

# **We must make the world's oceans a priority**

World Oceans Day on June 8 gives us the chance to reflect on the importance of our ocean and what we must do to protect it. The ocean provides 95 percent of the living space here on Earth and holds 98 percent of the water on our planet. It is our planet's life support system.

The ocean feeds billions of people around the world, drives our climate, absorbs heat and carbon dioxide, and produces 70 percent of the oxygen we breathe. Every breath we take and every drop we drink depends on a healthy ocean. Every life here on Earth depends on the ocean.

Now, the ocean's life depends on every one of us.

Humans are causing global changes to the ocean in both ocean volume and temperature. Since 1970, ocean temperatures have increased by one degree, causing bleaching of coral reefs. The ocean absorbs roughly 90 percent of the heat in the environment, which increases ocean volume by thermal expansion resulting in a rise in sea level.

Since 1950, the sea level has risen eight inches. However, since 2006, the ocean has been rising at an accelerated rate of one inch every three years, with projections of another eight inches in the next 20 years.

Our activity also has been responsible for global changes to ocean pH levels, critical to ocean food chains and a balanced ecosystem. Carbon dioxide concentrations in our atmosphere have risen 46 percent since 1950 due to the burning of fossil fuels and are currently at three times the level the ocean can safely absorb. The extra human-generated carbon dioxide is saturating ocean waters, forming carbonic acid, a process called ocean acidification.

The historical pH of the ocean was 8.16 and is now 8.05; that's a 25 percent increase in acidity. This increased acidity dissolves the shells of plankton, corals, oysters, clams, shrimp, crabs and lobster.

Another major challenge facing our oceans is the pollution that exists throughout the world. More than 85 percent of all the pollution in the ocean comes from human landbased activities.

Additionally, pollution spreads into our ocean through discharges of polluted water and run-off that carry suspended solids, nitrogen, phosphorus, toxic algae and other pollutants harmful to aquatic plants, animals and humans.

All of the waters in Florida are connected — from our ground water to our springs, our wetlands, our Everglades, our rivers, our estuaries, our lagoons and bays and into the ocean along our 1,200 miles of coastline.

Our activities in the Florida watersheds are the sources of pollution to our ocean and coastal ecosystem.

We must take action now to protect our ocean and coastal environments. As individuals, we must reduce our carbon footprint, advocate for green-energy initiatives and support legislation that reduces CO2 emissions.

We must stop the land-based activities that are directly polluting our ocean and coastal waters, and pick up the trash and debris that is currently in our waters and on our shorelines.

We must stop discharges of polluted water into coastal bays, estuaries and lagoons.

We must place a moratorium on any activity, such as offshore and below-ground oil and gas exploration and production, which causes harm to aquatic plants, animals and humans.

During the month of June, the oceans of our planet are celebrated around the world. We should do everything we can, individually and collectively, to stop the pollution and destruction of our ocean and coastal waters.

Florida Oceanographic Society feels that together we must be the next wave for change to secure the future of our world's ocean.

We must increase the awareness and inspire stewardship of our living coastal ecosystems.

Visit our website ([FloridaOcean.org](http://FloridaOcean.org)) to learn more about how you can help.

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### **Your Turn**

Mark Perry Guest columnist