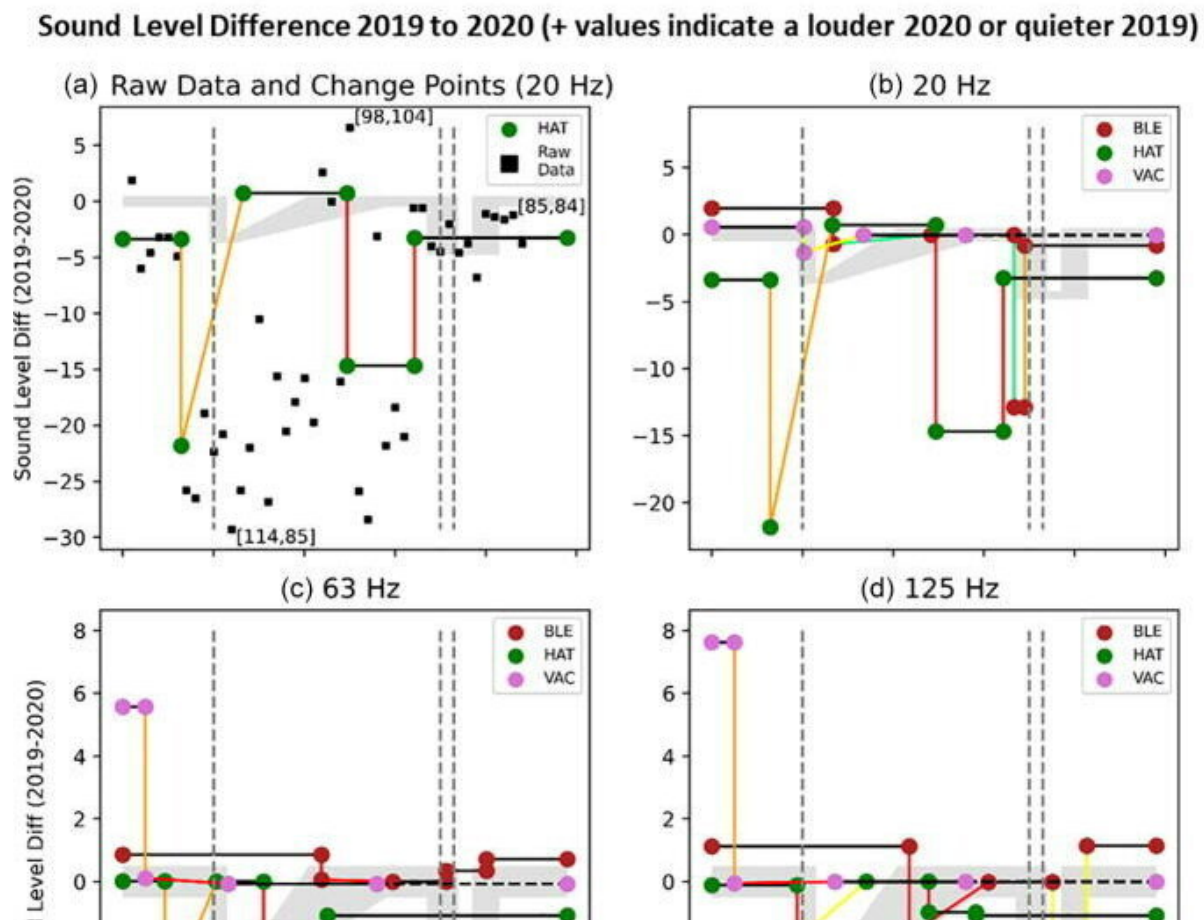


Research shows COVID-19 lockdown did not lead to quieter offshore ocean

November 3 2022



Change point analysis results. Lines that are vertical or sloped represent change points and are color-coded as follows: (1) green are COVID-consistent; (2) yellow are not COVID-consistent due to change point confidence interval width; (3) orange are not COVID-consistent due to mean location; and (4) red are not COVID-consistent for both confidence interval width and mean location. The vertical gray dashed lines indicate the location/time of the onset of the COVID

pandemic in 2020 near week 10 and of hurricanes Dorian and Humberto in 2019 near week 35. In Fig. 1(a), three points are labeled with their [2019, 2020] sound levels for illustration. Credit: *JASA Express Letters* (2022). DOI: 10.1121/10.0013999

Life on land may have quieted down during the height of the pandemic, but far offshore the Atlantic Ocean was just as active as ever according to a new study from the University of New Hampshire. Researchers found that there was no significant change in the continental shelf's underwater soundscape during the year 2020—a surprising contrast to earlier reports of quieter coastal waters during that same timeframe.

"It's fascinating that oceans are so dynamic and variable; different regions really have different personalities based on the natural and [human interactions](#) that happen within those waters," said Jennifer Miksis-Olds, research professor and director of UNH's Center for Acoustic Research and Education.

In the study, recently published in the *Journal of the Acoustical Society of America Express Letters*, researchers focused on seven offshore sites geographically spanning the Outer Continental Shelf from Virginia to Florida—places where hydrophones had been placed on the seabed in 2017 and then retrieved in 2021 as part of UNH's Atlantic Deepwater Ecosystem Observatory Network.

The data indicated that although the sound produced from commercial shipping vessels decreased, there was an increase in sound from other vessels, like fishing boats and pleasure crafts. The net result: no major difference in the underwater soundscape approximately 45-280 miles from the shoreline.

"Having that long-term time series was really critical because it allowed for direct comparison of years of data before COVID-19 hit," said Miksis-Olds. "Acoustic measurements in the [deep ocean](#) are more scarce than in [coastal waters](#), so this research provides another perspective on how the deep oceans were impacted—or not—by COVID-19."

Researchers acknowledge that the findings are in direct contrast to other studies focused on waters closer to the shoreline but say that's why it's important to examine different aspects of the ocean environment before drawing any conclusions.

More information: Jennifer L. Miksis-Olds et al, Minimal COVID-19 quieting measured in the deep offshore waters of the U.S. Outer Continental Shelf, *JASA Express Letters* (2022). [DOI: 10.1121/10.0013999](#)

Provided by University of New Hampshire

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