

There were presentations on the local mangrove-related fisheries: in Session V, J. Opnai reviewed information on the wide-ranging mangrove crab *Scylla serrata*, S. Frusher presented information on the penaeid prawns, and N. Quinn & B. Kojis, and subsequently A. Wright, brought together some new and old, respectively, information on fish assemblages in general. None of these papers shed light on how such fisheries are maintained, however, and there was extensive discussion on this topic; the consensus was that a great deal more information is needed. Central to such understanding is knowledge of the fate of mangrove primary production, yet N.V.C. Polunin and S. Cragg (Session IV), and D. Macintosh (Session V), all emphasized the lack of data on basic processes of litter decomposition, animal breakdown, accumulation *in situ*, and export.

A comparable lack of knowledge of inorganic nutrient-flows was evident from the presentations of G. Liebezit and H. Iizumi in Session VI; yet such understanding will presumably be of great importance in ultimately explaining the high productivity of mangrove ecosystems.

The filling of such gaps requires, among other things, the wide application of methods which scientists everywhere can use. In this regard, B. Kjerfve and J.E. Ong (Session VII) gave useful overviews of methods for outwelling studies, B. Clough (Sessions III and VII) ably described ways of assessing the primary production of trees, and N.V.C. Polunin (Session VII) pointed out some major limitations of decomposition studies.

Conversely the need for multidisciplinary focus on particular sites was embodied in the Workshop's major recommendation for a large, long-term and comprehensive investigation of a particular mangrove area, encompassing the variety of approaches discussed at the Workshop. It is not the first time that such a proposal has been made, but it is hoped that the conclusion from this meeting will have brought it closer to fruition.

Following the Workshop, a number of participants contributed to the study of aspects of a major mangrove area—at Galley Reach in Central Province not far from Port Moresby. The diversity of work involved—covering forest structure and the establishment of permanent plots for monitoring it, measurement of inorganic nutrient concentrations, the initiation of litterfall studies, the hydrology of the tidal basin and estuarine plume, the coastal geomorphology of the area, and some inshore fisheries, all successfully orchestrated by S. Cragg and M. Rau—augured well for a major interdisciplinary project in future. We all hoped that such a study can indeed be established in the near future because the mangroves, quite clearly, need it.

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THIRD SOUTH PACIFIC NATIONAL PARKS AND RESERVES CONFERENCE, HELD AT APIA, WESTERN SAMOA, DURING 24 JUNE TO 3 JULY 1985

Sponsored by the South Pacific Regional Environment Programme (SPREP) of the South Pacific Commission (SPC) in cooperation with IUCN's Commission on National Parks and Protected Areas (CNPPA), this meeting brought together delegates from 15 Pacific island countries together with representatives from New Zealand, Australia, the United States, and several international organizations. The Conference was a most productive one, and was divided into three parts: (a) a 5-days' technical meeting

which reviewed each participating country's current position with respect to protected areas and prepared a draft 'action strategy'; (b) a 3-days' Ministerial meeting which then formally adopted this strategy and gave a clear directive to adopt a 'Convention on Conservation of Nature in the South Pacific'; and (c) a park managers' training workshop during which field personnel from 11 countries carried out practical training exercises in the existing protected areas of Western Samoa.

A significant amount of new material on conservation in the region was brought together through national reports and case-studies. A draft directory of protected areas prepared by IUCN's Conservation Monitoring Unit was revised, and steps were taken to prepare an overall biogeographical assessment of the adequacy of protected-area coverage throughout the region of 30 million sq. km. The proceedings volume and the action strategy are being produced by SPREP, with assistance from New Zealand, Australia, WWF, and UNEP. Progress on the detailed action strategy will be reviewed at the 4th meeting, which is scheduled to be held in Papua New Guinea in 1989.

With the South Pacific Region identified in the World Conservation Strategy as a high priority for protected-area establishment, this meeting made major advances in promoting a system which will include a mixture of national parks of international standard and land and water reserves that are owned and managed by traditional users.

IUCN, working in the context of a new formal cooperative agreement with SPC/SPREP, anticipates accelerated activity in the field of protected-area establishment in the South Pacific, which will be reinforced by the forthcoming 'Islands Programme' to be launched in cooperation with WWF in 1987.

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SIXTH INTERNATIONAL SEMINAR ON ENVIRONMENTAL IMPACT ASSESSMENT, HELD IN THE DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF ABERDEEN, SCOTLAND, UK, DURING 14–27 JULY 1985

This major Seminar was organized by the Centre for Environmental Management and Planning, University of Aberdeen, and was sponsored by the World Health Organization, the United Nations Environment Programme, the British Council, and the International Maritime Organization. A total of 100 participants from 47 different countries, representing both developed and Third World countries, attended the Seminar. A team of 22 international experts with practical experience in Environmental Assessment presented papers, and participated in workshop sessions, in a simulation exercise, in discussion groups, and on field-trips.

Dr Ian Waddington, Head of the Office of Environmental Health at the World Health Organization Regional Office in Copenhagen, and Dr Yusef Ahmad, Director of Special Assignments for the United Nations Environment Programme in Nairobi, gave the Keynote Addresses, and Brian D. Clark, Executive Director of the Centre for Environmental Management and Planning, gave an introduction to the Seminar. There was a brief consideration of procedural aspects of Environmental Impact Assessment (EIA), with examples from developing countries, centrally-planned economies, North America, and Europe.

Attention then focused on EIA methods, and special consideration was given to the theme of Environmental