

## SPECIAL REPORT Is Adaptation the Next Climate Beat?

- Enviro Reporters Drawn into Complex Coastal Issues
- Food & Ag - Keys to the Emerging Story
- Bad News, Good News on Adaptation Messages
- Snapshots of Projects in U.S., Uganda

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SEJ President:  
Signs of Hope

Freelance Files:  
Life as a Juggler

Interviews with SEJ  
Award Winners, Enviro  
Journalism Pioneer

A quarterly publication of the  
**Society of  
Environmental  
Journalists**



The National Academy of Sciences,  
the National Academy of Engineering  
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congratulate the winners and finalists of the

# 2013 Communication Awards

These \$20,000 prizes are presented as part of the National Academies Keck Futures Initiative, to recognize excellence in reporting and communicating science, engineering, and medicine to the general public.

## 2013 Winners

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### FILM/RADIO/TV

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Eliot Marshall, Elizabeth Culotta, Ann Gibbons, and Greg Miller at *Science* for their stories "Parsing Terrorism," "Roots of Racism," "The Ultimate Sacrifice," and "Drone Wars," which appeared in a special issue on human conflict (May 18, 2012)  
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## 2013 Finalists

David Quammen for *"Spillover: Animal Infections and the Next Human Pandemic"* (W.W. Norton and Co.)

Paula Apsell and Sarah Holt for "Cracking Your Genetic Code" (WGBH/NOVA and Holt Productions)

Nell Greenfield-Boyce for "Scientists Take Cautious Tack on Bird Flu Research," "Scientists Debate How to Conduct Bird Flu Research," "Bird Flu Studies Getting Another Round of Scrutiny by Panel," and "Bird Flu Researchers to Meet About Research Moratorium" (NPR)

Jeff Montgomery, Molly Murray, and Dan Garrow for "Climate Change Puts Coast in Crosshairs," *The News Journal*, Wilmington, Del.

## 2014 Call for Nominations

Nominations for the 2014 Communication Awards will be accepted in early **January 2014** for work published or broadcast in 2013. For more information on the National Academies Keck Futures Initiative and the Communication Awards, please visit [www.keckfutures.org](http://www.keckfutures.org).

To strengthen the quality, reach and viability of journalism across all media to advance public understanding of environmental issues

The Society of Environmental Journalists (SEJ) is a non-profit, tax-exempt, 501(c)(3) organization. The mission of SEJ is to strengthen the quality, reach and viability of journalism across all media to advance public understanding of environmental issues. As a network of journalists and academics, SEJ offers national and regional conferences, publications and online services. SEJ's membership of more than 1,350 includes journalists working for print and electronic media, educators, and students. Non-members are welcome to attend SEJ's annual conferences and to subscribe to the quarterly *SEJournal*.

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The ubiquitous windmill, utilized by ranchers and farmers alike for well over a century to coax water from deep in the earth to rise to meet their surface needs, has become an icon of adaptation to the environment in the American West. As climate change impacts begin to emerge, human adaptation becomes a work in progress. See our special report on the adaptation beat, beginning on page 6.

Photo: © Jeremy Taylor

# SEJournal

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# Reasons for Hope on Enviro Beat

By DON HOPEY

This has been another rough year, folks, what with newspapers folding, leaner staffs, dumped blogs and closed beats. And that sobering reality brings us to today's word: "environmental journalism." (Actually two words, of course, but that's how Stephen Colbert does it.)

It sometimes seems that the term has fallen out of favor (if not off the face of an increasingly warmer planet). And it seems journalists must work harder than ever to get information in an age when government and corporate information policies come from the same frustrating playbook. (Send the reporters long and pull a spokesperson sneak.)

But it's good to remember that environmental journalism can play an important role in digging out the information an increasingly distracted public needs to make tough policy decisions about their environment and health. (Pass out the shorthanded shovels.)

I was reminded of that in August when "The Colbert Report" focused one of its "The Word" segments on the phrase "gag gift," and took off on fracking – hydraulic fracturing (<http://bit.ly/frackinggaggift>).

"Environmental journalism remains populated by some of the most talented, dedicated and courageous reporters and editors ever to wear an ink stain."

To set up the satire, Colbert used a story (written by yours truly) from the *Pittsburgh Post-Gazette* about how three shale gas development companies paid a Pennsylvania family, the Hallowiches, \$750,000 in August 2011 to relocate and keep quiet about problems they experienced on their farm surrounded by four shale gas wells, two compressor stations and an impoundment (<http://bit.ly/gagsettlement>).

The details of that confidential settlement, which was unsealed after a two-year legal battle by the newspaper, included lifetime non-disclosure and non-defamatory clauses (aka a "gag order") that applied to the parents and their children, then ages 7 and 10. After the story broke, one shale gas drilling company quickly backed away from the image of "gagged" children. It said it never intended the agreement to apply to them, even though their attorney in the settlement hearing transcript obtained by the newspaper thought it did.

The *Post-Gazette* was successful in uncovering the details of that case, but as the shale gas and oil boom rumbles through the United States, there are many other cases involving confidential settlements that remain secret. A court brief filed in the Pennsylvania case in April 2012 by Earthjustice, which sought to intervene, cited 27 other confidential settlements of court cases in seven states alleging health or environmental problems caused by unconventional shale gas development claims. Six of those were in Pennsylvania.

That's a tip-of-the-iceberg problem that hides information that, if reported, could help doctors, scientists, regulators and the public

better understand the impacts and environmental and health risks from shale gas and oil development. I was gratified that the *Post-Gazette* provided the legal and editorial support, and money to appeal the sealing of the court record. I wonder in the current chaotic media landscape how many papers, television and radio stations have such reporting and legal resources or the will to spend them.

But there is reason for hope and, as usual, it comes from our own ranks. While resources devoted to covering the environment and the number of environmental reporters at traditional media outlets continue to decline, the number of freelance journalists and journalists working for non-profits is trending up. SEJ's membership, weighted heavily with freelancers now, is holding relatively steady.

And I was gratified to learn too that, as reflected in the 2013 SEJ Awards for Reporting on the Environment, the level of excellence in our work has grown commensurate with the importance of the issues. (<http://bit.ly/2013sejwinners>) (See coverage, page 12.)

That is a reflection on the journalists involved. Environmental journalism, despite the travails of the industry, remains populated by some of the most talented, dedicated and courageous reporters and editors ever to wear an ink stain, stand before a camera or point a microphone.

For many of us, journalism is a calling. (Like the priesthood, but with less formal clothing.) Some call it a noble profession. I prefer to think of it as a craft, like barrel-making or barbering. (Because, well, everyone needs a good haircut.) And things can sometimes get a little shaggy if we're not out there filling our role as contrary watchdogs.

A case in point: In 2006, I returned to the *Post-Gazette* from a year-long Ted Scripps Fellowship in Boulder, Colorado. My first few weeks back were especially busy. I covered stories about a train derailment that spilled toxic chemicals into a blue-ribbon trout stream in northeastern Pennsylvania, killing all the fish; an agreement requiring a coal-burning power plant with a history of thousands of violations to install pollution controls; the state's approval of controversial commercial river dredging; and the discovery of yet another new invasive insect from Asia in a field near the Pittsburgh International Airport.

On a Friday evening, as I was leaving the office for the weekend, I cut through the sports department and a friend of mine who covers the Steelers shouted out in language unsuitable for this magazine, "Jeezus H. Crackers! While you were gone everything was just great here. You've been back a week and already the environment has gone all to sh\*t."

He was saying we're needed. It's something to remember.

*Don Hohey covers environment at the Pittsburgh Post-Gazette, and teaches at the University of Pittsburgh and the Pitt Honors College Yellowstone Field Course.*



# Juggling Chainsaws, Torches and Watermelons: How to Manage Multiple Assignments

By ADAM HINTERTHUER

Several months ago, I led off an article on tips for juggling jobs with this line – "I really shouldn't be writing this." Since then, not much has changed. I still shouldn't be doing this. Yet here I am, once again agreeing to somehow find the time to fit a freelance assignment into my schedule. You don't need me to explain this disease. You probably have it, too – this gnawing need to tell stories.

You may remember me. Over the last few years, I've been "that guy" from SEJ's annual conference who jogged the hallways and yelled himself hoarse in a Quixotic attempt to herd you onto a bus or into the buffet line.

What you may not know is that SEJ wasn't the only organization that employed me for my jogging and yelling abilities. I am also the director of programs for the Institutes for Journalism and Natural Resources and the outreach and communications specialist for the Center for Limnology (the study of lakes) at the University of Wisconsin, Madison. Obviously, this arrangement gives me gobs of time to help my wife raise our four-and-a-half- and two-year-old daughters while simultaneously finding time to squeeze in writing assignments. Right.

## Something's always out of control

It wasn't always this way. Once upon a time, I had a single part-time job and zero kids. My freelance career seemed, well, viable at least. I landed assignments for real magazines. People paid me to podcast.

But a daughter was born, bringing with her the need for a good insurance plan. A job opportunity arose that gave our finances some much-needed stability. We bought a house. Another daughter arrived. Before I knew it, I had three jobs, two kids, and a couple of mortgages. I held the job of employee and father and husband and writer. I was juggling.

It's important to remember that, even when you're doing it right, juggling means that something is always out of your control – hurtling along on whatever trajectory you've last sent it, waiting to be intercepted on its way back down. I can't claim to always make that catch. I'm not sure anyone can.

But, if you really feel the need to take on more than one thing at a time, here are some tips I've learned from my time in the circus.

• **Set deadlines for everything:** Even if you're a born organizer (which I am not), it is alarmingly easy to drop the ball when you're juggling jobs.

I now set deadlines on everything that's due, from a conference call, to a feature article, to a measly little follow-up e-mail. I tried giant desk calendars, Gmail's built-in "task list," and an online organizational tool called WorkFlowy [<https://workflowy.com/>] until I finally found Asana [<https://app.asana.com/>], a free online program that lets you create different projects and a list of tasks for each. I assign myself tasks and give them all "due dates," then Asana sends daily e-mail reminders of what I should be up to and, even better, sends reminders about those reminders when I miss my deadlines. Outsourcing my inner nag lets me concentrate on the task at hand and not worry that there's something I'm forgetting.

• **Don't tune in but do drop out:** My various employers never remember which days are set aside for what job and constantly try to get in touch with me as soon as something requiring my attention surfaces. At any given moment, there are a dozen people I'm waiting to hear back from regarding any number of things. The result is an always-overflowing inbox and constant calls on my cell phone. There is a strong urge to respond to these

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Photo: © Roger Archibald



Environmental journalist Adam Hinterthuer may appear to be hugging that old-growth tree, but he's actually reaching around to estimate its circumference while on an IJNR Lake Country Institute in Wisconsin in 2009. More recently, his two young daughters awaited help with new fishing rods, while their assignment-juggling dad completed this article.

Photo courtesy of Adam Hinterthuer

# Climate Adaptation Story Reaches Tipping Point

The idea of humans adapting to climate change may not be new, but what is new is an emerging sense from many quarters that it is now imperative. In July, President Obama pushed adaptation as a big part of his climate change policy. A month earlier, the nation's most populous city, New York, released a massive report outlining hundreds of recommendations costing billions of dollars to make its coastal reaches more resilient. Many smaller communities in the United States and abroad are acting on adaptation as well, and reporters are starting to pick up the thread.

The editors of the SEJournal have brought together this special report on climate change adaptation to help environmental journalists to better understand and cover this growing topic. Top-notch beat reporters share how to best get at the nuts and bolts of adaptation in coastal communities and agricultural ones, a leading communications thinker shares insights into the "message" of adaptation, and we provide snapshots of a few of the many noteworthy adaptation projects, as well as the special challenges faced in one developing nation.

Climate adaptation measures have become increasingly critical in the wake of major-scale environmental disasters such as Superstorm Sandy. For governments and organizations throughout the nation, adaptation has practical appeal—the effects are often easily visible to the public, the costs may be lower, and it doesn't always involve the same level of comprehensive infrastructural change as mitigation can. Below, environmental reporter Donald Borenstein highlighted a few noteworthy U.S. adaptation projects currently under way.

**Location:** Rockaway Beach, Queens, N.Y.  
**Project type:** Coastal reclamation

The Rockaways, a set of coastal beaches on the south shore of Long Island, were among the areas hardest hit by Superstorm Sandy. Exposed coastal residences were annihilated, and beaches already suffering an erosion crisis lost more than 1.5 million cubic yards of sand. Now, the Army Corps of Engineers and New York City have started a massive beach-and-dunes reclamation project with the goal of installing a 14-foot-high man-made dune across a 4.7-mile area of coastline. The dunes will be anchored by 25,000 tons of high-capacity sandbags, then 2.5 million cubic feet of sand will be drawn from the ocean and deposited atop them. The goal is a usable beach and dunes by 2014.

## The Dirt on Ag & Adaptation

By CHRIS CLAYTON

If you're looking to connect average Americans to climate change and to how they will have to adapt to it, why not report on the future of food and agriculture? After all, most Americans may not visit the polar ice caps, but everyone needs to eat.

Farmers, scientists and nutrition advocates are constantly asking, "How are we going to feed nine billion people in 2050?" Simply put, food production has to grow to feed everyone. The way we grow our food also has to intensify on the land already being farmed, because every other land creature still needs a place to live as well. Because of water and nutrient challenges, farmers will have to grow more with less.

But as you probably know, most farmers do not see climate change as a threat. The typical response goes something like, "The climate has always changed and farming has always adapted."

For instance, I recently read an EPA report describing how higher temperatures could cause crop acreage to move northward. That would lead to "increased erosion and runoff, with negative impacts on surface and groundwater quality." In other areas, such as the Great Plains, less rainfall could spur more irrigation and spark conflicts over water usage. Also, heat would put more stress on livestock.

When did EPA make those projections? 1989! I cited that fact in a series examining the long-term risks to irrigation and crop production in the Southern Plains. Most readers who took the time to comment dismissed the old EPA report.

### Talk about the weather

While we may have some climate deniers in agriculture, no one denies the weather is changing.

Earlier this year a group of farmers, scientists and other agricultural advocates wrote a report, "Agriculture and Forestry in a Changing Climate: Adaptation Recommendations" (<http://bit.ly/17htkUF>). The report, by the 25x25 Alliance, detailed what needs to happen with research, production systems, risk management, decision-making tools for farmers, as well as how to talk to wary rural Americans about climate change. The paper points out that we're having bigger weather events now. There are more intense rains, more intense droughts and costlier crop disasters. [DISCLOSURE: I directly participated in the

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A row of elevated houses in New Orleans.

Photo: © Jennifer Cowley

## Get Feet Wet on Coastal Adaptation

By KATE SHEPPARD

Americans — and humans in general — have long flocked to the coasts. Thirty-nine percent of the U.S. population, or about 123 million of us, live in coastal counties. But many in coastal areas are finding it increasingly less hospitable due to sea-level rise and extreme weather events linked to climate change. As communities figure out how to adapt to these changes, it is often environmental journalists who are being asked to cover these complex stories.

So first, the basics. The National Oceanic and Atmospheric Administration has deemed 11,200 miles of the coast — about half of the total U.S. coastline — to be "highly vulnerable" to sea-level rise. These coastal areas are at risk of erosion and loss of use as the sea levels creep up. But they are also, perhaps more crucially, at increased risk of flooding during storms, which scientists say are becoming less predictable due to climate change.

Yet more of us are moving to the coasts all the time. NOAA and the U.S. Census released a joint report earlier this year (<http://1.usa.gov/15jPkLZ>) that found that, if population trends continue, the coastal population is expected to grow another 9 percent by 2020, to 134 million people.

Increasingly severe storms and more development on the coasts are already costing the U.S. government a lot of money. In the past three years, 11 storms have each caused more than \$1 billion in damage — none as significant as the \$60 billion in damage that Superstorm Sandy left behind in October 2012.

It's only expected to get worse. A report that the Federal Emergency Management Agency released in June 2013 projects that the combined forces of climate change and population growth will double the number of Americans that live in flood-prone regions by the end of this century <<http://bit.ly/13EINh4>>.

I covered many of the challenges faced by coastal communities in a recent feature at *Mother Jones* <<http://bit.ly/1dxR9hg>>, and found that even in places where local officials realize the problems they face, there is a lack of guidance and oversight from state and federal officials for how to think long-term. Budget and planning constraints often make it difficult to plan for projections 25, 50, or 100 years in the future.

Even though these coastal adaptation stories are as much about economics and politics as the environment, it is environmental reporters increasingly on the beat So to get in-

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**Location:** Lake Hermitage, La.  
**Project type:** Marsh creation

After the 2010 Deepwater Horizon oil spill, efforts to repair the natural ecosystem have met with mixed results. Among the more notable efforts is the Lake Hermitage Marsh Creation project, which seeks to build man-made marshes as a replacement habitat for the devastated marine life and aviary populations in the Mississippi delta region, and to reduce erosion in the area, with sediment brought in from the Mississippi river to create the marshland. Critics take issue with the \$32-million, 104-acre project, citing difficulties in building an artificial wetland and significant problems with others created in the past. The project is considered the biggest litmus test yet for artificial wetlands in the United States.

**Location:** Philadelphia, PA  
**Project type:** Green infrastructure and rainfall management

Philadelphia, faced with sewage overflow issues, has responded with a program that tries to both incentivize and regulate the placement of green infrastructure and rainfall management systems in as many new buildings as possible. The city is attempting to retrofit streets and sidewalks with "bumpers" that help increase the yield of rainwater collected by median grass in order to reduce sewer runoff. The city is also directly funding the creation of green roofs and greywater gardens, with the aim of installing these infrastructural elements in more than half of all Philadelphia public schools. Philadelphia is making a \$1.67-million investment in these efforts over the next 25 years, and aims to support the measures with a storm-water fee, offset by tax breaks for businesses with green roofs, and free design assistance for businesses to help them bring green infrastructure into their offices.

## Special Report

**Location: Detroit, Mich.**  
**Project Type: Rainfall usage**

Detroit is home to the largest single-site wastewater treatment plant in the United States. Due to aging infrastructure and excessive demand, it often faces the danger of overflow, a problem worsened by the threat of more frequent and intense storms brought about by climate change. The Sierra Club has explored green infrastructural options for surface-level water filtration, such as rain-collection barrels and rainwater/greywater gardens. The Sierra Club's approach has placed an emphasis of community participation and organizing to encourage green infrastructure and gardening. The effort has led to the creation of five rain gardens to date, with at least two more on the way, and a community initiative for Detroit to incentivize rainwater collection for businesses and residents.

**Location: Portland, Me.**  
**Project type: Climate change and fishing**

As lobster populations continually migrate north due to global warming, the market outlook for lobster fishers in Maine has suffered in spite of the increased abundance of these bottomfeeders. Due to lobster overabundance, the effects of climate change and a centuries-long pattern of overfishing, other marine-life populations have plummeted in population, and rising sea temperatures are posing an imminent threat to the lobster population in Maine. Despite the lack of action by state government, lobster fishers, marine biologists, and policy makers came together at the end of July for a symposium on the threat to lobsters posed by climate change and overfishing. The symposium attendees called for greater regulations on overfishing, including no-fish zones, and yield-management strategies for lobster hauls.

**Location: Los Angeles, Calif.**  
**Project type: Green infrastructure**

After the success of greenways elsewhere, the city of Los Angeles has started work on a greenway next to the Los Angeles-Glendale water reclamation plant. Designed as a self-sustaining infrastructure, the greenway will use rainwater to both

## Ag and Adaptation...continued

25x'25 committee to learn more about climate adaptation issues.]

But agriculture is also one industry where mitigation and adaptation intersect. Sequestering carbon in the ground is not only a mitigation strategy, but building organic matter in the soil – carbon – is also one of the best adaptation practices for a farmer. Some people suggest we need a “Brown Revolution” to rebuild our degraded soils globally.

More analysis is needed to document the benefits and production that can come from different kinds of agriculture, such as grass-fed meat, orchards, urban farming or permaculture practices.

Environmentally, there are other significant benefits if farmers are growing cover crops and not tilling the land (here's more on the no-till idea - <http://1.usa.gov/16FISjJ>). Soil erosion and water quality, two of agriculture's biggest environmental challenges, both improve when farmers adopt these practices.

The U.S. Department of Agriculture embraces this strategy. Last year, USDA's Natural Resources Conservation Service rolled out a “soil health” initiative built around growing organic matter in the soil. There just hasn't been a lot of reporting on it outside of the ag press.

### USDA regional climate hubs expected

This fall, USDA is expected to announce seven new “regional climate hubs” to combine work at USDA and land-grant universities. Ideally, the hub concept will also build better networks between research and field extension work to connect with farmers and agribusinesses.

The National Institute for Food and Agriculture also has funded several multi-year studies to examine how climate change affects various crops or livestock production. Just search “USDA NIFA grants climate change” and several links to those studies pop up.

Work on climate change at USDA contrasts with what's happening in Congress. Sometime in the near future (at least as of the *SEJournal* press time) Congress will come to terms on a new farm bill. Few reporters have examined how the farm bill would help or hinder climate adaptation.

Both the Senate and House cut between \$3.6 billion-\$4.8 billion out of conservation programs. Both bills also shift more crop support to crop insurance, but one of the biggest debates is whether farmers will have to meet minimum conservation standards to be eligible for crop-insurance premium subsidies.

Data from the 2012 USDA Ag Census also should be released in February 2014. That information could provide some insight on irrigation expansion, crop shifts or changes in livestock production in your area.

### Get out of the office

To keep on top of the topic, take advantage of various farm tours or attend conferences. And even if you can't make such events, examine the programs on-line. Do any of the topics relate to your area regionally, or affect a particular agricultural sector close to you? Are any of the speakers from your area?

Here are just a handful of groups and annual events where climate adaptation would be on the agenda.

- The World Food Prize Symposium is held annually in mid-October in Des Moines, Iowa. Created to honor Nobel Prize winner Norman Borlaug, the World Food Prize has become an increasingly high-profile event to discuss global food security, biotechnology and climate change.

- The American Society of Agronomy, Crop Science Society of America, Soil Society of America, in what is simply called the “tri-meeting,” all gather Nov. 3-6 in Tampa, Fla. “Water, Food, Energy & Innovation for a Sustainable World” is the name of this year's event (more info: [www.soils.org](http://www.soils.org)). The tri-meeting is the place to learn about the latest in soil and agronomy research.

- The group “No-till on the Plains” holds its annual meeting early February in Salina, Kan. The event in recent years has been the mecca for farmers who want to stop tilling their soil as well as grow cover crops. Perhaps most importantly, many of the presenters at the conference are farmers. Salina also is home to Wes Jackson and the Land Institute, which is

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## Get Feet Wet on Coastal Adaptation...continued

sights on better reporting these issues, *SEJournal* spoke to reporters from Louisiana, New Jersey, and Florida about some of the challenges and opportunities they have found.

### Learn how to read flood maps

First order of business: Check out your local floodplain maps. These maps, issued by FEMA, tell you what properties are at risk of flooding. A house is considered at risk if there is a one-percent risk in any given year of a major flood event occurring. This is often called the 100-year floodplain, but that can be a misleading term, as many folks assume it means a flood will happen only once every century.

If you think about it more practically, it means there's a 26-percent chance of a flood happening at some point during a 30-year mortgage on a house. And scientists have predicted that what was once a 100-year flood could happen more like every three to 20 years as the climate warms.

“Learning how to read flood maps is critical,” said Sarah Watson, the environment and Sandy-recovery reporter at the *Atlantic City Press*, in New Jersey. Better still, Watson says, is getting to know your local and regional floodplain managers. “They know how to tell you what you may not realize is important,” she said.

One of the challenges when it comes to flood maps, however, is that they only convey current flood risks. While recent changes made to the federal flood insurance program will allow FEMA to take future projections related to climate change and sea-level rise into account as they create new maps, those projections are not included in the updated maps that are currently being rolled out. It will likely take years before regions see maps that include those projections.

### Lifts, walls and buyouts

Many areas of the coast hardest hit by storms have started, or are considering, raising houses out of the floodplain. FEMA has a Hazard Mitigation Grant Program that many regions are using to fund home-lifting; others have used post-storm recovery funds to do so.

But even if you lift the houses, there are still risks. As one planning director in a Virginia coastal community pointed out, flooding will still submerge the roads, and can trap residents and put them out of reach of emergency services personnel. It can also damage roads, utilities, sewer systems and other infrastructure. That's why Highlands, N.J., for example, is considering raising the entire downtown of this 5,000-person town by at least 10 feet — a \$30-million plan.

In some cases, FEMA also offers complete buy-outs to homeowners in areas that are repeatedly subjected to flooding. In those cases, the land must be returned to open space — which prevents future losses and can improve coastal resilience, as green space provides more natural drainage and coastline protection (for more, see this recent study: <http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1944.html>.)

Two other New Jersey towns, Mantoloking and Brick, recently got federal and state approval and funds to install 40-foot steel seawalls on their coast. Buried under the sand, the walls are meant to block storm surge and prevent beach erosion. But at \$40 million, the walls are hardly a scalable solution for the entire coast.

Watson also suggests reviewing local ordinances with an eye to laws and regulations that might have consequences for sea-level rise and storm issues. “Your town might be doing everything right, but the next over is screwing you over,” said Watson.

### Lessons from the Gulf

Reporters in the northeast are now covering many of the same issues and concerns that reporters on the Gulf coast have been looking at for years, particularly in the wake of hurricanes Katrina and Rita in 2005.

One mistake reporters sometimes encounter in covering coastal climate issues is “assuming that climate change alone is going to be what the problem is,” says Mark Schleifstein, the environment, hurricane and levee reporter at the *Times-Picayune* in New Orleans. Climate change can act as an accelerant for already-existing problems, like coastal erosion. And it acts in addition to regular weather cycles of El Niño and La Niña.

*Continued on page 22*

nourish the plants in the greenway and to funnel the water into the treatment center. The greenway will also be designed with an educational focus, including signage and displays to help show visitors how the greenway works, and how they can use rainwater in their own gardens.

**Location: Yarnell Hill, Ariz.**  
**Project type: Wildfire adaptation**

Following the disastrous Yarnell Hill wildfire that earlier this summer killed 19 firefighters and affected more than 8,300 acres, researchers wonder whether directly combating wildfires made increasingly frequent and dangerous by climate change is the best approach. Researchers at the Pacific Biodiversity Institute found only a small percentage of homes in the Yarnell Hill region had an adequate buffer zone between their homes and flammable vegetation or other fire hazards. Researchers called for a focus on building adaptive, fire-ready communities in these vulnerable areas, using buffer zones and fire-resistant materials in construction. Wildfire-vulnerable communities are also starting to investigate community awareness programs and more efficient evacuation routes.

**Location: Cape May, NJ**  
**Project type: Restoration of natural coastal resources**

On New Jersey's Atlantic shore, non-profit group The Nature Conservancy is leading a coastal restoration effort that melds adaptation efforts with the long-term sustainability and progress goals of climate change mitigation. The focus is on the creation and restoration of naturally occurring coastal features, such as coral reefs on the shoreline, to buffer against tidal risks presented to shoreline communities. The group has placed particular emphasis on restoring forests, marshes and meadows near the shoreline, taking advantage of their capacity to buffer storm surge and retain water. One example is a restored meadow on the shore of Cape May, completed in 2006, that withstood both Hurricane Irene and Superstorm Sandy without any damage to the dunes or wetlands.

*Donald Borenstein is a freelance writer and recent environmental policy graduate of Fordham University. He can be reached at [donaaldborenstein@gmail.com](mailto:donaaldborenstein@gmail.com).*

# Adopting Climate Adaptation Messages

By LEE AHERN

To adapt is to change in response to new environmental conditions. If ever there was a time for humans to adapt it is now — in multiple ways.

Although uncertainty remains when it comes to specific climate impacts on specific regions, the latest Intergovernmental Panel on Climate Change report makes it crystal clear that global warming is human-caused and severe negative impacts are inevitable. Seaside of three feet by 2100 is now predicted with scant prospect of individual behavior or public policy changes stemming the tide.

The planet is moving inexorably toward an era of climate adaptation, a fact with massive implications in a number of areas, including communication. While the need for humans to enter a phase of climate-change adaptation is a very bad thing, changing the focus of climate-change messages from prevention to adaptation may be a very good thing.

Apart from the necessity of communicating issue-specific adaptation information to the public, there is reason to believe that adaptation messages will be seen as more important, credible and persuasive, and that they could be significantly more effective in changing attitudes, beliefs and behavior.

From a rhetorical point of view, prevention messages are problematic. Inevitably, these messages argue that costly steps are nec-

essary because of the near certainty of negative future impacts if current individual behaviors and public policies don't change.

The problematic words are "argue," "near" and "future." These words provide key rhetorical openings for climate-change deniers.

## Leaving the terrain of the deniers

Firstly, anytime an argument is made, an alternative or opposing viewpoint is implied (and invited). When the argument includes qualifiers (like "near") and hypotheticals (like "future"), opposing forces have contested rhetorical ground on which to fight.

*New York Times* columnist Andrew Revkin calls such messages the "terrain of the deniers." He pointed out in a recent blog post [http://nyti.ms/1dJIPuF] that the tendency for journalists to focus on current events in proximal locations (standard determinants of newsworthiness) often results in greater issue uncertainty and opens the door for counter-arguments.

The primary example is stories that link current weather events to global warming. Because the connection between global warming and any one local weather event is extremely weak, it is easy to cast doubt on the entire idea of long-term human-caused climate change.

While prevention messages need to argue a link between current behaviors and policies and future impacts — links that always contain a least a crumb of uncertainty — adaptation messages make no such leap. Rhetoric opposing prevention messages just needs to argue that something might not happen. With adaptation messages, opposing rhetoric must argue that something is not happening. This is much more difficult. When people are witnessing the impact in their personal lives, it is nearly impossible.

## Tapping into favorable news values

Although the rhetorical advantages of adaptation messages are important, they are by no means the end of the story. You can win an argument and still fail to convince your opponent you're right.

People hold their opinions and attitudes for a variety of reasons. They may have attitudes for ego-defense, or to express their identity to others. According to some researchers, people don't even know (consciously) why they have the attitudes they do (see the work of Philip E. Converse). When asked, people will make up a reason for their opinion, but in reality the opinion comes first, not the rationale.

This kind of on-the-fly attitude formation is seen as guided by more deeply-held values and worldviews. A particular individual might not know much (or have an attitude about) a specific economic policy, but he or she probably has a broader worldview (economic conservative or liberal) that will underlie his or her opinion formation about it. This makes values and worldviews extremely important when it comes to attitude formation and change.

Herber Gans explored how critically important social values form the subtext for modern journalism. When a reader consumes news, he or she is not just taking in the specific issue information on the surface of the article. The reader is also absorbing the news values implied by the text. Indeed, these implied news values are

Steps the city (and you) can take to adapt to **CLIMATE CHANGE** and the wild weather that comes with it.

The Louisville area, as well as Kentucky, went from the wettest year on record to lapsing into an epic drought. Officials say the pace and cost of weather-related natural disasters is picking up locally and across the nation, all evidence, scientists say, that climate change is upon us.

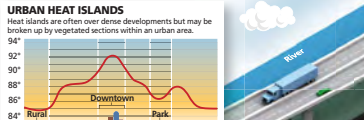
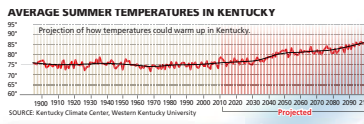
Even if global leaders quickly acted to curb greenhouse gases, scientists say the world would still suffer from climate damage because the carbon dioxide pumped into the atmosphere lingers for hundreds of years. As a result, some cities and states have begun to talk about what they might need to do to adapt.

**1. Plant trees**  
Trees provide shade, cool a city and help clean the air and reduce stormwater runoff. Louisville needs hundreds of thousands of new trees planted but doesn't have the budget. A new tree commission is working things out.

**2. Cooler roofs and roads**  
Roofs covered with plants reduce stormwater runoff, insulate the buildings and help cool a city. Chicago has hundreds. Louisville has a few. Dark-colored rooftops and roads absorb solar energy and help make cities hotter than surrounding rural areas. Some cities have rules that limit the amount of solar energy absorbed by buildings. Louisville takes a voluntary approach. EPA says light gray and tan colors can reduce pavement surface temperatures by 20 to 40 degrees. Louisville has looked into some of the options and says there is budget to try for them.

**3. Bike lanes and public transit**  
Making biking more attractive and improving public transit can get people out of their cars, reducing pollution. Louisville has gone from 1.8 miles of bike lanes in 2002 to 44 miles in 2011. The city has rejected light rail, but service has been cut and fares increased.

**4. Porous pavement and parking lots**  
Some paving products allow water to flow through them instead of turning off into the sewers, reducing overflows. Porous paving surfaces also stay cooler because they resist sun. The Midtown Business District helps pay for porous paving in some cases. Green designs funnel water into gardens through curb cuts. MDOT and the county development code offer incentives for some green designs, but environmentalists say it's not enough. MDOT is spending tens of millions of dollars on green infrastructure projects as part of its \$850-million program to renovate its I-75 viaduct system.



News that focuses on adaptation assumes the existence of climate change, in turn helping change public attitudes and opinions on the topic. Above, a detailed infographic from *The (Louisville) Courier-Journal* in Kentucky looks at how the community can adapt to climate change. Designer Steve Reed worked with reporter James Bruggers on the graphic, which was part of a three-part series on climate adaptation in Kentucky and Indiana. <www.courier-journal.com/globalwarming>

often more important to attitude formation and change than surface information and rhetorical arguments.

In an example provided by Gans, a story about a politician being arrested for corruption implies the values that corruption is unethical and politicians should be accountable for their actions.

Analysis at the level of news values makes the contrast between prevention and adaptation messages even more fundamental. Adaptation messages assume the reality and existence of climate change. A story about the need to build higher storm walls around metropolitan areas implies that sea levels are rising (present tense). There is no argument about what is likely to happen (future tense) for opposing rhetoric to contest. Even more importantly, there are no elements in the message for the receiver to counter-argue.

The news-information environment is a vital dimension of the culture in which audiences live. And culture is incredibly important when it comes to the development of personal values and worldviews. The same way humans learn to adapt to a changing physical environment, they learn to adapt to changing information environments.

A telling recent example has been the growing acceptance of gay marriage. At the beginning of the gay rights movement, much of the messaging and rhetoric emphasized arguments about equality and fairness, to little effect. But as more and more news information (and, importantly, entertainment) began to imply that gay marriage is acceptable, to assume marriage equality as an accepted value, public attitudes and opinion began to change.

## When warming is a given

A news-information and entertainment environment (the lines between these are becoming blurred) where adaptation is the dominant theme in messages related to global warming moves from the terrain of the deniers and reinforces the value that climate change should be addressed as a current and concrete threat.

The impact on audiences of living in such a media environment will very likely be an increase in attitudes, beliefs and behaviors

that support sustainability and environmental protection. Over time, changing public attitudes will also positively impact public policy.

But aside from these macro-level effects, adaptation messages are likely to be more persuasive at the individual, psychological level. Advertisers have known for decades that the best way to convince an audience of something is not to argue with them. The psychological term for it is "reactance," which is the idea that people tend to scrutinize and counter-argue any information presented to them as "new."

Reactance is especially strong if people are being asked (or told) to do something. (This is why reverse-psychology works: if reactance is strong enough people will do the opposite of what is being asked.) This general psychological reaction makes intuitive sense from an evolutionary perspective. Precious energy and cognitive resources would not be wasted on recognized stimuli, only on the novel, new or unexpected.

There is a schoolyard trick that works every time: ask a group of people to shout out the answer as soon as they know it to the question "How many of each species did Moses put in the ark?" Inevitably, the group shouts "two" in near unison. After a pause, people begin to chuckle at the realization that they were just duped. Noah was the guy on the ark, not Moses. (This works much better in person than in print.) Why is it so easy to catch people with this kind of trick? Because "given" information is not scrutinized. In this example, the new or unknown information was about the number of animals. The fact that Moses was putting them on the ark was just a given.

In adaptation messages global warming is a given and therefore its existence invites no scrutiny.

Along similar lines, media scholar Neil Postman explored the strong and subtle persuasiveness of information that just "is." In a classic example he talked about a McDonald's TV commercial where there is no information or argument about the quality or price of the food, just images of a man and his daughter eating hamburgers in the park and visiting a zoo and having a lovely day

*Continued on page 18*

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# Top Photo Winners Span the Globe

By ROGER ARCHIBALD

A series of images tracking the course of illegally poached ivory from slaughtered elephants in Kenya to wealthy collectors in Asia received top honors in the SEJ's second annual award for environmental photojournalism.

Judges chose "Ivory Worship" for first place in the contest this summer, saying the five-image portfolio by photographer Brent Stirton of Getty Images, working on assignment for *National Geographic* in the globe-spanning style that is the magazine's signature, included the "strongest single image of all the submissions," showing tusks being hacked off.

While top honors in a photography competition going to *National Geographic* comes as little surprise, both second and third prizes went to an organization most don't even associate with visual media — NPR. The well-known non-profit broadcaster has embarked upon new media not previously associated with network radio since 2007, sending multimedia teams into the field to combine "the organization's audio storytelling strength with still and motion photography." The two photojournalists hired to "redefine the 'look' of NPR" also happen to be the same two winners taking second- and third-place honors in this year's SEJ photojournalism awards.

David Gilkey came in second with his story, "In Nigerian Gold Rush, Lead Poisons Thousands of Children," which depicts the plight of a poverty-stricken community taking a huge health risk in the effort to scrape a measure of gold out of their community soil. Gold also makes an appearance in John Poole's third place story, "Mongolia Booms," which looks at the boom-and-bust cycles of mineral prospecting currently impacting that distant country.

After first working as a web editor and video journalist at the *Washington Post*, Poole says he was drawn to the challenge of public radio by 'driveway moments,' when you can't exit your car at the end of a trip until a compelling radio story has concluded. "As a photographer I thought, what a great challenge to try to capture one of those. . . When [listeners] go online to see pictures, I hope they'll be so compelled by the combination of imagery and sound that they'll have some new form of moment, like maybe a 'laptop moment,' an image that you can't forget."

SEJ is scheduled to honor this year's winners Oct. 2, 2013 at a ceremony at the 23rd annual conference in Chattanooga. View the full award-winning portfolios at <<http://bit.ly/SEJPhotoWinners>>.

Roger Archibald is SEJournal's photo editor.



**First Place: Brent Stirton, Reportage by Getty Images, for *National Geographic***

To keep the ivory from the black market, a plainclothes ranger hacks the tusks off a bull elephant killed illegally in Kenya's Amboseli National Park. In the first half of this year six park rangers died protecting Kenya's elephants; meanwhile, rangers killed 23 poachers.

**First Place: Brent Stirton, Reportage by Getty Images, for *National Geographic***

A worker in China's largest ivory-carving factory finishes a piece symbolizing prosperity. China legally bought 73 tons of ivory from Africa in 2008; since then, poaching and smuggling have both soared.

**First Place: Brent Stirton, Reportage by Getty Images, for *National Geographic***

Some of the last big tuskers gather in Tsavo, Kenya. Massive elephant poaching in recent years has seen most of the mature bull elephant population of African countries decimated for their ivory. A single large tusk sold on the local black market can bring \$6,000, enough to support an unskilled Kenyan worker for ten years.



**Second Place: David Gilkey, for NPR.org:** A man works in the narrow tunnel of an illegal gold mine just outside the tiny village of Dareta in northwestern Nigeria. The problem in this part of Nigeria is that the gold being extracted in artisanal mines is mingled with veins of lead. Compounding the problem, miners use primitive methods to process the raw ore.



**Second Place: David Gilkey, for NPR.org:** Across a swath of northern Nigeria, an environmental catastrophe is unfolding. Lead from illegal gold mines, like this one in Dareta, is sickening thousands of children. More than 400 kids have already died. Many have suffered seizures; some have been mentally stunted for life.



**Third Place: John W. Poole, for NPR.org:** Digging for gold is technically illegal. But many Mongolians do it anyway to supplement their incomes. Workers in the Gobi who can't get hired by mining companies often strike out on their own. Mongolia has an estimated 70,000 illegal gold prospectors.

# Award-winning Reporter Shares Insight into Coastal Coverage

Reporter Neena Satija was first-place winner in SEJ's 12th annual Awards for Reporting on the Environment for Outstanding Beat Reporting, Small Market, with a series of stories she wrote for The Connecticut Mirror (<http://bit.ly/14kzjZH>). The work of Satija, now an environment reporter for The Texas Tribune, was cited by the judges as an "example of the best of beat reporting, shining a light on important, under-covered stories in often overlooked areas, and using human experience to highlight environmental issues." With the assistance of Awards Committee Chair Beth Daley of The Boston Globe, SEJournal caught up with Satija recently to ask her a few questions about her work.

**SEJournal:** Your two-part exposé on Stamford's Water Pollution Control Authority's pursuit of an ill-planned waste-to-energy project during an era of serious infrastructure problems was a classic case of shoe-leather reporting and indisputable statistics. How did you find the story and how did you decide when to use numbers and when to use people to build your case?

**Satija:** I really have to credit Kate King of the *Stamford Advocate*, that city's local daily, on her initial reporting of the issue. After seeing her stories on the mismanagement and problems there, I wanted to answer some additional questions: How could this happen in a city while it was being run by our current governor? Who's responsible? What's the bill to the taxpayer? Because officials kept trying to minimize the impact of their mistakes, the numbers helped show the real impacts of their missteps. And using people to build the case worked best to show how many of their actions were driven by hubris and ambition.

**SEJournal:** Your stories on residents who are unable to move from flood-prone areas illuminated the financial problems cities struggle with in climate adaptation, especially for its most vulnerable residents. Has the city made any progress since?

**Satija:** Unfortunately, I don't think any real progress has been made. City officials in Norwalk, where the public housing development is still prone to flooding, have tried for years to get funding to rebuild the complex, but have not been able to. There's no quick fix for residents who live in flood-prone areas, so solutions will take a long time. I know the city was hoping for some Sandy relief dollars to help their effort, but only around \$100 million was available for the entire state, and Connecticut has been very slow to decide how to use that money. Most of it will go toward repairs of single-family homes. Some of it will help multi-family complexes, but very little will be left to protect them from future storms.

**SEJournal:** How did you and your editors carve out the time to do such ambitious work at a small paper?

**Satija:** I was lucky to work with some of the best and most patient editors out there. They let me take a back seat from reporting

a lot of breaking news so that I was able to focus on longer-term projects, and I think it really paid off. We're lucky, as a small non-profit news site with a small staff, to be able to pick and choose what we want to cover.

**SEJournal:** What was the most challenging piece to do of the stories and why?

**Satija:** The series on the Stamford sewer treatment plant was probably the most challenging, because the writing and reporting took so much time. A lot of the public really don't understand how these plants work and how crucial they are to public health, safety,

and the economy, so much of the piece was devoted to explaining those aspects. In addition, I realized there was very little reporting on the mismanagement of the plant and the flaws with the waste-to-energy strategy in the early and mid-2000s, when the project was being worked on in earnest, because there was simply no media there asking questions. So I really had to find people who were there at the time, and read memos and documents they were willing to share with me, to get a sense of what had been going on. I also want to add that along with reporting these stories for *The Connecticut Mirror*, I also reported them for Connecticut Public Radio, since I was shared by both news operations. Putting the story together for radio was rewarding, but very difficult.

**SEJournal:** What trend is most noticeable to you in journalism and why do you like it or not?

**Satija:** I'm really encouraged by what seems to be a trend, or at least an increasing interest in, smaller, usually not-for-profit news operations entering the journalism scene in a particular state or community. Having worked at several of these – the *New Haven Independent*, *The Connecticut Mirror*, and now *The Texas Tribune* – as well as at newspapers before that, I would say that non-profits really do their best to avoid the 'herd' mentality that a lot of journalists follow (not necessarily out of their own volition, but simply driven by the news cycle and expectations of their editors). That means we're able to look deeper than just the daily or quick-hit story. And I think that really pays off for the public.

**SEJournal:** What advice would you give to a young journalist entering the field?

**Satija:** Don't focus your energy on trying to work at a big, prestigious news outlet. Work at a place where you know you'll be valued and your editor will devote the time to you that you deserve. That is way more valuable than a byline at a well-known news outlet. And for those just starting out as beginner reporters or interns: Come up with your own story ideas. Don't sit around waiting for assignments. Better yet, do some preliminary reporting before you pitch to your editor. ♦



For her award-winning work on at-risk coastal communities, reporter Neena Satija interviews a ranger in a Connecticut park that suffered extensive damage during Superstorm Sandy.

Photo by Mike Gambina, *Connecticut Mirror*

# Fostering Diversity in Environmental Journalism

By JENNIFER OLADIPO

In some ways the environmental movement grew out of the civil-rights movement, and African-American publications beat the mainstream media to the environment story in the 1960s and '70s. Yet more than a generation later, despite newsrooms' avowed intent that America's diversity be reflected in their hiring, the number of non-whites in newspaper newsrooms has stagnated for about a decade at around 12 percent. Similarly, a study last year by the National Association of Black Journalists found that only 12 percent of newsroom managerial positions were filled by people of color at stations owned by 20 major media companies.

Are you and your news outlet reflecting the true diversity of your community? These are hard discussions, but environmental journalists should be having them.

And an important tool to prod those discussions is SEJ's new *Guide to Diversity in Environmental Reporting*, which I was honored to co-author with Talli Nauman.

Diversity reporting means encompassing economic, social, ethnic, geographic and other perspectives often excluded, or whose roles are not fully explored. A lot of that involves looking closely at ourselves as products of our environments. It is also about exploring tools, locales, sources, frames and histories we have missed, ignored or misunderstood.

Hopefully that's the fun part. Our guide book focuses on reporting so as to be action-oriented, although some of our contributors and I would argue that a more systemic look at environmental journalism is crucial to fully addressing the issue. That said, we had to start somewhere. Here is a snapshot of some of the most important lessons I hope readers will take from the guide.

## Understand environmental justice

Environmental justice is particularly important to this discussion because it has produced some of the most vociferous arguments for diversity and inclusion in environmental matters.

The U.S. Environmental Protection Agency defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, sex, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies."

Yet there are numerous definitions from many perspectives. Some emphasize resource allocation or focus on access. Others are concerned with humans alone, while still others include all species. What's more, activism to foster environmental justice is usually bound up with movements for social, economic and racial justice.

Why does this matter for journalism? All of these efforts leave us with a great deal of documentation that can help us understand the history of diversity and inclusion as it relates to the environment. We also have living, breathing sources who can help us understand data and phenomena in important and possibly unexpected ways.

## Deal with data

The guide has several resources that can help round out more inclusive reporting with hard data. Among them is TOXMAP (<http://toxmap.nlm.nih.gov>), a geographic information system from the National Library of Medicine. It uses maps of the United States to help users visually explore data from the Toxics Release Inventory and Superfund programs (<http://1.usa.gov/16yEJNv>).

TOXMAP lets you see overlays of map data about diversity, such as U.S. Census information, income figures from the Bureau of Economic Analysis, and health data from the National Cancer Institute ([www.cancer.gov/](http://www.cancer.gov/)) and the National Center for Health Statistics ([www.cdc.gov/nchs/](http://www.cdc.gov/nchs/)).

Another tool, EJView (<http://1.usa.gov/1fbP8E4>), allows journalists to create maps and generate detailed reports based on geographic areas and data sets. EJView offers data on factors that may affect human and environmental health within a community or region, including demographic, health, environmental and facility-level statistics.

## Check your sources

Focusing on diversity and inclusion in environmental reporting means checking and re-checking the contexts in which we work and the methods we use. At the center is an awareness of our own predilections, and of the resources available for fostering change.

Studies have shown that ethnic media cover environmental issues differently than mainstream media in the same community. So, keeping up with ethnic, subculture, foreign language and other niche news media as part of the mix of tracking a beat is one way to keep abreast of perspectives that are not represented in the mainstream, or not represented in sufficient depth.

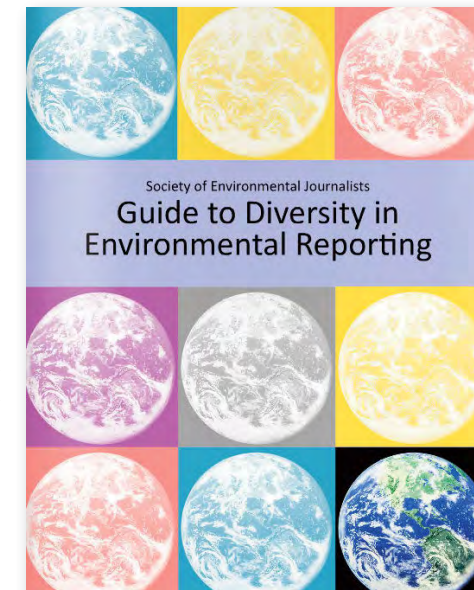
To find sources with intimate knowledge of environmental issues, it may be necessary to look beyond the usual environmental organizations.

Research has shown that minority environmental activism often looks fundamentally different from that of mainstream, conventional or more well-established groups.

For instance, black environmental activists may be more likely to consider their work as relating to social issues, and so do not label it as "environmental." Journalists who are aware of this can avoid missing significant news, opportunities or sources. Maybe it's a church meeting, not the Sierra Club meeting, which will find you the best source.

Social media can be an excellent resource if used thoughtfully. For instance, using Twitter to follow people across a range of ages, races, ethnicities, geographies, abilities and sexual orientations can give insights into how they engage with environmental issues and what unique knowledge they have to offer.

*Continued on page 18*



Find the guide at <http://bit.ly/178f162>



## Ag and Adaptation...continued

another excuse for going there. The Land Institute is home to research on perennial wheat crops. The Prairie Festival at the Land Institute is held every September and highlights progress in the institute's research and crop production.

• The Soil and Water Conservation Society usually holds its annual meeting in late July. This group is made up of conservationists who work at all levels of government. SWCS also sponsors regional meetings and tours around the country.

Keep in mind that you have to get out of the office to effectively report on agriculture and climate change. If you are truly lucky, you will get to share a story about a tour bus breaking down on a 100-

degree afternoon somewhere in South Dakota. If everything works out, you will end the day in a small-town bar with 50 farmers talking about the importance of earthworms in the soil while watching the women's gymnastic finals from the Summer Olympics.

It happens.

*Chris Clayton is policy editor for DTN/The Progressive Farmer in Omaha, Neb. He's also an aspiring author, having rewritten his book proposal on agriculture and climate change, "The Elephant in the Cornfield," more times than he cares to count. He can be reached at [chris.clayton@dtm.com](mailto:chris.clayton@dtm.com)*

## Ugandan Farmers Face Climate Adaptation Challenges

By LISA MEERTS-BRANDSMA

Uganda's fertile soils and mild climate not only support a rich diversity of flora and fauna, but also allow 80 percent of the country's land to be under cultivation, and more than 80 percent of its citizens to live as farmers.

Yet it's a nation under pressure. The size of Oregon but with almost ten times the number of people, Uganda's population has grown from eight million to 34 million in the last 50 years, and one estimate has that number quadrupling, if fertility rates remain at their current level, by 2045. The bottom line: The famed "Pearl of Africa" is staring down at a complicated and uncertain future whose success will depend on the people's ability to grow enough food.

The famed "Pearl of Africa" is staring down at a complicated and uncertain future whose success will depend on the people's ability to grow enough food.

Because the people here, as in many other developing nations, are so dependent on agriculture, the effects of climate change will only compound the situation.

In fact, it's already begun.

This summer, I spent three months living with Ugandan farmers to understand their challenges. Many pointed to climate change as something they needed to address. Uganda has two growing seasons each year, and farmers said they have seen the timing between the dry and rainy seasons shift. They now struggle to know when to plant crops, a problem that easily leads to crop failure.

I witnessed such a mistake when a peasant farmer named Mogeisa Immelda took a hard rain in early June as an opportunity to plant beans. At first, they flourished and she promised she would harvest them in September. One month later, they had withered to yellowed stalks. Immelda had counted on at least one more rain falling to water the plants, but it never came.

Joel Hartter, a geographer at the University of New Hampshire, has been comparing how Ugandans in the western region of the country perceive climate change to weather

data he has collected [DISCLOSURE: Hartter, a faculty member at the university where I'm receiving my degree, contributed grant funds to support my reporting]

Weather has inherent variability, he says, and Ugandans are not quite right when they say the timing of the seasons has changed. His data show the amount of rain received during the rainy seasons has remained relatively consistent over the last 30 years.

But Ugandans are correct when they say things are different. The rains now come in pulses instead of steady streams, or downpours compared to long drizzles, and there are longer periods between rainfall events. That causes soils to dry out so that when the next rain comes, they are too parched to absorb the water. The runoff then takes top soil and nutrients with it, the long-term effects of which are decreased fertility and crop yields.

Since the poorest and most vulnerable farmers, whose life circumstances turn season by season, tend to live far from the cities, they are far

from groups like farmer's associations and other non-profits that could teach them new farming techniques. So, most farmers work their land using traditional methods, hearing about new farming technology only through the local grapevine or, if they can afford one, the radio.

Climate change is only one piece that Ugandans must adapt to in the coming years, and non-profits devoted to improving the lives of farmers say education is at the root of the solution. They are experimenting with demonstration farms and hands-on learning models, which have been good starting points to help farmers improve the way they farm.

But given the grave implications of overpopulation, the country's dependence on agriculture and the effects of climate change on the poor, a lot of work remains to be done.

*Lisa Meerts-Brandsma is a journalist and graduate student in the University of New Hampshire's Master of Fine Arts in Non-fiction Writing program. She spent the summer reporting in Uganda for her thesis, a work of literary journalism entitled, "Salt, Soap, School and Soil." She can be reached at [lmeerts@gmail.com](mailto:lmeerts@gmail.com).*

## Between the Lines

## Enviro Beat Icon "Connects the Dots" in Latest Book

*SEJournal offers this new feature, in which our book editors interview published authors. In this issue, SEJournal's Tom Henry speaks with former New York Times staff writer and environmental journalism pioneer Philip Shabecoff about how and why he wrote his latest book, "Places: Habitats of a Human Lifetime" (Becket Mountain Books, \$12.50).*

**SEJournal:** "Places" is part memoir and part reflection of things that have inspired you. What part of it came easiest for you to write and why?

**Shabecoff:** They were equally easy because the memoir part sprang out of my reflections about those places. The hard part was leaving out the many other places that were important and memorable to me.

**SEJournal:** What inspired you to write it? How did you plan it out and what advice would you give to others who feel they have a good story to tell?

**Shabecoff:** I had several motives. One was my deep unease of how little regard our civilization seems to give to places and how, as a result, we human beings are blithely trashing the planet, which is our only home. Another was to provide myself and others a record of some of the places that were important to me and to describe why they were. A third was polemic: to urge people to think about the places of their lives, why they should be cherished and protected and what is needed to do so.

**SEJournal:** Why did you choose to self-publish it, instead of seeking an agent and a big publishing firm?

**Shabecoff:** I self-published because I couldn't find a major publisher to take it. The publishing industry has changed dramatically in the past few years and is largely limiting itself these days to books that are likely to provide a substantial financial return. My previous book ["Poisoned Profits: The Toxic Assault on Our Children", co-authored by his wife, Alice Shabecoff] was published by Random House, but that was five years ago.

**SEJournal:** For this edition of *SEJournal*, we reviewed "State of the Heart: South Carolina Writers on the Places They Love." It's not an environmental book, yet — in the big picture — it reminded us how all pollution controversies seem rooted in mankind's fundamental desire to protect a sense of home. How can environmental writers better convey that message in their news writing, i.e. connect the dots between what's at stake with policy decisions that affect science, nature and our personal well-being?

**Shabecoff:** This question kind of answers itself. As you say, we need to connect the dots between science, policy, the condition of the natural world and our personal comfort. I would add that all of us, particularly policy makers and corporate leaders, need to raise our line of sight above the immediate and look at the consequences of our actions for our posterity. It is not just environmental writers, but all journalists — political, science, economic, cultural reporters — who should examine and expose the consequences of our greed-driven misuse of our habitat.

**SEJournal:** A lot of people are nervous about the state of journalism in general, but environmental coverage in particular — especially at your former paper, *The New York Times*. How do you assess the current state of affairs and what will it take to reverse the trend?

**Shabecoff:** When I started writing about the environment for *The Times* in the 1970s, there were only a handful of journalists who covered these issues. Now, as the SEJ membership demonstrates, there is a large cadre of knowledgeable, talented writers following environmental developments. The problem is that not enough of their stories are reaching the public and policy makers.

The disappearance of many newspapers, the financial woes of media companies that are quick to jettison environmental coverage, the concentration of media outlets, many in the hands of corporate interests antagonistic to environmental coverage — these are all reducing the public's access to stories about what is happening to the environment and why.

As for *The Times* itself, I left there more than 20 years ago and no one I really knew is left, so I can't give a reading on its thinking about environmental coverage. They abandoned their environmental team, which is another example of when the media hit financial trouble, environmental reporting is the first to go.

**SEJournal:** Pretend you are much younger, still gainfully employed at *The Times*, had all of the support you could imagine for the environment beat, and had free reign over what you could do. What issues, stories and/or projects would be at the top of your list?

**Shabecoff:** Ah yes, I would love to be much younger. If I lived in the fantasy world you posit, I would do what I urged my editors to do when I was still at *The Times*: I would inculcate deep environmental coverage into every editorial department of the paper. As I noted above, every policy and economic story, civil rights, almost every foreign affairs and science story, too, ultimately has some environmental consequence. As John Muir said, everything in the universe is hitched to everything else. I certainly would have an op-ed columnist who concentrated on environmental issues, particularly policy. In fact I think I would appoint myself to that job. As for issues on which I would concentrate, one crucial one would be the increasing corporate control of our society, including our government, and the effect it is having on our democracy, our environment and our lives. I would want a lot of reporting on the links between poverty, racism and environmental health.

**SEJournal:** Looking back, has environmental writing developed as much as you thought it would by 2013? Or not? What do environmental writers today do well and what could we do better?

**Shabecoff:** As I noted above, I am impressed by the number and quality of environmental writers compared to the 1970s when I started writing in the field. Environmental reporting is much more professional and knowledgeable and covers an amazing range of subjects. What is missing in much — but not all — environmental



Author Shabecoff in the garden of his home in Massachusetts's Berkshire Mountains.

reportage is the linkage to what is happening to the rest of society. We pointed out in a second edition of “Poisoned for Profit” that the economic meltdown of 2007-2008 sprang from essentially the same roots as our environmental decline: greed, corporate arrogance, indifferent and inadequate government oversight, and the failure of the American people to understand what was being done to them. Environmental reporting can use more of this kind of perspective.

**SEJournal:** Given what you know about Washington politics, has the stalemate over climate change really surprised you that much? What observations can you make about how the nation’s collective understanding of that issue has evolved? What challenges do environmental writers face, especially in a downsized news industry, to make sure they’re getting the best information out?

**Shabecoff:** No, I am not surprised. The failure of the U.S. to act on climate change reflects the degradation of a functioning democracy. If money from Exxon, the Kochs and other fossil fuel and corporate interests can buy enough political power to block desperately needed action on a problem about which there has long been firm scientific consensus, then we are in serious trouble. I think public understanding of the climate change threat clearly emerged in the late 1980s and has been growing ever since. But public inertia and apathy over the issues have kept pressure on policy makers to a minimum. The same can be said of other mega issues such as the toxification of the environment and the tragic, irreplaceable loss of animal and plant species.

**SEJournal:** It’s been said that history repeats itself. As one of the early icons of environmental writing, what trends or observa-

tions about the 1970s do you see applicable to today or what do you expect will be applicable in the coming years?

**Shabecoff:** Unfortunately, few of the trends of the 1970s are now repeating themselves. Back then, there was a great upwelling of public concern and anger about what we were doing to our air, our water, our soil and our bodies. Congress responded with a burst of bipartisan legislative energy that produced a series of landmark laws to deal with these threats to the environment and the executive and judicial ways. The national environmental groups were inspired and effective. That was then. Today, there is little sign of significant activism and anger among the broad public.

As for congressional action, the thought of these people’s representatives, particularly the right wing, do-nothing Republicans, doing anything meaningful is simply risible. Even the environmental groups, while still staffed by talented, dedicated men and women, seem unable these days to have much impact on policy.

**SEJournal:** Nature can be humbling. What humbles you about it?

**Shabecoff:** I am profoundly humbled by the beauty and wonder of the natural world. Whoever or whatever created it, nature is an aesthetic masterpiece of endless variety. I am sitting here in my house on a mountain in the Berkshires surrounded by trees, grass, rocks, flowers. Down the hill there is a lovely little pond and the woods stretch around us for acres. We are regularly visited by black bears and wild turkeys. Several times a day, I walk around outside, a sense of peace and quietude settling over me as soon as I step outside. To me, a life without nature’s beauty is unthinkable. ♦

## Reporter’s Toolbox...continued

### Check yourself

The very best intentions do us no good without thoughtful examination of our own tendencies to exclude. This is true for individuals and our organizations. SEJ’s diversity guide discusses comfort zones, and the newsroom itself can be a powerful one. The 2013 newsroom census by the American Society of News Editors showed that diversity in newsrooms has remained stagnant at about 12 to 13 percent for more than a decade, even as the country’s racial makeup changes significantly. In short, we need to try much harder.

When efforts to diversify do occur, too often they are unidirectional. Organizations tend to invite a small number of outsiders to own territory, rather than venturing out to see what there is to learn. A constant exchange of ideas, talents and understanding among groups with equal say in the conversation is necessary.

As we journalists aim for objectivity, we must acknowledge how truly subjective our views are. Reaching out early and often to diverse groups is one of the best ways to make sure we are doing our best to include diverse perspectives that truly reflect our communities.

*Jennifer Oladipo is editor and co-author, with Talli Nauman, of SEJ’s Guide to Diversity in Environmental Reporting. She is senior business writer at the Upstate Business Journal in Greenville, S.C., where she covers business, energy, sustainability, environment. She has covered environment for the past seven years, winning an award for continuing coverage of water issues from the Society of Professional Journalists’ Louisville chapter. Her writing has appeared in Orion Magazine and Grist.com. The SEJ guide is available free in digital form or for \$7 for a printed version at <http://bit.ly/178f162> or <http://bit.ly/16YsDRc>.*

## Adaptation Messages...continued

and being happy. There is no agreeing or disagreeing with the images, they just are. It is just a matter of liking or not liking McDonald’s. And because McDonald’s clearly makes people happy, why wouldn’t you like it?

### Adopting adaptation

Among environmental and science communication scholars and practitioners, there is a growing consensus that the “deficit model” has failed. This was the appealing idea that people simply have a lack of information and understanding about global warming and by filling up this knowledge deficit, attitudes, beliefs and behaviors would change. It is now clear that it is much more complicated.

As the foregoing review suggests, there needs to be an emotional subtext that moves people. As one advocate at a leading global environmental group told me at a recent conference, “It is all about emotion. That is where everyone is going.”

While adaptation messages are not any more inherently emotional than prevention messages (they certainly could be made so), they do have some other elements that give them more impact. By adopting adaptation as a primary theme in global-warming messages, audiences will be less critical and more accepting of implied pro-environmental values and opposing rhetoric will have fewer opportunities to sow doubt.

A world of global-warming adaptation is not desirable, but adaptation messages are.

*Lee Ahern is assistant professor of advertising at Penn State College of Communications, senior researcher at the Arthur W. Page Center for Integrity in Public Communication and chair of the International Environmental Communications Association.*

## BookShelf



### “Peril in the Ponds: Deformed Frogs, Politics, and a Biologist’s Quest”

By Judy Helgen

University of Massachusetts Press, \$24.95

Reviewer: KAREN SCHAEFER

In mid-August of 1995, at a small farmhouse pond near St. Paul, Minn., Judy Helgen dipped her hand into a bucket of frogs captured by local students.

As she grasped a squirming amphibian, her stomach churned.

The first frog she examined was missing an entire leg. It looked like a total amputation, except that the skin was normal.

The second frog had only a stub of a leg, half the normal length. And there were others with extra limbs, even some with missing eyes.

“This is awful,” she recalls saying to the expectant students and their parents.

So begins Helgen’s page-turning tale documenting her work at Ground Zero of what would shortly become an international biological crisis – amphibian deformities and the dramatic global decline of frogs.

The 1995 incident wasn’t Helgen’s first experience of finding deformed frogs.

She started work as a biologist in 1989 for the Minnesota Pollution Control Agency, on a year-by-year grant from the U.S. Environmental Protection Agency as a wetlands researcher.

She first documented abnormalities in Minnesota frogs in 1993, but that report appeared to be an anomaly.

Two years later, when she got the panicked phone call from a local teacher asking what was happening to the frogs, Helgen thought again. She immediately redid her complex work schedule and went in person to see what was going on.

For the next nine years, Helgen constantly juggled her EPA-funded work identifying new biological indicators for wetland health with her passion for what gradually emerged as a crisis in the amphibian world.

“Peril in the Ponds” is a detailed account of how one scientific researcher began to grasp the complex biological, social and political issues surrounding this controversial topic.

At the heart of her work was Helgen’s fear that what was happening to frogs in the rural environment of Minnesota might also have implications for human health.



### “How to Raise Chickens”

Everything You Need to Know

By CHRISTINE HEINRICHS

Voyageur Press

<http://www.goodreads.com/book/show/17124954-the-how-to-raise-chickens>

Whichever comes first for you, the chicken or the egg, this book will show you what to do next with longtime chicken breeder Christine Heinrichs explaining all the helpful DOs and important DON’Ts.

That question is still unanswered. But what is perhaps most striking about her storytelling is the political naïveté she initially brought to the work.

At first, Helgen firmly believed that her state agency was squarely on the side of environmental justice. As the years rolled on, she came to the reluctant conclusion that politics was playing a more important role in limiting crucial scientific research than she thought was appropriate.

So Helgen actively defied those politics whenever she could, while still maintaining her role as a researcher and spokesperson for amphibian decline.

She attended local, national and global conferences on the amphibian crisis, often risking her funding in the process.

With the help of local teachers, residents and other amphibian researchers, she carefully documented the extent of frog deformities throughout Minnesota, even after she was criticized for using “non-scientists” in her work. And Helgen slowly came to understand the complexity of issues that were potentially affecting global amphibian populations.

So what was causing the deformities?

In “Peril in the Ponds,” Helgen details the many theories that emerged from researchers worldwide, as well as her own reasoning about why each causation factor might – or might not – be a source worth further scientific investigation.

Parasites, habitat loss and hormone interference from pesticides were all on her list of possibilities.

Helgen’s conclusion is that pesticides are the most likely – but not the only – culprit for the harm being done to some of the world’s oldest inhabitants. And that conclusion brought her up against a new political reality within her own state agency.

During the decade or so of Helgen’s research in Minnesota, where some of the first U.S. frog deformities were documented, a national shift in scientific policy-making was under way.

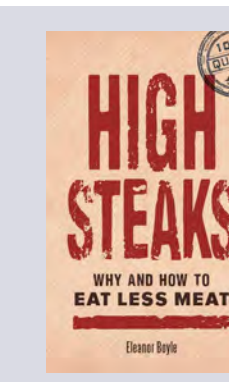
Even before the mid-term election in 2010 – when Tea Party and other ultra-conservative politicians were elected to national and state legislatures – Helgen saw a dramatic shift in support for scientific research in her own Minnesota agency.

She documents how it became increasingly difficult for her and her staff to continue their work on amphibian decline, while still holding onto the essential EPA wetlands funding that was the basis for her job.

There is still no defining answer to this global amphibian mystery.

In her final chapter – written after her retirement from the Minnesota Pollution Control Agency in 2002 – Helgen lucidly revisits the recent research on the various possible causal factors and examines the theories one by one.

Although she has moved on to teaching and is no longer en-



### “High Steaks: Why and How to Eat Less Meat”

New Society Publishers

by Eleanor Boyle

[www.newsociety.com/Books/H/High-Steaks](http://www.newsociety.com/Books/H/High-Steaks)

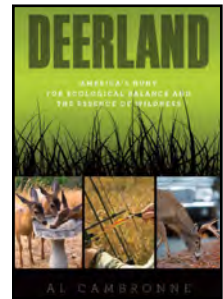
Timely and compelling, “High Steaks” offers powerful environmental evidence for producing livestock more sustainably and compassionately, and for eating less and better meat.

## BookShelf...continued

gaged in amphibian research, Helgen clearly retains her passion for solving one of the world's greatest environmental puzzles.

And make no mistake – while “Peril in the Ponds” is a fast-moving and highly-readable story of amphibian decline, there are no final answers here. Only remaining questions.

*Karen Schaefer is an SEJ member and freelancer based in northern Ohio.*



### “Deerland: America’s Hunt for Ecological Balance and the Essence of Wildness”

By Al Cambronne  
Lyons Press, \$18.95

Reviewer: JENNIFER WEEKS

The most dangerous animal in North America isn't a great white shark, a bear, or a black widow spider.

It's Bambi.

Nationwide, the odds that a driver will collide with a deer sometime in the coming year are just more than 1 in 200, or about 0.5 percent, according to State Farm Insurance.

In some states the risk is much higher. About 1.1 million deer-vehicle crashes in 2012 killed about 150 people and caused more than 10,000 injuries. Sharks, by comparison, killed three people in the United States from 2006 through 2010.

In “Deerland,” freelancer writer and SEJ member Al Cambronne explains how deer have become so abundant, and explores the weird relationship between Americans and deer.

Cambronne, an occasional hunter who lives in Wisconsin, makes a strong case that hunting is probably the best tool we have to keep the deer population explosion at least somewhat under control.

Deer have been in North America for millions of years, but were nearly hunted out of existence in many areas by the early 1900s.

Since then, the U.S. deer population has grown by a factor of 100, to some 30 million today. That's due largely to human actions. We have removed large predators such as wolves that once kept deer numbers in check, and suburban development has created millions of acres of ideal deer habitat – large lots with abundant “edge zones” where lawns meet woods.

Deer are well-adapted to take advantage of these conditions. They can run up to 36 miles per hour, jump eight-foot fences, and move quickly through thick woods. They're also good swimmers. Deer have extremely good hearing, vision and sense of smell, so they can detect food, water and danger from far away.

These traits also make them interesting to hunt, and much of “Deerland” is a detailed and entertaining tour through the modern deer-hunting industry.

As Cambronne explains, hunting is big business: Only 6 percent of adults in the United States hunt, but they spent \$34 billion on gear, licenses and other items in 2011. Up to 80 percent of those expenses were for deer hunting. If deer hunting was a single corporation, its \$17 billion in revenues would rank it 154th on the Fortune 500.

Cambronne introduces readers to many different kinds of hunters. Some are “deer farmers,” wealthy CEOs who live in Milwaukee or Chicago, but own large tracts of rural Midwestern land for weekend hunting. They want to bag bucks with big antlers, and they buy a lot of gear, including handheld GPS receivers; motion-sensing digital cameras to monitor their hunting spots; and farm equipment to grow grain that will attract deer to their property.

More commonly, though, hunters live in small towns and rural areas, own one rifle, and are in it for the meat.

One Wisconsin state trooper tells Cambronne that he carries a list of people he knows who are out of work or struggling financially, and might want to take home a road-kill deer (which often are surprisingly intact). For many Americans, venison is “a regular staple that stretches their modest incomes a lot farther at the grocery store,” Cambronne writes.

“Deerland” does not gloss over ethical questions about hunting, such as whether it's acceptable to set out bait for prey. But Cambronne also argues that wildlife lovers who feed deer don't do the animals any favors. Corn causes digestive problems that can kill deer who are unaccustomed to eating it.

Feeding deer also draws them out of winter dens into subzero weather. And it lures them into developed areas, where they are likely to stick around and munch on garden shrubs.

“They come for the corn and stay for the salad,” a county forester tells Cambronne.

There are few good options for suburbs that are already over-ridden with deer. Trap-and-relocate programs are expensive, and animal contraception only works on very small populations in isolated areas where animals are easy to reach and treat.

Cambronne talks to homeowners and hunters in Duluth, where a managed bowhunting program is removing hundreds of deer annually from hilly neighborhoods. By his account, most residents seem to accept the idea.

“I've seen a few deer killed,” one woman tells him. “I don't like to see it, but you know, I don't like to see them killed on the street [by cars] either.”

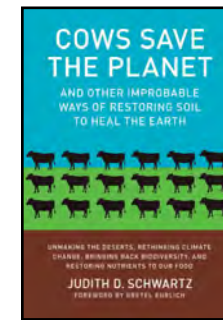
Cambronne predicts that we will need hunters for the foreseeable future to reduce or at least maintain deer populations. One option would be to restore commercial deer harvesting – i.e., let

hunters sell deer meat.

Australia has legalized market hunting for kangaroos to curb an overpopulation problem. Cambronne acknowledges that would be controversial in the United States (as it is in Australia).

Perhaps it would be progress if more Americans understood that a landscape teeming with deer is not a healthy ecosystem.

*Jennifer Weeks is a Boston-based freelancer and a member of SEJ's board of directors.*



### “Cows Save the Planet: And Other Improbable Ways of Restoring Soil to Heal the Earth”

By Judith D. Schwartz  
Chelsea Green Publishing, \$17.95

Reviewer:  
CHRISTINE HEINRICHS

Judith Schwartz makes the case that – appropriately managed – large herbivore livestock can restore the soil, create wealth and mitigate climate change.

Who knew?

Traditional ranching often leaves land overgrazed, depleted, baked dry and subject to soil erosion. Industrial agriculture's feedlot practices have come under increasing scrutiny for food contamination, inhumane practices and soil and groundwater pollution. Schwartz provides a narrative treatment of various farmers who are using different ranch management practices to get better results. She explains the science and history of holistic management, championed by pioneers such as Allan Savory.

And reporters taking on climate change issues can get up to speed on agricultural aspects with this book.

The greenhouse gas contribution got attention in 2006, when the United Nations' Food and Agriculture Organization published “Livestock's Long Shadow,” evaluating the list of environmental problems associated with, mainly, cattle.

Detractors challenged the methods used to arrive at figures such as 18 percent of greenhouse gas emissions, but the point was made: a host of environmental problems trace back to cattle.

That fueled arguments for vegetarian and vegan diet changes, or at least meatless Mondays, but others argued for changing cattle-raising practices. Farmers engaged in sustainable agriculture had long argued for better practices.

Schwartz comes to the subject from economic reporting. Her curiosity was piqued as she investigated the nature of money and the meaning of value.

Tracing it back, she finds the ultimate source of all wealth: the soil.

Her husband is South African, and her attention was caught



### “For God, Country & Coca-Cola”

by Mark Pendergrast  
Basic Books

“Behind the glitz and fanfare, the bubbly brown beverage has had a tortured and controversy-filled history, meticulously chronicled in For God, Country and Coca-Cola.” — *The Wall Street Journal* (fully updated 3rd edition)

by the work of African researcher Allan Savory, a visionary agricultural advocate for holistic management. His principles have been put into practice by ranchers around the world, including the United States.

Through that connection, she visited with ranchers across the country, learning how they have transformed the land, restored the soil and integrated agriculture into making positive contributions to the environment, rather than degrading it. They report that desertification, flooding, drought, poor food value, pest infestation and all the other misfortunes that plague farmers are mitigated by holistic management.

But how will we feed the world?

Industrial agriculture's Holy Grail of increased production, the flag waved to justify GMOs, loses meaning as the food raised from degraded soil, enriched with chemical fertilizer, increases yield at the expense of declining nutritional value.

The benefits go beyond better food. Holistically managed cattle can rebuild degraded watersheds, reducing the impact of drought and flooding, support biodiversity by providing habitat for wildlife, absorb carbon into the soil, sequestering it from the atmosphere, and thus mitigate climate change.

All this, and grass-fed beef, too.

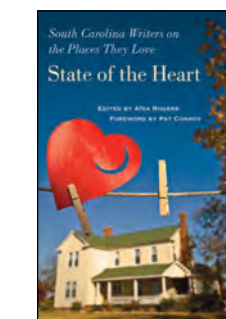
Schwartz' travels and experiences lead her to an appreciation of all the factors that go into creating and maintaining a healthy matrix: soil health, soil biology, plant diversity, resilience to weather fluctuations, fertility, quality and economic vitality.

She finds, as an economic reporter, that ignoring the natural cycles and the soil overlooks their crucial role in prosperity.

The cure is as pervasive as, well, dirt itself. Managing for local economic vitality will require political change as well as agricultural management change. “Our subsidy structure is such that farmers and ranchers are essentially rewarded for mucking up the soil rather than building it,” she writes.

Integrated agricultural practices make use of all livestock as part of the biological circle of use and renewal. As Michael Pollan's “Omnivore's Dilemma” engaged the public in 2006, this book beckons readers to consider the next steps in changing the system.

*Christine Heinrichs is the author of “How to Raise Chickens” and “How to Raise Poultry,” both of which focus on raising heritage breeds in small flocks. She also writes about coastal issues from her California home.*



### “State of the Heart: South Carolina Writers on the Places They Love”

Edited by Aida Rogers  
University of South Carolina Press,  
\$39.95

Reviewer: TOM HENRY

This isn't an environmental book per se. But it reminds you why good environmental writing matters: It's because, at the root of

every pollution controversy, there's a longing for a sense of home.

One of the nation's best fiction writers, Pat Conroy (*The Prince of Tides, Beach Music, South of Broad, The Great Santini, The Lords of Discipline*), sets the stage with a taut, heartwarming tribute to the Palmetto State with passing references to albino porpoises, fish, shrimp, osprey, bald eagles, deer, feral hogs, sharks and one particular Bengal tiger that kids were once allowed to feed chicken necks.



### “Green Illusions: The Dirty Secrets of Clean Energy and the Future of Environmentalism”

by Ozzie Zehner  
University of Nebraska Press  
www.greenillusions.org

Green Illusions delivers a backstage tour of solar, wind, hydrogen and electric cars. Are these technologies the solution to growth and productivity, or the problem?



### “Opportunity, Montana: Big Copper, Bad Water and the Burial of an American Landscape”

by Brad Tyer  
Beacon Press  
http://bit.ly/11560vB

A memoir exposé examining our fraught relationship with the West and our attempts to redeem a toxic environmental legacy.

## BookShelf

“Nature is everywhere in South Carolina and there is no escape or any reason to do so,” Conroy wrote in a splendid foreword that also touches upon the character of South Carolina’s people, its food and other things that make it distinctive.

Following Conroy are short essays from 35 lesser-known, but talented, South Carolina writers who offer their thoughts, usually in two to four pages.

The book is thematically organized, with some essays focusing on beautiful marshy landscape and tranquility; others on birds, fish and water; others on history and bygone landmarks; and even a couple on sports venues, food and coffee shops.

One author focused on no place in particular, but the serenity of tobacco roads. Others wrote eloquently about shacks, beach houses, churches, fort ruins, oysters and their favorite porch swings.

Consider this excerpt from Sandra E. Johnson’s essay about the Congaree River boardwalk, in which she writes about how images of great blue herons, snowy egrets, and trees along an ever-changing, “timeless yet constantly evolving” shoreline ecosystem have had almost a spiritual, healing effect on her:

*“Each moment here is a reminder that everything is in the process of being created, existing, then dissolving; and recognition of this often softens the sharp edges of my pain over the unexpected death of my 47-year-old brother and other losses.*

*“Yes, this is a source of solace,” she continues. “No man-made structure, not even the most beautiful of cathedrals, could give me what this place does because despite all of our knowledge and skills, we humans cannot create nature. We can only be a small part of it. So I keep walking through the park and drawing sustenance from it, and as I feel a breeze from the river, inhale the fragrance from honeysuckle, and hear the chirping of mating cardinals, my problems lessen and my head clears. And I am reminded that life is truly good.”*

Through it all, the reader gets not only a sense of place – but also rich insight into the charm and occasional wackiness of South Carolina.

“State of the Heart” is a big, collective love letter that makes South Carolina more distinctive but also shows a commonality of what binds people from all walks of life together.

## Get Feet Wet on Coastal Adaptation...continued

And then there are also coastal problems that are exacerbated by non-climate issues, such as development in previously undeveloped areas and lost drainage from wetlands. After a storm, Schleifstein said it can be “difficult to distinguish how much damage there is from that storm compared to how much there was in the past because there weren’t as many people there 30, 40 years ago.”

But most of the community-level adaptation under way is much more mundane than giant seawalls or raising an entire town. In many places, it’s about doing the things governments are already doing, but with an eye to future conditions.

“The challenge is getting people to talk about it in non-bureaucratic terms,” said Craig Pittman, a reporter at the *Tampa [Fla.] Bay Times*. “You’re dealing with the real nuts and bolts of municipal life — sewage systems, storm drainage.” But those, too, are

important adaptation issues.

It makes South Carolina feel more real. It breathes more life into the type of state that tourists and outsiders often don’t see. *Tom Henry covers energy-environmental issues for The (Toledo) Blade. He is a member of SEJ’s board of directors, SE-Journal’s editorial board, and is SEJournal’s book editor.*



**“For God, Country & Coca-Cola”**  
By Mark Pendergrast  
Basic Books, \$21.99 (Paperback)

Reviewer: JoANN M. VALENTI

*Editor’s Note: This is an updated, third edition of a book originally published in 1994.*

One can speculate why Mark Pendergrast felt compelled to update his epic book about Coca Cola, described as the “definitive history of the great American soft drink and the company that makes it.” But Pendergrast insists he was not out to slam the soft drink industry or capitalism in general.

One thing he did set out to do, and of special note to SEJ members, is delve into a mix of environmental issues at various junctures, such as controversies over solid waste disposal and excessive use of ground water; fears of BPA contamination; deforestation in Nicaragua and Belize; and concerns about how migrant workers have been treated in Florida.

Pendergrast weaves the company’s story around a 125-year history of global politics, culture, union battles, nutrition scares and advertising jingles, including marketing ploys meant to entice impulse buying.

The company’s history, according to Pendergrast, cascades through misconduct probes by the FBI and the U.S. Securities and Exchange Commission; racial discrimination lawsuits; and allegations of international bribery and front organizations formed to fight taxes. The evolution of the company runs through encounters with communism, Nazis, the United Nations, Alger Hiss, Henry Luce, Cesar Chavez and Ralph Nader, to name a few.

This tome is a gem of American history. In this latest edition, Pendergrast reprints the original recipe for Coca-Cola, sans the cocaine removed in 1903.

*JoAnn Valenti, Ph.D. emerita professor, is on SEJournal’s editorial board. She also is a reformed Dr. Pepper fan.*

important adaptation issues.

Pittman also suggests getting to know scientists and engineers at your local colleges and universities, who may be looking at issues that local governments aren’t even yet aware of. This is of course important for any reporter, but it’s particularly important for adaptation issues that tend to be specific to a geographic area.

The best advice, however, is to get out in the field and see firsthand the infrastructure that is most at risk. It’s hard to convey to readers the challenges of adapting without explaining what it looks like — out there in the swamps, the dunes or the tidewater basins.

“Get your feet on the ground,” said Watson. “Get wet.”

*Kate Sheppard is the senior reporter and the energy and environment editor at the Huffington Post. She previously reported for Mother Jones and Grist.*

## Freelance Files...continued

immediately, but that’s just inviting a swarm of distractions in, buzzing around my head as I try to keep my most pressing duties on track. Sometimes I have to (gasp!) close my web browser, turn off my phone and focus on the tasks at hand. I can always check in with the boss at the end of the day.

● **Create a flexible workplace:** If you’re going to keep freelancing on the side, finding jobs that let you be the master of your own hours is crucial. It’s a bonus if they operate on a schedule with peaks and lulls in the workload. Programs I run for IJNR usually occur in late spring and summer, while my university gig revolves around the academic calendar. I work for both year-round, but the important deadlines for each hammer me at different times. Even better, working from home part-time means sometimes I get to do other important things like schedule interviews with sources, walk my daughter to preschool and even have lunch with my family every now and then.

● **Lower your expectations:** I got paid to write exactly one freelance assignment last year. My New Year’s resolution for 2013 was to, at least, double that output. While I’m able to still technically call myself a freelancer, this is obviously not the dream of “making it” that led me to journalism in the first place. The reason this doesn’t drive me crazy is that life’s not short. This is just a stage that’s bound to pass and someday, I dare to dream, I’ll either strike a better balance or end up with a single paying gig.

● **Don’t do it:** Perhaps the real secret to juggling jobs is not to do it all that much. When I’m juggling, I’m never out ahead of any assignment. I’m just reacting to the one that’s closest to crashing to the floor, which makes it difficult to plan ahead and feel “on top” of any assignment. It takes constant cognitive effort to keep track of these multiple tasks and, now that the phone in my pocket can be its own place of work, the jobs I’m juggling all-to-easily invade my personal life. (Case in point: I’m currently “on vacation” in northern Wisconsin and my two girls are begging me to take them down to the lake to practice casting on their new fishing rods. I am, instead, asking for quiet time so I can write).

I realize this “how to” article has taken an unusual turn. I’m not completely against multitasking – juggling jobs can often be an inescapable necessity to getting through some really busy phases in life. But the point of juggling is to keep juggling. The act itself doesn’t solve the problem that got you oversubscribed in the first place. While I may feel like life is sitting offstage, lobbing chainsaws and torches and watermelons into the mix as I frantically try to keep up with all the new material, I only have myself to blame. I’m the one who keeps reaching out a hand to accept the next projectile.

Maybe it’s time I learned to say “No.” Just don’t ask me to write the article on how to do it – I’ve got some fish to catch.

*Adam Hinterthuer is the director of programs for the Institutes for Journalism and Natural Resources, coordinator of outreach for the University of Wisconsin-Madison’s Center for Limnology and an on-again, off-again freelance writer. If he had any free time, Adam would spend it camping, hiking, biking and, yes, fishing with his two young daughters and his wife, Carrie. Portions of this article were used for a blog post on “The Art of Juggling Jobs” for the Pitch, Publish, Prosper website (<http://pitchpublish-prosper.com/>)*



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The granddaughter of a herder pumps water by hand from a shallow well for the family's herd of Bactrian camels in the South Gobi desert of Mongolia. Despite declining water levels, this country of fewer than 3 million people in Central Asia is riding a mineral boom that is expected to more than double its GDP within a decade. John W. Poole of NPR won Third Place in SEJ's 2013 photojournalism awards with a portfolio of photos entitled, "Mongolia Booms." For the rest of the winners (and some more about photography on the radio), see page 12.

Photo by John W. Poole, NPR