

## The Oceans Court ruled that the seas are a hot mess. Why haven't you heard about it?

June 10 2024, by David Helvarg, Los Angeles Times



Credit: Pixabay/CC0 Public Domain

On May 21, the International Tribunal for the Law of the Sea, in Hamburg, Germany, ruled that greenhouse gases are marine pollutants and nations must take action to "reduce, control and prevent" their



effects. The tribunal, sometimes called the Oceans Court, was responding to a request from a consortium of small island nations disappearing under rising seas.

The United States is not one of the 169 parties to the U.N. Convention on the Law of the Sea, but it abides by its principles. And while the tribunal's unanimous ruling is not legally binding, it will influence national and global court cases now being brought against the <u>fossil fuel</u> <u>industry</u> and its well-funded resistance to a carbon-free, renewable energy future.

Donald Trump offered himself up to that resistance in April when he solicited a billion-dollar donation from oil executives by promising, if reelected, to reverse President Joe Biden's clean energy rules. Big Oil could certainly afford the bribe. One billion dollars represents about 1% of the profits raked in by ExxonMobil, Chevron, Shell and BP combined last year under Biden's moderate climate policies.

Which is why the tribunal's ruling may not be enough to halt or even slow the <u>ocean</u>'s approach to a literal boiling point.

Climate impacts are overwhelming all other marine environmental insults, including industrial overfishing and oil, chemical and plastic pollution. Compounding the danger, unsound floodplain development is destroying coastal habitat in such places as Jakarta, Indonesia; Lagos, Nigeria; Houston; and Florida, where Gov. Ron DeSantis recently signed legislation banning any reference to climate change by state agencies.

The National Oceanic and Atmospheric Administration is warning of above-normal hurricane activity this year, predicting 17–25 named storms (versus an average of 14), with four to seven major hurricanes.

The culprit is near-record high temperatures in the Atlantic, combined



with a La Niña cooling phase in the Pacific. (Water temperatures in recent La Niña years have been hotter than El Niño years in previous decades, according to NOAA.) And, of course, hurricane damage will only be increased by rising sea levels linked to warming sea water ( $H_2O$  expands when heated), plus melting sea ice and glaciers.

Scientific reviews have found that the duration of marine heat waves has increased more than 50% since 1925. By 2014, 50% of the ocean was affected, and last year, more than 90% of the ocean hit internal heat wave temperatures, including one day when the temperature of the waters off the Florida Keys measured 101 degrees. The average global ocean surface temperature hit a record of nearly 70 degrees Fahrenheit one day last year, the highest ever recorded, and a stark contrast to the 61 degrees average throughout the 20th century.

That should be no surprise given that 90% of the heat generated by the burning of fossil fuels—along with about a third of the carbon dioxide—has been absorbed by the ocean. The carbon dioxide, buffered into <u>carbonic acid</u>, increases acidity in ocean water, which is bad news for corals, clams and other shell-forming creatures. Also, a warmer, more acidic ocean contains less dissolved oxygen, expanding hundreds of "dead zones" in <u>coastal waters</u>, as tracked by the United Nations.

Not worried yet? In 1997–98 I reported on the first-ever global coral bleaching event, caused by too-warm water and affecting 16% of all <u>coral reefs</u>. In April, scientists reported the fourth and largest global bleaching to date, now affecting more than 54% of the world's coral reefs and growing by 1% a week.

Coral bleaching is similar to but more extensive than the kelp forest dieoff along the coasts of South Australia and California. Ninety-five percent of Northern California's kelp forest has been displaced by sea urchin "barrens" since the West Coast's marine heat wave in 2014, '15



and '16, when water temperature averaged 7 degrees above normal.

A study done by Oregon State University found that with the destruction of the kelp forests, migrating gray whales are losing weight and energy because kelp helps generate the phytoplankton the whales feed on.

Even if most ocean climate impacts remain out of sight and, therefore, out of mind, I've met too many people directly affected by these changes—fishermen, surfers, coastal homeowners, beach town shopkeepers—not to wonder why the Law of the Sea Tribunal's ruling wasn't major news around our blue planet. Likewise, why isn't climate change, which is causing warmer, wetter, more extreme weather in nation after nation, a major issue in the 2024 U.S. election?

Perhaps it will be if this summer's hurricanes take out Miami, Tampa, Charleston or Houston, or if shrimp start cooking in the sea before they're harvested. The tribunal's ruling could cool the oceans, if only there were a way or the will to enforce it.

2024 Los Angeles Times. Distributed by Tribune Content Agency, LLC.

Citation: The Oceans Court ruled that the seas are a hot mess. Why haven't you heard about it? (2024, June 10) retrieved 23 June 2024 from <u>https://phys.org/news/2024-06-oceans-court-seas-hot-mess.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.