

## MOVEMENT AND RESIDENCY PATTERNS OF SATELLITE TAGGED ODONTOCETES OFFSHORE OF CAPE HATTERAS, NC

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We deployed satellite-linked transmitters and dive recorders on several odontocete species off Cape Hatteras, NC as part of a multi-institutional marine protected species monitoring program, involving vessel, aerial, and acoustic survey methods. Our objective was to obtain information on medium-term movement and diving patterns of individual animals to complement existing information on long-term residency patterns derived from photo-identification and short-term dive records obtained from Digital Acoustic Tags (DTags). We deployed 29 Low-Impact Minimally-Percutaneous External-electronics Transmitter (LIMPET) tags on individuals of four species during the summer of 2014: 20 *Globicephala macrorhynchus*, 5 *Tursiops truncatus*, 3 *Ziphius cavirostris*, and 1 *Delphinus delphis*. Nineteen location-only (SPOT5) tags were deployed, while ten tags provided information on depth of dive, as well as location data (MK 10-A). We received data from these tags for up to 193 days. Tagged individuals ranged from Onslow Bay, NC north to Georges Bank, MA, and east to the New England seamounts. Pilot whales in particular showed a very strong affinity for the continental shelf break, but there was variation in movement patterns at both the species and individual levels. Maximum dive depths were 2,800 m for beaked whales (n=2), 1,104 m for pilot whales (n=4) and 944 m for pelagic bottlenose dolphins (n=2). We either re-sighted or matched five of the tagged animals (17%) to our existing photo-identification catalogs. Our results show both strong habitat affinities for these animals and a high and surprising degree of residency, especially for the beaked whales and bottlenose dolphins. We hope to conduct additional tagging efforts off Cape Hatteras, NC and Jacksonville, FL to further refine patterns of long-term spatial and habitat use of odontocetes in the Northwest Atlantic.