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Interviewing scientists

A primer on finding and building a stable of science sources

By ROBIN MEJIA

How do we help our readers get through complicated science to understand what's really going on at the local landfill or manufacturing plant?

Of course, I would suggest joining SEJ, especially to take advantage of our listserv.

But the best answer is one that most of us know, but don't necessarily practice: Build a stable of sources whose background and reliability you know, sources who can help you wade through conflicting reports when you run into them on deadline.

Many of us, though, have never learned how to find and evaluate scientists and how to build relationships with them. That's what I'm going to discuss here.

Obviously there's a lot of variability in any group as large as the one covered by the moniker "scientist," so I'm going to generalize. But if you're not used to interviewing scientists, I hope this will be a helpful primer.

As in any discipline, some scientists are natural explainers. But many very smart research scientists have little experience being interviewed. Many aren't used to discussing their research (or someone else's work) with the public — that is, in plain English.

Some scientists are downright wary of the press. Unless they are directly involved in pharmaceutical development or biotech, most scientists have little to gain by getting to know you. Unlike politicians, contractors and environmental group leaders, their prestige is tied to their research publications, not quotes in the popular press. Some actually fear the press.

That said, you can find researchers who will happily spend hours helping you understand the intricacies of coastal erosion, gene drift from genetically modified crops or the real likelihood of an asteroid hitting the planet. I'll get to how to find these folks in a bit. Right now, I'll start with the interview.

The Interview

When you do find the perfect, fact-focused researcher with no agenda, it's likely that he or she may have little experience dealing with reporters. More and more universities seem to be providing media training. But it's still quite common to find a scientist who is surprised you found them and less than prepared for a deadline interview. I once called a metallurgist two days after I saw him present a paper at a scientific conference. I had (Continued on page 22)

Inside Story:

Doing investigations while covering the beat pays off

By MIKE DUNNE

Perry Beeman of the *Des Moines Register* says a good beat reporter keeps his or her eyes open for "classic watchdog stuff" as they go about the daily business of reporting on the environment.

Beeman's work during 2002 included a lot of that classic watchdog stuff and was chosen "outstanding beat reporting, print" in the 2003 Society of Environmental Journalists annual awards contest.

In nominating Beeman for the award, *Register* Editor Paul Anger said: "Nothing in Iowa is more important than the land, which provides livelihood and recreation for state residents — and food for the world.

"So it is that little in Iowa is more controversial, important and emotional than stewardship of the land and the water that sustains it.

"Des Moines Register environmental reporter Perry Beeman is the leading watchdog of that stewardship and the foremost expert on the controversies surrounding land care," Anger's nomination letter said.

The stories in the entry included:

- A package of stories about how agricultural and other interest groups suppress research that might negatively impact their sectors. The stories focused on several cases in Iowa as well as elsewhere around the U.S. The headline: Ag scientists feel the heat.
- A chronicle of the state's poor support of the Iowa Department of Natural Resources. "The Legislature and governors use a pattern of spending limits and toothless regulations to stymie the state agency responsible for protecting Iowans against pollution, past and present leaders in the Department of Natural Resources say," read Beeman's lead. Headline: State seen as thwarting environmental efforts.
- Finding antibiotic-resistant bacteria in Iowa lakes through testing conducted by *The Register*. It was the first indication that such bacteria are spreading to Iowa's recreational lakes. Headline: State-lake tests detect "superbugs."
 - Disclosing that the state left five lake beaches open during (Continued on page 20)

INSIDE: Environment on TV • EJ in Canada • EPA sourcing • The Beat

SEJ strengthens links to academia and students

By DAN FAGIN

Standing up in front of a class of environmental journalism students can be a humbling experience. I remember the first time I tried it, on my first day as an adjunct at New York University six years ago. What should I tell them? My mind was a jumble of disjointed ideas, and they all seemed so important:

Make friends with the secretaries.... Don't bury the lede.... Know the difference between ground level and stratospheric ozone.... Always carry an extra pen.... Understand joint and several liability.... Find out who paid for the study.... Never trust an editor....

On and on and on I went, for two and one-half rambling hours, until I was hoarse and suffering a splitting headache. By then, judging from their expressions, most of the students had headaches, too.

Anyone who thinks it's easy to teach journalism — especial-

ly a specialized form of journalism such as the environment beat — hasn't tried it. To teach well, you have to be prepared, coherent and interesting, and you have to know what you're talking about. Telling war stories can only get you so far. At some point, you have to actually *teach* them.

But where can you go to get the information you need to teach environmental journalism well? Hmmm, there's a head-scratcher. Clearly, I could have used some help, but from where? It turns out that even though environmental journalism is regularly taught at dozens of universities, there are very few places where a budding environmental journalism instructor can go to get advice and information.

The Association for the Study of Literature and Environment has a very nice web site (www.asle.umn.edu) but it's really more appropriate for literature courses than journalism. Some science journalism web sites include help for teachers, including the National Association of Science Writers' site (www.nasw.org), but they're not geared specifically to environmental journalism.

SEJ has provided some help over the years, of course. In fact, almost everything we do at SEJ is about education — usually, the continuing education of journalists who are already in the job market. Training working journalists will always be a major thrust of our programs, and we have some big ideas for how to do more of it, including a possible partnership with the Poynter Institute's innovative "News University" project to develop web-based coursework for reporters who are new to the environment beat.

But we also need to pay attention to academia, because training at the university level is more important than ever to the future of environmental coverage. More EJ courses at more universities will surely lead to more and better environmental journalism — if those courses are well taught. I think it's pretty clear that young reporters who have a solid academic background in environmental journalism tend to start faster and go farther than people like me who stumbled onto the beat after

college or graduate school.

Linking up with universities is nothing new for SEJ. We've formed very close relationships with the schools that have hosted our conferences, and those conferences usually include panels about teaching or research on environmental journalism. SEJ members working with the Radio and Television News Directors Foundation have assembled excellent video resources for teaching environmental journalism, and several academic members of SEJ have, with permission, exposed their classes to exchanges on the SEJ-talk listsery on such thorny topics as objectivity.

About 200 SEJ members — roughly 15 percent of the total membership — are full-time teachers or students, and many of them are active in SEJ programs. The pages of *SEJournal*, for example, regularly feature the writing and editing talents of leading EJ professors such as Mark Neuzil of the University of St. Thomas (Minn.), Sharon and Ken Friedman of Lehigh, Denny Wilkins of

St. Bonaventure University, David Sachsman of the University of Tennessee-Chattanooga and JoAnn Valenti, formerly of Brigham Young.

But it's obvious that there's a lot more we can do to encourage more and better teaching of environmental journalism — so we're doing it.

The catalyst this time has been longtime SEJer Dave Poulson, a former environmental writer for Booth Newspapers and, starting this year, a full-time teacher and assistant director of the Knight Center for Environmental Journalism at Michigan State University. Working with SEJ Associate Director Chris Rigel, Dave

recently started a new SEJ e-mail listserv, called SEJ-edu, where professors and students can trade innovative ideas about teaching — and learning — environmental journalism. (If you want to join the new listserv, contact Dave at poulson@msu.edu)

In promoting this idea, Dave is following a great SEJ tradition. Our annual conference, web site, awards, mentoring and diversity programs all got started because individual SEJ members took the initiative when they saw a new way to fulfill our mission to improve "the quality, accuracy and visibility of environmental reporting."

The SEJ-edu list has quickly become a success, spawning additional brainstorming about what SEJ can do to improve teaching and motivate students to pursue environmental journalism.

By the time you read this, SEJ will have a new "teaching environmental journalism" page linked to our web site at www.sej.org. Elsewhere on the web site, we already have a long list of EJ programs offered by American universities. We also have a new "academic environmental communication" page for scholarly research, including information about the new Environmental Communication Yearbook journal in which many SEJ members are represented. And soon, we hope, you'll be able to go the web site and download a PowerPoint presentation designed to introduce (Continued on page 10)

Report from the Society's President



By Dan Fagin



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The Society of Environmental Journalists (SEJ) is a non-profit, tax exempt, 501(c)3 organization. The mission of the organization is to advance public understanding of environmental issues by improving the quality, accuracy and visibility of environmental reporting. We envision an informed society through excellence in environmental journalism. As a network of journalists and academics, SEJ offers national and regional conferences, publications and online services. SEJ's membership of more than 1,300 includes journalists working for print and electronic media, educators, and students. Non-members are welcome to attend SEJ's national conferences and to subscribe to the quarterly SEJournal.

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SEJ finds Canadian journalists swimming upstream

SEJ News

By PETER FAIRLEY

Canada is experiencing a liberal tilt of late, providing a provocative foil for U.S. policy on everything from the Kyoto protocol and the war in Iraq to same-sex marriage and the pricing of drugs (pharmaceutical and otherwise).

This summer three prominent SEJ members traveled to Canada to return the favor, serving as foils for Canadian journalists in a wide-ranging public forum on environmental journalism in Canada.

Together they revealed that environmental journalism is alive in Canada but not entirely well. While reporters on either side of the border face many of the same challenges, Canadian journalists covering the environment seem more strapped for resources and less likely to carry the title "environment reporter."

As the sole Canada-based member of SEJ's board of directors, I had invited the board to venture outside the U.S. for the first time and to hold its summer meeting in Victoria, British Columbia's lush and laid-back capitol. With support from the School of Environmental Studies and the Department of Writing at the University of Victoria, we turned the board's visit into a dialogue about the state of environmental journalism in Canada and SEJ's role here.

SEJ board members Christy George of Oregon Public Broadcasting, Mark Neuzil of the University of St. Thomas, and Mark Schleifstein of the *Times Picayune* joined a panel discussion with four Canadian counterparts: Peter Desbarats, SEJ advisory panel member, veteran print and broadcast journalist, and former dean of the University of Western Ontario's school of journalism; CBC TV correspondent Eve Savory; Mark Stevenson, then national environment reporter for rival network CTV; and award-winning poet and *Vancouver Sun* columnist Stephen Hume.

The panelists mixed testimonials with humor and responded to probing questions from the audience, which challenged journalists from both sides of the border on a host of perceived shortcomings in the media's treatment of the environment. Desbarats provided context with a 50-year glance at the evolution of environmental coverage in the *Globe and Mail*, one of two Canada-wide dailies based in Toronto (the other is *The National Post*, launched five years ago by media mogul Conrad Black and since sold to the CanWest Global media empire). Desbarats, former dean of jour-

nalism at the University of Western Ontario, opined that the *Globe* is a better paper than ever, and chock full of environment stories. CTV's Stevenson reported that his producers "will take as many environment stories as I can give them."

The positive side of the Canadian story came as a pleasant surprise to at least one of the American panelists. "Environmental journalism in Canada sounds a lot healthier than I thought it was," said OPB's Christy

George. But a less rosy flip side to the Canadian story emerged as well. Desbarats noted that steady growth in environmental coverage has occurred without a corresponding growth in the number or status of dedicated environmental journalists. Savory bemoaned that *The National*, CBC's flagship nightly news broadcast, lacked the funds for a dedicated environmental reporter (a month after the forum Stevenson, Savory's counterpart at CTV, would join her in the ranks of the general assignment reporters as CTV disbanded its Specialty Unit).

Adding to the gloom, Desbarats noted that while the *Globe and Mail* might be better than ever, most Canadian dailies are sliding. The local paper that Desbarats reads, the Quebecorowned *London Free Press*, has lost two thirds of its staff over the past decade. Desbarats says it shows: "Any talk of doing investigative journalism is right out the window." He notes that downsizing contributed to the cancellation of the environmental training course for working journalists that SEJ member Michael Keating led at the University of Western Ontario. "We ran out of clients," says Desbarats.

Stephen Hume also cited conglomerization of media, as well as bottom of the barrel pay for freelancers, as challenges that are reducing the range of perspectives that Canadians hear (Continued on page 6)

Deepening SEJ's role in Canadian environmental journalism

When environmental journalism flourishes in Canada it is because dedicated individuals make it their business — with or without a dedicated beat. Following the public forum, several dozen journalists gathered for a frank roundtable discussion about how SEJ can help these dedicated individuals — more than 50 of whom are already members — help each other.

Several easy-to-implement strategies apply the experiences of SEJ staff and board members during the early days of SEJ's growth in the U.S.:

- An annual mini-directory could help Canadian members identify each other.
- Attracting new members by explaining the benefits of collective action through SEJ, thereby overcoming the misconception that participating in SEJ means giving away one's best story ideas and sources.
 - SEJ will continue to partner with Canadian J-groups,

including the Canadian Association of Journalists, the Canadian Science Writers Association, and the Periodical Writers Association of Canada.

• The new Canada page on www.SEJ.org should list U.S.-based fellowships, such as those offered by IJNR, which are open to Canadians, whose market may be too small to support specialized programs.

Bold proposals were also advanced to create programs and events for both U.S. and Canadian journalists, including:

- Organizing cross-border regional events can compare and contrast environmental politics, policy and quality on either side of the border.
- Finding a university partner to bring a future SEJ annual conference to a Canadian destination, such as Banff, Vancouver, Montreal or Toronto.

— Peter Fairley

SEJ conference report:

The risks and benefits of reporting on risk

By ROBERT MCCLURE

It was true-confessions time when David Ropeik moderated the craft session on handling risk communication at the Society of Environmental Journalists' 2003 conference in New Orleans.

The two-time winner of the DuPont-Columbia Award and a former SEJ board member told of winning a regional Emmy Award based on reporting about local chemical releases.

"I never even thought to talk about, 'Are people or the environment being exposed?' "Ropeik said. "I just left it out. Wrong."

In reporting on nuclear power plants for WCVB-TV in Boston, "It was an oh-my-God story," Ropeik revealed. "I never looked into just how hazardous it would be if people were exposed to this form of ionizing radiation."

And why not?

"My bosses wouldn't have liked it, because it's less of a boogie man."

Ropeik, as you may have guessed, has a new role. As director of risk communication at the Harvard Center for Risk Analysis, he makes it his business these days to point out all the ways people — and environmental reporters in particular — are making mistakes in their perception of what's really risky.

The center's role is to "play a constructive role in directing limited resources to the most pressing public and environmental health problems," according to its website. It was founded by John Graham, now a key Bush administration regulatory gatekeeper at the Office of Management and Budget in

Washington, who is known for scrupulous devotion to cost-benefit analyses of environmental and health rules. "His problem," Ropeik joked, "is that he's a rationalist."

Ropeik confessed to the journalists at the session "Covering the Risk: A Risky Business," that after a critical examination of his own reporting, he decided he had blown it.

"I did a lot of stories that were scarier than they should have been," he said. "My journalism was distorted."

For example, in reporting on mercury in fish, Ropeik left out the fact that the main hazard is to the offspring of women who are exposed.

Perhaps stating the obvious, Ropeik observed

that novelty drives news coverage. SARs, use of cellphones while driving, West Nile virus — all got scads of ink because they are new, even though the real level of risk is, compared to other threats, relatively small, he said.

But Ropeik said reporters fail to bring out these comparisons because, "every characteristic that raises the threat... moves you toward the front page. Everything that makes people afraid makes journalists excited."

Ropeik acknowledged that journalists are driven by the way people themselves consider risk.

"If it kills you in a really nasty way, we're more afraid of it than something that kills you in a less nasty way," he said.

This approach has real-world consequences that don't make sense, Ropeik said, such as a \$4.2 billion budget for the National Cancer Institute versus a \$1.8 billion budget for similar research on heart disease — even though heart disease kills more people.

Panelist James Bruggers, environment reporter at the Louisville *Courier-Journal*, said after working on an exposé about air pollution in his community, he is not afraid to strike fear into readers.

"I don't think there's anything wrong with scaring the public, as long as there's a good reason to do so," said Bruggers, a current SEJ board member and past SEJ president.

For example, he said, measurements of the air outside of the home of one woman living near a chemical plant in Louisville came up at 2,400 times the concentration known to affect health.

(Continued on page 24)

Swamp risk



Thursday field trips during SEJ's 2003 annual conference in New Orleans took some intrepid souls on a tour of Bayou Trepagnier and LaBranche Wetlands.



SEJ fellows enjoy and add to conference experience

By AMY SIMMONS

Thirty five journalists won fellowships to attend SEJ's 13th Annual Conference, held in New Orleans, La., October 10-14 at the Astor Crowne Plaza Hotel.

Fellowships included six Ohio journalists funded by a grant from the George Gund Foundation, and 27 fellowships for journalists of color, funded by the Lamont Doherty Earth Observatory and Columbia University.

Six of the journalists of color fellows were awarded in partnership with the National Association of Black Journalists, and three were awarded in partnership with the Native American Journalists Association.

There were eight senior fellows from the SEJ Fellowships for Journalists of Color program. Senior fellows were those who participated as fellows in 2002. They were Cris Carl, Phyllis Sides, Carmelo Ruiz-Marrero, Andy Harvey, (NAJA) Marcie Eanes, Brenda Box, David Jones, and Ramon Mena Owens.

The other winners of the Journalists of Color Fellowship were Irene Tejaratchi, Shaun Lockhart, Christopher Martinez, Enrique Gili, Maria Serra Bednarz, Geneva Horse Chief (NAJA), Kaeleen McGuire (NAJA), Dwana Bain (NABJ), Michael Fields, Eulynda Toledo Benalli, Ph.D., Angela Forest (NABJ), Kimberly Melton (NABJ), Myron Pitts (NABJ), Wanda Williams (NABJ), Gwendolyn Young (NABJ), Barbara Stewart and Diedtra Henderson.

Other SEJ Fellowships for Journalists of Color awardees were Dr. P. Mona Khanna and Mary-Rose Abraham.

The winners of the Ohio fellowship were Karen Schaefer, Natalie Walston, Sherry Beck Paprocki, Jeffrey Frischkorn, Megan Kuhn, and Becca Manning.

The 2003 fellows enjoyed a fellowship dinner at Mr. B's Bistro on Wednesday night. It helped to break the ice.

Returning senior fellows had many positive things to say about their second year attending an SEJ conference. "I felt I belonged because I remembered people and they remembered me," said Phyllis Sides. "I also know more about the organization

and environmental issues."

Senior fellow Andy Harvey added that "I felt as though people already knew who I was. I felt as though they were already expecting me."

The experience of community and becoming more involved in SEJ was another highlight of some senior fellows. Cris Carl wrote: "As a senior fellow, I experienced a greater sense of confidence and it felt good to be in more of a position to give something back."

Many participants applauded SEJ's efforts with the diversity program and were impressed by the ongoing continued commitment to it. But some fellows said race, ethnicity and gender issues should be addressed seriously in future conferences.

Carmelo Ruiz-Marrero observed "there was a panel on biopiracy, a subject that indigenous peoples have very strong feelings about, and there were no indigenous peoples on it.

"The panel provoked a lively and timely discussion on the rights of Native peoples," Ruiz-Marrero added, "but they were in the audience, relegated to the role of spectators." But Ruis-Marrero praised moderator Bill Allen for his professional and respectful handling of this panel.

"I admittedly expressed a good deal of anger towards one of the speakers during one of the sessions," wrote Cris Carl. "He was insistent that overpopulation and its resulting environmental problems were largely due to immigration and how "those people" tend to have more babies than the rest of the population. As a Lenape Indian whose tribe has been on this continent for over 32,000 years — I found his opinions racist and downright stupid at times. I also noticed few women, (and there haven't been many in the way of people of color) as speakers."

The overall impression of the 2003 fellowship experience was positive, educational and enjoyable, fellows said. Many business contacts were made, friendships established and most — if not all — participants are planning to become more involved in SEJ in the future.

Victoria... (from page 4)

on the environment. He said the CanWest chain, which publishes his paper, owns 60 percent of the daily papers in Canada — a country with a population roughly equal to California's. "Think of one company owning 60 percent of California's daily papers," says Hume.

Audience members questioned whether such monopolization and corporate control limited the quality of environmental coverage. Hume insisted that, at least in his experience, news corporations were not directly dictating coverage by insisting that their staff tow a corporate line. "I don't feel the heavy hand," agreed Stevenson.

The bottom line? Individual journalists in Canada would

appear to have the freedom to do quality reporting on the environment, but they must constantly press for the right to focus on the environment and to find the resources to deliver quality coverage. Stevenson insists he's doing just that. He now answers to CTV's Calgary affiliate rather than Toronto, so his stories are local or regional in focus rather than national. But about half of the five pieces he files each week are still environmental pieces. "That's on my own initiative," says Stevenson.

Peter Fairley is a freelance journalist and the lone Canadian on the SEJ board.



Rigel and Letto have brought 'skilled action' to SEJ for years

"An ounce of action is worth a ton of theory."

— Friedrich Engels (1803 - 1882)

By BETH PARKE

David Stolberg had a great little idea in the late 1980s. Inspiration point for him was the offices of Scripps Howard, where he administered the Edward J. Meeman Awards for excellence in environmental news reporting.

"I always believed in the value of networking, of the subliminal training that comes from an association with one's peers,"

Stolberg has said. His theory: Meeman winners should start a new organization, to share their best thinking about the future of this complex and demanding beat, to help other reporters cover it more and better. What a good idea.

SEJ has always had theory on its side. But action is never a given in this world, is it? Skilled action, with perseverance and follow-through, on both design and detail — that is the stuff of dreams and legend. Sometimes theory and action come together, and something great really does happen. Big bang stuff.

SEJ staffers Chris Rigel and Jay Letto come to mind at this point in my essay. These remarkable individuals were celebrated a

able individuals were celebrated at the New Orleans conference for their long-term relationship with SEJ. In database terms, we're checking the box for "greater than 10 years" of service here.

Chris Rigel is SEJ's associate director for programs and operations, a dynamo of effective action for SEJ. Lucky for us Chris loves a challenge, because this organization has certainly provided her with many. There is no aspect of SEJ that has not benefited from her attentions over the last decade, as our membership network, programs, constituencies and operations have steadily grown. I shudder to think how SEJ might have faltered without the relational database that Chris has designed, built and adapted to SEJ needs, dozens of times. Her gift is to take any set of goals and objectives, strip them down to their logical components, and design systems to manage and monitor for progress. Get the job done, then, when you can, redesign to make systems work even better. This is the kind of logic Chris has brought to hundreds of projects, over more than 10 years with SEJ.

The cumulative impact of that is part of what everyone stood and cheered for in New Orleans when the spotlight fell on Chris.

Jay Letto was also celebrated in New Orleans this fall, with good reason. You can check the data box "charter member" for Jay, as well as "more than 10 years" on the SEJ staff. Long before he

was formally hired to fill the critical role of manager for SEJ's annual conference agenda, Jay Letto was "present at the creation" of this group, as founding board member Phil Shabecoff once put it.

Jay has cared passionately about the theory and practice of SEJ from day one, and even before. His years of work to foster networking among journalists and scientists (in New York for the Scientists Institute for Public Information) made him especially eager to advance the mission of SEJ.

Without Jay, it's hard to imagine the remarkable roster of speakers — in the thousands by now — and the marvelously rich

history of tours, panels, plenary sessions and special events that SEJ has built up over the years. Jay took the theory and general sense of ambition that SEJ founders always had for the annual conference and put in a lot of creative, patient work with their member-driven and university-partnership model. He's encouraged countless others in the planning and follow-through stages. The result: SEJ's conference has earned a stellar reputation among both journalists and non-journalists for a consistently massive, news-making and skillbuilding conference agenda, year after year.



Letto, Rigel and SEJ Board President Dan Fagin take a moment in New Orleans to smell the roses.

You can work out for yourself the symbolism of the gifts presented to Chris and Jay on Sept. 10, during SEJ's 2003 awards ceremony in New Orleans.

For Chris, it was a new DVD player and a Sherlock Holmes festival for her viewing library. Hint: They are both the ultimate in logical thought and master problem-solving. Lucky for us, Chris is not a fictional character! For Jay Letto, it was a wooden kayaking paddle, hand carved by board member Mark Neuzil.

Without solid-to-the-core Jay along for the SEJ ride, we would be up the proverbial creek without one of these. That works for me!

We also had roses for Programs Associate Amy Simmons that night, celebrating her for five years of service to SEJ. Thanks Amy for many beautiful contributions to advancing the work of SEJ. Your contributions continue to grow and bloom.

So much SEJ action from these dedicated and talented individuals has certainly proven that original theory of David Stolberg. Their efforts — combined with those of many other dedicated staff members, board members, and member-volunteers — are worth more than even a world-class philosopher like Friedrich Engels could measure.

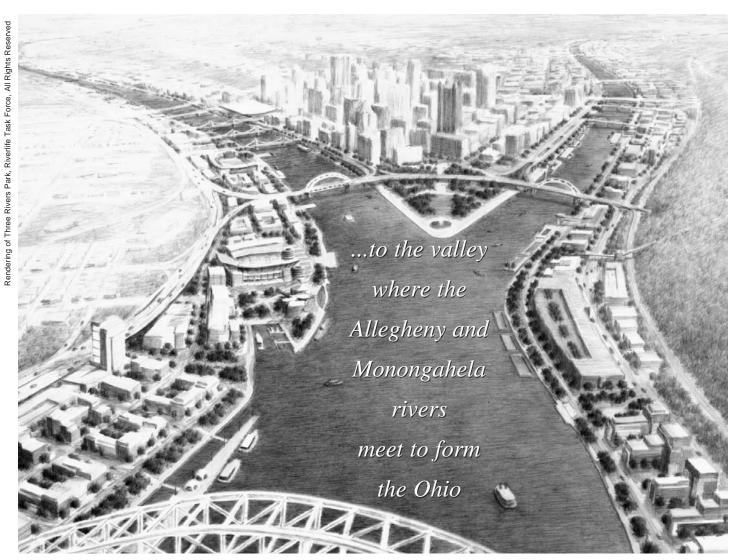
Beth Parke has been SEJ's executive director since 1993.

Come to

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Society of Environmental Journalists

14th Annual Conference

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Beasts, mushrooms, 'zines, new projects and awards

Media on the move

By ELIZABETH MCCARTHY

Former National Public Radio reporter **David Baron**'s book about the growing conflict between protected and growing populations of large predators and people in suburban America was released in early November. The Beast in the Garden explores the clash of four- and two-legged beasts and focuses on the tragedy

of an 18-year-old athlete in Boulder, Colo., who was hunted and killed by a mountain lion in the late 1980s behind a high school.

In addition to having his first book published, Baron made a temporary

career switch. In September, he became a visiting scholar at Boston University's Knight Center for Science and Medical Journalism. He said the year of academia will give him time to recharge after three years of book writing and figure out where to go next, which is sure to include more book writing. He is also promoting The Beast off campus and headed out west for a twoweek book tour in November.

Following her hour-long documentary on the people and business of reaping Mother Nature's bounty - from mushrooms to fiddleheads — in Oregon's forests, Oregon Public Broadcasting's Christy George began hosting a new weekly show about the Pacific Northwest. The program, which began Nov. 7, looks at the past and present character of the Oregon Territory, which once reached as far as Wyoming and British Columbia.

"It isn't just a collection of states, but a time zone, a bio region and a state of mind," George said. She did not say whether the latter was before and/or after mushrooms. The first three shows will deconstruct Thanksgiving dinner - from turkey to cranberries to pumpkin pie — all of which are home-grown.

William Souder, who frequently covers science and environmental issues for *The Washington Post* is working on his second book. Under a Wild Sky: John James Audubon and the Making of Birds of America delves into the life of the American frontiersman and man of science. Souder describes Audubon as "a self-taught painter and self-anointed aristocrat famous for his buckskin clothes and long, flowing hair." Audubon, known for his beautiful paintings of birds, lived a colorful life "as adventurous as his fictionalization of it," Souder said. His peers never knew exactly who Audubon was or where he came from.

Under a Wild Sky is expected to be published next May.

The Ohio Society of Professional Journalists awarded **Tom Henry** first place in environmental reporting. This is the second year he won the award. Will he push for a grand slam?

"I wish," was Henry's modest response.

Stuart Leavenworth and Dale Kasler were awarded the National Press Foundation's Thomas Stokes award in 2002 for their coverage of California water issues. The duo's feature on the emerging water marketing in the Golden State and the West, which swings between droughts and floods, won awards from the California Newspaper Publishers Association and Georgetown University Institute on Political Journalism.

The Seattle-Post Intelligencer was one of nine newspapers out of 285 Western dailies awarded the Institutes for Journalism and Natural Resources' Wallace Stegner Award. Much of the award's prestige, according to the P-I's Robert **McClure,** is that it is not a contest. The winners are chosen by IJNR. The prizes are given to papers that deepen readers under-

> standing of roots, history and patterns of the western United States. (For list, see page 14.)

> Her two-part series on the status of Wisconsin's gray wolf, slated for delisting at the state and federal levels, landed

Claudia Curran second place in the 2003 Inland Press Association's Explanatory Reporting contest.

Amy Gahran recently relaunched *Contentious* after taking a year off to work on other projects, which included RSS feeds, an online information tool to announce, public and syndicate information development.

Pete Myers became a full-fledged SEJ member recently, after directing the W. Alton Jones Foundation, a major financial supporter of SEJ. He left the foundation in 2002 after 12 years to publish www.EnvironmentalHealthNews.org, which entitled him to SEJ membership.

In June, Gregory Harman became an environmental reporter for the *Biloxi Sun-Herald* in Mississippi. Previously, he was editor-publisher of the Alpine Observer, a weekly newspaper near Big Bend National Park in west Texas

Megan Kamerick was promoted to senior associate editor at the New Orleans CityBusiness. She now covers the legal and environmental beats and hopes her new title will involve not only coaching of reporters but also more opportunities for environmental reporting.

Lack of job satisfaction motivated Brian Back, former reporter for The Business Journal in Portland, Ore., to launch a monthly publication that focuses on environmentally sustainable business practices in the Pacific Northwest.

When Back left his reporting job, starting a trade journal was not top of his list. "I had no idea where my career was headed," he said, adding that he had tinkered with the idea of creating a magazine for years. But unemployment made finding another job and getting a regular paycheck his top priority. Then fate intervened.

During his job search, Back met with the president of a small publishing outfit, who pitched the idea of creating a publication featuring potentially sustainable industries, including agriculture, energy, green building and recycling. After an hour of coffee and brainstorming, plans for the monthly Sustainable Industries Journal NW were hatched. After securing a small amount of seed funding, "emphasis on small," from local and state governments, Back published the first issue of Sustainable Industries.

Although reluctant to offer any advice, he suggested that potential publishers persevere, be savvy and "hold your breath."

Necessity was also the mother of invention for Media on the (Continued on page 14)



Links to academia... (from page 2)

students and teachers to all of the resources SEJ offers. Peter Lord of the *Providence Journal*, who is also co-director of the Metcalf Institute for Marine and Environmental Reporting at the University of Rhode Island, is working on the PowerPoint project.

Our goal is that the new "teaching environmental journalism" web page will become a central repository for just about everything a professor or a moonlighting journalist would need to design an environmental journalism course. Eventually, the page will include links to syllabi from EJ classes taught by SEJers at dozens of universities, lists of favorite books and teaching CD-ROMs, internship opportunities, and... well, who knows what else. Initiatives like this one have a way of taking off in unexpected directions once they get going.

Meanwhile, Dave and his colleague at Michigan State, Knight Center Director Jim Detjen, the founding president of SEJ, are also pursuing an important idea for promoting environmental journalism among students. They have encouraged the formation of a student-led Environmental Journalism Association at MSU. Among other things, association members will be writing stories for the university's *EJ* magazine, and will be bringing in guest speakers. Many of these students are also joining SEJ, making them eligible to sign up for the listservs, qualify for discounted conference registration, participate in the mentoring program and enjoy other members-only benefits.

This idea can certainly be exported to other campuses, and we're going to encourage it by publicizing a cut-rate membership offer for students. A student joining SEJ for the first time pays just \$15, instead of the standard first-year rate of \$20. Students who renew the following year do so at the existing student rate of \$30 per year (the renewal rate for most non-student members is \$40). By encouraging SEJ membership on campus, we hope to make it much easier for teachers and students to integrate SEJ programs into their coursework and into the activities of local EJ groups modeled on Michigan State's.

Questions? Dave can advise you about starting an EJ association on your campus, and information about all of SEJ's programs is available at www.sej.org. If you have additional ideas about what we should be doing, or if you just want to help out (thank you!), please let anyone on the SEJ board or staff know. Our contact information is listed on the web site.

My fervent hope is that by the time we're done with all of these academic initiatives, no students will have to suffer the way my NYU class did on my first day of teaching, six years ago.

But at least they learned to make friends with the secretaries.

Dan Fagin writes for Newsday and is president of the SEJ board of directors.

MSU students form new environmental journalism association

By JIM DETJEN

Since September, a group of Michigan State University (MSU) students have been meeting many Wednesday evenings in the conference room of the Knight Center for Environmental Journalism. The students discuss possible field trips to nature centers, clean-up campaigns of the Red Cedar River and articles they plan to write for the next issue of the student magazine, *EJ*.

The students are members of one of MSU's newest organizations, the Environmental Journalism Association. About 30 undergraduate and graduate students are members of the new group.

"We've had far more interest than I ever expected," said Corbin Sullivan, a master's degree student and president of the Environmental Journalism Association.

Since the Knight Chair in Environmental Journalism was established at MSU in January 1995 the number of students studying environmental journalism has continued to grow. In the current year, about 60 undergraduate students and 20 graduate students are enrolled in courses offered through the Knight Center.

Last January, Dave Poulson, a veteran environmental journalist, joined the Knight Center as assistant director. Poulson's presence has enabled the Knight Center to offer new courses on investigative environmental reporting; nature writing; computer-assisted reporting on environmental issues; the wilderness experience and environmental writing; and reporting about Great Lakes' environmental issues.

Poulson also plays a key role in helping students produce

EJ, a 36-page magazine that is published each semester by the Knight Center for Environmental Journalism. This magazine has received very favorable reviews from journalists and journalism professors around the country. Last June, Kristen Tuinstra, the magazine's founding editor, won the Ben East Award, the highest award for environmental journalism in Michigan, for her work in editing *EJ*. It marked the first time that a student had won this award. (To view the fall issue of *EJ*check this web address: http://environmental.jrn.msu.edu/news.html .)

Last spring, students working for *EJ* magazine decided that the time was right to launch a student organization. They founded the Environmental Journalism Association and formally registered it with the student government at MSU.

"So far, we've spent most of the time at our meetings discussing story ideas, possible art and other issues related to putting out the magazine," Sullivan said. "In the coming year we may invite in guest speakers or organize a trip to the SEJ annual conference in Pittsburgh."

Sullivan said that EJA encourages but does not require the club's members to become student members of SEJ. Other officers in the association include Alex Nixon, vice president; Susana Guzman, secretary; and Debbie Munson, treasurer.

For more information, contact Sullivan at Sulli234@msu.edu or Detjen at Detjen@msu.edu .

Chemicals in common foam raise new concerns and threats

By ROBERT MCCLURE

Are they the new PCBs?

That's the question scientists increasingly are asking about polybrominated diphenyl ethers, or PBDEs.

PCBs, or polychlorinated biphenyls, were widely used in insulation fluid in electrical capacitors and transformers from the 1930s until they were banned in the United States in 1977. (They continue to be manufactured and used in some foreign nations.) PCBs stay in the environment a long time and work their way up the food chain so that the highest concentrations are found in the top predators. (Read: Humans.)

PCBs, like asbestos, were valued for their fire-retardant properties.

Enter PBDEs, also a fire retardant.

Like PCBs before them, these chemicals have in recent decades come to be widely used, finding their way into polyeurethane foam, plastics that house computers and other electrical

appliances, carpets, marine paints and a number of other products. Like PCBs, they hang around in the environment and accu-

mulate at increasing concentrations up the food chain.

Scientists still are studying their toxicity, but PBDEs have

Scientists still are studying their toxicity, but PBDEs have been shown to affect the endocrine system, meaning they have effects on reproduction. Reduced male fertility and problems with ovary development have been documented. At surprisingly low levels, they also have been shown to interfere with learning and memory in laboratory animals and to lower thyroid hormone concentrations in the blood.

Next year, Europe will ban two forms of the chemicals; in 2008, California is set to impose such a ban. Virtually all the PBDE manufacturing in the world occurs in the United States.

A report in September by the Environmental Working Group, a Washington-based environmental group, measured PBDE levels in nursing mothers' milk, generating a fair bit of attention.

Then, in November, the Environmental Protection Agency announced that the Great Lakes Chemical Co. would stop manufacturing the two forms of PBDEs thought to be most harmful, Penta BDE and Octa BDE — the two banned in Europe and California.

While it would be easy to figure all is well and it's time to move on

to the next story, you may want to reconsider. Several other themes promise to be worthy of coverage this year, and perhaps for years to come.

The biggest coming fight probably will have to do with a widely used form of flame retardant, Deca-BDE, which is much more widely used than the two being pulled from the market. Many millions of pounds are used each year, mostly in TVs and computers.

The industry group Bromine Science and Environmental Forum maintains that the chemical remains bound up in plastic

and other parts of the electronics, where it is unavailable to be taken up by people or the environment.

"Fire kills thousands of people around the world each year—yet thousands more lives are saved every year through the use of brominated flame retardants," BSEF states. "In widely used electronic and electrical equipment plastics and in applications like furniture, these products are peerless in reaching tough fire safety standards such as those found in the United States."

But environmentalists beg to differ.

"It doesn't really matter, because deca(BDE) breaks down into penta(BDE) in the environment," says Bill Walker of the

Environmental Working Group, citing European studies.

American scientists caution, though, that this is still being investigated.

The difference in the three forms has to do with the number of bromine atoms in a PBDE's molecules. Penta, the most toxic and bioaccu-

mulative, has four to six and is found in foam. Octa, with seven to nine, is found in harder plastics such as computers, while deca, with 10, is used heavily in curtains, furniture coverings and the like.

Once they get into the body, the chemicals act something like the thyroid hormone — which is probably why they are endocrine disrupters, say scientists studying the chemicals. Another area of controversy concerns the replacement for penta-BDE and octa-BDE. The so-called Firemaster 550 is not persistent, bioaccumultive or toxic to aquatic critters, according to the EPA.

Yet activists increasingly are raising questions about the adequacy of the testing process used by the agency to arrive at that conclusion. Finally, there is the matter of what's already out in the environment. This is an easy story to do at the local level, because virtually no environmental agencies are looking very hard for PBDEs, despite the emerging evidence of their danger.

Looking for them yourself is difficult because few contract

laboratories are set up to test for them.

Yet, we know that millions and millions of pounds of PBDEs already are out in the environment.

Everywhere scientist Rob Hale has looked, he has found PBDEs in fish and in sewage sludge. Hale believes that the further land application of sludge — a favorite of

PBDE information

Dr. Arnold Schecter, University of Texas-Houston Health Science Center, has studied PBDE concentrations in nursing mothers. 214-336-8519

Bill Walker, a former reporter now with Environmental Working Group, edited the group's report on PBDEs in mothers' milk: 510-444-0973. Website: www.ewg.org

Peter O'Toole is a spokesman for the industry group Bromine Science and Environmental Forum: 202-530-4847. Website: www.bsef.org

Rob Hale, Virginia Institute of Marine Science, has extensively studied PBDEs in the environment: (804) 684-7228 or hale@vims.edu.

National Academy of Sciences study from 2000: http://books.nap.edu/catalog/9841.html

local governments because it's the cheapest way to handle the waste — is probably the way most of it is getting into the environment.

"We can do a whole lot better job tracking these," Hale says.

Robert McClure, who rode his bike behind the mosquitospraying trucks when he was a kid, now works at the Seattle Post-Intelligencer covering PCBs, PBDEs, BSEF, TMDLs and too many other acronyms for his addled brain to remember.

Using databases to pinpoint water pollution sources

Online

bits & bytes

By BRAD HEATH

It's no secret that Michigan's system for policing industrial water pollution is in sorry shape. Most companies that get permits to dump everything from lead to nitrates into the state's waterways face infrequent inspections and few penalties for breaking the rules.

So what's the cost of this pollution?

In a special report in October, "Great Lakes: Toxic fears," *The Detroit News* set out to measure industry's impact on the Great Lakes, the world's largest bodies of fresh water that define the edges of the Michigan mitten.

While our analysis found a broad pattern of increasing toxic pollution, we ultimately focused on the impact of substandard Clean Water Act enforcement.

Using everything from the U.S. Environmental Protection Agency's Toxic Release Inventory to permit compliance records and enforcement dockets, *The News* concluded that rampant clean water violations were

among the causes of a six-year increase in the flow of industrial pollution into the lakes.

That's particularly significant because it comes a generation after the United States and Canada promised to largely staunch the flow of those chemicals into the lakes.

We started our analysis by downloading pollution inventories from the United States and Canada and using an ArcView map to determine which sites were within the Great Lakes basin. That made

it possible to tally water pollution and calculate trends over time.

Then we examined EPA enforcement records and dockets, as well as data from the EPA's Permit Compliance System to measure the extent to which companies were complying with the requirements of the Clean Water Act.

We found that three quarters of the nation's largest industrial and wastewater plants — dubbed major polluters by the Environmental Protection Agency — had

violated the limits of their permits during the past two years.

These were some of the more useful resources:

Toxics Release Inventory / National Pollutant Release Inventory

United States: http://www.epa.gov/tri

Canada: http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm

TRI is the EPA's most comprehensive database of industrial pollution, tracking air and water releases from thousands of facilities in the United States. NPRI is the Canadian equivalent. To measure pollution in the Great Lakes, we mapped all the facilities listed in the United States and Canada since 1995, then compared those with U.S. Geological Survey data that shows the extent of the Great Lakes drainage basin. That made it possible to tally up how much pollution is released to surface water in the basin each year. Turns out it's enough to fill 500 dump trucks each year.

It's important to realize that both TRI and NPRI are far from complete because there are thousands of polluters and chemicals not listed in the database.

Commission for Environmental Cooperation

http://www.cec.org/takingstock/index.cfm?varlan=english

The biggest problem with TRI and NPRI is that the data keep changing. Over the past five years, there have been dozens of

changes to what facilities are required to report totals to the inventories, the chemicals they're required to report and the cutoff points at which they're required to report them. To account for those changes, we used a database from the Commission for Environmental Cooperation, a group set up under NAFTA to monitor pollution trends in North America. Their "Taking Stock" database standardizes U.S. and Canadian pollution data for changes over

time. To do that, CEC excludes some chemicals and facilities so it's better for comparing trends over time

than for calculating snapshot pollution totals.

Enforcement & Compliance History Online

http://www.epa.gov/echo

ECHO is the EPA's latest attempt to make its enforcement records available online and it's more powerful than it looks. You can use the "Water Data" queries to do everything from searching for expired National Pollutant Discharge Elimination System (NPDES) permits to finding out how many facilities in a given

> watershed violated their permits' effluent limits. We used the online query page to come up with counts of permit violations and to drill down to find more detailed information. The biggest frustration is that penalty records are often missing from ECHO because states aren't required to tell the EPA whether they issue a fine. For a historical perspective, we also used the Freedom of Information Act to obtain



a copy of the EPA's enforcement docket.

Permit Compliance System

http://www.epa.gov/enviro/html/pcs/adhoc.html

For more detailed information about discharges from individual facilities, we turned to EPA's Permit Compliance System, which contains specifics about how much facilities are allowed to pollute and the data they report to regulators about how much they actually released. Using this page took some practice because there's so much information to go through, but we were able to use it to produce a listing of effluent violations in Michigan and elsewhere.

You can find the *Detroit News* series at http://www.det-news.com/specialreports/2003/polluters/index.htm

Brad Heath is a reporter for The Detroit News.

Research News Roundup

A modern-day Rachel Carson? War zones, wildlife and more

By JAN KNIGHT

A recent study focusing on magazine coverage of Rachel Carson and Theo Colburn shows that scientists who step outside the status quo to alert the public to impending environmental dangers tend to be disregarded by the press.

Julia Corbett, an associate professor at the University of Utah, compared magazine coverage of Carson, author of "Silent Spring," and her contemporary counterpart, Colburn, co-author of "Our Stolen Future." Corbett suggested that the comparison was valuable because the scientists shared some common traits: Their roles as "women, scientists and agitators led critics to charge that their work was nonscience or they were nonfeminine," Corbett wrote, and their scientific claims "blurred nature/culture boundaries and challenged the power structure and scientific authority."

Corbett was curious about how the media would portray the two women, given the time periods in which they wrote — Carson in 1962 and Colburn in 1996 — and societal changes that had occurred between the two publications, including the contemporary environmental and women's movements. This meant that "women scientists gained considerable ground... occupying much more prominent roles in government, industry, and academics." She wondered whether media coverage of a female scientist warning of environmental dangers in the 1990s would differ from coverage in the 1960s.

She studied all magazine articles appearing after publication of the two authors' books — 95 articles in all — and found, among other things, that news magazines offered negative treatment of both authors. *Time*, for example, described "Silent Spring" as an "emotional and inaccurate outburst" in 1962, while *Newsweek* described the subject of Colburn's book — endocrine disrupters — as the "toxic scare *du jour*" in 1996.

Corbett also found that most articles focused on humans standing apart from nature during both time periods. "If DDT kills some cats but saves many humans, if weed killer destroys a pocket of wildlife shelter but increases highway safety, so much the better," wrote the author of a 1963 Saturday Evening Post article. But after Carson died, Corbett found, magazine coverage of her work shifted to recognize that humans are an integral part, not the master, of nature. Such views, however, generally did not carry over to articles about Colburn's work, according to Corbett. Many magazine articles about her or her work focused on human health, and primarily men's health, while rejecting the idea that wildlife problems had any connection to it, or recognized the connection but treated wildlife as "sentinel" species "valuable primarily for their ability to alert us to potential human dangers," Corbett wrote.

Corbett suggested that her study contains a larger message about the media's role in "perpetuating and reifying what counts as real science, who counts as a real scientist, and media treatment of an agitator who steps outside the boundaries of authoritative science."

"Because media are dependent on dominant institutions for news," Corbett continued, "they tend to treat conflict directed at those institutions cautiously, erring on the side of the status quo."

For more information, see "Women, Scientists, Agitators: Magazine Portrayal of Rachel Carson and Theo Colburn" by Julia

B. Corbett in Journal of Communication, December 2001.

War zones today cause greater harm to wildlife, study shows War zones once held potential for wildlife protection in that

War zones once held potential for wildlife protection in that they limited human incursion into disputed territories. A recent study in *Conservation Biology* shows that, in modern times, this has changed.

The "scale, intensity, or technologies associated with military conflicts and violent civil strife" of today differ from those of previous decades, when, for one thing, wildlife might have

been valued for its ability to discourage intruders, the study authors wrote.

The loss of war-zone wildlife refuges has become critical, the authors asserted, because protected areas that are the main remaining habitat for endangered species in many developing countries are "increasingly subject to invasion by refugees and guerillas during insurgencies and military conflicts," which can have a domino effect. When refugees, fighters and local residents intensively harvest wildlife and vegetation during periods of civil strife, it compounds the problem of scarce natural resources in communities already facing loss or lack

"Silent Spring" as an "emotional and inaccurate outburst" in 1962, while Newsweek described the subject of "Our Stolen Future" — endocrine disrupters — as the "toxic scare du jour" in 1996.

of natural resources, the authors wrote.

Even without a threat of the "ultimate 'human-overkill' scenario" of tactical nuclear warfare, the authors stated, the environmental and social effects of war increasingly threaten conservation programs around the globe. The solution, they suggested, lies in partnerships among indigenous researchers, local communities and international institutions to help sustain wildlife conservation during war.

The article includes a listing of war's effects on wildlife and wildlife habitats in Africa, Eurasia and the Middle East from 1960 to 1999, including maiming and death from land mines in Vietnam and Rwanda and drainage of the Tigris-Euphrates marshland to expose rebel sanctuaries by the Iraqi government.

For more information, see "Effects of War and Civil Strife on Wildlife and Wildlife Habitats" by J.P. Dudley, J.R. Ginsberg, A.J. Pluptre, J.A. Hart and L.C. Campos in *Conservation Biology*, April 2002.

In brief: History of environmental injustice offers insight on the present

In the July 2003 issue of *Environmental History*, environmental historian Carolyn Merchant of the University of California-Berkeley traced the U.S. history of environmental (*Continued on page 28*)

Research News =

Western dailies neglect key issues, IJNR finds

A two-year study of newspapers in the American West has concluded that most daily newspapers neglect to cover growth and development, the most pressing environmental issue of that region.

"Matching the Scenery: Journalism's Duty to the North American West," was released Sept. 14 by the Institutes for Journalism and Natural Resources. A team of independent journalists conducted the 135-page study for IJNR, studying more than 285 dailies in the West.

The report's authors said they came away from the study "inspired and disheartened." The vast majority of the West's daily newspapers cover but a part of the environmental story, allowing events to dictate coverage. Many newspapers miss the context significance and relevance of the issue.

Yet, most Western dailies have the financial means to do a much better job, consistently making a healthy profit. By keeping so much of the profit for the owners, the report concluded that most Western dailies' newsrooms are "weary and starved of resources."

Too few reporters. Too many assignments. Not enough time to do them all well. In most Western newsrooms, issues-based training opportunities for reporters and editors are meager, the study concluded. As a result, the amount of space devoted to complicated stories is often insufficient

Even so, the study's authors found numerous examples of commendable journalism and dozens of outstanding reporters and editors.

"The great need is to raise newsroom expectations and levels of effort to match the present magnitude of what is happening to the West," said Frank Edward Allen, IJNR president and the report's principal author.

"In reviewing their current approaches to covering growth, development and the environment, we found that most Western dailies simply aren't keeping up with the pace, the scale, the intensity and the ramifications of profound change," Allen said.

For the report, IJNR surveyed more than 150 managing editors and other senior supervisors at Western dailies. More than half said they had no reporters assigned to cover environment, natural resources or growth more than one-third of the time.

The report also found:

- The Western dailies that do have at least one reporter covering the environment part of the time typically expect that journalist to cover at least one additional major beat.
- Senior news executives at more than three-fourths of Western dailies acknowledge that their organizations provide no training in how to cover the environment, science, public health, government, business or economics.
- Reporters who have left the environment beat at Western dailies since the mid-1990s most often cite job dissatisfaction or disillusionment as the primary reason. In particular, they express frustration about having been allowed too little time and space to

do justice to complicated, issue-based stories.

"Most communities and citizens in the West are being deprived of information and insight they need," Allen explained. "Information and insight are what enable communities to carry on productive conversations. How else can they make responsible decisions about region's future? Unless newsgathering resources become sufficient, the citizens of the American West — and their society as a whole - will remain disadvantaged."

The report is available electronically at www.ijnr.org/wsi. Hard copies may be purchased by using the on-line order form or by calling 406-543-3812.

IJNR's Stegner Awards recognize nine Western newspapers

The Institutes for Journalism and Natural Resources has awarded the first Wallace Stegner Awards for exemplary coverage of the American West to nine daily newspapers, ranging in size from 9,000 to 900,000 circulation.

The winning newspapers were *The Anchorage Daily News*; the *Arizona Daily Sun; The Durango Herald; The Idaho Statesman; Los Angeles Times; The Oregonian; The Press-Enterprise* of Riverside, Calif.; *The Sacramento Bee* and the *Seattle Post-Intelligencer*.

The winners were honored Sept. 20 at a ceremony held on the Stanford University campus, where Wallace Stegner taught creative writing for decades and wrote extensively about the American West.

The nine winning newspapers stood out because of quality and persistence of effort by the newsroom as a whole, said Frank Allen, IJNR president. "We wish there were many more like them."

The winners were chosen by a panel of judges as part of IJNR's two-year study of environmental coverage by Western dailies, "Matching the Scenery: Journalism's Duty to the North American West."

Media on the move... (from page 9)

Move compiler **Elizabeth McCarthy.** With fellow SEJ member **J.A. Savage**, yours truly launched the independent weekly *California Energy Circuit* just after Labor Day. The irony of the timing has not been lost on us.

Like Back, we started with a smidgeon of seed money, "emphasis on smidgeon." I made the mistake of asking Back during an interview if the publishing job has gotten easier. "We seem to iron out a few wrinkles each time around, but the workload cer-

tainly hasn't subsided," Back opined. But like his publication, *Circuit* is a labor of love, emphasis on...

If you would like to inform your SEJ colleagues about a career move you have made, a book you have written, an award you have won or an unforgettable adventure you have had, contact e2mccarthy@cs.com with details.

Environment reporters of the South

Just one third of beat reporters are full time, study finds

By KRIS WILSON

The state of environmental reporting in the South is very similar to other parts of the United States, according to data released by researchers at the most recent Society of Environmental Journalists annual conference in New Orleans.

Although some notable differences were discovered between the three regions studied so far, researchers have found striking consistencies in who reports on the environment and how those stories are reported.

Like their colleagues in the Mountain West and New England regions before them, reporters in the South say time and financial constraints, not editors, are the biggest barriers to environment reporting. In fact, reporters in all three regions say their editors feel environment stories are "very important" or "important" (78-87 percent). But time remains a major obstacle.

The majority of reporters in the South cover the environment less than 33 percent of the time. Only one third spend 67-100 percent of their time covering the environment, which is similar to Mountain West reporters, but higher than those in New England.

"I think that is the most surprising finding," says Bill Dawson, a freelance writer and a respondent on the SEJ conference panel. "Even at this point in time for the beat, it is disappointing that very few reporters cover the environment even half-time."

Before becoming a free-lance writer based in Houston, Dawson also reported on the environment for several other papers in the South, including the *Memphis Commercial Appeal*.

The data are part of an on-going census of all reporters in the United States who report on the environment as part of their duties. Investigators call all daily newspapers and TV stations in selected states to identify who reports on the environment and how they do their job. The goal is not just a random survey of environment reporters, but a true census of all journalists who cover the subject.

"There is a need for this kind of baseline data in this field," says JoAnn Valenti, professor emeritus at Brigham Young University and one of the study's co-authors, "so we can identify patterns and track changes over time similar to the American Journalist research conducted every ten years."

David Sachsman at the University of Tennessee at Chattanooga and James Simon of Fairfield University are the other co-authors on the project. Sachsman and Valenti are members of the SEJ editorial board.

The results of these regional studies are being compared with data from other research of American journalists, such as the finding that journalists who report on the environment are much more educated than U.S. journalists in general.

This is especially true with environment reporters in New England (31 percent with a graduate degree), than in the South (15 percent with graduate degrees), but even that region is higher than the national average (11 percent with graduate degrees). Data in this study also show that the majority of reporters seek out additional training to cover the environment (72 percent in the South), but that they believe even more training is needed to

cover the beat better (78 percent).

Demographic characteristics of environment reporters in the South show similar patterns with colleagues in other regions. Environment reporters tend to be experienced (13.5 years in journalism and 7.9 years on the beat).

Analyses of top sources used in stories also show consistent patterns with reporters relying most heavily on state and local government and environmental groups. National government agencies and organizations, such as Greenpeace, were consistently the least used in a list of 30 possible sources.

In all three regions reporters say the framing of environment stories is most often government and human interest, rather than risk assessment, health or politics. Most reporters reject the idea that they overstate risks and alarm the public.

While most journalists who report on the environment are veterans, very few have the title of "environment reporter." More reporters in the South use that label than in any other region (34 percent), but the most common title in all three regions is "reporter/general assignment/staff writer."

In both the Mountain West and New England more than half of all daily newspapers had at least one person covering the environment, but in the South that figure drops to 40 percent. As with the other two regions, newspaper circulation in the South was the best predictor of how many reporters covered the environment. Most papers with circulations above 60,000 have at least one person covering the environment, but very few with circulations less than 14,000 do. The data for TV are consistent: Only 10-12 percent of TV stations in any of the three regions employ an environment reporter.

Most environment reporters in all three regions are satisfied with their jobs, like U.S. journalists in general, despite the relatively low pay (a majority of reporters in both the South and Mountain West make less than \$35,000 per year).

In total, the census identified 158 environment reporters in eleven southern states, with the bulk coming from Florida (39). One Florida environment reporter was also included on the panel to respond to the data.

"None of the results surprised me," said Mike Salinero, who works for the *Tampa Tribune*. "But this is the first time I'd actually seen data that show there are fewer environment reporters in the South, especially the deep South, and they are paid less than in other regions."

Like the data suggest, at his paper, Salinero says he reports on the environment about one-third of the time. He serves as a capital bureau reporter but contributes to a concerted team of reporters who cover the environment from a variety of perspectives, including water, growth and transportation beats. He previously worked at a smaller paper in Alabama where he carved out the environment beat on his own.

"Florida is very different, culturally and demographically than the rest of the South and the environment is a very important story here," Salinero said.

(Continued on page 27)

Environment on TV

Tips from a TV veteran on getting more play and airtime

By SCOTT MILLER

Each day at KING-TV in Seattle started with the "morning meeting" where producers passed judgment on the daily story rundown and chose from the menu like finicky eaters on a tight

budget.

Remember that people spend most of their free time around their homes. Look for environmental stories that affect people where they live, not just where they recreate. Think of pesticides, food safety, indoor air quality, household hazardous waste, mold, consumer choices, bad-tasting tap water or a smell in a neighborhood that just won't go away. The biggest challenges of my 15 years as an environment specialist seem to be encapsulated in those conference room conversations. One in particular pops to mind. I pitched a story on a significant court ruling that would force the government to do more to restore Columbia River salmon runs. One producer responded, "Does this mean the salmon are saved? If not, it sounds like a process story."

Viewed through the prism of television's tiny attention span, almost every environmental story is a "process story." Except for the rare oil spill or chemical leak, most environmental stories play out over a long period of time.

What's more, most environmental stories involve complex choices: Tradeoffs that aren't black or white but many shades of gray. This again flies in the face of television's penchant for simple conflicts with winners and losers. A consultant once told our newsroom, "Every TV story needs a good guy and a bad guy." What's more, most TV stories are short. A minute-thirty doesn't allow much wiggle room for nuance. That same con-

sultant admonished us, "The TV viewer can only grasp one basic idea per story." I disagree with both platitudes, but the views of traveling consultants are widely accepted in newsrooms across the country.

That's the bad news.

The good news is that in spite of those who preach and practice TV news by the numbers, I managed to get hundreds of environmental stories on the air during the 15 years I covered the beat at KING. I was not a charity case. If news man-

agers did not think my stories were a draw for viewers, my beat would have been banished to the recycling bin in a heartbeat. A big part of my success was learning to tailor the stories I pitched to the realities of television. Here are some of the techniques I used to run the "morning meeting" gauntlet and get a slot on the rundown.

Find an environmental angle to a big breaking story: Television is all about immediacy. The big story of the day will always dominate the agenda. If you find an environmental angle to that story, you'll get attention. Sometimes it helps to take out your crystal ball, so you're ready when breaking news hits. In the west, for example, it is reasonable to expect forest fires in the summer. One summer, I successfully pitched a multi-part series on forest health in the West by trumpeting predictions that we were headed for a bad fire season in the Northwest. The predictions proved correct and we were ready with stories that provided context so often missing from television. Without the fires as a peg, my forest health pitch would have fallen on deaf ears.

Elbow in on "team coverage": Television producers love to create the illusion that their crews are all over the top story of the day. Team coverage relies on "sidebars." Be ready to join the team when there's an environmental angle.

Have ample arrows in your quiver: On days when a triple homicide tops the news bill, it will be tough to latch on to the story of the day. On those days it is important to give editors a laundry list to choose from. I figured that only about one in every three stories I pitched would ever see the light of day. Keep a working list of story ideas for slow days. Mine contained more than a hundred by the time I left KING.

Use real people: We have some extremely articulate spokespeople from environmental and industry groups in the Northwest who made my job easier by speaking in sound bites. Still I hated seeing them in my stories. So did my editors. There's a common perception that environmental stories are not "people" stories. In a medium that values emotion over content, this perception can be the kiss of death. It is essential to populate your stories with real, compelling characters. If you don't have those characters, you might want to reconsider your pitch.

Think globally, act locally: Television is all about local news. If you don't have a solid local angle for an environmental story, it probably won't make the air even if the issue is of great national or international importance. Take climate change for example. When all the nations of the world gathered in Japan to draft what would become the Kyoto Protocol to control carbon emissions, I didn't have a prayer getting my editors interested. When I pitched a story that trees were taking over the famous flower-studded meadows in Mount Rainier National Park, probably because of a warming climate, I got a positive reception.

Every story does not have to save the world: Later in my career I really came to appreciate the value of what I called "microcosm" stories. These are local environmental issues that directly affect just one community or one neighborhood or even

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just one aggrieved citizen. For all their limits, these stories often resonate with viewers, not to mention editors. The pocket-sized heron rookery threatened by a housing development. The small community worried that a logging project will send landslides into their homes. The subdivision where the water has turned brown and the little water district that won't fix the problem. These stories help humanize environmental issues, which will help them get on the air.

Play up the health angle: In an era when specialty reporting on television is in decline, the health beat is alive and well in most TV newsrooms. Use this to your advantage. Always include potential human-health impacts as the centerpiece of your pitch. Track local and national public-health issues. If you have a health reporter or producer, try to share information.

I got some great environmental story ideas from medical journals, assuming I could find a local angle. For example, our medical producer told me about an ongoing study looking at the link between toxic chemicals in the environment and Parkinson's disease. I went to a local Parkinson's support group and found that many people suffering from the disease have suspected an environmental link from the moment they were diagnosed. It made for a moving and very saleable story.

Look for an edge: I have mixed feelings about this piece of advice. As I look back on my career, my favorite stories were longer pieces where I brought complex issues to life. Unfortunately, I found a three-part series on the property rights movement became an impossible pitch in my later years. The only stories breaking the twominute barrier today are "investigative" pieces that involve catching someone

doing something wrong. If you can't beat them, join them. Look for environmental stories that have a "gotcha" and *you'll* get more airtime.

Pictures, pictures, pictures: Producers will always ask, "What pictures do you have?" The challenge with environmental stories is that the necessary pictures aren't always easy to get in a morning of shooting. Rest assured that when you want to do a story on new local pollution standards the air outside will be clear as a bell. Without shots of a smoggy summer day, the story becomes a tough sell.

With that in mind, plan ahead and always be on the lookout for the video you'll need for later stories. During my time at KING, I saved several hundred field tapes. (Always save the raw video. It is easier to edit). I also collected video from other sources, a more controversial practice that has become commonplace in TV newsrooms these days. The government, industry and environmental groups will now often have raw video sources that will help you tell your story. I always sourced video from other sources with a super on the air. Policies on this vary from newsroom to newsroom.

The sound of success: Audio is the most overlooked asset in a television story. It adds critical texture and pacing to a story that help draw viewers in. When you are shooting a story, don't just look. Listen.



A KING-TV photographer scans the wilderness for grizzly bears in British Columbia's Manning Provincial Park. Large carnivores always make the air.

The environment is a big place: It is essential to take an expansive view of what constitutes an environmental story. If you come to your editors with a steady diet of forests and fish, they will start to tune out. I covered the advance of West Nile Virus as an environmental story. Many environmental reporters across the country became quick experts on bioterrorism after 9/11.

Remember that people spend most of their free time around their homes. Look for environmental stories that affect people where they live, not just where they recreate. Think of pesticides, food safety, indoor air quality, household hazardous waste, mold, consumer choices, bad-tasting tap water or a smell in a neighborhood that just won't go away. These are all the kinds of stories the decision-makers in my morning meetings got right away. Producers and editors try to cast them-

selves as the most impatient, remote control happy viewer in the market. If you don't hook them fast, you probably won't hook them at all.

Scott Miller spent 23 years as a television journalist, including 15 years covering the environment for KING 5 TV, the NBC affiliate in Seattle. Miller now is regional director of Resource Media, a non-profit dedicated to strategic communications and media outreach to promote sound environmental policies.

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Front-line sources key to national EPA probe

By CHRIS BOWMAN

Mike Leavitt, the new EPA chief, could be traveling a lot in 2004 to mediate environmental disputes around the country. Chances are, though, he won't follow his predecessor's practice of drafting pollution cops as personal bodyguards, door catchers and chauffeurs for road trips.

Members of Congress who control the U.S. Environmental Protection Agency's budget are now keen to the misuse of these highly trained criminal investigators after a few of them risked

EPA puffed up the number of criminal investigations it initiated, over-reported the number of cases it referred to federal prosecutors and heavily padded the length of prison terms served for environmental crimes, The Bee investigation found.

telling their stories to *The Sacramento Bee*.

Some of the lawmakers also are investigating the accuracy of the agency's enforcement performance reports, thanks to agents alerting *The Bee* to inflated claims.

As a reporter situated 2,800 miles outside the Capitol beltway, I may seem an unlikely one to have broken these national stories. *The Bee's* scope is primarily regional, not national. I've never been to Washington, D.C. on my newspaper's dime. I've never had a "high" EPA source, nor have I tried to develop one in my 10 years on the environment beat.

I have found, however, that I can net national stories without wiring myself to the powers-that-be. I've

done so by cultivating what SEJ's founding president, Jim Detjen, calls "front-line people."

These sources typically are not in the public eye nor schooled in sound bites. Yet they serve effectively as the public's eyes and ears on the environment. They could be air pollution inspectors, geologists monitoring stream flows, physicians in occupational health or wildlife photographers, ranchers, birders, hunters or anglers.

In the early 1990's, law enforcement officers in national forests of California and the Pacific Northwest led me to a story on timber companies fleecing big trees under the nose of Forest Service managers. Several of these same sources were the genesis of another exposé, "Shame in the Forest," on the hidden use and abuse of undocumented laborers in reforestation work in national forests.

In the recent EPA stories, my "front-line people" were plain clothed "special agents," armed criminal investigators who pursue the nation's most egregious polluters. Thinly stretched across the country, this elite cadre of 150 criminal investigators is at the heart of the agency's mission: "To protect human health and to safeguard the natural environment."

EPA enforcement managers in Washington, sources and documents

said, were diverting several agents at a time from high-stakes pollution investigations to guard and run errands for the agency's administrator, then Christie Whitman, on business trips.

What began as temporary EPA assistance at the sites of the Sept. 11, 2001, terrorist strikes rapidly institutionalized into a new national security mission for the environmental agency. Mid-level EPA agents drawing annual salaries of \$84,000 to \$100,000 and trained to go up against major corporate polluters were being tapped to work as glorified security guards.

Managers of the agency's Criminal Investigation Division had four or more agents at a time escorting Whitman on her many road trips to thwart pie throwers, or worse. Headquarters instructed agents on driving Whitman — "find a jazz station or classical musical station for the limo" — and had them mapping out in advance her preferred pit stops — Starbucks coffee shops and Barnes & Noble bookstores.

Some agents didn't mind the gigs. They earned up to \$32 an hour extra when the road trips ran into overtime. And the new security duties included standing watch at such major sporting events as the World Series in San Francisco and the Winter Olympics in Salt Lake City.

The EPA's response to *The Bee's* findings, published April 26, triggered a bigger story about the agency's practice under President Bush of overstating its success in fighting polluters.

J.P. Suarez, a Bush appointee who is the EPA's assistant administrator for enforcement, insisted that the new use of pollution investigators to guard Whitman and to aid the FBI's counterterrorism efforts did not come at the expense of environmental enforcement

"In fact," Suarez said in a prepared statement, "EPA's enforcement numbers in several categories are at an all-time high. The 674 enforcement cases initiated in 2002 was the highest ever."

Suarez's assertions did not ring true. How could the limited force of criminal investigators maintain, let alone increase their pollution casework while also taking on homeland security and the labor-intensive job of shadowing the EPA administrator on every out-of-town speech, conference, ribbon-cutting and Republican fund-raiser?

A little digging showed that it couldn't. Senior agents in four regions of the country said in separate interviews with *The Bee* that enforcement managers in Washington simply inflated the number of environmental crime investigations by lumping into the record counter-terrorism activities and even narcotics cases led by other federal agencies.

One senior agent said, "I called the FBI and said, 'If you need us, give us a call.' That warranted a (criminal) case number. There was no investigation."

In reports to Congress and the press, the environmental agency not only puffed up the number of criminal investigations it initiated, but also over reported the number of cases it referred to federal prosecutors and heavily padded the length of prison terms served for environmental crimes, *The Bee* investigation found. The pumped-up figures masked a significant drop-off in the federal government's pursuit of criminal polluters since Bush took office in January 2001, the story said.

(Continued next page)

Feature

Using "front-line" sources for this story was problematic. But learning to handle their off-the-record information paid huge dividends.

EPA agents are not authorized to speak on the major policy issues I was addressing. Quoting them by name on anything negative almost certainly would have damaged if not extinguished their careers. And few newspapers would want to rest a story entirely on anonymous stories.

I dealt with this problem by keeping the quoting of unnamed agents to a minimum: when they truly were the best and only source to make the point and when their assertions were backed independently by at least one other agent.

Also, I asked the agents to provide me internal agency memos supporting their first-hand accounts. The agents said they had no qualms releasing these records because their disclosure would not compromise pending investigations or enforcement tactics.

One of them turned me on to TRACFED, a fee-based data-base compiled by an independent research organization at Syracuse University. The nonprofit Transactional Records Access Clearinghouse provides information about federal enforcement activities — criminal, civil, and administrative – on the Web at trac.syr.edu.

The group's directors — David Burnham, a former *New York Times* investigative reporter and Susan Long, a statistician and professor at Syracuse — helped me tease out Department of Justice statistics on EPA enforcement.

The data showed that the EPA was taking full credit for prison sentences in what were basically narcotics cases. Though EPA investigators helped develop hazardous-waste charges against methamphetamine lab operators, the bulk of the prison terms actually were imposed for drug offenses.

The other reporting challenge I faced in these stories was "the blue silence." That's cop lingo for "We ain't talkin' to no stinkin' reporters." Cops defend cops, even if their superiors are cooking the enforcement books or reducing criminal investigators to security guards.

"We prefer to deal with it in-house," one of my sources said. "A lot of us thought it was awful to air our dirty laundry in public."

But this source and others felt they had exhausted in-house remedies.

"What worried me most was the complicity between the cops (those directing the Criminal Investigation Division) and the politicians," said the agent, the first I approached. "I can understand the politicians selling us out, but when the cops sold us out, that was too much. There was absolutely no other recourse, and I was ready to take the risk."

I gained this agent's trust with clips showing how I've used anonymous sources to expose wrongdoing without any trace of them showing up in print. I also scored points by being transparent in my reporting methods and soliciting advice on how to go about my investigation. I was, after all, talking to a professional investigator.

Further, I invited my editor, Bill Enfield, to join me in the first interview on the hunch that this would give the agent added assurance of confidentiality. This also helped sell my editor and his bosses on the story and the use of anonymous sources.

Once I established a level of trust, that agent, in turn, paved the way for me to talk to other agents. None opened up easily, even on the condition of anonymity. Others altogether refused to talk with me. I won respect among the agents for insisting on multiple sourcing, as they would in a criminal investigation. Though the agents freely related to each other the conversations they had with me, I was careful in my individual interviews not to disclose who else I was talking to and what they told me. The agents said they appreciated the strict adherence to confidentiality.

In the end, none of the sources to my knowledge were fingered or penalized. It wasn't for lack of bosses trying to find the moles. "In April when the story about Whitman using agents as bodyguards appeared, I felt for sure I was going to get fired," one agent-source told me.

Following *The Bee's* story on inflated enforcement figures, a group of 11 Democrats in Congress called for an inspector general's investigation into the Criminal Investigation Division. Investigators issued its conclusions in October confirming that the Whitman security detail robbed agents' time investigating pollution crimes. The report reached no finding on the honesty of the EPA's enforcement reports, saying investigators did not have the time to verify their accuracy.

Whitman left office last June, saying she wanted more time with her husband.

Leavitt, who won Senate confirmation of his appointment in October, apparently has no intention of tapping pollution investigators for his personal security. The plan as of November was to hire a handful of agents — probably with Secret Service experience — to do all the protective detail, according to an enforcement manager who oversees several agents in the field.

"So when Mr. Leavitt travels, he's not going to interrupt my agents," the manager said. "It's not going to shut down my operations for a week."

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Other Bush administration questions

The misrepresentation of the EPA's enforcement performance is part of a larger, still-unfolding story of the Bush administration's enforcement of environmental regulations.:

Ground Zero: An EPA inspector general's investigation found that the agency's pollution tests in the smokefilled days following the World Trade Center collapse did not support its announcement that the air around the smoldering wreckage was safe to breathe. (*Sacramento Bee, 3/16/02*) White House officials persuaded the EPA to minimize its assessment of the dangers posed by airborne particles from the skyscrapers' collapse. (*New York Times, 8/10/03*)

"Clear Skies": The EPA for months withheld findings of its analysis showing that a Senate plan to combat power plant pollution would be more effective and only marginally more expensive than would President Bush's Clear Skies initiative. (Washington Post, 7/01/03)

Climate change: The White House directed a major rewrite of an EPA assessment of climate change, removing references to health and environmental risks posed by rising global temperatures. (*New York Times*, 6/19/03)

— Chris Bowman

Inside Story... (from page 1)

the summer of 2002 where fecal coliform bacteria exceeded federal guidelines. Headline: Fouled Iowa beaches stay open.

The contest judges said: "Perry Beeman is a journalistic watchdog whose bite is as fearsome as his bark. In his enterprising and thorough investigative reports for *The Des Moines Register*, Beeman had the courage, and strong support from his editors, to take on both the Iowa state government (for underfunding environmental regulation and for leaving open beaches where bacterial contamination in the water exceeds federal guidelines) and the state's most prominent industry, agribusiness, (for trying to suppress scientific research critical of the industry and for the overuse of antibiotics that leads to the development of resistant "superbugs"). In particular, Beeman's probe of how agribusiness and its allies in government try to control the release of scientific research was a groundbreaking examination of an underreported national trend."

SEJournal posed a series of questions to Beeman to get the inside story on beat reporting and being a watchdog:

Q. Your entry includes four stories that obviously were not written on deadline. How do you choose the topics for the enterprise stories you do?

A. With the same mixture of techniques many reporters use. I hear things. I see things. I read about environmental issues all the time. I check in with sources. I attend meetings. I read hundreds of emails and visit many useful websites every day. I talk to movers and shakers in the halls, in the coffee shop, in their offices, or out in the sticks. When I see something I know our readers would want to know about, I dig in.

Q. What are two or three of the most important things a reporter must do to work the environment beat?

A. Know where to go for information (www.sej.org is a great start). Read everything you can about a topic, and get some training in environmental science if you can. Develop key sources. Keep up on what's going on in your community and state. Ask questions, all the time. Be curious. Be alert. If someone says there is no evidence of a problem, ask, "Have you checked for a problem? Do you have any sample results? I'd like to see them if you do."

Q. How many stories do you do in a typical year? How do you find most of those stories?

A. Some years I've written close to 300 stories. These days, I'm much more of a project reporter. I look for any spot stories that have to be covered, and for enterprise stories I know I have a chance to cover. I might do a few daily stories a week, plus have a project or Sunday story in the works. Most of the stories come from mining my sources, things I heard in meetings or in conversations with sources. I routinely check in with some government agencies and business and environmental groups, and of course get their press releases. I'm a big believer in getting on listservs (computerized email exchanges, like SEJ-talk). And, of course, sometimes you get lucky and get a tip from someone.

Q. How did the story on the scientists feeling pressure come about? What started it?

A. A combination of things. I had been following the research on possible health effects from hog-confinement emissions. I heard grumbling among the scientific ranks about pres-

sure from agriculture groups, and about how hard it was to get money for this type of research, perhaps because some didn't want to hear the answers. Then I heard about USDA scientist Jim Zahn's intriguing work on air pollution from hog confinements. I couldn't find it published anywhere.

Then I found out that his bosses wouldn't let him submit it. And I started getting calls from people upset about that. I met with one hog-confinement opponent who had dug into the case himself and he shared information. When USDA turned down several more of Zahn's requests to speak about his findings, I heard more grumbling. I had been aware of other cases, and it seemed like a good package brewing. I asked a few of my key sources if they had other examples of such censorship.

The trick was getting the information on the record. I kept digging, and eventually decided it would be a stronger package if it were more national in scope. I spent several months pursuing on-the-record interviews, smoking-gun emails and documents and finding ways to package the information.

Q. The key to the story about pressure on scientists is probably the list of sensitive issues that require pre-approval before research can be done. How did you find that?

A. I got that through a researcher who had followed Jim Zahn's case at Iowa State University. I heard about it first from an activist who had checked into USDA procedures after Zahn was refused permission to speak at a community meeting about a proposed hog confinement west of Des Moines. I eventually found it on the Web and got an updated copy from USDA offices, too.

Q. Tell me how you used a fax trail about a scientist's scheduled appearance, eventually canceled, to tie the pork industry and government scientists together.

A. A source gave me a copy of an agenda for the community meeting at which Zahn was to appear until his authorization was pulled 15 minutes before he left. The agenda had the fax header trail on the top of it. It happened that Zahn's office was in a building at Iowa State University that also contained an office for a major pork-producer association. The fax numbers showed that the fax had traveled from a Des Moines TV station to the state pork association, then to a national pork group's office in Zahn's building at ISU.

Shortly after, one of the national group's people called Zahn's boss to question the session, which was a Waterkeepers Alliance meeting featuring many opponents of large-scale confinements. Zahn's boss called the lab's regional office in Peoria, where a supervisor ordered the appearance canceled. So it was a combination of confirming the fax trail, and using interviews to piece together what happened after the paper trail stopped.

Q. While you primarily focus on Iowa scientists, you also bring in examples like JoAnn Burkholder of North Carolina State. Does the *Register* like to give stories a greater scope than just the state or region?

A. The *Register* has a long tradition of looking at the regional or national picture when a topic warrants a broader view. The pressure on scientists is a national phenomenon, which is one reason this package resonated strongly on campuses across the country. Many, many scientists told me attempts to suppress their (*Continued next page*)

Cover Story

work go on all the time, but few have felt comfortable detailing the problem on the record.

Once I started digging, various sources pointed me to other cases, and the story broadened. We were in a good position to study this because the agriculture industry is politically powerful and very active. My only disappointment is that several other compelling cases didn't make it into the story because no one would go on the record or provide documentation.

Q. I like the presentation of one main story and then several sidebar "case studies." Is that something the *Register* or you typically do? The sidebars are short and readable and serve as a sort of gigantic bullet item. Is that what they are designed to be?

A. In this case, it was a matter of presenting a large amount of information in a readable way. I suggested the case studies as a way to giving those elements more ink outside of the mainbar. It made the package easier to follow, and more dynamic.

Q. What sort of response did your package about pressure on scientists have?

A. The package was immediately picked up by university-scientist list-servs and posted on websites of environmental and agriculture groups all over. I heard from many scientists who were glad to see this problem exposed, and from readers who just thought it was a compelling package. The package even made it into the Congressional Record during a committee meeting that got into this issue. I can't

tell you that the face of university research changed because of this package, but I suspect some supervisors will be a bit more careful in how they assess employees' requests to publish papers or speak publicly about findings. In addition to the SEJ award, it was in a package of my stories that won the first place award for investigative reporting in the Iowa APME competition.

Q. One of the stories has the headline: "State seen as thwarting environmental efforts." I'd imagine lots of us have wanted to write the same story. Making the case is not as easy as it sounds. How did you decide to approach the story?

A. This was a good example of journalists' need to be flexible. I started investigating the Iowa Department of Natural Resources to find out why its staff draws so much criticism and charges of being lazy, incompetent or lax. In Iowa, that department is both the environmental-protection arm of state government and also administrator of hunting, fishing, forestry, prairie and waste-management programs. This story took a turn I didn't expect.

I knew from reporting on various environmental issues that the Legislature here has a habit of passing laws on environmental protection without giving DNR money to hire the people needed to do the job. In this case, the more I dug, the more I realized that both Democratic and Republican governors had systematically starved this department for at least three decades. The department does its job with virtually no general tax money: the state spends less than 1 percent of its general taxes on environmental and agricultural programs combined. And lawmakers have declined many requests for special taxes or fee increases.

A reporting key was sitting down with the department's budget director. I went through the entire operation, line item by



Iowa's Department of Natural Resources is known for its fish and wildlife duties, such as attending to these trumpeter swans. But the agency lacks staff and funding to fulfill its full environment-protecting mission.

line item. I compared that budget information with annual department audits and the state auditor said the department regularly breaks state law by failing to do things listed in the code.

I unearthed documents presented over the years that showed how many staff positions DNR would need to do the work assigned. I contacted many internal sources I developed over the years. I sought out several long-time DNR employees who had wanted to spill their guts for the past two decades and now were ready to talk because they had resigned to take other jobs.

Q. What sorts of roadblocks did you have to get around to do that story?

A. Not many. I had strong editor interest from the start, and once I explained what was happening they felt the budget starvation angle was well-supported. Probably the only real trouble I had was juggling breaking news assignments while working on that project.

Q. The final two stories in the entry deal with bacteria counts in Iowa lakes and swimming holes. One written in August 2002 was based on tests that the newspaper conducted. First, what caused you to decide to do that story?

(Continued on page 31)

■ Cover Story ■

Interviewing scientists... (from page 1)

sources:

even interviewed him after his talk. Yet he still seemed shocked that I'd been able to track him down, armed only with the conference abstract book that listed his place of employment. That interview led to a great story and a long-term relationship, but

the transition took some effort on my part.

for turning scientists into

Here are a few tips

Repeat back what you think you heard.

Most scientists' biggest concern is

that you'll get some-

thing wrong, you'll

attribute it to them

and it will make

them look stupid in print. Expecially

repeat back all

numbers. Getting

numbers wrong —

especially when it's "10 parts per mil-

lion" or "10 parts per

billion" — is an easy

and completely

avoidable mistake.

Explain the way you work. Scientists who haven't dealt with reporters before sometimes have unrealistic expectations, the most common being that they'll get to review the story before it runs.

Try not to call in a

Try not to call in a rush. Building any relationship takes time, and tackling tough science questions can take a while too. Be prepared for long answers. If you are on deadline and need a "Do you agree or not" quote the first time you reach someone, but they seem smart and useful, call them back soon with a bigger question you can get them to explain, even if you don't need the answer for anything in particular.

Be prepared for less than sexy quotes. Researchers are used to stating their conclusions in very qualified terms.

It's what they do. Actually, it's how it is. Most headlines on breaking science news really overstate findings, especially about health.

Ask lots of questions. Jargon is rampant in just about every scientific discipline, but most scientific concepts can be explained in plain English. Ask your scientist to use simpler language, several times if you must. (One of my favorite ecologists assumes that everyone knows what "trophic cascades" are. In his world, it's a fair assumption.) Repeat back what you think you heard. Most scientists' biggest concern is that you'll get something wrong, you'll attribute it to them, and it will make them look stupid in print. Especially *repeat back all numbers*. Getting numbers wrong — especially when it's "10 parts per million" or "10 parts per billion" — is an easy and completely avoidable mistake.

If you can meet in person, do. Some scientists talk with their hands and use whiteboards compulsively. If you can't meet, ask them to send follow up materials, papers or anything else that might help explain something. Often these will have interesting data.

Read their papers, at least the abstract, introduction and discussion sections.

Call back. I always tell people I may need to call them back if I run into questions as I'm writing the piece. They love it, which is good because I almost always need to do it.

Before you call, do your homework. Give the impression you're trying to understand the subject. Read the person's website — most universities have faculty pages. Know what he or she does. I know this is Journalism 101, but we all get busy and forget.

Finding Sources

Where do you find these folks?

At universities and research institutes, for the most part. And it doesn't have to be in the big-name spots, like the Marine Biological Laboratory in Woods Hole or the Scripps Research Institute. There are extremely smart folks at all types of universities across the country.

Just about every scientific discipline has a professional society through which you can locate members near you. A quick Google search will usually turn up the societies. I've also had luck calling the public information office at a smattering of universities and asking if there's anyone there working on whatever problem I'm covering. Also, ask your colleagues in SEJ.

Obviously, you should be wary about relying only on scientists supplied by other sources, be they a business alliance or an environmental group. Often, fabulous academic experts will not be household names, even if they are considered top notch by everyone in their field.

The next step is evaluating your new source's connection to the question you're looking into. You don't necessarily want someone with no connection to your question — someone who's never done related research. After all, it's through research that we get information. At the same time you'll want to know about institutional or financial connections to a project. University faculty are expected to get outside financial support for their research, so it's fair to ask about who is funding their research.

Much research is government funded (National Science Foundation and National Institute of Health grants). But more and more is funded by industry. This is especially true in pharmaceutical development, but it's happening in other places, too.

Sometimes it helps to go outside of your own geographic region, if locals are too likely to have an interest in your story. But don't write off local scientists entirely either. Sometimes the most knowledgeable experts will be close to home.

For example, Santa Cruz, Calif., where I live, attracts researchers who study coastal ocean issues. It can also be useful to ask scientists about their colleagues, both who else they'd recommend, and, most importantly, who disagrees with them.

Traditionally, scientific debates are pretty open things. More than once I've had someone tell me something like "Oh you really need to talk to John Doe at The University of Wherever. My (Continued next page)

Cover Story:

research contradicts him, and he's pretty upset — really disagrees. Hang on a sec, I'll get you his number."

Last year, magazine writer Mark Schapiro decided to look into the question of whether gene drift from genetically modified corn was a real issue. The GM food debate is a classic example of a story where almost every source can seem to be on one side or another of clearly drawn battle lines.

Schapiro said that at one point he noticed that people on both sides of the questions kept referring to one scientist who seemed to keep above the fray. He sought that scientist out and found someone who could help him figure out what the research said, not how it supported any agenda. The result was a cover story in *The Nation* and a segment on "Now" with Bill Moyers, in which Schapiro was actually able to lead his audiences through the science, instead of simply quoting talking heads on each side of the debate.

This is the kind of story we miss when we decide that ques-

tions of science are over our heads. After all, if we don't tackle these questions, who will? While, yes, of course it's important to seek out everyone involved in a story and give space to conflicting opinions, when it comes to scientific questions, sometimes one side really is right. Or it is as right as is possible given the state of knowledge at a given time.

When we say, "I can't figure this out, so I'll give both sides equal time and treat them as equally likely to be correct," we do our readers a disservice. Think climate change: You can acknowledge the existence of dissenting opinion at the same time that you point out the existing of widespread scientific consensus. Many other questions would be better answered that way.

Robin Mejia is a freelance journalist in Santa Cruz, Calif. She's currently writing about crime labs as a Soros Justice Media Fellow.

Journalist-scientist workshops improve science communications

By BUD WARD

Leading science and environmental journalists are embarking on a multi-year project with world-class climate and marine scientists in an effort to improve the public's understanding of climate and marine science.

The effort is aimed at sharing between the journalistic and scientific disciplines the "inviolable principles" — the foundation stones of strong and independent journalism and of sound and responsible science. At the same time, the effort seeks to identify "common enemies" that can impede effective communications to the public on science-related news and information.

The multi-year effort officially got under way Nov. 9-11, 2003, at the University of Rhode Island, under the auspices of the Metcalf Institute for Marine and Environmental Reporting.

The Metcalf Institute is a continuing education resource for the news media and, since mid-2002, the publisher of the independent newsletter *Environment Writer*.

The opening workshop in Rhode Island is to be followed by two or perhaps three additional workshops in 2004, the first to be held March 17-19 at the Scripps Institution of Oceanography, in La Jolla, Calif. Subsequent workshop locations and dates are still to be determined.

The workshops, funded by a consortium of federal agencies, are an outgrowth of a series of regional journalism workshops on the known and unknown impacts of regional climate change conducted by the staff of *Environment Writer*.

While the individual journalists and scientists participating will vary from workshop to workshop, an ongoing electronic listserv will ensure that those active in any one workshop will be kept abreast of activities from each of the others, helping to create a "community" of workshop participants. Through that listserv, participants in later workshops will be able to learn from earlier workshop activities. This avoids each subsequent workshop "reinventing the wheel." In addition, each workshop will pass on to succeeding workshops an informal "unfinished business/to do" list.

New York Times science and environment reporter Andrew C. Revkin is to keynote both the Rhode Island and the Scripps

workshops with remarks on the principles and standards underlying responsible and independent journalism. The counterpart scientific presentation at Rhode Island is to be made by Jerry Mahlman, Ph.D., formerly with the National Oceanic and Atmospheric Administration and now with the National Center for Atmospheric Research, in Boulder, Colo.

In advance of each workshop, invited journalists and sci-

entists are being asked to specifically address several questions in an effort to help structure the workshop discussions.

For instance, some participants in Rhode Island workshop in early November pointed to a concern that scientists sometimes see the news media as an "extension" of their scientific research; that scientists do not adequately understand and appreciate the roles and

Balance has its place in news reporting, but it also can provide a lazy reporter a convenient shield against more thorough reporting that could help citizens reach sound conclusions in complex science fields.

responsibilities of reporters or how editorial decisions are made in the news room; and that they often fault reporters for "not asking focused questions."

In addition to pointing to the different "cultures" of journalism and science, some attendees pointed in advance of the workshop to a widespread distrust between the two.

"Each group is, more or less, contemptuous of the other," one editor suggested. "Scientists are too specialized; journalists are too ignorant."

Some scientists and journalists appear to agree that each (Continued next page)

Risk... (from page 5)

Bruggers said that as he has analyzed the environment beat, he has learned to pursue stories about threats that are more important to people's health, rather than those that may sound bad but are less worrisome from a risk perspective.

"I've become less interested in dump sites and that kind of thing," Bruggers said.

When delving into an environmental health issue, Bruggers said, it's key to embrace the scientific uncertainty inherent in many stories, discuss this with editors from the outset, and be clear in the story about the limits to knowledge about a problem.

"If you wait until the jury is back before writing . . . you'll be waiting a very long time," Bruggers said. "We would have only written about tobacco and cancer in the last few years."

Computer-assisted reporting can help reporters get behind risk issues in ways that don't leave the journalist at the mercy of government information handouts, Bruggers said. Befriending university professors who are willing to spend time exploring the issues also can help put risk into perspective, he said.

Seeking out risk experts who are independent from a regulatory body helped panelist Kevin Carmody, environment reporter at the *Austin American-Statesman*. By doing so, he was able to accurately depict the problems associated with a polluted pond that was a popular swimming hole, he said.

Initially, the swimming area was closed. After checking into

the levels in the swimming hole, officials decided to reopen the pond to swimmers. They did, however, order a cleanup of a contaminated site upstream.

The key thing to get across to readers, Carmody said, was that the exposure duration and frequency are critical to whether a swimmer will be affected. Someone swimming there 30 times a year might present a one-in-a-million risk of additional cancer, while a person who dipped daily might expect to increase cancer risk to the tune of one in 100,000.

For reporters interested in learning more about risk communication, Ropeik suggests "Environmental Health" by Dade W. Moeller, Harvard University Press, 1992. A helpful website is the ToxFAQs page of the ATSDR: http://www.atsdr.cdc.gov/toxfaq.html

Bruggers suggested Ropeik's book, "Risk: A Practical Guide for Deciding What's Really Safe and What's Really Dangerous in the World Around You," Houghton Mifflin, 1992.

Ropeik said that while reporters should be focused on risk issues, they should also have their ears out for those who are trying to hide an agenda.

"The phrase 'sound science' has been so hijacked and abused," he said, "that I wouldn't trust anyone who uses it."

Robert McClure covers environmental issues for the Seattle Post-Intelligencer.

Workshops... (from page 23)

tends to stereotype the other: Journalists have a "need" to polarize science as they would a battle between lawyers; scientists often have hidden policy or political agendas, and they tend to shun and look down on the media in any event.

Both journalists and scientists preparing to attend the Rhode Island workshop appeared to express some misgivings with the nature and application of "balance" in reporting on science-based issues. Both appeared likely to suggest that balance has its place in news reporting, but it also can provide a lazy reporter a convenient shield against more thorough reporting that could help citizens reach sound conclusions in complex science fields. Both reporters and scientists appeared prepared to consider how "reporting in context" might be an antidote to the simple pursuit of "he said/she said" balance. They appeared likely to also support reporters' more aggressively disclosing potential conflicts of interest that readers should know about in considering a scientist's comments.

Another idea that appeared likely to arise will be the beneficial and perhaps pernicious impact of aggressive embargo policies imposed with virtually each new edition by respected journals like *Science, Nature*, and the *New England Journal of Medicine*. Both the participating scientists and the journalists expressed pre-workshop anxieties about the impacts of those frequent embargoes.

The journalists invited to participate in the ongoing series of workshops over the next two to three years are being selected based on their own extensive professional experience in covering issues related to climate and atmospheric science and oceanography. They are expected to represent all walks of journalism: print and broadcast; large and small; public and commercial; daily, weekly and monthly, etc. The scientists are chosen on the basis of their professional standing in the most respected science circles, on their extensive experience in working with reporters, and because they have given considerable consideration to working with the media.

The science communications/mass media workshops project is funded by four federal agencies, led by the National Science Foundation's Geosciences Directorate/Paleoclimate Program.

Additional support is being provided by the U.S. Environmental Protection Agency's Office of Atmospheric Programs, through a grant to the nonprofit Environmental Law Institute; by the National Oceanic and Atmospheric Administration's National Centers for Coastal Ocean Science, through in-kind program support; and by the National Aeronautics and Space Administration, through a grant to the Scripps Institution of Oceanography at the University of California at San Diego, a partner in the workshop series and the host for the second workshop.

For more information, contact the author of this piece (who is also the program manager for the workshops project) by e-mail at wardbud@cox.net.



Rainforests, sea turtles, endangered oceans and electricity

A LAND ON FIRE By James David Fahn Westview Press, \$27.50.

TROUBLE IN PARADISE

By J. Timmons Roberts and Nikki Demetria Thanos Routledge, \$18.95 paper, \$85 cloth.

TROPICAL FORESTS, INTERNATIONAL JUNGLE By Marie-Claude Smouts, translated by Cynthia Schoch Palgrave MacMillan, \$59.95.

Reviewed by JIM SCHWAB

What people are likely to see in the rainforest may depend more on their own cultural and ideological perspectives than what is really there.

This is the painful truth brought out by Marie-Claude Smouts, a French political economist and author of *Tropical Forests, International Jungle*.

Where Western environmentalists often see virgin forest, she writes, indigenous people see a home they have occupied for centuries. In fact, the wilderness of much of the Amazon is itself an artifact of European invasion. Due to introduced diseases, enslavement, and warfare, the extensive native population that existed prior to the arrival of the Portuguese plummeted.

Smouts explains that there are many, widely varying kinds of rainforest. Unfortunately, our use of the term creates some level of abstraction that obscures important distinctions from one part of the world to the next.

Does the fact that our western notions of Amazonian wilderness may be skewed mean that we should not work to save the rainforest? That is hardly what Smouts or any of the following authors is suggesting. Instead, they suggest that the better question may be how to save it and why.

This trio of books is best read together for their combined geographic range.

Fahn, an American journalist who speaks fluent Thai and spent years working a Bangkok-based Thai newspaper called *The Nation*, relates the story of environmental degradation in Southeast Asia. He is best at detailing the complex interaction of environmental protection and the democratization of the Thai political system, a story that leaves one realizing that there are few simple answers to the questions of *how* and *why*. He leads you gently, but firmly, to the conclusion that, while the most efficient solution for protecting the environment may be a benevolent, popular, environmentally minded dictator, we have never seen such a person in power. The reality is that we must argue and fight through the democratic system to construct a better world. We must learn to become our own best hope for the future of the world, he says.

Roberts and Thanos, both educators, focus their attention on Latin America, walking us through the challenges of building sustainable economies amid massive poverty and finding signs of hope in places like Curitiba, where the poor can obtain free transit and food coupons by bringing their trash to recycling centers. Curitiba has become a cleaner city than most of Latin America has ever seen.

Smouts focuses her attention primarily on the international political and economic institutions whose decisions have enormous impacts on the fate of the world's forests. For example, understanding the impact the World Bank, the UN's Food and Agriculture Organization, and similar entities in Africa is a critical counterbalance to a narrower focus on regional issues, she says. It brings us back to the question of who sees what in the rainforest, what their motives are, and how all these powerful interests make trade-offs that affect the welfare of indigenous peoples.

She notes the almost insurmountable difficulty of achieving common agreement on the real value of the rainforest. That agreement is, of course, central to deciding what to preserve and for what reasons, and who should be compensated for what losses. She notes with some alarm the degree to which ecological economists have filled this void in the international arena. The reader becomes concerned that economists have their own myopic professional culture that influences their vision of the rainforest and how they value it. While they may take note of concepts like "option value" (the possible use of a resource in the future), and "existence value" (the benefits people derive merely from knowing that a particular natural resource exists), she points out that these actually become mere footnotes, at best, in economists' cost-benefit analysis calculations. She quotes from a guide to forest land use in Southeast Asia:

"Option and existence values are rarely included ...despite the fact that there is evidence to suggest that these values can be very high. One reason for this is that ... this is a time consuming and expensive research technique."

In other words, ignore what is too hard to calculate. Smouts writes, "Everything is taken into account except for the intrinsic value that an environment holds for people who know nothing else."

Many of us can attest to the fact that the cost-benefit approach enjoys broad acceptance well beyond the professional community that created it, and it has its merits for many purposes. But the tropical rainforest tends to defy such formulations. Meanwhile, the often bitter and brutal disputes over tribal rights and economic development continue to fester — from Burma, Brazil, to the Democratic Republic of the Congo.

Smouts raises vital questions about the purported universality of the cultural values that ecological economists have brought to the task. These are significant and sobering questions that do not make the job of the environmental journalist any easier.

Just ask James David Fahn.

He concludes his book with an epilogue telling of a meeting at the World Summit for Sustainable Development in Johannesburg in 2002. During the meeting, a spokesman for the *zebaleen*, the poor who collect and earn money from garbage in Cairo, described their success in recycling 80 percent of the city's waste stream. Their livelihood was threatened by the city's desire to sign a contract with a multinational waste management firm. It

(Continued next page)



appeared that the firm was unlikely to see the same "supermarket" amid the waste that the *zebaleen* have known for years. The result? Cairo's recycling rate would suffer.

Jim Schwab is a senior research associate and co-editor of Zoning News for the American Planning Association and the author of Deeper Shades of Green (Sierra Club Books, 1994).

FIRE IN THE TURTLE HOUSE: THE GREEN SEA TURTLE AND THE FATE OF THE OCEAN
By Osha Gray Davidson
Public Affairs Books, \$15

Reviewed by MARY MANNING

Ancient sea turtles have survived everything the world has thrown at them, including the extinction of the dinosaurs.

So why are they now growing tumors?

As one of the oldest creatures on earth, green sea turtles, from Maui to the Florida Keys and beyond, are an important species to watch. Scientists say they may be indicating a major change in the world's oceans, perhaps to the planet itself.

The book begins with the author suspended 40 feet below the surface of the ocean in the Turtle House, a stretch of water off the west coast of Maui. While Davidson watches an exotic Picasso triggerfish, his dive partner Ursula points at what appear to be boulders. She jabs her finger over and over until he realizes the rock is staring back at him.

The "rock," named Tutu, pushes off from the ocean floor and ascends. Ursula shows him a laminated sheet where she has recorded this female turtle's history.

Sea turtles like Tutu are dying from disease and commercial fishing.

A large number are being felled by a disease called fibropapillomatosis (FP) caused by a virus which creates tumors on sea turtles. Discovered in 1986, FP has weakened the turtles, making them more susceptible to predators like sea lions and sharks.

Viruses are a key player in one of many marine diseases. Environmentalists have decried water pollution and over-fishing for decades, but it has been in the last decade or two that scientists have escalated their research on marine diseases, tracking potential causes from pfiesteria to dinoflagellates, organisms that have polluted fresh and salt waters, sickening fish and humans alike.

Davidson interviews many individuals — from scientists to native storytellers — who have joined the fight to protect the sea turtle.

As research progressed, scientists were alarmed to discover that the FP virus was spreading to other species, including the Kemp's Ridley, the most endangered sea turtle in the world.

The mass decline of species in the oceans has been closely watched by scientists since the 1980s, Davidson notes. Ocean species are experiencing "metademics," so called because they cut down all levels of sea life from plants to fish to mammals.

Marine "metademics" are still poorly understood. For example, it is possible that viruses like FP become altered in the dynamic environment of the sea, producing toxins or emerging in more virulent forms.

What is worrisome to people such as Hawaiian storyteller

Ka'ai, who is profiled in the book, is the loss of a creature that is the bedrock of Pacific Island mythology.

The sea turtle, which travels through the water between heaven and Earth, is a link between the two mediums. Ka'ai tells Davidson that the turtle is the foundation.

Davidson opines that both the realms of science and storytelling have a critical similarity: Both are based on long-term observation.

There is hope in the amount of resources and work dedicated to studying marine species, he says. He cites the \$1 billion, 10-year Census of Marine Life, begun this year in 24 nations by biologists, environmentalists and fishermen.

Humans still know so little about the ocean, because we came late and inhabit dry land, Davidson writes.

But if we fail to act to protect it, Davidson maintains, our children may inherit "a sickly ghost" of an ocean.

Mary Manning is an environmental reporter at The Las Vegas Sun.

THE EMPTY OCEANS
By Richard Ellis
Island Press/Shearwater, \$26

THE WHALING SEASON
By Keiran Mulvaney
Island Press/Shearwater, \$26

Reviewed by JIM MOTAVALLI

Last June, the Pew Oceans Commission issued a report that reached a rather dire conclusion.

"Thirty percent of the fish populations that have been assessed are overfished or are being fished unsustainably," it said. "An increasing number of these species are being driven toward extinction. Already depleted sea turtle, marine mammal, seabird and non-commercial fish populations are endangered by incidental capture in fishing gear. Destructive fishing practices are damaging vital habitat upon which fish and other living resources depend. Combined, these aspects of fishing are changing relationships among species in food webs and altering the functioning of marine ecosystems."

The report made a splash, but overfishing is not a new story. We certainly knew something was up in 1992 when the Canadian government reluctantly closed Newfoundland's Grand Banks, once the world's most productive cod fishery. A resource so vast that Britain and Iceland had fought wars over its spoils was depleted, perhaps never to recover.

A 1961 book was entitled "The Inexhaustible Sea," but we knew more than a century earlier that the oceans' bounty was finite. North American sealers discovered the vast populations of fur seals in the southern oceans in the late 18th century and proceeded to slaughter them indiscriminately for the lucrative Chinese market. After more than five million were taken, populations crashed, and by 1810 the sealers were out of business.

This story and many others, equally depressing, are told in Richard Ellis' book "The Empty Oceans."

Ellis has produced a beautifully written, encyclopedic volume of abuse, and illustrated it with fine drawings of the victims.

(Continued next page)



Unlike Carl Safina's "Song for the Blue Ocean" published in 1998, this is not a work of reportage, rich in observation and vivid in its descriptions of blood in the water. Instead, Ellis is a researcher, working entirely from secondary sources.

From his office at the American Museum of Natural History, where he works as a research associate, Ellis has seemingly compiled every eyewitness account, fisheries report and reference in literature (Edgar Allen Poe, it seems, wrote about sealers in his 1838 "Narrative of Arthur Gordon Pym of Nantucket") to tell this vast story.

The result is not a dry, scientific report, as well it might have been, but an engrossing read, leading to the inescapable conclusion that we are tragically plundering down the food chain. Today, fishermen pursue what were once believed to be "trash fish," from the Patagonian toothfish (a.k.a "Chilean sea bass") to the orange roughy. And even these have rapidly become depleted.

From the war on the whales to the destruction of the world's coral reefs, Ellis writes, we have committed "massive acts of violence against our Mother Ocean, she who gave us life and has sustained us so selflessly." The empty ocean is not yet a reality, but it may soon be one.

The British-born Kieran Mulvaney, who now lives in Alaska, felt the personal call to intervene in this sea of slaughter. He was a cofounder of the Whale Conservation Society in 1987, but soon felt the call to take more direct action on behalf of the world's cetaceans. Although commercial whaling was suspended by international treaty in 1982, Japan, Norway and now Iceland continue to take hundreds of mainly small minke whales annually under a loophole that allows a "scientific" catch.

"The Whaling Season," unlike Ellis' book, is a highly personal account, complete with the author as an occasionally cranky but deeply human narrator. Were it not for a series of strategically employed Jägermeisters served to him in an Amsterdam café, he might never have set out on the first of what proved to be four Antarctic voyages full of dramatic confrontations with renegade Japanese whalers.

Mulvaney skillfully weaves scientific information and international whale politics into his story, which makes clear that chasing whaling ships is in no way like a Hollywood movie. Instead of satisfying engagements at sea that send the villains scurrying for home, we get quite a bit of tedium and fruitless searching in the vast reaches of the Antarctic seas. "...[W]e did

little except sit around the table in Arne's cabin, staring at a chart as if the whalers might suddenly appear on it, mumbling a little, and agreeing to continue steaming up and down or drifting for half a day at a time," he writes in a description of the second "Voyage From Hell" in 1992.

Unlike the more confrontational Paul Watson of the Sea Shepherd Conservation Society, Greenpeace does not ram drift netters or sink whaling boats in Reykjavik harbor. Instead, it puts its volunteers in harm's way, blocking harpooners with inflatable Zodiacs. As Mulvaney recounts, the whalers alternately ignored the Greenpeace crews, fled their approach, shot them with water cannons or baited them with crudely written signs. "Greenpeace is a Sham," read one.

There is no happy ending. Five whaling ships took more than 400 minke whales from Antarctic waters in the 2003 season. While whaling nations attempt to lift the commercial moratorium established by the International Whaling Commission, a new study published in the journal *Science* concludes that historic stocks of humpback and fin whales may have been vastly larger than previously thought, rendering their current small populations even more tragic. And the World Wildlife Fund estimates that nearly 1,000 whales, dolphins and porpoises drown daily after becoming entangled in fishing gear. The emptying of the world's oceans continues.

Jim Motavalli is editor of E/The Environmental Magazine, and the author of "Breaking Gridlock: Moving Towards Transportation That Works" (Sierra Club Books). He is also editor of the forthcoming "Feeling the Heat: Reports from the Frontlines of Climate Change," which will be published by Routledge in March.

POWER PLAY: THE FIGHT TO CONTROL THE WORLD'S ELECTRICITY
By Sharon Beder
The New Press, \$25

Reviewed by KAREN FLAGSTAD

Remember when electricity deregulation was heralded as the (Continued next page)

Southern reporters... (from page 15)

Dawson said he had just finished another article on environment reporting in Florida and offered this additional analysis—
"Not only is Florida rich with environmental stories, but it also has a thriving newspaper industry as well, with many large papers that can support the beat."

Until California and Texas are completed in 2004, along with the Mid-Atlantic and Midwest, Florida's total number of environment reporters is likely to remain the largest of any single state. Ultimately the co-authors hope the project may become a book that combines the results from all the regions.

"We think the people who will learn the most from these

results are the environment reporters themselves," said Sachsman. "We've had nearly 100 percent participation from environment reporters. They want to know how their work compares with their colleagues and how their work fits in the bigger picture. This large census is the only study to do that since the modern environmental journalism movement began 40 years ago."

Kris Wilson is an assistant professor of journalism at the University of Texas in Austin.



smart road to consumer choice, increased market *and* energy efficiency, lower rates, and — with consumers free to choose greener forms of energy — new markets for renewable energy sources?

Some environmental groups bought into the idea. So did EPA. As an EPA employee during the Clinton-Gore administration, I remember deregulation being the context for the 1998 launch of the searchable online database eGRID, designed to give consumers access to emissions data and other information on power plants and generating companies across the United States.

The anticipated scenario: Informed consumers would choose among competing utilities in light of their environmental records, and the utilities would compete with each other for the greenest record (see www.epa.gov/cleanenergy/egrid/). Instead consumers were exploited and conservation, renewable energy and the environment sank to the bottom of the agenda.

What soared were the profits of Enron and other companies that strongly advocated deregulation in the first place. Then, as everyone knows, Enron overreached and fell.

One of many ironies highlighted by Australian social scientist Sharon Beder in this remarkable 100-year history is that the late 20th century push for consumer choice didn't come from consumer advocates, despite U.S. bill titles such as "the Electric Consumers' Power to Choose Act." Beder does not mince words about the false promises of deregulation:

"Electricity rationing in Brazil... Blackouts from California and New York to South Australia and Buenos Aires... Mass protests in India, Africa, and across Latin America. Enron, the seven-largest company in America, goes bankrupt... And in Auckland, New Zealand, the central business district goes without power for weeks. Welcome to the brave new world of electricity deregulation and privatization."

If deregulation facilitated so much havoc, allowing Enron *et. al.* to manipulate energy markets, fake energy shortages and inflate their own profits, how in the world did so many policymakers come to think it was a good idea?

Beder's stated purpose is to explore that question, her reporting made possible by Enron's bankruptcy and the ensuing investigations that made documentation available. To sum up her answer: neo-conservative ideology and free-market rhetoric nurtured by Margaret Thatcher and Ronald Reagan; hundreds of millions of dollars of lobbying and PR, resulting in political influ-

ence that takes your breath away; and strategies developed by neo-conservative think tanks established as part of a backlash against environmental and consumer movements. One such strategy mentioned: Say that environmentalists caused electricity shortages by protesting against construction of additional power plants. Too brazen to be believable? You decide.

It's all happened before. Gifford Pinchot spoke out against the abuses of the U.S. electricity industry in the 1920s, saying, "Nothing like this gigantic monopoly has ever appeared in the history of the world." Then came the Depression and in 1931 the bankruptcy of the vast utility holding company Insull Trust — the biggest bankruptcy in U.S. history at that point. U.S. regulation of monopolistic utility companies took shape in the wake of that scandal, but not before widespread blackouts, rate spikes, lost jobs and stock free-falls.

The landmark Public Utilities Holding Company Act (PUHCA), aimed at breaking up huge holding companies such as Insull Trust, passed in 1935. Additional legislation helped to lessen the reach of utility conglomerates. Of course, the PUHCA and related utility regulations are exactly what Enron and others worked to undo. Enron managed to get itself exempted from PUHCA, and if the Energy Policy Act of 2003 becomes law, PUHCA will be repealed. This on top of eliminating New Source Review under the Clean Air Act... but that's outside the purview of this book.

Is *Power Play* an unbiased history? Sharon Beder is an unapologetic critic of deregulation and monopolistic private utility corporations, so no doubt proponents of deregulation would say she is biased. In my view, she makes a convincing case, and her book is extensively documented (though sometimes secondary sources are cited where I expected a reference to a primary source). *Power Play* changed my perspective. For one thing, I may have a hard time seeing market-based environmental protections the same way. I keep thinking of that computer program called *Matrix* that Enron managers used to anticipate new profit opportunities that particular increments of deregulation would open up for them.

Karen Flagstad is a freelance writer living in Portland, Ore., where Pacific General Electric, once owned by Insull Trust, is currently owned by the creditors of bankrupt Enron. She previously worked for the Environmental Protection Agency in Washington, D.C.

Research news roundup... (from page 13)

injustice and its implications for the present.

In "Shades of Darkness: Race and Environmental History," Merchant suggested that colonization and slavery contributed to the omission of many people of color from environmental history or led to their depiction as victims. Despite recent successes in the environmental justice movement, much work remains to be done on a global scale, Merchant suggested.

"Legislative and legal victories that linked human rights and nature's rights . . . are belied by the realities of life in twenty-first century America," she wrote. "Segregation and poverty still militate against equal access to resources and encourage toxic waste 'Dumping in Dixie.' ...[The] American Eden became a colonized Eden that could be extended to other countries. The control of the wild represented the kind of state that Western societies could export throughout the world to colonized 'Other' lands."

Jan Knight, a former magazine editor and daily newspaper reporter, is assistant professor of communication at Hawaii Pacific University in Honolulu. Her research focuses on environmental journalism and international communication. She can be

Regional pollution and the politics behind it

Compiled by MIKE DUNNE

The best stories are often found in your own backyard — but an even better story might be written by looking at the problems in other backyards, too.

That's exactly what the *Naples News* did in September and October when it ran a 15-part series of stories on the health of the Gulf of Mexico. The series looked at nutrient runoff from the country's heartland that runs down the Mississippi River to create an annual "dead zone," the loss of fish habitat, coastal pollution from urban areas and industry alike, the impact of offshore oil-drilling and overfishing.

"There wasn't anything in the series that was a huge, big bombshell. The bang was really putting it all together," said Eric Staats, the paper's environment writer and one of several members of the staff who helped produce the big series, "Deep Trouble."

Staats said many of the problems the Gulf of Mexico faces have been covered by the *Baton Rouge Advocate*, *Mobile Press-Register*, New Orleans *Times-Picayune* and the *Houston Chronicle*. "They have all done stories on what was going on in their backyards."

The series began with a problem in Naples' backyard. In the spring of 2002, general assignment reporter Cathy Zollo began writing about "black water" as fishermen call it — an area of hypoxia, or low oxygen. In looking for causes, Zollo found a report that outlined a wide variety of hypoxia problems in the Gulf of Mexico. While there has been a lot of coverage of a large hypoxic zone off the coast of Louisiana each year, there are many others that had received less attention.

Zollo convinced the newspapers' editors "We need to do a story on what's happening to the Gulf of Mexico," Staats said. Stories were planned about the gulf, the Corn Belt and other places that contribute to the Gulf's problems.

"Everything we write about here has something to do with the environment," Staats said. "Once people in the newsroom got wind of what was going on, they wanted in on it."

The newspaper also decided to use "Deep Trouble" to try new multi-media presentation ideas on its website.

While Naples readers were treated

to the 15 "chapters," it was the Internet that gave the newspaper's work wider circulation.

"Word spread pretty quickly," Staats said. "We got e-mail from around the country."

The series is still available on the Internet at www.naplesnews.com.



While the Gulf of Mexico's pulse was being taken, reporters in The West were busy covering wildfires, especially in Southern California.

The wildfires warmed up the effort by the Bush Administration to approve more forest-thinning options and limit anti-logging efforts. The U.S. Senate approved a bipartisan compromise.

Helen Dewar of *The Washington Post* reported Oct. 30 a modified version of President Bush's "healthy forests" initiative was approved. It will expedite thinning operations on 20 million acres of firethreatened federal lands by spending, if Congress authorizes it, \$760 million a year. That's more than double current thinning budget. At least half of the money

would have to be spent on forested areas near populated areas.

The Associated Press's Jeff Barnard reported Oct. 13 that an environmental group filed a lawsuit Tuesday that it hopes will force the U.S. Forest Service to stop routinely fighting wildfire. Forest Service Employees for Environmental Ethics, based in Eugene, Ore., filed the lawsuit in U.S. District Court in Missoula, Mont., seeking a court order to force the Forest Service to prepare an environmental impact statement on wildland firefighting, including an examination of the toll in human life.

Paul Rogers of the San Jose Mercury News reported Nov. 2 that environmental groups were taking heat for being a cause of the Southern California wildfires. Critics said tree-huggers blocked logging projects to thin the very forests that burned. Had they not been in the way, the fire danger would have been reduced, critics said. While groups have opposed some forest thinning on public lands, U.S. Forest Service records show that in the four national forests in Southern California, environmentalists had not filed a single appeal to stop tree-thinning since 1997.

On Nov. 22, Teresa Rochester of the San Bernadino Sun reported that frustrated firefighters and observers believed the area's Old Fire could have been lessened if prescribed burns had been approved in a timely manner by the U.S. Fish and Wildlife Service. Approval was "fraught with foot-dragging, contradictory requests, broken arrangements and delays caused by rampant turnover, fire officials say," Rochester wrote.

The energy bill that was floating through Congress was full of environmental angles.

Manufacturers of the fuel additive MTBE (methyl tertiary butyl ether), which has contaminated groundwater in California and other parts of the country, could be shielded from product lawsuits under the House-passed energy bill. Critics say protection would prevent local communities from recouping billions of dollars in cleanup costs. Democrats in the Senate were threatening to filibuster the entire energy package.

The Senate will likely take up the energy bill in January.

(Continued next page)

The Beat =

While drilling in the Artic National Wildlife Refuge appeared to be dead, the Bush administration announced it intended to open 8.8 million acres of Alaska's North Slope to oil and gas development, including areas considered environmentally sensitive. Geologists believe the 22.5 million acres in the National Petroleum Reserve-Alaska may contain 6 billion to 13 billion barrels of oil. It was set aside in the 1920s for energy development.

The Louisville Courier-Journal continued its in-depth look at the impacts of the rubber industry and related activity on that community.

The Courier-Journal published a two-day series Oct. 26 and 27 that took a close look at the economic future of a complex of chemical plants that got their start 60 years ago for the World War II effort. One story also documents cancers among workers at one of the plants. The newspaper compared the Louisville neighborhood to one in Louisiana; national environmental advocates who helped put Norco, La. on the map by pushing home buyouts are now working in Louisville. See the continuing coverage at: www.courier-journal.com/cjextra/2003projects/toxicair/index.html

In late November, the *Courier-Journal* reported the Agency for Toxic Substances and Disease Control will now use air monitoring data recently collected to assess Rubbertown pollution's impact on health. In 1990, the agency did a study that was inconclusive and it called for air monitoring. Now that sampling results are available, they have identified numerous chemicals at concentrations higher than local and state environmental regulators consider safe.

Building on reporting originally done by Carl Prine of the *Pittsburgh Tribune-Review*, CBS's 60 Minutes reported that it had found security at chemical plants lax in some places. The news show reported Sen. Jon Corzine, D-N.J., said 12 million people around a New Jersey chemical disinfectant manufacturing plant could be affected if a cloud of chlorine gas was released. "We're looking all over Iraq for biological and chemical weapons. We don't have to look for 'em very hard, they're right here, right here in our backyards," says Corzine.

CBS said there are more than 100 chemical plants where a catastrophic accident or an act of sabotage by terrorists could endanger more than a million peo-

ple. One plant in Chicago could affect almost 3 million people. And in California, the chemicals at one site have the potential to kill, injure or displace more than eight million people, CBS said.

Correspondent Steve Kroft reported finding gates unlocked or wide open, poor fences, and unprotected tanks filled with deadly chemicals used to manufacture everything from plastics to fertilizer.

Greg Lebedev, the president of the American Chemistry Council, said members are doing everything possible to ensure plant security.

Eric Pianin of *The Washington Post* reported on Nov. 14 on yet another study that concluded that children who repeatedly come into contact with arsenic-treated wood in playground equipment and decks could face an increased risk of cancer. The new study said the risk is greater than EPA officials said last year, when they ordered the products taken off the market. Manufacturers have agreed to stop producing arsenic-treated wood products in 2004, but the wood remains in many public playgrounds and private yards.

The preliminary findings show 90 percent of children repeatedly exposed to arsenic-treated wood face a greater than one-in-1 million risk of cancer. The risks could be higher in the South where children spend more time outside during the course of a year.

Janet Raloff reported in the Oct. 25 edition of *Science News* that animal tests show flame retardants known as polybrominated diphenyl ethers (PBDEs) can impair reproduction, neurodevelopment, and hormone systems. The levels causing those impacts are close to those measured in North Americans.

Marla Cone of the Los Angeles Times reported Nov. 4 that the maker of PBDEs would voluntarily stop producing the chemicals by the end of 2004. Great Lakes Chemical Corp. had been asked by the EPA to phase out penta and octa PBDEs, or polybrominated diphenyl ethers. Environmental scientists say the flame retardants, used mostly in polyurethane foam furniture, are doubling in concentration in the breast milk of U.S. women every few years. Animal tests show PBDEs can disrupt development of newborns' brains.

Concern about antibiotic resistance and pollution from other medications continued to make news.

Chris Clayton of the *Omaha World-Herald* reported Nov. 7 that the speaker of the Nebraska Legislature told livestock producers they should be more sensitive in treating animals with antibiotics and look for viable alternatives. State Sen. Curt Bromm of Wahoo said antibiotic use is "a growing issue of great interest to consumers around the world.... We have to figure out what it is we can substitute and head off disease problems without using more antibiotics." More international groups have called for a ban on the use of antibiotics in animals because of concerns that it leads to resistance to antibiotics in humans, he said.

Noreen Parks of the *Science News Service* of the American Association for the Advancement of Science reported on Nov. 5 that fish in Texas are absorbing antidepressant drugs from wastewater. A new study showed that the medication residue can apparently alter brain activity in the fish. Such chemicals could disrupt the behavior of aquatic organisms. Last year the U.S. Geological Survey released data showing that 80 percent of 139 streams sampled in 30 states contained traces of hormones, steroids, and other drugs.

Ecologist Bryan Brooks of Baylor University in Waco, Texas, and his colleagues tested samples of three fish common to Pecan Creek in the Trinity River Basin north of Dallas for signs of Prozac or Zoloft, two common antidepressants. Like many streams, the creek's waters are largely wastewater legally discharged from a treatment plant, Brooks said.

The researchers found concentrations as high as 30 parts per billion of the active ingredients and breakdown products of the drugs. Residues in fish muscle that humans might ingest were far lower, however.

Berny Morson of the *Rocky Mountain News* also reported the results of recent testing that is finding that medications and food additives are going through sewerage systems into waterways. On Oct. 29, he reported that a three-year study by the U.S. Geological Survey found about 52 chemicals in the creek downstream from Boulder's wastewater treatment plant.

Scientists are just beginning to consider trace elements of pharmaceuticals and personal care products in the water, Morson reported. "No one was looking for this before," said Karen Hamilton, of the Environmental Protection Agency's Denver (Continued next page)

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office. "Now, we're trying to figure out what that means in terms of water quality."

Sara Shipley of the *St. Louis Post-Dispatch* reported Nov. 13 that an environmental group charges that the EPA and the White House cut back-room deals with makers of atrazine to avoid stiffer restrictions.

The Natural Resources Defense Council filed a lawsuit saying government agencies failed to turn over records about frequent private meetings between the agencies and the pesticide industry. The group said industry lobbyists had undue influence over EPA's recent safety assessment of the herbicide, one of the most widely used.

After several years of study, the EPA refused in January to ban or restrict the chemical. Instead, the agency called for more study and monitoring, some of which will be done by atrazine manufacturers themselves. A preliminary assessment in 2002 questioned whether the herbicide was affecting aquatic health and possibly causing some male frogs to become feminized.

Martin Mittelstaedt of the *Toronto Globe and Mail* reported Nov. 10 that Canadian regulators found traces of dioxins and furans in 10 pesticides currently used in that country. Dioxins were found in over-the-counter pesticides, wood preservatives, and agricultural chemicals. One herbicide, dacthal, contained 4,000 times more dioxin than permitted under drinking water standards. The *Globe and Mail* obtained the list of pesticides with dioxins using the Access to Information Act.

In early November, Christopher Drew and Richard A. Oppel Jr. of *The New York Times* wrote that a change in enforcement policy will lead the EPA to drop investigations into 50 power plants for past violations of the Clean Air Act. A few days later, the two reported that the attorneys general of New York, New Jersey and Connecticut said they were ready to file suits to force power plants to invest billions of dollars for improved pollution control equipment after the Bush Administration abandoned enforcement investigations.

On Nov. 17, more than a dozen state attorneys general sought to block the federal government from implementing a rule change they argued would lead to more air pollution from the nation's power plants.

Fourteen states and a number of cities are seeking a court injunction to short-circuit a measure by the EPA before it goes in effect Dec. 26. They want to block EPA's loosening of Clean Air Act regulations that would allow older power plants, refineries, and factories to modernize without having to install expensive pollution controls.

The suit was filed in the U.S. Court of Appeals in Washington, D.C., by the following states: New York, California, Connecticut, Illinois, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New Mexico, Pennsylvania, Rhode Island, Vermont and Wisconsin.

Have you done outstanding work recently? Contact SEJournal assistant editor Mike Dunne, at mdunne@theadvocate.com

Inside Story... (from page 21)

A. I love a good investigation. I had done a water-sampling

project previously that showed Iowa lakes have a significant problem with fecal bacteria pollution, and the state wasn't even checking bacteria. That package led to the state's first routine monitoring on state-park beaches.

I had also been following the issue of antibiotic resistant bacteria, and the USGS work that found them in Iowa rivers. This was one of those holeplugging stories. I knew that the state wasn't checking any of the beaches for antibiotic-resistant bacteria, and I knew it would be a big concern if they were present.

I asked a trusted laboratory source if there had ever been any such testing of the lakes. He said a few earlier spot checks years ago did find some resistance. I knew that if any of this fecal pollution had to do with confinement livestock or with human sewage, there was a good chance antibiotics, and the resistant bacteria that they breed, could be at our swimming beaches. That, obviously, opens up even more health concerns.

Q. Did you personally do the sampling?

A. I collected the samples using the University of Iowa Hygienic Laboratory's standard, prepared bottles and its protocol for pulling samples. That lab did all the analyses. We used UHL because it also does all the analysis for the state's own sampling and for tap water supplies statewide. It is a certified laboratory.

I did have training in this area. I have a minor in environmen-



A landfill worker and Iowa state inspector walk through a landfil near Eldora, Iowa. The Iowa Department of Natural Resources lacks the money and staff to perform all of its environmental inspections.

tal science. As a Marine Biological Laboratory fellow in 1999, I conducted supervised water sampling both in the Woods Hole area in Massachusetts and in the Amazonia region of Brazil while working with MBL scientists.

(Continued next page)

Cover Story

Inside Story... (from page 31)

Q. How did you convince editors to spend the money to do testing?

A. The first project involving fecal bacteria testing was relatively cheap and quickly showed results that made it lucrative for the paper to pay. That made it easier for me to get money for the antibiotics project. This was the type of work that no other Iowa media outlet was going to do, something that would set us apart. Editors like that.

Q. Part of the testing was looking for antibiotic resistance. Why did you decide to look at that issue?

A. I saw a big hole in the research in that no one had systematically checked the lake swimming areas for antibiotic resistance. Some tests were conducted on rivers. Let me tell you something — few people would swim in Iowa rivers. Fecal bacteria, pesticides and other pollution are common in these streams. But Iowa lakes draw many, many swimmers in summer. So I decided we had a chance to push the issue and to learn if Iowa swimmers were putting themselves at least at some small risk of illness.

Q. You also did a story using the state's own test data that showed five beaches exceeded federal safety hazards. How did you get the data? How did you analyze it?

A. The state posts its data online every week. It also readily provided me Excel spreadsheets when I asked. Then it was just a matter of comparing the data to EPA guidelines.

Q. The story, which came at the end of the summer of 2002, says officials will make changes for 2003. Did they make changes? Did you follow up?

A. The state has changed its approach on beach advisories every year as the program ramped up. I've detailed the changes each time. I've also pointed out that the state now ignores the EPA guideline for enterococci, which just happens to be most violated of the three bacterial readings taken weekly here.

The state has said that guideline isn't as reliable in freshwater as it is in saltwater, but has failed to provide me its evidence.

Iowa now is using an E. coli standard, which EPA also considers acceptable.

This year, the state passed its first E.coli standard, and then promptly violated it because it didn't want to post beaches any more than it had to. So it came up with a system of posting eight problem beaches immediately if the standard was violated, but leaving the other beaches open unless a second sampling also violated the standard. We reported that policy, and its implications.

When next year rolls around, we'll write again about beach plans. It's classic watchdog stuff.

Q. What advice would you give someone just starting out on the environment beat? What is it they really need to know, or for what should they keep their eyes open?

A. Visit www.sej.org, SEJ's one-stop-shop website, where you'll find story ideas, resources, fellowships, tips, news, you name it. Be curious. Ask questions. Read everything about environmental issues you can get your hands on. Develop sources. Lean on your colleagues at other papers, or in your own newsroom, for advice and help.

If you have time, take some classes in environmental science, if you haven't already. You need to know some of the basic jargon, techniques and practices of various fields, enough so that you can judge what is important, translate the jargon for readers, and navigate in a world that can be complicated both scientifically and politically.

Develop a thick skin. Keep your chin up and realize that your beat is regularly rated by readers as one of the most interesting ones at the paper. It's a chance to change lives in some cases. In many others, it's a chance to enrich lives by passing along critical information.

Mike Dunne, a reporter for The Advocate in Baton Rouge, La., is assistant editor of the SEJournal.

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