

IFAW Award for Welfare and Conservation: Lucy Keith Diagne

Title:

The Senegal stranding network: Year-round monitoring of stranded cetaceans detects high seasonal mortality and bycatch hotspots

Authors:

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Abstract:

Senegal's marine fauna includes >25 species of cetaceans, all of which are protected species under Senegalese national and international laws. Beginning in July 2014 we initiated the first regular surveys and monitoring along the country's Atlantic coast. Quarterly surveys are conducted along 184 km of Senegal's north coast, in transects from Dakar to St. Louis, and two surveys per year are conducted on the central and south coasts. Additionally, we trained a volunteer network in coastal villages and national parks to report marine mammal strandings through-out the year, so that mortality can be accurately documented and samples collected more quickly. Between July 2014 and January 2017, twelve surveys were conducted and 13 reports were received outside of surveys, resulting in the documentation of 136 cetaceans of ten species. Species with the highest numbers recovered were *Delphinus delphis* (n=37) and *Phocoena phocoena* (n=28). *Balaenoptera borealis* (n=4) and *Megaptera novaeangliae* (n=4) were also recovered. An additional 12 large whales and 36 small cetaceans were too decomposed to determine species *in situ*; genetics samples were collected for all. The majority (65%) of all cetaceans were recovered in the months of June and July. We found strong evidence that fisheries by-catch is responsible for the vast majority of small cetacean strandings with 90±14% of all fresh *D. delphis* and *P. phocoena* showing signs of anthropogenic interaction. Densities, corrected for uneven coverage of transects, peaked near the fishing villages of Kayar, Lompoul, and Saint Louis. High numbers of fishermen in Lompoul and St. Louis use monofilament gill nets, therefore, our data suggests that areas with high use of monofilament nets are those where the highest bycatch densities occur. Mortality and bycatch data will be used to inform and work with Senegal's fishery organizations to begin to find ways to reduce fisheries bycatch mortality.