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# HABITAT SELECTION AND FORAGING BEHAVIOUR OF SOUTHERN ELEPHANT SEALS IN THE WESTERN ANTARCTIC PENINSULA

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We examined the foraging behaviour of 18 southern elephant seals foraging over two seasons in the Western Antarctic Peninsula. The foraging behaviour and habitat utilization of 7 females in 2005 and 12 in 2006 were followed using satellite linked Satellite Relay Data Loggers that measured diving behaviour as well collected salinity and temperature profiles as the animals dove. Animals were tagged after the annual moult during February at Cape Shirreff Livingston Island, South Shetland Islands. In 2005 of the 7 animals tagged one foraged 4700 km due west of the Antarctic Peninsula going as far as 150 W. The remaining females headed south along the Western Antarctic Peninsula bypassing Marguerite moving south along Alexander Island. Three of these animals continued to forage in the pack ice as it developed. All females swam past Livingston Island, continuing on to South Georgia Island where they apparently bred in the austral spring. One animal returned to Cape Shirreff to moult and her tag was recovered. Early data from 2006 indicates that they are following a similar pattern, with the majority of the animals going south along the Antarctic Peninsula, with at least one animal swimming due west. The focal foraging areas of these animals were determined using first passage time. The diving depths within these foraging regions were compared to water depth showing that animals foraging along the Antarctic Peninsula primarily feed on the benthos, while the animal that went west was foraging in the water column over deep water. The diving behaviour of this female was highly correlated with differences in the physical properties of the water column as determined from the CTD data derived from the tags. Additional analysis of the foraging patterns using a newly developed fractal dimension analysis is currently underway and will be presented.