

# Strife on the seven seas

The sight of nations jockeying for position on the high seas is becoming more common. An international treaty exists to deal with such disputes and it is time for the US Senate to ratify it.

The resources of the world's oceans, from fish to oil and minerals, are vast, but finite. And it is quickly becoming apparent that nations will increasingly be squaring up over how these marine riches should be divided.

Fortunately, the United Nations Convention on the Law of the Sea provides a comprehensive and reasonably robust framework for the peaceful resolution of such disputes — and much else besides. Less fortunately, the US Senate has yet to ratify the country's membership of the convention. It should do so immediately, so that the United States can play a grown-up role in the development of the framework established by the treaty. The same argument applies to another two dozen or so other nations, from Turkey to Peru, that have yet to ratify the convention.

The current, prolonged boom in prices for oil, gas and minerals is bringing to the fore resource issues that the UN convention was designed to help untangle. Last week's placement of a Russian flag on the sea floor at the North Pole (see *Nature* 448, 520–521; 2007) offered an aptly melodramatic foretaste of the difficulties that are likely to transpire as nations engage in a scramble for the oceans.

And it won't just be old European powers that will be staking their claims. In this issue, we report how India's oceanographic research interests, for example, are already stretching from the Equator to the poles (see page 642). When humans were less able to harm the sea — skating on its surface in wooden boats and taking resources in relatively small quantities — it could be a lawless common. But now our society must manage the sea very carefully, lest the waters become a lifeless waste.

As much as any other scientific discipline, oceanography is inextricably tied up with the material and military exploitation of the territory that it studies. The UN convention sets out the factors that should determine which waters fall under the economic control of each nation. The undersea Russian flag is merely the symbolic component of an ongoing petition about its marine rights, which are linked to geology. If Russia can convince a commission set up under the convention that its continental shelf does indeed extend far beneath the Arctic ice, it will

be able to claim exclusive rights over valuable oil and gas deposits.

The convention also sets out rules for shipping: protecting the right of 'innocent passage' for ships to pass through territorial waters without special permission. It prohibits piracy and includes environmental safeguards, requiring, for example, that nations set sustainable fishing policies and refrain from damaging the interests of other nations with pollution emanating from their waters.

And it includes a right to conduct scientific research anywhere on the immense swathe of ocean that is not controlled by any country, as long as the work is peaceful, noncommercial and disseminated freely. The treaty's scope can expand as fresh issues arise: at the convention's most recent meeting, in May in New York, a framework for dealing with marine genetic resources was discussed.

In practice, the United States already abides by nearly all of these provisions. So why has the treaty languished there since 1994 without its ratification even being considered on the Senate floor? At one point, opposition focused on a section on seabed mining that representatives of some nations considered too restrictive. But since that was rewritten, also in 1994, opposition has been confined primarily to a dozen or so conservative senators who are philosophically opposed to the encroachment of UN rules on what they regard as the United States' rights as a sovereign nation.

Everyone else, from the environmental lobby and the oil industry to the US Navy and the administration of President George W. Bush, is now publicly backing ratification. Last week's flag-planting prompted a spokesman from the Department of State to call on the Senate to ratify the law in the United States' own interests, saying he was "hopeful that when Congress comes back in session they'll give it due consideration".

It is up to Senator Joseph Biden (Democrat, Delaware), chair of the Senate Committee on Foreign Relations, to bring a resolution of ratification through his committee to the Senate floor. He should do so at the earliest available opportunity. ■

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## Clinical precision

Disease advocates should influence, but not dictate, research priorities.

Disease lobby groups have always made energetic efforts to ensure that the formidable resources of the US National Institutes of Health (NIH) are brought to bear on the health issues that interest them; and that is as it should be. When these resources are expanding, there has been room for most of the participants in

the process to feel that they are winning. Now that the budget of the largest research agency in the world is effectively frozen, there are likely to be more losers.

In the case of research into autism — a common but poorly understood developmental disorder — effective advocacy has seen a generous increase in NIH support specifically targeted at the disease, even since the real growth in the agency's total budget came to an end in 2003. Unfortunately, some of autism's success may have come at the expense of research into other children's diseases (see page 628).

Autism research also garners an unusually strong level of support from private sources, including funds raised by the disease group

Autism Speaks and contributed by philanthropists such as Jim Simons, a mathematician and hedge-fund billionaire whose daughter suffers from the condition. This year, these sources will spend some \$50 million — roughly half what the NIH is spending on autism research. Typically, disease groups can muster charitable funding that is only a small fraction of what the NIH spends (see *Nature* 447, 248–254; 2007). That leaves them scrambling for slices of a pie that is no longer growing.

Scientists, especially those involved in the basic biomedical sciences, are also scrambling for a share of these funds. The NIH's success has been built on a tacit accommodation between scientists, who run its 27 institutes and centres on a day-to-day basis, and the public, as represented by Congress. Institutes have been established — often against the scientists' advice — to deal with specific conditions or diseases of particular organ systems. Then Congress has, in large part, left the researchers and physicians in the agencies to pursue their work as they see fit, without indulging in too much micromanagement.

This has enabled the NIH to maintain a formidable reputation for scientific integrity and excellence, while also appearing to be reasonably responsive to patient needs. It has produced an agency that does a great deal of basic scientific research — with unknown and largely serendipitous benefits for the development of drugs and

devices — as well as plenty of laboratory and clinical work devoted to particular ailments.

The public is paying for the NIH's annual budget of \$29 billion, and it is entirely appropriate that it should energetically articulate its demands of the agency. That is one of the roles of the disease-advocacy groups, and their input, as any NIH institute director will attest, provides invaluable assistance in assigning research directions and priorities.

That said, the power of some advocacy groups must be tempered to some degree — especially in today's difficult funding environment. Otherwise, these groups' ability to influence budgets is likely to dominate, to the detriment of both basic laboratory science and of research targeted at diseases that have weaker constituencies.

It falls to the scientist-administrators who run the NIH to work closely with members of the congressional appropriations committees that fund the agency to make sure that this does not happen. Both groups understand the careful political balance that has allowed the agency to thrive; they must act as moderators whenever the more energetic lobby groups are pushing the agency's agenda too far in the direction of one public-health issue at the expense of others. ■

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## A risky business

The White House risk-assessment bulletin should be put out of its misery.

Last November, the US National Academy of Sciences delivered a stinging verdict on a White House plan to change the rules on how the government's agencies measure risks, such as those resulting from chemical exposure or from smoking cigarettes. The academy said that a draft risk-assessment bulletin containing the plan was “fundamentally flawed” and ought to be completely withdrawn.

Ten months later, the bulletin is still very much alive. After some hesitancy, Susan Dudley, head of the Office of Information and Regulatory Affairs at the White House Office of Management and Budget (OMB), has indicated that it is still under review and likely to be finalized in some shape or form.

Risk assessment is a complex and exacting activity, and the National Academies have played a globally acknowledged role over many years in providing guidance on how it should be done. But the academy panel, chaired by John Ahearne, a former president of the Nuclear Regulatory Commission and director of ethics at the scientific society Sigma Xi, said that the bulletin was wrong in attempting to impose a “one-size-fits-all” approach to risk assessment overseen by so political an office as the OMB. It also charged that the bulletin failed to take account of the different approaches appropriate to the various fields of science and engineering, or of risks to particular groups, such as children or pregnant women.

Outside critics were even more direct. They saw the bulletin as a barely disguised power grab, a cynical attempt by the White House

to exercise an unprecedented degree of control over all the branches of the federal government, with a view to making it harder for major regulators such as the Environmental Protection Agency to do their jobs (see *Nature* 442, 242–243; 2006). Indeed, the main objective of the bulletin seems to be to weaken these regulators ‘through the back door’, by imposing arcane bureaucratic requirements that the broader public won't understand, or even know about.

In that regard, the proposed bulletin resembles several earlier efforts, including rules on ‘information quality’ and requirements for cost-benefit analyses, that make use of the OMB's extensive powers to weaken all forms of regulation. These efforts have been under way from the very start of the Bush administration and they continue to this day.

Thankfully, Congress is now reacting to this strategy and applying some oversight to the OMB. In May, for example, Senators Jeff Bingaman (Democrat, New Mexico) and Joe Lieberman (Independent, Connecticut) wrote to Rob Portman, then director of the OMB, to seek assurances that it would take the National Academy of Sciences' advice and withdraw the risk-assessment bulletin.

In an evasive response, Portman would say only that his office would “not finalize the bulletin without revision” — indicating, in effect, that it is planning to press ahead with the exercise in a revised form.

Now the senators have written to the OMB again, asking its officials to state by next week exactly how they intend to proceed, given the devastating critique issued by the academy panel last year. “We began our review of the draft bulletin thinking we would only be recommending changes,” said Ahearne at the time. “But the more we dug into it, the more we realized that from a scientific and technical standpoint, it should be withdrawn altogether.” The White House specifically went out and sought this advice: why won't it take it? ■