Identifying those Responsible for Destroying, or Saving, Biodiversity.

How one story can be made to tell multiple stories.

Film screening on the Prestige oil tanker spill, *The Lawless Sea*, PBS FRONTLINE/World.

August 9:

Environmental News of the Day.

Class Reflections and discussion.

Read, “[Chasing the Biggest Story on Earth](#)”, interview of Elizabeth Kolbert, author of *The Sixth Extinction*, by Claudia Dreifus in the *New York Times*

Read “[New Maps Show How Our Consumption Impacts Wildlife Thousands of Miles Away](#),” by Shreya Dasgupta, *MongaBay.com*.

Read, "[Should Some Species Be Allowed to Die Out?](#)" by Jennifer Kahn, *New York Times Magazine*

Read "[Bioprospecting: Legitimate Research or Biopiracy?](#)" by Graham Dutfield, *SciDev.net*