

Monitoring abundance trends of Bahamian odontocetes

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We report on an ongoing study to monitor the abundance of odontocetes in the northern Bahamas, to support the newly established Bahamian Marine Mammal Protection Act, and following a documented atypical mass stranding event in March 2000. To date, we have completed 83 systematic sighting transects off southern Great Abaco Island in the northern Bahamas (25°N, 77°W) between May 2000 and April 2007. These transects covered 1592 nautical miles in calm sea-states (beaufort 3 or less), and documented nine odontocete species during 112 observations. Habitat types covered in the study area include shallow sandy shelf waters, a steeply walled continental slope and the abyssal waters of the Great Bahama Canyon. The most frequently encountered species were dwarf sperm whale (*Kogia sima*) (n=43 groups; 146 cumulative individuals); Blainville's beaked whale (*Mesoplodon densirostris*) (n=21; 105); sperm whale (*Physeter macrocephalus*) (n=13; 59); Atlantic bottlenose dolphin (*Tursiops truncatus*) (n=11; 144) and Atlantic spotted dolphins (*Stenella frontalis*) (n=8; 95). All pelagic species were observed in all seasons. Other species encountered included pygmy sperm whale (*Kogia breviceps*), Cuvier's beaked whale (*Ziphius cavirostris*), pantropical spotted dolphin (*Stenella attenuata*) and short-finned pilot whale (*Globicephala macrorhynchus*). Bayesian techniques were used to estimate annual abundance indices of the regularly encountered species, whilst accounting for temporal variability in sighting covariates. These analyses provide the first data on abundance trends for cetaceans in this region, representing an important monitoring tool to aid conservation.