

# Does offshore wind farm construction in the Southern North Sea lead to an increase in observed harbour porpoise strandings?

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The Southern North Sea is an important hub for offshore wind energy with nearly 40 operational offshore wind farms, and many more planned. In most cases the construction of offshore wind farms requires the installation of large hollow steel piles using high-energy impact hammers. This process generates very high sound levels in the surrounding waters, which can be detrimental to marine mammals if these are exposed to them. Increased noise levels over a large area can affect marine mammals in several ways, ranging from behavioral responses, masking of acoustic signal detection and temporary to permanent hearing loss and physical injury. All of these can lead indirectly to an increased mortality rate or, due to stress, to a compromised reproduction. In this study we examined, over a period of ten years, whether pile driving could have influenced the spatiotemporal pattern of strandings of harbour porpoise (*Phocoena phocoena*), the most common cetacean in the Southern North Sea.

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