

EDITORIAL

5th International Conference on Environmental Future: climate change and the future state of the world's aquatic ecosystems

The level of recognition of human impacts on climate, contained in the third assessment of the Intergovernmental Panel on Climate Change (IPCC 2001), surely represents a turning point in human history. Some impacts can now be factored into predictions of future states of the world's ecosystems, and, though some powerful countries may for the moment indicate otherwise, it is certainly more difficult now to ignore the concept of global human impacts on the environment and doubt their seriousness. But there are potential pit-falls in this progression; it worries me that attention to incremental albeit significant rises in sea level, for example, may divert serious concern away from the consequences of the ongoing intensive and extensive growth of human population, the sizeable global impact of which on the environment and human society can scarcely either be debated. Environmental science is challenging; it aspires to holism, but the resources and scientific tools are such that it can only very rarely be holistic at anything other than very small scale. And different disciplines can be disappointingly inarticulate in truly interdisciplinary work. Environmental science tilts at comprehensive global understanding, but the problems of extrapolating to that scale are for the most part insuperable. The scientists, typically reticent about erring beyond the disciplinary or geographical boundaries of their work, yet those most trained to deliver objective information, risk becoming an undervalued resource. The danger is that awkward strategic decisions will be made with much less certainty or at least consensus than they should.

In this context, the Foundation for Environmental Conservation embarked 18 months ago on a feasibility study for the 5th International Conference on Environmental Future to consider potential environmental changes to the time horizon of the year 2025. The study indicated this might be achieved by focusing in turn on the 21 different ecosystems involved (URL <http://www.ncl.ac.uk/icef>). The meeting itself will be in March 2003, but the debate, the scientific input to which the Foundation has chosen to foster, starts from this issue with the papers of Moore (2002) on temperate bogs, Kennish (2002) on estuaries, Beeton (2002) on large lakes, Brown and McLachlan (2002) on sandy shores and Adam (2002) on saltmarsh. This debate will not in any sense be conducted in isolation. Many of the ecosystems such as coral reefs and salt lakes have their own scientific associations with specialist publications, international meetings and fora, the outputs of which are partly addressing global change issues. There are other multi-system global assessments under way, most notably the Millennium Ecosystem Assessment (URL <http://www.ma-secretariat.org/>). But the cause is too important for fear of some repetition to get in the way; with the climate scenarios more confidently in position, the best scientific input must be sought and brought to bear iteratively to address the consequences of these and human population growth for the structure and dynamics of freshwater and marine ecosystems.

References

- Adam, P. (2002) Saltmarshes in a time of change. *Environmental Conservation* 29: 39–61.
- Beeton, A.M. (2002) Large freshwater lakes: present states, trends, and future. *Environmental Conservation* 29: 21–38.
- Brown, A.C. & McLachlan, A. (2002) Sandy shore ecosystems and the threats facing them: some predictions for the year 2025. *Environmental Conservation* 29: 62–77.
- IPCC (2001) Climate change. The scientific basis (WWW document]. URL <http://www.ipcc.ch/pub/tar/wgl/>

Kennish, M.J. (2002) Environmental threats and environmental future of estuaries. *Environmental Conservation* **29**: 78–107.

Moore, P.D. (2002) The future of cool temperate bogs. *Environmental Conservation* **29**: 3–20.

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