

Two New Whale Records from Victoria

Mesoplodon bowdoini Andrews (Ziphiidae) and
Balaenoptera edeni Anderson (Balaenopteridae).

by JOAN M. DIXON*

Summary

In 1968 two whales belonging to species hitherto unknown from Victorian waters were stranded on the Victorian coast to the south west of Melbourne. These have been identified as the beaked whale *Mesoplodon bowdoini* (Andrews' Beaked Whale) and the baleen whale *Balaenoptera edeni* (Bryde's Whale).

Mesoplodon bowdoini Andrews, 1908, Andrews' Beaked Whale. (Plates 1-4.)

* Curator of Vertebrates, National Museum of Victoria.

This specimen, an adult female, was washed up on the beach near Hordern Vale at the mouth of the Aire River (Lat. 38°47'S, Long. 144°23'E) in May, 1968. Photographs taken by local schoolteacher Mr. K. Taylor, and by Mr. C. Marriner of Hordern Vale were sent to Mr. N. A. Wakefield of Melbourne. He recognised the specimen as a beaked whale and contacted me about this matter. I visited the locality on 13 May, 1968. By this time local residents had buried the whale in the sand, but it was possible



Plate 1

Mesoplodon bowdoini (Andrews' Beaked Whale) female, stranded at Hordern Vale, Victoria, May, 1968. Nat. Mus. Vict. reg. no. C8442.

Photo: K. Taylor.

to uncover, examine and photograph the head. The tongue was badly swollen, which made examination of the jaws difficult, but as far as could be determined at that stage, the specimen was a beaked whale, *Mesoplodon* sp. No teeth could be felt projecting through the gumline of either jaw. In July, 1968, I returned to the area and with the assistance of Mr. Marri-ner removed the head from the body, and rough-cleaned the skull. It was badly fractured, the rostrum broken

off from the main part of the cranium, pterygoids fractured, and mandibles shattered, particularly in the region of the angle. The skull was taken to the museum and preparation completed. The presence of a single pair of mandibular teeth was noted. The position of each tooth, near the posterior union of the symphysis, and the shape of each tooth indicated that the specimen was a female *Mesoplodon bowdoini*.

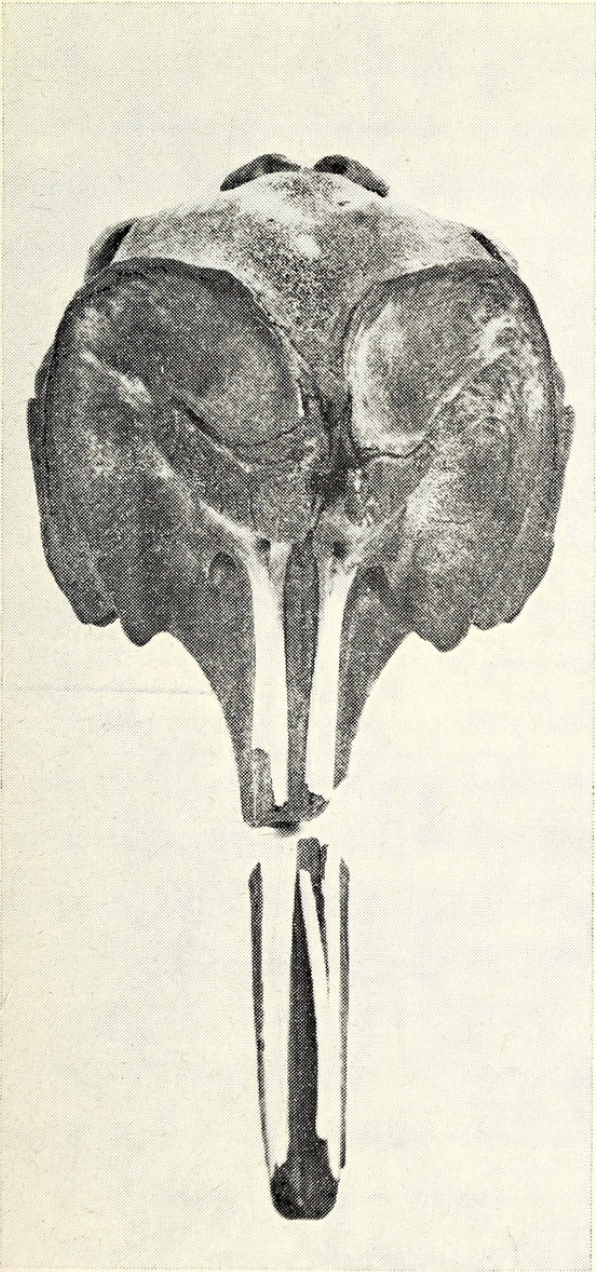


Plate 2
Mesoplodon bowdoini C8442. Dorsal
view of skull.
Photo: F. Guy.

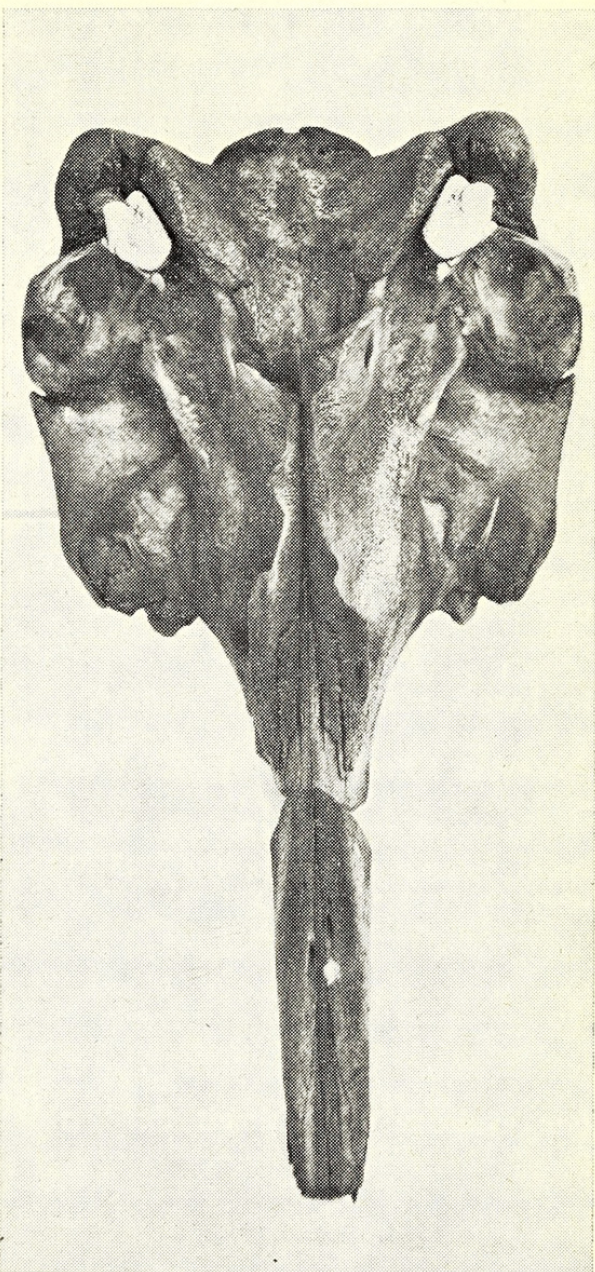


Plate 3
Mesoplodon bowdoini C8442. Ventral
view of skull.
Photo: F. Guy.

The rest of the carcass was left to decompose in the sand and the site was revisited in December, 1968. By this time the shifting sand had uncovered some of the caudal vertebrae, and it was possible to recover a large proportion of the skeleton. Skull and skeleton are now housed in the National Museum of Victoria, registered No. C8442.

Measurements in cm.

Body length 394 (taken by Mr. K. Taylor, May, 1968.)

Skull dimensions:

Maximum length	68.5*
Maximum length of rostrum (tip to line connecting antorbital notches)	38.5*
Tip rostrum to anterior margin superior nares	47.0*
Maximum breadth across zygomatic processes of squamosals	34.7
Maximum breadth foramen magnum	10.7
Maximum breadth across exoccipitals	28.6
Width rostrum in apices antorbital notches	20.6
Width rostrum in apices premaxillary notches	16.2
Maximum transverse width of superior nares	4.8
Least distance between maxillary foramina	7.7
Least distance between premaxillary foramina	3.8
Maximum depth at occipitals	34.0
Maximum depth at pterygoids	27.4*
Width rostrum (middle)	5.7
Depth rostrum (middle)	7.4
Length mandibular symphysis	11.31*

(*indicates that measurement is incomplete due to skull damage).

Tooth measurements (tooth from right mandible)

Height at anterior face	6.1 cm.
Height at posterior face	5.02 cm.
Length of base	4.78 cm.

Remarks: Guiler (1967) has recorded a skull of *M. bowdoini* from Marion Bay, Tasmania. Gaskin (1968) mentions that in the Southern Hemisphere, *Mesoplodon bowdoini* has been recorded from New Zealand as far south as Stewart Island and from Bunbury, Western Australia (Glauert, 1947). The above Hordern Vale specimen appears to constitute the first Victorian record of this species..

Bryde's Whale *Balaenoptera edeni* Anderson 1878. (Plates 5-8.)

On 25 July, 1968, another whale was stranded on the Victorian coast, on this occasion at the mouth of Limeburner Creek, Corio Bay, (Lat. 38° 04'S, Long. 144° 24'E).

It was examined by Mr. R. Bickerdike of the Geelong Church of England Grammar School, who took photographs, made observations and measurements. The following information was supplied by Mr. Bickerdike.



Plate 4

Mesoplodon bowdoini C8442. Lateral aspect of tooth from right mandible.

Photo: F. Guy.

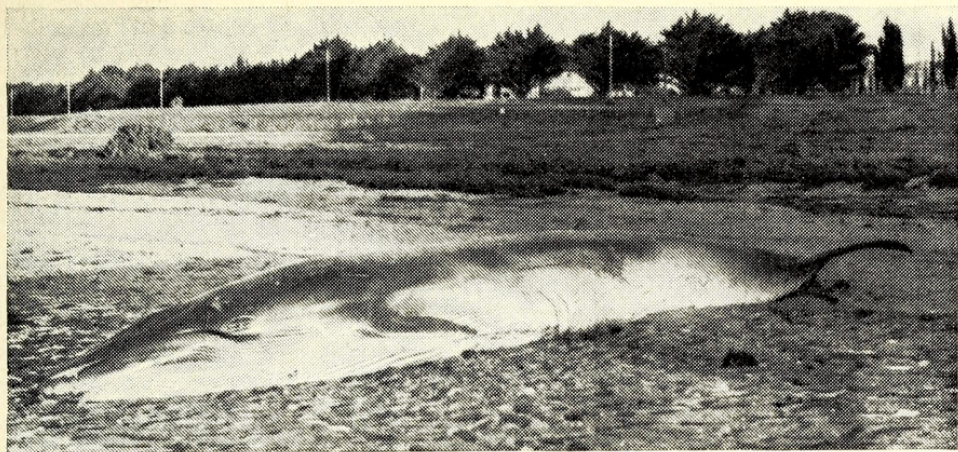


Plate 5

Balaenoptera edeni (Bryde's Whale) young male, stranded at Corio Bay, Victoria, July 1968. Nat. Mus. Vic. reg. no. C8441.

Photo:

R. Bickerdike.

"Tip of snout to centre of flukes	21'
Tip of snout to dorsal fin	13' 8"
Tip of snout to flippers	6'
Length of flipper	2'
Width across flukes	4' 10"
Approximate girth (by flippers)	9' 6"

Dorsal side was a blue-grey while the non-pigmented area on the ventral side extended through to the tail. There was no ridging on the back. Flippers were blue-grey above and grey-white below. Ventral grooves extended as far as the navel. I could not detect any slit in the hinder margin of the dorsal fin."

From the photos taken by Mr. Bickerdike and officers of the Fisheries and Wildlife Department, the three longitudinal ridges on the snout indicated that this was a Bryde's Whale *Balaenoptera edeni*. The specimen was a young male.

The skull and the baleen plates were obtained for the museum collections, registered No. C8441. The baleen plates numbered approximately 260 on each side. They were grey-black in colour with yellowish-white bristles, the longer ones being fairly stiff, thick and uncurled. The largest plate was 12.5 cm. long excluding bristles, and 10 cm. wide at the base. Bristles on the baleen were somewhat finer than those on specimens re-

corded from Western Australia by Chittleborough (1959). However, Chittleborough and Dawbin (pers. comm. 1968) concurred in the opinion that the specimen was a Bryde's Whale and attributed the fineness of the baleen to the fact that the specimen was a juvenile.

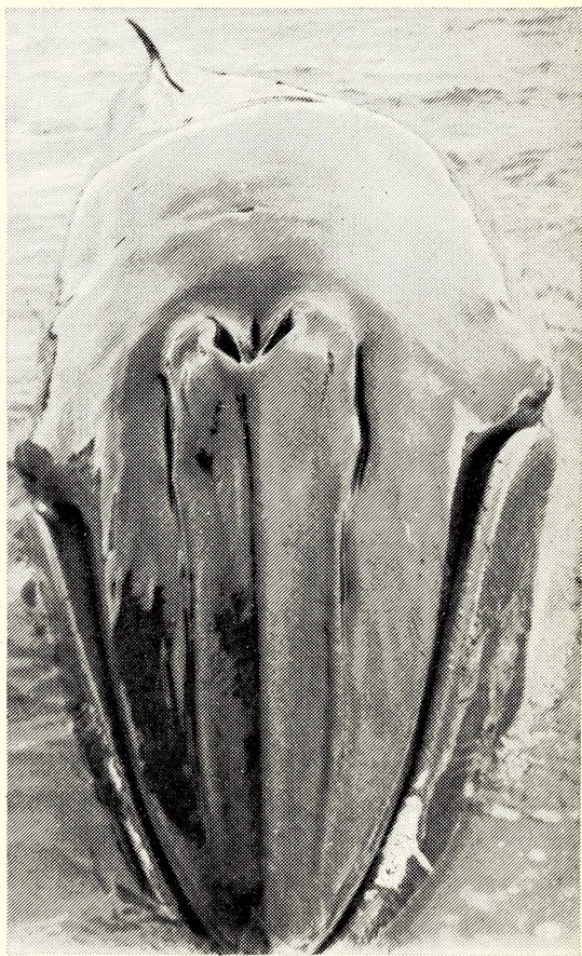


Plate 6

Balaenoptera edeni C8441. Dorsal view of head showing the three diagnostic longitudinal ridges.

Photo: R. Bickerdike

Skull measurements in cm.

Length of skull from posterior margin of condyles to tips premaxillae	139
Greatest breadth of skull	61
Breadth of rostrum basally	36
Anterior margin of nasals to tips of premaxillae	83.5
Length of premaxillae	92
Length of nasals mesially—	
right side	10
left side	10.5
Length of nasals laterally—	
right side	13
left side	13

Breadth of nasals, anteriorly—

right side	4.5
left side	4
Maximum height of skull	32
Length of mandible	124
Depth of mandible	19

Remarks: This is the only known record of *Balaenoptera edeni* from eastern Australia. The species has been recorded from Shark Bay, Western Australia, by Chittleborough (1959). Gaskin (1968) mentions several New Zealand records, none of these occurring further south than East Cape, Lat. 37°30'S. Long. 178°30'E.

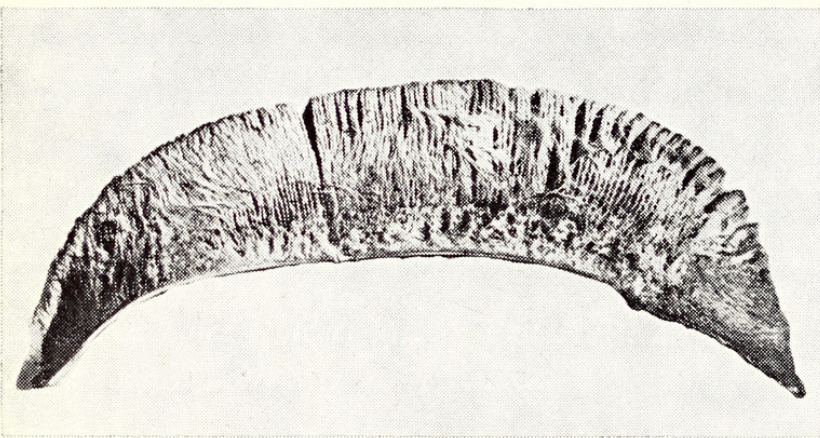


Plate 7
Balaenoptera edeni C8441, entire baleen of one side.
Photo: F. Guy.

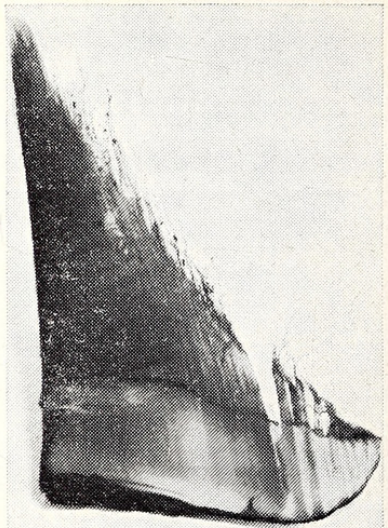


Plate 8
Balaenoptera edeni C8441. Single baleen plate.
Photo: F. Guy.

Acknowledgments

The author wishes to acknowledge the contributions of the following persons to the preparation of this paper: Mr. and Mrs. C. Marriner of Hordern Vale, Victoria; Mr. K. Taylor; Mr. A. J. Coventry, Nat. Mus. Vict.; Mr. N. A. Wakefield of Monash Teachers' College; Mr. R. M. Warneke of the Fisheries and Wildlife

Department, Melbourne; Mr. C. McCann, Wellington, New Zealand; Mr. R. Bickerdike, Geelong Church of England Grammar School; Dr. W. Dawbin, University of Sydney; Dr. G. Chittleborough of the CSIRO Division of Fisheries and Oceanography.

REFERENCES

Anderson, J. 1878. Anatomical and Zoological researches . . . Expeditions to Western Yunnan . . . : 551. London 1878.

Andrews, R. C. 1908. Description of a New Species of *Mesoplodon* from Canterbury Province, New Zealand. Bull. Am. Mus. nat. Hist. 24: 203-215.

Chittleborough, R. G. 1959. *Balaenoptera brydei* Olsen on the West Coast of Australia. Norsk Hvalfangsttid. 48 (2): 62-66.

Dawbin, W. H. 1958. New Zealand and South Pacific Whale Marking and Recoveries to the End of 1958. Norsk Hvalfangsttid 48: 213-238.

- Flower, W. H. 1878. A further contribution to the Knowledge of existing Ziphioid Whales, Genus *Mesoplodon*. Trans. zool. Soc. Lond. 10: 415-437.
- Flower, W. H., and Lydekker, R. 1891. An Introduction to the Study of Mammals Living and Extinct. London.
- Forbes, H. O. 1893. Observations on the Development of the Rostrum in the Cetacean genus *Mesoplodon*, with remarks on some of the Species. Proc. Zool. Soc. Lond. pp. 216-236.
- Fraser, F. C. 1948. Giant Fishes, Whales and Dolphins. F. C. Fraser and J. R. Norman. London.
- Gaskin, D. E. 1968. The New Zealand Cetacea. Fish. Res. Bull. No. 1. (n.s.) N.Z.
- Glauert, L. 1947. The Genus *Mesoplodon* in Western Australian Seas. Aust. Zool. 11(2): 73-75.
- Guiler, E. R. 1966. A stranding of *Mesoplodon densirostris* in Tasmania. J. Mammal. 47: 327.
- Guiler, E. R. 1967. Strandings of Three Species of *Mesoplodon* in Tasmania. J. Mammal. 48: 650-652.
- Hale, H. M. 1931. Beaked Whales—*Hyperoodon planifrons* and *Mesoplodon layardii* from South Australia. Rec. S. Aust. Mus. 4(3): 291-311.
- Harmer, S. F. 1924. On *Mesoplodon* and other Beaked Whales. Proc. zool. Soc. Lond. pp. 541-587.
- Hershkovitz, P. 1966. Catalogue of Living Whales. Bull. U.S. natn. Mus. 246.
- Lonnberg, E. 1932. The skeleton of *Balaenoptera brydei* O. Olsen. Ark. Zool. 23: 1-23.
- McCann, C. 1962. Key to the Family Ziphiidae, Beaked Whales. Tuatara. 10 (1): 13-18.
- Moore, J. C. 1963. Recognizing Certain Species of Beaked Whales of the Pacific Ocean. Amer. Midl. Nat. 70 (2): 396-429.
- Moore, J. C. 1968. Relationships among the Living genera of Beaked Whales with Classifications, Diagnoses and Keys. Fieldiana, Zool. 53 (4): 209-298.
- Oliver, W. R. B. 1922. A Review of the Cetacea of the New Zealand Seas. Proc. zool. Soc. Lond. 557-585.
- Olsen, O. 1913. On the External Characters and Biology of Bryde's Whale (*Balaenoptera brydei*) a new Rorqual from the Coast of South Africa. Proc. zool. Soc. Lond. 1073-1090.
- Omura, H. 1959. Bryde's whales from the coast of Japan. Scient. Rep. Whales Res. Inst., Tokyo, 14: 1-33.
- 1966. Bryde's Whale in the Northwest Pacific—Whales, Dolphins and Porpoises, K. S. Norris. U.C.L.A. Press, Los Angeles.
- Scheffer, V. B. and Rice, D. W. 1963. A List of the Marine Mammals of the World. United States Fish and Wildlife Service. Special Scientific Report—Fish. 431. Washington.
- Soot-Ryen, T. 1961. On a Bryde's Whale Stranded on Curacao. Norsk Hvalfangsttid. 8: 323-329.
- True, F. W. 1910. An Account of the Beaked Whales of the family Ziphiidae in the Collection of the United States National Museum, with remarks on some specimens in other American museums. Bull. U.S. natn. Mus. 73.
- Wakefield, N. A. 1967. Whales and Dolphins recorded for Victoria. Vict. Nat. 84 (9): 273-281.
- Warneke, R. 1963. A Record of the Beaked Whale (*Mesoplodon layardii*) in Victorian Waters. Vict. Nat. 80 (3): 2-7.

Geology Group Excursions

Sunday, 5 April—To Waurn Ponds and other localities in the Geelong area.
Leader—Mr. Stan Rowe.

Sunday, 10 May—To Airey's Inlet. Leader—Mr. George Carlos.

Sunday, 7 June—To Maribyrnong River Terraces. Leader—Mr. Dan McInnes.

Transport is by private car (spare seats available). Excursions leave from the western end of Flinders Street Station, opposite the C.T.A. Building, at 9.30 a.m.



Dixon, Joan M. 1970. "Two New Whale Records from Victoria: Mesoplodon bowdoini Andrews (Ziphiidae) and Balaenopteraedeni Anderson (Balaenopteridae)." *The Victorian Naturalist* 87, 88–93.

View This Item Online: <https://www.biodiversitylibrary.org/item/139554>

Permalink: <https://www.biodiversitylibrary.org/partpdf/167925>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.