

A DEFORMED FIN WHALE FETUS

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On January 21, 1959, a deformed fetus was found when a female fin whale was flensed on the deck of the factory ship *Tonan-maru* in the Antarctic. Then the ship was operating in 61°26'S, 99°58'E.

The mother of the deformed fetus was seventy one feet long, and had one corpus luteum and seven corpora albicantia in her ovaries. I did not notice any abnormality in her body.

I observed that the deformed fetus was living in her mother's uterus when the latter was killed.

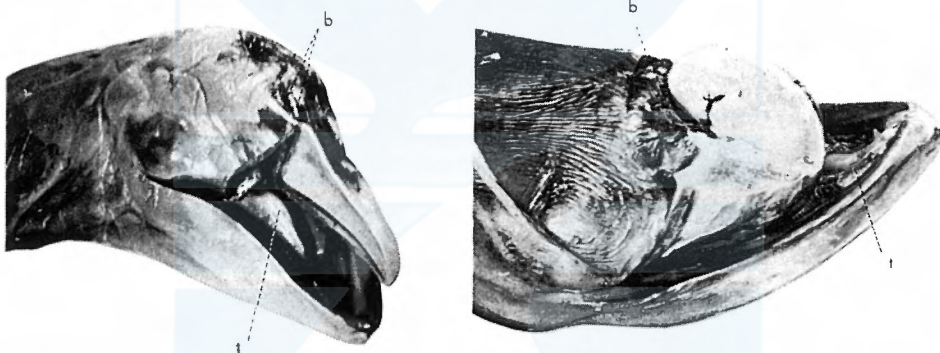


Fig. 1. Heads of a normal and a deformed fetus.
A: Normal fin whale fetus (♀ 73 cm long). B: Deformed fetus.
b: Blowhole. t: Tongue.

The fetus is female and 148 cm long, when I measure from the tip of lower jaw to the notch of flukes along her body axis. Her body weight is 45.4 Kg.

The fetus is very deformed structure in many parts of her body as shown in Plate I. Her upper jaw rolls up and covers her blowholes (Fig. 1b).

Abnormality appears also on her tongue, that is to say, the tip of the tongue fuses to the inner margin of the lower jaw. Furthermore the margin of the tongue is tucked. The throat grooves are complete and normal.

From her body proportion, the tail of the deformed fetus is short in comparison to the normal fetuses as shown in Table 1. And then the tail winds rightward and I could not straighten the body before

the fetus was fixed in the formalin solution.

The dorsal fin of the fin whale fetus usually appears when the fetus grows to 15 cm in length. At first the middle of the dorsal fin grows upward, then the top of the fin turns backward at about 50 cm in body length, and becomes near completion. However the dorsal fin of this abnormal fetus is isosceles triangular as shown in Fig. 2.



Fig. 2. Dorsal fins of a deformed fetus and two normal fetuses.

A: Normal fetus (♀ 170 cm) (×1). B: Normal fetus (♂ 27.6 cm) (×5).
C: A deformed fetus (×1).

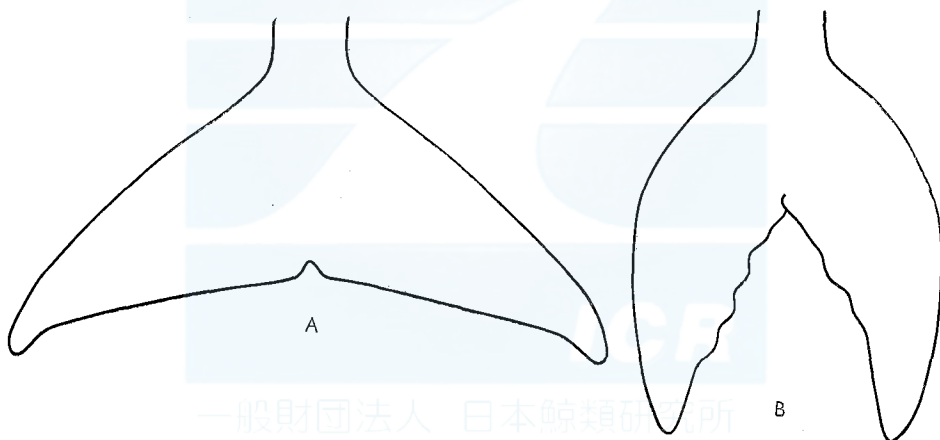


Fig. 3. Flukes of a normal fetus and a deformed fetus.

A: Normal fetus (♀ 214 cm). B: Deformed fetus.

The tail flukes of the fetus (70 cm and over) are usually doubled at the insertion, and when we spread the flukes, the shape of them is nearly the same as that shown in Fig. 3a, although the shape varies with the stage of the fetus. But the flukes of the deformed fetus are not doubled and the tips of them retrocede and approach.

The close examination would be needed further, but I did not dissect and examine this deformed fetus, for this is used as a specimen of our Institute.

TABLE 1. BODY PROPORTION OF FIN WHALE FETUSES

	Deformed fetus ^{a)}		Normal fetuses (150~250 cm)
	Actual length (cm)	%	Range of percent to total length ^{b)}
Tip of lower jaw to notch of flukes	148	100.0	—
Tip of lower jaw to angle of gape	{ L 31.0 R 33.0	{ 20.9 22.3	—
Tip of lower jaw to center of eye	{ L 27.0 R 31.0	{ 18.2 20.9	16.0~20.0
Tip of lower jaw to tip of flipper	{ L 65.0 R 65.0	{ 43.9 43.9	40.5~45.5
Center of eye to center of ear	{ L 9.4 R 10.5	{ 6.4 7.1	6.0~7.5
Notch of flukes to posterior margination of dorsal fin	36.5	24.7	23.0~28.0
Notch of flukes to center of anus	35.0	23.6	27.0~33.0
Center of anus to reproductive aperture	2.5	1.7	1.5~3.5
Center of anus to umbilicus	17.5	11.8	13.0~19.0
Center of anus to posterior margin of ventral grooves	20.5	13.9	14.0~17.0
Height of dorsal fin	4.6	3.1	1.8~3.5
Length of base of dorsal fin	9.7	6.6	3.5~6.5
Flipper, tip to anterior and of lower border	{ L 22.0 R 20.0	{ 14.9 13.9	11.0~16.5
Greatest width of flipper	{ L 6.3 R 6.0	{ 4.3 4.1	3.0~4.0
Width of tail flukes at insertion	8.0	5.4	6.5~4.0
Tail flukes, tip to notch	{ L 15.5 R 15.5	{ 10.5 10.5	10 ~14
Total spread of tail flukes	13.5	9.1	—

a) Fixed by formalin solution.

b) Tip of upper jaw to notch of flukes.

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