

Poster # 89

Jessica M. Aschettino, Dan Engelhaupt, Amy Engelhaupt, Michael F. Richlen, Joel T. Bell

Humpback whale affinity for shipping channels near the mouth of the Chesapeake Bay can prove fatal

JMA, DEMRF: HDR • AE: Amy Engelhaupt Consulting • JTB: Naval Facilities Engineering Command, Atlantic
jessica.aschettino@hdrinc.com

Humpback whales (*Megaptera novaeangliae*) are known to frequent the coastal waters of the mid-Atlantic United States (U.S.), particularly the mouth of the Chesapeake Bay, during the winter months. This region is also heavily utilized by both U.S. Navy and commercial shipping vessels, increasing the risk for interactions with large ships. In 2015, the U.S. Navy initiated a multi-year study including satellite-linked tagging techniques as a means to better understand how humpback whales utilize these waters, with a focus on the nearby “W-50” training area, and shipping channels. From December 2015 to February 2017 thirty-five Wildlife Computers LIMPET-configured tags were deployed on humpback whales near the mouth of the Chesapeake Bay. Tags transmitted 2.7 - 43.8 days (mean=13.7). Whale locations were overlaid onto shipping channels and the W-50 area to assess habitat use. Location data showed that nearly all whales occurred within, or in close proximity to, the shipping channels at some point during tag deployment. Approximately 25.3% of all filtered locations occurred within shipping channels and 8.7% occurred within the W-50 area. In addition, 9 of 105 catalogued humpback whales (8.6%) had evidence of propeller strikes, one of which was a deceased whale previously tagged with locations within and near the shipping channels. In April 2017 the U.S. National Oceanic and Atmospheric Administration declared an unusual mortality event for humpback whales along the Atlantic east coast from Maine to North Carolina due to a larger-than-normal number of deaths in this area (n=42) since 2016. Ten of the 20 dead whales examined had evidence of injuries sustained from vessel strikes. To date, the findings from this study demonstrate that a substantial number of humpback whales frequent high-traffic areas near the mouth of the Chesapeake Bay which may be a contributing factor to an increase in vessel interactions and associated fatalities in this region.



THE 6TH INTERNATIONAL
BIO-LOGGING SCIENCE
SYMPOSIUM

Abstracts

Konstanz, Germany
Version 2017-09-25