Call of Silence

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Oceans cover more than 70% of the planet and sound travels 4.5 times faster in water and 60 times further than in air, allowing noise from sea life, ships and wind to encompass the oceans for miles.[1] The ocean is an acoustic environment where communication is essential for marine life. Whales, dolphins, schools of fish and other species rely on sound to navigate, locate food and maintain social bonds across vast distances. Yet increasing human activity at sea has transformed this natural soundscape into one dominated by ships, sonar and industrial development. Reportedly, there are over 50,000 merchant ships carrying millions of containers crisscrossing the oceans, and with global trade growing, the ships are getting bigger and the routes are becoming increasingly crowded.

Despite this increased commotion, an unidentified whale, referred to as 52 Blue, resides in the ships' shadows, constantly calling at an unusually high frequency, its calls never answered. A symbol of noise pollution and the vast disruption of marine communication caused by anthropogenic noise, its calls have been detected since the late 1980s up to the 2010s, following migration patterns like other whale species, yet without response.[2] 52 Blue has inspired many pieces of media, from short films to books to music, becoming a symbol of isolation within an increasingly noisy world. The biological cause of its unique 52 hertz call remains unknown, but its solitary life highlights a wider environmental concern: the disruption of marine communication by us humans.
The International Maritime Organisation has issued voluntary guidelines on underwater noise reduction[3] and Article 194 of UNCLOS obliges states to take measures to prevent unnecessary environmental pollution, yet voluntary measures have proven insufficient in the pursuit of global trade.

The reality is that 52 Blue is just one example among many. Across the ocean, species after species pay the price of a world that has covered their ears.

Coral reef ecosystems, which support approximately 25% of all marine species, rely partly on sound for larval navigation. Fish and invertebrates use the soundscape of a healthy reef to locate a suitable home. Research from the University of Exeter found that noise pollution can mask these acoustic cues, reducing the success of larvae settling on reefs and therefore hindering the recovery of already damaged ecosystems.[4] Cod and herring have been observed abandoning their feeding grounds in response to seismic survey airguns, which emit blasts exceeding 200 decibels. Studies suggest that exposure to such noise can cause permanent hearing damage in fish, leading to behavioural disruption across several kilometres.[5] Humans are damaging the ocean with no regard, despite fisheries supporting the livelihoods of over 600 million people.[6] If such practices continue, the collapse of these systems becomes inevitable. Furthermore, studies have found blue whales shifting their frequencies downward, an adaptation to rising ambient ocean noise. A study published in the *Marine Pollution Bulletin* found that ship noise can reduce the effective communication range of blue whales by up to 90%.[7] Dolphins, which rely on echolocation to survive, are also vulnerable to sonar interference, leading the ECHR to be petitioned over naval sonar practices.[8]

The ocean is not silent by nature; it is rich, complex and alive with sound. But the noise we have introduced is not communication. It is a siren of impending destruction. From the lonesome call of 52 Blue to the disrupted migrations of whales and dolphins, and the abandoned feeding grounds of fish, the pattern is the same. Human noise rewrites the rules. Species that evolved over millions of years to speak are being silenced, one frequency at a time.

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