

Aerial Surveys for Protected Marine Species around Norfolk Canyon, Virginia, USA

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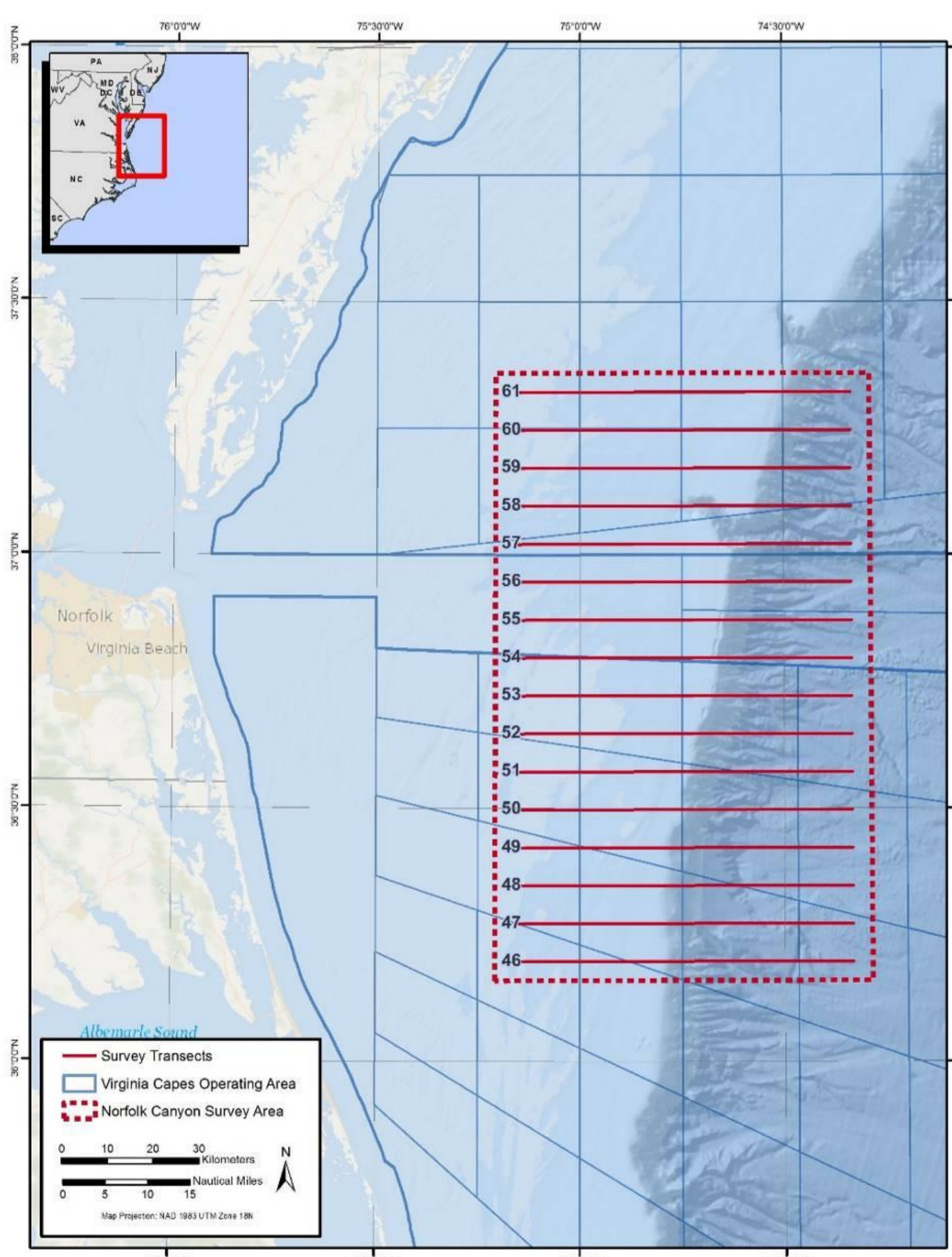
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Introduction

- The U.S. Navy funded line-transect aerial surveys to collect baseline information on marine mammals within the Virginia Capes range complex (VACAPES)
- Focused on occurrence, distribution, composition, and basic behavior in the area around the Norfolk Canyon
- Standardized aerial line transect methodology
- Survey area 9,200 km² between 80 and 160 km offshore of Virginia Beach

Results

- 23 surveys from April 2018–August 2019 covering 13,365 km of trackline
 - Distributed roughly evenly among seasons
- 490 on-effort sightings of 19,498 cetaceans
 - 16 cetacean species; 5 endangered: NARW, blue, fin, sei, and sperm whales



True's beaked whale



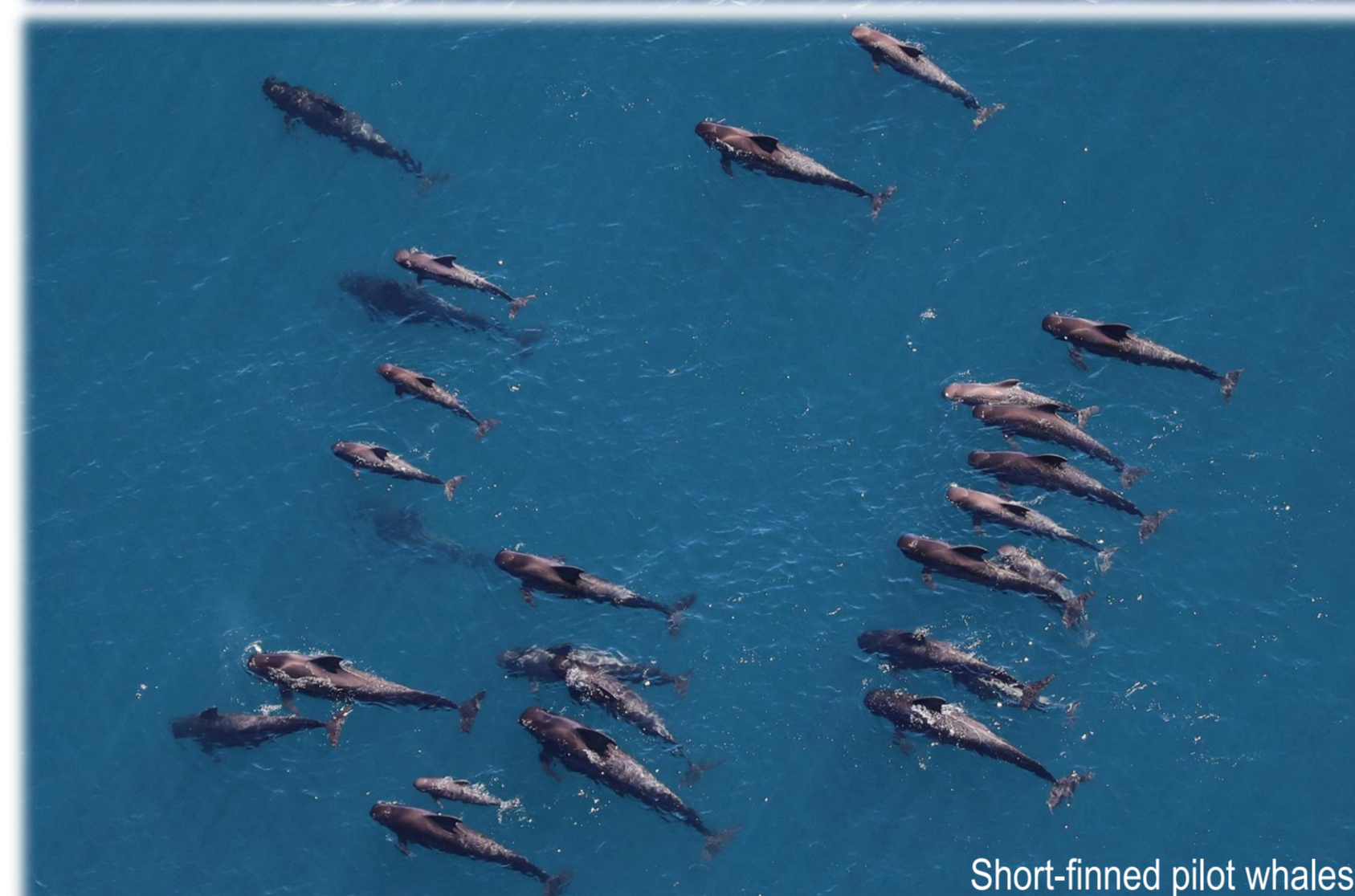
North Atlantic right whale



Blue whale



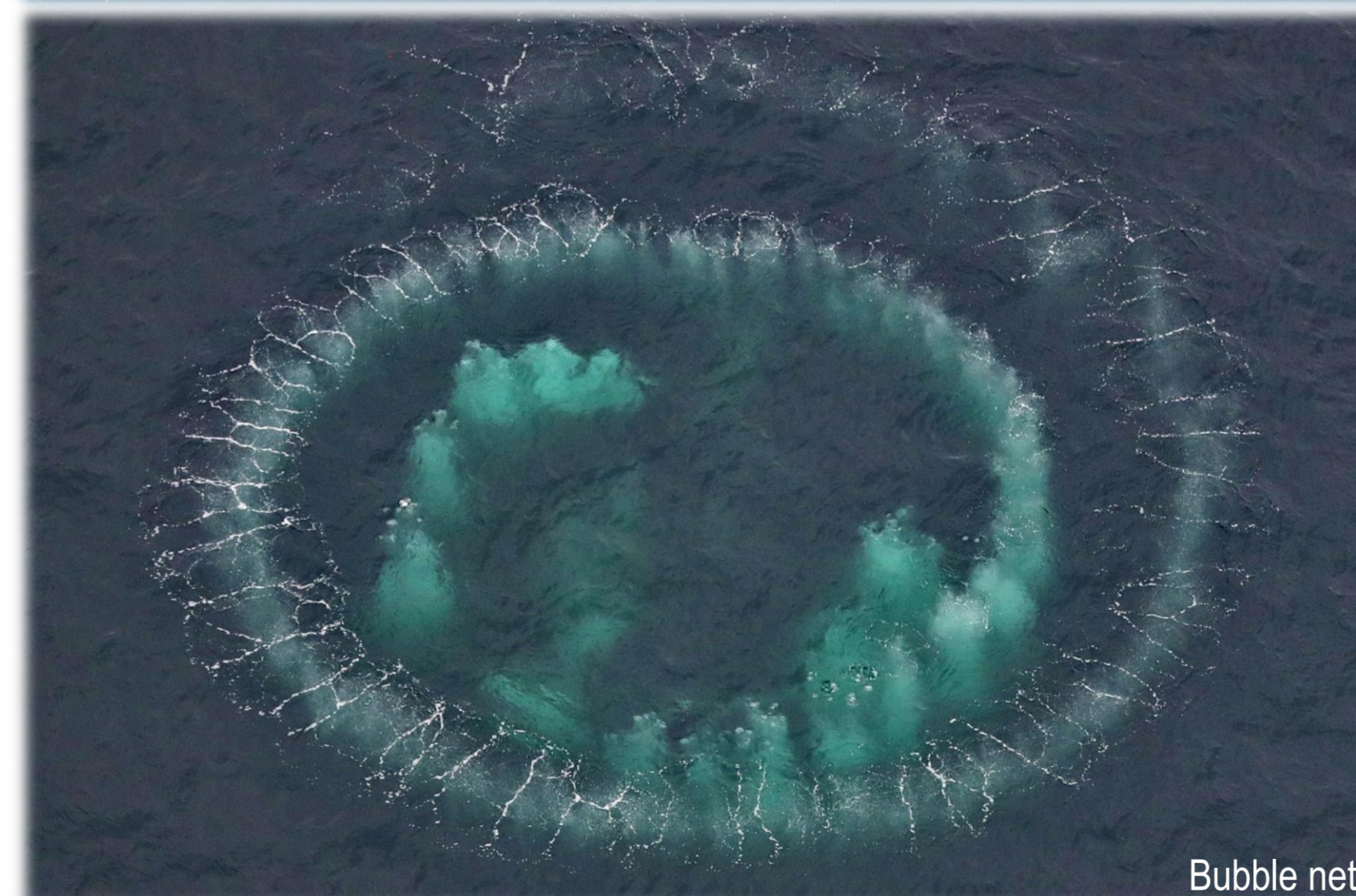
Sperm whales



Short-finned pilot whales



Fin whale



Bubble net



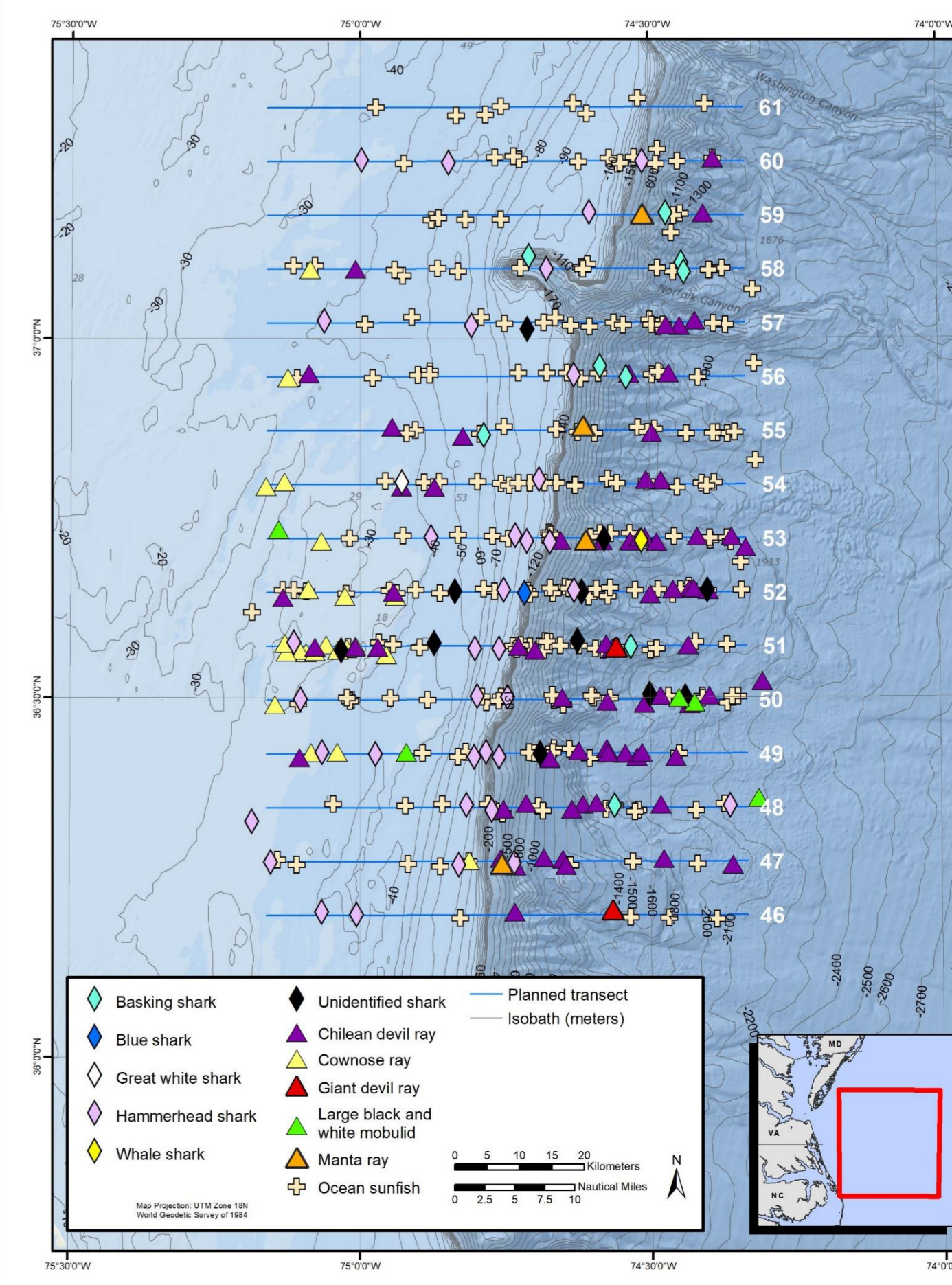
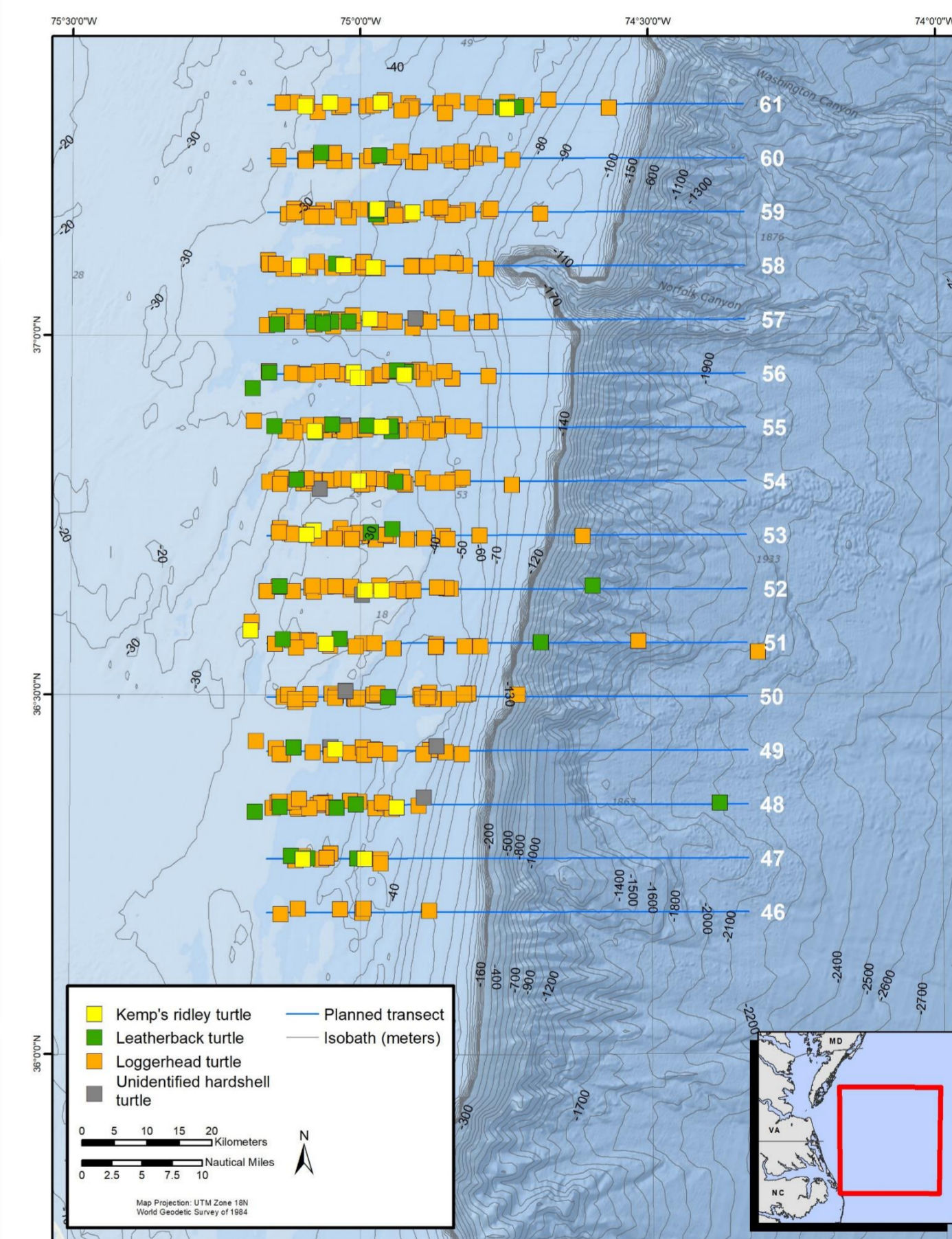
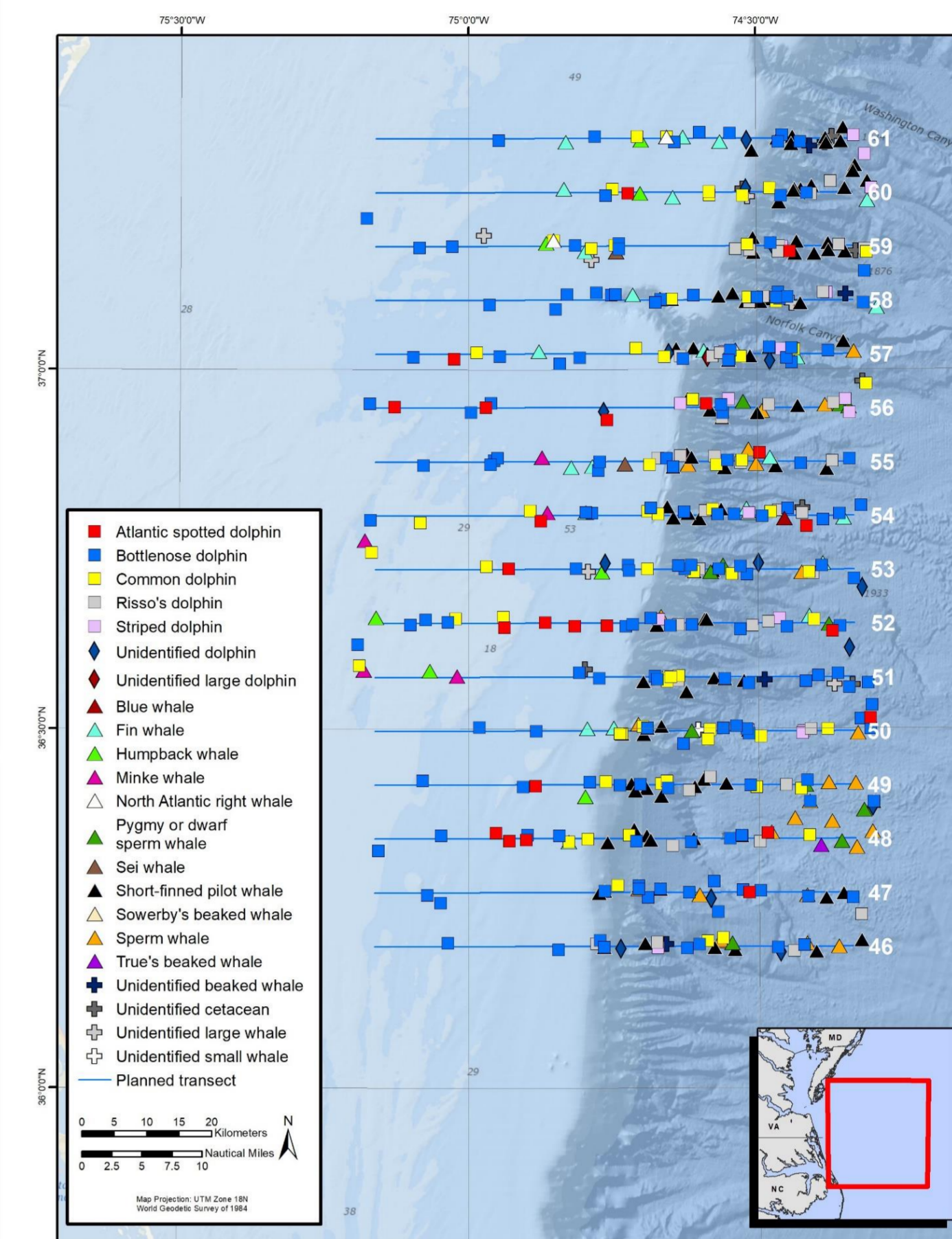
Humpback whales



Giant manta ray



Whale shark



- Blue whale sighting is the southernmost photo-documented known record in U.S. EEZ
 - Photo-ID match to Gulf of St. Lawrence catalog (R. Sears, MICS, pers. comm.)
- True's and Sowerby's beaked whales identified to species level
- 5 humpback whales cooperatively bubble-net feeding
- 8 NARW individuals observed over 2 sightings, feeding among other baleen whale species (humpback, fin, minke)
 - 7 of 8 individuals matched to NARW catalog
- Sperm whale socio-sexual groups and calves in nursing position
- Other endangered marine vertebrates
 - Whale shark, giant manta ray, giant devil ray, Chilean devil ray

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