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New Records of Sowerby's Beaked Whales (*Mesoplodon bidens*) in Newfoundland.

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Introduction: The genus *Mesoplodon* has nine species, most of which are poorly known and rarely observed. Sowerby's beaked whales (*M. bidens*), also known as North Sea beaked whales, are thought to occur in low numbers in the North Atlantic, primarily in the North Sea (Lien *et al.* 1987). Largely, what is known of the species is through strandings that have occurred on the European coast and along the British coastline, and from rare sightings at sea.

In the western North Atlantic there have been several sightings of pods of *M. bidens* at sea (Marian *et al.* 1990; Hooker and Baird 1999) but most information has resulted from strandings which occurred along the coast of Newfoundland (Lien and Barry 1990). There have been a total of 11 stranded *M. bidens* reported in Newfoundland during the period of 1979-2000 (Lien and Barry 1990); two of these animals remained alive and disappeared after stranding, the rest were dead. Two of these strandings have involved multiple animals (Lien *et al.* 1990); one stranding event involved only one individual (Dix *et al.* 1986). The species is classified of special concern by COSEWIC (Lien and Barry 1990)

In this paper we report on two additional animals that stranded individually and were reported to the Entrapment Assistance Programme during 2001.

Results: Morphometric measures from both animals are presented in Table I.

Between July 5-6, 2001 a single whale entered the sheltered harbour of Port Albert, Newfoundland. During this period it slowly swam around the shallow harbour but stranded several times. Finally, on the 6th of July, it stranded for a final time and quickly died. The animal was examined on the 7th of July and a necropsy was completed.

No erupted teeth were found. Two types of scars were found on the animal: long (0.5 - 1 m) scrapes on the sides of the animal, and small circular scars on the posterior sides. No evidence of disease or parasites were found in the animal. Organs appeared to be in good condition with the unexceptional

appearance of a bloody froth in the lungs. Blubber depths ranged from 3.0 - 3.5 cm. The stomach and gut were empty. From examination of the ovaries it was clear that the animal was mature and the uterus showed indication of a previous pregnancy.

The second animal entered the harbour in nearby Boyd's Cove, less than 20 km. away from Port Albert, on 7-8 October 2001 and stranded several times before finally appearing on shore dead on 8 October. This male was examined on 9 October and a necropsy completed.

This whale had no erupted teeth. Its body had numerous scars of several types. Completely encircling the head behind the eyes was a scar which indicated a previous capture in a gill net. Along the animal's sides were long scrapes which may have been inflicted by toothed conspecifics. In several locations there were scars that featured up to 12 parallel lines separated by about 1 cm. These would appear to be from a much smaller toothed animal. On removal, organs all were in good condition. Lungs evidenced bloody froth. The stomach was empty; intestines contained brown water and some seaweed. Blubber depths ranged from 2.6-3.5 cm. From the size of the testes and failure to find sperm, we believe the animal was not yet mature.

Measure	Port Albert	Boyd's Cove
Sex	female	male
Length (over back)	4.90	4.66
Length (straight line)	4.70	4.42
Tip of beak to end of mouth	.54	.50
“ “ blowhole	.67	.60
“ “ anterior insertion of dorsal	2.94	2.84
“ “ posterior insertion of dorsal	3.25	3.22
“ “ anterior insertion pectoral	1.28	1.05
“ “ umbilicus	2.65	2.25
“ “ ctr. genital slit	3.28	3.09
Fluke width	1.09	1.06
Half girths at posterior insertion of pectoral	.70	.75
“ “ anterior dorsal fin	1.07	1.06
“ “ posterior dorsal fin	.94	.88

Table 1: Morphometric measurements (in m) from two Sowerby's beaked whales that stranded on the NE Coast of Newfoundland during 2001.

Discussion: Speculation has indicated that the typical habitat believed to be frequented by *M. bidens* is deep, off-shore areas (Sergeant and Fisher 1957) but

that animals move inshore during periods of squid (*Illex illecebrosus*) abundance. Ostrom *et al.* (1993) found that isotopic comparisons indicated that *M. bidens* was similar in carbon and nitrogen values to those of pygmy sperm whales (*Kogia breviceps*) and sperm whales (*Physeter macrocephalus*), both known squid eaters, and consistent with a food source that has a large contribution from small offshore squid. Squid do occur in inshore NE Newfoundland coastal waters in late summer and fall.

The close proximity of the two stranding locations and coincidence of the stranding event together in time may indicate that these animals were from the same pod. Most strandings of *M. bidens* in Newfoundland have involved several individuals. Locations for the strandings are also typical for this species. All strandings in Newfoundland, with the exception of one in Conception Bay initially caught in fishing gear (Dix *et al.* 1986) have occurred between Carmenville and Norris Arm, Notre Dame Bay, a distance of approximately 75 km.

Data collected from these individual whales will be archived at the Science Branch, Department of Fisheries and Oceans, St. John's, Newfoundland. One skeleton will be supplied to the Green Bay Economic Development Association, Springdale, Newfoundland for display. The second skeleton will be stored at the Whale Research Group, Memorial University of Newfoundland.

References:

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