

while males longevity is higher than female. The expansion in recent years of American mink in the study area will disturb the European mink population dynamic, and we need to focus our research on these changes

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Lessons learned from an experimental mink eradication project in Iceland

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The American mink (*Neovison vison*) was first imported to Iceland in 1931 for fur farming. Soon it escaped and now occupies most of the Icelandic lowlands. It is officially considered an invasive species in the country and has been hunted intensively since soon after its first escapes. From 1989-2006, the authorities spent on average 388.000 Euros annually on mink control. In the years 2007-2009 the Icelandic government conducted an experimental mink eradication project in two areas, the Snaefellsnes Peninsula in West-Iceland (1.300 km²), and the Eyjafjordur area in North-Iceland (3.900 km²). The objective was to evaluate if a countrywide eradication would be feasible and estimate a possible cost. Although mink numbers went considerably down in the two areas due to increased hunting effort and other factors, eradication was not successful and the project did not reach its objectives. Valuable lessons concerning mink eradication and management in general can however be learned from the project, which are overviewed and discussed.

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Reliability of fecal progesterone analysis for pregnancy diagnosis and parturition timing in North American river and Asian small-clawed otters

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Our previous research found that non-invasive fecal progesterone analysis can detect changes associated with ovulation, pregnancy and/or pseudopregnancy in North American river (NARO) and Asian small-clawed (ASCO) otters. A sharp increase in progestins occurs coincident with embryo implantation; however, pregnancy cannot be distinguished from pseudopregnancy. In this study, fecal progestin monitoring was used to assess putative pregnancy status and predict parturition dates in 26 NARO and 9 ASCO females in US zoos. In NARO, 30 distinct luteal phases were detected; 14 (47%) were confirmed as pregnancies whereas the remainder were presumably pseudopregnancies (no pups observed). In ASCO, 31 luteal phases were identified, comprising 8 (25%) proven pregnancies and 23 presumed pseudopregnancies. Based on the timing of progestin rise, parturition was predicted to occur 67-74 or 68-76 days later in NARO and ASCO, respectively. Only 5/14 (35.7%) NARO, but 6/8 (75%) ASCO, gave birth within the predicted time interval; however, prediction accuracy was improved to 71% in NARO by expanding the birth interval to 63-75 days. Our findings suggest that fecal progesterone monitoring in NARO, an induced ovulator, provides a more reliable indicator of possible pregnancy than in ASCO, a spontaneous ovulator, but can accurately predict parturition windows in both species.

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Antioxidant ecology and oxidative stress in European badgers

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Increasingly, the importance of oxidative stress is being recognised as a main mediator of life-history trade-offs in natural populations. As part of a long-term socio-ecology study, we investigate interactions between European Badger health, somatic-maintenance and senescence, with particular regard to the free radical theory of ageing and the disposable soma hypothesis. Data from 2011 indicated that cubs exhibited rapid development of non-enzymatic antioxidant capacity, exhibiting adult levels by June. Antecedence of this trait is thought to be driven by selection for immunity to juvenile parasitoses, which requires high levels of antioxidants to mitigate oxidative damage. The pathogenicity of infection is mediated by food supply and varies inter-annually. Interestingly, due to milder