

**SATELLITE-LINKED INSTRUMENT DEPLOYMENTS ON SOUTHERN ELEPHANT SEALS AT MARION ISLAND**

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Southern elephant seals *Mirounga leonina* at Marion Island (46°54'S, 37°45'E), maintain a relatively isolated and remote existence, compared to other breeding populations of southern elephant seals. Obligate haulout events, of which the duration, purpose and energetic costs differ between age groups and sexes, determine the amount of time available for foraging at sea. At Marion Island some 60 individuals have been instrumented with satellite-linked recorders to analyse their movements at sea. In the period 1999 – 2005, 41 male (11 adults, 23 subadults, 5 yearlings and 2 underyearlings) and 19 female elephant seals (7 adults, 8 yearlings and 4 underyearlings) were instrumented, all but six during the post-moulting period/winter haulout. The mean duration of their recorded tracks was  $4.16 \pm 3.21$  months with the longest track being 11.9 months before the animal hauled out to moult. A number of these (n = 34) had been tagged soon after weaning and were therefore born on Marion Island, and expected to return to the island for the various haulouts. The birth site of the remainder is unknown. Of the 34 tagged and instrumented elephant seals, thirteen were never seen again, while 21 elephant seals were subsequently seen at Marion Island, seven with their transmitters intact. Some 14 animals lost their transmitters at sea, and perhaps on land before it could be retrieved or at inaccessible locations. While the method of deployment of the transmitters was similar throughout, the probability of animals returning to the island with transmitters did not seem to be linked to sex, age class or transmitter type/configuration.