

VKM assessment:

Non-detriment finding for the Osprey

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Scientific name: *Pandion haliaetus* (Linnaeus, 1758)

Common name (s): Osprey

Norwegian name: Fiskeørn

Type of permit: CITES Appendix II

Purpose and source: The proposal concerns the export of up to 12 live, wild caught (source code W) Ospreys from Norway for reintroduction (purpose code N) to Switzerland.

VKM has adopted the definition of detriment, jf. Conf. 16.7 (Rev. CoP17) suggested by the U.S Fish and Wildlife Service Division of Scientific Authority (<https://www.fws.gov/international/pdf/archive/workshop-american-ginseng-cites-non-detriment-findings.pdf>):

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:

Ospreys are on the increase globally, including the Norwegian population. The species has recolonized several former distribution areas naturally. In addition, reintroduction to former habitat is an important conservation tool for Ospreys, and is carried out in many countries such as the USA, Portugal and Spain.

Because the Osprey population in Norway is slowly increasing and the neighboring Swedish population is the strongest in Europe, the species conservation status has been downgraded from vulnerable to near threatened on the Norwegian red list of species.

Based on the findings presented in this report, VKM finds that the proposed export of a maximum of 12 Osprey nestlings from Norway to Switzerland for reintroduction purposes is **likely to be non-detrimental** to the survival of the species.

Species background

The Osprey is a cosmopolitan bird species, distributed over all the continents except Antarctica (Poole, 1989). Osprey habitats vary greatly, with different requirements between summer breeding habitat and winter non-breeding habitat (Bierregaard et al., 2020). Habitat requirements for breeding include i) adequate supply of accessible fish within energetically adequate commuting distance (10-20 km) of nest; ii) open nest sites free from (especially mammalian) predators, for example trees, large rocks, or increasingly, artificial structures such as nest platforms, towers supporting electrical lines etc.; and iii) ice-free season of sufficient duration to allow fledging of young (Bierregaard et al., 2020). Northern populations migrate south to overwinter in subtropical and tropical regions. They return north each spring with warmer temperature and more accessibility of fish. A migrating Osprey, nesting in the northern region and overwintering in the south, can fly more than 200,000 km during its life time (Bierregaard et al., 2020). Birds begin migrating to lower latitudes in August, arrive at wintering grounds by October, and return in March and April (Ferguson-Lees and Christie, 2001 cited in Birdlife International, 2019). Ospreys are generally solitary and migrate alone, but may congregate in small groups in roosting areas or where food is abundant (Ferguson- Lees and Christie, 2001 and del Hoyo, 1994 in in Birdlife International, 2019). Ospreys feed mainly on live fish (Bierregaard et al., 2020).

Ospreys are long-lived birds, with individuals reported to be alive and breeding at 25 years of age (Bierregaard et al., 2020). Reproduction starts at around age three (Bierregaard et al. 2020, and references therein). The species breeds annually, however studies have found that individuals differ greatly in the production of fledglings; 22% of egg-laying females and 12% of males with egg-laying mates produced no young during their lifetime (Postupalsky, 1989b in Bierregaard et al., 2020). Breeding pairs lay one to four eggs per nest, with three as the average, and one considered rare. There is a clear latitudinal trend with southern populations producing significantly smaller clutches than northern ones (Bierregard et al., 2020). Ospreys are philopatric, and the majority of birds return to their natal area to breed, although males more so than females (Bierregaard et al., 2020 and references therein).

The total population size of ospreys is highly uncertain, and has been estimated to somewhere between 100,000 and 499,000 mature individuals (BirdLife International, 2019). The species' total population trend is estimated to be increasing (BirdLife International, 2019).

Ospreys are vulnerable to acid rain (which has negative impacts on prey populations) and are also easily exposed to agricultural pesticides, fertilisers and heavy metals in water sources (Heggøy and Øien, 2014), which may affect factors related to reproduction (Bierregaard et al., 2020).

Migrating birds are also vulnerable to shooting, for example if they stop at fish farms (Bierregard et al., 2020; Østnes et al., 2019).

Moreover, Ospreys are highly vulnerable to the effects of wind energy developments (Birdlife International, 2015). In Norway, several Ospreys have also been killed in collisions with power/electricity lines, plane collisions or caught in fishing gear (Shimmings and Øien, 2015).

In 1979, *P. haliaetus* was included in CITES Appendix II, as a part of the listing of Falconiformes spp. In 1997, it was listed in Annex A of the EU Wildlife Trade Regulations. There are very few records of this species registered in the CITES trade database in the time period between 2010 and 2019. There appears to be very little international trade in Ospreys. The majority of the trade records registered in the CITES trade database is for scientific (purpose code S) or reintroduction purposes (purpose code N).

P. haliaetus has been included in Appendix II of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) since 1979.

The Osprey was categorized as “Least Concern” by the IUCN Red List due to its large geographical range and seemingly increasing population trend (BirdLife International, 2019).

The Osprey is also included in Annex I of the EU Birds Directive and is thus considered a priority species for conservation along all of its distributional range.

Ospreys in Norway

The Osprey is mainly distributed in the southeastern parts of Norway, although small breeding populations are also found in Rogaland, Oppland, Finnmark and in Trøndelag. The Osprey distribution corresponds to a large extent with the distribution of fish species such as perch (*Perca fluviatilis*), pike (*Esox lucius*), white fish (*Coregonus lavaretus*), grayling (*Thymallus thymallus*) and burbot (*Lota lota*) (Nordbakke, 1994; Henriksen and Hilmo, 2015).

Ospreys breeding in northern Europe migrate south through Europe along three main flyways to wintering areas in tropical Africa (Østnes et al., 2019 and references therein). Norwegian birds migrate to central and west Africa (Østnes et al., 2019). Marked birds from the Finnmark population are also considered part of the shared population with Finland, and these birds have been found further east in Africa than the birds marked in central and south Norway (Bakken et al., 2003 cited in Shimmings and Øien, 2015).

Ospreys were common in Norway until the end of the 1800s. The population decreased between 1850 and 1930, caused by acid rain and overhunting. The species was totally

protected by law in 1962. No offtake other than for reintroduction purposes is currently legal (Shimmings and Øien, 2015).

The Osprey is classified as Near Threatened on the Norwegian red list of species (Henriksen og Hilmo, 2015). Although the number of reproductive individuals may be less than 1000 individuals, the Osprey was downgraded from Vulnerable to Near Threatened because the Norwegian population has been increasing over the last 30 years, and the neighboring Swedish population is doing well (and would most likely contribute to reestablishment of local populations in Norway if they disappear) (Henriksen and Hilmo, 2015). Sweden holds the largest breeding population in Europe, with >4000 breeding pairs (Schmidt-Rothmund et al., 2014).

The Norwegian Osprey population is estimated to consist of between 400 and 600 breeding pairs (Heggøy and Øien, 2014; Shimmings and Øien, 2015), however, the population estimates from several counties in Norway are highly uncertain (table 22, Shimmings and Øien, 2015). The population trend is increasing compared to the last estimate of between 150 and 200 breeding pairs in 1991 (Heggøy and Øien, 1994).

Reintroduction programs

Historically, Ospreys have been threatened by human persecution, egg collection, and pesticide use, all which led to a significant reduction in numbers and local extinctions in parts of its range (BirdLife International, 2015).

Reintroduction is a common conservation strategy for Ospreys, and is used to enhance local populations or reintroduce new populations to historical habitat. The reintroduction programs generally use a technique known as "hacking", developed for Peregrine falcon (*Falco peregrinus*) as well as for other raptors. Nestlings are moved from established populations to an artificial structure in the target area, and food is provided for the young birds as they learn to fly and hunt (Poole 1989a cited in Bierregard et al., 2020).

For example, in the U.S. reintroduction programs releasing at least 1,849 young Ospreys have been undertaken in 20 states where the species had been extirpated, occurred in low numbers or where new habitat was available (Bierregard et al., 2020). The conservation status of Ospreys in the Mediterranean region is considered unfavourable, and reintroduction projects have been launched in southern Europe: Andalucía in continental Spain in 2003 (Muriel et al., 2010), central Italy in 2006 (Monti et al., 2014) and in Portugal in 2011 (CIBIO, 2015).

The Osprey reintroduction project in Switzerland was officially launched in 2013. The actual release started with a test-year in 2015 and the project started in 2016. A total of 54 birds have been released of which 50 have successfully migrated to wintering grounds. The goal of the project is to have a minimum of 60 birds migrating in order to establish a breeding

population of Ospreys in the Three Lakes region of western Switzerland (Strahm et al., 2019). Birds have been collected from Germany and Norway and released as recent as 2019. The Norwegian birds were collected in Østfold, and this is also where the proposed collection in 2020 will be carried out. The population of Østfold consists of between 65 to 100 breeding pairs, is among the largest local populations of Osprey in Norway (table 22, Shimming and Øien, 2015), and lies adjacent to strong Swedish populations.

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