

Bill Would Allow Platforms as Artificial Reefs

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A 17 September U.S. congressional hearing on environmental aspects of oil and gas development focused primarily on potentially beneficial, alternative usages of thousands of decommissioned offshore oil and gas platforms in the Gulf of Mexico and elsewhere.

These platforms and associated rigs would be permitted to be used as artificial reefs for corals and fish populations, mariculture sites, and scientific research stations, under the Rigs to Reef Act, House Resolution 2654. The bill, introduced by Rep. David Vitter (R-Louisiana), is in referral in the Resources and in the Ways and Means committees of the House of Representatives.

About 4000 platforms currently speckle the Gulf. Just 8% of 2000 already-decommissioned platforms have been re-used as artificial reefs, with the others having been removed. Over the next 40 years, an estimated 120 platforms should be decommissioned each year. Options for old platforms include toppling them in deep water, cutting off the top of a platform to form two structures that rise to different water depths, leaving them in place, and removal.

H.R. 2654 would allow suspension of current federal requirements to remove platforms just one year after they are decommissioned, and would address some liability issues, Vitter told the House Resources Subcommittee on Energy and Mineral Resources. He said the bill also calls for a study to quantify benefits that these platforms provide to the offshore underwater environment, in addition to fishing and employment benefits.

At the hearing, Vitter claimed, "Offshore oil and gas platforms are home to some of the most prolific ecosystems on our planet. These structures attract new coral populations that attach quickly after the platform is placed and then continue to flourish for the entire life of the platform. With the corals come fish species, many of which are protected or endangered."

He also said that removing these platforms means that "thriving ecosystems are ripped from the water, fish habitats are disrupted, and many rare species of sea life are even destroyed."

Lisa Speer, senior policy analyst with the Natural Resources Defense Council, a nonprofit environmental group, questioned whether the platforms are simply attracting fish from other habitats and breeding areas and concentrating the fish for easier harvesting.

"From an ecological standpoint, the question is not so much whether there is increased life at the platform itself, but whether that benefits the ecosystem as a whole," she said.

Speer cited an October 2000 report to the University of California Marine Council on ecological issues related to decommissioning of California's offshore production platforms. That report states, "The fact that an artificial structure has lots of organisms on it does not necessarily imply its presence has enhanced regional stocks. The artificial structure may have merely attracted individuals from more suitable habitats, via larval settlement or movement of adults."

Steve Kolian, an environmental scientist with the Louisiana Department of Environmental Quality, said the platforms "clearly produce fish rather than merely attract fish" from other marine habitats. He said that more than 50 species of federally managed fish, crustaceans, and live rock organisms settle and forage around the platforms, but that these new ecosystems are not designated as protected habitat under current Gulf Fisheries Management Plans.

Kolian added that the platforms, which extend through different underwater trophic zones, "are the only hard substrate that rises through the anoxic layer" affecting Louisiana's continental shelf during part of the year.

RANDY SHOWSTACK, Staff Writer

Montreal Protocol Benefits Cited

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The Montreal Protocol on Substances that Deplete the Ozone Layer has succeeded in eliminating the emission of millions of tons of ozone-depleting chemicals per year, according to a report issued by the World Bank on 16 September.

The "Montreal Protocol Status Report" notes that annual global consumption of chlorofluorocarbons (CFCs) plummeted from 1.1 million to 150,000 tons between 1986 and 1999. Without the protocol, CFC consumption would have reached 3 million tons in 2010 and 8 million tons in 2060, according to the report.

Robert Watson, the World Bank's chief scientist and co-chair of the International Ozone Assess-

ment Science Panel, said that concentrations of many of the problem chemicals in the atmosphere either have peaked or already are in decline.

Although 180 countries have ratified the protocol, which was adopted in 1987 and entered into force in 1990, several challenges remain. These include curbing illegal trade in CFCs and ensuring that countries adhere to their schedules for the full phase-out of ozone-depleting substances.

The 2003 ozone "hole" above the Antarctic peaked at about 28 million square km, according to measurements by New Zealand's National Institute of Water and Atmospheric Research (NIWA). That is larger than in 2002 and slightly smaller than the record measurement in mid-September 2000. Many scientists

attribute the increase in 2003 to colder-than-usual atmospheric temperatures above the Antarctic.

However, Stephen Wood, a NIWA research scientist, is cautious about declaring victory. He said that "although man-made chemicals that contribute to the ozone depletion are already starting to decline in the atmosphere, we haven't yet seen a sustained reduction in the severity of the Antarctic ozone hole. There will always be variations from one year to the next, so before we can confirm the expected recovery, we would need to see smaller or less severe ozone holes over a number of years. Realistically, it might take another 10 years before we can be sure."

—RANDY SHOWSTACK, Staff Writer

FORUM

Comments on "Anonymous Reviews"

From D. Fisher

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I'd like to suggest that the recent letters complaining about reviewers' anonymity are on the wrong track. What we need is more anonymity, not less: we need double-blind mandatory anonymity.

The main argument proposed so far is the unfairness of not being able to confront the reviewers' criticisms. But you don't need to know who someone is to be able to argue

against their ideas. Reviewers' reports are spelled out clearly and can be rebutted without getting into personalities.

The more serious problem is the opposite. As an associate editor of *Geochim/Cosmochim* for many years, I found that young people were often reluctant to review an influential scientist's work for fear of reprisal, for we all know of people whose egos are such that they truly feel anyone who criticizes their work is not worthy of respect, tenure, funded grants, etc. These potential and necessary reviewers

are not stupid people, and they realize that an Old Boys' network can supercede promises of anonymity. On the other hand, young workers may also be overly influenced by a senior scientist's reputation. To get really honest reviews, the reviewer should not know whose work he's inspecting and should be guaranteed the same protection. In fact, the anonymity should be mandatory, to eliminate the temptation to curry favor by providing a good review.

This idea is, of course, an unattainable ideal. One frequently can identify both author and reviewer, either from the content or the papers in their list of references (i.e., their own); still, we don't give up on democracy simply because it doesn't always work. We stagger on, but let's try to get onto the right staggering track.

—DAVID FISHER, University of Miami, Coral Gables, Fla.

From D. Forel

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I recently read four letters in *Eos* against anonymous reviews and zero letters for. I feel the need to add one to zero. When I started reviewing manuscripts, I had the ethical choice of whether or not to sign my name. After some thought, I decided I would not. Today, I feel the same for the same reason: I do not want people to think about who I am; I want them to think about what I write. R.E. Criss and A.M. Hofmeister would have me throw off my "cloak of secrecy—the costume of crooks." Would seeing my face make my argument clearer or is it an excuse to judge the messenger?

A while back, I spent 2 years as an associate editor. During that time, I signed my name because I felt people had the right to know who was passing judgment. In this, I agree with A. McBirney: "A fundamental rule of our justice system holds that one who is being judged has the right to confront his accusers." As a lowly reviewer, I did not feel I passed judgment; I felt I was contributing to the discussion.

Beyond my reviews were two higher authorities: the associate editor and the author. As associate editor, I would write cover letters to authors in which I went over points raised by the reviewers. In the way I summarized the reviews, I tried to let authors know which points I felt were critical to getting the manuscript to publication. In the way I ignored a reviewer's points, I implicitly let authors know which points I felt were not critical.

As associate editor, when the revised manuscript appeared, I compared the first draft to the second. I looked for what authors considered worthy of revision and what authors considered beneath notice. Frankly, authors rarely disappointed me. Remembering my time as associate editor, I want to give a load of thanks to those I rounded up to be my reviewers. They let me drag them from their usual duties and hound them into crawling into the minds of the authors: no small task! A. McBirney also writes, "...a signed review demands much more of time and effort..." My experience as associate editor left me with no feeling that signed versus anonymous reviews were imbued with different levels of dedication.

So, I advocate anonymous reviews. On the other hand, I am against anonymous associate editors. In fact, I believe some problems (lack of objectivity, lack of supporting evidence, lack of civil tone, etc.) the other writers cite can be solved by more responsible associate editors and editors. Just as manuscripts are sent back to authors for revision, an ill-toned review can be returned.

In closing, I want to explain, half in jest, why I am against signed reviews. I see many papers close with the acknowledgment, "The authors thank A. Smith, B. Ramirez, and C. Li for their constructive comments that greatly improved this manuscript." It seems to me authors are expressing gratitude to the people who put them through great stress in the hope that these reviewers will be gentler next time. At the same time, when reviewers get acknowledged in print, their reputations as "experts" are enhanced. Without publishing, but by critiquing, reviewers become "names."

—DAVID FOREL, Michigan Technological University, Houghton

From E. Okal

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I would like to add the triple perspective of a now-retired editor (GRL, 1993–1997), a reviewer, and an author to the ongoing debate in *Eos* about anonymous versus signed reviews.

As an editor, I did not keep precise statistics, but my recollection would be that a little under (perhaps 40%) of the more than 3000 reviews I handled were signed. While some sort of "trend" expectedly existed between glowing reviews and signed ones, the correlation would probably not have passed a statistical test. By and large, my reviewers, whether or not they waived anonymity, were a professional and responsible pool, and the kind of personal and potentially unethical antagonisms described by Myrl Beck was the rare exception, rather than the rule, among anonymous reviews. The careful editor should be able to recognize this attitude in the tone and style of the review, and

through comparison with other reviews of the same paper. In a handful of cases, I exercised editorial privilege by simply ignoring the bellicose review, and not transmitting it to the author. Incidentally, note that personal animosity usually expresses itself most forcefully in the format of "Comments" and "Replies" (an editor's nightmare), where anonymity is waived de facto.

As a reviewer of ca. 10 manuscripts a year, I sign about two-thirds of my reviews; my decision has more to do with whether or not the work is directly related to mine than with its quality. In the former case, it is next to impossible to remain anonymous.

Finally, as an author, I get about half of the reviews returned to me signed. I find no obvious correlation between anonymity and pugnacity.

The above numbers—40%; two-thirds; one-half—suggest that the community is divided, with no overwhelming majority in its attitude toward anonymous versus signed reviews. This diversity may indeed be precious and should be respected. Why not keep the system

as it is now, leaving it to the individual reviewer to exercise a free decision regarding waiving anonymity? At any rate, it is probable that imposing signed reviews would make the editor's job of finding reviewers much more difficult.

Let us also remember that manuscript reviewing is only one form of peer review. There is generally no provision for signing reviews of proposals to funding agencies; and letters of recommendation are and should remain not only anonymous, but strictly confidential. The debate on peer review has been going on for decades. It may be the worst possible system, but by and large it works. And to paraphrase Sir Winston Churchill, wait until you consider all the other ones...unreviewed pseudo-publishing on the Internet gives us plenty of examples in this respect.

—EMILE A. OKAL, Northwestern University, Chicago, Ill.

From E.P. Savov

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I came upon the observations and experiences of Myrl Beck, Charles Robinove, Robert Criss and Anne Hofmeister in the July issues of the *Eos* Forum.

I can say that their experiences are similar to those of my colleagues and friends, some working in different scientific fields. A colleague of mine has shown me an article that has generated mutually excluding comments by its reviewers. There also reviews 90% of whose content is dedicated to the qualifications of the reviewer; and for the rest, one or two sentences simply reject the paper, completely

unaware of the presented findings. The worst-case scenario was mentioned in the Forum "Comment" of Robert Criss and Anne Hofmeister in the 29 July issue of *Eos*. They described it as a "hostile 'review' that could have been written about any manuscript on any topic by any author."

I would call it "copy and paste review." This kind of "reviewing" does no good for the journals and anybody associated it, although on a short-term scale, it may look satisfactory to some short-sighted people. The improper reviews essentially degrade the purpose of scientific research. So I would not be surprised if the cutting edge of science shifts from some journals to others that take more care in their review policies.

Science by its nature has to be discussed in the open air. Probably a way out of the incorrect review situation is publication of the paper, together with its reviews and the names of the reviewers. In this way, all parties will fairly take credit and "discredits" for their work. If the reviewer knows that his/her name and comments will appear together with the considered research article, then there will be no "copy and paste" reviews and other examples of anonymous scientific misconduct.

—EUGENE P. SAVOV, Solar-Terrestrial Influences Laboratory, Bulgarian Academy of Sciences, Sofia