

CUMBRIAN WHITE-TAILED EAGLE PROJECT



White-tailed eagles and livestock

Diet

White-tailed eagles are generalist carnivores, both hunting live animals and scavenging on animals that have died due to other causes. The Cumbrian White-Tailed Eagle Project reviewed the available published literature from across Europe on white-tailed eagle dietⁱ. Habitat, season, and age have an impact on diet composition. Fish was identified as the primary food source in nine studies and birds were identified as the primary food source in eight studies.

To assess the diet of white-tailed eagles, food remains at nest sites are assessed. Across studies included in the project's diet review, at least 114 bird species, 52 fish species, and 30 mammal species have been recorded in food remains or pellets. The relative proportion of the diet that each prey type contributed ranged from 6% to 74% for fish, 21% to 70% for birds, and 2% to 34% for mammals.



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Studies undertaken in mainland Europe suggest that sheep is a small component of the eagle's diet (less than 2%) and is thought to be consumed as carrion (animals died from other causes). In Scotland, higher percentages of diets and killing of lambs have been reported, however a recent studyⁱⁱ suggests that lamb may not be as important for Scottish white-tailed eagles as previously thought. There are currently no reports of lambs being eaten or killed by white-tailed eagles released on the Isle of Wight and in Ireland and lamb was not identified during studies of their diet. Farming systems may be dissimilar to those in Scotland and time may tell whether the newly established white-tailed eagles eat or feed on lambs.

Scotland – a case study

White-tailed eagle reintroductions have been undertaken in Scotland since 1975. By the 1990s, there were concerns amongst livestock owners that these eagles were killing lambs. Over a four-year period (1998 – 2002), an intensive study was



undertaken and concluded most lambs were scavenged with no economic damage to sheep farming on a broad scaleⁱⁱ.

A more recent studyⁱⁱⁱ explored the data on the Scottish white-tailed eagle diet over a 20-year period (from 1998 – 2017). Food remains in nests and on perches were examined from 89 territories within nine Scottish regions. In half of all territories, between 0 – 6% of items were lamb, whilst 7 of the 89 territories had lambs as 30% or more of the food items. The study concluded that:

“the previously widespread view that lambs are an important food for White-tailed eagles has been superseded; the prevailing evidence now is that marine items (seabirds and fishes) are the most important breeding season food in Scotland.”

Although lamb bones are found in white-tailed eagle nests, it is difficult for scientists to determine whether the lamb had already died from unknown causes and was scavenged by an eagle, whether the lamb was dying, or whether the lamb was healthy and alive. Sometimes it is possible to examine the dead lamb in the field and identify any physical signs that the lamb was alive and killed by an eagle. However, some lambs eaten by eagles may be carried away to a different location to be eaten, limiting the possibility to examine them. Therefore, it is difficult to determine how many live lambs are taken by this bird in Scotland.

Sea Eagle Management Scheme

A Sea Eagle Management Scheme is offered by Scotland’s nature government agency, NatureScot, and the National Farmers Union Scotland and was launched in 2015. This scheme is offered to farmers and crofters experiencing white-tailed eagle impacts on their livestock. Through this scheme, support is offered for adapting livestock management and for trialling prevention measures, such as enhanced shepherding. As part of this scheme, advisors will:

- *investigate what white-tailed eagle activity is occurring near to the farm*
- *advise on measures to mitigate against sea eagle impacts*
- *arrange to lend equipment, where appropriate, to use to deter sea eagles or otherwise mitigate impacts*
- *recommend support for longer-term management, agreed with and carried out by the livestock manager*

Individuals who carry out prevention measures and have signed a long-term Management Agreement may receive financial support. This financial support is different to ‘compensation payments’ where livestock owners receive financial reimbursement for damage to livestock by carnivores.

A unique case?

Across the white-tailed eagle’s European range, lambs are reported, however minimally, in the eagle’s diet. It is thought that these lambs occurring in the diet have died by other causes, such as disease, and then scavenged by the eagles. There have been many reintroductions of white-tailed eagles across Europe and in the United Kingdom. White-tailed eagles have been reintroduced both in Ireland



and on the Isle of Wight and as yet there have been no reported livestock kills by the reintroduced birds. It is unclear why lamb killing appears to be more prevalent in Scotland than elsewhere in the eagle's range and what specific factors are contributing to this issue. The Cumbrian White-Tailed Eagle Project is seeking to listen to the views of sheep farmers to understand how eagles and livestock farming could live alongside each other in the Cumbrian landscape.

ⁱ See Cumbrian White-Tailed Eagle Project Diet document

ⁱⁱ Marquiss, M., Madders, M., Irvine, J. & Carss, D.N. 2003. The Impact of White-tailed Eagles on Sheep Farming on Mull. Final report to The Scottish Executive Rural Affairs Department on contract ITE/004/99. Scottish Executive. Edinburgh.

ⁱⁱⁱ Reid, R., Grant, J.R., Broad, R.A., Carss, D.N. and Marquiss, M., 2023. The breeding season diet of White-tailed Eagles in Scotland. *Scottish Birds*, 43, 305-318.