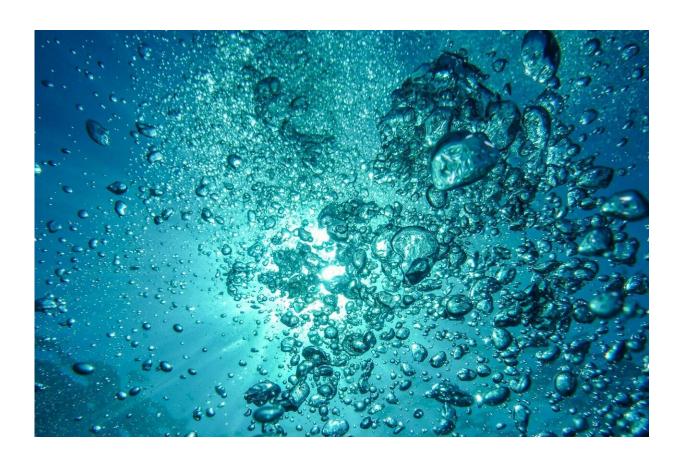


Whales coordinate deep dives to evade predators

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Groups of beaked whales reduce predation risk through extreme diving synchronization, according to a study in *Scientific Reports*. This behaviour has not been observed in other deep diving whales and the



underlying reasons have remained unclear.

Natacha Aguilar de Soto, Mark Johnson and Peter Madsen and colleagues analysed data on 26 <u>beaked whales</u> carrying sensors that tracked the depths they swam to, the steepness of their dives, and the sounds they made.

The authors observed that the <u>whales</u> performed closely coordinated deep dives in order to forage using echolocation (using sounds to search for prey) but limited vocalizations at shallow depths where they are vulnerable to hunting by <u>killer whales</u>. Beaked whales began vocalizations at an average depth of 450 metres before searching for food individually. Whales then reunited as a group at an average depth of 750 metres and ascended silently to the surface at a shallow angle covering an average horizontal distance of one kilometre.

The authors suggest that by limiting vocalizations to depths out of the range of killer whale attacks and surfacing at unpredictable locations, beaked whales prevent killer whales from tracking them. However, the authors note that this strategy is costly; long silent ascents from dives lasting more than one hour reduce foraging time by around 35% compared to the diving strategies used by other toothed whales.

The findings suggest that <u>predation risk</u> may have been a strong evolutionary force driving the unique diving and vocal behaviour of beaked whales.

More information: Fear of Killer Whales Drives Extreme Synchrony in Deep Diving Beaked Whales, *Scientific Reports* (2020). DOI: 10.1038/s41598-019-55911-3



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