



SE Journal

Winter 2013, Vol. 22 No. 4



Sandy's Hidden Warning

Capitol Forecast: Breakthrough or Train Wreck?

Enviro Stories for the Eye

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A quarterly publication of the

Society of Environmental Journalists

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TABLE OF CONTENTS



page 5



page 8



page 14



In late October, Hurricane Sandy hammered the New Jersey shoreline, creating a new outlet to the ocean at a spot where a bridge once connected the barrier island community of Mantoloking to the mainland. How can journalists better lend context to coverage of the coming superstorms? See page 14.

USAF Photo by Mstr. Sgt. Mark C. Olsen, New Jersey National Guard

features

- Obama's second term: Enviro breakthrough or train wreck? page 5
By Peter Dykstra
- New frontiers in visual journalism page 8
By Michael Kudas
- Are we ready for the next superstorm? page 14
By Francesca Lyman

columns

- SEJ President's Report: The view from Texas — SEJ a horse of a different color? page 4
By Don Hopey
- Reporters Toolbox: Keeping up on chemical databases page 12
- Media on the Move: SEJ members relocate, win fellowships, teach page 13
By Judy Fahys
- SEJ News: Members helping members: SEJ's mentoring program page 20
- Book Shelf Book Reviews page 23

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The View from Texas – SEJ a horse of a different color?



By DON HOPEY

There is a young cowboy who lives on the range. He sits on his horse all day and night in front of the Texas Tech University's National Ranching Heritage Museum in Lubbock, where, along with 19 big bronze Longhorn cattle, he's part of a sculpture installation titled "Gathering the Yellowhouse Canyon."

I met that cowboy, whose permanent squint angles toward the far horizon, in October during SEJ's 22nd annual conference, as the Saturday night party at the museum wound down. Folks from the pancake-flat high plains of West Texas say things there look different from the back of a horse. I wanted to see for myself, so I took the opportunity to climb up and sit for a spell with the cowboy astride the horse.

It provided a grand vantage point to survey the scene, although I'm pretty sure the Lubbock conference would have looked like a big success from just about anywhere. It kicked off Wednesday night with a freelancing workshop, followed by a well-attended awards program and a screening of James Redford's documentary, "Watershed: Exploring a New Water Ethic for the New West," which addressed maybe the biggest issue in that parched part of the world where Dust Bowl memories can blow up into a haboob at any time.

On Thursday, conference tours headed to the distant horizons, visiting a nuclear power enrichment facility, Carlsbad Caverns National Park, sandhill cranes and raptors at the Muleshoe National Wildlife Refuge, the Pitchfork Land & Cattle Company ranch and a fracking tour that climbed around on a shale oil well where drilling was at 8,000 feet deep on its way to 11,000 feet.

Sessions on Friday covered climate change, fracking, genetically modified food, women's health, water management in the desert West, FOIA in an increasingly opaque governmental landscape and new NASA satellite imagery. In the evening, attendees visited Texas Tech's Natural History Museum for dinner and a preview of "The Dust Bowl," the latest Ken Burns documentary.

Saturday sessions discussed toxic chemicals, extreme weather, cotton, water and politics. Sunday's books and breakfast session highlighted Rachel Carson and the 50th anniversary of her seminal work, "Silent Spring." Easy to see that the conference, which attracted 560 participants and was masterfully chaired by Randy Lee Loftis and wrangled by Jay Letto, was all great guns. (You can get recordings of conference proceedings at <http://www.sej.org/initiatives/sej-annual-conferences/AC2012-coverage>.)

Board Gives Hard Thought to SEJ's Future

But squinting at the hazy horizon was definitely in order this summer in Boulder, where the SEJ board, faced with hard financial

and program choices, took some long and hard looks at SEJ's future.

SEJ's foundation funding is declining at a rate to rival the Ogallala Aquifer, and decisions about which programs, services and events SEJ can continue to fund with a contracting budget are at hand. With a grant from the Brainerd Foundation, SEJ hired a Denver-based consulting firm to conduct a survey, analyze the findings and help us set organizational priorities and strategies for what may very well be a very different future organization.

The board was charged with trying to figure out what SEJ needs to do to be an effective organization for journalists and environmental journalism in a rapidly changing world. It was encouraged to prioritize programs, refocus the organization to meet measurable goals and structure the staff and board to meet current and future realities.

According to the consultant, SEJ's membership will likely continue to tilt toward freelancers who have different needs than the dwindling number of more traditionally employed journalists. And its fundraising must become more diversified and flexible, and will be more successful, if the organization can narrow its program offerings and set clear measurable goals. The consultant urged the board to select priorities that would provide a clear map of SEJ's future direction for funders, members and future boards.

In an attempt to refine and focus the board's vision, the consultants also pushed what some board members said was an artificial division: asking the board to choose whether SEJ was a membership organization for journalists or a journalism advocacy organization.

Some board members felt the organization should focus on membership recruitment, retention and outreach and member services. Such an organization would likely require its members to supply the bulk of its funding. Others acknowledged that a strong membership base is important but focused on the need for more and better journalism about the environment as the organization's prime mission, and one that could find support from foundations that also supported that goal.

At the end of the day, the board declined to go down either path, instead pursuing a dual approach that was essentially a hybrid of both, against the advice and much to the frustration of the consultants.

That route is more in line with SEJ's 1990 articles of incorporation, which state that the organization shall operate exclusively "for charitable, scientific and educational purposes," and also with its legal status as a 501(c)(3) organization, which requires it to function as an educational and charitable group with broad social purposes, and not as a trade association or business

Continued on page 26

Analysis: Obama's Second Term — Enviro Breakthrough or Train Wreck?

Helping environmental journalists sort through the convergence of money, politics, ideology and nature

By PETER DYKSTRA

When Ronald Reagan took office 32 years ago, he brought along a scandal-prone EPA boss and an Interior secretary who made conservation policy based on the Great Flood and the prospect of an imminent Rapture. But even this president, whose reign arguably marked the beginning of our eco-ideological divide, pointed out what was obvious to so many: “Preservation of our environment is not a liberal or conservative challenge, it’s common sense.”

For the most part, Congress agreed. In the 1980 scorecard of the League of Conservation Voters, House Democrats averaged a 54 percent voting score, Republicans 37 percent. From the conservationists’ standpoint a Republican leader was Georgia freshman Rep, Newt Gingrich, who got a 50 percent approval rating. A democratic laggard was Tennessee second-term Al Gore, at 35 percent.

That was then, this is now. In 2011, Democratic reps scored 91 percent on LCV’s pro-environment scale, Republicans 11 percent. Since the 2008 financial crisis, public support for environmental measures has tanked.

At the dawn of a second Obama term, the environment is merely one of a stable full of issues facing an ideological chasm. With dozens of issues, from habitat to health, climate to clean water, and energy to economy in the balance, what are the prospects for closing that divide?

Enviro issues to watch in 2013

Which brings us to 2012. A dizzying parade of disasters — from heat to crippling drought to floods, tornadoes and Superstorm Sandy, to the startlingly vanishing Arctic Ice Cap — have once again inspired hints of a public opinion turnaround. A Yale/George Mason University poll taken before Sandy

set Americans’ acceptance of man-made climate change at 58 percent — back to about the same level as 2008.

So where does that leave us in 2013? Here’s a quick snapshot, taken a month after the election at our deadline, of a few pivotal issues, political dramas and people for environmental journalists to keep watch on:

No ‘Climate Cliff’ Defections:

Grover Norquist, the conservative activist whose “no-tax” pledge was considered inviolable before the election, saw dozens of defections or potential defections in the theatrical approach to the Fiscal Cliff. There’s no such exodus among climate skeptics. To date, no self-declared Congressional climate skeptic has wavered. And no advocate of climate action has seized on the issue. In early December, another global climate confab, this one in Doha, Qatar, came and went. But this time, the usual post-meeting declarations of defeat and despair were issued before the meeting began.


Three weeks after the election, President Obama gave what many consider an early portent to second-term policy when he exempted U.S. airlines from a European Union carbon-trading scheme. An even bigger clue will be the president’s course on the Keystone XL pipeline. With construction — and protests — already under way at our deadline near the pipeline’s terminus in East Texas, construction through the north central U.S. still awaits Obama’s yes or no. “This is about the president and his legacy,” said

Gene Karpinski, president of the League of Conservation Voters.

Energy & the ‘War on Coal’: There’s more on wind and solar a bit later here, but for now, let’s assume “energy” means “fracking” for the next several years. In the fiscal blink of an eye,



Among the questions facing Obama is the future of the Keystone XL oil pipeline, which has drawn protests like this one in Washington, D.C., in November 2011.

Photo:  Emma Cassidy via Flickr

continued on Page 7



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SEJournal (ISSN: 1053-7082) is published quarterly by the **Society of Environmental Journalists, P.O. Box 2492, Jenkintown, PA 19046**. Ph: 215-884-8174. Fax: 215-884-8175. Send story ideas, articles, news briefs, tips and letters to *SEJournal* Editor Adam Glenn at aadamglenn@hotmail.com. The Society of Environmental Journalists (SEJ) is a non-profit, tax exempt, 501(c)(3) organization funded by foundation grants in response to SEJ proposals, media company contributions, earned income, university sponsorship of the annual conference, occasional regional events, individual donations and unrestricted contributions of general support from diverse sources. Its membership is limited to journalists, educators and students who do not lobby or do public relations work on environmental issues. For non-member subscription information go to www.sej.org and click "Publications."



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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SEJournal Editorial Submission Deadline for the Spring issue is Feb. 1, 2013

Advertising deadline for the Spring Issue is March 1, 2013

Advertising rates are available on the SEJ website at www.sej.org/advertise-sejournal or by emailing linda.knouse@sejhq.org

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coal has dropped from being the source of roughly 50 percent of the nation's electrical power to 36 percent. Demagogues blame the War on Coal, which, based on the Obama Administration's largely benign treatment of vote-sensitive Coal Country, may or may not exist.

Statisticians and economists blame natural gas, which has eaten King Coal's lunch in the free market. With natgas prices plummeting and ancient, highly polluting coal plants being phased out, the coal industry is shrinking here while looking for export markets to save itself. The success of natural gas is due to the brilliant marriage of "fracking" technology to shrewd politics and good timing. America is reborn as the Saudi Arabia of gas, with tens of thousands of new wells cracking shale to liberate eons' worth of stored energy.

That industry is enjoying a Rockefeller-like bonanza, while the answers to an endless stream of concerns about land swindles, water use, contaminated wells, greenhouse emissions and waste products remain largely hidden behind a curtain of political power and decade-old exemptions from environmental regulations, gifted the fracking industry by the infamous energy policy work of Vice President Cheney.

Anti-Regulatory Zeal: Don't expect the battle over regulation to end any time soon. With Congressional critics assailing EPA and other regulatory bodies as "job-killers," the agency could be under the gun as both parties seek budget cuts.

State agencies may be in even worse straits. From food and water safety to pollution discharges to waste cleanup, states are losing boots on the ground due to spending restraints. Typical of the austerity push is the Commonwealth of Virginia, where Governor Bob McDonnell ordered across-the-board four percent budget cuts in state agencies. Virginia's Department of Environmental Quality had already been under criticism for its inability to keep up with inspections of large-scale hog and poultry farms as well as heavy industry. In states where practices like fracking are

In states where practices like fracking are expanding while enforcement capacity lags behind, it could prove a regulatory Wild West.

dramatically expanding while enforcement capacity lags behind, it could prove a regulatory Wild West.

Eric Schaeffer heads the Environmental Integrity Project, a Washington nonprofit he founded after a stormy departure from EPA in 2002. He sees the anti-regulatory effort as a real risk to environmental protection, but he thinks it may have peaked in 2012. "We may be past the perfect storm," he said. "It's by no means over, but it certainly won't get any worse."

Political Cash Flows Freely: A few years back, oil firms like Chevron and BP spent healthy sums of money touting their investments in renewable energy via TV ads. Now, those healthy sums have multiplied, but the renewable energy message is on mute. It's difficult to get through a single commercial break in news programming without seeing ads from oil, coal or natural gas interests. Fossil fuel ads with a job-creating theme over-

whelmed clean energy ads by a four-to-one margin in the recent campaign (see more at <http://nyti.ms/TvJcNk>). With coal on the ropes and oil and gas booming, none have any great motive in slowing their public opinion push.

While there may be a Supreme Court challenge to the 2010 Citizens United ruling which unleashed large scale political spending in the name of free speech, no one really expects that spending to decrease. In early December, GOP fund raisers reportedly made an early call to Sheldon Adelson, the casino and convention tycoon who famously lost \$150 million betting on unsuccessful 2012 candidates, to check Mr. Adelson's intentions for 2016 donations. "There was unprecedented money spent on the corporate side," said Karpinski, "and they didn't win. It's time to move forward."

The cash may not flow so quickly toward clean energy. After a \$536 million federal loan was lost to the bankruptcy of California's Solyndra Corp., government support for wind and solar faced a mortal threat. Cheap solar panel imports from China — the same thing which actually doomed Solyndra — will make the industry's U.S. recovery less certain. Thanks to an effort to elevate Solyndra to the scandal-equivalent of a gold record by opponents of non-fossil energy, Solyndra briefly became the Peter Frampton of scandals: Awesome sales on an oft-repeated one-hit song. For the record, federal subsidies over the years for environmentally-contentious ethanol production are worth almost 40 Solyndras, federal oil and gas subsidies are worth eight Solyndras a year, and federal clean coal research to date has been 5.6 Solyndras.

As more people draw the link between climate change and disruptive weather, the cash outlay for droughts, fires and storms like Sandy could weigh heavily on policy and public opinion. Former EPA chief and two-term New Jersey Governor Christine Whitman doesn't see a climate turnaround as immediate, but she does think it's inevitable. Sandy's toll in her state alone is at least \$40 billion. "People are starting to wake up and say 'What's going on here?'" she said. "Much as I would like to think people would do it because it's the smart thing to do, economics will always be a deciding factor."

Stalemate in Public Opinion: Has a single sweaty, stormy, droughty, melty year been enough of a game changer to break the stalemate in Washington? Did it shake loose some media interest? We shall see. An early clue would be *Bloomberg Business Week's* jarring post-Sandy cover citing global warming. (<http://buswk.co/ZKraw6>). Another would be the announcement that the Hollywood dream team of producer Jerry Weintraub, director James Cameron, former governor/ex-alien cyborg Arnold Schwarzenegger, and Matt Damon, Don Cheadle and Alec Baldwin are teaming up for a climate documentary series to air on



Photo: © Roger Archibald

Visual Storytellers Open New Horizons

Enviro journalism taps tools like camera phones, SLR video, data visualization

By MICHAEL KODAS

Virtually every journalist interested in the environment recognized that 2012 was the 50th anniversary of Rachel Carson's "Silent Spring" — the groundbreaking book of investigative reporting on environmental issues. The year also saw a lesser-known anniversary of investigative environmental journalism. W. Eugene Smith's photo essay on mercury poisoning in Minamata, Japan, appeared in *Life* magazine in June 1972, under the headline "Death Flows From a Pipe."

Smith's photos documented the Chisso company's dumping of mercury into the ocean and the resulting poisoning of residents in the village of Minamata.

Like Carson, Smith was attacked for his work, in his case, physically. During a meeting scheduled between victims of "Minamata Disease" and executives from the company, men under orders from Chisso savagely beat Smith. His left eye was impaired for the rest of his life, and his injuries likely contributed to his death six years later.

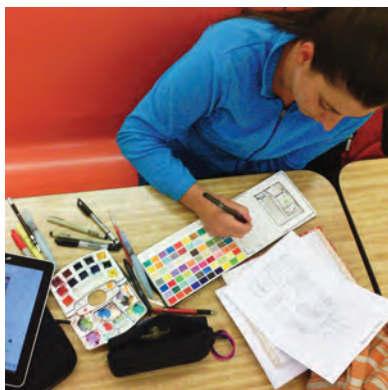
But his essay's influence on visual storytelling far outlasted his injuries. The photographic building blocks of Smith's essay — scene setters, details, expressions, sequences, action and reaction — remain the foundation of photo stories and essays today.

While some aspects of visually reporting on the environment remain the same, much has changed. Visual storytellers have a much broader range of tools than they did in the days of Smith's black-and-white photo essays, and the ability to show information in ways that the photographers at the *Life* magazine of old never dreamed of.

Reporting with a camera phone

Most notable is the fact that just about everybody has a camera with them all of the time. The ubiquitous cellphone camera has chewed away at the livelihood of photojournalists who lived only by the creed "f 8 and be there," — the visual journalist's equivalent of Woody Allen's quote "80 percent of success is showing up."

Today when a photographer arrives at a breaking news event, there are often dozens of cellphone cameras already aimed at the action. But the fact that someone has Instagram on their cellphone doesn't make them a good photographer, any more than knowing how to type makes someone a good writer. Reporting with a camera requires the ability to develop relationships with subjects, com-



Illustrator Emily Coren at work on location; utilizing CamScanner software in her smart phone, she can upload PDF files of her completed work to her blog WalkaboutEm.com while still in the field.

Photo: courtesy Emily Coren

pose storytelling elements, and capture the "decisive moment," just as it always has, and there's no app for those tasks.

Yet, in the right hands, even cellphone cameras can make important images. Dennis Dimick, *National Geographic's* associate editor for the environment, cites "A Grunt's Life," a photo essay of U.S. Marines in Afghanistan shot with a cellphone by *New York Times* photojournalist Damon Winter. In Dimick's view, the advantage of using the cellphone to make those photos was that it helped the photojournalist remain unobtrusive — he was just another guy making a cellphone photo — which allowed him to capture moments that would have vanished when faced with a huge DSLR camera with a big lens.

For many journalists — both those who work regularly with visuals and those who do not — a camera phone can make a photo of an interview subject or document a fleeting scene, and those might be the only images they require, or may be a valuable addition to other multimedia content. Writer Hillary Rosner was surprised recently when an international magazine called her asking to publish a photo from her blog she had snapped with her cellphone of one of her interview subjects.

Photographers becoming filmmakers

While the photographic technology in cellphones allows almost everyone to take pictures and video, new technology in digital still cameras has allowed photographers to become filmmakers. But if cellphone cameras help the imagemaker become unobtrusive, the gear required to make cinematic video with DSLR cameras — the digital version of the SLR cameras that have been the primary tool of photojournalists for decades — can make the photographer look like a cellphone tower.

Audio with DSLR cameras is notoriously poor, and no amount of beautiful imagery will keep people engaged with a video that has subjects who are difficult to hear. So good external microphones, and, occasionally, additional audio recorders are a must for making video with DSLR cameras.

Shaky video can also put off viewers, and the elaborate rigs required to stabilize the smaller cameras make them as big as old-school television cameras. Photographers used to shooting everything hand-held are often frustrated by the amount of time they need to use a tripod when shooting video. And when a DSLR camera is shooting video, the viewfinder on top is

inoperable, so the shooter must focus and compose using the LCD monitor on the back, which is often inadequate, so the most precise DSLR videographer will use an external monitor — a small computer screen attached to the camera.

But the larger sensors in DSLR cameras combined with their fast lenses can make video with narrow depths of field — very selective focus with heavily blurred backgrounds — that are similar to the images produced by full-sized movie cameras and are far more dramatic and help the filmmaker home in on storytelling details.

For many photojournalists, particularly those working on environmental and science stories, those advantages are worth the cumbersome equipment required to give the cameras adequate audio, stability and monitoring. And while the technology is complex, the addition of video to DSLR cameras has also brought more of the traditions of Gene Smith, and the *Life* magazine photo essay, to the world of video.

The artist's touch

Yet for some subjects, no amount of high-tech photographic equipment is going to make appropriately storytelling images. For things like concepts, subjects that are too small, large, complex or rare, or those that are difficult to make visually exciting in a photograph, sometimes an artist's touch can make all the difference.

Illustrators can show species so rare a photographer might never make an acceptable photograph of them. An artist, working with pencils, paints or programs, can create humorous narratives with simplified images like you would find in the comics of a newspaper, diagrams that show how machines or processes work, or renderings so lifelike and detailed, they seem like photographs.

Emily Coren, a science writer and illustrator based in Santa Cruz, Calif., finds illustrations useful to show views not visible to camera, such as the complexities of the universe or the details of microscopic chemical reactions. Coren finds that artistic renderings can highlight specific information and details about a species, or create an idealized, generalized picture of it or tell stories about it.

While Coren relies on paint and pen rather than the computers many illustrators now use, new technologies still play a big part in her work. Using a smartphone and a CamScanner, Coren can upload her art from remote locations as she completes it, and even allow viewers online to watch her work come together.

One of the greatest impacts of digital technologies on environmental journalism may be in the ability to visualize data. Using a computer, a graphic artist can create informational graphics in a few minutes that used to take hours or days by hand. Far from being the

pie charts and bar graphs of old, these graphics incorporate beautiful, storytelling photographs and illustrations to make their information more engaging and easier to digest. Online, info graphics can be interactive, or run as animations.

During the 2012 SEJ confer-

Somewhere inside, there's a camera—the expense of equipping a digital single lens reflex (DSLR) camera with all the paraphernalia necessary to produce professional-quality videos can easily exceed the original cost of the camera itself.

Photo: Redrock Microsystems

ence in Lubbock, Dimick created a dozen beautiful informational graphics in just a few hours using Keynote — Apple's version of PowerPoint. Non-fiction, a Dutch company, creates data visualizations, such as air traffic, stream flows or electricity demand, over videos. Using DBpedia, a site that brings together public databases of information from around the world, and the computer language SPARQL, Non-fiction can create visual representations of information from thousands of datasets and combine it with videos, photographs or animations.

Bringing it all together

With all of these visual media able to run online, projects are increasingly combining still photography, documentary video, illustrations and data visualizations into interactive, online journalism.

"Bear 71," an interactive documentary project created by Jeremy Mendes, Leanne Allison and the National Film Board of Canada, incorporates videos, still photos from camera traps, animated mapping of the travels of dozens of animals, and even its viewers' computer cameras into a digital map that they can navigate while following the life and death of a grizzly bear in Banff National Park. (Okay, the talking bear may not meet most journalistic standards.)

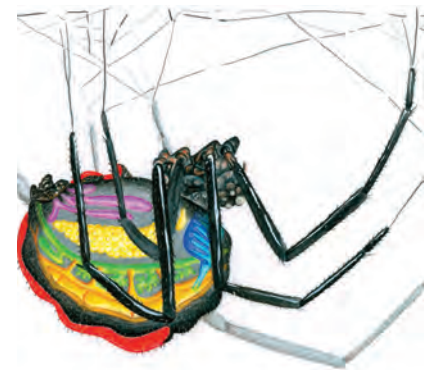
One of the most ambitious projects in online environmental journalism, the University of North Carolina's "Powering a Nation," has incorporated still photographs, videos, informational graphics and animations ever more seamlessly into its annual look at energy, and now water issues. The series' most recent installment, "100 Gallons," anchors its homepage with an ingenious concept video in which viewers can click on various points in the timeline to dive into written stories, interactive graphics, more in-depth videos and even a quiz.

Chad Stevens, an assistant professor for visual communication at UNC who is producing a documentary on mountaintop removal mining and advising the "Powering a Nation" project, sees the new technologies bringing a renaissance of visual coverage of environmental issues.

"It really is an exciting time and space to be working in right now," Stevens says.

We can only imagine what W. Eugene Smith would have done with this ever-expanding array of visual storytelling tools.

Michael Kodas is a Pulitzer-Prize-winning photojournalist, reporter and writer, author of the bestselling book "High Crimes: The Fate of Everest in an Age of Greed." He is currently working on a new book and multimedia project, "Megafire," which will be published by Houghton Mifflin Harcourt in 2014.



Illustrations can often convey visual information that cameras can't capture—Emily Coren's cut-away view of the major organ systems of the redback spider (*Lactrodectus hasselti*).

Illustration: © Emily Coren, WalkaboutEm.com

Obama's Second Term
Continued from Page 7

the Showtime network later this year. These two may be heralds of a groundswell of public, political and media interest in the environment. Or not. Lacking that surge of interest, Schaeffer is not hopeful of a second-term Barack Obama engaging more deeply on environment.

"I don't think the Obama Administration has any stomach for environmental issues," Schaeffer said. "They view (environmental) decisions as costing more politically than they'll gain. They treat all of this like they're swallowing castor oil."

Schaeffer concedes that much of the current turmoil may be out of the Obama team's control, though. "They inherited broken regulatory machinery from the Bush Administration just as the economy went south, then the House of Representatives flipped."

Who's at the Helm?: History is not on the side of Obama cabinet officials Lisa Jackson, Ken Salazar or Stephen Chu staying at their respective posts for another four years. Jackson's departure, for instance, was announced just before our press time on Dec. 27. Since the Reagan administration, only two EPA, Interior or Energy Department bosses have lasted for an entire two-term presidency, Clinton's Interior Secretary Bruce Babbitt and EPA chief Carol Browner. It seems the lure of less grief and more pay in the private sector tends to shorten the

tenure of the highest-ranking energy and environment officials.

One major player in the Congressional ideological wars is changing roles, as uber-climate denier Jim Inhofe has given up his seat as ranking member of the Senate Environment and Public Works Committee. Taking the Oklahoman's place is another oil-and-gas state senator, Louisiana's David Vitter. While Inhofe has steadfastly described climate change as a "hoax," Vitter might be better described as a climate skeptic.

In the House, Republican Lamar Smith is taking the reins of the Science, Space and Technology Committee, replacing fellow Texan Ralph Hall. Both men are on record as doubting widely accepted climate science. Environmental journalists take note: Smith founded and chairs something called the House Media Fairness Caucus, dedicated to stamping out objectionable reporting on a wide variety of issues. In 2009, Smith bestowed his "Lap Dog Award" (1.usa.gov/UIHEOT) on the news divisions of NBC, CBS and ABC for "liberal bias" in their reporting on climate science.

Only time will tell if the new chairman values fairness in science.

Peter Dykstra is a former SEJ board member and is publisher of Environmental Health News and The Daily Climate.



Is the ideological chasm over environmental issues leaving the country a house divided?

Photo: © Roger Archibald

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Natural gas-fueled trucks will soon travel the country on **America's Natural Gas Highway®**, a new network of 150 LNG stations being built in 2012/13 along interstate highways that connect major metropolitan areas coast-to-coast and border-to-border.

Truck transport operators have an important role to play in helping protect environmental quality and public health. Supported by an array of new natural gas truck models, and convenient access to the fuel that powers them, the way ahead for trucking fleets is clear.

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Keeping Up on Chemical Databases

Rich collection of online resources courtesy National Library of Medicine, others

It's the paradox of the Internet — it's so valuable because it's such a vast sea of information. Yet that vastness makes it difficult to keep up with all the resources out there. Longtime SEJ member Philip Wexler, technical information specialist at the National Library of Medicine, makes it his business to do just that when it comes to online databases on chemicals and their toxic properties that can be of use to environmental reporters.

Here are some of the resources Wexler shared with SEJers at the 2012 annual conference in Lubbock, Texas. Many are available at <http://toxnet.nlm.nih.gov>.

Hazardous Substances Data Bank: Offers detailed toxicology information on more than 5,000 chemicals, including human health and environmental effects, pharmacology and emergency medical treatment. Peer-reviewed by the HSDB Scientific Review Panel. A “flagship” site, according to Wexler. <http://nml.nih.gov/pubs/factsheets/hsdbfs.html>

TOXLINE: This one's a hardy perennial for those who explore toxics regularly and a must-check for any story you're doing that involves a chemical. Think bibliography here. TOXLINE reaches into a number of reputable sources and tells you what research shows so far. You'll get abstracts from studies available elsewhere, but there are some specialized databases here you might not find elsewhere including Federal Research in Progress (FEDRIP), Toxic Substances Control Act Test Submissions (TSCATS), Toxicology Document and Data Depository (NTIS) and Toxicology Research Projects (CRISP).

<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?TOXLINE>

TOXMAP: This geographic information system allows users

to map potential exposures in a given geographic region based on Toxics Release Inventory and Superfund sites data.

<http://toxmap.nlm.nih.gov/toxmap/main/index.jsp>

Household Products Database: A resource that tells you what's in consumer products. Describes itself thusly: “What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Learn more about what's in these products, about potential health effects, and about safety and handling.” Pesticides, auto products, deodorants — they're all there. Chemicals in individual products, and their percentages, are spelled out, along with information on the manufacturer and acute and chronic effects.

<http://householdproducts.nlm.nih.gov>

Chemical Carcinogenesis Research Information System:

If you're reporting on a cancer risk, go here. It's got studies on whether chemicals enhance cancer, promote tumors or cause mutations. Although it's useful to researchers, it is highly technical and, perhaps of less value to reporters and the public. <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CCRIS>

The Carcinogenic Potency Project: OK, so there are animal tests showing that mice get cancer if they swim in this gunk for weeks on end. (An exaggeration, but you get the idea.) This site helps translate those medical tests on animals into stuff humans might want to know.

<http://potency.berkeley.edu/MOE.html>

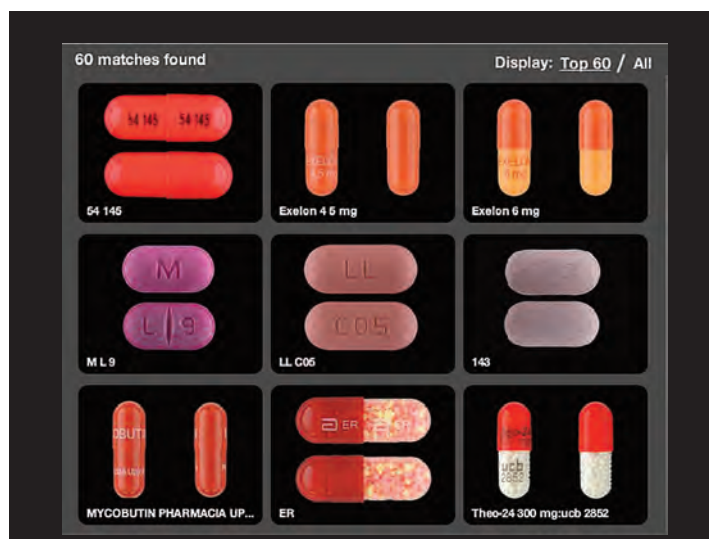
Toxipedia: A free toxicology encyclopedia whose goal is to “provide scientific information in the context of history, society and culture so that the public has the information needed to make sound choices that protect both human and environmental health.” It's a project of the Institute of Neurotoxicology and Neurological Disorders, whose founder, Seattle toxicologist Stephen Gilbert, offers on the Toxipedia site a free download of his book, “A Small Dose of Toxicology: The Health Effects of Common Chemicals.” <http://www.toxipedia.org>

Haz-Map: This National Library of Medicine resource is a go-to site if you're trying to find out how a particular chemical affects people in the workplace. A good place if you're looking for chronic job-related illnesses related to specific jobs or industries. Acute diseases and infections are linked to jobs but not industries. <http://hazmap.nlm.nih.gov>

ChemIDplus Advanced: This one provides substantial numbers of synonyms, database links, toxicological and other properties of some 400,000 chemicals.

<http://chem.sis.nlm.nih.gov/chemidplus/>

Chemical Hazards Emergency Medical Management: This is designed for cops and firefighters and other first responders who might have to deal with an incident that involves a Bhopal-like disaster. It's also possible to download this in advance if you think you might need something in a pinch or may be in an area where



By comparing observed physical characteristics of a pill with its database of high-resolution images, Pillbox enables rapid identification of unknown solid-dosage medications (tablets/capsules), and provides links to drug information available online. National Library of Medicine, NIH

Internet service has been disrupted.
<http://chemm.nlm.nih.gov/index.html>

World Library of Toxicology: Housed on the Toxipedia server, this site strives to link folks around the world who are looking for reliable information on the effects of chemicals globally.
<http://toxipedia.org/display/wlt/Welcome>

Wireless Information System for Emergency Responders: Doing a standup in front of that overturned rail car? You may be happy to know you can access this through your mobile phone, including info on more than 450 substances in the aforementioned Hazardous Substances Data Bank.
<http://wiser.nlm.nih.gov/index.html>

Tox Town: Want a down-to-the-basics explanation of why that dump smells? What's a maquiladora? Why should we care about cesspools (and exactly what are they, anyway)? You can find answers to all those and many more questions here. Designed for kids and the lay public.
<http://toxtown.nlm.nih.gov/index.php>

Toxlearn: If you want to dive deep and learn the fundamentals of toxicology, this site offers you the chance to go through a multi-module toxicology tutorial.

<http://toxlearn.nlm.nih.gov>

eChemPortal: This site, sponsored by the Organisation for Economic Co-Operation and Development, is an international effort. Users can search by chemical as well as by effects, physical chemical properties, environmental fate, ecotoxicity and other characteristics.

<http://oecd.org/chemicalsafety/assessmentofchemicals/echemportalglobalportaltoinformationonchemicalsubstances.htm>

Pillbox: Got a bunch of pills you can't identify? This NLM database allows you to figure out what you're dealing with. Search either by physical characteristics such as shape, size and color or by conventional terms such as drug name. Also provides inactive ingredients. <http://pillbox.nlm.nih.gov>

Radiation Emergency Medical Management: This one is your go-to site when Fukushima comes calling in your town, God forbid. But be glad it's there! Now, where was that Geiger counter?
<http://remm.nlm.gov>

Our thanks to Philip Wexler. You may want to see Wexler's book, "Information Resources in Toxicology," 4th edition, Academic Press, 2009.

SEJ
Members
Relocate, Win
Fellowships, Teach

Media on the Move



Two prominent figures on the Salt Lake City environmental journalism scene are relocating in the West.

John Daley, an SEJ member and reporter at KSL News in Salt Lake City, is headed for Denver. Third-place winner of SEJ's Outstanding In-Depth TV Reporting award in 2010, he also won the Ritzke Fellowship in 2001. And although Daley often rocked Utah's political world with his incisive reports, he also focused on environmental stories — even during a Knight Fellowship at Stanford ('07-'08) with his "Leadership in the Age of Global Warming" project.

Brandon Loomis of *The Salt Lake Tribune* also picked up stakes. The 2012 Grantham Prize winner, a self-described Alaskan-American, migrated to Phoenix, where he will take on environmental enterprise stories in the Grand Canyon State for the *Arizona Republic*. Before his departure in November, Loomis followed up on his award-winning series about the bark-beetle invasion killing North America's forests with a special section <<http://sltrib.com/sltrib/news/55084197-78/beetle-beetles-british-columbia.html.csp>> examining the devastation's spread eastward.

Freelance journalist and independent radio producer **Karen Schaefer** won a fellowship with the Institutes of Journalism and Natural Resources in June, 2012, to attend the Maumee Valley Institute, where she and fellow journalists learned about the agricultural sources of and solutions to Lake Erie's new algae blooms, as well as efforts to combat invasive Asian carp. The Ohio-based journalist also attended the SEJ/NOAA one-day workshop on climate

change in Cleveland and produced from it audio reports for NPR member stations in Ohio and Michigan. Also, *In The Fray*, an online magazine, published her first print story in more than 15 years — on an ex-offender viticulturist in Cleveland.

Brian Bienkowski has signed on with *Environmental Health News* and *The Daily Climate* as senior editor/staff reporter, joining Brett Israel in that role. Brian was a writer/editor for the Great Lakes Echo and a product of SEJ founding President Jim Detjen's environmental journalism program at Michigan State University. From his base in Lansing, Brian edits *EHN's* daily aggregation and files original stories for both *EHN* and *TDC*.

Wendee Nicole (formerly Holtcamp) participated in a three-day National Institutes of Health (NIH) Medicine in the Media program (prevention.nih.gov/medmediacourse), where she dug into statistics and interpreting medical studies and heard renowned speakers like psychiatrist Allen Frances and health reporter T.R. Reid.

Gary Wilson served as on-air commentator providing analysis for Detroit Public Television's coverage of Great Lakes Week in Cleveland. Wilson had provided similar commentary for the station in Detroit in 2011. More at www.greatlakesnow.org.

Since finishing her MFA in creative nonfiction at Goucher College this past summer, **Cara Ellen Modisett** has been an adjunct instructor in English at Ferrum College in southwest Virginia. Essays from her MFA project, "Reliquary: Essays and Elegies," have appeared in *Pine Mountain Sand and Gravel: The Mountains Have Come Closer* and the upcoming issue of *Flycatcher*.

John Messeder writes a twice-weekly column (Tuesdays and Fridays) for www.rockthecapital.com. Although other subjects occasionally creep in, the primary focus is on enviro-politics, Marcellus Shale gas and water issues.

Judy Fahys is environment reporter at The Salt Lake Tribune. Send an email about your latest accomplishment or career shift to fahys@sltrib.com

Are We Ready for



The Star Jet roller coaster plummeted into the Atlantic Ocean off Seaside Heights, N.J., after the Casino Pier amusement park collapsed during Sandy's landfall on October 29th. The mayor of the community now considers it "a great tourist attraction," and may seek to leave it where it is.

USAF Photo by Mstr. Sgt. Mark C. Olsen, New Jersey National Guard

What does Hurricane Sandy tell us about

By FRANCESCA LYMAN

When New Jersey yacht captain Jon Eisberg heard weather reports of a tropical storm named Sandy hurtling north on an ominous path along the Eastern seaboard, he swiftly shifted course and soon headed back home to the Jersey Shore, where this tropical cyclone — now upgraded to a superstorm — was predicted to take an unexpected perpendicular left turn west, and hit within 36 to 48 hours.

Back “down the shore,” in an inlet off Barnegat Bay, a mile west of the Atlantic Ocean, the captain rode out a rattling night of high winds and pelting rain as the upper, water-whipping edge of the counterclockwise-spiraling hurricane passed over his home in coastal Brick Township. But the seasoned skipper, who’d weathered plenty of storms, Nor’easters and blizzards in his years as a charter yacht-delivery captain, was unprepared for what happened next.

The Jersey shore resident had never, in his 40 years of living in this quiet tidal community, seen his home remotely close to



Eisberg's sailboat became a lifeboat when the floodwaters of Barnegat Bay forced him from his house. The morning after Sandy, the yard and bulkhead behind his Brick Township house were still submerged.

Photo: courtesy Jon Eisberg

the Next Superstorm?



What about coping with human health and social consequences of climate change?

being flooded. But hours after watching rains and storm surges pour down the road, engulfing his car and those of all of his neighbors outside, he'd see his house surrounded by a lake some five feet deep, like some sort of scene out of "Waterworld" with Kevin Costner. "I wanted to check on my own boat" (docked behind his house), he laughed, "but I would have had to swim to it."

More strangely, beyond his boat, a moonlit cloud-mass of sky lit up with a surreal red glow. "It was very spooky and frightening, and it took me a few minutes to realize that this was the color of houses, in the distance, on fire," he said.

Houses ablaze from broken gas mains, power outages from downed trees, homes flooded from tidal surges and/or overflowing rivers, and toxic waste spills would be just some of the immediate challenges that plagued towns and cities that came in the path of this hurricane as it barreled through.

As the floodwaters started gurgling into Eisberg's house, he wondered if his house would survive the night.

'This is what climate change looks like'

Sandy's death toll of 200 and the billions in projected financial losses are only the beginning of the storm's legacy. In Sandy's wake, disaster-preparedness officials are learning that even a supposedly sophisticated emergency-response system like New York City's can be overwhelmed by mega-storms that seem to be increasing in frequency.

For environmental journalists, this raises a prescient question: What can my community do to better prepare? How can my community prepare for the mental-health needs, and the other effects on human health that these storms increasingly pose?

The massive size and ferocity of this storm as it rolled up the coast raised questions in the minds of scientists as to whether it was a harbinger of the fiercer Atlantic hurricanes forecast by some to increase in this century as sea surface temperatures, storm surges and sea levels rise under climate change, as described in "Amer-

ica's Climate Choices: Adapting to the Impacts of Climate Change," by the National Academy of Sciences, 2010.

The consequences of Sandy will continue to unfold for years. Now that the floodwaters have receded and the toppled trees have been hauled away, residents still are dealing with profound mental and psychological stress, as well as the task of rebuilding their homes, replacing their cars and paying for it all—including doctors' bills. Kim Knowlton, a health scientist at the Natural Resources Defense Council, says events like Sandy tell us, "This is what climate change looks like and there's a real human health dimension to it."

The destruction wrought by this superstorm is a timely reminder of some of the threats climate change can pose to life and infrastructure. It begs important questions as diverse as whether to continue to site houses, buildings and hospitals in flood zones, and if new seawalls can really protect us as we face more and more dangerous storms.

It is also a keen warning of the indirect impacts of extreme weather events to human health, both immediate but also long-term and chronic.

Sandy struck densely populated places where people are not accustomed to coping with hurricanes and their enormous danger.

In New York City, police were answering 10,000 phone calls every 30 minutes, about ten times the average, many because of downed trees, according to *The New York Daily News*. Arboreal experts from Seattle and Portland, the land of giant trees and winter storms, had to be deployed in the aftermath of Sandy to help clear downed trees and limbs.

The Jersey shore and Northeast region hadn't seen a storm as

powerful in 50 years, said Ed Gabriel, principal deputy assistant secretary at the Department of Health and Human Services, whose agency provided medical personnel with pre-staged resources like ambulances and response teams of doctors, nurses and paramedics to affected coastal communities. "They were devastated and will be affected for a long time," said Gabriel.

"Attaching this storm to climate change, I can't do," added Gabriel, "but the development of a Category 1 hurricane in these flood zones, where the worst damage comes from surges," and "affecting the elderly, people with special needs, with great vulnerability," struck a huge toll, emotional and physical.

For weeks after Sandy, emergency medical teams were still responding in places where hospitals had to evacuate due to flooding, including several big hospitals in New York City, like NYU Medical Center and Coney Island.

Could Sandy be a harbinger of extreme weather events to come, which could become the new normal? And if so, how well prepared are American communities to cope?

Even 'prepared' cities not prepared

The storm also drew the issue of climate change out of the political deep freeze. The words "global warming," which had been left unsaid by both presidential candidates, were suddenly on everyone's lips.

New York City Mayor Michael Bloomberg declared, "Our climate is changing. And while the increase in extreme weather we have experienced in New York City and around the world may or may not be the result of it, the risk that it might be—given this



On the day after the hurricane, the flooded Chadwick Beach Island development on the N.J. shore north of Seaside Heights looks more like Venice, as witnessed by Governor Chris Christie during a damage inspection flight.

Photo by Tim Larsen, New Jersey Governor's Office

week’s devastation — should compel all elected leaders to take immediate action.”

Many writers and commentators noted that, while reporters and pundits avoided the words climate change, “Sandy spoke.” Was Sandy shorthand for Cassandra? — some asked.

“It’s Global Warming, Stupid,” read the headline on *Bloomberg Businessweek* news magazine in the week following the storm.

As the waters of Hurricane Sandy subsided, the newly re-elected President Barack Obama invoked the issue in his acceptance speech, “We want our children to live in an America that isn’t threatened by the destructive power of a warming planet.”

Observers would note later that Obama didn’t need to invoke the next generation since climate change’s effects were already happening.

“If Hurricane Sandy does nothing else, it should suggest that we need to commit more to disaster preparation and response,” read the editorial in *Bloomberg*.

NRDC’s Knowlton would agree. “This was the storm that no one was prepared for — not hospitals, who didn’t have generators on upper floors and depended on critical elements on lower floors, nor [people coping with] flood waters way beyond what was expected under the maximum storm surge,” she said.

Even though New York State had been making great efforts to be “climate ready,” and had identified flood zone places in harm’s way as part of an initiative to assess “potential health issues associated with climate change,” that was not adequate during Sandy.

“Even a prepared city with forethought was not prepared,” says Knowlton. “That’s part one of the really sobering story of Sandy.”

Art Kellerman, an expert in emergency preparedness in healthcare at the RAND Corporation, said hospitals need to look at their survivability in a natural or manmade disaster. “If you asked me the one city in America that has its act together, I would have said New York,” he told Reuters. “That tells you how much trouble we’re in, in Dayton and Detroit and Sacramento.”

Many poorer neighborhoods didn’t have the wherewithal to respond, even with departments of health and mental health working full tilt, adds Knowlton. “With often heroic efforts by many health professionals and people in transportation, they helped in many places,” she said. “But we haven’t made the priorities yet for delivery to all neighborhoods in the most affected areas.”

Storm drives home human health issues

To be sure, the hurricane was deadly to homes and property, damaging hundreds of thousands of vehicles, for example, especially in New York and New Jersey, and inflicting some \$70 billion in damage in those states alone. Hundreds of thousands of Connecticut, New York and New Jersey residents registered for housing assistance and other help, while within weeks of the storm FEMA had approved state assistance of some \$500 million.

However, it also drove home a variety of human health issues



Roofing blown off a Jersey City, N.J., building wrapped around a nearby statue of the Madonna. Photo: © Sharla Sava via Flickr

that relief workers, volunteers and survivors had to contend with in thousands of communities hit by a late-season storm. One of the first was the possibility of more storms, as another Nor’easter hit a few days later, with snow and cold that put people at risk of colds and fevers, prompting warnings from authorities to find warm shelter.

Health and Human Services’ Ed Gabriel said that the storm surges brought a “surge of patients” out of flood zones who would end up in hospitals and shelters outside their neighborhoods, or in “MASH” tents set up to serve them.

For this storm, said Gabriel, there were 2,300 emergency federal medics and assistants de-

ployed, ten times the number initially called upon. “That’s a large number,” he said weeks after the storm. “We’re still in the midst of responding so it’s hard to say, but I’d guess it’s bigger than Katrina.” The sheer geographic spread of the hurricane across a dozen states made it a standout among storms.

As the recovery effort proceeded in states most affected, federal and state agencies would be faced with growing problems of toxic or noxious substances, like oil, chemicals and raw sewage that the storm discharged into waterways, and the mold left behind in flooded or water-damaged homes and buildings.

Community activists and volunteers with churches often stepped into the breach, as detailed in “Occupy Sandy,” a docu-

A sobering thought, says one expert — even a city as prepared as New York was not prepared.



Hurricane Sandy was powerful enough to sweep away half of this brick house in Union Beach on northern New Jersey's Raritan Bay, including its masonry foundation, but curiously left undisturbed a satellite dish affixed to the roof of the building's porch. Photo: © Peter Massas via Flickr

mentary chronicling ordinary people grappling with the mess left in coastal areas, with boats washed up against houses, beaches ravished and houses filled with water damage, smells and mold.

"Everyone had this cough, which could have been from the mold and the septic that washed up, or exposure to all the gasoline and hydrocarbons in the water and air," says Josh Fox, documentary film maker and author of "Occupy Sandy," as well as "Gasland," a film about natural gas hydraulic fracturing, or "fracking." "It actually reminded me of the many people suffering from sinus infections and other ailments, like ringing ears, in fracking areas."

Warning clean-up workers and 'refugees' from their flooded homes in affected areas, labor activist Vincent Alvarez, president of the New York City Central Labor Council, issued tips for staying safe in the weeks of recovery that followed the hurricane.

"There is a wide range of hazards to which workers, volunteers and home owners may be exposed," Alvarez said, pointing to such diverse perils as electrocution, asphyxiation and exposure to toxic substances. Besides mold and bacteria, also of concern in many flood locations, are asbestos, lead and silica.

Another labor leader, John Durso, president of the Long Island Federation of Labor, recalled past emergency events like the terrorist attacks at the World Trade Center, Hurricane Katrina and Deepwater Horizon, where "there were significant gaps in responding to emergency worker and volunteer health and safety needs, resulting in tens of thousands of rescue and clean up workers becoming ill."

Flooded areas along the Gowanus Canal, a federal Superfund toxic waste site, and Newtown Creek, where sewage overflowed with storm water into nearby residential areas, posed significant threats to human health, said Joel Shufro, director of the New York Committee for Occupational Safety and Health.

Vulnerability to extreme weather

What Sandy is telling us about the public health consequences of extreme events in a climate-changing world goes far beyond such immediate details, however.

"People often get hung up on the question about how much climate change influenced Hurricane Sandy," says Daniel G. Huber of the Center for Climate and Energy Solutions, "but the clear overriding message from Sandy is our vulnerability to extreme weather and natural variability as well," whatever that environmental condition might be.

Storms and floods are just one aspect of the many impacts of climate change predicted to affect human populations with greater frequency and greater intensity, according to the Intergovernmental Panel on Climate Change (IPCC).

Droughts and heat waves, like those record-breaking temperatures seen across the United States last summer, are another. There's a huge assortment of health impacts of climate-change-induced extreme-weather events that researchers have been studying, primarily those related to heat waves, droughts and infectious

diseases transmitted by changing insect and animal migrations.

As Superstorm Sandy bore down on North America's east coast, the United Nations issued a reminder that storms and floods are just one side of the climate change coin – citing the possibilities that heat and cold waves, tropical cyclones, floods, droughts, other natural hazards can cause tens of thousands of deaths and hundreds of thousands of injuries globally each year.

Among the findings of a newly released U.N. report was that the likelihood of increasingly frequent heat waves hitting the planet would be four to 10 times as often by 2050 as today; the study also found that these impacts would be felt most strongly in the fast-growing vulnerable populations of aging and urban people, particularly in Africa, the Middle East and Asia.

"Many diseases including malaria, dengue, meningitis – just a few examples – these are what we call climate-sensitive diseases, because such climate dimensions for rainfall, humidity and temperature would influence the epidemics, the outbreaks, either directly influencing the parasites or the mosquitoes that carry them," said Dr. Margaret Chan, the director-general of the U.N. World Health Organization.

However, these real human health concerns often get sidelined in big international debates over climate change, where the focus is on melting Arctic sea ice, sea level rise, or larger environmental questions where the effects on humanity aren't so clear.

"Sandy has illustrated how narrow our view is of the real human impacts of extreme weather events," said Katharine Hayhoe, a climate scientist at Texas Tech University in Lubbock, Texas. Hayhoe charged that researchers looking at the intersection of public health and climate typically focus on the more direct impacts of global warming, such as heat stress, respiratory diseases from air pollution and infectious diseases like West Nile Virus and hanta virus. But they ignore bigger indirect impacts, like infrastructure disruptions in electrical power, gasoline, water, food, etc.

If we continue to see flooding as a "low-probability, high impact" event rather than a real risk to us in the future, with the doubling of category four and five hurricanes forecast by climate scientists, Hayhoe said, we'll fail to adequately realize the price tag in human terms and adequately prepare for, or prevent, such forecasts.

'A threat to the human race'

Sandy should make us much more sympathetic to the kinds of flooding episodes that routinely plague the developing world in places like Pakistan and Bangladesh, Hayhoe said. "If we knew what was coming, we'd be wishing for a few mosquito bites."

In December, at the deadlocked climate change talks at Doha, Qatar, U.N. Secretary-General Ban Ki-moon said the extreme weather was becoming "the new normal and poses a threat to the human race." In a speech to almost 200 nations meeting in Qatar, he cited record thaws in Arctic sea ice, superstorms and rising sea levels as "all signs of a crisis."

Today, Jersey Shore boat captain Jon Eisberg's shore community still looks like a disaster zone. Weeks after the storm, his neighborhood has been cleared of some of the worst damage — boats thrown off their moorings, floating debris. But, says Eisberg, there's still mud everywhere.

"The storm surges brought an ungodly amount of mud, and whatever was suspended in the water when the water receded," he

said. People joked that "Sandy" should be renamed "Muddy." Even that's a euphemism for the often-toxic "sludge," smelling of gas fumes, chemicals and bacterial odors.

Eisberg was lucky. The day after, he was able to wade to his "escape pod," his beloved 30-foot sailboat "Chancy," which had weathered the storm without a scratch, floating happily on water, and fully outfitted with power, warmth and stores of food. He was off the grid with solar panels and a wind generator on hand for the long haul, if the power wasn't restored.

Eisberg considers himself fortunate compared to many of his neighbors who either lost houses to the sheer force of the storm, or escaped with their lives as they retreated to attics, left marooned by flooded cars. His elderly neighbors Betty and Bob lost their home on Barnegat Bay to raging five-foot waves, something unthinkable before Sandy. "How do you come back from that in your mid-seventies?" Eisberg asked.


Thankfully, he was far enough away from the peak waves that came at the same time as a full-moon high tide, with storm surges that swept over barrier beaches, destroying beach homes, devastating bridges, piers and roads, and re-carving the coastline.

"Events like Sandy really make us aware of our sense of vulnerability and our dependency on systems that we have little control over," he said.

Francesca Lyman is a journalist and author of The Greenhouse Trap, with World Resources Institute, and Inside the Dzanga Sangha Rain Forest. She has covered global warming for magazines since 1984, when her research on sea level rise and storm surges led her to hydrologists in the Carolinas who forecast the kinds of effects seen with Hurricane Sandy. A panel discussion at the SEJ 2012 annual conference in Lubbock, Texas, on Climate Change and Public Health led to this article. She can be reached at chicha19@comcast.net.



A fish out of water—a post-storm fall foliage still life captured in a Long Island, New York front yard with a smartphone camera.

Photo:  IslesPunkFan / Neil R via Flickr

Members Helping Members: SEJ's Mentor Program

When Bill Lascher, a freelance writer and multimedia storyteller based in Portland, Ore, first struck out on his own in 2009, he was eager to find a mentor. "I'd seen how much friends and family in other professions benefited from mentorships, and I was hungry for the same sort of engagement, especially as I tried to steer my career without the support one gets from a team of professional colleagues," Lascher recalled.

"After lots of what I now realize was inexplicable hesitation, I joined SEJ and reached out to the mentor program," he said. "Almost immediately, they put me in touch with Valerie Brown." A fellow science writer, Brown lives only an hour away from Lascher in Salem.

Lascher read some of Brown's work and "was excited by the way she weaves clear explanations and compelling storylines together. Her work makes complex topics simultaneously informative and compelling. It was the kind of storytelling I'd gone to school for, but I wasn't doing much of it."

Like most of SEJ's one-on-one mentoring partnerships, this one began with phone conversations and email threads. "We rapidly progressed through the minimal set of exchanges requested by the SEJ mentorship coordinators, and had several highly collegial coffee meetups," Brown said.

At their first coffee, Lascher appreciated that Brown treated him like a colleague: "We talked about successes, but also challenges, and that openness mattered to me. Since we're both freelancers, this opportunity to support each other's penchant for long-form narrative was welcome. We could both brainstorm how to weather a tough market."

Discovering the rewards of mentoring

During their one-year partnership, Brown helped Lascher revise pitches and stay on task with complex projects while welcoming him into the SEJ fold. "She turned me on to the community and resources available through the SEJ mailing lists and has helped me make the most of the two conferences I've attended," he said. "She remains as interested in my opinion on her work as I am eager for the feedback she provides on mine. Nothing compels Valerie to support me like this, except for her respect for me as a fellow narrative writer who values science and wants to tell the truth while spinning a good yarn."



Oregon-based freelance science writer Valerie Brown is one of 85 mentors in SEJ's Mentor Program, which matches experienced environmental journalists with newcomers to the beat. She became Bill Lascher's mentor in 2010 after he launched his freelance career.

Photo: courtesy Valerie Brown

At the outset of the partnership, Brown says she felt she had little to offer people at the beginning of their environmental journalism careers. "My own career has been a late bloomer, but Bill seemed to get something out of my rambling on subjects such as how to evaluate a possible opportunity if one is getting that 'uh-oh' feeling."

Like many SEJ mentors, Brown found that the rewards of mentoring go beyond good karma. "I've found Bill to be full of energy and enthusiasm, willing to try all kinds of new approaches and driven by big ideas, but very interested in their small-scale convolutions. So it's

been fun on my end, and reassuring to see younger writers determined to plow through the financial and ethical morass that is the new journalistic landscape."

Their partnership officially ended a year ago, and Lascher may soon be ready to take on a "mentee" of his own. SEJ's mentor program currently has 85 mentors enrolled, including some of the nation's most experienced environmental journalists. It has served 170 mentees since its inception in 2002.

The program's volunteer coordinators, freelancers Jane Braxton



Amidst the chaotic din of the first Occupy Portland protest in 2011, Bill Lascher focused on contributing coverage of the event to the Portland Mercury's live blog.

Photo by Yasmeen Hanoosh

Little and Dawn Stover, make matches based on types of work, special interests, geographic proximity and other factors. Volunteer mentors agree to be contacted by their mentees at least four times during the year-long partnership and may be asked to critique pitches or stories, offer professional advice or act as a sounding board for special projects.

In recent years, the mentor program has received a growing number of requests for mentoring from successful freelancers and experienced investigative reporters, and has been recruiting mentors with those skills. The program recently entered into a partnership with the Fund for Investigative Journalism, with SEJ providing mentors for FEJ grantees whose projects focus on environmental issues.

SEJ also recently received funding from the Gannett Foundation to enrich the mentor program for multicultural journalists who

are new to environmental journalism. This funding will provide resources for welcoming newcomers and bringing them together with mentors at the 2013 annual conference.

SEJ's mentor program is open to all members. Joining the program as a mentor or mentee is as simple as filling out a brief online application. To ensure a successful partnership, would-be mentees are urged to be as specific as possible about what they hope to learn from a mentor. To apply, visit <http://www.sej.org/initiatives/mentor-program/overview>



In the calm of his home, Bill Lascher plies the keys of a 1930 Corona typewriter that once belonged to dashing Time Magazine correspondent Melville Jacoby, a relative, who died tragically at 25 in 1942 after surviving a harrowing escape from the Philippines. You can contribute to his book project on the man at <http://lascheratlarge.com/melville>.

Photo: courtesy Bill Lascher

Knight-Risser PRIZE

for Western Environmental Journalism congratulates



Wyoming writer Emilene Ostlind and wildlife photographer Joe Riis on winning the 2012 prize for: "Perilous Passages," a two-year project on the pronghorn antelope migration in Wyoming.

The **Knight-Risser Prize for Western Environmental Journalism** recognizes excellence in reporting on environmental issues and stories in the North American West—from Canada through the United States to Mexico.

The prize is open to print, broadcast and online journalists, staffers and freelancers. The **\$5,000 prize** is awarded at the annual **Knight-Risser Prize Symposium at Stanford University**.

Deadline for entries: **MARCH 15, 2013**

For more information visit: http://knightrisser.stanford.edu/eligibility_guidelines.html

The Knight-Risser Prize is sponsored by the John S. Knight Journalism Fellowships and the Bill Lane Center for the American West at Stanford.

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“Yet here we are today to celebrate 10 years of clean diesel effort.” – **Margo Oge**, FORMER DIRECTOR, U.S. EPA Office of Transportation and Air Quality (October 20, 2010)

“If one-third of all vehicles in the USA were already clean diesel vehicles today, we would be saving 1.4 million barrels of oil every day.

“That’s the same amount of oil we import from Saudi Arabia, so this is a big deal.”

– **Ray LaHood**, SECRETARY, U.S. Department of Transportation (May 31, 2011)



“For the past decade, we have been setting stringent diesel engine emission and clean fuel standards...Thanks to this progress, California is on track to reduce the health risks associated with exposure to diesel exhaust by 85 percent by the year 2020.” – **James Goldstene**, EXECUTIVE OFFICER, California Air Resources Board (February 28, 2012)



The New New Deal:

The Hidden Story of Change in the Obama Era

By Michael Grunwald
Simon & Schuster, \$28

Reviewed by TOM HENRY

President Barack Obama's first-term \$787 billion stimulus may not have had an impact as obvious as Franklin D. Roosevelt's New Deal, lacking a project as visible as the Hoover Dam. But Michael Grunwald's meticulously researched and well-written book has convinced me it should not be relegated to a footnote in history. Indeed, it was historic, effecting change in education, health care, energy production, transportation and many other facets of society.

There are many fascinating aspects to this book, not the least of which is the recurring theme of how Obama is not nearly as liberal as his critics claim and surely does not deserve the socialist label. Grunwald presents evidence of how Obama got scorned by some fellow Democrats for his near-obsession with bipartisanship, naively expecting to get something in return from Republicans, politically, for the number of efforts he made to accommodate them.

Readers also learn how amazingly random the stimulus figure was, based not so much on an economic sweet spot but on what could realistically get approved by Congress. Several experts of Keynesian economics — those who adhere to the belief that government has the duty to occasionally jump-start sluggish markets through spending — had implored Obama to have a much bigger package.

Of special note to Society of Environmental Journalists members are lengthy segments of the book devoted to energy production.

The Solyndra scandal was represented for political gain as an overblown failure, though it was part of a fledgling industry that was bound to have winners and losers anyway. Solyndra tried to be too much, as Grunwald points out, and failed because of a poor business model. He presents evidence of how solar has performed admirably as an industry, as have other types of green power.

Grunwald's research shows how the stimulus succeeded in setting America off on a historic transition to a low-carbon economy,

from electric vehicles to algae-based biofuels for Navy ships.

Grunwald puts the Obama stimulus into a proper historical context, astutely pointing out how the Great Depression was well under way during the Herbert Hoover administration before Roosevelt became president. Obama was forced to chase a moving target from the mess handed to him by George W. Bush following the Wall Street collapse of 2008; the country likely would have sunk a lot deeper before hitting rock bottom if it hadn't been for the stimulus.

It is, of course, impossible to prove unknowns. But economic indicators pointed to a crash in the works that would have been every bit, if not more, devastating as the Great Depression. The greatest value of the stimulus might have been its ability to stop the carnage of a bleeding economy.

Grunwald, a *Time* magazine senior national correspondent, credits research assistant Walter Alarkon with a big assist for this book. Grunwald said he did more than 400 interviews, in addition to combing through thousands of pages of documents to unravel this complex tale. He does so with bright, authoritative writing that offers a lot of personality and color to go with an amazing array of hard facts.

"The New New Deal" is an achievement that should stand the test of time, much like Grunwald's much-heralded first book, "The Swamp: The Everglades, Florida, and the Politics of Paradise."

Tom Henry is an editorial writer-columnist for The (Toledo) Blade. He is a member of SEJ's board of directors and SEJournal's editorial board and is SEJournal's book editor.

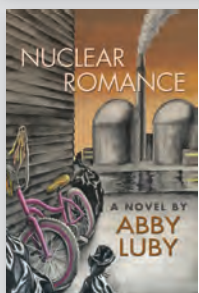


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Nuclear Romance

by Abby Luby
Armory New Media
nuclearromance.wordpress.com

A newsman grapples with reporting about an aging nuclear power plant while becoming involved with a woman from the anti-nuclear movement.

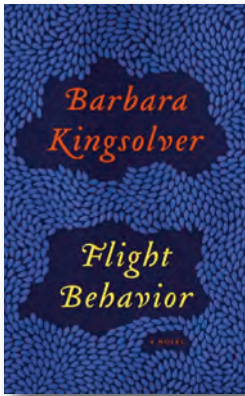


Japan's Tipping Point:

Crucial Choices in the Post-Fukushima World

by Mark Pendergrast
Nature's Face Publications
markpendergrast.com/japans-tipping-point

Can Japan radically shift its energy policy, become greener, more self-sufficient and avoid catastrophic impacts on the climate? An eye-opening first-person investigation and call to action.



“Flight Behavior”

By Barbara Kingsolver
HarperCollins, \$28.99

Reviewed by JENNIFER WEEKS

Remember Michael Crichton’s 2005 techno-thriller novel “State of Fear,” which featured eco-terrorists creating artificial disasters to convince people that climate change is real? “Flight Behavior,” the eighth novel by award-winning writer Barbara Kingsolver, is an antidote — a

vivid, but non-sensational story about climate change. There’s a healthy dose of science, but ultimately the book is about faith and what people choose to believe.

Kingsolver frames the story differently from most other novelists who have written about climate change. “Flight Behavior” is set in the present, not in a post-apocalyptic future, and climate shifts are not manifested by thousand-year storms or collapsing icebergs.

The book is the story of Dellarobia Turnbow, a young wife and mother in rural Tennessee who is bored and stifled caring for two small children on her family farm. Dellarobia decides to have an affair. But when she walks up into the woods behind her house for a rendezvous, she sees what appears to be a miracle: a valley glowing orange, seemingly dipped in flames, looking “like the inside of joy.”

As it turns out, the vision is masses of monarch butterflies that have shifted from their usual migration path. Locals see their arrival as a religious miracle (and, maybe, a warning against plans to clear-cut the hills). Then Ovid Byron, an entomologist who has studied the monarchs for years, arrives with a different explanation: the butterflies are wintering in Tennessee instead of their usual zone in Mexico because climate change is altering their range.

Byron sets up a makeshift lab on Dellarobia’s farm. Curious about how such a beautiful event could be a bad sign, Dellarobia (who had planned to go to college before getting pregnant at 17) starts working for the researcher and his graduate students. Kingsolver uses these scenes to show the slow, detailed process of scientists at work — marking transects on the ground and counting insects in each square, examining butterfly wings under a microscope to count parasites, and so on.

As Dellarobia numbers and weighs samples, readers see how researchers pose theories and look for evidence. They also see science’s limits. Parasites may be sapping the butterflies’ strength, and warming temperatures may be making infestations worse, but Ovid Byron refuses to jump to conclusions. “All we can do is measure and count. That is the task of science,” he tells Dellarobia..

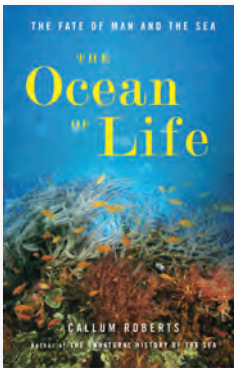
Many themes in “Flight Behavior” will be familiar to environmental journalists. Scientists do care about the big picture, and they get frustrated when the public doesn’t take climate change seriously and reporters over-simplify things. When Dellarobia pushes Ovid Byron to talk to a local TV reporter who asks whether global warming is real, he blows up at her and the interview becomes a YouTube sensation.

But Kingsolver, who lives in Appalachia, also shows why climate change is a low priority for many Americans.

As Dellarobia learns more about the butterflies and how their detour may be connected to other climate shifts, her world view widens, and she starts to question many of the assumptions that her life is built on. It’s an unsettling process: Dellarobia feels herself “flung away from complacency as if from a car crash.” It would be easy to turn her into a born-again climate change activist, but Kingsolver sets Dellarobia on a more believable flight path, with parallels between her life and that of the butterflies.

“Flight Behavior” is satisfying to read because the climate message doesn’t overwhelm the storytelling. Kingsolver’s characters have real dimensions, and Dellarobia’s journey is as compelling as that of the monarchs’. This book sets the bar for climate change in fiction.

Jennifer Weeks is a Boston-based freelancer and a member of SEJ’s Board of Directors.



The Oceans Of of Life:

The Fate of Man and the Sea
By Callum Roberts
Viking Adult, \$30.

Reviewed by CHRISTINE HEINRICHS

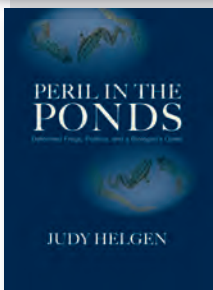
Whether you read only a single book or are actively engaged in reporting on marine issues, Callum Roberts has organized the material for you in “The Ocean of Life: The Fate of Man and the Sea.”

Its initial summary of the state of the oceans is a discouraging tale of assault leading to ecosystem collapse. “The scale of our ignorance of these interconnections is breathtaking,” wrote Roberts, whose first book, “The Unnatural History of the Sea,” won SEJ’s Rachel Carson Environment Book Award in 2008.

But after piling up facts, he presents solutions and points the way to a better future “to reverse long-term trends of depletion and degradation ... and improve the quality of everyone’s lives.”

Roberts sets out to examine assaults being committed against

SEJ Member Books

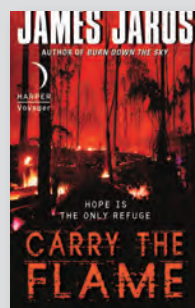


Peril in the Ponds

Deformed Frogs, Politics, and a Biologist’s Quest

by Judy Helgen
University of Massachusetts Press
judyhelgen.com/book-peril-in-the-ponds

A government biologist gives an insider’s view of the highly charged, controversial issue, deformed frogs, that aroused the public, politicians, media and scientists.



Carry the Flame

by James Jaros
Harper Voyager
harpercollins.ca/books/Carry-Flame-James-Jaros

A thriller set after climate change has triggered a worldwide collapse of natural systems. “Gutsy,” Publishers Weekly. “Stunning,” The Big Chill, International Thrill Writers Magazine.

the ocean, overfishing and acidification being among the worst. Also examined are littering issues, such as plastic garbage entangling animals on the outside and choking their digestion on the inside. Roberts wrote about how 250-decibel seismic testing for oil and gas reserves added to ship noise, and how wind turbines interfere with marine animal communication.

Other issues include invasive species and increased disease in an environment already compromised by sludge dumping, plus dead zones caused by agricultural runoff. Seabed mining is on the horizon, ready to add its destructive effects to the mess.

“The sea is becoming more hostile to life, and not just for the creatures that swim, scuttle or crawl beneath the waves, but for us, too,” he wrote.

Roberts spends the second part of the book on conservation measures that are succeeding. Ultimately, he projects that a third of the oceans needs to be protected to sustain fisheries’ production and protect diversity. That would be a big step up from the current level of 1.6 percent under protection.

“We must reinvent the concept of social responsibility for a crowded planet,” he wrote. He provides evidence that, with protection, even depleted fish stocks and bleached coral reefs can recover.

Roberts has been compared to Rachel Carson for his poetic writing. His enthusiasm shines through: News that six high-seas areas covering 111,000 square miles of ocean have been protected prompted him to write that he “felt like pulling my shirt off and running around the room in a soccer player’s goal celebration.”

The book opens by bringing the reader along on his honeymoon, doing fieldwork research on Australia’s Great Barrier Reef. His enchantment is dashed over the years, as warming oceans bleach corals and devastate that ecosystem. His description of tingling skin as copepods swarmed over his body — a sea of juicy plankton that attracted manta rays in the Maldives — made my skin tingle, as well.

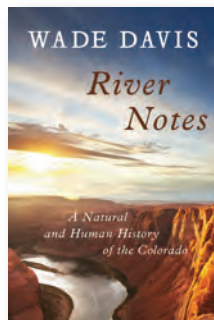
Photos in “The Oceans of Life” show how fishing has changed. From goliath groupers to snappers and grunts measured in inches, fishermen pose proudly with their catch.

The final third of his book is devoted to a bold and ambitious plan to rebuild seas. In addition to the evidence for marine protected areas, he explores the shifting political winds that influence whether they are protected well enough to make a difference. He addresses consumer confusion about consuming fish more thoughtfully, despite the pitfalls. He cites a dinner given by wealthy philanthropists for conservationists and government officials to discuss overfishing, which began with what was billed as “hand-dived Loch Fyne scallops,” but turned out to be the bounty of a scallop dredge, a wasteful and destructive method, “embarrassment served with the very first course.”

“We don’t have to look on helplessly as all that we love about

the sea is sullied,” he writes. “Change for good is within our reach.”

Christine Heinrichs is a freelance writer and SEJ member based on California's Central Coast. When she isn't in the backyard with her chickens, she's out observing elephant seals and otters.



River Notes:

A Natural and Human History of the Colorado
By Wade Davis
Island Press, \$22.95

Reviewed by SHANNA LEWIS

In his aptly titled book, “River Notes,” Wade Davis meanders through stories and images from the history, geology, culture and politics of the Colorado River.

The *National Geographic* explorer in residence opens his notebook and describes what the river once was and what it has become.

Starting at the river’s end, he describes the lush delta seen by conservationist Aldo Leopold in 1922. Davis conjures the memory of a place where jaguars and wild boar were among hundreds of species roaming acres of willow, mesquite and cottonwood, where the sea harbored a profusion of fish, and where the Cocopah people hunted and farmed.

Then Davis turns to the present. Plugged upstream by the mighty Hoover Dam, the reviled Glen Canyon Dam and dozens of other diversions, the Colorado’s once abundant mouth has become a barren mudflat broken only by the tough invasive plants that grow in salt-poisoned soil.

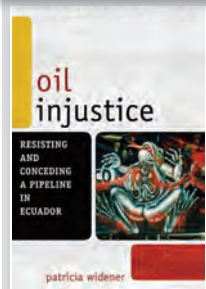
The river is now a trickle of contaminated water seeping into a sea where marine life has fallen by 95 percent.

After lamenting the loss of the delta, Davis looks back upriver, recounting the triumphant construction of the Hoover Dam as the nation pulled itself through the Great Depression.

Then he paints a blunt comparison with the troubled Glen Canyon Dam project that followed a few decades later.

Each section of this book is punctuated by quotes from others who also know or knew the “American Nile.” The voices of Leopold, John Wesley Powell, Wallace Stegner and others frame Davis’ observations and opinions, giving a focus and perspective to the story of the river. Davis says although the Columbia is bigger and the Rio Grande longer, the Colorado surpasses both in status as the river of the American West. It is the most regulated river on the planet, with some 25 dams. It’s the water source that feeds, powers and slakes the thirst of some of the West’s largest cities.

SEJ Member Books



Oil Injustice:

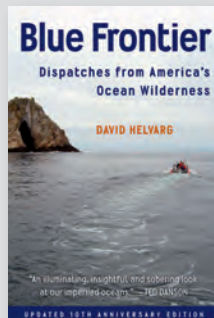
Resisting and Conceding a Pipeline in Ecuador

by Patricia Widener

Rowman & Littlefield

amazon.com/Oil-Injustice-Resisting-Conceding-Environmental

Author examines the mobilization efforts of communities in contesting, redefining and conceding Ecuador’s oil path during the construction of a cross-country pipeline.



Blue Frontier

by David Helvarg

E-Book, available on all platforms. Booklr
powells.com/biblio/1-9781578051571-1

David Helvarg’s acclaimed *Blue Frontier* — *Dispatches from America’s Ocean Wilderness* sails anew in this updated 10th anniversary edition

As the source of life for much of the desert southwest, more water is exported from its basin than any other river in the world. Davis boils down the Southwest's growing water crisis to "cows eating alfalfa in a landscape where neither really belongs."

It's a surprise, and perhaps a touch disappointing, to learn that explorer John Wesley Powell's amazing account of his harrowing travels down the Colorado River in the 1870s was written a couple of years after he actually made these expeditions, and he conflated events from several trips into one journal purported to be a daily diary. Yet, Davis' admiration for Powell's genius, spirit and accomplishments is clear.

Woven into an account of his own journey through the Grand Canyon, Davis explains the geologic forces at work there, as well as the spiritual relationship of the Anasazi and other early people with the Colorado. Billions of years of geology are compressed into just eight pages.

However, Davis takes his time with the origins of water law in the West and places it into the saga of the Mormon mission to make the desert green and build settlements in the dry wilderness, a philosophy that helped create the agencies and water laws still controlling water in the West today. He explains the plan that, in 1922, divvied up the waters of the Colorado River among seven states and Mexico — creating challenges still being sorted out 90 years later.

In the end Davis says, "For nearly one hundred years we have sacrificed the Colorado River on the altar of our prosperity. Surely it is time to shatter this way of thinking and recognize that the river's well-being is our prosperity...we must let the river flow."

Shanna Lewis is an independent radio producer, freelance photographer and SEJ member based in Pueblo, Colo.

SEJ President's Report
continued from page 4

league. Specific purposes noted in the articles of incorporation include educating journalists reporting on the environment so they can better inform the public and encouraging discussion between journalists and the public on important environmental issues.

A lot has changed in the decades since SEJ was started, and the organization will continue to make changes to better serve its evolving membership and public understanding of environmental issues. But those basic incorporation principles continue to be what SEJ is all about.

We will need to prioritize our programming to meet budget limitations and that will be painful. We will need to be innovative to succeed in the long term, and that will be exciting. But SEJ remains a strong and vibrant organization dedicated to helping journalists understand and report on the environment independently. And I hope I speak for all members, and not from some high horse, when I say we can't quit that.

Don Hopey has covered the environment beat at the Pittsburgh Post-Gazette since 1993. He also teaches an environmental issues and policy class with a writing component at the University of Pittsburgh, and for the last five summers has been an instructor for the public lands issues and fly fishing section of the Pitt Honors College Yellowstone Field Course.



**The Dilbit Disaster:
Inside the Biggest Oil Spill You've
Never Heard of**

InsideClimate News
by Elizabeth McGowan & Lisa Song
<http://bit.ly/VDYiyo>

This narrative page-turner on the million gallon spill of Canadian tar sands oil into the Kalamazoo River explains why and how the U.S. is not prepared for the flood of coming imports.

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Covanta Energy is the leading Energy-from-Waste (EfW) company in North America and we are not resting on our laurels. In 2007, we launched the **Clean World Initiative**, our corporate commitment to continuously improving our environmental, health and safety performance through community partnerships, research & development and recycling. Here are some of our achievements:

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Through our Mercury Bounty initiative, we partner with municipalities to divert mercury-containing devices from the waste stream via free community collection events. We also issue gift cards to help offset the cost of purchasing new digital thermometers.

These programs have removed over 241,000 pounds of toxins from the waste stream.

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One ton of post-recycled municipal solid waste processed at our EfW facilities reduces greenhouse gases by one ton. Thus far we have reduced over 350 million tons of GHGs.

Protecting Natural Habitats



Covanta partnered to form Fishing for Energy, a program that reduces the amount of fishing gear and marine debris that inadvertently ends up in U.S. coastal waters by providing free gear collections at ports near our operating communities. Materials that cannot be recycled are recovered for energy at our nearby EfW facility. To date, over 1 million pounds of derelict or unwanted fishing gear has been collected.

Materials that cannot be recycled are recovered for energy at our nearby EfW facility. To date, over 1 million pounds of derelict or unwanted fishing gear has been collected.

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Are We Ready for the Next Superstorm?



While Hurricane Sandy wreaked havoc on the New Jersey shore, destroying homes and driving thousands of people into shelters, the primary impact of its tidal storm surge on New York City was the loss of electrical power. Two days after its passage, the towers of lower Manhattan, illuminated only by traffic in the street, were still dark as evening fell on Halloween. Lacking operating subways, a steady stream of residents-turned-refugees was forced to head uptown on foot, as batteries in their smartphones, tablets and laptops became depleted. Seeking neither food nor shelter, but rather powered electrical outlets, they gravitated toward any working plug they could find outside the blacked-out zone. In recognition of the day, employees at one functioning midtown Apple Store that helped accommodate their needs affectionately dubbed them, "the walking dead." For more about what this storm may tell us about the effects of climate change on infrastructure and human health, go to page 14.

Photo:  Robert Francis via Flickr