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COMMENTARY AND CORRESPONDENCE

On the need for meaningful marine protected area (MPA) standards

TYLER D. EDDY[a,b,*]
[a]*WWF-New Zealand/Aotearoa, P.O. Box 6237, Wellington 6141, New Zealand*
[b]*Biology Department, Dalhousie University, Halifax, Nova Scotia, B3H 4R2, Canada*

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There has been recent media attention at the 2012 International Union for Conservation of Nature (IUCN) World Conservation Congress, held in Jeju, Korea from 15–16 September about the loss of global biodiversity and how much of the planet is protected (Harvey, 2012). According to the report published by the United Nations Environment Program (UNEP) and the IUCN, which was launched at the Congress (Bertzky *et al*., 2012), marine protected area (MPA) protection covers 1.6% of the global ocean, accounting for 4% of global exclusive economic zones (EEZ; within 200 nautical miles or 370 km from land) and 7.2% of global territorial seas (within 12 nautical miles or 22 km from land). Of the 1.6% of the global ocean protected by MPAs, less than 0.2% is protected by full no-take marine reserves. This figure of 1.6% protection of the global ocean is short of the Convention on Biological Diversity (CBD) target of 10% global ocean protection by 2020, however, states are increasingly designating large MPAs. Bertzky *et al*. (2012) utilized the World Database on Protected Areas (WDPA; www.wdpa.org) to calculate the figures. The criteria set out for an MPA to be included in the WDPA have recently been clarified by the IUCN, such that for an MPA to qualify, it must be created primarily for the conservation of nature (Dudley, 2008; Day *et al*., 2012). While attention has understandably been focused on figures of total global ocean protection, it is also important to consider what makes up the figures of global protection, and whether individual MPAs are deserving of inclusion in the WDPA. In this paper a case study of the Benthic Protection Areas (BPAs) in New Zealand, which are presently included in the WDPA, is used to explore qualifying criteria.

In 2007, New Zealand declared 1.2 million km^2 of BPAs in off-shelf waters (all of which are inside the EEZ, but outside territorial waters). According to the New Zealand Ministry of Fisheries (now referred to as the Ministry for Primary Industries; MPI), the sites were declared for biodiversity protection. At present, the BPAs account for 20% of the total 6 million km^2 global ocean MPAs included in the WDPA. The creation of the BPAs resulted from a partnership between the Deepwater Fishing Group (representing commercial fishing interests) and the Ministry of Fisheries (Helson *et al*., 2010). The design of the BPAs did not involve The Department of Conservation, the national marine conservation and biodiversity government authority. There was also no inclusion of scientific

*Correspondence to: T. D. Eddy, Biology Department, Dalhousie University, Halifax, Nova Scotia, Canada, B3H 4R2. E-mail: tylereddy@gmail.com

experts, NGOs, nor stakeholders during the design process and subsequently it has been shown that 2.5 times the conservation benefits could have been achieved through an MPA design with equivalent-sized areas at less cost to the fishers, and that 72% of the area protected was too deep to trawl with current technologies (Leathwick *et al*., 2008). In all areas of the BPAs fishing is permitted as they provide no protection for the water column and do not exclude pelagic fishing. Nor do they provide protection for the seabed against mining or dredging. Furthermore as part of the agreement between the Deepwater Fishing Group and the Ministry of Fisheries to have the BPAs implemented, it was agreed that there would be a moratorium on further MPA creation in New Zealand's EEZ until 2013.

The over-arching criterion of the IUCN definition for an MPA states that it must have the stated primary objective to conserve nature. There is no verification process that ensures that MPAs with such a nature primary objective were actually designed to achieve such a goal. In some cases, it may not be possible to assess whether or not an MPA is achieving conservation of nature objectives if scientific information or expert scientific opinion is not available. However, in the cases where scientific information and/or expert opinion were available and ignored, such as the case of the BPAs in New Zealand, it should be necessary to consider whether or not an area qualifies for recognition as an MPA in the WDPA.

The IUCN criteria for an area to qualify as an MPA are most certainly necessary in order to ensure that there are standards for what is included in the WDPA. The overarching criterion for an area to qualify as an MPA of having a stated primary objective of nature conservation is necessary but not sufficient. Where scientific information is available to assess the legitimacy of the stated objective to conserve nature, a screening process would ensure that global ocean MPA coverage as reported by the WDPA is meaningful.

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