

Leatherback's survival will depend on an international effort

Sir— Until recently, marine systems have experienced remarkably few extinctions¹. But this state of affairs is changing, as reported in your News story “Researchers take US government to court over threat to turtles”² and by Spotila *et al.* in their Brief Communication³ on the potential extinction of the Costa Rican nesting population of leatherback sea turtles (*Dermochelys coriacea*). Many other long-lived marine organisms are also threatened, often because of unintended capture in fishing gear^{4–6}. A global solution is urgently needed to protect these species. It is possible: numbers of Kemp’s Ridley (*Lepidochelys kempi*), formerly the most endangered sea turtle, have increased tenfold since 1986 thanks to an international effort.

Leatherbacks nest primarily in four Pacific rookeries, and have declined dramatically over the past 20 years to about 250 in Mexico, 117 in Costa Rica, 2 in Malaysia and fewer than 550 in Indonesia. The Pacific Ocean may now contain as few as 2,300 adult females, making Pacific leatherbacks the world’s most endangered sea turtle.

Last autumn, a US judge closed one million square miles of the North Pacific to the Hawaii-based longline fishery, and the US National Marine Fisheries Service recently proposed another closure that would reduce leatherback takes by 45 per cent. But given the critical status of leatherbacks, this response is inadequate. Environmentalists believe that the United States must take decisive action, but closures in US fisheries alone will not resolve the problem — leatherbacks in both the North and South Pacific are killed by fishing vessels from several countries.

The leatherbacks’ nesting habitat must be protected throughout the Pacific. Direct harvest of eggs or turtles must be banned everywhere. Wherever fishing occurs, the bycatch of leatherbacks must be reduced to as close as possible to zero. Once countries such as the United States have minimized their own bycatch, they should encourage other nations to adopt protection measures. The US government and environmental organizations need to support research and management programmes in less developed countries, with environmental organizations educating the public and encouraging consumers to avoid products resulting from longline fishing.

Current treaties and organizations need to address the issue of leatherback bycatch

directly. The Convention on Conservation and Management of Highly Migratory Fish Stocks is at the final negotiation stages, and contains provisions to reduce bycatch; sea turtles should be explicitly included. The international agencies responsible for administering other conventions, including the Biodiversity Convention and the UN Convention on the Law of the Sea, should evaluate bycatch of protected species and report possible solutions. CITES (the Convention on International Trade in Endangered Species) has enforcement powers, but does not protect endangered species caught as bycatch.

The international community should prohibit trade in items caught in ways that harm endangered species — whether through an amendment to CITES or in a separate agreement. Whatever actions we decide to take, we must act quickly, or the 100-million-year reign of leatherback sea turtles will end in just a few decades.

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1. Carlton *et al.* *Annual Review of Ecology and Systematics* **30**, 515–538 (1999).
2. Loder, N. *Nature* **405**, 495 (2000).
3. Spotila, J. *et al.* *Nature* **405**, 529–531 (2000).
4. Heppell, S., Crowder, L. & Menzel, T. in *Life in the Slow Lane: Ecology and Conservation of Long-lived Marine Animals* (ed. Musick, J.) 137–148 (American Fisheries Society, Bethesda, 1999).
5. Brander, K. *Nature* **290**, 48–49 (1981).
6. Casey, J. & Myers, R. *Science* **281**, 690–692 (1998).

Biotech pioneers have duties as well as rights

Sir— Your News report “California targets GM-trial vandals with new legislation” (*Nature* **404**, 799; 2000) states that a committee of the California state assembly has approved a bill to create tough penalties for the destruction of transgenic research crops. This is very good news, and I hope the bill will be approved by the judiciary committee and the full assembly.

However, I think the bill as it stands is unfair. At the same time as protecting GM trials, some obligations should be enforced on those holding trials. Protesters would then be more likely to accept the bill.

First, the GM trial itself needs legal protection. Some activists are bound to oppose the trial and application of the new technology of transgenic plants, as they have done for other new technologies when first introduced, for example nuclear energy. Approved insect-resistant and herbicide-resistant transgenic cotton, maize and soybean have been planted in many regions of the world for some time, and have had no untoward effects.

However, some radical protesters oppose

all aspects of GM technology and want to kill these transgenic plants ‘in the bud’ — even though they have been approved — and prevent their development and application. Hence we need to protect properly planned GM trials and study via reasonable laws.

Second, GM trials and applications need reasonable regulation and control. Although transgenic plants have many merits, there may also be unknown environmental and ecological risks (although, up to now, no evidence of risk has been found). Thus, GM trials must be monitored, transgenic products must be labelled before being released into the market, and potential risks must be estimated. It is only fair to make these obligations enforceable by law as well.

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Don't ignore good work that you have to look for

Sir— Steven Hyman’s view is reported in your News report “BioMed Central boosted by editorial board” as “If I cannot access a paper freely I just ignore it” (*Nature* **405**, 384; 2000). Science is built on a base of acknowledgement and citation, yet this ideal is increasingly at odds with a culture which reflects short attention spans and demands instant gratification.

There is much to applaud in the establishment of BioMed Central, with its promise of free Web access to scientific papers. However, literature that is not instantly available does not deserve invisibility. If we are to keep faith with the past contributions of scientists, use of electronic media must be but one tool of literature review until such time as all literature (not just examples of what has been recently published) is available on the Web.

In my own field, the contributions of J. B. S. Haldane and S. Wright carry great weight. It is not possible to access the original work electronically, but it is fundamental to many of the current ideas in human population and disease genetics.

I hope that none of the giants on whose shoulders present-day scientists stand was careless enough to publish in a relatively obscure and unavailable journal or monograph. The precept “credit where credit’s due” should not evolve into “credit only when it’s convenient”.

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