

IMS Seminar
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201 O'Neill, 3:30 pm

Early diving and foraging behavior of northern fur seal pups from Bering Island, Russia

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The ontogeny of diving and foraging behavior of northern fur seal (*Callorhinus ursinus*) pups from a stable population on Bering Island, Russia was recorded during their first few months at sea. The first winter migration is a critical period during which estimates of survival are low. The frequency of feeding events and the development of successful hunting behavior may play an important role in the survival of pups at sea. Thirty-five pups were instrumented with satellite-linked time depth recorders and stomach temperature pills to detect when and approximately where feeding behavior occurred. Diving occurred predominantly at night with deeper and longer dives as the pups matured. Similar behavior has also been described in pups from the declining Pribilof Islands population. Mean dive depths for Bering Island pups were correlated with lunar illumination, whereas mean dive durations were correlated with time of day and sex. Foraging success did not differ between sexes and there was no relationship between meal size (as indicated by feeding event duration and minimum stomach temperature) and lunar illumination fraction or maximum foraging depth. Although most pups were able to successfully forage within three days of starting their migration, the number of feeding events recorded each day remained low (typically less than two events per day). There was also no indication of an appreciable increase in meal size after the first two weeks of the migration despite an increase in dive frequency and depth. The results are consistent with observations that pups do not gain mass during their first year and emphasizes the energetic constraints that pups face from infrequent foraging in the cold water.

