For Further Ocean Protection

New Global Study Identifies Important Areas For Further Ocean Protection

ANALYSIS OF 10 MARINE MAPS REVEALS GAPS

The Ocean Sanctuary Alliance (OSA) announces the publication of the largest synthesis of important marine areas conducted to date in the journal Frontiers in Marine Science. This scientific study—the first of its kind—analyzed 10 UN and NGO maps depicting global marine priority areas.

- Nations of the world have committed to protect at least ten percent of ocean area by the year 2020 under both the Sustainable Development Goals and the Convention on Biological Diversity, but this goal has not yet been attained and guidance on where to place additional protected areas has been unclear.


- Dr. Ellen Pikitch, Endowed Professor of Ocean Conservation Science within Stony Brook University’s School of Marine and Atmospheric Sciences and a board member of OSA, initiated and co-authored the study, which was financed through private donations and a grant from the Italian Ministry of Environment.

- The goal of the study is to provide guidance for the siting of future Marine Protected Areas (MPAs) by synthesizing information on areas of the ocean that have already been identified as important but that are currently unprotected.

- The analysis reveals the degree of consensus found among these ten maps, and importantly, determines the extent and location of priority areas that are not currently protected. Most, or three quarters, of nations protect less than 10% of the identified priority areas within their exclusive economic zones (EEZs).

- The study found that almost every country has an opportunity, and the current goal to protect 10% of the ocean by 2020 could be met solely through the actions of coastal states. Furthermore, if all the unprotected area identified as important by 2 or more initiatives were to be protected by 2020, an additional 9.34% of the ocean would be added to the global MPA network.

Among the principal findings of the paper:

- First of its kind (the most comprehensive synthesis of global marine priority areas to date) and a direct response to requests made by policymakers for more guidance on where to place MPAs.

- Over 55% of the ocean was identified as important by at least one study. Nearly 60% of this area is within national jurisdictions, and over 40% is located in the high seas.

- Over 14% of the ocean was identified as important by multiple (2-7) studies, and nearly 90% of this area is currently unprotected.

- The largest important yet unprotected areas identified by multiple studies were located in the Caribbean Sea, Madagascar and the southern tip of Africa, the Mediterranean Sea, and the Coral Triangle in the South Pacific.

- Most (three quarters) of all exclusive economic zones and half of all biogeographic provinces protect less than 10% of their identified priority areas. This indicates the large extent of immediate opportunities for further ocean protection and the need to improve representativeness.

- The goal to protect 10% of the ocean by 2020 goal could be met solely through the actions of coastal states.

“…the window of time to secure a healthy ocean for future generations is short and quickly closing, and action is needed now.”

-Peter Thomson, UN Secretary-General’s Special Envoy for the Ocean

Images from the March 2016 conference in Rome

ABOUT THE OCEAN SANCTUARY ALLIANCE

The Ocean Sanctuary Alliance was formed in 2012 as a not-for-profit platform engaging Member States, scientists, business and civil society committed to ocean preservation in support of the UN’s 2030 Agenda for Sustainable Development.

OSA has been active for many years with three groups: diplomats at the United Nations in New York, a worldwide network of marine scientists, and non-profit funders seeking to protect the ocean. Our goal has been to generate support for the establishment of ocean sanctuaries and to facilitate cooperation among these three groups to that end.

Prior to the 2030 Agenda adoption in 2015, OSA successfully advocated at the UN for the adoption of a stand-alone goal devoted to the Ocean, and fought to include the measurable goal SDG14: Target 5: By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law, and based on the best available scientific information.

OSA organizes meetings and symposia bringing diplomats and scientists together to explore solutions for the oceans. OSA also initiates and funds scientific research designed to promote the effective implementation of new ocean sanctuaries.

With leadership from Italy, Poland, the Bahamas, and Palau, OSA organized the 10x20 Initiative at the UN to push for achievement of the 10% ocean protection goal. The initiative presented conferences engaging diplomats and scientists in Rome and in New York.

More information at www.oceansanctuaryalliance.org
Scientists and marine experts overwhelmingly agree that establishment of areas shielded from human impacts is an effective, fast and underutilized method to mitigate the numerous assaults on the world’s ocean environments. Marine protected areas (MPAs), or sanctuaries, limit the type and amount of fishing that can be conducted, and are vital to replenishing the ocean’s life. Numerous studies show that well designed and properly managed MPAs can replenish and restore fish populations and other marine life. For example, a study (1) of the Cabo Pulmo MPA in Mexico found an 11% increase in top predator biomass within 10 years. Another study reported that fully protected MPAs had 7 times more fish than unprotected areas and 3.5 times more than partially protected MPAs. (2)

In addition to serving as fish replenishment zones, sanctuaries are reservoirs of biodiversity, and help maintain the ocean’s resilience and ability to adapt to changing climates. The Ocean Sanctuary Alliance (OSA) believes the establishment of “no-take” protected areas where commercial fishing cannot occur is critically important and achievable and should be strongly supported by UN Member States responding to the need for urgent action. Importantly, we believe the establishment of sanctuaries can be accomplished more quickly than any of the other actions contemplated by SDG 14. It takes the political will or decision of each Member State to establish the boundaries of protected areas. Each sovereign country has the ability to take unilateral action to create protected zones. While the political process required to take such decisions varies among Member States, all have the capacity to take swift action in the face of an urgent need. A global network of sanctuaries can help stabilize fish populations at sustainable levels and reverse the decline in abundance and diversity of marine life. If this opportunity is missed, the next occasion to debate these issues at the global level will be 2030, when the damage done may be irreversible.

(2) No-take marine reserves are the most effective protected areas in the ocean. Sala and Giakoumi (2017) ICES J. Mar. Sci.
Coral Triangle Region

Study results show that many areas of marine importance lie in the Coral Triangle region. While some of the current MPAs in this region are of modest or large size, most protected areas are small and do not contain areas of high value that are identified in the study. Papua New Guinea, Indonesia, Philippines, Timor Leste and Malaysia have good opportunities for MPA creation and expansion.

The 10 maps included in the study:

- Convention on Biological Diversity 2017
- Ecologically or Biologically Significant Marine Areas
- International Maritime Organization 2014
- Particularly Sensitive Sea Areas
- Convention on Wetlands 2017
- Ramsar
- International Convention for the Prevention of Pollution 2014
- Special Areas
- Food and Agriculture Organization 2017
- Vulnerable Marine Ecosystems
- Educational, Scientific and Cultural Organization 2017
- World Heritage Sites
- Conservation International 2016
- Biodiversity Hotspots
- Birdlife International 2017
- Important Bird and Biodiversity Areas
- World Wildlife Fund 2017
- Marine Priority Areas
- Alliance for Zero Extinction 2012
- Zero Extinction Sites

The authors used sophisticated mapping technology to normalize and plot all the mapping studies to reveal areas of agreement on priority areas using ten individual global maps, and then overlaid the locations of existing Marine Protected Areas. The results revealed which important marine environments are protected and which are not. It is hoped that this information can guide nations as to where new protected areas should be created, and where existing protection can be more strongly enforced.

It is important to note that the results of the study are a current snapshot. Individual maps within the study will be revised to take into account new scientific information, and the map of current MPAs kept by the WDPA is being updated monthly.

MAPS USED IN CREATING THE PRESENTATION:
- Cadaster NL, DeLorme, Esri, Esri China (Hong Kong), Esri Japan, FAO, Flanders Marine Institute, Garmin, GEBCO, GeoBase, GEOMAR, Geonames.org, HERE, IGN, increment P. Corp., Intermap, Mapbox, METI, National Geographic, NOAA, NPS, NRCAN, OpenStreetMap Contributors, Ordnance Survey, USGS, WDPA, and the GIS Community, among other contributors.

ONLINE MAP AVAILABLE

The maps in this newsletter are screenshots from a worldwide online map that can be used to examine in detail the findings of the study. It can be viewed at: https://www.somas.stonybrook.edu/research/global-research/macop/
GOALS – 2020 AND BEYOND
Countries have agreed to protect 10% of the ocean by 2020 (SDG 14.5; Aichi Target 11); a goal that has not yet been reached. As of September 2019 statistics from WDPA report 16,908 MPA’s covering 7.8% of the ocean.

Marine protection targets for 2021-2030 will be set in 2020 at conferences in Lisbon, Portugal and Kunming, China. There is a developing consensus that the next target should be around 30%. To meet conservation goals, MPAs must be “based on the best available scientific information” (SDG 14.5) and placed in “areas of particular importance for biodiversity and ecosystem services” (Aichi Target 11). The study gives direction to future efforts.

OSA’S GUIDING PRINCIPLES
- Marine protected areas (sanctuaries) have been proven to regenerate fish stocks, and provide other valuable benefits to ocean ecosystems.
- A global network of sanctuaries, properly located, can stabilize fish stocks at a sustainable level, and possibly reverse the decline of marine life.
- Scientific leadership is key to design sanctuary networks
- Time is of the essence. If decisive and effective action is not taken soon, the ocean’s decline will become irreversible within the next five years.

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