

TWIN FOETUSES IN THE SOUTHERN ELEPHANT SEAL, MIROUNGA LEONINA (L.)

By

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The Southern Elephant Seal, *Mirounga leonina* (L.) generally gives birth to a single pup, but occasional twins have been suspected based on the presence of two pups suckling from one cow (Angot, 1954; Laws, 1956; Carrick, Csordas and Ingham, 1962). Only one almost definite case of twins has been described in this animal (Carrick *et al.*, *loc. cit.*). One case of conjoined twins has been described (Laws, 1953), and another mentioned (Laws, 1956).

The observation of actual births or the presence of two foetuses within the uterus is the only real proof of twinning in the elephant seal. Foster mothering of pups separated from their mothers is possibly not uncommon, since pups and their mothers can often be separated in the harems. On 15th September, 1965, I observed a pup which had been separated from his mother approach a pregnant cow, yapping continuously. The cow first objected to the approach, then rolled on her side and allowed the pup to nuzzle her abdomen searching for a nipple. The pup found the nipple and vainly sucked at it intermittently for three minutes before giving up and going to sleep. This cow was later separated from the pup by the movement of the bull in the harem and later the pup was rejoined by his mother.

Carrick *et al.* (*loc. cit.*) refer to the common occurrence of foster mothering later in the lactation period of cows.

On 10th September, 1965, a cow was dissected and found to be carrying twin foetuses, although one had apparently been dead *in utero* for a short time. Both foetuses were females, and each was attached to a separate placenta. The right ovary contained a single corpus luteum. The two foetuses were contained in the right cornu of the uterus, the left cornu being entirely empty. Data obtained from the cow and foetuses were as follows:—

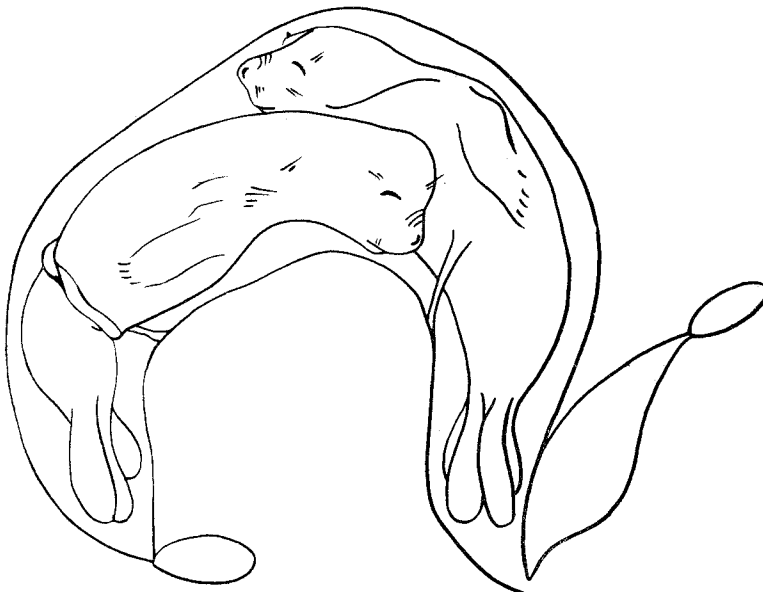
	Length*	Weight
Cow	261.0 cm	—
Foetus 1	122.0 cm	44 Kg
Foetus 2	98.5 cm	23 Kg

The eyelids were not fused in either foetus. In the case of foetus 2 the eyes were sunken and the skin was relatively non-elastic. When the uterus was first opened the umbilical cord of this foetus was seen to be twisted around its body just in front of the pelvis. The placenta of this foetus was somewhat discoloured, but there were no signs of necrosis or infection in the uterus. It is considered that the twisted umbilical cord was most likely the cause of death of the foetus and had this not occurred there is no apparent reason why the two foetuses could not have been born alive.

* The length was measured in a direct line from nose to tail in each case.

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NOTE.—This paper was written whilst the author was working at Macquarie Island, 1964-66.



Diagrammatic representation of position of twin foetuses.

REFERENCES

- ANGOT, M., 1954—Observations sur les mammifères marins de l'Archipel de Kerguelen, avec une étude détaillée de l'éléphant de mer, *Mirounga leonina* (L.). *Mammalia* 18: 1-111.
- CARRICK, R., CSORDAS, S. E., AND INGHAM, SUSAN E., 1962—Studies on the southern elephant seal, *Mirounga leonina* (L.). IV. Breeding and development. *C.S.I.R.O. Wildl. Res.* 7: 161-197.
- LAWS, R. M., 1953—The elephant seal (*Mirounga leonina* Linn.) I. Growth and age. *F.I.D.S. Sci. Rep.*, No. 8, 62 pp.
- , 1956.—The elephant seal (*Mirounga leonina* Linn.). II. General, social and reproductive behaviour. *F.I.D.S. Sci. Rep.*, No. 13, 88 pp.