

What we don't know about Blue Whales

Dear OCR Community and Friends,

An article by whale acoustics researcher Mark MacDonald and ocean bio-acoustician John Hildebrand recently published in "[Endangered Species Research](#)" was picked up by the [LA Times](#) yesterday. It reveals that the song pitch of Blue Whales has been getting lower over the last 40 years.

There are a number of speculations about why this may be occurring, including their adapting to increased human noise in the sea; evidence of increased populations and individual sizes since the 1972 halt in commercial whaling; compensation for increasing ocean acidity; or just that these animals are trending downward together worldwide, through Blue Whale "cultural conformity."

The vocalizations are very low frequency sounds with some in the 15 Hz range. These tones characteristically travel long distances due to the high power, but also due to very long-wavelengths (over 300 feet for 15 Hz). This enables their songs to be heard thousands of miles from the source.

We can assume that the projection distance is important (Nature can be extravagant, but she is never wasteful), but we can only speculate why they need to broadcast their songs across ocean basins.

This downward pitch trend may be occurring rapidly, but we don't have any records prior to the 1960's – well within life-span of living whales. The whales would know, but whales – particularly baleen whales, are hard to poll about these things.

The Blue Whale is the largest animal on earth – ever. Linnaeus named them *Balaenoptera musculus* – meaning "mouse whale" showing us that at least one 18<sup>th</sup> century taxonomist had a rudimentary sense of humor.

We can put that in the little file folder with all of the other things we know about Blue Whales.



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