CAROTENOID COLORED MINKE WHALE FROM THE ANTARCTIC

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On 16 February 1979, an unusual minke whale (*Balaenoptera acutorostrata*) which had a strange body color was captured by the Japanese whaling fleet in Area IV of the Antarctic. According to information from the catcher boat, this whale was

TABLE 1. BODY MEASUREMENTS AND OTHER DATA OF CAROTENOID COLORED MINKE WHALE

Serial no.	2241
Date of catch	16/Feb./1979
Position of catch	64°40′S, 104°08′E
Post-mortem time	1 hr 50 mins
Sex	Male
Age (yrs.) (number of layers in ear plug)	9++
Thickness of blubber (cm)	5.5
Body proportion (cm)	
Total length, tip of shout to notch of flukes	740
Tip of snout to center of blowhole	115
Tip of snout to center of eye	142
Tip of snout to ear	183
Length of ventral grooves (max.)	402
Umbilicus to end of of ventral grooves	28
Notch of tail flukes to center of anus	205
Notch of tail flukes to tip of dorsal fin	204
Half of the girth, at umbilicus	225
Half of the girth, at anus	135
Dorsal fin, vertical height	39
Flipper, tip to anterior insertion	108
Flipper, tip to axilla	83
Flipper, greatest width	29
Tail flukes, tip to tip	211
Tail flukes, notch to the nearest part of the anterior margin of the tail flukes	55
Half number of ventral grooves, at anterior insertion of each flipper (no.)	29
Skull (cm)	
Length, codyles to tip of premaxilla, straight	176
Breadth, frontal	96
Reproductive organs	
Testis weight (right, left; g)	570, 530
Penis length (cm)	74
Stomach contents	
Food item	Euphausiids
Relative quantity	30%
Relative freshness	Moderately fresh

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swimming with one other whale in a school and the crew could easily recoginize pinkish color on the lateral side of this whale at sea.

The whale taken was a male 7.4 m in total length (serial no. 2241) and it had almost normal viscera, though the kidny fat of this whale was yellow in color. Body proportions and other data from this whale are indicated in Table 1.

In general, the external coloration of minke whales in the Antarctic is gray dorsally and white ventrally (Williamson, 1961; van Utrecht and van der Spoel, 1962; Kasuya and Ichihara, 1965; Ohsumi *et al.*, 1970). However in this case, the ventral surface and other areas normally white in color were pink (Pl. I, Figs 1 and 2), while the blubber, connective tissue and baleen plates (except the black band portion) were flushed with a carotenoid color (Pl. I, Fig. 3). Furthermore the whole skeleton of this whale retained a carotenoid color during flensing, but when dried up, it was difficult to distinguish the color from skeletons of other whale. A whale with such a coloration as this had not seen previously by the crew of the factory ship, even though many of them had much whaling experience.

Though the cause of this unusual coloration was not apparent, judging from the external and internal features it was not caused by congestion or albinism. The post-mortem time (1 hr 50 mins) might influence the coloration of this whale, but it was not apparant too. In order to clarify the cause, pigmentary analysis is necessary as a first step. Specimens of skin, blubber and baleen plates were collected and these were preserved frozen as well as in 10% formalin solution. Detailed results of the pigmentary analysis of these specimens will be reported later.

I wish to express deepest appreciation to Dr P. B. Best, Marine Mammal Laboratory, Sea Fisheries Branch, South Africa for his kind advice and supplying of photograph (Pl. I, Fig. 1).

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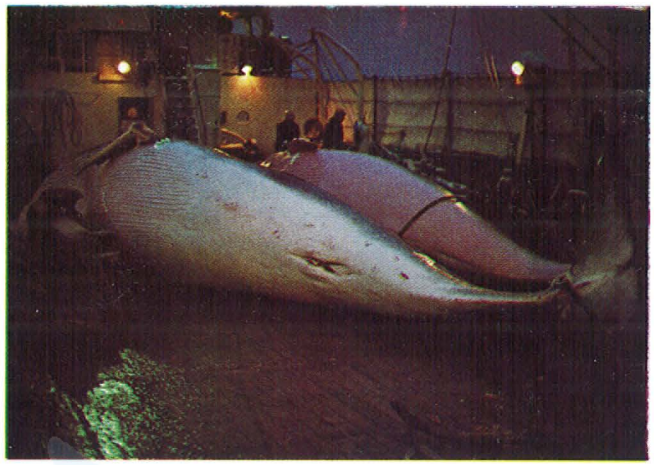
EXPLANATION OF PLATE

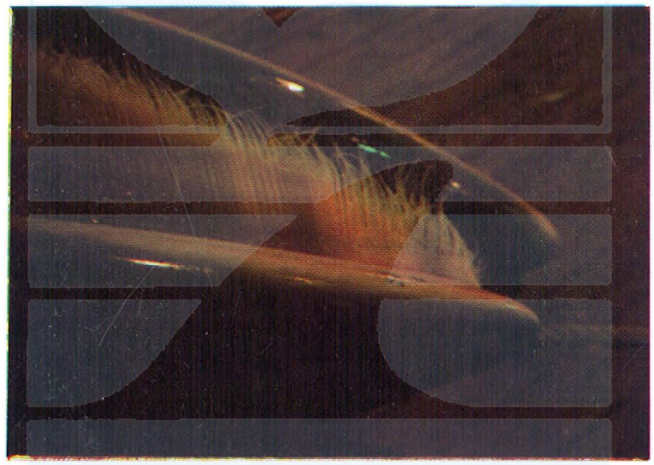
PLATE I

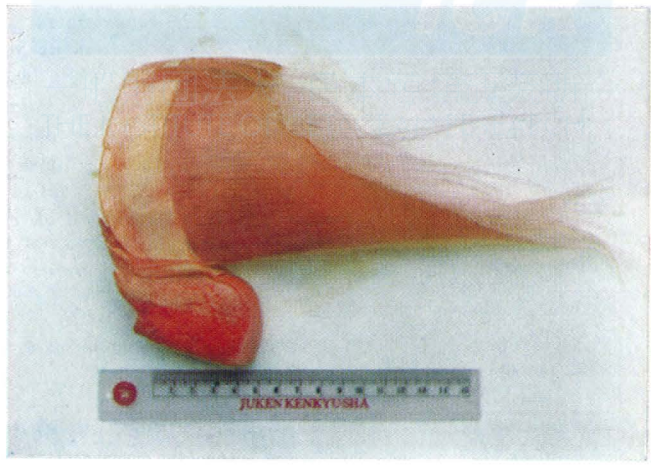
Fig. 1. A comparison of body colors between unusual and normal whales (Photograph by Dr P.B. Best).

Fig. 2. Lateral view of rostrum and baleen of the unusual whale showing pinkish color and dark pigmented areas.

Fig. 3. Baleen plates and gum layer of the same whale showing carotenoid color.



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