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## short duration broadband signals identified in IMS hydrophone recordings be Right Whale vocalizations?

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The six CTBT IMS hydroacoustic hydrophone stations, comprising 11 triplets in total, record continuous data sampled at 250 Hz. Marine mammal vocalizations are frequently identified in these recordings and form an integral part of the HA stations' undersea soundscapes, as reported in numerous scientific publications. During regular IMS hydrophone data quality checks, occasional short duration broadband signals occupying the entire available bandwidth were identified, which differ from the longer duration sweeps and chirps of whale calls reported in prior studies that made use of IMS hydrophone data. When such a sound appears on more than one hydrophone of a triplet, the recordings show amplitude variations across hydrophones that are indicative of a nearby source. Furthermore, the signals do not show signs of dispersion from long-distance propagation. The hypothesis is formulated that these sounds may be the low-frequency portion of short impulsive broadband vocalizations, referred to in the literature as Right Whale "gunshots". Recordings of this endangered species are relatively rare compared to vocalizations from other whales and their study is receiving increased interest from the scientific community.

### Promotional text

It is hypothesized that short duration broadband signals observed at IMS hydrophone stations may be the low frequency end of impulsive Right Whale calls. Recordings from this endangered species are relatively rare compared to vocalizations from other whales.

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