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Research Summary

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Data focus:	SHEFA

Title Postmortem detection of SARS-CoV-2 after exposure to seawater

Abstract

Since the discovery of SARS-CoV-2 and its variants, the scientific community is in a race to discover its characteristics. To date, there have been no documented cases of SARS-CoV-2 detection directly taken from the ocean, in any species. In March of 2021, Vanuatu was presented with a unique circumstance that can provide insights into SARS-CoV-2. A corpse washed up on the shores of this COVID-19-free nation. We elucidate the steps taken to determine the SARS-CoV-2 status of the corpse and define the risks of onward transmission. SARS-CoV-2 was able to be detected repeatedly using PCR. These results correlate with samples taken from shipmates. Reviewing this case alongside previous research, we demonstrate the ability of SARS-CoV-2 to be detected ex-vivo and after exposure to seawater. This contributes to the validity of negative samples taken from sealife. As variants continue to arise, the ability to detect virus post-mortem also has implications on autopsy safety.