

# **Non-detriment finding for white-tailed sea-eagle (*Haliaeetus albicilla*)**

VKM, Katrine Eldegard, Jo S. Hermansen, Eli K. Rueness,  
Hugo de Boer

VKM Bulletin 2024: 16  
Non-detriment finding for white-tailed sea-eagle (*Haliaeetus albicilla*)

Published: 10.09.2024

ISSN: 2704-1689  
Norwegian Scientific Committee for Food and Environment (VKM)  
Postboks 222 Skøyen  
0213 Oslo  
Norway

Phone: +47 21 62 28 00  
Email: [vkm@vkm.no](mailto:vkm@vkm.no)

[vkm.no](http://vkm.no)

Suggested citation: VKM, Katrine Eldegard, Jo S. Hermansen, Eli K. Rueness, Hugo de Boer (2024). Non-detriment finding for white-tailed sea-eagle (*Haliaeetus albicilla*). VKM Bulletin 2024:16, ISSN: 2704-1689. Norwegian Scientific Committee for Food and Environment (VKM), Oslo, Norway.

©2024 VKM / [CC BY-ND 4.0](https://creativecommons.org/licenses/by-nd/4.0/)

## VKM assessment:

# Non-detriment finding for white-tailed sea-eagle

**Authors:** VKM Panel on CITES members Katrine Eldegard (Norwegian University of Life Sciences), Hugo de Boer (University of Oslo), Eli K. Rueness (University of Oslo), and VKM Secretariat member Jo Skeie Hermansen.

**Competing interests:** The authors declare no competing interests in relation to this NDF.

**Date:** 02.05.2024

**Scientific name:** *Haliaeetus albicilla* (Linnaeus, 1758)

**Common name (s):** White-tailed sea eagle, white-tailed eagle, grey sea-eagle

**Norwegian name:** Havørn

**Type of permit:** CITES Appendix I (Norwegian Cites Regulation Annex 1, list A)  
Country of Export: Norway  
Country of Import: Ireland

**Purpose and source:** The proposal concerns the export of up to 30 live, wild caught (source code W) white-tailed sea-eagles from Norway (Norwegian Institute for Nature Research) for reintroduction (purpose-of-transaction code N) to Ireland (National Parks and Wildlife Service, Ireland). The export is part of a reintroduction program that has collected a total of 173 individuals from Norway since 2007 (2007-2011: 100 nestlings; 2020: 10 nestlings; 2021: 23 nestlings; 2022: 16 nestlings; 2023: 24 nestlings). The concerned individuals will be collected under license from northern Vestland (former Sogn og Fjordane), Møre og Romsdal, and Trøndelag counties and transported to Ireland for release.

For Appendix I species (Norwegian Cites Regulation Annex 1, list A) it is required to establish that exports will not be detrimental to the survival of that species, in compliance with CITES Article III.

VKM has adopted the definition of detriment, cf. Conf. 16.7 (Rev. CoP17) suggested by the U.S. Fish and Wildlife Service Division of Scientific Authority:

1. Harvest that is not sustainable.
2. Harvest that harms the status of the species in the wild.
3. Removal from the wild that results in habitat loss or destruction, or that interferes with recovery efforts for a species.

## **Conclusion:**

The white-tailed sea-eagle population is increasing, both on a global, European, and national scale in Norway, and the species is listed as Least Concern in the IUCN Red List for Threatened Species ver. 3.1 and in the Norwegian Red List for Species 2021. The species has been protected in Norway since 1968 and has been subject to extensive conservation measures across large parts of its range, including re-introduction programs. The export application for which this NDF is concerned, is linked to a reintroduction program that has been running since 2007 (phase 1: 2007-2011; phase 2: 2020-current), during which a total of 173 white-tailed sea-eagle nestlings (2007-2011: 100 nestlings; 2020: 10 nestlings; 2021: 23 nestlings; 2022: 16 nestlings; 2023: 24 nestlings) have so far been collected from nests in Norway under license and transported to Ireland.

VKM concludes that the export of up to 30 wild caught white-tailed sea-eagle nestlings from Norway to Ireland for reintroduction purposes in 2024 **will not be detrimental** to the survival of *Haliaeetus albicilla* in the wild.

## 1. Biological Information

### Distribution:

The white-tailed sea-eagle is distributed across most of Europe, the Middle East and parts of Africa and Asia, with a stronghold in Norway and Russia (BirdLife International, 2021).

In Norway, the species breeds mainly along the coastline, on the stretch from Sør-Varanger to Oslo, with strongholds in the west and north of Norway, from Trøndelag to Troms (Heggøy and Øien, 2014). During the past 40 years, the species has reoccupied large parts of its historical range, spreading both south and east into areas where it was absent for large parts of the 1900s (e.g. Hauge 2018). The white-tailed sea-eagle has recommenced breeding in the Oslo fjord (e.g., Billing, 2017; Steen et al., 2018; Tangen et al., 2018; Torp & Kjellesvig, 2020). The territorial and reproductive segment of the white-tailed sea-eagle population is resident in Norway all year round, even in the north (Heggøy and Øien, 2014).

### Life history:

White-tailed sea-eagles reach sexual maturity at 5 years of age (Hailer, 2006) and generation length for the species is 14 years (Bird et al., 2020). The generation time is considered long for being a bird, and individuals have been registered to live up to 42 years (in captivity) and 36 years in the wild (Hailer, 2006). Juvenile white-tailed sea-eagles are mostly vagrant or migratory and may cover large distances (Hailer, 2006; Whitfield et al., 2009).

The white-tailed sea-eagle is mainly migratory in the north and east of its breeding range, wintering in continental Europe and southern Asia, but sedentary elsewhere, including in Norway (Orta et al., 2020). In Norway, adult birds usually stay in the same area year-round, while juveniles typically roam. White-tailed sea-eagle pairs are usually stable and breed together until one of them dies (Hailer, 2006). These pairs maintain their territories and continue to breed in the same area year after year, with succeeding generation's pairs also often re-using the same old territories and nests (Folkestad, 1994; Hailer, 2006). Nests are mainly placed on ledges of sea cliffs, or high in trees, and breeding pairs often use 2-3 nests alternately (Folkestad, 1994).

Egg-laying dates vary with latitude, ranging from January in the south of the distributional range to April-May in the arctic regions (Orta et al., 2020). Clutch size is usually 2, with the second egg laid 2-3 days after the first (Orta et al., 2020). Like other birds of prey, incubation starts immediately after the first egg is laid, causing the eggs to hatch asynchronously (Newton, 1979). White-tailed sea-eagles usually fledge at 10-12 weeks old but depend on their parents for food for an even longer period post-fledging (Helander, 1985; Balotari-Chiebao et al., 2016). Most pairs manage to raise only a single offspring per clutch (Orta et al., 2020), and the last hatched chick often dies during the offspring dependency period due to shortage of food.

### Role in the ecosystem:

Where available, more than 90% of the white-tailed sea-eagles' summer diet is comprised of fish and birds, largely seabirds (Hailer, 2006). However, white-tailed sea-eagles are opportunistic and adaptive feeders, and may eat small mammals, reptiles, and other non-aquatic prey when necessary (Hailer, 2006). They may also steal food from other species, and carrion is an important food source in some regions (Hailer, 2006). In Norwegian coastal ecosystems, white-tailed sea-eagles play an important role as scavengers on prey remains left by Eurasian otters (*Lutra lutra*), northern gannets (*Morus bassanus*), gulls, and humans (Folkestad, 1994; Schandy, 2018).

## **2. Population status and trend**

The current overall European population trend is increasing (BirdLife International, 2021). There has been a large increase in the European and Norwegian populations sizes since the 1970s (Heggøy and Øien, 2014). In 2000, the Norwegian population was estimated to 1,900-2,200 breeding pairs, and in 2014 to 2,800-4,200 breeding pairs and still increasing in 2014 (Shimmings and Øien, 2015). In Sweden, the population is estimated to around 1,800 individuals and markedly increasing (Green et al., 2020; SLU Artdatabanken, 2020). In Finland, the population was estimated at 640-720 individuals in 2011 (Väisänen et al., 2011) and is increasing (Hyvärinen et al. 2019). The Danish population was assessed at 144 individuals in 2015 (Dansk Ornitologisk Forening, 2020), and is increasing sharply (Moshøj et al., 2019).

Historically, the white-tailed sea-eagle was rather abundant across most parts of Europe (Hailer, 2006). Populations in Europe have experienced two major demographic bottlenecks during the last two centuries. First in the 1800s caused by shotguns and competition with humans, and then again in the 1960s largely due to accumulation of harmful chemicals (e.g., DDT and PCB) in the environment that affected reproductive success over most of Europe (Hailer, 2006). In 1975, Norway probably had 400 of the total European population of 500 breeding pairs of White-tailed sea-eagles (Schandy, 2018; Barth and Gjershaug, 2019).

## **3. Conservation status**

IUCN Red List for Threatened Species (ver 3.1, assessed 2021): Least Concern (LC). The justification for this status is that the species has an extremely large range, and that the total population appears to be increasing (BirdLife International, 2021).

Norwegian Red List for Species 2021: Least Concern (LC). The justification for this conclusion is that the population is expanding geographically and increasing in numbers (Stokke et al. 2021).

## **4. Threats**

General: Threats for the white-tailed sea-eagle include habitat loss and degradation of wetlands, human disturbance and persecution, environmental pollution, collision with wind generators and indiscriminate use of poison (BirdLife International, 2021). Because of their

habit of feeding on carrion, white-tailed sea-eagles also have a high risk of falling victims of poisons illegally set for other species, such as foxes and crows (e.g., Mee et al., 2016).

Norway: The species has received considerable attention due to the conflict between birds and wind turbines, in particular at the Smøla windfarm in Møre and Romsdal (Heggøy and Øien, 2014; Stokke et al., 2024). Results from the BirdWind project have shown that windfarms situated in important breeding areas can be a significant mortality factor for white-tailed sea-eagles. For example, on average, eight white-tailed sea-eagles die from colliding with wind turbines annually on Smøla (May et al., 2015).

## 5. Conservation and management measures

### International legislation

The white-tailed sea-eagle is listed in CITES Appendix I (commercial trade in specimen is not permitted), and in the Appendices I and II of the Convention on Migratory Species (CMS or Bonn Convention, classified as an endangered migratory species). The species is also listed in Appendix II of the Bern Convention of the Conservation of European Wildlife and Natural habitats as a strictly protected species and on Annex I of the EC Birds Directive, i.e., as a species for which special conservation measures concerning its habitat should be made to ensure species survival and reproduction. Furthermore, it has been listed on Annex A of the EU Wildlife Trade Regulations since 1996 under the genus listing for *Haliaeetus*.

### National legislation

The white-tailed sea-eagle has been fully protected in Norway since 1968 (Res. om fredning av kongeørn og havørn hele året). The species is on list A of the Norwegian CITES Regulation.

### Conservation measures

Conservation actions were initiated in many European countries following the second bottleneck in the 1960s (Hailer, 2006), including the ban of some of the harmful chemicals, protection of nest sites, and supplementary winter-feeding to supply the eagles with uncontaminated food (Hailer, 2006). These actions halted the decline and led to strong population growth from the 1980s across Europe. Local population growth has resulted in recolonization of areas where the species previously was considered extinct (Hailer, 2006).

### Reintroduction programs in Ireland and elsewhere in Europe

The current NDF is concerned with an export application linked to a reintroduction program in Ireland (Mee et al., 2016, Meskell, 2020, The White-tailed Sea-eagle Reintroduction project status report, 2020). Since the initiation of this program in 2007, a total of 173 individuals (2007-2011: 100 nestlings; 2020: 10 nestlings; 2021: 23 nestlings; 2022: 16 nestlings; 2023: 24 nestlings) have been collected from nests in Norway (counties of Vestland, Møre og Romsdal, and Trøndelag) under license and transported to Ireland for release. Each year a

veterinarian in Norway have checked all birds prior to export and certified that they appear clinically healthy and free from any signs of infectious or contagious disease (D. Halley, pers. comm. 2024).

In addition to the reintroduction program in Ireland, there are reintroduction programs in both Scotland and Spain, where white-tailed sea-eagles have been introduced from Norway and have established breeding populations (Green et al., 1996; Evans et al., 2009; [East Scotland Sea Eagle Reintroduction Project | The RSPB, GRAFA, 2023](#)). The population in Scotland currently comprises approximately 200 breeding pairs (Sansom et al., 2016; D. Halley, pers. comm., 2024) and is the source population for the reintroduction program in southern England (Forestry England, 2023; D. Halley, pers. comm., 2024).

#### Conservation measures in Norway

A key success factor for the fast recovery (and low human-caused mortality) of the Norwegian population of white-tailed sea-eagles, has likely been the proactive strategy of involving and informing local people through "Prosjekt Havørn" (Project Sea-eagle) initiated by the Norsk Ornitologisk Forening in 1975 (A.O. Folkestad, quoted in Schandy, 2018).

Mitigation of turbine-induced mortality of birds at wind farms has proven to be difficult (May et al., 2015), and post-construction mitigation measures like painting rotor blades to increase visibility, scaring devices and UV-lights have been tested at Smøla, but the effectiveness of these measures is doubtful (Watson et al., 2018 and references therein). Proper placement of wind farms, such as avoiding important breeding areas for white-tailed sea-eagles, is crucial to prevent raptor casualties (Watson et al., 2018). A plan that could reduce bird casualties by repowering the Smøla wind farm with fewer, but larger turbines has been proposed, but not yet effected (Watson et al., 2018).

## 6. Trade/use

There are no common uses of this species.

## 7. References

- Balotari-Chiebao, F., Villers, A., Ijäs, A., Ovaskainen, O., Repka, S., Laaksonen, T. (2016) Post-fledging movements of white-tailed eagles: Conservation implications for wind-energy development. *Ambio* 45:831-840.
- Barth, E.K., Gjershaug, J.O. (2019). Havørn. In Store norske leksikon. Downloaded on 26 March 2020 from <https://snl.no/hav%C3%B8rn>.
- Billing, H. (2017). Havørna yngler på Håøya. *Toppsykker'n*, 2, 74-79.
- Bird, J. P., Martin, R., Akçakaya, H.R., Gilroy, J., Burfield, I.J., Garnett, S., Symes, A., Taylor, J., Sekercioglu, Ç.H. & Butchart, S.H. (2020). Generation lengths of the world's birds and



- their implications for extinction risk. *Conservation Biology*, 34(5), 1252-1261.
- BirdLife International. 2021. *Haliaeetus albicilla*. The IUCN Red List of Threatened Species 2021: e.T22695137A206723035. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22695137A206723035.en>. Accessed on 22 March 2023.
- Dansk Ornitologisk Forening (2020). <https://dofbasen.dk/ART/>
- Evans, R.J., Wilson, J.D., Amar, A., Douse, A., MacLennan, A., Ratcliffe, N., Whitfield, D.P. (2009). Growth and demography of a re-introduced population of White-tailed Eagles *Haliaeetus albicilla*. *Ibis*, 151(2), 244-254.
- Forestry England. (2023). White-tailed eagle project: October 2023 update – New milestones for England’s eagles. Available online at: <https://www.forestryengland.uk/blog/white-tailed-eagle-project-october-2023-update>. Accessed on 26 April 2024.
- GREFA (Grupo de Rehabilitación de la Fauna Autóctona y su Hábitat) (13 March, 2023) *NOTA DE PRENSA: Más de 20 pigargos europeos vuelan libres tras 2 años de fase experimental*. <https://grefa.org/noticias/94-notas-de-prensa/4225-nota-de-prensa-mas-de-2pigargos-europeos-vuelan-libres-tras-2-anos-de-fase-experimental.html>
- Green, R.E., Pienkowski, M.W., Love, J.A. (1996). Long-term viability of the re-introduced population of the White-tailed Eagle *Haliaeetus albicilla* in Scotland. *Journal of Applied Ecology*, 33(2), 357-368.
- Green, M., Haas, F. & Lindström, Å. (2020). Övervakning av fåglarnas populationsutveckling. Årsrapport för 2019. Rapport, Biologiska institutionen, Lunds Universitet. 96 s.
- Folkestad, A.O. (1994). Havørn *Haliaeetus albicilla*. In Gjershaug, J.O., Thingstad, P.G., Eldøy, S., Byrkjeland, S. (Eds.) Norsk fugleatlas. Klæbu: Norwegian Ornithological Society (NOF), pp. 110-111.
- Hailer, F. (2006). Conservation Genetics of the White-Tailed Eagle (PhD dissertation, Acta Universitatis Upsaliensis). Retrieved from <https://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-6911>
- Hauge, K.-O. (2018). Reetablering av havørn som hekkefugl i Rogaland. *Vår Fuglefauna*, 41(1), 26-30.
- Heggøy, O., Øien, I.J. (2014). Conservation status of birds of prey and owls in Norway. *NOF/BirdLife Norway – Report 1-2014*, 1-129. [https://www.birdlife.no/innhold/bilder/2014/01/29/2586/nof\\_rapport\\_12014.pdf](https://www.birdlife.no/innhold/bilder/2014/01/29/2586/nof_rapport_12014.pdf)
- Helander, B. (1985) Reproduction of the White-tailed Sea Eagle *Haliaeetus albicilla* in Sweden. *Ecography*, 8(3), 211-227.

- Hyvärinen, E., Juslén, A., Kemppainen, E., Uddström, A. & Liukko, U.-M. (eds.). (2019). The 2019 Red List of Finnish Species. Ympäristöministeriö & Suomen ympäristökeskus. Helsinki.
- Irish White-tailed Sea Eagle Reintroduction Project Report to Norwegian Authorities (Feb, 2020). Department of Culture, Heritage and the Gaeltacht, Norwegian Institute for Nature Research, and Golden Eagle Trust Ltd.
- May, R.F., Reitan, O., K. Bevanger, Lorentsen, S.-H., Nygård, T. (2015) Mitigating wind-turbine induced avian mortality: sensory, aerodynamic and cognitive constraints and options. *Renewable and Sustainable Energy Reviews*, 42, 170-181.
- Mee, A., Breen, D., Clarke, D., Heardman, C., Lyden, J., McMahon, F., O'Sullivan, P., O'Toole, L. (2016). Reintroduction of White-tailed Eagles *Haliaeetus albicilla* to Ireland. *Irish Birds*, 10(3), 301-314.
- Meskill, E. (2020) December report on White Tailed Eagle reintroduction phase 11.
- Moshøj, C.M., Eskildsen, D.P., Jørgensen, K.S., Jørgensen, M.F. & Vikstrøm, T. (2019). Overvågning af de almindelige fuglearter i Danmark 1975-2018. Årsrapport for Punkttællingsprogrammet. Dansk Ornitologisk Forening. 58 s.
- Newton, I. (1979) *Population ecology of raptors*. Poyser, Berkhamstead.
- Orta, J., Kirwan, G. M., Christie, D.A., Boesman, P., Marks, J.S. (2020). White-tailed Sea- eagle (*Haliaeetus albicilla*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A., de Juana, E. (Eds.) *Handbook of the Birds of the World Alive*, Lynx Edicions, Barcelona.
- Sansom, A., Evans, R. & Roos, S. (2016). Population and future range modelling of reintroduced Scottish white-tailed eagles (*Haliaeetus albicilla*). Scottish Natural Heritage Commissioned Report No. 898.
- Schandy, T. (2018) I en tid med mange negative miljønyheter, er havørnens tilbakekomst en gladsak. A-magasinet. Published September 17, updated September 19.
- Shimmings, P., Øien, I.J. (2015) Bestandsestimater for norske hekkefugler. NOF-rapport 2015-2. 1-268.
- SLU ArtDatabanken (2020). Rödlistade arter i Sverige 2020.  
<https://artfakta.se/naturvard/taxon/haliaeetus-albicilla-100067>
- Steen, O.F., Tangen, J.E., Halvorsen, P.O. (2018). Havørn reetablerer seg i Telemark. *Vår Fuglefauna*, 41(2), 77-79.
- Stokke B.G., Dale S., Jacobsen K.-O., Lislevand T., Solvang R. og Strøm H. (24.11.2021).

- Fugler: Vurdering av havørn *Haliaeetus albicilla* for Norge. Rødlista for arter 2021. Artsdatabanken. <https://www.artsdatabanken.no/lister/rodlisteforarter/2021/7196>
- Stokke, B.G., Dahl, E.L., Kleven, O., May, R., Nygård, T., Pavón-Jordán, D. & Sandercock, B.K. (2024). Long-term impacts of the Smøla wind farm on a local population of white-tailed eagles (*Haliaeetus albicilla*). NINA Report 2333. Norwegian Institute for Nature Research.
- Tangen, J.E., Steen, O.F., Halvorsen, P.O. (2018). Skjærgårdsmajesteten er tilbake. *Fugler i Telemark*, 47(2), 16-20.
- Torp, J., Kjellesvig, T. (2020). Hekking av havørn dokumentert i Østfold i april 2019. *Vår Fuglefauna*, 43(3), 162-164.
- Väisänen, R.A., Hario, M. & Saurola, P. (2011). Population estimates of Finnish birds. In: Valkama, J., Vepsäläinen, V. & Lehikoinen, A. 2011: The Third Finnish Breeding Bird Atlas Finnish Museum of Natural History and Ministry of Environment: ISBN 978-952-10-7145-4. <http://atlas3.lintuatlas.fi/english>
- Watson, R.T., Kolar, P.S., Ferrer, M., Nygård, T., Johnston, N., Hunt, W.G., Smit-Robinson, H.A., Farmer, C.J., Huso, M., Katzner, T.E. (2018). Raptor Interactions With Wind Energy: Case Studies From Around the World. *Journal of Raptor Research*, 52(1), 1-18.
- Whitfield, D.P, Douse, A., Evans, R.J., Grant, J., Love, J., McLeod, D.R.A., Reid, R.M. Wilson, J.D. (2009). Natal and breeding dispersal in a reintroduced population of White-tailed Eagles *Haliaeetus albicilla*, *Bird Study*, 56(2), 177-186.