

Syllabus: ENR 4193, Class # 3681 1-credit Environmental Film Series

Autumn Semester, 2018, Second Session. Seven consecutive Monday evenings starting October 15, 2018, through November 26, 2018, starting at 7:00 PM and ending at approximate times indicated below. With lively discussions by leading OSU and local experts after each film screening for app. 30 minutes. Free pizzas and beverages in the CBEC lobby at 6:30 PM at each event. Chemical and Biomolecular Engineering and Chemistry (CBEC) Building, Room 130. Details at: <https://odee.osu.edu/cbec-130>

Students registered in ENR 4193, Section 3681 must attend at least six of the seven Monday evening events, both the film screening and discussion afterwards. There will be a sign-in sheet at the CBEC 130 entrance which must be signed each week. Any absences beyond one of the seven events, even with a valid excuse, will need to be “made up” with an alternate assignment in order to receive a “Satisfactory” grade for the course. Also, for any five of the seven events, each student must write and submit an original essay of 500 to 600 words. These essays must in part apply ideas and information in the film and/or arising in the discussion afterwards to some “real life” situation, matter, or place with which the student has some familiarity, anywhere in the world. Essays must be submitted to the course Canvas/Carmen drop box by midnight of the second Tuesday after an event.

Instructor: David Hanselmann <http://senr.osu.edu/our-people/david-hanselmann>

Lecturer and former Environmental Professionals Network Coordinator

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4th Environmental Film Series, Autumn Semester 2018 OSU School of Environment and Natural Resources/ Environmental Professionals Network and OSU Office of Energy and Environment

October 15 CBEC Room 130, 7:00 to 9:15 PM

[Rancher, Farmer, Fisherman](#), 2017, 88 minutes, narrated by Tom Brokaw
Based on the 2016 book [Rancher, Farmer, Fisherman – Conservation
Heroes of the American Heartland](#), by [Miriam Horn](#), Environmental Defense
Fund author. [Interview](#) of Miriam Horn about her book. [Trailer](#)

(FYI, only a few minutes of the Fisherman segment of the film will be shown. But an 8-minute segment from *The Plains* episode from the 2015 PBS series EARTH – A New Wild, featuring Montana Rancher [Bryan Uling](#) discussing his wildlife-friendly ranching practices, will be shown.)

Film Synopsis

Debuting at the prestigious Documentary Premiere Section at the 2017 Sundance Film Festival, *Rancher, Farmer, Fisherman* weaves together the stories of four unlikely conservation heroes working in America's heartland. At a moment when it seems that collaboration is not just nonexistent but impossible, these working families cross political and other divides to arrive at real solutions for protecting the land and sea that define our country - and are crucial to all of our survival. From the Montana Rockies to the fields of Kansas to the Gulf of Mexico, *Rancher, Farmer, Fisherman* showcases the successes of a new crop of conservation heroes. The film is a tribute to people like Justin Knopf, a fifth-generation Kansas farmer revolutionizing industrial scale agriculture to rebuild fertility, biodiversity and resilience of his soil, and Dusty Crary, a fourth-generation Montana rancher who forged alliances between cattlemen, federal agencies, hunters and environmental groups to protect the Rocky Mountain Front. *Rancher, Farmer, Fisherman* then premiered as part of Discovery Impact, a slate of groundbreaking documentaries focusing on humankind's impact on the environment and what individuals and society can do to solve some of the largest problems facing the planet. Narrated by award-winning journalist Tom Brokaw and directed by Emmy-winning and Oscar-nominated Susan Froemke and Emmy-winning filmmaker John Hoffman, the film is based on Miriam Horn's 2016 book, *Rancher, Farmer, Fisherman: Conservation Heroes of the American Heartland*.

Discussion leaders

[Fred Yoder](#), Madison County conservation grain farmer, co-chair, [Solutions from the Land](#) and [North American Climate Smart Agricultural Alliance](#), and past-president, [National Corn Growers Association](#)

[Dusty Crary](#), Choteau, Montana rancher featured in the film, via e-connection. [Crary ranch info](#)

October 22 CBEC Room 130, 7:00 to 9:00 PM

[What Lies Upstream](#) 2017, 89 minutes.

[Trailer](#) [Interview with Collen Hoback, film producer at Dallas Film Festival](#)
[NYT Review](#)

Film Synopsis

In the unsettling exposé *What Lies Upstream*, investigative filmmaker Cullen Hoback travels to West Virginia to study the unprecedented loss of clean water for over 300,000 Americans in the 2014 Elk River chemical spill. There he uncovers a shocking failure of regulation from both state and federal agencies and a damaged political system where chemical companies often write the laws that govern them. While he's deep into his research in West Virginia, a similar water crisis strikes Flint, Michigan, revealing that the entire system that Americans assume is protecting their drinking water is fundamentally broken. In January 2014, West Virginians noticed that their tap water had a peculiar smell. It was soon discovered that a mysterious chemical, MCHM,

has leaked into the Elk River near Charleston from a damaged tank at a nearby Freedom Industries chemical plant, poisoning the drinking water supply for nine counties —nearly half of the state’s citizens. Hoback — whose interest was piqued by family ties to the state and a desire to understand why the contamination happened — embarks on an investigation that sends him down a rabbit hole of an unimaginable scale. The director finds plenty of blame to go around as he widens his focus to include the crisis in Flint, Michigan, where lead contaminants were found in drinking water, and the film posits the potential for similar health risks elsewhere. Through interviews with research scientists, agency whistle-blowers and concerned citizens, Hoback builds a persuasive case against not only industry and political figures, but also the Centers for Disease Control and the Environmental Protection Agency.

Discussion leaders

Lisa Morris, JD, past Chief, Ohio EPA Division of Surface Water and of Ohio DNR Division of Mines and Reclamation. Retired as Exec. Director, Ohio School Employees Retirement System
[Linda Weavers, PhD](#), PE, OSU CECE, Professor, and Director, Ohio Water Resources Center

October 29, CBEC Room 130, 7:00-8:45 PM

[Catching the Sun](#) The Race for a Clean Energy Future, 2015, 75 minutes. An eye-opening look at workers and entrepreneurs on the forefront of the clean energy movement that will transform, and enliven the way you see the future. What is clear is the wonderful opportunity the transition to clean energy represents. — Mark Ruffalo

Filmmaker Shalini Kantayya; featuring actor/activist Mark Ruffalo [Trailer NYT review](#)

Film Synopsis

An unemployed American worker, a Tea Party activist, and a Chinese solar entrepreneur race to lead the clean energy future. Who wins and who loses in the battle for power in the 21st century? Through the stories of workers and entrepreneurs in the U.S. and China, *Catching the Sun* captures the global race to lead the clean energy future. Over the course of a solar jobs training program, *Catching the Sun* follows the hope and heartbreak of unemployed American workers seeking jobs in the solar industry. With countries like China investing in innovative technologies and capitalizing on this trillion-dollar opportunity, *Catching the Sun* tells the story of the global energy transition from the perspective of workers and entrepreneurs building solutions to income inequality and climate change, with their own hands. Their successes and failures speak to one of the biggest questions of our time: will the U.S. actually be able to build a clean energy economy? *Catching the Sun* premiered at the Los Angeles Film Festival and was named a 2016 New York Times Critics’ Pick. It’s also part of American Film Showcase, shown at U.S. embassies and diplomatic missions around the world. The film released globally on Netflix with Executive Producer Leonardo DiCaprio on Earth Day 2016. It was nominated by Environmental Media Association for the 2016 EMA Award for Best Documentary.

Discussion leaders

[Josh Knights](#), Associate Director for Business Development and Partnerships, OSU Office of Energy and Environment and Sustainable and Resilient Economy Discovery Theme

[Tyler Grassman](#), PhD, Asst. Professor, Materials Science Engineering, OSU Dept. of Materials Science and Engineering

November 5, CBEC Room 130, 7:00 to 9:00 PM

[Toxic Puzzle](#), 2017, 83 minutes. Narrated by Harrison Ford, vice-chair, [Conservation International](#) board of directors [Trailer](#)

Toxic Puzzle, a film by Bo Landin, has considerable coverage of situations in Ohio including Grand Lake, Lake Erie, Toledo, and Conneaut, and an interview with Cleveland Clinic neurologist, Erik Piro, MD/PhD

[Scientist interviews](#) per the film including Erik Piro

[Paul Stommel](#), MD, Dartmouth-Hitchcock Medical Center per lakes in New Hampshire

Film Synopsis

Dying from diseases like ALS and Alzheimer's is a tormenting process. The illnesses are on the increase and scientists believe environmental toxins can trigger the disease in a gene/environment interaction. *Toxic Puzzle* is a medical and environmental detective story where [documentary filmmaker Bo Landin](#) follows ethnobotanist Dr Paul Alan Cox and his scientific team around the world in a hunt for the hidden killer. The pieces come together in a toxic puzzle where cyanobacteria in our waters become the culprit. Are these organisms, fed by human pollution and climate change, staging nature's revenge by claiming human lives? In the film, four years in the making, filmmaker Bo Landin was granted unique access to follow Paul Cox and over 50 collaborating scientists from around the world. On their quest to learn more about toxic substances produced by cyanobacteria, they make an extraordinary discovery of a link between cyanobacteria and ALS (Lou Gehrig's disease), Alzheimer's and Parkinson's illnesses. Is it possible that this link may also provide clues to a cure? *Toxic Puzzle – Hunt for the Hidden Killer* was filmed in USA, Sweden, Baltic Sea, France, Qatar, Guam, Japan, Australia, and presents a problem applicable to other countries worldwide

Discussion Leaders

[Adam Quick, MD](#), OSU Wexner Medical Center, ALS clinician and CDC HABs study participant

[Teresa Long, MD](#), retired Columbus Health Commissioner and Adjunct Associate Professor, OSU College of Public Health

November 12 CBEC Room 130, 7:00 to 9:00 PM

[Happening: A Clean Energy Revolution](#), 2017, 71 minutes.

How politicians, business executives and activists can band together for lasting, positive change.

Featuring Mark Ruffalo, Matthew Nordan, Dave Ram, Ray Maybus

[Trailer](#) [Bill Moyers' PBS review](#)

Film Synopsis

Filmmaker James Redford embarks on a colorful personal journey into the dawn of the clean energy era as it creates jobs, turns profits, and makes communities stronger and healthier across the US. Unlikely entrepreneurs in communities from Georgetown, Texas to Buffalo, New York reveal pioneering clean energy solutions while James' discovery of how clean energy works, and what it means at a personal level, becomes the audiences' discovery too. Reaching well beyond a great story of technology and innovation, "*Happening*" explores issues of human resilience, social justice, embracing the future, and finding hope for our survival.

Discussion leaders

[Trish Demeter](#), Vice President of Policy – Energy, Ohio Environmental Council

[Andrew Tong](#), PhD, OSU Assistant Research Professor, Department of Chemical and Biomolecular Engineering

November 19 CBEC Room 130, 7:00 to 9:00

A River Below, 2017, 86 minutes. [Trailer](#)

A gripping tale of two South American activists' attempts to use media coverage and images to save the Amazon's endangered pink river dolphin and a struggle with ethics and social issues along the way. How far is too far?

[Great description of the film, the issues, and the personalities.](#) In *Variety*.

[PBS interview with the film's director, Mark Grieco](#)

[HuffingtonPost Grieco interview](#) [NYT review](#)

Film Synopsis

Deep in the Amazon, the population of the indigenous pink river dolphin is dwindling. Docile and easy to catch, this near-mythical animal is being hunted to extinction and used as bait for scavenger fish often sold in Columbian markets. But two activists are each working tirelessly to raise awareness and protect the species. On the one hand a marine biologist and on the other a famous TV star, each has their own very different approach to their one common goal. As the battle to save the pink river dolphin intensifies, the effort to direct the public's attention to the issue becomes increasingly difficult. When a scandal erupts, ethical questions are raised as murky as the waters of the Amazon River itself. What sacrifices are acceptable in the battle for this endangered animal and what are the grander social, economic and environmental issues involved? Mark Grieco's surprising documentary digs into the ethics of activism in the modern media age.

Discussion leaders

[Barb Revard](#), Director of Sustainability, Columbus Zoo and Aquarium

Beth Armstrong, former Field Conservation Coordinator, Columbus Zoo and Brevard Zoo, Florida

[Rick Livingston](#), PhD, Associate Director, OSU Humanities Institute

November 26 CBEC Room 130, 7:00 to 9:00 PM

[3 MPH](#) -- Life at the speed of your feet. Film duration and release date TBD.

Eddie Boyd – Columbus' own 21-year old Triple Crown of Hiking star, live and in person addressing *Lessons in environment, natural resources, and open space management and getting more people outdoors from hiking nearly 8,000 miles with over 1,000,000 feet of elevation gain in 22 states -- The Appalachian Trail, The Pacific Crest Trail, The Continental Divide Trail.*

A film crew accompanied Boyd and a few other through-hikers in 2017 on much of the Continental Divide Trail and the resulting film should be completed by 11/26, or at least a significant preview version. [3 MPH facebook](#)

[Columbus Audubon](#) on Eddie Boyd 3/27/18 with links to his Facebook and Instagram pages

[TV interview](#), WTTE, 2/28/18

[Triple Crown of Hiking](#) Wikipedia

[The Lowdown on the Triple Crown of Hiking](#) Marmot

Host and discussion leader

[Alia Dietsch, PhD](#), Assistant Professor in Parks, Protected Areas, and Natural Resources Management, OSU SENR

and featuring Eddie Boyd throughout the evening [Eddie Boyd facebook](#)