# SCIENCECHRONICLES



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# The Year-End Books Issue 2014

#### 26 books (and one movie) reviewed by...

Jonathan Adams, Tim Boucher, Lisa Feldkamp, Sara Gottlieb, Jonathan Higgins, Peter Kareiva, Bob Lalasz, Laura Marx, Rob McDonald, Matt Miller, Jen Molnar, Jeannie Patton, Ellen Paul, Bryan Piazza, Charlotte Reemts, Mark Tercek, & Alan White

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### Essay Dystopia on My Mind

#### By Mark Tercek, CEO, The Nature Conservancy

I remember back in my high school days reading some of the classic dystopian novels – *Brave New World, 1984, Player Piano, Farenheit 451,* and my all time favorite, *One Flew Over the Cuckoo's Nest.* I enjoyed all of the drama of these books. And, as a know-it-all teen, I especially enjoyed my feeling of righteous indignation about the morally bankrupt authority figures who had completely upset the proper workings of society. Who were the idiots who let these clowns become their leaders? Where were the courageous and straight-thinking people (like, eh-hem, the teenaged me) who could have bravely stepped up and prevented all of this? Books discussed in this essay: *The Bone Clocks* by David Mitchell. 2014. Random House. 640 pages.

*Oryx and Crake* (2004); *The Year of the Flood* (2010); and *MaddAddam* (2014) by Margaret Atwood. Anchor Books.

*The Book of Strange New Things* by Michel Faber. 2014. Hogarth. 512 pages.

*On Such a Full Sea* by Chang-Rae Lee. 2014. Riverhead. 368 pages.

and the movie *Interstellar*, directed by Christopher Nolan (2014).

My tastes in books changed and since then I have mostly regarded this kind of literature as best suited for hot-tempered youth. I've ignored present-day phenomena like *The Hunger Games* or *The Giver*. Leave that to the kids, I thought.

But recently friends who know I'm a fan of Japanese novelist Haruki Murakami suggested that I would enjoy the fiction of David Mitchell. I checked Mitchell out and – one novelist led to another – I ended up diving into contemporary environmental dystopian literature.

These books raise some interesting questions for environmentalists like us to consider. The books generally lay out a future where conditions are bleak. Picture the following and you'll get the general idea of these books: Extreme weather -- droughts, floods, and heat waves; toxically contaminated natural resources; roaming gangs of dangerous misfits; severe food shortages; widespread plagues; hopelessly incompetent governments; and utterly corrupt but world dominating mysterious global corporations.

All of these bad things, the novels imply, are simply the direct and predictable outcome of present day trends and activities. Why didn't anyone intervene? the books implicitly ask. Where would the good guys? Didn't everyone see this coming?

My friends were right about David Mitchell. His latest novel, *The Bone Clocks*, is big and written in a fast-paced, hip, fluid style. It's easy to see why Mitchell (also the author of *Cloud Atlas, Black Swan Green*, and *The Thousand* 

*Autumns of Jacob de Zoet*) is so popular. These books are hard to put down. They are powered by a giddy imagination and compelling writing.

*The Bone Clocks* tells six large and mostly disconnected globe-trotting tales, each narrated in the first person. The book gets off to a great start in London circa 1984. Holly Sykes is a 15-year-old fan of Talking Heads caught up in some family dramas and has boy trouble too. It's easy to like Holly and root for her. But before one gets far into her story, some weird and fantastic time-travelling characters with magical powers also enter the picture. Oh no, I thought, remembering I never really cared for fantasy or science fiction. Sure enough, even while the book marches forward over decades with some more great characters, I found myself getting bogged down in a wacky (I thought) and overly complicated saga between two warring bands of immortals -- the "Horologists" and the "Anchorites." It's Good vs. Evil in a final battle for the mighty immortals.

I only hung in there because Mitchell writes so well and his characters are so captivating. But then I arrived at the final section of the book and it completely grabbed my attention. The year is 2043 and Holly Sykes is back. She is now a grandmother living off the coast of Ireland. Society has just suffered through an apocalyptic era known as the "Endarkment." Planet earth and its inhabitants are in bad shape. Holly – and humankind broadly – is in despair.

Holly grieves over the folly of humankind. She laments over "the ice caps we melted, the Gulf streams we redirected, the rivers we drained, the coasts we flooded, the lakes we choked with crap, the seas we killed, the species we drove to extinction, the pollinators we wiped out, the oil we squandered, the drugs we rendered impotent, the comforting liars we voted into office —all so we didn't have to change our cozy lifestyles." Holly's list of human follies got my attention.

Mitchell's writing in this part of the book is superb. Holly's situation — as well as her entire community's — is desperate, poignant, tragic, and compelling. How did people let things get so bad? How was this ever allowed to happen? And – at least for me, reading the book in 2014 – is this the future for our kids and grandkids?

Holly observes: "My generation were diners stuffing ourselves senseless at the Restaurant of the Earth's Riches knowing — while denying — that we'd be doing a runner and leaving our grandchildren a tab that can never be paid."

Wow, I thought, here's a powerful way — compelling and vivid story telling — to maybe finally really capture people's attention regarding the environmental challenges we seek to address at TNC. Show people what is directly ahead unless we start changing direction right now. That should wake them up and get them on our side. Inspired by Mitchell, I thought I'd next try the great Canadian novelist Margaret Atwood's MaddAddam trilogy. I had long been intrigued but intimidated by the daring size and scope of this series. Thousands of pages in three volumes: *Oryx and Crake* was first published back in 2004, *The Year of the Flood* in 2010 and *Madaddam* last year. Nevertheless, I figured these books must really work for the trilogy to hold a reader's attention over such a long period of time.

There is no easy way to sum up briefly these wild three novels, but here goes: *Oryx and Crake* opens up with Jimmy — aka the Snowman — living in a tree by the seashore right after the end of the world as we know it. He seems to be the world's "last man" and he lives in an industrial wasteland. Snowman's genius high school buddy Crake grew up to become a (mad?) scientist and invented a pill called "BlyssPluss" that was supposed to provide eternal youth and unlimited libido but — alas — turned out also to spread a virus that wiped out humanity (an outcome known known as the "Waterless Flood'). Hence nobody but the Snowman seems to be around.

Crake also invented the "Children of Crake " — gentle humanoids, meant to be an improvement on original humans. The Crakers are "free from sexual jealousy and the need for insect repellant and animal protein — all the factors Crake believed caused not only the misery of the human race but also the degradation of the planet." The Crakers mate seasonally when their reproductive organs turn blue. (Note: HBO says it will soon broadcast a series based on these books – watch out "Homeland" — this will be "must see" TV for sure!)

It turns out life was already dire before the cataclysmic developments of the Waterless Flood. Flashbacks to these prior periods of time is where much of the action takes place. Elite human communities live in sterile compounds, plebes in violent and dangerous "pleeblands." (Stark territorial divides like this seem common in dystopian literature). National governments are gone, evil corporations with names like "HealthWyser, AnooYoo, and OrganInc Farms are more or less in charge, but chaos generally reigns. Many of the big companies specialize in genetic manipulation and the outcomes are not pretty. Climate change has caused enormous damage — threats include an overbright sun, scant remaining natural resources, and dangerous extreme weather. All sort of weird cross-bred animals now roam the wasteland, most ominously "piggoons;" transgenic giant pigs made crafty with human brain capacity added.

Folks survive in various ways. The elites stay close to corporate enclaves. Security is good but life there is soul-less. Less fortunate ones — the plebes fight daily for survival. Some people ominously organize into blood-lusting violent gangs (such as the "Painballers"). Others join wacky nature-loving vegan-oriented pacifist roof-top gardening religious cults (such as "God's Gardeners" — I couldn't help but imagine myself a member).

It turns out that the Snowman is not the only survivor of the Waterless Flood. We meet various wily survivors over the course of the first two books and the good ones band together in the third.

I loved these books. Atwood is a powerful writer. The elaborate societies she conjures are bizarre but come across as not improbable. The horrors of daily living seem indeed to be the direct and inevitable result of a greedy society that can't be satisfied. Survivors include some very wise and tough people — so admirable, however, I couldn't help but wonder where were they when society began its rapid decline. How did citizens let governments weaken to such an extent that they seemingly disappeared? When and why did the businesspeople lose all moral scruples? When did well-off citizens become such mindless and selfish consumers? Maybe these are the very questions Atwood wants the reader to ponder.

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I was ready to take a break from this downbeat reading when I noticed some glowing reviews — one from David Mitchell himself — for *The Book of Strange New Things* by Michel Faber. Mitchell says the book is "brainy, driven, funny, dark, idiosyncratic." Okay, I thought, I'll check this one out too.

Faber tells the story — set in the near future — of Peter Leigh, a Christian minister from the UK who is sent to a planet called Oasis. His wife Bea waits for his return on an Earth suffering dire economic and environmental conditions that are eerily similar to those of the Endarkment described by Holly Sykes. Here we go again.

Peter is on a mission sponsored by a scary-sounding and mysterious global corporation called Usic. The corporation is on Oasis looking for oil and other minerals, and also building infrastructure to support large scale immigration from earth. Oasis has local inhabitants — human-like creatures who are interested in Christianity. Peter's job is to minister to them. The real humans on Oasis lead sterile lives within their gated work place. Its as if we are back in Atwood's elite compounds.

What makes the book special, in my view, is the correspondence between Peter on Oasis and Bea back home. They've got a super high-tech machine that allows for real time email-like dialogue. Peter describes his weird and unsettling life on a distant planet. More poignantly, Bea relays news of rapidly deteriorating conditions on Earth. First, a typhoon destroys the Maldives. Earthquakes, riots, food shortages, and Ebola-like plagues follow and quickly overwhelm the UK. Everything is suddenly in rapid decline and Bea is in a total panic. Even her Christian faith fails her. She sends Peter this message: "There is no God." This totally freaks out Peter the earnest minister and the reader feels for both him and Bea.

I had mixed feelings about this book. It's hugely and admirably imaginative. The correspondence between Peter and Bea is moving. Life on Oasis is interesting. But the storyline in which I was most interested — the sad decline of life on Earth — is put forth in a way that doesn't allow any real engagement by the reader. What went wrong so suddenly? Who was responsible? Where is the government?

Nevertheless, once again, the reader can't help but ask: is this the future we are now setting up for our descendants? One closes the book with the same unsettling feelings left by the others.

I wanted to try one more. This time I turned to Chang –Rae Lee's *On Such a Full Sea*. Lee is a highly regarded literary novelist (*Native Speaker, The Surrendered*) known for sensitive, serious, and realistic storytelling focused on identity, culture, work and love — not apocalyptic sci fi-like imaginations of the future.

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Sure enough, Lee brings both his traditional focus on lonely people and his elegant prose, but this time he puts them to work portraying a scary future on par with Mitchell, Atwood, and Faber.

The book begins in an urban center known as B-Mor (in prior times Baltimore) where a colony of Asian ancestry workers have settled. They seem to be descendants of Chinese laborers imported from ruined cities in China to settle in abandoned cities in the US. They grow food — scarce in this near future time — for elite residents in "the Charters." The "Directorate" (the government? another all-powerful corporation?) controls almost everything and has organized people into elite communities and worker locales (such as B-Mor). But plenty of other folks scratch out a dangerous living in the wilds. As with the other novels, while life is safer and more civilized in the centrally managed communities, it's the people outside who are truly free and alive.

The story is another weird one. Fan is the main character. She is a gifted diver who works at an advanced aquaponics facility. Her boyfriend has disappeared. He may have been captured for scientific study, as he is the only person free of cancer. Fan abandons the safety of B-Mor to search for him in the lawless parts of the country. It's the narration that makes this book special. A nameless voice from B-Mor tells the story in a calm, omniscient, and ultimately troubling and angst-filled way. It's not clear what the occasion is for the telling of this tale. Likewise, the narrator's reliability is unclear. Fan's quest allows the narrator to reflect on life in B-Mor as well as to explore the wildlands. In fact, not that much happens in the way of action. But the rambling speculations about social stratification, estrangement, community, social disintegration, and the purpose of life that accompany Fan's story are powerful.

This was my favorite of the novels. Less specific about the various bad outcomes and responsible villains, this book instead leaves the reader with a generalized sense of angst. We are headed in some very gloomy directions.

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I was ready to call it quits on the dystopian story front but some family members took me to see the new movie "Interstellar." The set up is familiar: The time is the near future, and some bad forces referred to as "the blight" — and which seem consistent with forecasts for climate change — have destroyed much of the world's ecosystems, agriculture productivity, and overall living conditions. But — good news — some scientists have discovered a "wormhole" near Saturn which could provide humankind an exit to a new life galaxies away.

The character played by Matthew McConaughey is a dashing pilot who dares to retrace the flights of three astronauts who tried the same mission through the wormhole a decade earlier but never returned. Can this noble individual pilot assisted by awesome crew members like one played by Anne Hathaway — find a new livable planet and can we move billions of earthlings there safely? All sorts of hair-raising adventure follows.

I did not care for this movie. Its overly long, the crew also includes some annoying talking robots, lots of time traveling occurs but never to address the really big challenges, etc. And — as with the novels discussed above — the movie leaves unspecified whatever is causing all of the trouble back here on earth.

The politics of this film seem weird too. For example, the McConaughey character, who is a farmer before he takes off for space on his heroic mission, is scolded at a middle school parent/teacher conference for allowing his daughter to believe the myth that NASA sent men to the moon. Likewise, the movie hammers the theme that technology can solve everything. Maybe I'm paranoid, but I got suspicious that the movie was going to lurch toward a "don't believe those dire climate change forecasts" narrative, but these treads were just dropped.

Nevertheless, I thought it was noteworthy that just when I was wading through my dystopian literature reading list, I discovered that Hollywood was exploring many of the same themes. Take notice, the movie seems to be proclaiming, we are on course to an uninhabitable planet. We need to find some new planets or galaxies in which to live.

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So, what to make of these books? I'm just a humble environmentalist, not a literary critic or social scientist. But when I reflect on the impact books like *1984* have had on society, I'm inclined to think these environmentally-themed novels could also make a big difference. In my view, each of these books powerfully raise an uncomfortable feeling of anxiety that humankind is on a dangerous course and we need to take action now to address the challenge, or it will be too late. Otherwise, some volatile mix of continued greed, undue faith in technology and science, corruption, and tyranny will lead us to doom.

I have one major gripe with these books. They all suggest that it's someone else — "them" — who is responsible for all of these troubling trends. The authors all choose to be rather opaque about this. They don't even spell out exactly when and how life began its slippery slide downward. But the implication is clear: corrupt politicians, evil business leaders, mad scientists, greedy consumers, and violent thugs are the culprits.

I think the authors are likely very wrong about this. Rather than "them,"I think they should direct their attention at "us." Nobody ever solved a big challenge by blaming others. And on this front, I feel very good about how our organization is addressing global environmental challenges. We resist pointing fingers, criticizing, or vilifying. Rather, we say, we are all on this together. We seek to bring diverse organizations and people together — governments, businesses, communities, political parties of all stripes, urban and rural people, the young and the old. We look for common ground, we try to build trust, and we look for "win-win" solutions or ones where the costs are shared equally. Let's do our best to scale-up these initiatives as fast and as effectively as possible so that we can avoid the bad outcomes forecast in these books.

But, in the meantime, if books like these get more people on our side, that will be good, too. **SC** 

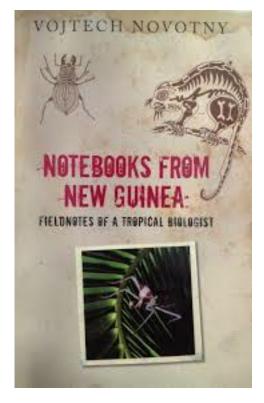
#### **Conservation** The Tropics are Safer than You Think

Notebooks from New Guinea: Fieldnotes of a Tropical Biologist. By Vojtech Novotny. Oxford University Press. 2011. 272 pages.

#### Review by Charlotte Reemts, research and monitoring ecologist, The Nature Conservancy

I spend a lot of time outside doing fieldwork. I've often thought that Texas can be a difficult place to do that, with our 100°F summers, thorny thickets, rattlesnakes, fire ants, and more (a former supervisor once commented: "if it can't sting, poke, or bite you, it left Texas a long time ago.")

After reading *Notebooks from New Guinea*, I now appreciate the comforts of a dry, malaria-free work environment. Also, I don't have to negotiate truces between warring, cannibalistic tribes to get to my field sites. Novotny has to deal with such factors on a daily basis at his field sites in New Guinea. The book is a series of short reflections on various aspects of doing fieldwork in a remote, tropical location, interspersed with "Malaria Intermezzos" recounting Novotny's various bouts of malaria.



Novotny is a keen observer of culture (tropical and European) and writes with a wry sense of humor

that likely serves him well in person, too. For example, in one reflection, he muses on the efficacy of Western and native medicine, noting that both are delivered by ritually-dressed shamans (white coats for the Western doctors) and that those shamans engage in rituals that increase the potency of their medicine (hinting at the placebo effect). In another piece, he reflects that most visitors to the remote mountains are scientists, missionaries, and gold-diggers, giving the native peoples a somewhat distorted view of Europeans and their culture. The book ends with 13 tips for a tropical field biologist, starting with "The tropics are safer than you think" and ending with "Don't panic." The last piece of advice is seems particularly appropriate to this temperate-zone ecologist, considering that tip 5 is to avoid places with "fear-inspiring jungle spirits" (it makes your guides nervous). A lovely addition to Novotny's writing are the illustrations by Benson Avea Bego, a native of New Guinea. **SC** 

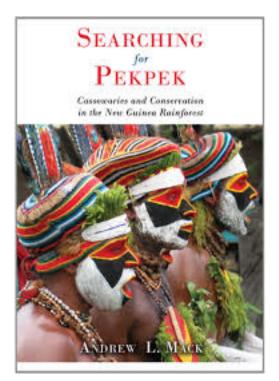
#### Conservation Wrestling Cassowaries

Searching for Pekpek: Cassowaries and Conservation in the New Guinea Rainforest. By Andrew L. Mack. 2014. Cassowary Conservation and Publishing. 254 pages.

Review by <u>Ellen Paul</u>, executive director, The Ornithological Council, and <u>Tim Boucher</u>, senior conservation geographer, The Nature Conservancy

This is the truest funniest book about conservation ever written. It will make you laugh; it will make you cry. It will make you itch. Crazyin-a-good-way ornithologist Andy Mack recounts his journey from science geek to sadder-andwiser-though-not-defeated conservation stalwart. It traces the great arc of conservation over the past 30 years: promises of cancer cures to ecotourism to carbon credits and an assortment of conservation paradigms, most conceived of by well-meaning people half a world away.

Mack is the real deal. Starting out as a birder, by definition someone whose obsession obliterates common sense, he figured he could see lots of great birds by working on research projects in the Neotropics. Shortly after starting grad school in 1987, his reputation as a sturdy field worker earned him an offer of a job in Papua New



Guinea funded by the Wildlife Conservation Society, complete with time and funding for research. All somewhat illusory, as it turned out. With his heart set on PNG, Mack eventually wrangled a few dollars from WCS and headed into the field with little preparation, because little was to be had. Unlike the New World tropics, PNG was nearly a blank spot on the biological map. No field stations. No transportation to or near the remote area where he hoped to work. Just \$10,000 and a stunning ability to ignore reality.

Off he went. To study poop. Cassowary poop, to be precise. Imagine the discussion at the Thanksgiving table: You're going WHERE? To study WHAT?

Imagine too the discussion around the conservation organization lunchroom table: How will THAT help conservation? SCIENCECHRONICLES December 2014

Mack explains his research amidst tales of white-knuckle episodes that would have sent James Bond into early retirement: small planes flying through mountains obscured by cloud; helicopters flying on empty; and rivers rising rapidly during the night, threatening to wash away tents full of research gear and researchers. Exploring trackless wilds where no white person had ever set foot is enthralling until you explore yourself right up to the edge of a deep ravine. No worries. The local guides build a crossing that would leave most people with damp drawers — two skinny trees lashed together and tied to tree roots with vines. Most would turn back and take the first plane out. Not Mack and his then-girlfriend and research partner, Deb Wright. They made it across and then Deb contracted chloroquine-resistant malaria. Talk about a great field assistant when she recovered, she went right back to work.

Three years went by before Mack and Wright found a site and built a field station. Then the fun began. Over the next three years, he searched for fruits whose seeds he found in cassowary droppings. They came from the mahogany tree that Mack called Big Red; then unknown to science, it is now named *Aglaia mackiana*. The location of the cassowary droppings explained the tree's dispersal strategy. It seemed easy enough. Tiny transmitters implanted in the fruits would reveal where the fruit was taken and later deposited. Except the birds didn't eat the fruit. After days of arduous searching, Mack found only one transmitter — in a fruit he'd thrown from the station's porch by accident. After that, he began putting small coded tags in all the freshly fallen fruit he could find and had better success. Until the following year, when the trees chose not to bear fruit. It's amazing how thrilling a story about bird droppings can be.

The Pawai'i who gave Mack so much help throughout the project gave him the name Andy Wee Seae, which means "Andy cassowary shit." Mack made no formal studies of the ethnography of the New Guineans without whom his work would have been impossible, but the stories of Mack's interactions with these people and their interactions are fascinating and his struggle to adapt to their culture endlessly amusing. Though not recounted in the book, the story of Mack's <u>encounter with the justice system of PNG</u> is a hysterically funny must-read. Equally funny is the cassowary-wrestling. Fortunately, this laugh-out-loud story is included in the book. Before the captive-raised Huey and Louie met a tasty end, they even helped with the research project in their own unwitting way.

All good things come to an end. Mack writes his thesis and earns his degree. He decides to return to train Papuans who will then have the knowledge and tools to become conservation biologists who will protect the biodiversity of their own country. Conservation projects are sustainable only if they build in-country capacity, yet few BINGOS focus on capacity building or run projects for the decades needed to build sufficient capacity. Mack and Wright were there for the long haul, driven by the conviction that lasting conservation could happen only with well-trained nationals who would remain while foreign biologists and NGOs paraded by. Still, money was needed, so Mack found himself in the world of BINGOs and distance-planning by people who

had never been to the places they designated as conservation priorities by drawing lines on maps. One of the funniest stories in the book — told without a trace of irony — has Mack telling a BINGO VP that it was fine to be visionary but they had to think about what was feasible. He was right of course, but had Mack ever worried about feasibility, this book would have been very short: "In 1987, I was offered a chance to work in PNG. I realized it was not feasible, so I didn't go."

By 1999, Mack and Wright had a capacity building program up and running with funding from WCS. A representative of the MacArthur Foundation called it the best capacity building program he had ever seen. The program withstood the arrival of an oil company and a violent attack on one of the students. Then, in 2007, WCS pulled the plug. It was over.

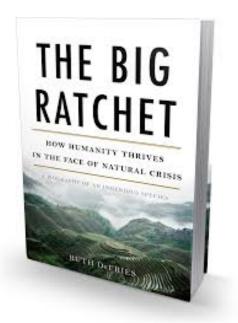
Yet it is not. From his home base in Western Pennsylvania, Mack works with <u>Green</u> <u>Capacity</u>, formed in to help support the <u>Papua New Guinea Institute of Biological</u> <u>Research</u> — a group formed by people who had trained under Mack and Wright, two crazy American birds who planted the seed of PNG home-grown conservation. **SC** 

#### Conservation Beyond Good and Evil

The Big Ratchet: How Humanity Thrives in the Face of Natural Crises. By Ruth DeFries. 2014. Basic Books. 296 pages.

#### Review by Peter Kareiva, chief scientist, The Nature Conservancy

There is no question humanity has screwed up the environment, and that many fundamental aspects of modern life are pathologies. Naomi Klein has gained international attention for her environmentalist rant against "the system" (This Changes Everything, 2014). But Naomi Klein has no depth of understanding beyond thirty or forty years of human history. In contrast, Ruth DeFries has written a brilliant book that starts with the origin of Earth and life on our planet, and goes through thousands of years of ecological history and one natural crisis after another. Time after time, human ingenuity has overcome food shortages and ecological disasters - many of them self-made. But this is no techno-utopia tract. DeFries diagnoses clearly our current situation. She writes of "pivots" - new ways to extract food and resources to meet



our needs. But the pivots can be lurches that also create the next set of problems. There is no guarantee of success. For every five people going hungry, there are eight people obese. In the last thirty years the incidence of diabetes in China has increased tenfold, as famine has been conquered.

There is a tendency among "deep ecologists" to think of humanity as a blight upon the planet, and among left-leaning celebrities such as Naomi Klein to think of corporations as the root of all environmental depredation. But unlike Klein, DeFries has a nuanced and sophisticated view of human history as opposed to a "good guys versus bad guys" cartoon. DeFries is a biologist; she reminds us that we are like so many other species — we manipulate our surroundings to expand our territory and grow in numbers. Ants do this, as do baboons, and even corals. It is just that humans have an extraordinary ability to "twist food from nature," and as a result usurp most of the planet for our own use. DeFries writes that this human dominance is "neither good nor bad," but is simply "part of the evolution of life on the planet." This is a beautifully written book that is unique in combining wisdom, scientific discovery, and story-telling. In no way does DeFries trivialize or diminish the challenges before us. But she does put those challenges in perspective in a way no other author I have read has done, and she also uses the long history of crises and pivots to deliver a hopeful message of a sustainable future. DeFries has a second home in India where she works and clearly feels inspired and welcome, and it is in India that she crystallizes the great transformation we are going through now: we are transforming from farmers to urbanites, and how we make that transition will determine India's and the world's future. Conservation's success hinges on the move of humanity to cities — and how food and water are delivered to those cities, and conversely how city-dwellers connect to nature. Ruth DeFries understands this. Fortunately, so does a growing number of conservation NGOs and environmental leaders.

Buy and read this book. You will learn something you did not know from it and be both wiser and uplifted. **SC** 

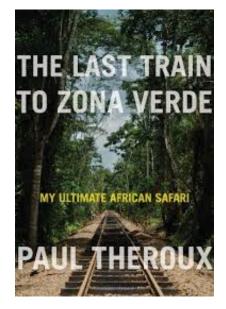
### Travel What Am I Doing Here?

*The Last Train to Zona Verde—My Ultimate African Safari.* By Paul Theroux. Princeton University Press. 353 pages.

#### Review by Alan White, senior scientist, Indo-Pacific Division, The Nature Conservancy

Paul Theroux was a Peace Corps Volunteer in the Africa in the 1970s and has written several books about his experiences and travel in Africa, so I was attracted to his latest sojourn to the continent and his first time to venture into West Africa. Theroux is not known for writing glowing travel stories but rather tells it like it is and indeed he witnessed scenes which are not so easy to read about. Since Theroux knows Africa well and has a knack for digging pretty deep into places he visits, I thought I could learn a bit more about a place, its people and history, that I have never visited.

*The Last Train to Zona Verde* certainly doesn't make me want to visit Angola, the center of the story, any time soon or probably ever for that matter.



And, while I find the situation in Angola as portrayed by Theroux deeply troubling, I am glad I read this book which took me into a place of almost unbelievable poverty and urban chaos. But at the same time it helped me understand how it got that way through its colonial history tied to Portugal and the various natural resource exploiters of years past and present. And it reveals some macro-economic truths that many countries need to address if they are to avoid and heal the typical social and economic plight of poor (and a few more developed) countries.

Theroux is also a lover of the wild and has an eye for places and programs that might offer hope in protecting the African natural environment and its culture. While he did find some glimmers of successful nature and cultural conservation in Namibia, Angola is a different story and knowing the reason why, is important for us to learn and think about. The title of the last chapter: "What am I doing here?" succinctly indicates how Theroux was feeling after about a month in Angola!

Doom and gloom aside, Theroux is a superb writer who makes the words melt away and who can mix humor and reality in an entertaining manner. I recommend this book for all with any interest in Africa and who want to learn more about its evolution from a traditional to a more urbanized society. Finally, for those who enjoy well written prose by a seasoned author, this is a great example. **SC** 

#### Fiction Prime Reading

*The Housekeeper and the Professor.* By Yoko Ogawa. Picador. 2009. 192 pages. Review by <u>Jeannie Patton</u>, LANDFIRE communications lead, The Nature Conservancy

Prime numbers – elegant, eloquent, and prompts for philosophical and spiritual speculation about living in the present. Who knew?

Yoko Ogawa's exquisite novel is deceptive in its simplicity and shines like a rare polished gem. It is 1992. A brilliant math professor suffered a traumatic head injury in 1975, leaving him with only 80 minutes of shortterm memory as a result. His one suit is covered with pinned notes reminding him of who he is, what is important, and fragments of obscure numbers and symbols that have meaning only for him. Yet he is vibrantly alive, always thinking, continually submitting articles and puzzles to the Journal of Mathematics and winning awards for his work. Living "now" is the Professor's only option, and math is the reliable bedrock of order, wonder and meaning.

The Housekeeper and the Professor Yoko Ogawa

A young housekeeper is hired to care for him and is often joined by her 10-year-old son, "Root" -- so called because his flat-top haircut reminds the Professor of the square root sign. The Professor, the housekeeper and Root create a sheltering home with mathematical formulae and principles at the, um, root. The makeshift family explores "God's Notebook," the guidebook where a "truly correct proof is one that strikes a harmonious balance between strength and flexibility." Pythagoras, amicable numbers, baseball, fractions, perfect numbers, formulas, and ratios reveal organization so hard and clear that all flows together "as if we'd been connecting up the constellations in the night sky."

To be sure, formulae and problems pepper the little novel – short at 180 pages – but you don't have to be a math nerd to understand underlying principles and the philosophy of life that guides them. A New York Times reviewer says that *The Professor and the Housekeeper* is "one of those books written in such lucid, unpretentious language that reading it is like looking into a deep pool of clear water." Or outward to the universe. **SC** 

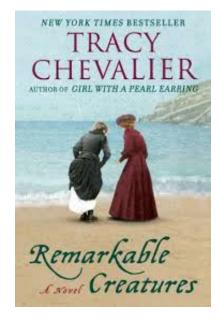
#### Fiction They Found Fossils by the Seashore

Remarkable Creatures. By Tracy Chevalier. Dutton, 2010. 310 pages.

Review by Sara Gottlieb, conservation planner, The Nature Conservancy, Georgia

This book takes us back to a time and place, the early 19th century in Great Britain, when women could barely leave their homes without permission from men, and then only to perform prescribed tasks. Women's (and men's) lives were also constrained by their economic class, and to step outside of society's boundaries of gender and class was to invite scorn and shame. This book is a fictional account of the lives of two real women, Mary Anning and Elizabeth Philpot in the seaside town of Lyme Regis, and their contributions to early scientific paleontology.

Mary Anning was an uneducated girl from a poor family and Elizabeth Philpot was a spinster from a somewhat well-to-do family. Mary's natural talent for discovering unusual fossils and Elizabeth's interest in



fossils brings the two women together but their shared pursuit of an avocation considered unsuitable for females brings them both significant hearthache and pain. Established male scientists and wealthy fossil collectors take advantage of Mary, claiming credit for her discoveries. Elizabeth is savvy enough to understand how her friend is being used, but Mary's unsophisticated sensibility and pride results in a rift between the two and their alliance is severed for many years.

The book is written in sections that alternate between the two women's points of view, which allows readers to empathize with both. Each of these talented and intelligent women was trapped in the prisons of their gender and class. Thanks to sheer tenacity, they were able to make significant contributions to understanding of the fossil record and evolution.

Mary's most significant fossil discoveries included the first specimen of Ichthyosaurus acknowledged by the Geological Society in London discovered in 1821 and the first Plesiosaurus, unearthed in 1823. Eventually, Mary received some recognition from the scientific community and even a small stipend from the British Association for the Advancement of Science. Her obituary was published in the Quarterly Journal of the Geological Society — an organization that did not admit women until 1904. **SC** 

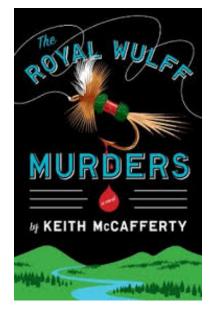
### Fiction Wilderness Suspense

The Royal Wulff Murders. By Keith McCafferty. Penguin Books, 2012. 352 pages.

Review by <u>Matt Miller</u>, deputy director of science communications, The Nature Conservancy

Fans of mysteries and suspense fiction once had to resign themselves to the fact that these books invariably took place in urban settings. Hard-boiled detectives on mean streets. Dapper dressers shifting among the halls of power. That sort of thing. There's nothing wrong with that, but it never quite worked for me sitting around a campfire or on a cabin porch. That's no longer the case, as a new subgenre sets the suspense in wildernesses and wild country, with game wardens, national park rangers and fishing guides as protagonists.

If you'd rather read descriptions of fly rods than designer suits, this book is a good place to start. Keith McCafferty's *The Royal Wulff Murders* opens with the murder victim found with a dry fly bedded conspicuously in his lip. A private-eye-turned-fishing



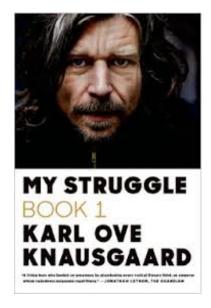
guide is soon on the case, with a host of tourists, anglers, guides and other characters you'd find along a blue-ribbon Montana trout stream. McCafferty's books are more comic than violent — think Carl Hiaasen rather than John Sandford. *Royal Wulff* and his two other novels are fast, fun reads — the perfect entertainment after a long day afield. **SC** 

### Fiction Wilderness Suspense

My Struggle: Book One. By Karl Ove Knausgaard, translated from the Norwegian by Don Bartlett. Farrar, Strauss, and Giroux. 2009. 441 pages.

Review by Bob Lalasz, director of science communications, The Nature Conservancy

The novel: played out after hundreds of years, irrelevant to mainstream culture for the last 50, and showing no signs of a comeback. So what's the point of a new one, except when you've already seen all the inflight movies? Because only the novel can give us novels like "My Struggle" — a six-part, 2,700-word, fictionalized chronicle of author Karl Ove Knausgaard's 45-year-old life, leaving apparently nothing out. In fact, "My Struggle" is so seemingly devoid of plot, character development, basic connection among paragraphs or any other convention we assume about "novels" that you often feel as if you're turning its pages just to see how long Knausgaard can keep you turning them. And yet turn them you do, even though it sounds punishing and



insane. Not just because, in the author's relentless detailing of his every blurt, burp, belch and philosophical break of wind, you keep getting little jolts of resonance with your own life. But because "Book One" imperceptibly builds those details — the repetitive movements of a life's clock — into a disquieting mystery and possibly a horror story about his imperious, alcoholic father and how the son can ever free himself from his ghost. Childhood and the past: the watch that turns out to be a time bomb — ingeniously constructed, forever detonating inside us, as we search and search in vain to defuse it. The oldest story ever, here made new. **SC** 

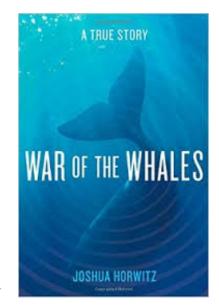
### Science/Natural History A Whale of a Tale

War of the Whales. By Joshua Horowitz. Simon and Schuster. 2014. 448 pages.

Review by <u>Lisa Feldkamp</u>, senior coordinator, new science audiences, The Nature Conservancy

Whale researcher Ken Balcomb prepares a group of researchers and volunteers for monitoring trip. Suddenly, they are interrupted by cries that a beaked whale has stranded on the beach right in front of the research base. Balcomb is stunned (strandings are exceedingly rare for the species), but quickly organizes the group to get the whale back in the water. Balcomb and his team spend the rest of the day responding to beachings along the coast of the Bahamas.

In the end it was a multi-species mass stranding of cetaceans (~17 beached whales and dolphins reported) and after seeing a Navy destroyer in the area, Balcomb (an ex-Navy researcher) thought he knew the cause: military sonar.



Many people today are aware that marine mammals and sonar don't mix, but getting the scientific community, the public, and even the Navy to accept the connection was a hard-fought battle that started with the stranding in the Bahamas.

Joshua Horowitz, the founder and publisher of Living Planet Books, tells the gripping tale of the two men who brought the battle to the Navy, Ken Balcomb and Joel Reynolds. Though it is a true story, he chooses to tell it almost as a novel, completely recreating conversations and scenes that he did not experience. His strategy captures the tension of the battle between the navy and environmentalists that ensued and he truly is working with riveting material--such as the mass stranding of many whales, their lives hanging in the balance--but there are significant pitfalls to the novelistic approach.

The first, and I think lesser, problem is that it detracts somewhat from his credibility. Not so much because he wasn't there, but because he spends so much time building his two main characters into larger-than-life heroes, including entire (and entirely disposable) chapters on the childhoods and love lives of Balcomb and Reynolds. At times I felt as though I were reading an Ayn Rand novel with some really interesting science about whales thrown This leads us to the second, more damaging problem: casual sexism suffuses the early chapters of the book. Despite the involvement of several women occupying myriad roles in the story, Horowitz almost universally casts them in the role of helper or lover. With few exceptions, female scientists are introduced as "wife and research partner of X."

Horowitz isn't merely reporting sexism in his subjects, either; his narrator persona exhibits the same tendency at times: "Rowles promised to do her best to find money to reimburse ONR, but it was a little bit like a secretary offering to go dutch with her boss at an expense-account restaurant."

The bottom line: *War of the Whales* is a captivating tale about an important moment in environmental history and it highlights important scientific, legal, and political issues (it has some fascinating asides on regulatory capture). It's impact, however, is undermined by the relegation of women to the supporting roles and the overblown characters, ultimately diminishing the work's credibility and the reader's pleasure. **SC** 

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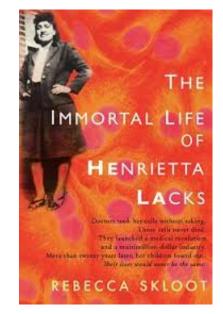
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### Science/Natural History Eternal Life

*The Immortal Life of Henrietta Lacks.* By Rebecca Skloot. Broadway Books. 2011. 381 pages. Review by Laura Marx, forest ecologist, The Nature Conservancy, Massachussets

I can't take credit for choosing this book. It was sitting in front of me on a visit to my in-laws in Michigan, originally selected by the local library book club. I picked it up on a whim, but immediately found it impossible to put down.

*The Immortal Life of Henrietta Lacks* is the story of the woman behind a cell line that is, in turn, behind many of the major medical breakthroughs in the past several half-century. The story is notable in part because the woman whose cancer cells at one point were so common that they were found to have contaminated virtually all of the cell lines in the world never knew about or consented to their use for medical research. It is also notable because Henrietta Lacks was both black and poor, which sets up an uncomfortable (but, to the authors credit, also only a



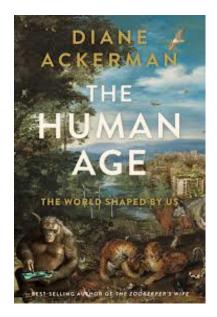
side note to the bigger story) coming-to-terms by the predominantly white and wealthy researchers who learn that their careers were built on a handful of her cells.

This book could only have been written by someone obsessed with getting the story. Despite that obsessive level of detail, I only rarely found myself skimming a paragraph or being impatient for the next development. I suppose I learned a lot about cell biology, but the parts of the book that stick with me these many months later are about the people: the haunting fate of one of the daughters Henrietta left behind, the gift a medical researcher sends to try to atone, and the thorny ethical questions that author Rebecca Skloots raises but ultimately leaves you to answer on your own. **SC** 

#### **Science/Natural History** Bright Spots

*The Human Age: The World Shaped By Us.* By Diane Ackerman. Norton. 2014. 344 pages. Review by <u>Bob Lalasz</u>, director of science communications, The Nature Conservancy

Elizabeth Kolbert (she of the gloomy best-seller *The* Sixth Extinction) has tweeted that "good" and "Anthropocene" should "probably not be used in sequence." Diane Ackerman (A Natural History of the *Senses* and 23 other books) stuffs *The Human Age* with what feels like a million reasons why Kolbert might be wrong, all of which amount to the potential triumph of human ingenuity over the vast problems cause by... human ingenuity. Solutions like: A method of capturing energy from the body heat of mall shoppers, for instance. Or building constant-temperature buildings modeled on termite towers. Or rotational, seasonal mariculture off Maine that's green and sustainable. Or what science will make possible for humans and nature: cyborg prosthetics, quantum improvements based on nanotechnology and neurobiology, an "Interspecies Internet" allowing the planet

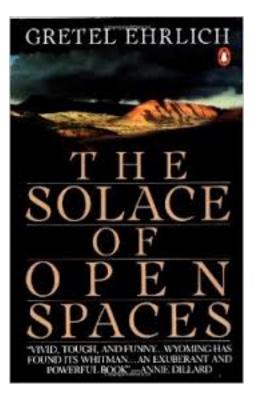


to interface. Ackerman's tone is breathless, her writing florid, her narrative less about a movement than a jumble of bright spots that could go dim at any moment. Still, her optimism about our ability to fix what we've screwed up seems to me both more realistic and more livable than Kolbert's dour pessimism, which amounts to the idea we who are now everywhere should somehow just magically go away. **SC** 

#### Science/Natural History No Need for Maps

The Solace of Open Spaces. By Gretel Ehrlich. Penguin Books, 1986. 144 pages. Review by <u>Jonathan Higgins</u>, senior freshwater ecologist, The Nature Conservancy

I read this short and beautiful book this fall while on my 20th annual fly fishing trip to Wyoming. It is not new, and I wonder why it had evaded my reading list so long. It is a wonderful description of the landscapes and people of Wyoming, a story of personal loss and discovery, and provides keen and well written insights into the interplay of people and nature. No need to map the landscape using an ecosystem services program to understand these important relationships. **SC** 



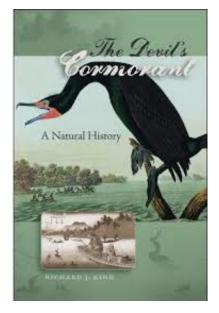
### Science/Natural History Why the Cormorant Matters

*The Devil's Cormorant: A Natural History.* By Richard J. King. University of New Hampshire Press, 2013. 352 pages.

#### Review by <u>Matt Miller</u>, deputy director of science communications, The Nature Conservancy

A popular trend in nonfiction books is to use a plant or animal to illustrate broader themes in world history. This can be an interesting approach with, say, corn or cod. But cormorants? What can these aquatic birds teach us?

Richard King thinks otherwise, and uses these birds to explore a range of human-nature interactions. Our history with cormorants, it turns out, is richer and more complex than you might have imagined. He sits on boats with Japanese anglers who practice an ancient tradition that involves using trained cormorants to catch fish. He visits guano mines that shaped the history of South America. He sits with sport anglers and aquaculturists who see cormorants as competition, and shoot them. And he goes afield with conservationists



who kill or harass cormorants to ostensibly save other species, like salmon. He tries to see clearly a bird that is often more a projection of ourselves than an actual bird — and isn't that how we so often see creatures?

The real payoff is the book's conclusion, in which King wrestles with the bigger question — why does a bird that most consider ugly matter? Ultimately, this is still a specialized book, but if you have an interest in birding and bird conservation, it's a worthy addition to your library. **SC** 

#### Science/Natural History Darwin in the Fast Lane

Unnatural Selection How We Are Changing Life, Gene by Gene. By Emily Monosson. Island Press. 2014. 187 pages. Arrival of the Fittest: Solving Evolution's Greatest Puzzle. By Andreas Wagner. Current. 2014. 291 pages.

#### **Review by Jonathan Adams**

These two very different books on evolution have one important idea in common: both call into question the predominant assumption the evolution is, and always must be, slow. In fact, evolution allows for, indeed requires, far more rapid innovation than previously believed. That innovation can stem from entirely different sources, one of which is ourselves.

In *Arrival of the Fittest*, evolutionary biologist Andreas Wagner takes on one source of innovation operating at the molecular level and explores how large numbers of random mutations within species can combine to form intricate and innovative traits. In clear and accessible language, he explains the latest research into how small changes in amino acids allow geese to fly higher, cod to swim deeper and eyes to see color, just as they allow bacteria to become resistant to antibiotics and cells to become resistant to cancer drugs.

This is where we come in. Emily Monosson, an environmental toxicologist, describes in compelling and occasionally frightening detail how humans are the driving force behind the rapid evolution among cancer cells, bacteria, weeds, bedbugs and other creatures. *Unnatural Selection* takes an

unflinching look at how the overuse of anitbiotics and herbicides creates superbugs and superweeds, and at what the long term consequence might be, including, perhaps, epigenetic changes that could change human evolution in profound ways. SC

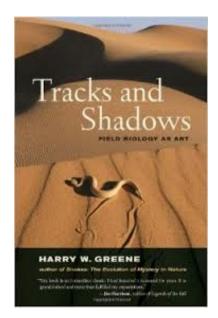


### Science/Natural History What it Means to be an Omnivore

*Tracks and Shadows: Field Biology as Art.* By Harry W. Greene. University of California Press. 2013. 296 pages.

#### Review by <u>Bryan Piazza</u>, director, freshwater and marine science, The Nature Conservancy Louisiana

*Tracks and Shadows* is a fabulous book from renowned Ecologist and snake expert Harry Greene. In this book, Greene takes us on a voyage of discovery that braids field ecology and his love of snakes with life lessons and his views on conservation. Greene takes us from his childhood, when he dreamed of becoming a herpetologist to his stint as an ambulance driver through his brilliant academic career, and he does all of this with a humility that comes across beautifully in his writing. He also describes his deep thoughts on cattle and their role in land management, as he introduces the reader to a few fine specimens of Longhorns on a ranch in Texas.



While there is much more I could discuss about this book, the thing I loved most about it is Greene's deep contemplation of hunting as he becomes a hunter late in his

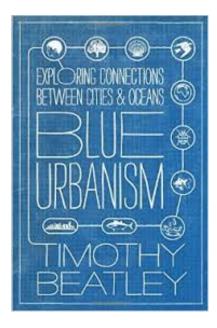
life. He describes how his students at Berkeley gave him his first rifle — a funny story indeed — and how using that tool put him squarely into an internal debate about what it really means to be an omnivore. For example, in a brilliantly-written account of a successful deer hunt, he paints a beautiful, but real picture of the scene going on both inside and outside of his body. In another story, he wrestles deeply with his love of pigs right up to and after he pulls the trigger on a nuisance wild hog. I, too, am a hunter a dedicated conservationist, and keenly aware of the food I eat. It's this kind of contemplation and insight about the intersection of hunting and conservation, as well as the description of how we eat and feed ourselves that seldom gets talked about. My hat is off to Harry, who, through beautiful prose, described the deep contemplation and thought that many of us go through as we hunt and think about what it means to be an omnivore.

This is a wonderful book. SC

#### Cities Blue Belts All Around?

Blue Urbanism. By Timothy Beatley. Island Press, 2014. 504 pages. Review by Rob McDonald, senior scientist, urban sustainability, The Nature Conservancy

*Blue Urbanism*, Timothy Beatley's fun new book on cities, is based on a thought experiment: What would cities look like if their residents fully valued what came from the ocean, and felt connected spiritually with it? How should urban planners design cities to facilitate those connections? The author has a lot of credibility in the urban planning field, having worked on coastal zone management and urban planning for a long time, and I fully expect this book to get a lot of attention from urban planners and landscape architects. Like a lot of books directed at that audience, it is heavy on case studies, meandering between motivating case studies rather than spending much time on theoretical concerns.



For folks at The Nature Conservancy, his case

studies of growing concern for marine biodiversity in cities will seem heartening, a nice dose of optimism in a field (conservation biology) that often focuses on the negative. He talks about growing efforts to discourage shark-finning in Hong Kong, for instance, and the creation of new protected areas in New Zealand. The idea that perhaps the most people will latch on to is his call for a "blue belt" around cities, roughly analogous to the green belts some cities have, but to me this analogy was never fully developed, and the idea of blue belts seems really imprecise compared with the legally mandated green belts many cities have.

Since most people live in cities, Beatley bounces between what cities should do to help the ocean, and what humanity in general should do to help the ocean. It made me wonder how much of his argument is really specific to cities per se, rather than society at large. I also found myself wanting more detail on WHY people in cities should value the biodiversity in the ocean, apart from it seeming like the morally right thing to do. The book is at its best when then reason why a community should care is clear, as when Beatley talks about community supported fisheries or incentives for renewable tidal energy production.

Overall, this is a fun, engaging book. Anyone interested or passionate about urban sustainability or about the health of the oceans should check it out. **SC** 

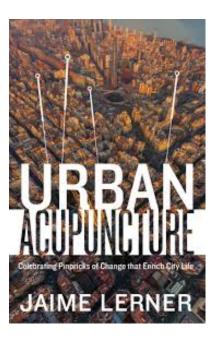
### Cities Lessons from Curitiba

Urban Acupuncture. By Jaime Lerner. Island Press, 2014. 143 pages.

Review by Jonathan Adams

Jaime Lerner is among the most influential mayors of modern times, and probably the most innovative urban planner since Robert Moses. He is also kind of an anti-Moses, and small wonder considering that his mentor, the author and activist Jane Jacobs, fought a legendary battle to keep Moses from razing New York's Washington Square Park and much of Greenwich Village to make room for an expressway.

As mayor of the southern Brazilian city of Curitiba, Lerner put Jacob's ideas into action more effectively than almost anyone before or since. He created a bus rapid transit system that has been duplicated worldwide, partnered with local fisherman to clean up Curitiba's bay, and turned



down millions of dollars in World Bank loans and instead found sustainable, homegrown solutions.

*Urban Acupuncture* captures Lerner's philosophy, expansive mind, and his dynamic personality through a series of anecdotes, musings, even a poem. Most are short — think of them as haikus for the urban planner — and thought-provoking. An unusual book from an unusual thinker, but with lessons that have broad application. **SC** 

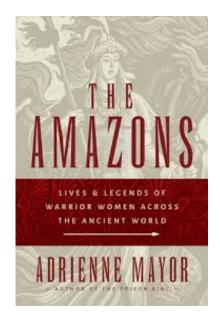
#### History Uncovering a forgotten culture of gender equality

*The Amazons: Lives and Legends of Warrior Women across the Ancient World.* By Adrienne Mayor. Princeton University Press 2014. 536 pages.

Review by Jen Molnar, director of science, The Nature Conservancy

Amazons were skilled hunters and fierce warriors able to take on Greek heroes. But these women didn't just live in ancient Greek myths of love and war — they were real, and new research described in this book uncovers their story.

In the ancient nomadic tribes of the northern Black Sea — and across the Eurasian steppe to Mongolia women played equal roles in the rugged society. Girls were trained in horseback riding and archery, and women rode alongside men on hunts and in battle. "Ordinary women...could be hunters and warriors without giving up their femininity, male companionship, sex, and motherhood."



Ancient Greeks saw these neighboring tribes as intriguing, but also very different. As they labeled other barbarian groups by strange characteristics like lice eating, head hunting, and cannibalism, they used the epithet *Amazones antianeirai*, which translates to "Amazons, the tribe whose women are equals." Exaggerating in myths, they described tribes of women both desired and respected as warriors.

The connection between mythical Amazons and these nomadic women went unexamined by modern archeologists. Not too long ago, it was assumed tombs with weapons held men, while those with spindles or jewelry held women. But DNA tests of skeletons now show us otherwise. Of the thousands of tombs excavated in the Eurasian steppe, many were found to contain women with weapons and battle scars similar to those of men. In some cemeteries, 37% of burials are armed women. And it turns out men were also buried with spindles and jewelry.

With this new perspective, Adrienne Mayor takes a fresh look at ancient texts and evidence. She illuminates the rich lives of these women — from their families, clothing and weapons, to their sex lives and tattoos. This riveting and comprehensive book helps bring respect back to these real warrior women. **SC** 

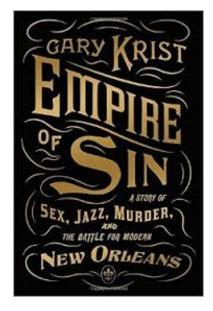
#### History Storyville Stories

*Empire of Sin: A Story of Sex, Jazz, Murder, and the Battle for Modern New Orleans.* By Gary Krist. Crown, 2014. 432 pages.

#### Review by Jonathan Adams

Gary Krist has pulled off a remarkable trick with *Empire of Sin*: he has written a book that gradually becomes the very image of its subject, the city of New Orleans. The book, like the city, is by turns passionate, exhilarating, diverse, and dramatic, but also at times unwieldy, ramshackle, and frustrating. And like the jazz that is at the heart of both the city and the book, Krist pours out riffs; most are compelling, but a few seem to lead nowhere.

Krist had written several novels, and in *Empire of Sin* he makes full use of his narrative chops. The book is exhaustively reported, but Krist never lets the research overwhelm the story or its many vibrant characters, especially saloon-owner and politician Tom Anderson; his



partner in vice, the madam Josie Arlington; the near-mythic trumpeter Buddy Bolden; a host of other jazz greats (including Louis Armstrong, Jelly Roll Morton, and Sidney Bechet); and dozens more. At the center of the tale is essentially a struggle for the soul of the city, as Anderson, Arlington, and others who thrive in the red-light district known as Storyville fend off the reforms of people like the bible-thumping Cary Nation, who makes a vivid cameo appearance, and similarly straight-laced city fathers.

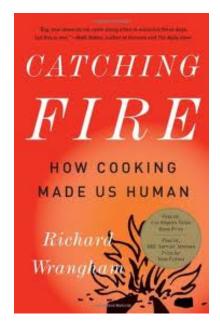
Krist spools out this often convoluted story with aplomb, and weaves in the equally compelling story of the birth of jazz. Less successful is another storyline, about a series of murders allegedly carried out by an axe-wielding madman, who may have had a taste for Italian grocers and may (or may not) have had something to do with the local organized crime syndicate that may (or may not) bear some resemblance to the Mafia. In the end that story feels unsatisfying and only distantly related to the book's central idea, yet it detracts but little from the book as a whole, which is well worth reading for anyone with an interest in New Orleans, jazz, turn-of-the-century America, or expert, page-turning storytelling. **SC** 

### Food Primates Around a Grill

*Catching Fire: How Cooking Made Us Human.* By Richard Wrangham. Basic Books, 2010. 320 pages.

Review by Jonathan Higgins, senior freshwater scientist, The Nature Conservancy

This book provides a cogent and well documented argument for how cooking food was perhaps the most influential force in human physiological and social changes from Australopithecus to Homo sapiens. It illustrates the nutritional differences of raw and cooked food, uses archeology and primatology findings to build a case for how our chewing structures, alimentary tract, and brain size evolved in response to having better nutrition through cooking, and suggests a sequence of social changes that occurred as a result of maintaining and using a cooking fire. Backyard barbeque will not make anyone more highly evolved, but after reading this book you might understand why it was such a strong evolutionary force, and is perhaps the cause of primal behaviors observed while gathering around the grill. **SC** 



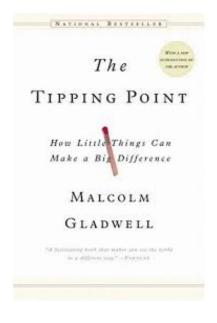
#### Ideas Can Conservation Go Viral?

*The Tipping Point: How Little Things Can Make a Big Difference.* By Malcolm Gladwell.. Back Bay Books. 2002. 301 pages.

#### Review by <u>Bryan Piazza</u>, director, freshwater and marine science, The Nature Conservancy Louisiana

Malcolm Gladwell is one of my favorite authors. I love his deep research and scientific description of why things happen that most of us don't think about. But his words change the way we look at things. Even if his explanation is but one possibility for a phenomenon, we understand the complexity of how things work. I think he is brilliant at his craft.

So it came as no surprise that I loved *The Tipping Point*. In this book, Gladwell dives deep into why some things (ideas, fashions, social behaviors) "go viral" and why some, equally good things, don't. He describes through brilliantly researched examples the phenomenon that ideas spread like a disease and, like illness, need specific drivers that, if not there, will stop the spread of a new idea, product, or behavior dead in its tracks.



This book is not new. It's second edition was released in 2002. Many of you may have read it already. However, in reading this book, I could not stop thinking about conservation and how we at TNC try so hard to spread our message through social media and marketing, as well as my part in spreading our message. I kept thinking am I capitalizing on the three rules of the Tipping point? Am I connecting with the correct people who will spread the message (The Law of the Few)? Is my message sticky enough (The Stickiness Factor)? And am I delivering that message in the proper context so that it causes a reaction (The Power of Context)?

More thoughts ran through my head. If I'm not capitalizing on these rules, am I wasting my time? How can I do better so that the message conservation becomes viral? The list goes on. My point is that this book has some good lessons to consider, and it became very relevant to me. Who knows; it may resonate with you, too. **SC**