# SCIENCECHRONICLES



Moyan Brenn

Berkut83@hotmail.it

# The Year-End Books Issue 2013

#### **Book Reviews by...**

Jonathan Adams, Rebecca Benner, Anita Diederichsen, Jon Fisher, Jonathan Higgins, Peter Kareiva, Bob Lalasz, E.J. McAdams, Matt Miller, Jensen Montambault, Charlotte Reemts, Nick Salafsky, & Mark Tercek

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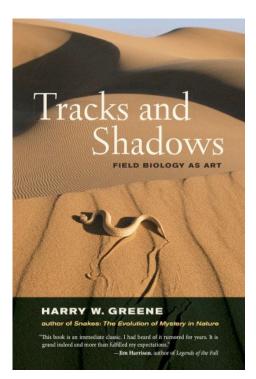
#### Conservation The Best Conservation Book in 64 Years

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

Reviewed by Peter Kareiva, chief scientist, The Nature Conservancy

Harry Greene is a renowned herpetologist, teacher, mentor, raconteur, author, and perhaps today's greatest living naturalist. *Tracks and Shadows* is an autobiographical, scientific, and philosophical exploration of the ineffable lure of field biology. It speaks more to the conservation ethic than anything since Aldo Leopold's *Sand Country Almanac*. In fact, *Tracks and Shadows* may well be the best conservation love poem ever written.

On top of that it is playful, intellectual, easyto read, trenchant, and filled with biology you did not know. What makes Harry so special is that he is as observant of people as he is of nature, and he uniquely combines a critical intellect with a generosity that allows him to get beyond personal blights or the flaws in someone's argument to uncover the value under the slimiest of rocks.



I have heard Harry give three talks. Everyone one of them stuck with me for weeks, months, years. His book is even better. I do not know how to capture, convey, or report on why this is a book you must read. All I can do is take a couple of quotes from the book, to give you something of its flavor:

"Bad news is all around, so I leaven it with success stories... recently a Korean schoolteacher discovered a spectacular new salamander....and Arizona firefighters perform science-based rattler and Gila monster translocations."

And finally, "nature is more like a bandit queen than a princess, worthy of love and protection but scornful of idolatry."

#### **Conservation** Reinventing Conservation Science

*Reinventing Discovery: The New Era of Networked Science.* By Michael Nielson. Princeton University Press. 272 pages.

#### Reviewed by Nick Salafsky, Foundations of Success

My favorite work-related book of the past year is Michael Nielsen's *Reinventing Discovery*. Nielsen's core premise is that the connectivity enabled by the internet is fundamentally transforming the nature and practice of scientific investigation. Through the internet, dozens, hundreds, even thousands of people can come together to collaborate on solving massive and complex problems ranging from having teams of merely good chess players beating Grand Masters to tracking bird migrations via eBird to modeling the structure of the universe.

The keys seem to lie in framing the problem in bite-sized chunks so that all these interested individuals can contribute their particular expertise, recording the results in an opensource intellectual property system so that each



REINVENTING DISCOVERY

The New Era of Networked Science



MICHAEL NIELSEN

source intellectual property system so that each contributor can easily build on the experiences of the work done to date, and creating the appropriate signaling/reward mechanisms so that the group focuses its collective attention on the most important areas of the problem.

There are some intriguing parallels between the examples Nielsen cites and the work that we in the Conservation Measures Partnership and others are doing to create the Open Standards and various open source information technology tools to improve the science of conservation. But there is also a lot that we in the Open Standards movement – and in conservation more broadly – could learn from this book to improve our work. In particular, how do we incentivize conservationists to share their experiences and their learning to improve our collective work? And should we conservation scientists change our job descriptions so that we are responsible for framing and architecting solution systems for problems rather than merely solving them? **SC** 

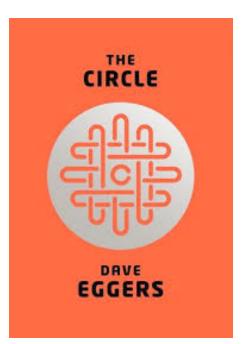
#### Fiction 1984 with Emoticons

The Circle. By Dave Eggers. Knopf, 2013. 504 pages.

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

What would happen if social media not just ruled the world, but became it? Became the only place you could buy and sell, or vote? Where you constructed your identity? Where you had to validate an experience before it could be real?

Dave Eggers' brisk novel *The Circle* paints that future in terms as frightening as they are crude. Eggers' heroine, Mae Holland, is a young woman who can't believe her luck — a friend has just gotten her a job as a customer service rep at The Circle, a digital megalith that's gobbled up Facebook and Twitter, owns online search, embeds sensors in its employees and cameras on politicians, and has R&D projects that make Google Glass seem as advanced as a pair of \$5 sunglasses.



Mae is bright, attractive, highly vulnerable and can talk herself into anything. So she quickly becomes The Circle's public face and a useful idiot for its philosophy, which is a little bit Acumen Fund, a lot Bezos-style shark-tank capitalism, and increasingly *1984* with likes and emoticons. There are shadowy figures and silly paranoid diversions, and a couple of solo kayaking trips into San Francisco Bay that show how nature fits into The Circle's master plan.

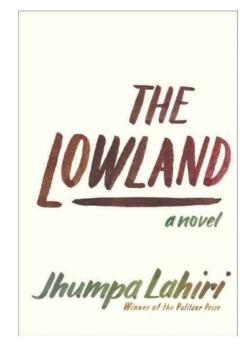
*The Circle* works, even though it's full of cardboard characters, soapbox speechifying and narrative reveals telegraphed in 50-foot-tall neon. That's because the real-life trends in social media — from the galloping loss of privacy on Facebook and Google to the people relaying overheard conversations on Twitter without permission — keep making the soft totalitarianism of *The Circle* seem not just possible, but likely. Even those kayaking trips must be broadcast, Mae's bosses decree, lest anyone miss out on them... because being off the grid is the most selfish act of all. Life will soon be nothing but oversharing; and it's both chilling and absorbing to watch Eggers build that notion into a dystopia. **SC** 

#### Fiction The Political is Also Personal

*The Lowland: A Novel*. By Jhumpa Lahiri. Knopf, 2013. 352 pages. Reviewed by <u>Anita Diederichsen</u>, on sabbatical.

Yes, I recommend the book! It all starts by a lowland, that is an area nearby a family house in Calcutta. From there the story of two very close brothers, Subhash and Udayan, unfolds to a more familiar setting in Rhode Island (where the author was raised), and then gets you back you to India, stretching from the 1940s until today, along three generations.

Behind the family saga, the scenery has India's independence from Britain (1947) and the creation of the Naxalite movement in India; the beautiful landscapes of Rhode Island and its wildlife; a campus and the academic life; and culture of India in contrast to the culture of the United States. *The Lowland* gave me the chance to better understand the recent history of India. Having the chance to



better understand India's culture attracted my attention considering all its complexity.

One fascinating narrative characteristic is that the narrator changes perspectives from character to character and from chapter to chapter. Actually it always takes a few seconds at the beginning of each chapter to let us know with whose eyes we are seeing the story unfold. This technique offers the possibility to drift from the different points of view, and emotional universes, of each one of the five main characters. Another is that the narrator drifts in time, bringing the past ahead to the present and, by doing that, adds different pieces to the puzzle until the last page. All of this proceeds with a strong sense of reality, with no mask, as the narrators speak openly and honestly about their feelings.

It is a sad and unique story of a family. It shows some painful aspects of life, and how the past might remain alive in the present and influence forever the future. You will also find love and hate, loyalty, secrets, moral choices, compassion, courage, guilt, and adventure.

Jhumpa Lahirii is a National Book Award Finalist, Shortlisted for the 2013 Man Booker Prize and winner of the 2000 Pulitzer Prize. For me *The Lowland* was definitely engaging reading. I bet it will be for you too. **SC** 

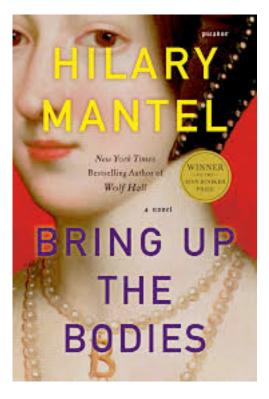
#### Fiction Everything Old is New Again

Bring Up the Bodies. By Hilary Mantel. Knopf, 2013. 352 pages.

Reviewed by Jonathan Adams.

If you are like me, you got most of what you know about Henry VIII and his many wives from the movie (and play) *A Man for All Seasons*. If you are like my daughter, you get your history <u>here</u>. I'll leave it to you to decide which is the better source. The point is that most people know the story, or think they do.

In *A Man for All Seasons*, the story revolves around Thomas More, advisor to the King and eventually Lord Chancellor, played by the magisterial Paul Scofield. No one inhabited the moral high ground so convincingly, as More opposed the King's quest for a divorces from his first wife. More's nemesis, in this telling, was another of the King's men, Thomas Cromwell, played with oily aplomb by Leo Kern. As far



as I and many others were concerned, this jowly bureaucrat pursued and eventually brought down a saint.

Now comes Hilary Mantel. In *Bring Up the Bodies* and *Wolf Hall* its predecessor in what will be a trilogy about the Tudors, Mantel tells the entire saga through Cromwell's eyes. The effect is remarkable. Mantel manages to make one of history's best known stories suspenseful, and one of its legendary villains once again human, if no less frightening for that humanity. Cromwell has been compared to torturers such as those employed by Stalin, or Big Brother. But Mantel is at pains to point out that the saintly More (he was canonized precisely four centuries after his death) was perhaps overly fond of torturing heretics. So there are no pat answers, no simple lessons, only a rendering of the distant past so masterful and convincing it seems a bit of magic. **SC** 

#### Fiction I Fell Into a Burning *Ring of Fire*

*Ring of Fire.* By Eric Flint. Baen Books, First published 2000. Reviewed by <u>Nick Salafsky</u>, Foundations of Success.

I've had this idle writer's fantasy to update Mark Twain's classic "A Connecticut Yankee in King Arthur's Court." My premise would be that instead of having the time traveler be a 19th century engineer with an intimate knowledge of firearms manufacturing, blacksmithing, and other "practical" skills, it would be an early 21st century scientist like me or you who knows the scientific method, but not much else. Could we do as well in medieval times as Twain's Yankee?

This question has now been definitely answered in my latest reading addiction – *The Ring of Fire,* an epic multi-volume historical fiction series by Eric Flint and a host of collaborators who contribute fan-fiction extensions to the main story line. The premise is that Grantville, a small West Virginia town circa



2000, is transported wholesale into 1630s Germany in the midst of the Thirty Years' War. The town residents bring with them their guns, cars, and medical clinics – but also only a limited supply of ammo, gasoline, and antibiotics. It quickly becomes clear that the Grantville "uptimers" will have to integrate with the politics and economic system of the European "downtimers" if they are to survive. And then it becomes abundantly clear that the really valuable things that the Americans brought with them are the basic science books in their high school library and their democratic values.

One example is when a Grantville high-school dropout ends up in Russia as an advisor the Czar. His mere knowledge that hot-air balloons exist is enough to free up a Russian scientist from the mental shackles of his Aristotelian world view to then do the experiments needed to create a working balloon.

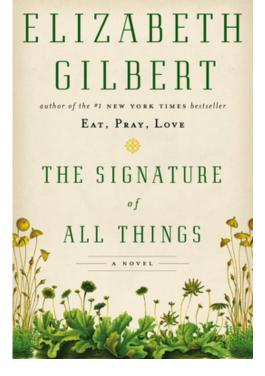
My main complaint about the series is that although the uptimers deliberately set out to right many of history's wrongs (stopping slavery, crushing European anti-Semitism), they are woefully ignorant of ecological limits. Instead of creating a more sustainable future, they recapitulate the industrial revolution. It's probably what they need to do to survive. But it does make me wish that Grantville had an ecologist or two – maybe I will just have to add my own story to the fan-fiction. **SC** 

#### Fiction The Thrill of the Moss

*The Signature of All Things* by Elizabeth Gilbert. Viking. 2103. 512 pages. Reviewed by <u>Rebecca Benner</u>, The Nature Conservancy

What do Philadelphia in the early 1800s, Kew Botanical Gardens, Tahiti, mosses, and Darwin all have in common? Alma Whittaker.

In her historical novel *The Signature of All Things,* Elizabeth Gilbert weaves together science, love, culture, and history through the story of Alma Whittaker's life. The Whittakers' love for botany takes you on a trip around the world with Alma's father and Captain Cook in the 1700s; Philadelphia where Alma grows up with her mother, father, and adopted sister in the early 1800s; and finally, with Alma alone to Tahiti in the mid-1800s and Holland around the time of the publication of Darwin's *Origin of Species*.



Alma's passion shifts to a focus on mosses through which the story of natural selection unfolds. Paralleling her science is her story of

love and loss, the concrete and the surreal, the factual and the spiritual. Through her journey, the reader meets colorful characters, some who put passion before logic, the ethereal before science, and loving kindness before personal benefit. At times overly detailed but generally a smooth read, this book is made for those who like to see the world through a character and who like books that focus on people and their interactions with the world (natural and spiritual) rather than those looking for lots of action and suspense.

Ultimately this book is about science, and the questions that science answers well and the ones it does not. The book leaves us with these questions: Why are some people altruistic and self-sacrificing when this appears to defy the tenets of natural selection? Why might a starving prisoner share his last bites of food with another starving prisoner? Why might someone put himself in harm's way to save someone they do not even know from injury? Exploring these questions and many others make *The Signature of All Things* an enjoyable read. **SC** 

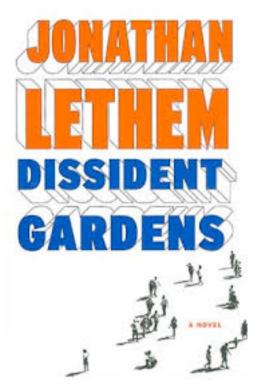
#### Fiction Sunnyside Down

Dissident Gardens. By Jonathan Lethem. Doubleday, 2013. 384 pages.

Reviewed by Jonathan Adams.

My two sets of grandparents did not get along. Actually, let me rephrase: they hated each other. This always struck me as odd, given how similar they were. All were immigrants, Jewish, working class, from the same general vicinity in Eastern Europe. Their politics were similar too, and there's the rub. Similar wasn't nearly good enough. On one side were socialists. On the other, well, put it this way: when one grandmother heard the other's name mentioned she would literally spit out the word *februnde*. That's Yiddish for firebrand, as in firebrand Communist.

I tell this story because when I heard that the main character in Jonathan Lethem's new novel was a *februnde* Communist, I had to pick it up. It does not disappoint. Rose Angrush — a lovely combination of anger and anguish — is a masterpiece, and the emotional center of the



novel. She stalks the sidewalks of the planned community of Sunnyside Garden in Queens, New York looking for the slightest offense to her exquisitely tuned antennae for injustice and political apostasy. Firebrand indeed.

Readers of Lethem's previous novels, among them *Gun, With Occasional Music* and *Motherless Brooklyn*, may expect some of his trademark fireworks — super heroes, aliens, self-appointed private detectives with Tourette's Syndrome — but this latest is in some ways a departure for him. It is at once a sprawling story, covering three generations and multiple continents, and also an intimate story, at time painfully so. Lethem rarely pulls back from extreme close-ups of his characters, which in less skilled hands would eventually become claustrophobic. But Lethem offers flawed people, some badly warped by circumstance or ideology, and makes them fascinating, fully 3-dimensional, and worthy of, if not our admiration or affection, then at least our engagement.

*Dissident Gardens* is a visceral book, and an often hilarious one as well. It succeeds in drawing us into the lives of a remarkably diverse set of characters even though the central one, Rose, can be difficult if not impossible to love. But her steadfastness, though misguided, keeps the story from spinning apart, and it ultimately defines nearly everyone it touches, for good or more often, for ill. **SC** 

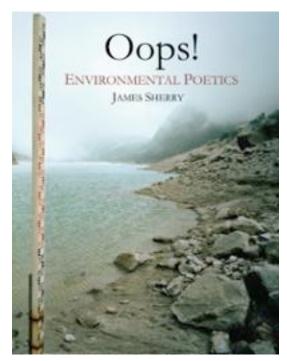
#### Poetry Activating Synapses Across Your Multidisciplinary Mind

Oops! Environmental Poetics. By James Sherry. BlazeVOX Books, 2013. 254 pages.

Reviewed by <u>E.J. McAdams</u>, associate director of philanthropy, The Nature Conservancy in New York

When people think about how to address climate change, they often think about lifestyle choices that mitigate emissions. And here at the Conservancy, we have larger levers like REDD+ to move the needle. But did we ever think to look at poetry as an underlying driver of climate degradation? Probably not.

*Oops! Environmental Poetics* by James Sherry argues that the epiphanies we find in so much nature poetry have contributed to the fact that we separate nature from civilization – rather than seeing them on a spectrum, and look for single solutions to problems without taking into account unintended consequences. In the face of the uncertainty of global climate change, he



proposes a poetry that does not describe nature but utilizes the methods of nature – inefficient, redundant, and random.

Sherry is one of the few poets comfortable ranging over a suite of disciplines like environmental science, computing, risk, evolution, Renaissance thinkers, and exosymbiosis. For example, a centerpiece of this book is his model of a multidimensional poetry that uses Ronald Atkins' q-analysis, a mathematical framework for describing structures. He also provides examples of the most adventurous poetic experiments that are testing environmental ways of working, from conceptual poetry that "recycles" texts to "flarf" which uses "a variety of tactics to produce an ecology of language that can adapt to various niches and changes of cultural climate." Here is Sherry acting as a flarfist in "Passive Voice: Forcing Amaryllis:" Humans are active in space but passive with regard to time, And now dates pile upon as has been. Sweeter far than earthly strain, Ourselves be bling: If you refuse to follow the spoor, it's quite useless to force you. (224)

In another piece Sherry performs as a conceptualist repurposing a scientific essay (from Brian Goodwin's book *How the Leopard Changed Its Spots*) by substituting key nouns. The surprising result is a piece that sheds new light on the poetic enterprise.

If you are going to pick up one book of poetry this Holiday season, I suggest *Oops!* It will activate synapses across your multidisciplinary mind, and I expect you won't look at climate or poetry or climate-poetry the same way again. **SC** 

#### Poetry A puppy is a puppy is a puppy

Dog Songs. By Mary Oliver. Penguin Books, 2013. 144 pages.

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

I cannot go 15 minutes without talking about my dogs, or 15 seconds without thinking about them. It's a happy illness, and if you have it, or know someone who does, then you couldn't do much better for the holidays than buying yourself or them Mary Oliver's "Dog Songs," an illustrated collection of new and collected poems that's existential even when it's being sentimental.

Oliver is one of the best-selling American poets working, and great on the intersection of nature and ourselves. (Check out "Wild Geese" and prepare to shiver.) No poem in *Dog Songs* rises to that height, but any dog owner will feel deeply understood here...which is not the same as being flattered. The collection nicely summarizes living with dogs, especially their little tyrannies and extortions, and how we willingly give into them:

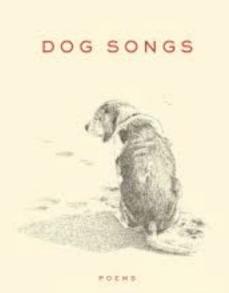
He puts his cheek against mine And makes small, expressive sounds. And when I'm awake, or awake enough

he turns upside down, his four paws in the air and his eyes dark and fervent.

"Tell me you love me," he says.

"Tell me again."

Could there be a sweeter arrangement? Over and over he gets to ask. I get to tell.



MARY OLIVER

Also: Oliver captures through the collection what it's like to have a life with dogs — the joyful, crushing succession of memorable individuals/souls, marking the stages of your life, all the same and yet utterly individual. They die too soon, and the grief is unbearable, and the only thing to do is get the next one, and (as Oliver puts it in "How it Begins") if it is a puppy, there is nothing quite like that blank slate of promise upon which you write the world together:

A puppy is a puppy is a puppy. He's probably in a basket with a bunch of other puppies. Then he's a little older and he's nothing but a bundle of longing. He doesn't even understand it.

Then someone picks him up and says, "I want this one."

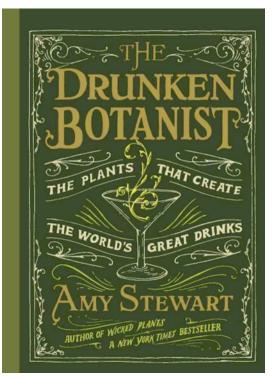
If you've read this far, you'll want this one. SC

#### Food The Biodiversity of Booze

The Drunken Botanist: The Plants That Create the World's Great Drinks. By Amy Stewart. Algonquin Books, 2013. 400 pages.

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

Think of this as the biodiversity of booze: author Amy Stewart provides the stories of the plants behind every glass of wine, beer and bourbon you drink. There's plenty of biology here, as well as history, drink recipes and even gardening tips. Stewart spends time on all the usual suspects (hops and rye and grapes) but also delves into more obscure botanical delights, too (yusu cocktails, anyone?). You'll learn the truth of those worms in the bottle of tequila, and why chewed-corn drinks won't probably be the next microbrew craze. This is fun little book crammed full of trivia that will amaze your friends and colleagues at your next cocktail party. Or you can just simply enjoy the stories by the fire, fine drink in hand. SC



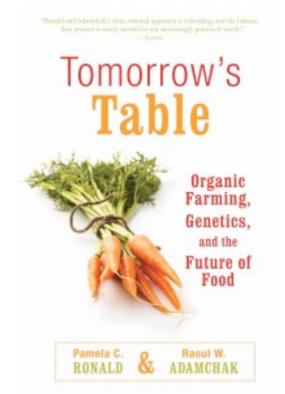
#### Food A Less than Moving Feast

*Tomorrow's Table: Organic Farming, Genetics, and the Future of Food.* By Pamela C Ronald and Raoul W Adamchak. Oxford University Press, 2010. 165 pages.

Reviewed by Jon Fisher, spatial scientist, The Nature Conservancy

When I read the taglines for this book all over twitter: "a book co-written by a plant geneticist and an organic farmer," my expectation was for a vivid book full of debate and controversy, that came to some new and unique perspective. Sadly, like the first commercial GM food (Flavr Savr tomatoes) this book has interesting contents, but is bland overall.

This is really a book written by a geneticist in defense of genetically modified (GM) foods, with a few folksy chapters written by her organic farmer husband mixed in (including his desire to be able to plant GE crops within the organic system), some recipes, some stories about their family, etc. That's OK, but it doesn't really match the marketing as "a merging of organic agriculture and genetic engineering."



That being said, I think that there are some interesting facts and anecdotes in this book that got me to think more about GM crops. Her key point is that not all GM crops are the same, and that regulations should treat them relative to the potential risks rather than all the same. For example, inserting a single rice gene in California can reasonably be expected to have similar low risks as traditional rice breeding in that area. On the other hand, when inserting genes that are potential allergens, or where the crops are planted in areas where they have wild relatives that could pose a risk of hybridization, they should be treated more carefully. She also notes that in Hawaii, organic papayas are often infected with a virus which injects its own genes into the papaya. By contrast, GE papayas have a smaller snippet of viral RNA (from a mild strain) inserted. So it is at least possible for an organic product to have more "foreign genes" than a GE one.

The last thing that I thought was worth considering is that while there are real problems relating to the ownership of seed (especially in the developing world), for hybrid crops (like corn) seed cannot be saved anyway. So issues around ownership and seed-saving are not unique to GE crops either. There are a handful of points like this that gave me something to think about. The notion of using the best available science to gauge risks and benefits and regulate accordingly is appealing.

On the other hand, at times the primary author strikes me a bit cavalier. She acknowledges that cross-breeding with invasive species is a concern for specific crops / regions (e.g. drought-tolerant wheat could potentially hybridize with invasive goatgrass in the Western US), but seems to advocate not worrying about it because it hasn't happened so far. She also is firmly against labeling on the grounds that is "unnecessarily confuses and alarms people." While she makes a good case that GM foods are not inherently risky, there are a lot of other labels that provide distinctions beyond "this is unsafe."

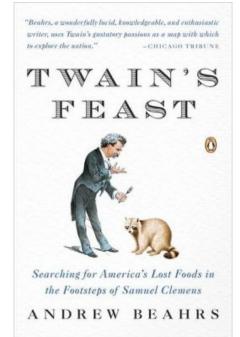
So ultimately, like most books about GM foods, people in favor will stride forth armed with more arguments to use to characterize any opposition to GM foods as antiscience. People against GM foods will be frustrated and write off the authors as corporate shills (as the Amazon reviews confirm). If your opinion is somewhere in the middle, and you don't mind skipping through the irrelevant parts, this is a quick read with some good food for thought mixed in. **SC** 

## Food The Hungry American

*Twain's Feast: Searching for America's Lost Food in the Footsteps of Samuel Clemens.* By Andrew Beahrs. Penguin Books, 2011. 336 pages.

Reviewed by Jonathan Higgins, senior freshwater ecologist, The Nature Conservancy

As an ecologist and foodie, I really enjoyed this book. Samuel Clemens (AKA Mark Twain – the great American author, humorist, and curmudgeon) created a list of his favorite American foods while homesick during an extended stay in Europe. He complained bitterly of tasteless and rotten foods, and yearned for nothing more than a hearty and flavorful meal of aged meat, butter, and real coffee. Beahrs dedicates most of the chapters of the book to several of the foods which Clemens longed for, such as San Francisco Oysters, Prairie Chickens (they were the most popular poultry item in New York fine-dining at the time, and the impetus for the invention of refrigerated train cars), and Philadelphia Terrapin, among others.



The chapters cover why Clemens loved and missed them, the social and natural history of the

foods, and the reasons they are no longer in existence or frequently eaten. The most common reasons for their demise are related to overharvesting, pollution and habitat destruction, which he describes well, although the popularity of raccoon and possum has dwindled because of sociological changes and the advent of more and better options. Throughout the book, Beahrs intertwines well the novelties of the foods and Clemens humor with the losses of iconic habitats, animals and Clemens personal sorrows. He often includes his experiences of going to the places Clemens discussed and talking with people involved in protection and restoration of habitats and species.

While the book provides a range of interesting tidbits, scholarly social and environmental information, and great characterizations of flavors, it is a veil for the loss of wholesome Americana, something many people think local foods will bring back to a certain extent. I doubt it will ever be re-created with food grown within 20 miles from my house. It is a good read. **SC** 

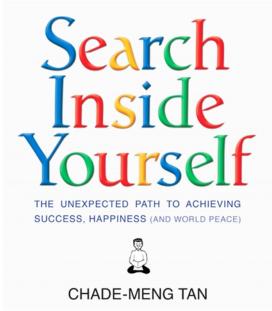
#### People The Zen of Google

Search Inside Yourself: The Unexpected Plan to Achieving Success, Happiness (and World Peace). By Chade-Meng Tan. HarperOne 2012. 288 pages.

Reviewed by Mark Tercek, President and CEO, The Nature Conservancy

This "how to" book by a senior Google leader is especially good for Type A personalities who are often poor listeners, uptight, unpleasant to be with, often in a hurry, and always "right." In other words, this is a great book for someone just like me.

In all seriousness, this is a great book on the trendy but important topic of "mindfulness" and it's critical role in health and happiness. Meng shows how to use meditation exercises to improve focus, clarity of mind and awareness. I'm just getting started with the practices — and as my colleagues who work closely with me will attest — I have plenty of room for improvement. But I'm enjoying the work and believe it helps me a lot. Check the book out, practice what it preaches, and become a healthier, happier, and kinder person. **SC**  FOREWORDS BY JON KABAT-ZINN AND DANIEL GOLEMAN



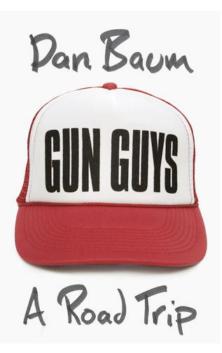
#### People Some Clear Thinking on the Gun Debate

Gun Guys: A Road Trip. By Dan Baum. Vintage Departures, 2013. 352 pages.

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

So vitriolic is the gun debate that I hesitated to review this title here. As a passionate hunter and a political liberal, I have friends on both sides who seem very sure of where they stand on gun control. This book may not change their minds, but that doesn't matter: it's a hell of a piece of writing and reporting.

Dan Baum is a liberal and former New Yorker writer who also happens to like guns. And he has mixed feelings about the gun debate. And so he hops in his car in search of armed Americans of all sorts – hunters and target shooters, self-defense instructors and gun shop owners, criminals and conspiracy theorists. He tells their stories with humor and compassion. He writes compellingly and avoids easy answers.



What is most striking about *Gun Guys* is how Baum approaches what many would see as a minefield of a topic. He does not use snark or caricature or talking points or oversimplification. He gets his facts right. You may not agree with him on every point; I certainly didn't. But if you're like me, you'll delight in his surprising insights, excellent storytelling and clear thinking. Even for such a divisive issue, he manages to bring original ideas and is able to challenge your cherished notions without demonizing anyone – a nice tonic for this depressingly polarized time. **SC** 

#### People Size Doesn't Matter (much)

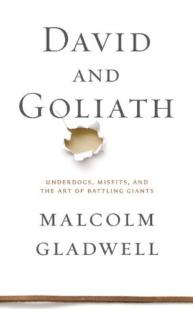
*David and Goliath: Underdogs, Misfits, and the Art of Battling Giants.* By Malcolm Gladwell. Little, Brown and Company. 320 pages.

Reviewed by <u>Charlotte Reemts</u>, research and monitoring ecologist, The Nature Conservancy

The Biblical story of David and Goliath has long been presented as a triumph of a scrappy underdog facing overwhelming odds. Malcolm Gladwell explains the story differently: it is the triumph of a one warrior, trained in the art of long-range slinging, against another warrior, trained in close-range sword fighting. If the slinger never gets close to the sword fighter, that is, if the slinger ignores the rules of traditional hand-to-hand combat, who do you think will win?

This book is full of similar stories showing that many apparently obvious advantages-size, strength, technological power--can actually be disadvantages. Similarly, many apparent disadvantages--untrained troops, dyslexia, bad basketball players--can, in the right circumstances, turn out to confer unexpected benefits.

experienced during the bombings.



A surprising number of American presidents and British prime ministers lost a parent during their childhood, suggesting that, for some children, such a loss can teach coping skills that buffer against later, less serious challenges. The Nazi bombing of London during World War II inspired confidence instead of the expected panic as Londoners discovered that the idea of fear was far worse than the actual fear they

Surviving a traumatic event reveals reservoirs of inner strength that make every-day challenges (report deadlines, hectic schedules) pale in comparison. Being the underdog forces you to think about problems differently, to ignore rules that others take for granted, and to emphasize the skills you have instead of the strength you lack. While we at The Nature Conservancy might feel like David in comparison to multinational corporations or the conservation problems we face, we can also seem like Goliath in comparison to much smaller conservation organizations. The key is to use our size to its best advantage, but not to be blind to the obstacles that it can cause. **SC** 

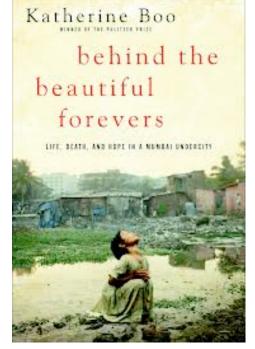
#### People Life, Death, and Hope

Behind the Beautiful Forevers. By Katherine Boo, Random House, 2012. 421 pages.

#### Reviewed by <u>Jensen Montambault</u>, applied conservation scientist, The Nature Conservancy

Do not freak out! Despite what the title might suggest, this is not a hardnosed look at the reality of perpetual conservation easements. Rather this wildly acclaimed narrative about the "life, death, and hope in a Mumbai Undercity" makes the business case for evidence in a complex social ecology. There is a hopeful lesson for conservation science and, plus, it is just a really great read.

The plot twists in and out and around the daily lives and defining tragedies of several Muslim and Hindu families in the ungazetted settlement of Annawadi. The dispassionate depiction of the physical results of human poverty is rendered in stark contrast to the full force of empathy. Katherine Boo knows and likes these people. Perhaps more importantly she



knows more about them than they themselves through exhaustive research of their public and private records and what sounds like merciless iterative grilling about what they see and feel.

"Better arguments, maybe even better policies, get formulated when we know more about ordinary lives," writes the author in her afterward. This is the business case for conservation science, too. The "ordinary lives" of species, of preserves, of large landscapes and the perennial and ephemeral people living within are what turns conservation from a bunch of hand-waving and hope into real and systematic change.

The exhaustive rigor of three years of investigative reporting is the kind of luxury few conservation scientists have after their graduate school days. But "better arguments" — better global and visionary strategies — are created with targeted and real information about all those ordinary lives. We don't need armies of conservationist to enact our visionary strategies. We need to be super-smart about finding the small and critical changes that make policy and outcomes work. And those changes lie within "ordinary life."

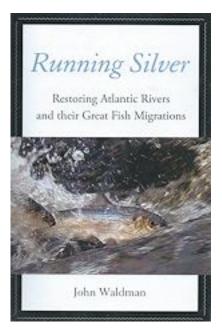
"Behind the Beautiful Forevers" doesn't leave us with a solution blueprint to solve society's ills. It does lay out a clear and systematic path to understanding their mechanisms - and that knowledge identifies the critical path to solutions. And this book does so in such a fun, riveting way. **SC** 

#### **People** Filling the Empty Spaces in Nature

*Running Silver: Restoring Atlantic Rivers and Their Great Fish Migrations.* By John Waldman. Lyons Press, 2013. 284 pages.

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

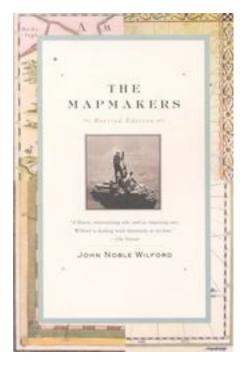
John Waldman is kind of like that kid in The Sixth Sense. Except instead of seeing dead people, he sees the ghosts of migratory fish. And yes, they're everywhere. Waldman wants readers to see rivers as they should be, filled with millions of migratory fish. He wants us to imagine the past, and not accept degraded rivers as "normal." To accomplish this, he looks to historical records, paleontology and the scientific literature in an exhaustively-researched work. He weaves in personal stories brimming with his passion for fish and moving water. He takes the reader through the natural cycles of migration and spawning of anadromous fish. The result is a beautiful and often heartbreaking book, one of the most important conservation works I've read in recent years. Read a full review on Cool Green Science. SC



#### Memoir/History Ingenuity, Fortitude, Discovery

The Map Makers. By John Noble Wilford. Vintage Books, 2001. 507 pages. Reviewed by <u>Jonathan Higgins</u>, senior freshwater ecologist, The Nature Conservancy

Anyone who likes or works with maps, GIS, wonders how and when such information was developed, or just wants to know about the history of travel and discovery in the world should read this book. While it is a bit of a slog, it is a fascinating accounting of the creation and uses of maps, socioeconomic and political reasons for motivating – and stalling - their development, inventors and the technologies they created, and the monumental efforts carried out to explore and map the heavens, lands, waters, ocean bottoms, the Moon, Mars, and beyond visible space. Starting and ending with a laser generated field survey of the Grand Canyon, it covers fascinating and incredible stories of ingenuity, fortitude, and discovery.



*The Mapmakers* ranges far, from the initial

ability in ancient times to estimate and map distance and the circumference of the Earth, to the processes used to map the features of the galaxy. Stories abound and illustrate great experiences and advances such as the development of using a sextant and the stars and how it changed ocean exploration, travel, and commerce; the story of people who walked precisely enough to know exactly how far 100 paces were, who sneak into Tibet in costume and returned almost a decade later with maps made from thousands of miles of walking and estimating elevation through measuring the time it takes to boil water; John Wesley Powell and his explorations in the Colorado River basin and the development of the United States Geological Survey, to the first black and white photos taken from space, and the initial creation and uses of satellite imagery. Every chapter was a captivating trove of facts, history, and stories. I highly recommend this book, even though it is very dense. **SC**