

**EFFECTS OF MATERNAL TRAITS ON REPRODUCTIVE SUCCESS IN ANTARCTIC FUR SEALS**

B.I. McDonald<sup>1</sup>, M.E. Goebel<sup>2</sup>, D.P. Costa<sup>1</sup>, D.E. Crocker<sup>3</sup>

<sup>1</sup>University of California, Santa Cruz, CA, United States, <sup>2</sup> Southwest Fisheries Science Center, NMFS-NOAA, La Jolla, CA, United States, <sup>3</sup> Sonoma State University, Sonoma, CA, United States

Reproductive success may increase with age due to increases in size, body condition, and experience. This was investigated in Antarctic fur seals (*Arctocephalus gazella*) in the 2003/04, 2004/05, and 2005/06 breeding seasons at Cape Shirreff, Livingston Island (62° 26 S, 60° 46 W). Each year over 200 known aged tagged females were followed during the breeding season. During daily tag resights female presence and whether she was with a pup was recorded. A female was categorized as successful in the early season if the pup was seen after January 15th (at which point leopard seal predation started) and successful in the late season if the pup was seen after February 23rd. Reproductive success was also determined for approximately 30 females of known age, mass, and condition for the last seven seasons. Using a logistic regression the impact of age on success was investigated. There was no relationship between age and reproductive success in early or late season in the last three seasons. In addition there was no relationship between female age, mass, or condition in the seven year data set. Reproductive success was lowest in the year with the longest trip durations indicating poor foraging conditions. Environmental conditions appear to have a greater impact on reproductive success than the maternal traits investigated in this study.