

Why Our Oceans?

The world's oceans represent "the lifeblood of Earth, covering more than 70 percent of the planet's surface, driving weather, regulating temperature, and ultimately supporting all living organisms."¹ The world's oceans supply to humankind over 93 million tons of wild fish per year, plus 48 million tons produced by fish farms. At the same time, the oceans are being used as receptacles for immeasurable volumes of industrial and domestic waste, largely untreated, including over 9 billion tons of plastic waste per year.

On "World Oceans Day" June 8, 2016 Dr Jane Goodall stated:



"the overall plight of the oceans is desperately worrying. The oceans, along with the forests of the world, are the two great ecosystems that sequester carbon dioxide. And in so many places we are polluting the oceans to such an extent that they are no longer able to perform this function..."

Notwithstanding the relentless harvest of sea-life, the ongoing assault of wastes, and the prospect of impaired climate regulation, our understanding of the world's oceans is minimal. NOAA the National Oceans and Atmospheric Association, reports that that more than eighty percent of the world's oceans remains "unmapped, unobserved, and unexplored"². And therefore, not understood.

Clearly, as humankind's impacts on the world's oceans grow in size and complexity, there is much to explore, learn and communicate about the world's oceans.

Founded with this awareness, **The Aquatica Foundation** is preparing to take a significant role in supporting the expanded exploration of the planet's oceans. In addition, where opportunities are identified, the Foundation will promote and support ecosystem restoration programming. The Foundation will accomplish its objectives by working in concert with the scientific research and educational efforts of universities, institutes, and community science organizations, around the world.

¹ <http://oceanservice.noaa.gov/facts/exploration.html>

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Exploration

Ocean exploration serves a number of purposes. Through ocean exploration, scientists can establish the baseline information needed to better understand environmental change, filling gaps in knowledge, and informing the decisions we confront every day on this ever-changing planet. Rigorous documentation biological, chemical, physical, geological, and archaeological features of the world's oceans will require a spectrum of expansive, creative, and ongoing activities and commitments.

Restoration

The Millennium Ecosystem Assessment Report³, prepared with the contributions of over 1300 international experts, and conducted under the auspices of the United Nations, concluded that *“approximately 60% (15 out of 24) of the ecosystem services examined... are being degraded or used unsustainably...”*

As a consequence of this degradation, resource management scientists are witnessing ... *“abrupt alterations in water quality, the creation of ‘dead zones’ in coastal waters, the collapse of fisheries, and shifts in regional climate⁴...”*.

Consequently, vast areas of marine habitat, including coral reefs, estuaries, and open ocean ecosystems, will require direct restoration actions, using established and emerging methods. Identifying and engaging in ecosystem restoration programs, and then monitoring success, are key activities that the Foundation supports.

Education

Given the stark realities above, clearly there is and elevated impetus to learn more and then communicate about the oceans. The Aquatica Foundation is preparing to play a significant role in supporting humankind's expanded understanding of the planet's unseen frontier, and sharing that elevated knowledge. The Foundation will accomplish this objective by directly facilitating and participating in exploration and restoration activities undertaken by established ocean science entities including established universities, institutes, and community science organizations, as well as start-up ventures.

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³ <http://millenniumassessment.org/documents/document.356.aspx.pdf>

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