

AP Environmental Science Book Report 1st/3rd Quarter Project (optional summer)

This project may be completed over the summer to decrease students' workload during the school year. If the project is not completed over the summer, students will be required to complete it during the 1st quarter (for fall semester students) or the 3rd quarter (for spring semester students).

Choose **one** of the following books. If you are unsure of which book would interest you, they can be easily researched at www.amazon.com. There are a limited number of books available from the APES room (316) – see Mr. Rush/Ms. Magee – and the school and public libraries also have several copies of these books. However, it may be necessary for you to purchase one.

The Product: Write a short paragraph (five to ten sentences) summarizing each chapter. Number each chapter clearly at the beginning of each paragraph. The entire report should be 2,000 words minimum regardless of the number of chapters (ie. books with more chapters should have smaller chapter summaries). This should be typed, since you will be submitting the paper to the plagiarism website, www.turnitin.com, on the due date. A culminating activity will also be completed in class.

Final thoughts: A few of these books bring up the topic of God or spirituality within the context of Environmental Science. Please understand that the purpose of this project is to raise your understanding of the issues involved in Environmental Science, not to dismiss or endorse any religious or theological views you may have. Some books may also contain minor instances of human sensuality or foul language. This is a college level class and the maturity to handle this is assumed.

APES BOOK REPORT OPTIONS

Barker, Rodney. *And the Waters Turned to Blood: The Ultimate Biological Threat*. 1997. ISBN#978-0684838458

Bloomberg, Michael and Carl Pope. *Climate of Hope: How Cities, Businesses and Citizens Can Save the Planet*. 2017. ISBN#978-1250142078

Carson, Rachel. *Silent Spring*. 1962. ISBN#978-0618249060

Eilperin, Juliet. *Demon Fish: Travels Through the Hidden World of Sharks*. 2012. ISBN#978-0307386809

Francis, John. *PlanetWalker: 22 Years of Walking, 17 Years of Silence*. 2008. ISBN#978-1426204050

Knecht, G. Bruce. *Hooked: Pirates, Poaching and the Perfect Fish*. 2006. ISBN#978-1594866944

Kolbert, Elizabeth. *The Sixth Extinction: An Unnatural History*. 2014. ISBN#978-0805092998

Leakey, Richard and Roger Lewin. *The Sixth Extinction: Patterns of Life and the Future of Humankind*. 1996. ISBN#978-0385468091

Pollan, Michael. *The Omnivore's Dilemma: A Natural History of Four Meals*. 2007. ISBN#978-0143038580

Preston, Richard. *The Wild Trees: A Story of Passion and Daring*. 2007. ISBN#978-0812975598

Quinn, Daniel. *Ishmael: An Adventure of the Mind and Spirit*. 1995. ISBN#978-0553375404

Quinn, Daniel. *My Ishmael*. 1997. ISBN#978-0553379655

Weisman, Alan. *The World Without Us*. 2007. ISBN#978-0312427900

Wilson, Edward O. *The Future of Life*. 2002. ISBN#978-0679768111

Wilson, Edward O. *Half-Earth: Our Planet's Fight for Life*. 2016. ISBN#978-1631490828

Barker, Rodney. *And the Waters Turned to Blood: The Ultimate Biological Threat*. 1997. ISBN#978-0684838458

What Amazon says

Don't drink the water. Don't swim in it, fish in it, or even bathe in it. Rodney Barker's book, *And the Waters Turned to Blood* details the latest plague to visit our shores: *Pfiesteria piscicida*, the "cell from hell," an aquatic microorganism that causes sufferers to exhibit symptoms similar to Alzheimers or multiple sclerosis. As it follows the fortunes of Dr. JoAnn Burkholder, one of the first scientists to recognize the danger of *Pfiesteria*, Barker's book reads like a cross between science fiction and conspiracy theory: Dr. Burkholder discovers that excessive pollution in the rivers and coastal waters of the Southeastern United States causes a deadly microorganism to breed like crazy; state and federal government attempts to suppress the report. An investigative reporter by training, Mr. Barker writes *And the Waters Turned to Blood* like a thriller, revealing pieces of the puzzle judiciously as he builds tension. Unlike in a literary thriller, however, there is no tidy ending to this story. Readers will be left with the disturbing knowledge that fish are still dying, fishermen are still getting sick, and the potential for disaster in this latest scourge is still unmeasured.

What Mr. Rush says

The coolest thing about this book is that it is a true story that takes place in North Carolina. It can drag a little in some places, but ultimately is an easy-to-read page-turner featuring actual researchers from NC State. This has even been enjoyed by non-science people as a casual summer read.

Bloomberg, Michael and Carl Pope. *Climate of Hope: How Cities, Businesses and Citizens Can Save the Planet*. 2017. ISBN#978-1250142078

What Amazon says

In *Climate of Hope*, Bloomberg and Pope offer an optimistic look at the challenge of climate change, the solutions they believe hold the greatest promise, and the practical steps that are necessary to achieve them. Writing from their own experiences, and sharing their own stories from government, business, and advocacy, Bloomberg and Pope provide a road map for tackling the most complicated challenge the world has ever faced. Along the way, they turn the usual way of thinking about climate change on its head: from top down to bottom up, from partisan to pragmatic, from costs to benefits, from tomorrow to today, and from fear to hope.

What Mr. Rush says

Tired of climate change doom and gloom? Written by a former Republican mayor and a former Sierra Club Democrat, this book provides practical solutions to climate change that can begin to be implemented today.

Carson, Rachel. *Silent Spring*. 1962. ISBN#978-0618249060

What Amazon says

Rachel Carson's *Silent Spring* is now 35 years old. Written over the years 1958 to 1962, it took a hard look at the effects of insecticides and pesticides on songbird populations throughout the United States, whose declining numbers yielded the silence to which her title attests. "What happens in nature is not allowed to happen in the modern, chemical-drenched world," she writes, "where spraying destroys not only the insects but also their principal enemy, the birds. When later there is a resurgence of the insect population, as almost always happens, the birds are not there to keep their numbers in check." The publication of her impeccably reported text helped change that trend by setting off a wave of environmental legislation and galvanizing the nascent ecological movement. It is justly considered a classic, and it is well worth rereading today.

What Ms. Magee says

This is often considered the most important environmental book of all time and a “must read” for environmentalists. It can be dry and repetitive, but the things you learn from this book will help you throughout the course. It is always a good book to refer back to when taking the AP Exam.

Eilperin, Juliet. *Demon Fish: Travels Through the Hidden World of Sharks*. 2012. ISBN#978-0307386809**What Amazon says**

In the deeply mysterious ocean, no this darkness, and shows how corner is more shadowy to us than the unknown, uncharted realm of the shark. And as with all shadows, we're afraid of what lurks in them. Juliet Eilperin's beautifully evocative *Demon Fish* lights up fearing sharks rather than understanding them has cost us more than we know. (It's cost the sharks even more: Though we've never been able to pinpoint how many of them live in our planet's waters, we do know that their populations are plunging, possibly even into decimation territory, largely at our hands.) For my money the best, page-turning narratives are immersive ones, and Eilperin excels at this. Readers will enjoy traveling with her as she ventures from Indonesia to Japan to Africa to North America in dauntless pursuit of answers to questions that few writers have asked: Why do we approach sharks with such runaway emotion? Why do we fear these fish sometimes, and revere them others? What's really going on with these animals, beneath the ocean's surface? And of course the big one: after surviving all five global mass extinctions, can sharks make it through another decade of co-existing with us?

What Mr. Rush says

Who doesn't like sharks? This is a great book about sharks around the world and the people who love them and hate them.

Francis, John. *PlanetWalker: 22 Years of Walking, 17 Years of Silence*. 2008. ISBN#978-1426204050**What Amazon says**

Francis was green before it was the popular thing to be. On January 17, 1971, he saw a half-million-gallon oil spill near the Golden Gate Bridge, and a year later, in an attempt to do something positive for the environment, he chose to start walking, forsaking motorized vehicles of any kind. He walked everywhere, and on his 27th birthday, feeling again that he was not doing enough for the world, he took a vow of silence. For the next 17 years, he spoke not a word. But his life didn't stop and he never sat still. Francis managed to walk across the United States and, while he did, he earned an undergraduate degree and a master's degree in science and environmental studies; finally, at the University of Wisconsin-Madison, he completed a PhD in land resources. He learned how to play the banjo, and the five-string Conqueror became his walking companion, people magnet, and calling card. He continued his pedestrian trek, took a job at the office of the United Nations Environment Programme (UNEP), and eventually became UNEP's Goodwill Ambassador to the World's Grassroots Communities, and walked and sailed to the tip of South America. *Planetwalker* is an inspiring story that will make teens think and may help them to realize that global change is possible through individual action.

What Ms. Magee says

At its core, this book is an inspirational tale about a guy who accomplishes a whole lot while walking and mute. You need to be ready to read about a lot of walking and not talking!

Knecht, G. Bruce. *Hooked: Pirates, Poaching and the Perfect Fish.* 2006. ISBN#978-1594866944

What Amazon says

The Patagonian toothfish—which can live up to 50 years and grow to six feet long—is an ugly creature considered too bland for eating by most South Americans. Its high fat content, codlike texture and lack of a fishy taste convinced a Los Angeles fish merchant who found the toothfish in Chile in 1977 that, given an exotic new name, it would do quite well in America. By 1998, "Chilean sea bass" had become the hottest restaurant craze: "[e]veryone had to have it." Knecht (*The Proving Ground*) weaves a parallel plot, which takes place in the South Indian Ocean in 2003, where an Australian patrol boat is hunting down a pirate vessel for stealing toothfish. The chase takes them thousands of nautical miles away to dangerous Antarctic waters and involves South African mercenaries and a dramatic boarding in dangerous seas. Knecht's gripping book flips between the commercial history of the toothfish—just the latest of many culinary fads that end up threatening an ocean species—and the chase, which illuminates the practically lawless world of commercial fishing, where factory boats with vast dragnets can devastate a population in just a couple of years, a practice the author calls "the marine equivalent of strip mining."

What Mr. Rush says

As a Marine Biologist, this is my favorite on the list. The author bounces back-and-forth between a pirate chase and the perils of overfishing, with a focus on the obscure fish known as Chilean Seabass.

Kolbert, Elizabeth. *The Sixth Extinction: An Unnatural History.* 2014. ISBN#978-0805092998

What Amazon says

Five watershed events in the deep past decimated life on earth, hence the designation "Sixth Extinction" for today's -human-propelled crisis. To lay the groundwork for understanding this massive die-off, Kolbert crisply tells the stories of such earlier losses as the American mastodon and the great auk and provides an orienting overview of evolutionary and ecological science. She then chronicles her adventures in the field with biologists, botanists, and geologists investigating the threats against amphibians, bats, coral, and rhinos. Intrepid and astute, Kolbert combines vivid, informed, and awe-struck descriptions of natural wonders, from rain forests to the Great Barrier Reef, and wryly amusing tales about such dicey situations as nearly grabbing onto a tree branch harboring a fist-sized tarantula, swimming among poisonous jellyfish, and venturing into a bat cave; each dispatch is laced with running explanations of urgent scientific inquiries and disquieting findings. Rendered with rare, resolute, and resounding clarity, Kolbert's compelling and enlightening report forthrightly addresses the most significant topic of our lives.

What Ms. Magee says

An engaging look at a series of case studies that show how biodiversity is being lost in what can be called the Sixth Extinction.

Leakey, Richard and Roger Lewin. *The Sixth Extinction: Patterns of Life and the Future of Humankind.* 1996. ISBN#978-0385468091

What Amazon says

Paleoanthropologist Leakey and coauthor Lewin examine biology's traditional viewpoints, which maintain a linear progression from simple to complex species development. In this scenario, survival of the fittest means success, and species extinction indicates failure. The authors also present the current trends in evolutionary science theory suggesting that the world is shaped by mass extinctions (natural catastrophes

have caused five) instead of natural selection and that the shape and behavior of biological communities is driven by chaotic interaction rather than the simplistic balance-of-nature concept. Leakey and Lewin argue that *Homo sapiens* is the result of many chance events in evolution rather than the foreordained culmination of evolutionary excellence. Unfortunately, our self-awareness and mental capacity has given us the dubious capability of triggering a sixth extinction, destroying entire species through overhunting and habitat destruction. As the only sentient creature among animals, we have the duty to protect all of Earth's species. The authors present a powerful message based on years of observation and fieldwork.

What Mr. Rush says

This is a great book for explaining evolution, the major mass extinction events on Earth, and the ultimate effect these had on biodiversity. The argument is that humans are now causing the sixth major mass extinction.

Pollan, Michael. *The Omnivore's Dilemma: A Natural History of Four Meals*. 2007. ISBN#978-0143038580

What Amazon says

In *The Botany of Desire* (2001), about how people and plants coevolve, Michael Pollan teased greater issues from speciously small phenomena. *The Omnivore's Dilemma* exhibits this same gift; a Chicken McNugget, for example, illustrates our consumption of corn and, in turn, agribusiness's oil dependency. In a journey that takes us from an "organic" California chicken farm to Vermont, Pollan asks basic questions about the moral and ecological consequences of our food. Critics agree it's a wake-up call and, written in clear, informative prose, also entertaining. Most found Pollan's quest for his foraged meal the highlight, though the *Los Angeles Times* faulted Pollan's hypocritical method of "living off the land." Many also voiced a desire for a more concrete vision for the future. But if the book doesn't outline a diet plan, it's nonetheless a loud, convincing call for change.

What Ms. Magee says

Ever wonder where your food comes from? This book traces the surprising origin of your food from its source to the grocery store shelves. Warning: it can be life-changing in the way that you view and purchase your food!

Preston, Richard. *The Wild Trees: A Story of Passion and Daring*. 2007. ISBN#978-0812975598

What Amazon says

Richard Preston, whose previous nonfiction thrillers include *The Hot Zone* and *The Demon in the Freezer*, takes a botanical detour in *The Wild Trees*. Most critics praised this noteworthy, if somewhat less sensational, effort. Yet while some relished the offbeat characters, the action-packed sequences, and Preston's personal climbing experiences, others found fault with Preston's detailed descriptions of his subjects' personal lives, his overdramatization of mundane stories for effect, and his self-important account of going "native".

What Ms. Magee says

Fast in many spots, a little slow in others, this book makes you want to go climb trees – really BIG trees! It's a great tale about regular people that are passionate about trees: playing in them and ultimately saving them.

Quinn, Daniel. *Ishmael: An Adventure of the Mind and Spirit*. 1995. ISBN#978-0553375404

What Amazon says

Quinn won the Turner Tomorrow Award's half-million-dollar first prize for this fascinating and odd book. The unnamed narrator is a disillusioned modern writer who answers a personal ad ("Teacher seeks pupil. . . Apply in person.") and thereby meets a wise, learned gorilla named Ishmael that can communicate telepathically. The bulk of the book consists entirely of philosophical dialogues between gorilla and man, on the model of Plato's Republic. Through Ishmael, Quinn offers a wide-ranging if highly general examination of the history of our civilization, illuminating the assumptions and philosophies at the heart of many global problems. Despite some gross oversimplifications, Quinn's ideas are fairly convincing; it's hard not to agree that unrestrained population growth and an obsession with conquest and control of the environment are among the key issues of our times. Quinn also traces these problems back to the agricultural revolution and offers a provocative rereading of the biblical stories of Genesis. Though hardly any plot to speak of lies behind this long dialogue, Quinn's smooth style and his intriguing proposals should hold the attention of readers interested in the daunting dilemmas that beset our planet.

What Mr. Rush says

It's about a gorilla who telepathically teaches a guy about global issues of consumption. Most people either love or hate his book, based on whether they can get past the idea of a telepathic gorilla.

Quinn, Daniel. *My Ishmael*. 1997. ISBN#978-0553379655

What Amazon says

Another irresistible rant from Quinn, a sequel to his Turner Tomorrow Fellowship winner, *Ishmael* (1992), concerning a great, telepathic ape who dispenses ecological wisdom about the possible doom of humankind. Once more, Quinn focuses on the Leavers and Takers, his terms for the two basic, warring kinds of human sensibility. The planet's original inhabitants, the Leavers, were nomadic people who did no harm to the earth. The Takers, who have generally overwhelmed them, began as aggressive farmers obsessed with growth, were the builders of cities and empires, and have now, in the late 20th century, largely run out of space to monopolize. Quinn's books have not featured many memorable characters, aside from *Ishmael*. This time out, though, he invents a lively figure, 12-year-old Julie Gerchak, who is tough and wise beyond her years, having had to deal with a self-destructive, alcoholic mother. Julie responds to *Ishmael's* ad seeking a pupil with an earnest desire to save the world (a conceit carried over from the earlier novel). Once again, the gentle ape shares his wisdom in a series of questions and answers that resemble, in method, a blend of the Socratic dialogues and programmed learning.

What Mr. Rush says

(see *Ishmael*) This is a concurrent story to *Ishmael*, and this one is about the telepathic gorilla teaching a 12-year-old girl. The environmental ideas are not as fleshed out in this one, but the story is a little better.

Weisman, Alan. *The World Without Us*. 2007. ISBN#978-0312427900

What Amazon says

Because of the scientific terminology and the interlinked data amassed bit by bit, this is not an easy read for narrator or lay listener. But it's a fascinating book, and Grupper handles it well. Grupper's careful narration brings to life Weisman's judicious organization, unambiguous grammatical structure and vivid descriptions of what would become of land, sea, fish, flora and fauna should humans disappear from the face of the earth. Weisman explains the earth's capacity for self-healing. Unchecked by human

intervention, a city like New York would flood within days, its buildings and infrastructure would collapse, and soon the city would revert to its original ecosystem. But the message of the book is our legacy to the universe: Every bit of plastic manufactured over the last 80 years or so still remains somewhere in the environment. Weisman and Grupper convert abstract environmental concepts into concrete ideas. Broadly and meticulously researched, finely interwoven journalism and imaginative projection, the book is an utterly convincing call to action.

What Ms. Magee says

Amazing look at what would happen if humans simply disappeared. It includes descriptions of not only how nature takes over, but also how our infrastructure holds up (or doesn't).

Wilson, Edward O. *The Future of Life*. 2002. ISBN#978-0679768111

What Amazon says

The eminent Harvard naturalist and Pulitzer Prize winner Edward Wilson marshals all the prodigious powers of his intellect and imagination in this impassioned call to ensure the future of life. Opening with an imagined conversation with Henry David Thoreau at Walden Pond, he writes that he has come "to explain to you, and in reality to others and not least to myself, what has happened to the world we both have loved." Based on a love affair with the natural world that spans 70 years, Wilson combines lyrical descriptions with dire warnings and remarkable stories of flora and fauna on the edge of extinction with hard economics. How many species are we really losing? Is environmentalism truly contrary to economic development? And how can we save the planet? Wilson has penned an eloquent plea for the need for a global land ethic and offers the strategies necessary to ensure life on earth based on foresight, moral courage, and the best tools that science and technology can provide.

What Ms. Magee says

E.O. Wilson is the most important ecologist alive today and this is one of his most influential books. He has a great way of making scientific concepts easy to understand in this discussion of the importance of biodiversity. This is another great book to be able to quote on the AP Exam.

Wilson, Edward O. *Half-Earth: Our Planet's Fight for Life*. 2016. ISBN#978-1631490828

What Amazon says

Edward O. Wilson possesses a rare, almost unique, combination of immense scientific knowledge and deep humane intelligence. Looking around him at the beloved natural world he has done so much to understand and taking the measure of the massive damage to it caused by human stupidity and greed, he has every reason to succumb to despair. But *Half-Earth* is not a bitter jeremiad. It is a brave expression of hope, a visionary blueprint for saving the planet.

What Mr. Rush says

This book is about the importance of biodiversity on Earth and gives a grand plan to save the Earth's biodiversity from extinction. Written by one of the most important ecologists ever, this book hypothesizes that putting aside half the Earth's surface would save the vast majority of species.