TALK - WED AM: MATING & BREEDING SYSTEMS 2

INDIVIDUAL DIFFERENCES AND LATERALITY IN THE AERIAL DISPLAYS OF BREEDING MALE HARBOR SEALS (PHOCA VITULINA)

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Male harbor seals perform visual and acoustic displays during the breeding season near female haul out sites. These complex breeding displays involve behaviors such as snorting, flipper slapping, underwater roars, and tossing nearby objects. In this study, observations of male seals were made at Point Lobos State Reserve near Monterey Bay, California, over the 1994 breeding seasons. Displays were recorded with a camcorder from land and later scored used stop-frame analysis. Individual males were identified through variation in coat coloration. Lateralized behavior in flipper usage was observed during reproductive displays with individuals consistently using either their right or left flipper (chi-square test: P<0.05). Individual males were found to exhibit behavioral preferences, forming characteristic display patterns over a season that differed from a population wide preference (t-test: P<0.05). Furthermore, breeding displays were often begun with flipper slaps (67% of the time, as oppose to other behaviors which began displays less than 10%). This study provides new insights into individual differences in behaviors of an aquatic breeding species, and evidence of laterality in a nonhuman species which has implications to the origin and evolution of brain hemisphere specialization in mammals.