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TITLE: A rapid environmental DNA method for detecting white sharks in the open ocean

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ABSTRACT:

Abstract Environmental DNA (eDNA) research often requires returning to the laboratory for processing, which can delay species identification by weeks?months. Using a portable Oxford Nanopore Minlon sequencer, eDNA from white shark (*Carcharodon carcharias*) was rapidly identified from seawater samples collected in the high seas where they have historically been identified with biologging datasets. A total of 10 sequencing runs were performed on the Minlon onboard an oceanographic vessel with a turnaround time from water collection to sequence results and annotation of ~48 hr. Identifying vertebrates by amplifying eDNA from seawater provides a novel approach for sampling and detecting the presence of elusive species of conservation importance in remote locations.

SOURCE: Methods in ecology and evolution

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