

REPORT: POSSIBLE DREDGE / WHALE COLLISION
Brunswick Harbor Entrance Channel
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Dredge Bayport, similar to the RN Weeks

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Introduction

Every winter hopper dredges can be found in the shipping channels of the right whale calving ground. These 75 – 125 meter long, 2500 – 4000 ton ships provide the only practical means for maintaining and deepening navigation channels in the offshore environment. This is particularly true of channels that stretch for miles into the open ocean, like the ones that serve Savannah, Brunswick and Kings Bay/Fernandina. By 1992, all hopper dredging in the southeast was confined to the winter months due to sea turtle mortality associated with dredging during the warmer months. With the maintenance of the submarine channel and deepening projects for port expansion at Brunswick and Savannah, hopper dredges have become part of the winter seascape in the calving ground.

From 1988 through the winter of 1993, aerial surveys were flown as a US Army Corps of Engineers (USACE) contract requirement for dredging projects at Kings Bay Naval Submarine Channel (St Marys River Entrance) and the Brunswick Harbor Entrance Channel and these surveys evolved into what we now know as the Early Warning System (EWS) Surveys, which began in 1994. To this day the requirements for dredging contracts have changed very little. All right whale sightings within 15 NM of the dredge site are reported to the captains of the dredges and the vessels, some capable of speeds up to 14 knots, are required to operate at slow speeds, 5 knots or less, during the night following a right whale sighting, or during periods of limited visibility (fog, etc.) for 24-hours after a right whale sighting. Onboard observers maintain a watch for whales during daylight hours.

While a southern right whale calf is known to have been killed by a hopper dredge in South Africa, only one possible dredge/whale collision has been documented in the calving ground, despite the yearly coexistence of hopper dredges and right whales, and numerous sightings of right whales by dredge observers. That possible collision is reported below:

Report

On 24 February 2005, at 1129 hours local, observers and crew on the bridge of the dredge *RN Weeks* felt a faint shudder while returning to the Brunswick Harbor Entrance Channel from the offshore dredged material disposal site. The ship was moving at 8 knots, on a magnetic heading of 005, at N31 03.3 x W081 16.6 when this occurred. The observers on the bridge began scanning the water surface as the mate on watch immediately “pulled back” on the controls. What was believed to be the pectoral flipper of a right whale was seen approximately 500’ due aft of the ship (185 magnetic). The flipper made a waving motion and was above the surface for approximately 5 seconds and the whale submerged. The dredge had coasted to near full stop but 3-4 ship lengths had been covered (900’ – 1200’). The observers continued to scan with binoculars but nothing could be seen at the surface: no whale, no discoloration of the water and no ripples or disturbance.

At approximately 1136 hours, the mate slowly resumed course, as forward momentum had to be maintained for steerage in the shallow waters outside the channel. It was decided that it would not be wise to attempt to turn the 300', 2800-ton ship in order to investigate, as nothing could be seen at the surface and the depth in that area is only 20' – 30'. Weather conditions were: overcast, Beaufort sea state of 2-3, southerly winds freshening slightly. Light drizzle would be encountered later in the day.

The superstructure of the Weeks is situated at the stern and the mate felt that shudder originated from the area of the "Z-drive" propulsion system. If indeed that hit the whale, the Kort nozzle enshrouding the propeller would most likely be the point of contact. (see Attachment).

Observers called Chris Slay, Coastwise Consulting, and at 1144 hours Slay relayed the sighting to the GWS. Unfortunately the NOAA aircraft hadn't been cleared to fly due to mandated pilot downtime. Slay called the EWS (Monica Zani) and their aircraft was readying for take-off. All info was relayed to them. The EWS aircraft was on site within an hour of the possible collision. The next call was made to Clay George (GA-DNR) and he made immediate arrangements to launch a vessel. He, Mark Dodd and GWS team leader Tricia Naessig set out to assist with documentation. They were on site within two hours.

At 1156 hours local, while approaching the offshore disposal site, the observer on the other hopper dredge working at Brunswick, the *BE Lindholm*, sighted a single blow at approximately N31 02.3 x W081 16.1 (position estimated from known vessel position and estimated distance/bearing to whale). Despite intense scrutiny of the area, no other blows were detected. This information was relayed directly to the aircraft and vessel.

The EWS aircraft searched the area for 2 hours and 25 minutes, flying a box pattern at 1NM intervals, in each direction, out to 6NM from the initially reported location. During this time, the aerial survey crew encountered unfavorable sighting conditions with light rain and patchy fog. After the first hour the team had better conditions but that they were still working in sea states 3-4, with a thick haze cover. They had two sightings during this effort of the same mother/calf pair at N31 03.7 x W081 12.6, at 1345 hours local and again at 1410 hours local. The mom/calf pair were photographed and appeared to be behaving "normally". The team continued to search the area until 1437 hours local when the effort was ended. Conditions during the aerial search effort were: visibility 2-4 NM, occasional drizzle, Beaufort seas state 2-3. The GA-DNR searched the area thoroughly with similar results.

Summary

If the dredge did hit the whale, it is unlikely that the whale sustained injuries that were immediately fatal. For almost three days following this event, the wind blew 20-30 knot winds from the E – NE and nothing came ashore. It is difficult to speculate further but, hopefully, a whale may be able to survive an impact from a ship going only 8 knots. It is possible that vessel speed and, perhaps, ship design may have allowed a whale to survive a ship strike.

Kort Nozzle Surrounding Propeller on the “Z-Drive” of the *RN Weeks*

