



IMPAC 1

GEELONG AUSTRALIA 2005

Congress program and abstracts

CO-SPONSORS



Congress program and abstracts booklet sponsored by the CRC Reef Research Centre - www.reef.crc.org.au

DESIGNING A RESILIENT NETWORK OF MARINE PROTECTED AREAS: KIMBE BAY, WEST NEW BRITAIN PROVINCE, PAPUA NEW GUINEA

A. Green, P. Lokani

Global Marine Initiative & Melanesia Program, The Nature Conservancy, Woolloongabba, QLD, Australia

Kimbe Bay is one of the world's most diverse tropical marine environments, encompassing a wide range of habitats in close proximity to shore. Kimbe is located in the global center of marine biodiversity, and supports high diversity coral reefs and associated habitats (seagrass beds and mangrove forests). It also supports a wide range of deepwater habitats (oceanic waters, seamounts, and possibly deep-sea canyons and hydrothermal vents) to depths of >2000m. This provides a unique opportunity to protect a wide range of habitats of high conservation value in one location. Kimbe is also a large (140 x 70 km), well-defined bay comprising at least one functional seascape, which makes it an excellent choice for establishing a resilient network of MPAs. The Nature Conservancy and its partners are in the process of designing a MPA network for Kimbe Bay based on the best available information. To date, network objectives, conservation targets, and boundaries have all been identified. Network design is focused on integrating biophysical and socioeconomic principles, which have also been identified. These principles will be used as the basis for designing the network using analytical design software. High priority research needs for implementing these principles have been identified, and are now being addressed. Network design is expected to be completed in 2006, and implementation well underway by 2008.

PARQMAR (INTERREG III-B 03/MAC/4.2/M9): CHARACTERIZATION, PLANNING AND MANAGEMENT OF DIVERSE MARINE PROTECTED AREAS IN THE MACARONESIAN ARCHIPELAGOS

R. J. Haroun¹, R. Araujo², A. I. Neto³, A. Espinosa⁴, V. Jordan⁵

¹Center for Biodiversity and Environmental Management, University of Las Palmas de Gran Canaria, Canary Islands, Spain

²Estação de Biologia Marinha do Funchal, Cais do Carvão, Gorgulho, 9000-107 Funchal, Canary Islands, Portugal

³Dpt. Biology, Rua da Mãe de Deus 58, University of Azores, 9500-321 Ponta Delgada, Canary Islands, Portugal

⁴Agencia del Mar, Muelle de enlace; Edif. La Nave s/n, Cabildo de Tenerife, 38001 Santa Cruz de Tenerife, Canary Islands, Spain

⁵Consej. Medio Ambiente y Aguas, Sede Guinguada, Ctra. La Calzada Km. 6,5, Cabildo de Gran Canaria, 35319 Las Palmas, Canary Islands, Spain

The aim of this project is to promote conservation and sustainable use of coastal ecosystems in several MPAs located in different archipelagos of the Macaronesian Region: Azores, Madeira and Canary Islands (Central Atlantic Ocean) through a close transnational cooperation. The main benthic and fish communities are characterized as well as the diverse economic activities done inside the MPAs. The surveys are conducted both in the intertidal and in the subtidal areas of Santa Maria Island (Azores), the Marine Eco-Park of Funchal (Madeira) and in two coastal sectors in Gran Canaria and in Tenerife Islands (Canary Islands). From the data obtained a zoning and management protocol for each MPA will be done to support the sustainable use of their marine resources.

ROLE OF SEABED GEOMORPHIC INFORMATION IN AUSTRALIA'S REPRESENTATIVE MARINE PROTECTED AREAS PROGRAM

P. T. Harris

Marine and Coastal Environment, Geoscience Australia, Canberra, ACT, Australia

A common obstacle for the selection of representative marine protected areas is the lack of sufficient biological information. This is particularly true in cases where a large region is being assessed for the development of an MPA network. In such cases, use of biophysical proxies for habitat diversity can provide a partial solution, because geomorphic (bathymetric) information is often one of the few datasets with extensive (near 100%) coverage. Even poor, developing nations will have some bathymetric data available within their EEZ's which can make this approach a viable option. In Australia, the development of a national bioregionalisation and the selection of areas for consideration as MPA candidates within the 200 mile EEZ, has relied heavily upon the analysis of bathymetric data and derivation of maps of seafloor geomorphology as a proxy for habitat diversity. The features mapped included 20 categories recognised by the International Hydrographic Organisation (IHO) such as the shelf break, foot of slope, submarine