

## Marine Reserves Pick Up Pace of Ocean Protection

By Kieran Mulvaney | Mon May 16, 2011 04:24 PM ET



Last year, members of the Convention on Biological Diversity agreed that "by 2020, at least ... 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, [should be] conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas."

## **PHOTOS: New Marine Species Bubble Up in Bali**

The pace is going to have to pick up a little if that target is going to be met. Right now, marine protected areas cover just 1.42 percent of the global ocean; given the present rates at which new MPAs are being created, calculates Dan Laffoley, the 10 percent figure won't be reached until 2047. Furthermore, the biogeographical area that is presently covered is patchy and uneven, and the representation of offshore areas in that patchwork quilt is especially poor. But, adds Laffoley, who is the marine vice chair of IUCN's World Commission on Protected Areas, there is still good news.

Speaking at the second International Marine Conservation Congress (IMCC) in Victoria, British Columbia, Laffoley pointed out that the line of progress is trending upward, particularly as a result of the addition of several significant reserves: Papahānaumokuākea Marine National Monument in the northwest Hawaiian Islands, established by President George W. Bush in 2006; Sala y Gomez, covering the area around Easter Island and established by the Chilean government last October; and the Chagos Marine Reserve, decreed in April 2010 with

what was effectively the final decision of the ousted Labor government in the U.K., encompassing a huge area of the Indian Ocean and surrounding the military base of Diego Garcia.

The reserves that are being added are also getting bigger. At the time of its establishment, Papahānaumokuākea was the largest contiguous no-take marine reserve in the world; it has since been surpassed by Chagos, which covers an area of 544,000 square kilometers (210,000 square miles) and contains the biggest, and one of the healthiest, coral atolls in the world. But Chagos looks set to surrender its briefly held crown, Jay Nelson of the Pew Environment Group's Global Ocean Legacy project told the IMCC.

The Kermadec Islands, located between New Zealand and Tonga and home to 11 percent of the world's seabird species, would take over at the top if they are designated as a reserve in the near future as expected; and waiting in the on-deck circle is the Coral Sea, which would best them all.

This is important, because although MPAs and reserves are highly effective, big ones are especially so. For one thing, notes Pew, "the median size of marine protected areas worldwide is 1.6 square kilometers [0.6 square miles]. It would require 20 million such areas to protect 10 percent of our oceans." For another, very large reserves provide protection and havens for migratory species and, simply because of their very size, are more resistant to pollution and other acute threats. It may not be coincidental that the Chagos reefs avoided the bleaching episode that affected corals worldwide last year.

In terms of benefits accrued, as well as the initial investment needed and the maintenance costs involved, protecting large marine reserves is also far more cost-effective, Ashley McCrea Strub of the University of British Columbia told the IMCC. It is simply easier and more efficient, for example, to enforce one very large reserve than numerous disparate small ones covering the same surface area.

"We shouldn't say we should never have small MPAs," said McCrea Strub. "Some countries don't have large EEZs [Exclusive Economic Zones] or the funds to establish large MPAs." But just a slight shift in emphasis toward large MPAs will allow much greater areas to achieve more effective protection, more rapidly.

Photograph of coral in the Chagos Archipelago by Charles and Anne Sheppard.

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