Recent winter sightings of minke whales (*Balaenoptera acutorostrata*) in the South Atlantic Bight

1Nilsson, P., 1Cummings, E., 1Foley, H., 1Hardee, R., 1Holt, R., 1McalArney, R., 1McLellan, W. A., 1Pabst, D. A. and 2Read, A. J.

1Biology & Marine Biology, University of North Carolina Wilmington, 2Nicholas School of the Environment, Duke University

**ABSTRACT**

The summer feeding grounds of the common minke whale (*Balaenoptera acutorostrata*) in the western North Atlantic are well-documented (Donovan 1991), however, its winter distribution and the location of its calving grounds remain unknown. Scattered and infrequent sightings and strandings during winter in Florida and the Caribbean hint at a southerly, and potentially offshore, breeding and calving area located somewhere in this region (Mitchell 1991). We present recent sightings of minke whales in the South Atlantic Bight off the US east coast during winter, and examine these together with historical sighting and stranding records from the region. We conducted monthly aerial surveys at two proposed U.S. Naval training exercise areas in Onslow Bay, North Carolina (June 2007 to April 2011) and off Jacksonville, Florida (January 2009 to April 2011). Minke whales were observed nine times (13 individuals) in the Jacksonville site: six singles, two pairs, and one mom/neonate pair with an adult escort. In the Onslow Bay site, minke whales were encountered twice (one single and one mom/calf pair). All sightings occurred in winter, between late December and February, in waters offshore of the continental shelf-break. A review of historical (1980-2010) sightings (n=22, provided by the North Atlantic Right Whale Consortium) and strandings (n=9, provided by NOAA Fisheries) in the mid- and southeast Atlantic, revealed that most minke whale sightings occurred during winter and spring (15 and 4, respectively), rather than in summer and fall (3 and 0, respectively). Most winter sightings (10 of 15) occurred off Florida, while all spring and summer sightings (7) occurred off North Carolina and Virginia. All strandings were of calves and occurred in North Carolina, with most in winter and spring (7 of 9). These data suggest that the southeastern U.S. may be an important habitat for minke whales in winter, and may include their calving grounds.

**Discussion**

The combined sightings and strandings data suggest that minke whales are present in the South Atlantic Bight predominantly in winter and spring. All sightings of minke off of Florida occurred in winter, which may reflect a seasonal distribution pattern, but also likely reflects the seasonally focused right whale aerial survey effort here in winter. Year-round USWTR surveys, though, also detected minkes only in winter here, and the only call sightings in either USWTR survey area occurred in winter. Similarly, minke whale calls were exclusively detected between November and April on stationary, high frequency acoustic recording packages (HARPs), deployed in Onslow Bay, NC (Hodge 2011). The sightings of two mother/calf pairs (in NC and FL, both in February) and the inter-annual consistency of February sightings in the Florida site suggest that the waters off the southeastern U.S. may be an important habitat for minke whales during winter, either as a migration corridor and/or a part of their calving grounds.