

White Tailed Eagle reintroduction to the Isle of Wight Feasibility Study: Review

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Introduction

When reintroducing an extirpated species back into its natural habitat there are many factors that need to be considered. Species reintroduction can be an expensive and time consuming practice and so any factors that can hinder this effort must be identified. In order to identify any potential risks to the species, a habitat feasibility study must be completed. A feasibility study is essential for assessing whether a reintroduction can go ahead by assessing a number of factors such as habitat suitability, available food sources, socioeconomic impacts and most crucially, has the reason for the original extinction been removed. The feasibility study that will be looked at in this report was created by the Roy Dennis Wildlife Foundation and The Forestry Commission England and looks at the feasibility of reintroducing White Tailed Eagles to the isle of white. The study covers a variety of subjects from the viability of the habitat on the isle of white too the socioeconomic risks and impacts of reintroducing the eagles. Since the release of the feasibility study, 45 young birds were released into the intended habitat with several of these pairs establishing their own territories. As of 2023, the first chick was hatched due to this project which was the first chick born in England for over 240 years (Dennis, 2025).

Food Sources and Availability

White Tailed Eagles are generalist predators that will feed on a diverse range of food depending on the time of year. In Europe they feed on a variety of prey, most commonly fish and water fowl with occasional mammals depending on local food availability. Their favoured prey is fish particularly from shallow waters when available (Dennis, 2024). The Isle of Wight feasibility study demonstrates the abundance of fish sources around the island within the shallow estuaries including a variety of species of Grey Mullet. This data was collected from the Inshore Fisheries and Conservation Authority which is an organisation that aims to promote sustainable fishing practices and coastal conservation. However while it was cited in the study it was not located in the reference list. The data demonstrates a clear and seasonally abundant source of fish which is ideal for the White Tailed Eagles natural diet. Another of the White Tailed Eagles main food sources which is also predominantly preyed on in the winter is waterbirds due to the difficulty in catching fish during the colder months of the year (Nadjafzadeh, Hofer and Krone, 2015). This means that when assessing the feasibility of reintroducing WTE, there needs to be an abundance of water birds readily available. The feasibility study identifies a large list of potential sea birds which would be ideal food sources for wintering birds including a range of geese species and Dunlin which are the most common. The list of local bird species is from The Wetland Bird Survey which monitors the UKs wintering waterbird populations. The feasibility study also notes that most WTE will selectively predate on sick, injured, dying and even dead birds as they are easier to catch and hunt. Similar to other raptors, by doing this they can help promote healthy prey populations by primarily predating on sick or weak individuals (O'Bryan et al., 2022).

Habitat Based Morality Risks

One of the key factors when evaluating whether a habitat is suitable for a species reintroduction is to assess the reason for its extirpation. In the case of White Tailed Eagles in the UK it was mainly due to human persecution and hunting. This began in the middle ages but intensified into the 18th century where the last known breeding pair were identified in 1780 (Love, 2006). Since then the species has undergone a drastic change in public perception with a recent poll suggesting the 93% of people asked are in favour of the reintroduction on the Isle of Wight (Dunn, 2022). The White Tailed Eagles was placed under schedule 1 of the Wildlife and Countryside Act 1981, (UK Government, 1981) which the feasibility study highlights. This means that it is a criminal offence to knowingly cause harm to the bird, its eggs or its nest. The study does also discuss the importance of opening discussions with local people who may be negatively effected by the reintroduction such as farmers with livestock, game hunters and anglers.

One notable point that could have been expanded upon in the study is the risk of lead poisoning through bioaccumulation. Game hunting for birds is a very popular activity on the Isle of Wight with a number of organisations offering hunting trips. It has been proven that birds of prey often fall victim to lead poisoning through consuming birds recently shot with lead ammunition from game hunters which is exasperated by bioaccumulation (Green, Pain and Krone, 2022; Pain, Cromie and Green, 2014). This could be worsened by the fact that White Tailed Eagles rely on carrion during the winter months, when game hunting is very common (UK Government, 2014). While it is in the risk assessment in appendix 11 it may be worth discussing in more detail in the feasibility study.

Conclusion

The feasibility study looks at a variety of factors that will affect the survivability of translocated individuals. Great care was taken to identify the habitats required by the White Tailed Eagle including food sources throughout all seasons including shallow water fish, waterfowl and carrion as well as how the species would reintegrate back into the local food web. It also identified through a land cover analysis that there are ample coniferous and deciduous woodlands which the birds need to nest, travel and perch for hunting. The reason for its extinction from the UK was identified as human persecution which it has demonstrated as no longer an imminent threat but still emphasises the need for stake holder engagement with parties that may still be negatively affected by the eagles. The study however could have expanded on the threat that lead poisoning may cause the eagle from consuming carrion shot by game hunters on the isle.

Nesting Sites

Another essential aspect of identifying the feasibility of any kind of bird reintroduction is whether there is suitable nesting sites available. It identified from previous studies of reintroduced eagles in Scotland that while they can nest on cliffs, large trees near water sources are preferred (EVANS et al., 2009). White tailed eagles do not typically have a preference to a specific type of tree with both coniferous and deciduous trees used, the important factor is the hight of the trees (Zawadzki et al., 2020). Using this information a land cover analysis of the Isle of Wight identified a number of appropriate nesting sites that could be utilised by breeding pairs, including a range of sites from cliff tops sites to coniferous and deciduous woodlands. This provides evidence of feasible nesting sites that would allow the eagles prime habitat to create nests in order to breed as well as perch in order survey the land while hunting for food.

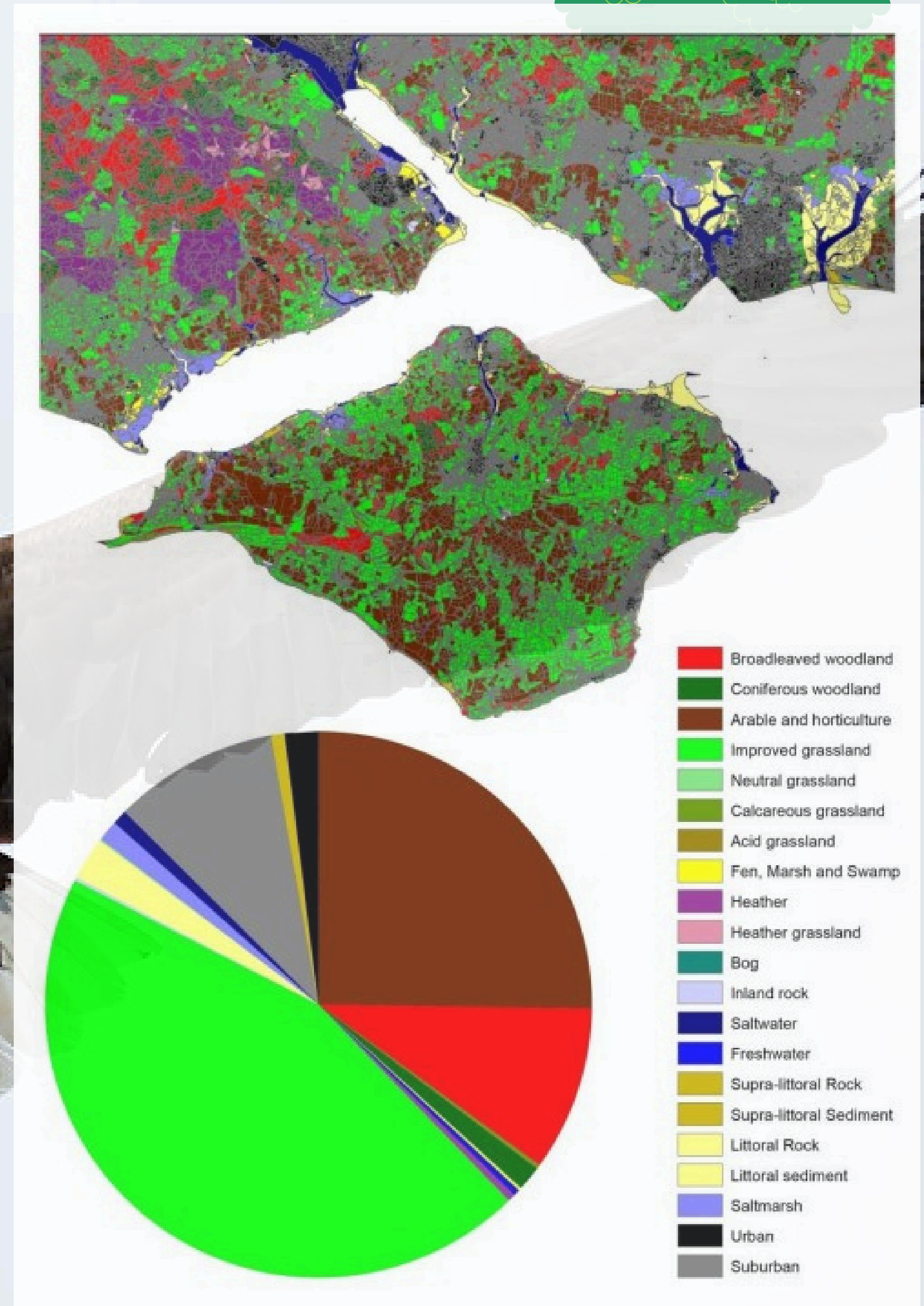
Harvesting and Translocation

It is important when harvesting chicks for translocation to select the correct chicks to give them the greatest chance of establishing a viable population. One key factor is genetic variation in order to minimise the chances of disease. The study chooses to source the chicks from the Scottish population as it has no known hereditary issues. It also sources them from a maximum number of nests in order to promote genetic diversity. The translocation of individuals can cause stress so study considers a number of factors such as the age of the chicks when harvesting, the health and size and the optimum storage and translocation methods as these have a big impact on the survivability of the birds.

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Land Cover Analysis of the Isle of White (Dennis et al., 2019)