

Records of the Dwarf Sperm Whale *Kogia simus* Owen from Guam.¹

Although the occurrences of whalers in Guam during the 19th Century were chronicled by Searles (1932), relating events from the log of the EMILY MORGAN from New Bedford, early records of sightings or strandings of whales in Guam are lacking.

Probably the first documented record of a whale washed ashore on Guam appeared in the September 7, 1962 issues of the Guam Daily News, when it reported a 40 foot albino sperm whale beached on Acho Reef, Inarajan. According to the news report, the whale, which showed evidence of numerous large gashes on the body caused by shark bite, was washed ashore on Wednesday (Sept. 5). A follow-up article on September 8, 1962, reported that by night fall Thursday, souvenir hunters had removed all but one tooth and the ribs were rapidly being removed. The article also reported that a local resident recalled the stranding of a similar type of whale in Inarajan in 1950.

The present paper reports on two specimens of whale found beached on Guam. These whales were identified by Dr. James Mead, Curator of Marine Mammals at the National Museum of Natural History, Smithsonian Institution, as the dwarf sperm whale *Kogia simus* Owen.

First Specimen

Skull only USNM 504336. Figs. 1, a; b; c; d.

Skull measurements presented in Table 1.

On March 25, 1970, the senior author was notified that a large porpoise was washed ashore near Asan. When he arrived at the beach, there were many people gathered around the animal, most of which was cut into sections and distributed to

Table 1. Skull measurements of *Kogia simus*, specimen 1.

	mm
Tip of rostrum to back edge of condyles.	276
Tip of rostrum to edge of occipital.	246
Greatest width of skull.	170
Distance from tip of rostrum to anterior wall of left nostril.	129
Length of mandible.	231
Distance between temporal fossae.	150
Width of foramen magna.	38
Height of foramen magna.	41
Width of occipital.	186
Height of occipital.	83
Distance between basioccipitals.	115
Total number of teeth on lower jaw 19.	

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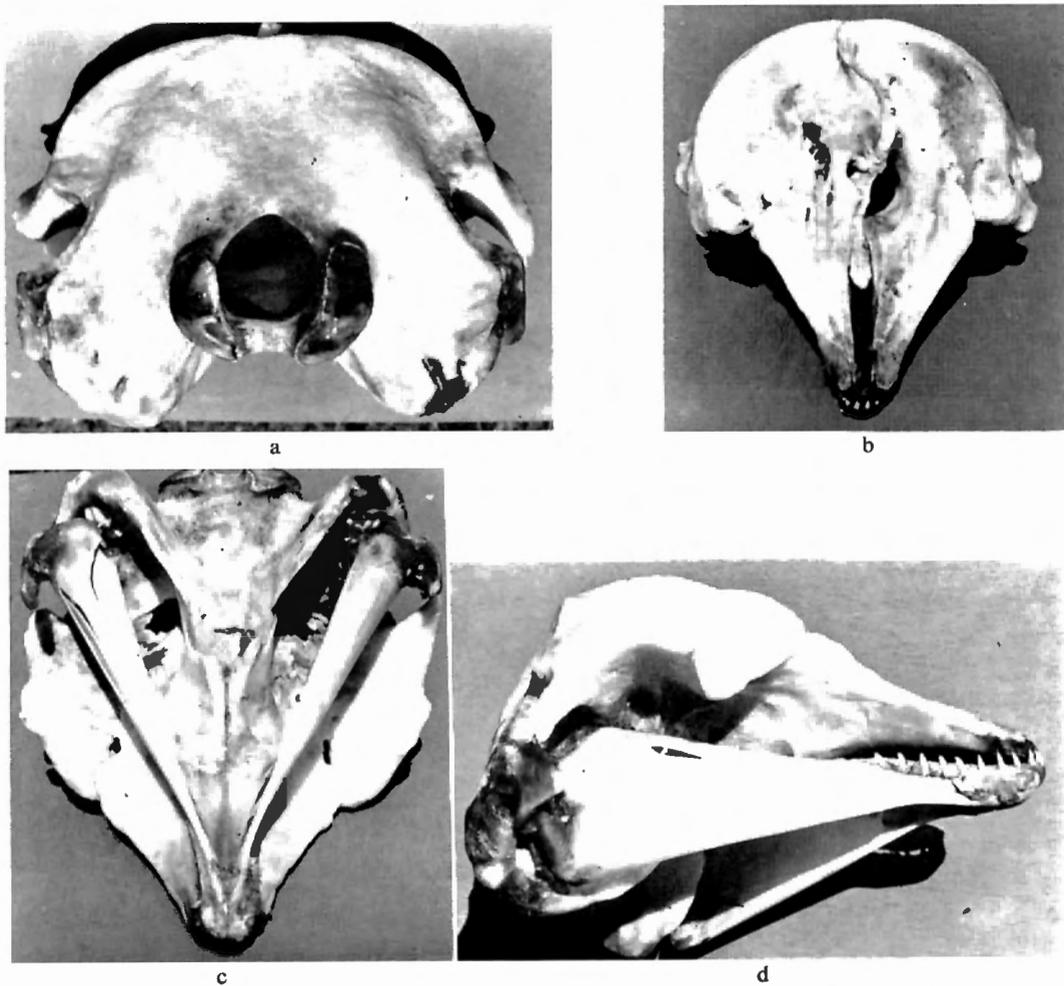


Fig. 1. Skull of *K. simus*. a. Posterior view; b. Dorsal view; c. Ventral view; d. Lateral view.

those wanting its flesh. Although most of the fleshy part of the body was removed, the animal was estimated to be less than three meters (8 to 9 ft.) in total length. Fortunately, the head was still intact and was brought back to the laboratory. When it was determined that the animal was a sperm whale rather than a porpoise, a second trip was made to the beach later in the afternoon to gather any remains of the whale. Unfortunately, there were none left at the site. Either the bones were taken by the people for soup stock or dogs had carried off what remained of the whale.

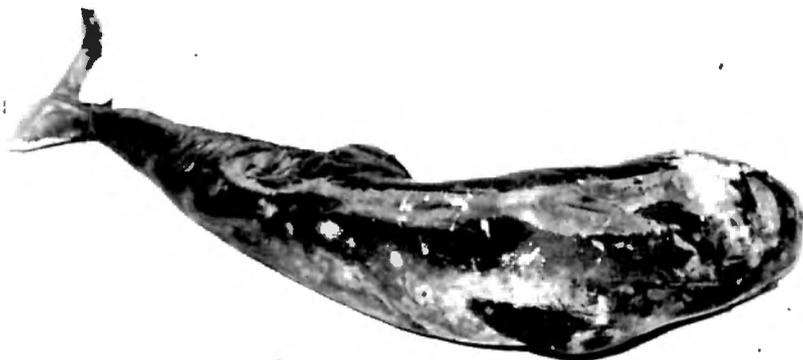


Fig. 2. *Kogia simus*, neonatal; length from tip of snout to farthest tip of flukes 772 mm.

Second Specimen

Whole animal, 772 mm in length from snout to notch in fluke.

USNM 504324. Fig. 2.

Body measurements presented in Table 2.

The second specimen was found washed on Rizal Beach by Conservation Officer J. Villagomez on December 6, 1974.

The body of this small whale though abraded and lacerated, showed no evidence of open wounds or deep gashes. The abrasions and lacerations were probably caused by scraping against coral and limestone rubble while being washed ashore.

According to Dr. Mead (pers. comm.), the normal size of *K. simus* at birth is about 100 cm. However, because the present specimen is undersized with its umbilicus partially closed, he is of the opinion that this specimen is a neonatal, premature specimen.

Discussion

Sperm whales are generally thought of as giants often reaching 18 meters in length. However, the sperm whale family Physeteridae also includes whales which do not exceed four meters in length.

These small whales, members of the subfamily Kogiinae with a single genus

Table 2. External measurements of *Kogia simus*, specimen 2.
Method of measurements from Hubbs (1951).

Total length from tip of snout to:	mm
Farthest tip of flukes.	772
Line joining tips of flukes.	745
Notch at middle of flukes.	722
Greatest circumference.	455
Distance from tip of snout to line of greatest circumference.	300
Depth of body:	
From origin of dorsal fin to end of genital slit.	172
Over front of anal slit.	180
At origin of flukes.	41
Width of body:	
Greatest width.	140
Least width.	22
Opposite front of mouth.	73
From eye to eye.	123
Opposite middle of anus (flat on back).	137
Least distance between flippers.	59
From tip of snout to:	
Front of mouth.	20
Front of blowhole.	124
Front of eye.	88
Insertion of flipper.	62
Tip of flipper.	324
Front of dorsal fin.	348
Tip of dorsal lobe.	437
Front of genital.	344
Front of anal slit.	505
Length of external genital slit.	18
From rear of genital slit to front of anal slit.	152
Length of anal slit.	19
From rear of anal slit to notch in flukes.	219
Gape from inside to upper lip to internal end of gape.	36
From end of gape to insertion of flipper.	109
Blowhole width.	2.8
Orbit length.	14
From orbit to:	
Blowhole.	92
Corner of gape.	63
Insertion of flipper.	61
Flipper:	
Insertion to tip.	145
Basal width.	50
Greatest width near middle.	47
Dorsal fin:	
Origin to tip.	94
Vertical height.	45
Flukes:	
Greatest overall width.	175
From notch to tip.	44
From origin to notch.	78

Kogia Gray 1846, are considerably rare compared to their relative, the giant sperm whale of the subfamily Physeterinae, represented by a single genus *Physeter* Linnaeus 1758.

The genus *Kogia*, until recently, was considered by some investigators of cetaceans as being represented only by a single species, the pygmy sperm whale, *Kogia breviceps* (Blainville). Handley (1966), in his synopsis of the genus *Kogia*, points out the works of recent Japanese investigators (Ogawa, 1936; Kurada, 1938; Okada, 1938; Yamada, 1954), all of whom recognized the validity of a second species, *Kogia simus* (Owen). Handley (1966) also presented data which proves the validity of the dwarf sperm whale *K. simus*.

The distribution of *K. breviceps* along the California coast has been documented by Hubbs (1951) and the occurrence of this whale along the eastern Atlantic coast was reported by Gunther, Hubbs, and Beal (1955). Handley (1966) includes the seas of the eastern South Pacific and western India Ocean in the range of this species, with strandings occurring more frequently on the coast of South Africa, southeastern Australia, New Zealand and southeastern United States. Edmondson (1948) reported on the occurrence of *K. breviceps* from Hawaii.

The distribution range of the dwarf sperm whale, *K. simus*, as reported by Handley (1966) includes seas of South Africa, India, Ceylon, Japan, Hawaii, South Australia and eastern United States, with strandings more frequently occurring on the coast of Japan and central eastern United States.

In the Mariana Islands, Costenable (1905) reported on his observation of natives on the island of Saipan driving a school of 80 sperm whales in a shallow lagoon to shore; these natives ate nothing but whale meat for the next three days.

The herding behavior of *Kogia* is not known. Most of the reported strandings of *Kogia* are of single individuals and it is likely that what Costenable had thought to be sperm whales were instead, porpoises. Large herds of porpoises are often seen close to shore along the coasts of Guam and presumably along the islands of the Marianas.

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