Developing a Great Kimberley Marine Park

Science Statement of Support for a Network of Marine Reserves

Statement from the undersigned coordinating authors and supporting scientists

9th February 2015

We welcome the Western Australian State Government's commitment to create a Great Kimberley Marine Park, comprising Eighty Mile Beach, Roebuck Bay, Camden Sound, Horizontal Falls and the North Kimberley marine parks.

The northwest coast of Australia is recognised as one of the most pristine tropical coastal ecosystems in the world.[1] A remote and rugged region, the Kimberley coast is an important natural environment of outstanding beauty which remains largely undeveloped and supports a rich, unique biodiversity with high natural and cultural values.[2]

The coral reefs of the Kimberley have the greatest diversity in WA[3], are some of the most pristine and remarkable reefs throughout Australia[2] and are of international significance[4]. The Kimberley coastal waters also accommodate a substantial humpback whale calving ground[5], endemic snubfin and humpback dolphin populations[6-8], globally important seabird and migratory shorebird populations[9-11] and mangrove habitats of international conservation significance[12].

With such an enviable relatively intact marine ecosystem, the creation of the Great Kimberley Marine Park is an opportunity to establish an internationally acclaimed and scientifically endorsed representative network of highly protected no-take marine reserves, recognising that a network of no-take marine reserves is essential to delivering the biodiversity protection benefits from multiple-use marine parks.[13-19]

There is strong scientific evidence that a network of no-take reserves produces far greater biodiversity outcomes than partially protected areas where fishing continues [20-22], with extensive literature citing substantial increases in size, density and numbers of fish and other marine species within highly protected and well enforced non-extractive reserves. [16,20,22-25] Benefits increase exponentially within larger more isolated no-take reserves with strong management enforcement, and in older reserves.[23]

Increasingly, no-take marine reserves are proven to provide benefits to adjacent fisheries,[26-34] with the greatest benefits created by a network of no-take reserves nested within a larger, multi-use marine protected area. [15,24]

The economic benefits of no-take reserves can quickly exceed any initial costs, not only through fisheries benefits but also through tourism.[35] As the Kimberley region experiences increasing tourism, with a rise in the amount of ecotourism and nature-based activities [2], the existence of no-take marine reserves is likely to increase revenue for the area. For example, the Great Barrier Reef Marine Park now generates an annual revenue of $5.5 billion, 36 times greater than the income from the commercial fishing industry.[36,36] Social benefits have also been assigned economic value[37], even in areas not regularly visited such as offshore or remote marine parks where research has demonstrated that the general public places a real economic value on conservation protection[38].

These benefits are predicated on adequate areas being protected.[20,23] The greatest recorded benefits in Australia have accrued in areas with high levels of protection such as the Great Barrier Reef and Ningaloo Reef.[36,39] Both of these marine protected areas span the entire ecological system, and meet scientifically recommended international conservation targets with >30% of the region protected in no-take marine reserves.[24,40] The high biodiversity values of the Kimberley justify a similar approach.

The remote waters of the Kimberley have limited human use[41] and therefore offer an enviable opportunity to exceed minimum recommendations and implement high levels of protection on par with other remote fully no-take marine protected areas such as the North Hawaiian Islands[42] and Chagos Islands Marine Parks [30] thus enabling exponentially greater biodiversity conservation benefits.[23]

It is clear that there will be substantial benefits from adequately protecting the Kimberley marine environment. The use of good science and modern planning tools should lead to an outcome that matches or exceeds the protection offered in other world-class marine parks in Australia.

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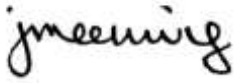

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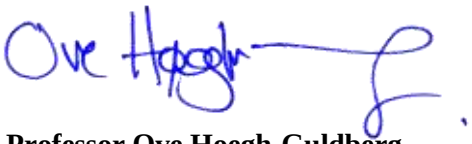

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