

A possible occurrence of twinning in wild muskoxen, West Greenland

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Twinning in muskoxen has been mentioned occasionally in the literature. A few twin pregnancies and births have been verified (Wilkinson, 1971; Dinneford & Anderson, 1984; Fraser *et al.*, 1992; Reindl, 1993). Field observations have been made of cows apparently with twins (Tener, 1965; Alendal, 1979; Pattie, 1986; Jingfors, 1984; Olesen, 1990; Tiplady, 1990).

Lent (1978) observed that calves may interact with cows other than their dams for extended periods. This may account for some of the apparent

twinning. Cows usually actively reject calves other than their own, but may sometimes allow calves other than their own to nurse (Jingfors, 1984).

On 10 July 1992 I came upon two cows, both at least four years of age, with what appeared to be two sets of twins, near Ammolortoq Lake, approximately 25 km southeast of Kang-erlussuaq in West Greenland. There were few other muskoxen in the area at the time.

The calves in each pair were the same size and one pair was larger than the other (Fig. 1). They



Fig. 1. Two adult female muskoxen each accompanied by two calves photographed near Kangerlussuaq, Greenland, 10 July 1992.

were comparable in size to normal, 2–2.5 month old calves in this part of Greenland. The cows were uneasy about my presence, and kept the calves close between them as they moved about approximately 100 m away. Neither cow displayed aggression toward any of the calves. All six animals appeared to be healthy and well-nourished. There were no other muskox cows in the area.

Twinning is rare among wild muskoxen (Pedersen, 1958; Tener, 1965; Spencer & Lensink, 1970; Dinneford & Anderson, 1984). Good nutritional status of cows may increase the incidence of twinning (Pedersen, 1958; Alendal, 1979; Dinneford & Anderson, 1984), and muskoxen in the area near Kangerlussuaq are well-nourished, evidenced by the high annual rate of growth of the population (Thing *et al.*, 1984; Olesen, 1990 and 1993).

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