



SEAL
CONSERVATION
SOCIETY



Weaning and postweaning behaviour and feeding of harbour seal pups

Hedd et al (1995). Suckling bout length and estimated milk intake per bout incr, as weekly average, with pup age over 5 week lactation period. Diel change noted from nocturnal to daytime feedings.

Muelbert & Bowen (1993). Pups on Sable Isl. weaned at 24d days at body mass av 24.9kg. Duration of post-weaning fast 15-17 days. Rate of post-weaning mass loss ~5.2 kg or 21% of weaning mass over 1st 5 weeks. Body comp (% water – 47.7% and fat – 32.8%) did not change in 1st 14 days. Over next 26 days body water incr to 63% fat decr to 12%.

Cottrell et al (2002). Pups in BC weaned av. 23.6kg at weaning age av. 32d.

Skinner (2006). Av. Mass gain 0.56 kg/d in 2004, 0.38 kg/d in 2005. Weaning age av.23.9d (max 39 d!). Av. Weaning mass (n=47 pups) 19.6 kg.

After weaning pups begin to approach, follow and interact socially with each other, resulting in weaned in pups coalescing into small groups around the haul-out site (Wilson, 1978). Pups may also approach and follow adults and older juveniles, although social interactions seem to be mostly between pups (Wilson, op. Cit).

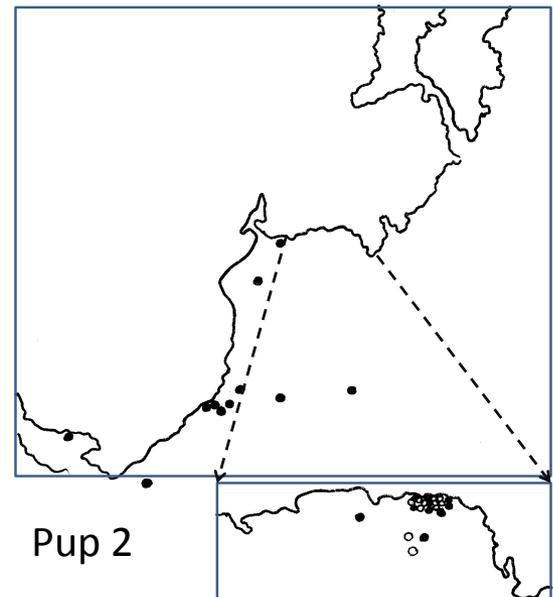
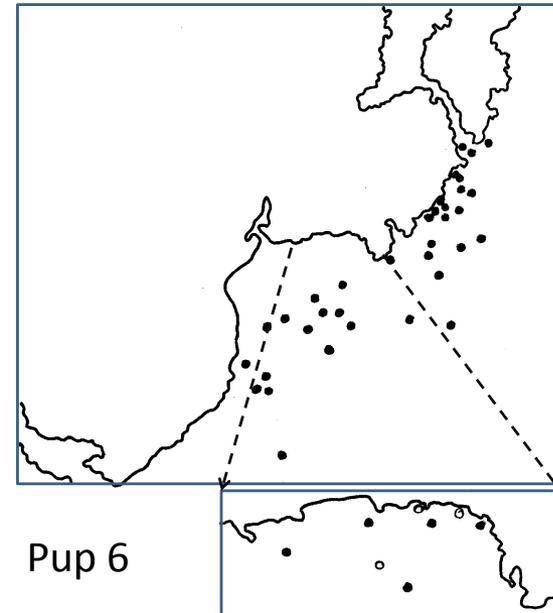
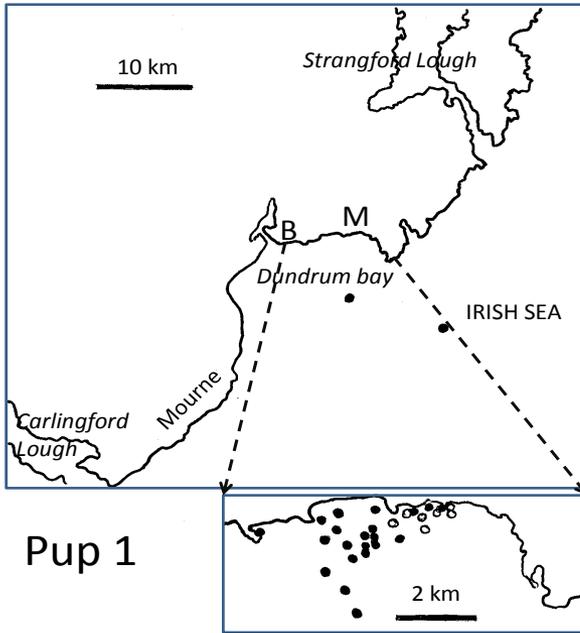


3 weaned pups approach and follow adult male (Maine, 1976)



Two pups around weaning period approach an adult female, then follow each other into the water (N. Ireland, 1995).

POST-WEANING DIVING AND DISPERSAL



Examples of movements of wild pups
In N. Ireland from the weaning period for
3 months (VHF tracking; Corpe & Wilson, 1996)

Most pups spent first 1-2 weeks diving close to their
nursery site (M) before dispersing to offshore
Foraging sites.



VHF-tracked weaned pup 5 at haul-out site (Corpe and Wilson, 1996)

In a VHF study of 7 weaning harbour seal pups in Norway, mean dive duration increases with age, from 0.92 min in pups ≤ 25 days to 2.55 min in 1–2 month olds (Bekkby & Bjørge, 2000). The proportion of time spent underwater increased from 71% at ≤ 25 days to 86% in 1–2 month olds. The pups were never recorded Outside the study area (defined by 30km station range).

Some newly weaned pups on Sable Isl. were absent from the shore for 2-3 days, suggesting extended foraging trips at this age (Muelbert & Bowen, 1993).

POST-WEANING DIET AND MASS GAIN

In a stomach-lavage study of weaning pups on Sable Isl. (Muelbert & Bowen, 1993), it was found that post-weaning pups began feeding, on average at ~10 days postweaning. Pups did not have milk and solid food together in the stomach. During the fast, body fat declined from 32.8% to ~12% and pups lost ~5.2 kg or 21% of body mass.

The first prey for Sable Isl pups were sandeels (av. 6.3mm), plaice, hake (av. 7.5 mm) and shrimp. Other authors have also noted the prevalence of Shrimp and very small fish in the diet (Sergeant, 1951; Golitsev, 1972).

Two newly weaned pups in N. Ireland were found to have eaten class 0 gadoid fish of estimated weight 3g and length 80-133mm. Older pups up to 4-5 months were found to eat gadoid fish and flounder/plaice, mainly in the 100-200mm range - the same size as taken by adult seals at this colony (Wilson et al., 2002).

Harding (2005) noted that pups must gain sufficient weight before the onset of cold water temperatures in winter, since pups weighing 20kg or less may be cold-stressed at water temperatures of 9.8°.

Although most pups succeed in feed after the first 10-14 days post-weaning, they continue to deplete body energy stores at a rate of 6.4 MJ/d, losing an average of 4kg (Bowen et al, 2003), and did not achieve a positive energy balance for at least another two weeks after starting to feed.

Pups that were heavier at weaning were found to have lower daily food intakes and used a greater fraction of stored energy to support Metabolic requirements of the first month post-weaning than lighter pups.

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