

Key biodiversity areas as globally significant target sites for the conservation of marine biological diversity

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Abstract

1. Recent approaches to the planning of marine protected area (MPA) networks for biodiversity conservation often stress the need for a representative coverage of habitat types while aiming to minimize impacts on resource users. As typified by planning for the Australian South-east Marine Region, this strategy can be manipulated by political processes, with consequent biased siting of MPAs. Networks thus created frequently possess relatively low value for biodiversity conservation, despite significant costs in establishment and maintenance.
2. Such biases can be minimized through application of the data-driven and species-based concept of key biodiversity areas (KBAs).
3. By mapping locations of threatened species and populations that are highly aggregated in time or space, the KBA process allows marine sites of global biodiversity significance to be systematically identified as priority conservation targets. Here, the value of KBAs for marine conservation planning is outlined, and guidelines and provisional criteria for their application provided.