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THE Â€˜GREAT SOUTHERN REEFÂ€™: SOCIAL, ECOLOGICAL AND ECONOMIC VALUE OF AUSTRALIAÂ€™S NEGLECTED KELP FORESTS

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Abstract

Kelp forests define >8000Â km of temperate coastline across southern Australia, where ~70% of Australians live, work and recreate. Despite this, public and political awareness of the scale and significance of this marine ecosystem is low, and research investment miniscule (<10%), relative to comparable ecosystems. The absence of an identity for Australiaâ€™s temperate reefs as an entity has probably contributed to the current lack of appreciation of this system, which is at odds with its profound ecological, social and

economic importance. We define the â€˜Great Southern Reefâ€™ (GSR) as Australiaâ€™s spatially connected temperate reef system. The GSR covers ~71Â 000Â km^2 and represents a global biodiversity hotspot across at least nine phyla. GSR-related fishing and tourism generates at least AU$10 billion yearâ€“^{1}, and in this context the GSR is a significant natural asset for Australia and globally. Maintaining the health and ecological functioning of the GSR is critical to the continued sustainability of human livelihoods and wellbeing derived from it. By recognising the GSR as an entity we seek to boost awareness, and take steps towards negotiating the difficult challenges the GSR faces in a future of unprecedented coastal population growth and global change.

Additional keywords: ecosystem services, ecosystem values, temperate reef.

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