The translocation of White-tailed Eagles into Norfolk

Some reflections on a proposal to reintroduce the species in Norfolk

The White-tailed Eagle, or Sea Eagle, is a magnificent bird but it is not a priority species for conservation. In Europe it is increasing and expanding its range and has a breeding population of around 15,000 pairs. Nevertheless, White-tailed Eagles have repeatedly been the subject of proposals for drastic conservation measures involving the translocation of young birds removed from other populations and released in England. The latest of these proposals involves releasing up to 60 birds in Norfolk, a project that is a partnership between Wild Ken Hill and the Roy Dennis Wildlife Foundation.



White-tailed Eagle

IUCN guidelines for translocations

Any attempt to intentionally move wild animals from one location and release them into another carries a significant environmental risk. All relevant statutory bodies and conservation organisations profess to adhere to a set of international guidelines (the IUCN guidelines) that have been drawn up to help assess this risk and inform decisions about such translocations.

In this document I argue that the proposal to translocate White-tailed Eagles and release them in Norfolk does not adhere to these guidelines for the following reasons, and should be abandoned.

White-tailed Eagle is not a conservation priority:

- Globally, the White-tailed Eagle is categorised as "Least Concern" and therefore is **not a conservation priority**.
- The European population is thriving recently described as showing "one of the highest recorded change indices for any native species in Europe."
- White-tailed Eagle is **not a priority species** in the UK Biodiversity Action Plan.
- White-tailed Eagle does appear on the last published Birds of Conservation Concern red list but following successful conservation interventions it **no longer meets the criteria** for being on that red list. It **never** met the criteria when looking at England in isolation.
- A claim that reintroducing White-tailed Eagles carries out the Government's targets in its 25-year

Environment Plan is inaccurate – this Plan includes **no such target** and in fact specifies that its initial actions are to develop and publish a code and guidance to govern such projects, actions that do not yet appear to have been completed.

The proposed release site may not be within White-tailed Eagle's indigenous breeding range:

- White-tailed Eagle is known to have formerly bred in Scotland and the Isle of Wight, and it likely bred
 in NW England, elsewhere on the south coast of England and perhaps also in a band through west and
 central England.
- It has been argued that evidence from place names, archaeology and literature indicates a more
 widespread presence of White-tailed Eagles, including in East Anglia. Much of this evidence is
 questionable, and at best it does not indicate that White-tailed Eagles ever bred in East Anglia.
- Indeed, the relative scarcity of such evidence in East Anglia is unexpected if White-tailed Eagles did formerly breed in East Anglia, especially if they did so since the Anglo-Saxon era.

The natural colonisation potential for White-tailed Eagles in Norfolk is strong:

- Those proposing White-tailed Eagle reintroduction projects have not argued that White-tailed Eagles will not colonise naturally, but that they will not do so quickly. In fact, natural recolonisation in Europe is taking place rapidly.
- Recolonisation of White-tailed Eagles resulting from reintroductions in Britain and Ireland is not much faster than it has been without such interventions in Europe.
- White-tailed Eagles are occurring in Norfolk with **increasing frequency** and recent records have included a number of **adults** during the species' egg-laying season.
- Any conservation benefit derived from translocating White-tailed Eagle is limited to the time after
 colonisation takes place and up to the time that colonisation would have happened without the
 intervention. The duration of any conservation benefit will be short.

The reasons for their decline are not fully understood, and those that are known continue:

- Persecution was the reason for White-tailed Eagle's extinction from its most recent alreadycontracted range. Eagles continue to be subject to illegal persecution and there have been numerous recent cases of illegal persecution of raptors close to the proposed release site.
- If White-tailed Eagles did ever breed across the whole of lowland England then **persecution was not** the reason for its extinction from East Anglia.
- The reasons for its (theoretical) extinction from East Anglia are **not well understood**, and if (as seems likely) they were related to loss of habitat, then the habitats that were lost have **not been restored**.

Some of the risks associated with translocating White-tailed Eagles to Norfolk are played down:

- The presence of translocated White-tailed Eagles in NW Norfolk could have a **negative impact** on several species that are of much **greater conservation concern**. Impact through predation may be relatively minor but impact through **disturbance** has greater potential to cause real problems.
- Potential risks to gamebirds, livestock and other human interests may be less significant, but
 nevertheless real. Of greater concern to the conservationist is the impact on perceptions among
 those who have interests in these areas. Hostility towards raptors is already a problem in some
 quarters and is one of the greatest threats to UK raptor populations.

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Introduction

The White-tailed Eagle, or Sea Eagle (Haliaeetus albicilla) is a magnificent bird, the UK's largest bird of prey with a wingspan of over two metres. It currently has a large natural breeding range extending from Greenland and western Europe east to the far north east of Russia. The International Union for Conservation of Nature (IUCN) categorise the species as "Least Concern" which means it has been evaluated as **not** being a focus of species conservation.

In 2005 Phil Grice published a paper outlining the feasibility and benefits of "reintroducing" White-tailed Eagles to East Anglia and seeking support for this project. Over the next few years this project gained momentum and support, as well as opposition and conflict. Eventually in 2010, the project was axed, reportedly due to financial constraints.

A new proposal to "reintroduce" White-tailed Eagles to Norfolk has been publicised and put out for consultation in January 2021. The proposal is being spearheaded by the Roy Dennis Wildlife Foundation in partnership with Wild Ken Hill.

Many people, including a high proportion of those I am in contact with within the birdwatching community, are strongly opposed to this proposal. In some cases they see it as a low priority, a distraction from more important conservation work, or a vanity project. Some think that it is nevertheless harmless and take a relatively laissez-faire attitude towards it. In this document I outline my opposition to this proposal, a proposal which I believe is not only misguided and contravening well-established conservation principles and guidelines but is also potentially harmful and conflicting with higher priority conservation initiatives.

Of course there are many people in support of the proposals too. But this is hardly surprising – White-tailed Eagles are fantastic birds that most people would enjoy seeing. If the proposal is

presented as being overwhelmingly positive with no significant downside, why wouldn't they support it if they don't know any better? The reality is that it is not overwhelmingly positive and there is a significant downside.

Translocations and the need for caution

White-tailed Eagles are fantastic birds so on the surface, bringing them back to Norfolk sounds like a wonderful idea. But it isn't as simple as that. Intentionally taking birds from one location and releasing them into the wild in another location is not something that should be taken lightly, and no mainstream conservation organisation would advocate doing so without the greatest of care. There have been countless examples where well-meaning individuals, teams or organisations have intentionally moved birds or other animals (or plants) from one location to another location and it has caused catastrophic damage to the new environment and/or its wildlife. Nevertheless there is sometimes a compelling conservation argument in favour of translocation – indeed in some cases it can be the only way to save a species from extinction.

The IUCN guidelines

To help conservationists and decision-makers assess the risks of a translocation programme there is a set of guidelines governing all types of intentional translocation. These guidelines have been drawn up by the International Union for Conservation of Nature (IUCN). The IUCN comprises more than 1,400 member organisations and draws on the input of more than 17,000 experts¹. The IUCN Guidelines for Reintroductions and Other Translocations² should underpin any proposal for reintroduction or other translocation, and I am not aware of any mainstream conservation organisation that would not profess to adhere to these guidelines, and they have been adopted by the statutory conservation bodies (e.g. Natural England) and most voluntary groups (e.g. RSPB) in Britain³.

It is probably safe to assume that any request for a licence to translocate White-tailed Eagles into Norfolk will claim to be adhering to the IUCN guidelines, and would be unlikely to be approved if it did not do so. Certainly the feasibility report for the project to reintroduce White-tailed Eagles to the Isle of Wight⁴ (which, like the current proposal, was jointly spearheaded by the Roy Dennis Wildlife Foundation) claimed:

"All responsible reintroduction and recovery projects should meet the Guidelines for Reintroductions and other Conservation Translocations developed by the International Union for the Conservation of Nature (IUCN) and we believe that this project meets all of the criteria required of a conservation translocation aiming to reintroduce a species within its indigenous range."

² https://portals.iucn.org/library/sites/library/files/documents/2013-009.pdf

¹ Source: https://www.iucn.org/about

³ Source: The role of reintroductions in conserving British birds by Ian Carter, Peter Newbery, Phil Grice and Julian Hughes (*British Birds* 101: 2-25, 2008) https://britishbirds.co.uk/sites/default/files/V101 N1 2 25.pdf

⁴ https://www.roydennis.org/o/wp-content/uploads/2019/05/Isle-of-Wight-WTE-feasibility-April-2019.pdf

In this document I argue that the proposal to translocate White-tailed Eagles to Norfolk **does not** adhere to the IUCN Guidelines.

Have reintroductions become less demanding of caution than in the past?

In his recent British Birds paper⁵, Ian Newton writes, "Reintroductions can now be regarded as forming a key component of conservation practice – a procedure to be set alongside other conservation measures such as habitat restoration, establishment of nature reserves, enactment of protective legislation and advocacy work, all the things that conservation bodies do as routine." Now this was written in what was essentially an 'opinion' piece ("a personal perspective" was in the title) but Ian is a long-standing, highly respected and influential conservationist. So are we really to take reintroductions as routine, just like any other conservation procedure now? Certainly much has been learnt about the effectiveness of reintroductions, how to improve their chances of success and how to manage the risks, but are they really – and should they really – be considered routine now?

In this article Ian Newton refers to conservationists who "regard reintroductions as risky and expensive, wasting money that could be better spent on other ways." Sadly Ian does not address these conservationists' concerns but instead quite rudely dismisses those who hold them by describing them as merely "people who view themselves as conservationists". It is abundantly clear from the IUCN guidelines that translocations are risky and that these risks need assessing and managing appropriately, so it is disappointing to see a conservationist of Ian Newton's reputation dismissing these risks and the conservationists who recognise them.

There certainly does seem to be an increasing number of reintroduction schemes in recent years, and these have varied from those with a clearly justified conservation imperative to some which, in my opinion and the opinions of many people I discuss them with, are little more than PR exercises or vanity projects.

So while it does appear that some people involved in conservation are treating reintroductions less critically and less carefully than in the past, I see absolutely no conservation-based merit for doing so, no other justification for doing so, and no formal recognition (e.g. in the IUCN guidelines) that this should be the case.

Best practice in the UK

The Government's 25-year Environment Plan launched in 2018⁶ includes actions to develop and publish a code and best practice guidance for assessing the merits and risks of species reintroduction projects, and that this should sit alongside existing international guidelines to inform future decisions on reintroduction projects. These actions appear not to have been completed so it is not possible to assess this proposal against it.

⁵ The reintroduction of White-tailed Eagles to Britain: a personal perspective (Ian Newton, 2021) *British Birds* 114: 18-26

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

Conservation priority of White-tailed Eagle

White-tailed Eagle's global range extends from Greenland and western Europe east to the far east of Russia, and throughout most of this range it enjoys a healthy population. Following a massive decline in its European population it is now bouncing back and there are around 15,000 pairs breeding in Europe. Similarly in the UK, following extinction in the early nineteenth century, its population is now re-established and growing, with over 130 pairs.

Conservation priority in the IUCN guidelines

A conservation benefit is an underlying assumption for translocations governed by the IUCN guidelines. After defining a conservation translocation, the guidelines begin, "It must be intended to yield a measurable conservation benefit at the levels of a population, species or ecosystem." Therefore establishing that the population, species or ecosystem targeted by the proposed translocation is indeed of a **conservation priority is a fundamental first stage** of assessing the proposal against the guidelines.

Global conservation status of White-tailed Eagle

The IUCN Red List is critical indicator of the health of the world's biodiversity⁷ and is used across the world by government agencies, conservation NGOs and other organisations to inform policy and decision-making in relation to conservation and species protection. Each species that has been evaluated and for which there is enough data to assess has been allocated to one of seven categories: extinct, extinct in the wild, three "threatened" categories of varying severity, near threatened and finally "Least Concern", which is where White-tailed Eagle is placed. Therefore globally-speaking, White-tailed Eagle is in the **very lowest possible category** of extinction risk and is a **low priority** for conservation action.

European conservation status of White-tailed Eagle

White-tailed Eagle populations in Europe declined dramatically between 1800 and 1970 but since then they have seen a massive reversal of fortunes. The new European Breeding Bird Atlas 2⁸ says, "Legal protection of White-tailed Sea-eagles and their nests and the ban of DDT and other harmful chemicals since the 1970s have resulted in recovery, recolonisation and expansion, with population trends continuing to be positive to-date in nearly all countries in Europe." It goes on to point out that the change maps (between the two census periods approximately 30 years apart) show "one of the highest recorded change indices for any native species in Europe." It puts the European

⁷ Source: https://www.iucnredlist.org/about/background-history

⁸ European Breeding Bird Atlas 2 by Verena Keller, Sergi Herrando, Petr Voříšek, et al. published by European Bird Census Council and Lynx Edicions in 2020

population estimate at around 10,000 pairs in 2010-12 but suggests that due to continued increases since then it will "likely soon exceed 15,000 pairs, if it has not yet done so."

UK conservation status of White-tailed Eagle – the red list

For the UK specifically, there is another "red list". The latest Birds of Conservation Concern publication reviews the status of 244 UK bird species based on assessment criteria that include conservation status at global, European and UK levels along historical decline, trends in population and range, rarity, localised distribution and international importance. The publication assigns each species to one of three lists, the red list being the one of highest conservation concern. The fourth and latest iteration of this list was published in December 2015⁹.

The presence of White-tailed Eagle on this red list is used to justify its treatment as a conservation priority in the UK, but this needs challenging. The criterion used to place White-tailed Eagle on this list is "Historical Decline in Breeding Populations (HD)", that is to say, "Species judged to have declined severely between 1800 and 1995... and which have not recovered subsequently." There is no doubt that White-tailed Eagle declined severely in the UK as a whole between 1800 and 1995 (although not in England, see next paragraph), but the question of whether it has recovered subsequently is worth exploring. The criteria applied for subsequent recovery are that it should have doubled its population size in the last 25 years and that it should have exceeded 100 breeding pairs – if these criteria are met then it should be moved off the red list. The latest review says it uses Rare Breeding Birds Panel data for up to 2012, and within the 25 years up to 2012 the population had (much more than) doubled its size but because by then it had not exceeded 100 breeding pairs, the species remained on the red list. Bringing this up to date, White-tailed Eagle has (still) doubled its population size within the last 25 years and (as detailed above) now exceeds 100 pairs. Therefore, although no revised list has been published, if the red list was to be revised using the same criteria, White-tailed Eagle would be relegated (or should that be promoted?) to the amber list (and looking set to being moved to the green list in coming years).

It is worth noting that if the red list were broken down by nation then an English red list would never have included White-tailed Eagle at all. The criterion for including it in the UK red list was that it had declined severely between 1800 and 1995, but as it was already extinct in England by 1800 it did not decline in England at all during this period, and thus would not have met the criteria for inclusion in an English red list.

UK conservation status of White-tailed Eagle – the UK Biodiversity Action Plan

There is another source that can be used to determine conservation priorities in the UK. The UK Government's response to the Convention on Biological Diversity, which the UK signed up to in 1992 in Rio de Janeiro, was the UK Biodiversity Action Plan (UK BAP) published by the Joint Nature Conservation Committee (JNCC) in 1994¹⁰. A key component to this plan is the list of priority species

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⁹ http://britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf

¹⁰ https://jncc.gov.uk/our-work/uk-bap/

and habitats which were updated in 2007 following review. The species list includes 59 birds¹¹, the majority of which regularly breed or winter in Norfolk and so should be considered priorities for conservation in Norfolk. **White-tailed Eagle does not appear on this list**.

UK conservation status of White-tailed Eagle - the Government's 25-year Environment Plan

The feasibility report for the current reintroduction programme in the Isle of Wight claims that the Government's 25-year Environment Plan¹² launched in 2018, "identified the White-tailed Eagle as a species of interest for recovery". It goes on, "This project aims to carry out that Government target." The plan does indeed mention White-tailed Eagle as an example of a species lost from England, and it does so in the context of reintroductions. However, the feasibility report is misleading to have described recovering the species as a Government target.

Pages 23-30 of the Environment Plan cover the plan's goals and targets, and the relevant one is, "Taking action to recover threatened, iconic or economically important species of animals..., and where possible to prevent human-induced extinction or loss of known threatened species." Of course it could legitimately be argued that reintroducing White-tailed to England is one way of *achieving* this target, but it is incorrect to imply that this is the target itself.

Now that may seem like a pedantic distinction, but importantly the plan also lists a large number of actions which detail how the Government intends to achieve the goals and targets, and the actions relevant to reintroductions (the only section of the plan where White-tailed Eagles are mentioned) are:

- "Developing and consulting in 2018/19 on a code and best practice guidance for assessing
 the merits and risks of species reintroduction projects, taking account of their contribution
 to global and domestic conservation priorities, community engagement and wider social and
 economic impacts.
- Publishing the code and guidance to sit alongside existing international guidelines to inform future funding and consenting decisions on reintroduction projects."

So, neither the plan's goals and targets, nor the plan's actions for achieving those goals and targets, involve reintroducing White-tailed Eagles. On the contrary, the next steps in the plan are developing and publishing a code and guidance to sit alongside the existing international guidelines to inform future decisions on such projects. I cannot find any sign that the code and guidance has been published yet (I have asked, but not yet received a response) and therefore while it may be argued that it is right to go ahead with a reintroduction ahead of this publication *for other reasons*, it is **premature** to use this Environment Plan *as a basis* for going ahead with a reintroduction project.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

¹¹ https://data.jncc.gov.uk/data/98fb6dab-13ae-470d-884b-7816afce42d4/UKBAP-priority-birds.pdf

The indigenous range of White-tailed Eagle

A basic requirement for any reintroduction is to establish that the proposed release site is within the species' indigenous range. If it is not, then the translocation would be an **introduction** and not a reintroduction. A further requirement is that the species has been lost from its indigenous range – if not then it is a **reinforcement** and not a reintroduction.

White-tailed Eagle's range in Scotland

Prior to the nineteenth century it is believed that White-tailed Eagle was widespread in Scotland. In the nineteenth century its range was more restricted, concentrated on the northern isles, the Highlands and the west coast (including the Hebrides). White-tailed Eagles became extinct as a breeding bird in the UK in the early twentieth century with the last breeding record being in Scotland in 1916 and the last individual shot there in 1918¹³.

A reintroduction programme beginning in 1975 resulted in the re-establishment of a breeding population of White-tailed Eagles in the Inner Hebrides. Since then further releases have taken place elsewhere in Scotland. The population in Scotland has continued to prosper and according to the Rare Breeding Birds Panel's 2018 report on rare breeding birds in the UK¹⁴ there were 88 confirmed pairs breeding in Scotland in 2018 fledging 95 young, as well as an additional 33 probable or possible breeding pairs (121 pairs in total). According to the Roy Dennis Wildlife Foundation which probably has more up to date information, there are over 130 breeding pairs of White-tailed Eagles in Scotland¹⁵.

White-tailed Eagle's range in England

According to the RSPB website¹⁶ White-tailed Eagle once bred in England, but it does not say how often or how extensively. It does say that it had already disappeared from England by 1800. In his book on Sea Eagles¹⁷, Love provides more information, claiming that a pair that was known to nest on the Isle of Wight in 1780 and that several were known in the Lake District until the 1830s. Although the context might be taken to suggest that the Lake District birds were breeding, unlike his references to birds on the Isle of Wight and the Isle of Man which he explicitly says were nesting, Love only says birds were "known" in the Lake District. Any suggestion that they bred there until the 1830s is contrary to the statement on the RSPB website that says they had disappeared (as a breeding bird) from England by 1800.

The feasibility report for the project to reintroduce White-tailed Eagles to the Isle of Wight¹⁸ states that "the species likely bred across the whole of the south coast, from Cornwall to Kent." There is

¹³ Source: Sea Eagles Naturally Scottish by John Love (published by Scottish Natural Heritage in 2006)

¹⁴ Rare breeding birds in the UK in 2018 by Mark Eaton, Mark Holling and the Rare Breeding Birds Panel (*British Birds* 113: 737-791)

¹⁵ https://www.roydennis.org/isleofwight/

¹⁶ https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/white-tailed-eagle/population-trends/

¹⁷ Sea Eagles Naturally Scottish by John Love (published by Scottish Natural Heritage in 2006)

¹⁸ https://www.roydennis.org/o/wp-content/uploads/2019/05/Isle-of-Wight-WTE-feasibility-April-2019.pdf

some evidence that White-tailed Eagles occurred more widely in England prior to 1800, but there is considerable doubt about the extent of their historic *breeding* range in England. I will return to this question in more depth later.

Since their extinction as a breeding bird in England, White-tailed Eagles from the Continent continued to visit England. Such records have become more frequent in recent years. In addition, six White-tailed Eagles were translocated to the Isle of Wight and released there in 2019, the first in a programme that could see up to 60 eagles released there over five years.

The status of White-tailed Eagle in Norfolk

The Birds of Norfolk (1999)¹⁹ makes absolutely no mention of White-tailed Eagle ever having bred in Norfolk and I am not aware of any evidence that firmly establishes that they have done (although there is reported to be evidence that they may have done, which I will deal with in the next sections).

White-tailed Eagles used to visit Norfolk more frequently but in line with declines in Europe records were scarce during most of the twentieth century – around 19 records from 1900 to 1980. White-tailed Eagles visiting from the Continent have increased significantly in recent years. There were 11 records of the species in Norfolk in 30 years from 1980 to 2010 (including four in 1990) and the last decade has seen a considerable upturn with 15 records between 2011 and 2019²⁰ (plus another three records so far accepted for 2020²¹). The provenance of some of the recent birds is unclear – some are suspected to have involved birds wandering from the reintroduction scheme in Scotland and at least one satellite-tracked individual from the Isle of Wight was recorded in Norfolk in 2020.

Evidence of the presence of White-tailed Eagles from place names

A 2012 paper published in Bird Study²² attempted to establish the historical range of both White-tailed and Golden Eagles in Britain by analysing place names. This study found that there were place names throughout much of the UK which contained references to eagles, and argued that for lowland England these related exclusively to White-tailed Eagles (after excluding those which the authors felt were unlikely to indicate presence of eagles at all). The authors acknowledge that, "Attempts to reconstruct historical ranges of species inevitably involve much speculation", that "studies of this type have many possible sources of error" and that their "results are inevitably an oversimplification of a complex historical reality" but they argue that the *general patterns* make biological sense and are a sound interpretation of the available data.

²¹ Source: work in progress file from the Norfolk Birds Records Committee https://norfolkbirds.weebly.com/uploads/1/3/0/2/13028371/wip 18 jan 21.xlsx

¹⁹ The Birds of Norfolk by Moss Taylor, Michael Seago, Peter Allard & Don Dorling, published by Pica Press in

²⁰ Source: Norfolk Bird & Mammal Reports up to 2019

²² The history of eagles in Britain and Ireland: an ecological review of placename and documentary evidence from the last 1500 years by Richard J Evans, Lorcán O'Toole and D Philip Whitfield (Bird Study 59, 2012) https://www.tandfonline.com/doi/full/10.1080/00063657.2012.683388

One thing is notable from the data presented in this study, and that is the relative absence of placenames indicating presence of eagles in eastern England, particularly in East Anglia and south of the Humber. Indeed in Norfolk there is just a single placename said to indicate the presence of White-tailed Eagle, Erneford in Holme Hale (TG8707) (Erne meaning White-tailed Eagle). So, what do we know about Erneford? Well this datapoint in the study is based on a placename shown in the Ordnance Survey 1:50,000 Gazetteer. Now, it may be different on other editions of this gazetteer, but the two editions I have access to actually mention Erneford House rather than simply Erneford. Of course, Erneford House may be so named because it was in a place known as Erneford, and indeed there is a stream running past, so presence of a ford there seems likely. Indeed, another map also refers to Erneford Bridge (adjacent to the house). However, if we investigate this a bit further we find that Erneford House, built around 1700, was originally known as Handford House²³. Faden's map of Norfolk was published in 1797 (after which I don't think anyone is making any claim that White-tailed Eagle bred in Norfolk) and on that map there is no mention of Erneford, but the house is shown as Handford House²⁴. So, it was some time after White-tailed Eagles are speculated to have bred in Norfolk that the house changed its name to incorporate Erne, which casts a significant doubt on the notion that this name indicates the presence of (at least breeding) Whitetailed Eagles.

Perhaps further investigations will reveal that the place where Handford House stood was in fact already known as Erneford (rather than Handford) before the house changed its name to Erneford. But based on the data I have managed to find (including the data cited in the study that made this assumption) I have been unable to find any convincing evidence that the placename Erneford existed in Norfolk at a time when White-tailed Eagles might possibly have bred here. Even if it does prove to be the case that Erneford was so-named while breeding White-tailed Eagles were still extant in England, a single isolated instance does not prove White-tailed Eagles were present here, let alone that they bred here.

There are numerous place names indicating presence of White-tailed Eagle in locations where we know White-tailed Eagles bred (including north-west England and the south coast) and a scarcity of place names indicating presence of White-tailed Eagles in locations where we don't know White-tailed Eagles bred, except in a band through west/central England connecting north-west England and the south coast. Other explanations are possible, but it seems to me by far the most obvious explanation is that White-tailed Eagles didn't ever breed in the areas where there are very few place names indicating their presence. The occasional place name within this region that appears to indicate presence of White-tailed Eagles may not actually exist because of the presence of White-tailed Eagles or else they may indicate presence of non-breeding White-tailed Eagles.

Evidence of the presence of White-tailed Eagles from archaeology

In a recent exchange on Twitter, Nick Acheson referred to "abundant archaeological evidence of [White-tailed Eagle] across the British Isles, including bones from Roman sites in Essex and Lincolnshire" and Alex Prendergast mentioned that until the 1700s it was known as "Fen Eagle" in

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²³ Source: http://www.heritage.norfolk.gov.uk/record-details?MNF23014-Erneford-House-(formerly-Handford-House)&Index=21866&RecordCount=57338&SessionID=a53dd52b-38d1-47e4-a6f6-5c865b20f44e

²⁴ http://www.fadensmapofnorfolk.co.uk/mapBrowser.asp

west Norfolk which suggests it was at least a regular visitor, and that local fossil evidence is well established, again suggesting it was reasonably frequent.

John Williamson also made an interesting point about bone finds, pointing out that eagles were of great significance in Roman culture and "the very symbol of their military presence" so argues that without knowing the circumstances of their discovery there must be doubt over any eagle bones from Roman sites being of non-captive origin.

In researching this document I came across an email exchange from 2008 that I had forgotten about, but which may throw some more light on this situation. Julie Curl provided me then with some information that backs up and expands on Nick's comment above, saying, "I work in zooarchaeology and have found specimens of this bird in Norfolk myself and aware of others, as well as documentary evidence; all findings suggest this bird was here for at least two thousand years, until around the 17th century." She subsequently acknowledged that the bones she had found could have come from visiting birds, but added, "Eagles were certainly worshiped by the Romans and Saxons and one would assume they were familiar with them to do so, so residency is assumed." I am not so sure that familiarity necessarily points to residency – surely it is equally possible that familiarity was gained from frequent over-wintering (and perhaps also over-summering of immature non-breeding birds too)? Some familiarity with the species is suggested by accounts of the species' occurrence in Norfolk in the nineteenth century when we know it was only an occasional non-breeding visitor but was on at least two occasions taken alive and kept in captivity (once for 16 years²⁵ and another for an unspecified number of years during which it reached maturity²⁶).

The Isle of Wight reintroduction project feasibility report claims that the archaeological evidence is "conclusive" in indicating a widespread distribution throughout southern England. Interestingly it does so in the very next sentence after citing the place names study²⁷, which considered the very opposite, that archaeological evidence was **not conclusive** in indicating the species' distribution. The authors of that study chose to exclude archaeological records partly "because of the likelihood that eagle remains may have been transported to their final location by humans, either incidentally or deliberately."

So, while there may be some archaeological evidence that White-tailed Eagles once existed in East Anglia, it is not clear whether this definitely indicated their natural distribution, and even if it did, this does not imply that the species ever *bred* in East Anglia.

Evidence of the presence of White-tailed Eagles from literature

In the above-mentioned correspondence with Julie Curl, Julie offered one more snippet of information which, at face value, appeared to be the strongest evidence that I had seen yet that White-tailed Eagles did actually breed in Norfolk. She mentioned that, "The records of Sir Thomas Browne in the 17th century mention the [White-tailed Eagle] breeding here." I didn't follow this up

²⁵ Additional Norfolk Records of White-tailed Eagle by Peter Allard, published in the Norfolk Bird & Mammal Report 2011

²⁶ Source: The Birds of Norfolk by Moss Taylor, Michael Seago, Peter Allard & Don Dorling, published by Pica Press in 1999

²⁷ https://www.tandfonline.com/doi/full/10.1080/00063657.2012.683388

at the time, but I am wondering now what exactly did Sir Thomas Browne say, and where exactly is "here"?

Thomas Browne was born in Cheshire in 1605, was educated at Winchester College, Oxford University and Leiden (Netherlands), then spent a few years near Halifax before settling in Norwich in 1637²⁸. So he was clearly well-travelled and his writings could have drawn on experience at any of these locations. It is also clear that many of his writings are based on research rather than his own experience (for example his essay debunking the myth that the Ostrich digests iron²⁹). I haven't had time to read through all of Thomas Browne's literary works but have scanned a few titles and looked at some that I thought might mention eagles breeding. The only one I've come across so far is an essay debunking the myth that rubbing a stone retrieved from an eagle's nest on one's pregnant body might promote the child's delivery or prevent its abortion³⁰. There may be more pertinent references, but I've not come across anything yet that points to eagles breeding in Norfolk.

Indeed Stevenson in The Birds of Norfolk (1866)³¹ seems to have drawn the very opposite conclusion from Thomas Browne's writings for he writes, "Sir Thomas Browne also, writing some two hundred years ago, speaks of the not unusual appearance of 'the *Haliaeetus* or Fen Eagles'". The "not unusual appearance" hardly suggests that he thought the species was a breeding resident in Norfolk and sounds much more like it was merely a regular visitor to the county (as it is again today, or perhaps more so).

In 1899, W A Nicholson wrote an extensive and thorough account titled "Sir Thomas Browne as a Naturalist" in the Transactions of the Norfolk and Norwich Naturalists' Society³². In this account, Nicholson concludes that in Browne's time, White-tailed Eagle was, "A species of almost annual occurrence in autumn and winter, though always immature." So it appears that at least by the seventeenth century, White-tailed Eagle's status in Norfolk was rather similar to its status here at the end of the twentieth century (since when it has increased further).

It is worth remembering that not every historic mention of eagles necessarily related to White-tailed Eagle, or indeed any eagle. For example Peter Allard writes of how one report of an eagle in 1830 probably related to an Osprey³³ (and even in contemporary times I have heard people refer to Ospreys as eagles). Also we might be tempted to think that literary mentions of eyries relate to eagle nests, as this is how the term is most often used today. At least one mention in Thomas Browne's writings (the reference for which I can't now locate) mentioned an eyrie but was explicitly referring to a hawk's nest (despite mention of eagles elsewhere in the same paragraph).

²⁸ https://www.sirthomasbrowne.org.uk/his-life.html

²⁹ http://penelope.uchicago.edu/pseudodoxia/pseudo322.html

³⁰ http://penelope.uchicago.edu/pseudodoxia/pseudo25.html#eaglestone

³¹ The Birds of Norfolk Vol 1 by Henry Stevenson (1866) as quoted in Birds New to Norfolk by Keith Dye, Mick Fiszer and Peter Allard, published by Wren in 2009

³² https://norfolknaturalists.org.uk/wp/wp-content/uploads/2017/02/Transactions-1899-1900-transactionsofno7189norf page 005-148.pdf

³³ Additional Norfolk Records of White-tailed Eagle by Peter Allard, published in the Norfolk Bird & Mammal Report 2011

Reintroduction or introduction?

According to the IUCN's Guidelines for Reintroductions and Other Conservation Translocations³⁴, the definition of **reintroduction** is, "the intentional movement and release of an organism inside its indigenous range from which it has disappeared" whereas the definition of an **introduction** is, "the intentional movement and release of an organism outside its indigenous range." So the key question to answer is whether or not the release site is within or outside of the species' indigenous range.

But first we need to clarify that we are talking about the range of *breeding birds*, as opposed to wintering birds or passage migrants, or even vagrants. I can't see anything in the IUCN guidelines that stipulates that this is the case (please correct me if I have overlooked it), but if we're not talking about breeding birds then as White-tailed Eagles have continued to occur in Norfolk right up to the present day, this would not be a reintroduction (it would be a **reinforcement**). So as the proposal is for a reintroduction, I think we must assume we are talking about breeding birds. Therefore any evidence that the species merely *occurred* in Norfolk (or lowland England more generally) really isn't relevant – it needs to have actually *bred* here.

During the debate over the previous proposal to reintroduce White-tailed Eagles into East Anglia I was advised that the IUCN guidelines are "normally regarded" as applying on a national scale, so it could be interpreted that if White-tailed Eagles formerly bred somewhere in the UK then it was within the guidelines to "reintroduce" the species to anywhere in the UK, even if the chosen location was hundreds of miles from its nearest former natural range. Well, the guidelines have been revised since then and if they were open to this bizarre interpretation before, they are no longer. They are now clear that for a translocation to be classed as a reintroduction the release site should be within the species' indigenous range, not merely in the same country in which the species was indigenous.

I accept that there is quite compelling evidence that White-tailed Eagles were once frequent across lowland England including in the fens and elsewhere in East Anglia. But as I've outlined above, I am yet to see convincing evidence that Norfolk has ever been within the species' *breeding* range. I made this point when I wrote to the RSPB around the time of the previous proposal to translocate White-tailed Eagles to East Anglia, and in March 2009 I received a reply from Andy Evans, the RSPB's Head of Species Recovery. In this he wrote, "I accept your point that there is no proof that it actually bred in East Anglia, but the circumstantial evidence is compelling." But the evidence he presented merely indicated that they occurred in East Anglia, and that the habitat is suitable for their breeding.

It is entirely possible that White-tailed Eagles once bred in East Anglia, but it is also entirely possible that White-tailed Eagles never bred in East Anglia, even though they may have once occurred here more frequently than they do today.

I should acknowledge here that the IUCN guidelines do in fact allow for a species' former range to be inferred in the absence of clear evidence:

"The indigenous range of a species is the known or inferred distribution generated from historical (written or verbal) records, or physical evidence of the species' occurrence. Where direct evidence is inadequate to confirm previous occupancy, the existence of suitable

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³⁴ https://portals.iu<u>cn.org/library/sites/library/files/documents/2013-009.pdf</u>

habitat within ecologically appropriate proximity to proven range may be taken as adequate evidence of previous occupation." (my italics)

So the absence of clear evidence that the species ever bred in East Anglia does not automatically disqualify this species from being a candidate for reintroduction here.

The guidelines are international and must often be applied to species that are indigenous to remote, poorly known regions where there is little or no historic evidence of any kind, let alone biological records. It is easy to see that there must be many examples in remote regions of the world where it would be completely impossible to obtain proof of a species' historic distribution. Some concession is necessary here (but even here conservationists would be required to demonstrate proximity to their proven range) and in these circumstances such a concession might be the only possible way of proceeding with a truly critical reintroduction of a species that is in real threat of global extinction.

The case with White-tailed Eagles in eastern England is different. Not only because the species is not one of great conservation concern, but also because this is a region where there is a vast wealth of historical evidence. In neighbouring regions, a similar extent of historical evidence does indicate the species' occurrence, so it is not so much a case of, "direct evidence is inadequate to confirm previous occupancy" as the direct evidence that exists fails to confirm previous occupancy.

The feasibility report for the proposal to release White-tailed Eagles in Norfolk has not yet been published, so it remains to be seen how or whether they will get round this problem with the IUCN guidelines. In the meantime it is worth pointing out that the material the team have already published does not attempt to claim that White-tailed Eagle is an indigenous breeding bird in East Anglia. Their answers to frequently asked questions³⁵ only attempts to answer whether the species is native to the UK and England, and their answer only extends to the south coast between Kent and Cornwall (and it only describes that as the "*likely*" breeding range).

We cannot say with any degree of certainty that the proposed release site in Norfolk really is within White-tailed Eagle's indigenous breeding range. The definition of a reintroduction **requires** the release site to be within their indigenous range.

Why it matters if it is just an introduction

In exceptional circumstances the IUCN guidelines do permit introductions, but they carry significant risk and the bar for justifying an introduction is high. The IUCN guidelines recognise just two types of introduction, neither of which are applicable here: "assisted colonisation" which is explicitly to avoid extinction (which is not a current risk for White-tailed Eagle) and "ecological replacement" which is where the introduction is to perform a specific ecological function lost through extinction, and would involve a close relative of the extinct species. In short, a proposal to introduce White-tailed Eagles in Norfolk would so clearly contravene the IUCN guidelines (which all major conservation organisations claim to adhere to) that it could never be supported by any mainstream conservation body and could never be approved by Natural England.

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³⁵ https://wildkenhill.co.uk/fags/

If someone did want to propose an introduction of White-tailed Eagles into Norfolk then the only possible way they could get any approval for the idea would be to argue that it was in fact a reintroduction.

Natural colonisation of White-tailed Eagles

The IUCN guidelines do not explicitly forbid reintroductions in cases where the species can reasonably be expected to recolonise naturally. However they do explicitly require a conservation benefit, and that benefit **does not exist** if the outcome would be achieved without the planned intervention.

In a 2008 British Birds paper about reintroductions³⁶ the authors (who included Phil Grice, at the time one of the leading players in the project then to reintroduce White-tailed Eagles into East Anglia) wrote, "There is little point in embarking upon an expensive and time-consuming project if there is a good chance that the species will recolonise an area naturally within a reasonable period."

Again, Ian Newton in his recent (2021) British Birds paper on the reintroduction of White-tailed Eagle to Britain³⁷, writes, "Such projects [that is, reintroductions] chiefly involve species that are judged unlikely to recolonise naturally, at least not within a reasonable time span."

How likely is it that White-tailed Eagles will colonise Norfolk naturally?

The potential for White-tailed Eagles to colonise Norfolk naturally is recognised by those proposing the translocation, for example the answers to frequently asked questions on the Wild Ken Hill website³⁸ acknowledge this potential. That White-tailed Eagles could naturally colonise Norfolk is not, as far as I know, disputed by anyone who is in favour of the proposal to translocate White-tailed Eagles to Norfolk. The question is not **whether** White-tailed Eagles might colonise, but **how quickly** they might do so.

Any conservation benefit arising from translocating White-tailed Eagles into Norfolk is not a long-term lasting or permanent benefit, but merely one that lasts for the difference in time between how long it takes to establish a population through translocation efforts and the time it would have taken for the population to establish naturally.

How quickly might White-tailed Eagles colonise Norfolk naturally?

The answer to the frequently asked question on the Wild Ken Hill website referred to above is:

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³⁶ The role of reintroductions in conserving British birds by Ian Carter, Peter Newbery, Phil Grice and Julian Hughes (*British Birds* 101: 2-25, 2008) https://britishbirds.co.uk/sites/default/files/V101 N1 2 25.pdf

³⁷ The reintroduction of White-tailed Eagles to Britain: a personal perspective (Ian Newton, 2021) *British Birds* 114: 18-26

³⁸ https://wildkenhill.co.uk/faqs/

"White-tailed Eagles do not breed until they are at least 4-5 years old and have low breeding success. In addition, most prefer to breed with or near established pairs, close to their natal site. This means that population increase and range expansion are very slow. Eagles are likely to take decades to recolonise West Norfolk and the surrounding area naturally, and reintroduction project would significantly speed up this process."

This is consistent enough with the answer to the similar frequently asked question about the Isle of Wight reintroduction scheme on the Roy Dennis Wildlife Foundation website³⁹

"White-tailed Eagles do not breed until they are 5-6 years old and have low breeding success. In addition most prefer to breed with or near established pairs, close to their natal site. Eagles could take decades, if not hundreds of years, to recolonise southern England naturally."

A similar statement appears on the feasibility report relating to that project⁴⁰:

"It is reasonable to suggest that it may take many more decades for White-tailed Eagles to spread from Scotland or Ireland to southern England naturally despite the fact that extensive areas of suitable breeding habitat exist, particularly in coastal areas."

This feasibility report also states that in Europe "range recovery is very slow". Yet elsewhere on the Roy Dennis Wildlife Foundation website they describe how in Denmark the species has recolonised reaching over 100 breeding pairs from a starting point of zero in the 1990s⁴¹. Clearly it is possible for White-tailed Eagles to colonise relatively quickly without the need for human intervention by translocation.

Indeed, the feasibility report itself acknowledges that White-tailed Eagle population growth can be exponential. Citing a "comprehensive analysis of current and predicted White-tailed Eagle population growth in Scotland" the feasibility report says, "They report that the number of breeding White-tailed Eagle pairs is growing almost exponentially" and then goes on to add, "It actually underestimates the most recent growth."

The European Raptors website⁴² provides the following information about this species' recent increase in Europe including range expansion in Germany and recolonisation in Austria. It says, "The White-tailed Eagle has increased [its] distribution in the last 40 years after a - sometimes huge population increase in Scandinavia, north-eastern and central Europa. In 2006 a pair started breeding successfully in The Netherlands." Just 12 years later in 2018 there were already 14 pairs breeding in the Netherlands⁴³.

The White-tailed Eagle's breeding population is massively increasing in Europe and its range is significantly increasing. Recolonisation has been rapid and the proposed release site is geographically closer to flourishing Dutch population than the Isle of Wight.

42 http://european.raptors.org/white-tailed-eagle/

⁴³ Source: https://www.sovon.nl/nl/actueel/nieuws/toename-zeearenden-nederland

³⁹ https://www.roydennis.org/white-tailed-eagle-project-frequently-asked-questions/

⁴⁰ https://www.roydennis.org/o/wp-content/uploads/2019/05/Isle-of-Wight-WTE-feasibility-April-2019.pdf

⁴¹ https://www.roydennis.org/isleofwight/



White-tailed Eagle at Kampen in Holland in 2014

Natal site fidelity is mentioned in both answers to frequently asked questions above. The idea that White-tailed Eagles tend to return to their natal site to breed is used as an argument to support the slow range expansion of the species. However the evidence from Europe suggests rapid range expansion is possible, and of course it only requires a minority of birds to breed away from their natal site for that expansion to occur. Indeed there is evidence that some individuals do breed a long way from their natal site, for example a tracked bird from the Scottish reintroduction scheme that bred in Norway⁴⁴.

The high proportion of immature birds among Norfolk records is unsurprising as immatures are known to wander widely, however this should not be taken to negate the relevance of the increasing frequency of birds in Norfolk to their colonisation potential. There have been a number of recent records of adult birds in Norfolk including in 2000, 2015, 2017 and 2019⁴⁵. The last three of these were in March or April, the time of year when breeding White-tailed Eagles are normally laying eggs⁴⁶.

The evident potential for White-tailed Eagles to colonise Norfolk naturally is reason enough not to embark on a programme to translocate the species to Norfolk.

How quickly might White-tailed Eagles colonise Norfolk as a result of translocation?

Given the statement in the Isle of Wight feasibility report quoted above ("White-tailed Eagles do not breed until they are 5-6 years old and have low breeding success") we can be sure that colonisation with the help of translocation will not be rapid.

⁴⁴ Source: Sea Eagles Naturally Scottish by John Love (published by Scottish Natural Heritage in 2006)

⁴⁵ Source: Norfolk Bird & Mammal Reports 2000-2019

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⁴⁶ Sources: https://oceanwide-expeditions.com/to-do/wildlife/white-tailed-eagle and Handbook of the Birds of Europe, the Middle East, and North Africa: The Birds of the Western Palearctic Volume 2 edited by Stanley Cramp, published by OUP in 1980, and also the Concise Edition published in 1998 (both accessed electronically through the BirdGuides interactive version released in 2004)

The first attempt to reintroduce White-tailed Eagles in Scotland failed. The second attempt started in 1975 and it wasn't until 1985 that the first Scottish-bred bird fledged from this project. It was two decades before the number of territorial pairs reached double figures. Of course, lessons will have been learned from this experience and techniques will have improved, but these do not change the facts that White-tailed Eagles don't breed in their first 5-6 years and generally have low breeding success. Indeed, the recent project to reintroduce White-tailed Eagles to Ireland benefited from over three decades of learning since the second Scottish attempt, yet the early success rate was barely any faster – by 2017 (the seventh year from the first pair) there were only 10 breeding pairs (compared to nine at the equivalent point in the Scottish project)⁴⁷.

Recolonisation of White-tailed Eagles is not progressing much faster as a result of reintroductions in Britain and Ireland than it has progressed without such interventions in Europe.

Suitable habitat in Norfolk

A paper by Phil Grice published in December 2005 outlined the feasibility and benefits of "reintroducing" White-tailed Eagles to East Anglia and seeking support for that project. I no longer have a link to this paper, but what I am going to quote from it was included in my response at the time which was shared with the team and not disputed by them. The paper cited "at least 12 long-staying overwintering birds recorded during the period 1958-2000" in eastern coastal counties as confirmation that "the bird's wintering habitat requirements are being met in this area." I argued then that this was less than one every three and a half years and the majority ranged across more than one county, sometimes spanning several counties, suggesting that they were NOT able to find suitable habitat to sustain them for the entire winter. Some of them died. And it was only in winter. The presence of suitable wintering habitat is completely irrelevant to the availability of suitable habitat for breeding.

Since then, there have been further records in Norfolk and although some have spent prolonged periods in the same area, these have typically been very mobile and, with the possible exception of one in 1999/2000, none have spent the entire winter in Norfolk. The average duration of stay of birds arriving between 2000 and 2019 was just nine days.

We know that the habitat in East Anglia has substantially changed since the seventeenth century, with the fens and marshes having been extensively drained. We do not know that this contributed to their demise but although one or two projects may be helping to restore a little bit of this habitat it would be crazy to suggest that the county's habitat will ever be returned to anything like its seventeenth century state.

A British Birds paper on the role of reintroductions in conserving British birds⁴⁸ made the point that, "Species that have not occurred in the last few hundred years are, currently, doubtful contenders for reintroduction as climate and habitats have changed substantially." It is ironic that one of the

⁴⁷ Source: Reintroduction of White-tailed Eagles *Haliaeetus albicilla* to Ireland by A Mee et al., 2016: https://www.researchgate.net/publication/317318909 Reintroduction of White-tailed Eagles Haliaeetus albicilla to Ireland

⁴⁸ The role of reintroductions in conserving British birds by Ian Carter, Peter Newbery, Phil Grice and Julian Hughes (*British Birds* 101: 2-25, 2008) https://britishbirds.co.uk/sites/default/files/V101 N1 2 25.pdf

authors of that paper was Phil Grice who was at the time actively involved with proposals to translocate White-tailed Eagles into East Anglia.

Although the rocky coasts of Scotland were the habitat where White-tailed Eagles survived longest before they became extinct in the UK, and similar habitat in Scandinavia seems to have been where they thrived the most when their European population was at its lowest, there is ample evidence that lowland habitat can suit White-tailed Eagles. Much of the recent spread of White-tailed Eagles in Europe has taken place in low-lying marshy country with superficially similar habitat to that found along the Norfolk coast. Does that mean the habitat in Norfolk is suitable for White-tailed Eagles? It is at least an indicator that it might be. If so, then habitat is not a barrier for their natural colonisation, and if it is not then any translocation attempt will be bound to fail.

The reasons for White-tailed Eagle's former extinction may not be resolved

The IUCN guidelines state, "There should generally be strong evidence that the threat(s) that caused any previous extinction have been correctly identified and removed or sufficiently reduced." The reasons for White-tailed Eagle's extinction in the UK have been identified, but these reasons continue to be an issue today. If White-tailed Eagle ever bred in East Anglia it was extirpated much earlier, and the reason for that is likely to be different, and has not been reversed.

The reasons for White-tailed Eagle's extinction in the UK

According to the RSPB website⁴⁹, the reason for White-tailed Eagle's extinction was "direct and sustained persecution by shepherds, gamekeepers, fishery owners, skin collectors and egg collectors." It says habitat loss was not a factor. I agree that there is compelling evidence that White-tailed Eagles were persecuted and that this was a major factor in their extinction in the UK and their decline elsewhere in Europe. Given the stability of their habitat in the parts of Scotland they last inhabited, it is a reasonable assertion that habitat loss did not play a part in the *later stages* of their extinction. I will deal with the claim that habitat loss was not a factor at all, but first I will explore whether the threats of persecution have been addressed.

Has this threat of persecution been removed or sufficiently reduced?

The RSPB website⁵⁰ states that White-tailed Eagles "continue to be deliberately killed and their nests targeted by egg-collectors, which for such a small population can be critical." It goes on to say, "The birds fall victim of both deliberate persecution of the eagles themselves and as incidental victims of poisons illegally set for foxes and crows. Young birds, wandering before establishing their own territories, are particularly hard hit."

⁴⁹ https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/white-tailed-eagle/population-trends/

⁵⁰ https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/white-tailed-eagle/threats-and-conservation/

At least two of the White-tailed Eagles that occurred naturally in eastern England in the 1980s were illegally killed (one shot in Norfolk in 1984⁵¹ and one poisoned in Kent in 1989⁵²). Norfolk is still not exempt from these pressures and threats and indeed there have been several high-profile cases of illegal raptor persecution very close to the proposed release site including:

- Two Hen Harriers shot at the edge of the Sandringham Estate in 2007⁵³
- Two satellite-tagged Montagu's Harriers missing in suspicious circumstances in the Bircham area in 2014 and 2017⁵⁴

The RSPB's interactive map of confirmed raptor persecution incidents⁵⁵ reveals a number of other recent events to the north and south of the proposed release site (which I believe is in TF63) including:

- Sparrowhawk poison-baited in TF62 in 2009
- Illegal pole/spring trapping targeting birds of prey in TF72 in 2009
- Buzzard (no details listed as "PersecutionOther") in TF72 in 2009
- Buzzard shot in TF72 in 2009
- Little Owl shot in TF72 in 2009
- Little Owl pole/spring trapped in TF72 in 2009
- Sparrowhawk illegally trapped in TF64 in 2012
- Marsh Harrier poisoned in TF74 in 2013
- Buzzard shot in TF74 in 2013
- Buzzard shot in TF62 in 2014

It seems abundantly clear that the reasons for White-tailed Eagle's decline have not been removed. The IUCN guidelines allow for the reasons to be "sufficiently reduced" but they also stipulate that there should be **strong evidence** for this. I think there is enough counter-evidence here to suggest that this IUCN guideline has not been met.

Persecution of reintroduced White-tailed Eagles is not an exclusively British problem. A paper about the attempt to reintroduce White-tailed Eagles to Ireland⁵⁶, published as recently as 2016, describes how "illegal poisoning (64% of known mortalities) has had a serious impact on population growth and continues to threaten the viability of the reintroduction programme."

⁵¹ Source: The Birds of Norfolk by Moss Taylor, Michael Seago, Peter Allard & Don Dorling, published by Pica Press in 1999

⁵² Source: Rare birds in Great Britain in 1988 (*British Birds* 82: 505-563, November 1989)

⁵³ Multiple sources, e.g. http://news.bbc.co.uk/1/hi/england/norfolk/7070362.stm

⁵⁴ Source: https://community.rspb.org.uk/ourwork/b/investigations/posts/the-end-of-sally

⁵⁵ https://www.arcgis.com/apps/opsdashboard/index.html#/0f04dd3b78e544d9a6175b7435ba0f8c

⁵⁶ Source: Reintroduction of White-tailed Eagles *Haliaeetus albicilla* to Ireland by A Mee et al., 2016: https://www.researchgate.net/publication/317318909 Reintroduction of White-tailed Eagles Haliaeetus albicilla to Ireland

Other factors leading to the extinction of White-tailed Eagle

In the introduction to a paper on the reintroduction of White-tailed Eagles in Ireland⁵⁷, the authors argue that, "It is likely that White-tailed Eagle populations began to contract and recede towards the coastal fringe as human populations impacted on the landscape, especially with large-scale forest clearance." They go on to add, "Human persecution and especially the advent of the breech loading shotgun, and more latterly the use of poisons to eliminate predators would have had a more drastic and ultimately catastrophic impact."

If we assume for now that White-tailed Eagle was indeed a widespread breeding bird in England, then just as in Ireland, their range contracted and receded during (or before) a time when human populations impacted on the landscape. We have already shown that they were absent as a breeding bird in Norfolk by the seventeenth century. At this time they were known in Norfolk as Fen Eagles (e.g. in Thomas Browne's writings) suggesting an association with the fens (though whether that association originally related to breeding birds or overwintering birds is not clear). The fens were extensively drained in the seventeenth century⁵⁸, so if White-tailed Eagles were breeding in East Anglia up until then, it must be very likely that this loss of habitat was a factor in their extinction.

If in fact White-tailed Eagles were already extinct in East Anglia before the fens were drained, then other human impacts on the landscape are likely to have been responsible, such as deforestation as is blamed in the Irish paper referred to above. Certainly we know that if White-tailed Eagles did breed throughout lowland England then their extinction from some regions (including East Anglia) must have occurred long before the widespread use of breech-loading shotguns and poison to eliminate predators. Persecution cannot have been the main cause of extinction for White-tailed Eagle in East Anglia.

The threat that caused any extinction in East Anglia is not identified or removed

We do not know how long ago, or indeed whether, White-tailed Eagles bred in East Anglia, so we cannot say in which century they became extinct. What we do know is that unlike in Scotland, they didn't become extinct here at a time when persecution was likely to be the cause.

Potentially, the drainage of the fens in the seventeenth century could have been a factor in their extinction. If so, this threat has not been removed. Although there have been some attempts to restore fenland habitat the extent of fens does not come close to their original extent.

Potentially, deforestation hundreds of years earlier may have been a factor in their extinction. If so, this threat has not been removed. Norfolk has not been reforested.

⁵⁷ Reintroduction of White-tailed Eagles *Haliaeetus albicilla* to Ireland by A Mee et al., 2016: https://www.researchgate.net/publication/317318909 Reintroduction of White-tailed Eagles Haliaeetus albicilla to Ireland

⁵⁸ Multiple sources, for example http://www.elymuseum.org.uk/wp-content/uploads/2020/06/Drainage-who-drained-the-fens-1.pdf

Whilst it can perhaps be argued that the present-day habitat in Norfolk is suitable for White-tailed Eagles (based on their current preferences in Europe), we cannot say that the loss of habitat that might have caused their extinction has been significantly reversed.

Risks with White-tailed Eagles being translocated

There are a number of potential problems with White-tailed Eagles being introduced to Norfolk. Some of these may be rather unlikely (they probably won't eat your pet) but for others they are sufficiently real that they should not be ignored. Not only are there the issues themselves, but the *perception* of these issues can have additional negative impacts on other conservation initiatives.

It is my opinion that some of these risks are reasonably low, in that either they are very unlikely to become an issue or else the impact if they do become an issue is not likely to be massive. In the event that the conservation benefits of the proposal were significant, I think it would be reasonable to argue that these were risks worth taking – the benefit to risk ratio would be high. However, when the conservation benefit is as minimal as I believe it is, the **benefit to risk ratio is poor**.

Risk to wild birds

In 2008 during the debate about the previous proposal to translocate White-tailed Eagles to East Anglia I was contacted by Eddie Chapman who informed me of a number of cases where the (natural) increase in White-tailed Eagle population was causing problems. In Finnmark White-tailed Eagles were playing havoc with migrating Lesser White-fronted Geese at a very important stop-over site for them. As far as he was aware they weren't predating them, but they were continually scaring them onto the wing so reducing the time they had to feed and rest.

Eddie also informed me that several seabird researchers were privately worried about the big increase in White-tailed Eagles in Norway. The eagles play havoc at seabird colonies – again, not by attacking the birds but by flushing them, resulting in eggs or chicks being pushed over the edge by the parents. Apart from Fulmars there aren't many cliff-nesting seabirds in Norfolk but the principal is the same as with the geese – constant flushing of vulnerable birds, whether that be breeding birds, migrating birds or wintering birds, will take a toll.

The proposed release site is in the midst of a hugely important area for migratory and wintering birds and these are already under a great detail of pressure. For example after severe weather in February 1991, a total of 2,934 dead birds were found on the shores of the Wash⁵⁹ including several red and amber listed species and including 53 Curlew⁶⁰, a species that is globally "Near Threatened" and red-listed in the UK and Europe.

⁶⁰ Source: Wash Wader Casualties following severe weather by Jacquie & Nigel Clark in the Norfolk Bird & Mammal Report 1991.

⁵⁹ Source: Selective mortality of waders during severe weather by Jacquie A Clark (Bird Study 56, 2009): https://www.tandfonline.com/doi/full/10.1080/00063650802648465



A 'near-threatened' Curlew feeding in north-west Norfolk – would regular passes by White-tailed Eagles prevent this species from feeding and cause it to decline even further?

The feasibility report for the Isle of Wight reintroduction project plays down these risks, claiming that "evidence from the Netherlands indicates that disturbance to wildfowl and waders by the White-tailed Eagles is similar to that caused by Peregrines and Greater Black-backed Gulls." Well Peregrines do cause significant disturbance to feeding waders in the Wash (*pers obs*) and the addition of released White-tailed Eagles cruising along the shores of the Wash in cold weather will further prevent these birds from feeding – birds that are of far greater conservation concern than the eagles themselves. Perhaps in normal times these birds will be able to cope with a few additional flushes, but in severe winters this additional pressure might just make a critical difference for some starving birds.



Dark-bellied Brent Goose in north-west Norfolk – internationally important numbers of this UK BAP priority species winter in north-west Norfolk and these would certainly be subject to disturbance by released White-tailed Eagles

North-west Norfolk is a stronghold for the red-listed Grey Partridge. Gamebirds may not have made up a large proportion of prey-items for White-tailed Eagles in some other regions, but I don't

suppose many places have such an abundance of pheasants and partridges as does north-west Norfolk. North-west Norfolk is one of the last remaining strongholds for Grey Partridge in England.



UK BAP priority species Grey Partridge, close to the proposed release site – another potential prey for White-tailed Eagle?

Another UK BAP priority species that has a stronghold in north-west Norfolk is the Brown Hare. The feasibility report for the Isle of Wight reintroduction project argued that mammals tend not to be targeted by White-tailed Eagles when other prey is available and considered that there would not be any negative impact to the overall Brown Hare numbers.



Brown Hare close to the proposed releasee site, another UK BAP priority species that might sometimes be taken by White-tailed Eagles

Of the 59 birds listed on the UK Biodiversity Action Plan species list (which does not include White-tailed Eagle), around 33 regularly breed or winter in north-west Norfolk. These include many that would or could be prey items or subjected to disturbance by White-tailed Eagles translocated to north-west Norfolk.

Control of meso-predators

The project manager for this proposal writes in the Wild Ken Hill blog about what he sees as the benefits of reintroducing White-tailed Eagles into west Norfolk. He lists this as a direct environmental benefit: "As an apex predator, the role that the White-tailed Eagle plays in controlling meso-predators such as Buzzards, as well as Cormorants and feral geese." Presumably if they are to control Buzzards, they may also have an impact on any red-listed Hen Harrier overwintering in northwest Norfolk, or the local breeding population of amber-listed Marsh Harriers, or Montagu's Harriers which are no longer breeding annually in Norfolk. Certainly some of these species have been observed interacting with and mobbing White-tailed Eagles in Norfolk previously⁶¹. Admittedly a species that exists in low numbers is less likely to be affected by eagles than a species that is more abundant, but if they are affected the impact will be greater.



One of the last Montagu's Harriers to have been raised in north-west Norfolk – if White-tailed Eagles are said to play a role in controlling Buzzards, will released birds also prevent a return of this conservation priority in Norfolk?

And if White-tailed Eagles play a part in controlling Cormorants, will they overlook the newly established heron colonies containing rare breeding birds like Spoonbills and Great White Egrets?

Risk to commercial gamebirds

Although gamebirds may not form a major part of White-tailed Eagle's diet they do eat them, for example the well-watched bird in the Norfolk Broads in November-December 1990 was observed feeding on a Pheasant⁶². It's not that I am particularly concerned about White-tailed Eagles eating Pheasants or Red-legged Partridges *per se*, but I am concerned about the possible reaction from a minority of people involved in the game industry. Thankfully Norfolk is blessed with some very conservation-friendly gamekeepers and I suspect that many would be delighted to see White-tailed

 $^{^{61}}$ Source: White-tailed Eagles in Norfolk [in 1990] by John R Williamson published in the Norfolk Bird & Mammal Report 1990

⁶² White-tailed Eagles in Norfolk [in 1990] by John R Williamson published in the Norfolk Bird & Mammal Report 1990

Eagles as they work, but the wildlife crime statistics detailed above show that not everyone close to the release site is responsible and law-abiding, and stoking up more conflict among this community is not going to be helpful.

Many instances of White-tailed Eagles feeding on gamebirds are said to involve birds that were already dead (White-tailed Eagles are known carrion-feeders), but will this necessarily be appreciated by everyone who finds one eating a gamebird, or might it (in some instances) stoke their negativity towards eagles and other raptors?



A Pheasant close to the proposed release site – dead gamebirds are more likely to be eaten by eagles than live ones, but could perceived risk to gamebirds have negative impacts on conservation

Risk to livestock

A study published in 1999⁶³ found that on Mull, 37 lambs a year were predated by White-tailed Eagles. Clearly the landscape and the availability of livestock in Norfolk are very different from those on Mull, but there could be legitimate concerns about the potential impact of White-tailed Eagles in Norfolk may have on livestock in Norfolk.



White-tailed Eagle on Mull in 2019

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⁶³ The Impact of White-tailed Eagles on Sheep Farming on Mull by M Marquiss, M Madders, J Irvine & D Carss (Institute of Terrestrial Ecology, 1999).

I am personally satisfied that the risk of White-tailed Eagle predation of livestock in Norfolk is relatively low, and would not be against this proposal on these grounds alone. Nevertheless, it is a possibility, and I have not seen any mention of a compensation scheme for farmers in the proposals in the event that it did become a reality (as there was with at least one of the Scottish reintroduction projects). Although unlikely, there could be some negative reputational impact if livestock were predated by White-tailed Eagles.

Risk to pets and babies

The Wild Ken Hill website assures readers that the eagles pose no threat to pets. I can certainly accept that predation of pets would be unlikely, but zero threat – zero risk – is a strong and unsupported statement. If a White-tailed Eagle can seize a decoy Woodpigeon just in front of a startled estate worker on a shoot (as is reported to have happened at Westacre in Norfolk in January 1999⁶⁴) then the possibility of them taking a pet doesn't seem completely implausible. Even if it's never happened before, that at best shows that the risk is extremely low, not zero. Anyway, again, I wouldn't oppose the project purely on these grounds – I'm sure it is a very low risk. That said, the risk of someone *claiming* that their pet was killed or injured by a White-tailed Eagle – and of that story being taken seriously by sections of the public – must be a little higher, and could have a more significant negative reputational impact.

I am not aware of any evidence that White-tailed Eagles should pose any threat to human babies, and I do not consider this to be a risk worth worrying about. I am including it for completeness as folk tradition is rich in stories of eagles snatching human babies⁶⁵ and therefore it could be raised as a potential concern for some people. For this to happen you would need an exceptionally tame and opportunistic eagle combined with a neglected infant left in an open space – perhaps not completely beyond the bounds of possibility, but vanishingly unlikely.

Won't White-tailed Eagles have just as much negative impact if they colonise naturally?

If White-tailed Eagles colonise Norfolk naturally then yes, of course they will have some of the same potentially negative impacts as described above. But there are some significant differences. If their numbers build more rapidly than they would with natural colonisation (which Wild Ken Hill argue they would in response to the question, "Why not wait for them to re-colonise naturally?", although I have already cast some doubt on this assumption) this means the local wildlife will have less chance to become used to them.

More concerning is the impact that it will have on raptor conservation more widely if raptor numbers are seen to build up rapidly as a result of unnatural intervention, as I will go on to explain in the next section.

⁶⁴ White-tailed Eagles in Norfolk [in 1990] by John R Williamson published in the Norfolk Bird & Mammal Report 1990

⁶⁵ Source: Sea Eagles Naturally Scottish by John Love (published by Scottish Natural Heritage in 2006)

The negative impact on raptor conservation

According to the RSPB's Birdcrime 2019 report⁶⁶, "The single factor affecting hen harrier recovery is illegal killing. So much so that, between 2004-2016 their numbers dropped by 24% and in England they risk going extinct as a breeding species." Illegal persecution of birds of prey is not restricted to Hen Harriers, and is a major problem in the UK (including in west Norfolk) and tackling it must be a conservation priority.

I have already explained above how impact of introduced White-tailed Eagles on gamebirds (whether real or only perceived) could heighten existing negative perceptions of birds of prey. Conservationists need to be prioritising turning such perceptions around, not fuelling them further.

A few years ago I was engaged in conservation with an elderly country gentleman in north Norfolk when we noticed a Sparrowhawk flying past. He expressed a viewpoint along the lines of Sparrowhawks being vermin and the reason for our songbirds declining. A lengthy discussion followed during which we talked about predator-prey cycles and eventually, I think, I was beginning to persuade him that his perception of Sparrowhawks and other raptors as being vermin needed some adjustment. Then he brought up Red Kites, and despite my best efforts to point out that they are chiefly scavengers, the idea that their population was artificially high due to reintroduced birds was, to him, evidence that the normal predator-prey cycles are broken by conservation initiatives.



Sparrowhawk, falsely accused of being responsible for declines in songbirds – artificially high populations of translocated predators could be unhelpful in shifting these sorts of perceptions

This didn't invalidate my argument, but it was a turning point after which I could no longer persuade him to my way of thinking. He was wrong about a lot of things, but he wasn't completely wrong — if you make predator numbers artificially high through releasing translocated birds then you may see an impact on the prey populations. With Red Kites at least I don't think this is a problem at all, and I'm not convinced it would be a genuine problem with a translocation programme for White-tailed Eagles if it really is limited to five years, but here it is perception that is a problem. And perception is

⁶⁶ https://www.rspb.org.uk/birds-and-wildlife/advice/wildlife-and-the-law/wild-bird-crime/birdcrime-report-2019/

important. If people perceive that "conservationists" are interfering with natural predator-prey cycles by artificially inflating the number of predators, then that make it all the harder to convince these people that predators are worthy of our protection. And at this point I know some readers will be saying that such people are beyond convincing, but the reality is different. There is a wide spectrum of experience and opinion on such matters and many people are open to respectful discussion and learning.

An unnecessary initiative to artificially inflate numbers of a naturally increasing predator of low conservation priority has the potential to have a real lasting negative impact on the far greater conservation priority of changing people's minds about predator conservation.

The following quote from a paper about the recent reintroduction of White-tailed Eagles to Ireland⁶⁷ contains the following quote. Although the human–wildlife conflicts in Norfolk are different to those in Ireland, this is nevertheless very pertinent:

"Species reintroduction projects tend to be dominated by natural scientists, who emphasise the impartiality of science and often ignore or down play the socio-economic aspects of species reintroductions. The conflict surrounding the reintroduction of the sea eagles to Ireland reinforce the truism that behind all human—wildlife conflict, lies human—human conflict."

A distraction from more effective conservation initiatives

Any translocation programme requires a significant input of resources including financial, physical and human resources. There is an abundance of need for those resources in conserving priority species and habitats in north-west Norfolk and beyond, and whatever resources are consumed by this programme will necessarily not be available for other conservation initiatives that would have a greater impact on higher priority conservation needs.

During the debate about the previous proposal to translocate White-tailed Eagles to East Anglia it was argued that the project would not divert any resources from other projects, the implication being that those providing the resources would not redeploy them towards other conservation initiatives if the project did not go ahead. Andy Evans, then the RSPB's Head of Species Recovery said in a letter to me, "Recent projects have managed to secure external funding so that our work on other species has not been jeopardised." But where would this funding have gone to if not to this project? Would it, or at least could it, have been directed towards a higher priority conservation initiative? Surely it could.

When thinking of the consumption of resources we should not just consider the direct costs of the project itself as there are many other hidden costs. I wonder if, for example, the time it took Andy Evans to write a 3-page letter to me in response to my concerns (which I was grateful for, by the way) was included in the project costings? Consider too the major conservation organisations that are not directly involved in the project. Are they to have an opinion on the project – are they to support it, oppose it or ignore it? How are those decisions made, and who makes them? Surely it

⁶⁷ The reintroduction of the white-tailed sea eagle to Ireland: People and wildlife by Eileen O'Rourke in Land Use Policy 38 (2014): https://www.sciencedirect.com/science/article/abs/pii/S0264837713002159

requires significant input from policy makers and decision makers to make the decisions, and then from communications teams and others to communicate and defend those decisions and respond to critics or supporters. All time (and time is money) that could better be spent on higher priority matters of conservation importance.

When the projects go wrong the distraction becomes even greater. It was interesting how British Birds described the announcement to drop the previous proposal to translocate White-tailed Eagles to East Anglia. While blaming it on financial cuts it said it also "neutralises a public relations embarrassment"⁶⁸. Public relations embarrassments are costly things to conservation organisations – not only do they cost resources to explain and defend but they impact the public's trust of the organisation, and in turn the public's willingness to contribute to them. Why would you give your hard-earned cash, or volunteer your precious time, to support an organisation that wastes money on PR disasters?

Of course I would hope that few people would withdraw their support of a great conservation organisation because of one mistake, but for some it will be the tipping point, or enough to change their minds about some element of that support. It was for me when the RSPB supported the previous proposal to bring White-tailed Eagles to East Anglia (the one where cutting it neutralised a PR embarrassment). I didn't stop my support of the RSPB because I recognise the enormous amount of fantastic work they do, but it did make me reconsider my decision to take up an offer of life membership. It was enough to make me wonder whether I would always be able to give them my full support or whether I might in future regret losing what is in reality my only available sanction against them, being able to withdraw my membership.

Rewilding Britain say, "The Wild Ken Hill rewilding project has ambition to move away from existing agricultural and forestry techniques and allow wild nature to thrive. The project's mission is to demonstrate that land can be used to tackle climate change, and improve air and water quality. ⁶⁹" This is all very laudable and as much as I hate the term "rewilding" (for all its misinterpretations and misuses, which I won't go into here) I have little doubt that this rewilding initiative will bring enormous conservation benefits to the local area. They have created a wonderful opportunity to do some great conservation work, but I fear this proposal will distract from much more important work that they could be doing, or even work against what they are already doing.

Benefits of having White-tailed Eagles in Norfolk

For all the reasons not to go ahead with translocating White-tailed Eagles into Norfolk, I must clarify that I do see the presence of White-tailed Eagles in Norfolk as being a positive thing. Should White-tailed Eagles colonise Norfolk naturally I will be overjoyed, and even if they arrive here with assistance, I am not going to deny that there will be any benefit, nor that I and others will take much enjoyment from seeing them. That said, some of the claimed benefits are quite dubious, and even the genuine ones do not outweigh the reasons not to proceed with the proposal to translocate them to Norfolk.

⁶⁸ https://britishbirds.co.uk/article/white-tailed-eagle-reintroduction-grounded

⁶⁹ https://www.rewildingbritain.org.uk/rewilding-projects/wild-ken-hill

Eco-tourism

Arguably there are socio-economic benefits of having White-tailed Eagles in Norfolk, with them being an attraction for eco-tourism. I don't have much to say about this other than that it is not really a conservation benefit and in any case I am unconvinced – there is already so much wildlife available to see by eco-tourists, and so many other places people can go to see White-tailed Eagles.

Engaging and enthusing the public

One of the benefits listed by the Wild Ken Hill project manager is, "As residents of this beautiful part of the country, we would have the wonderful opportunity to connect with nature." As a resident of this part of the country let me assure you that we already have many, many wonderful opportunities to connect with nature. This is not to say that I begrudge further opportunities — of course not — but to imply that we need eagles to give us these opportunities is quite mistaken.

In his letter to me, Andy Evans (then Head of Species Recovery for the RSPB) described how the programme to reintroduce Red Kites has "engaged and enthused the public". I have little doubt that it has, for like White-tailed Eagles, Red Kites are magnificent awe-inspiring birds. I have grave misgivings about that programme too, but I still gain pleasure from seeing Red Kites, and I surely see them more often as a result of that programme. And I will gain pleasure from seeing White-tailed Eagles in Norfolk if this proposed project goes ahead and is successful, just as I have gained pleasure from seeing each and every one of the five White-tailed Eagles I have already encountered in Norfolk. Whilst engaging and enthusing the public is indeed a potential benefit of releasing White-tailed Eagles in Norfolk, it is not, and must not, be a driver for doing so. First and foremost, any translocation must be about conservation not PR.



Red Kite – the programme to reintroduce these may have had some positive outcomes in terms of engaging and enthusing the public, but that alone is not sufficient reason to undertake translocation

An article published in the Independent (at least online) in 2006 wrote about the previous proposal to release White-tailed Eagles in East Anglia and concluded, "In truth, it's all about spectacle and

spin."⁷⁰ There's nothing inherently wrong with spectacle and White-tailed Eagles are indeed magnificent birds. Watching them has the potential to inspire passive or disinterested people to become engaged with birds and wildlife, and their habitat and conservation. But no conservation translocation project should ever be primarily about generating spectacle and publicity.

Even the proponents of the previous proposal admitted, "We firmly believe that reintroductions should be conservation-led; to do otherwise could bring this technique into public disrepute, especially if not undertaken to the standards set by the IUCN..." The consequence of placing PR benefits over conservation benefits isn't simply that the technique is brought into disrepute but that the conservation bodies themselves and indeed conservation itself in general is brought into disrepute.

Ecological impact of apex predators

The Isle of Wight feasibility report describes the "positive ecological impact" of "key apex predators" through the "principle of trophic cascades". It then cites evidence which it claims corroborates the "notion that the conservation of charismatic top predators brings wider conservation benefits." However as I read that evidence⁷¹, it would be a better interpretation of it to say that *conservation at sites where top predators exist brings wider conservation benefits*. Top predators survive in, and may select, locations where there is a high biodiversity at lower levels, so it is not surprising that there will be greater conservation benefits from protecting sites where top predators exist. The paper does say that at these sites, apex predators have a positive impact on the lower-level biodiversity, but that is not the same as saying that introducing apex predators to a site that lacks them will bring the same positive impact on the lower-level biodiversity. Using the paper to justify introducing a top predator to a region where they have not existed for hundreds of years goes beyond what can be reasonably deduced from it.

The Isle of Wight feasibility report also says, "White-tailed Eagle could also be deemed an umbrella species, i.e. one whose habitat and area requirements are such that protecting it will aid a range of other species at the same time." The case for this is much stronger if White-tailed Eagles colonise naturally than if they are introduced.

Other concerns

Although perhaps not critical to the decision-making for this proposal, I have the following concern regarding the way it is advertised.

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⁷⁰ The Eagle flies again by Peter Marren, published on the Independent website on 22nd June 2016 (as quoted on BirdForum https://www.birdforum.net/threads/sea-eagles-in-suffolk.53217/#post-619012)

⁷¹ Ecologically justified charisma: preservation of top predators delivers biodiversity conservation by Fabrizio Sergio, Ian Newton, Luigi Marchesi and Paolo Pedrini, published in the Journal of Applied Ecology in 2006: https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2664.2006.01218.x

Methods for gauging public support are misleading

Any proposals of this nature tends to include some demonstration of public consultation and support. As I understand it, it is not so much that the support is presented as a reason to proceed, but that significant public opposition might be deemed to be a reason not to proceed. In order to demonstrate that there is not significant opposition, project teams demonstrate that there has been public consultation during which the public expressed support for the proposal. This is typically measured through some kind of public consultation survey.

The consultation survey for the current proposal⁷² asks how people feel about the proposal to reintroduce White-tailed Eagles – supportive or against. Leaving aside the presumption that it is indeed a reintroduction (not an introduction) then this is a fair question, provided the participants are given enough information to make the judgement (but I don't believe they are). The survey then goes on to ask to what extent the participants agree with three statements:

- 1. It would be good to see this native bird back in the area
- 2. Restoring this missing species is important conservation work
- 3. The project benefits outweigh the risks

The first of these is phrased in quite a leading way – suggestive that it should be there, so of course it's difficult to say it wouldn't be good if you don't know any better. I'm also concerned that a positive response to this question might be taken to be supportive of the proposal. I would be delighted to see White-tailed Eagles in the area, but I am certainly not supportive of the proposal.

The second question is perhaps better, but is still leading. By using "missing" it's leading the participant to think it should be subject to conservation work. And again there is a concern that it might be taken to indicate support of this proposal, but in reality you can strongly agree that the restoring the species is important conservation work (e.g. by habitat improvement, removal of barriers to colonisation, etc.) while strongly disagreeing that translocation should form any part of this conservation work.

The third question would be fair if the participant had been given enough information about the benefits and the risks to be able to answer it. In fact all of the publicity surrounding the survey is all about the claimed benefits and provides no information about the risks at all.

It would therefore be highly surprising if the overwhelming majority of people completing this survey did not answer these questions positively. This is not consultation – this is nothing more than a measure of effectiveness of propaganda.

During the previous proposal to release White-tailed Eagles in East Anglia it was precisely this sort of consultation that was used to justify the programme. It was claimed that the majority of the local population were in favour of the project. Apparently 91% of 500 people asked were in favour. But who were these 500 people? Had they done any research? Did they know anything about birds or conservation? Of course it would be easy to find 500 random members of the public and frame a question in such a way that they would be supportive of a scheme that sounds impressive but about which they know nothing and care little. You could ask the same people if they agreed it was a good

⁷² https://docs.google.com/forms/d/e/1FAIpQLSdGPjEESuqWO 6DxQWCKUw4WZ8CMvDoQbID-wIR-WZeqBYWgg/viewform

idea to introduce Hedgehogs to New Zealand and they'd probably say yes. That doesn't mean it *is* a good idea and it doesn't mean that the Hedgehogs won't predate the eggs of the rare and endangered indigenous wildlife there.

Conclusion

White-tailed Eagles are **not** a **priority species for conservation** and a proposal to intentionally translocate them to Norfolk **falls well short of internationally recognised IUCN standards** for translocations on multiple counts.

The conservation-based merit for this proposal is negative.

The proposal **should not proceed**, and the resources should be **put to better use** focusing on higher priority conservation targets.

If anyone finds any factual errors in this document, please let me know as I aim to be completely accurate. Equally if anyone thinks I have overlooked any pertinent arguments (for or against the proposals) then I welcome feedback. I can be emailed at appleton.dave@googlemail.com and will update this document if necessary.

Dave Appleton, 7th February 2021

Updates and feedback (last updated 10th February)

Firstly I want to add an acknowledgement that I should have included in the document above, and my apologies to Dominic Buscall for omitting to do so. I sent Dominic (who is the Project Manager for Wild Ken Hill) an earlier draft of this document, partly because I wanted to fact-check my document with someone who's standpoint was likely to be different to mine, and partly because I wanted to be fair to him and give him advanced warning of what I planned to post publicly. Dominic got back to me very quickly to suggest we had a chat and during that conversation he referred me to some material that I hadn't already seen. Ultimately this didn't change my standpoint, but I have made several references to these documents in the revised version which I posted above (having first sent it to Dominic). I should have acknowledged Dominic's help with that.

Since posting a link to this document on Twitter and WhatsApp I've had quite a lot of feedback from other people, the vast majority of which has been **supportive** of my conclusions (and the few who have disagreed with my conclusions have not identified any errors in the document). Some of the feedback has been in confidence and so I will not be pushed to reveal sources.

One thing that is really striking to me is the number of people who, unlike me, are highly experienced and well-respected conservation professionals and who are strongly opposed to this proposal, but who because of the organisations they work for or are in some way affiliated to, feel that they are unable to comment publicly.

Other feedback has included specific reference to the following elements:

- Presence of some rare breeding birds in the vicinity that I was not already aware of and which could well be impacted by the introduction of White-tailed Eagles to the site (for obvious reasons I can't go into details).
- Raptor persecution a couple of additional cases of raptor persecution close to the proposed release site were flagged up (involving Goshawk and Little Owl).
- Ecotourism disbenefits arguing that Norfolk can't cope with an increase in tourism, and also making
 the point that Mull has an economy with a heavy dependence on White-tailed Eagle tourism, so that
 economy could be negatively impacted by this and the Isle of Wight project. Numerous local (to
 Norfolk) ecotour company leaders/owners are among those who have informed me that they are in
 full agreement with me.
- Archaeological evidence further doubt cast on the extent and relevance of this.
- Diversion of resources one comment made the point that if it is private individuals' money they can spend it how they wish to meet their own priorities. I disagree with this point for two reasons firstly the resources aren't just the project costs but also the cost for Natural England to process the application and for other organisations like the RSPB to develop a position and communicate around it. Also, we aren't (and shouldn't be) free to spend money how we like if that means doing something that is harmful.
- Some concerns were raised regarding breeding waders such as Lapwings where people have observed
 that breeding success has already been impacted by disturbance from reintroduced Red Kites (on top
 of the increasing numbers of Marsh Harriers and Buzzards). White-tailed Eagles will add extra
 pressure on these.
- Another concern was raised about the impact of disturbance on our wintering population of Pinkfooted Geese, already being pushed around and not find sufficient food as a result of other pressures.

I want to deal in more details with a Twitter thread from one of the few people who have reacted in a way that is clearly supportive of the proposal. I have begun to respond to him on Twitter, but it was a long thread and

Twitter isn't really suitable for debating all the points in depth. In the table below I have pasted the tweets (from Philip Amies⁷³) in the left hand column in blue and my response on the right column:

"White-tailed eagle in Norfolk @WildKenHill is a positive step, a decade or so back opposition by landowners and a coalition of people frightened of change stopped this amazing project. It must succeed this time against the inertia of fear and reaction against change."

"Sea eagles were a normal part of Southern Englands avifauna, persecuted driven to absence. You would think birdwatchers would welcome them back, but humans are funny things, people just can not imagine them in their landscape, they are too 'wild', I imagine the same people never"

"imagined red kites, buzzards, ravens, polecats in Norfolk, all things seen as too wild, belonging to Wales not Norfolk. They were only absent due to persecution, same as sea eagle. People want proof they ever bred in Norfolk, archeological evidence is not enough they want to know"

Obviously I disagree that it's a positive change.

The previous project was officially stopped due to lack of funding, although I have long suspected (even hoped) that it might have had something to do with the opposition. However my real issue with Philip's tweet here is the implication that people who are against this project are frightened of change. This is absolutely 100% not the case – I and others I know who think like me welcome change, and as I hope this document shows, our basis for opposition to the project is grounded in much more than fear.

As I have shown above, White-tailed Eagles were not driven to absence from East Anglia by persecution.

Opposition to the proposal does not equate to opposing their return. If they return naturally because we have restored their habitat and the ecosystem they depend on then I will be thrilled.

I for one have never, ever, objected to the Norfolk landscape being too wild.

I'm not sure if I can honestly say I did imagine established breeding populations of Red Kites, Buzzards, Ravens and Polecats in Norfolk, but I'm not sure my lack of imagination is key here. However, Buzzards, Ravens and Polecats have arrived here naturally, so they are a very different prospect. Red Kites may well have arrived naturally as numbers were increasing and the first breeding pair involved one wild bird (and one reintroduced bird).

These species may have only been absent due to persecution (actually I don't think that's accurate, but as it isn't pertinent to the issue under discussion, I won't spend time arguing that) but even if true then it isn't the same as White-tailed Eagles in Norfolk as, if these were ever here they were long gone before persecution became effective enough to wipe them out.

Establishing whether or not they ever bred in Norfolk is fundamental. The whole point of this project is to restore something that's gone – if it was never here it hasn't gone. I can hardly believe anyone would see this as unimportant.

As described above, the peer-reviewed papers used in support of the project admit that archaeological evidence is not enough.

"in which tree and when the last nest was, a shame the killers did not take notes. Netherlands has 44 pairs, we have farmers A bit of hyperbole here I hope, but for the avoidance of doubt, some robust evidence that they were ever a breeding bird anywhere in the county, or even in East

⁷³https://twitter.com/AmiesPhilip/status/1359448483737063427

and birdwatchers obsessed with finding reasons why sea eagles will cause harm. Will the birdwatchers feel the same about natural recolonisation?"

Anglia would be a good start. And as already shown, if they did breed here they weren't lost through killing.

Philip must have more up-to-date information than I could find about the Dutch population – if they now have 44 pairs (up from 14 in 2018 and zero prior to 2016) then that further strengthens my argument about how rapid natural colonisation can be.

Will birdwatchers feel the same about natural recolonisation? Well, I think I've addressed this in the document, but for the avoidance of doubt, no, in my case at least, I won't.

"The arguments made, scaring waders on Wash, maybe killing a hen harrier, disturbing breeding terns will they make the same arguments against natural recolonisation? Join with reactionary keepers and pig farmers. I know who is a bigger threat to hen harrier than an eagle!"

As described in the document, no, I won't make the same arguments against natural recolonisation.

Interesting that Philip refers to pig farmers in this way as the Wild Ken Hill publicity makes a thing about having got the support of local pig farmers. Maybe that support isn't as universal as they'd like us to think?

For the avoidance of doubt, at no point have I suggested that White-tailed Eagles pose the *greatest* threat to Hen Harriers or anything else. In fact I think I've pretty much said the opposite, referring to the conservation priority of preventing the "bigger threat to Hen Harrier" that Philip alludes to.

"This is a divisive issue, arguments will be constructed, facts marshalled as armies to win minds and hearts. The same facts used now by some to object to a release will they be making them against natural recolonisation? I hope not, then these facts are not valid."

Yes, people will disagree with this, but I hope we can have a constructive debate about it.

Most of the facts I've provided are focused almost entirely on the IUCN guidelines for translocations, and how this project contravenes those guidelines. As natural recolonisation is not governed by those guidelines, the argument could not possibly be used against natural recolonisation. A small proportion of the concerns may also apply, to some degree, in the event of natural colonisation, but if anyone uses these to object to natural colonisation, it won't be me (and I'm pretty sure it won't be for any of the other people I know of who object to this proposal).

"Each person will make up their own mind, I suspect many out of reaction to change, an inability to see the paucity of nature caused by persecution, the same people who would tell you 30 years ago that buzzards did not like Norfolk as it was to dry for them, nothing like Wales."

I agree, we all need to make our own minds up, but I encourage everyone to do so having read the arguments for and against it. But then again, 30 years ago the only reason I thought Buzzards didn't like Norfolk was that there weren't any Buzzards in Norfolk.

"Buzzards and kites, ravens, polecats did not like Wales it was the only place they survived after relentless persecution. Much we do not know about sea eagles, past wintering birds returning to part of their range killed mercilessly numbers reduced until the very thought of them" Well, they probably did like Wales, at least as much as they like England now.

Wintering White-tailed Eagles have been persecuted throughout recent centuries, and probably will continue to be until we are successful in changing attitudes. Introducing more predators unnaturally

"as a natural thing here is lost, people can

not imagine, have lost hope, fear change. Understandable in a way, well their fears must must not stand in the way of recovery, hope must be seen to win for how else can we dare to dream of bigger restoration of a wilder landscape."

"Friends will differ, arguments abound, division and persuasion, make up your own mind, recognise that factual arguments are emotional also, those who fear, those who hope. Well each of us has to be honest and have our own view, people I respect deeply will disagree, they may well"

"be right, I will continue to respect them and like them during this coming 'battle of the eagles' in which we all have to follow our own convictions."

will not help bring that change about.

Some people may have lost hope and some might fear change, but if so I very much doubt that they're the same people who are currently objecting to this proposal.

I have great hope that we can bring about positive change and ecological recovery through effective conservation interventions. But I also believe that focusing on releasing species of low conservation priority will be counterproductive in delivering that change.

Yes I agree here. We will have differing views, and I recognise that even the most fact-centred argument will not be devoid of opinion and emotion.

I'm grateful that Philip will continue to respect people who disagree with him, and I certainly intend to continue respecting people who disagree with me.