Abstract ID : 283

Title : NURSING PATTERNS OF FREE-RANGING HARBOR SEALS DETERMINED BY STOMACH TEMPERATURE

Category : Behavior

Student : Not Applicable

Preferred Format : Poster Presentation

Abstract : Although most phocid pups are relatively sedentary during the lactation period, harbor seal (Phoca vitulina) pups are highly mobile from birth and spend a considerable amount of time in the water prior to weaning. Consequently, it is more difficult to observe and record behaviors such as nursing. Using stomach temperature pills, archival stomach temperature recorders, and time-depth recorders, we monitored nursing patterns of free-ranging harbor seals in the St. Lawrence River Estuary. Although milk is warm, it is typically slightly cooler than body temperature (~38 C) and consequently a decrease in stomach temperature (~1 C) likely represents a nursing event. Recordings were also supplemented by traditional behavioral sampling to link visually observed nursing events to recorded decreases in stomach temperature. Findings indicated that pups retained the pill for at least 9 to 22 d and nursing events could be easily identified as 1-2 C reductions in stomach temperature. These reductions typically occurred within minutes of haulout, remained low for approximately 2-10 min (active nursing), and returned to pre-nursing levels in 10-40 min (indication of milk volume). Nursing rates and durations did not consistently change over the observation period, although newly collected data may alter this finding. External temperature and visual observations indicated that many nursing events occurred while the pup was partially submerged. Occasionally, large decreases in stomach temperature (>5 C) occurred while the pups were diving and could be indicative of opportunistic foraging or mariposa (drinking seawater). This study has shown that nursing patterns of free-ranging pups can be quantified continuously using stomach temperature.