

行動・画像記録計によるウェッデルアザラシの潜水行動

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Abstract

Multi-data sampling on free-ranging animals appears as a valuable tool to investigate underwater behavior in relation to environmental features. Using digital cameras and data loggers, diving behavior of free-ranging Weddell seal (*Leptonychotes weddellii*) mothers was monitored. Field experiments were conducted from November to December of 1999 and 2000 at breeding colonies in Antarctica. Weddell seal mothers showed two patterns of dive behavior: deep dives for foraging and shallow dives for socializing with their pup. Deep foraging dives were analyzed using image data and three-dimensional (3D) dive paths to address the 3D nature of the interactions between Weddell seals and their prey at the spatial and temporal scales relevant to an individual predator. The recorded images showed that seals encountered prey-like objects at the depths of 250-300 m. The seals' 3D dive paths were affected by the location of breathing holes in the ice and the slope of local bathymetric features.