

Cormorant-White-tailed eagle interactions in the Baltic Sea – effects in Finland

CORE-collaboration project, Pekka Rusanen at Finnish Environment Institute SYKE 3.2.2022
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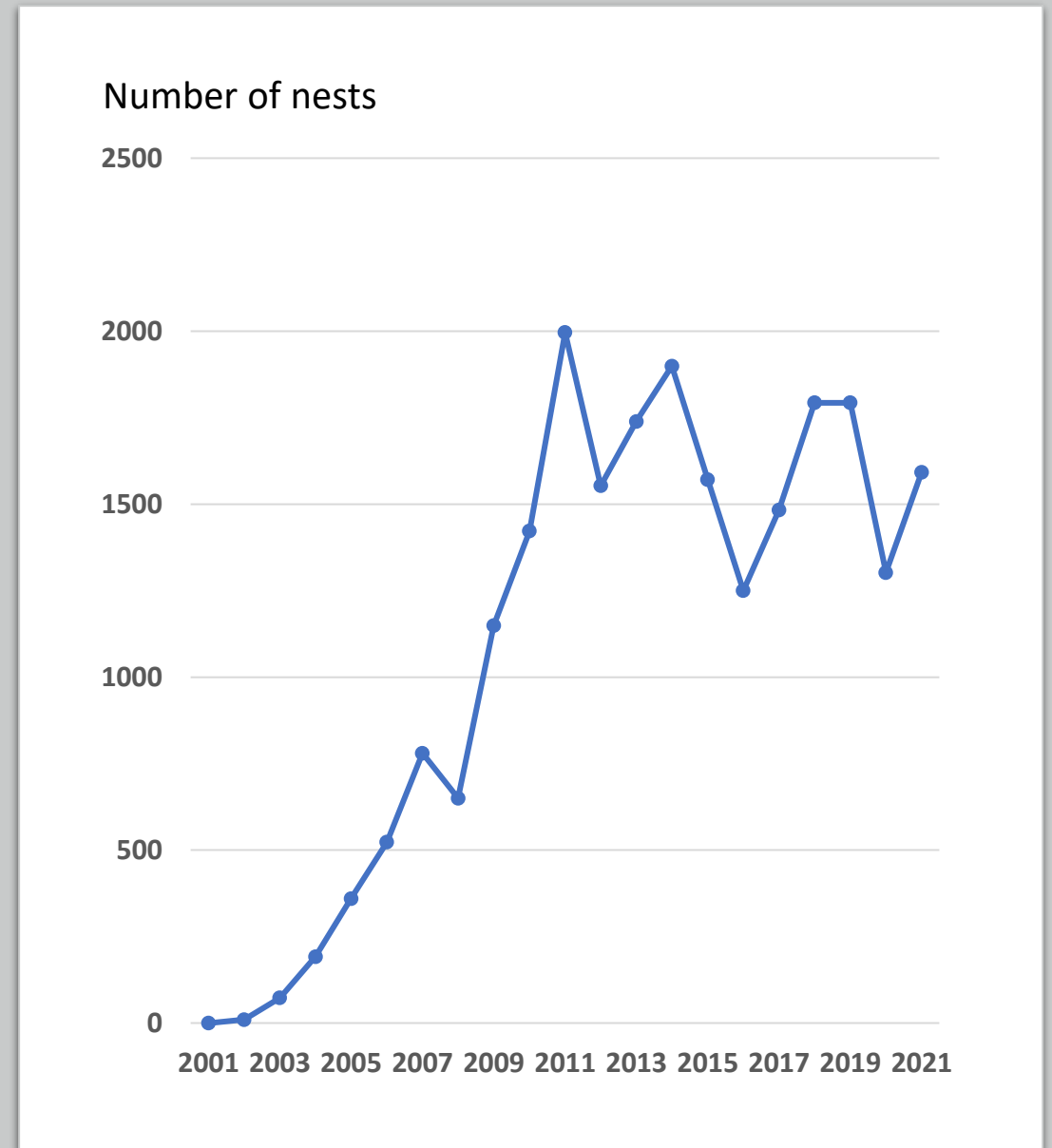


An example of a near-coastline colony where no major damages caused by White-tailed Eagles has been observed

Iso Haahkaluoto colony

Western Gulf of Finland, Kirkkonummi

- **Lifespan already 20 years. The oldest colony in southern Finland.**
- **The largest colony in the Gulf of Finland in 2006-2015.**



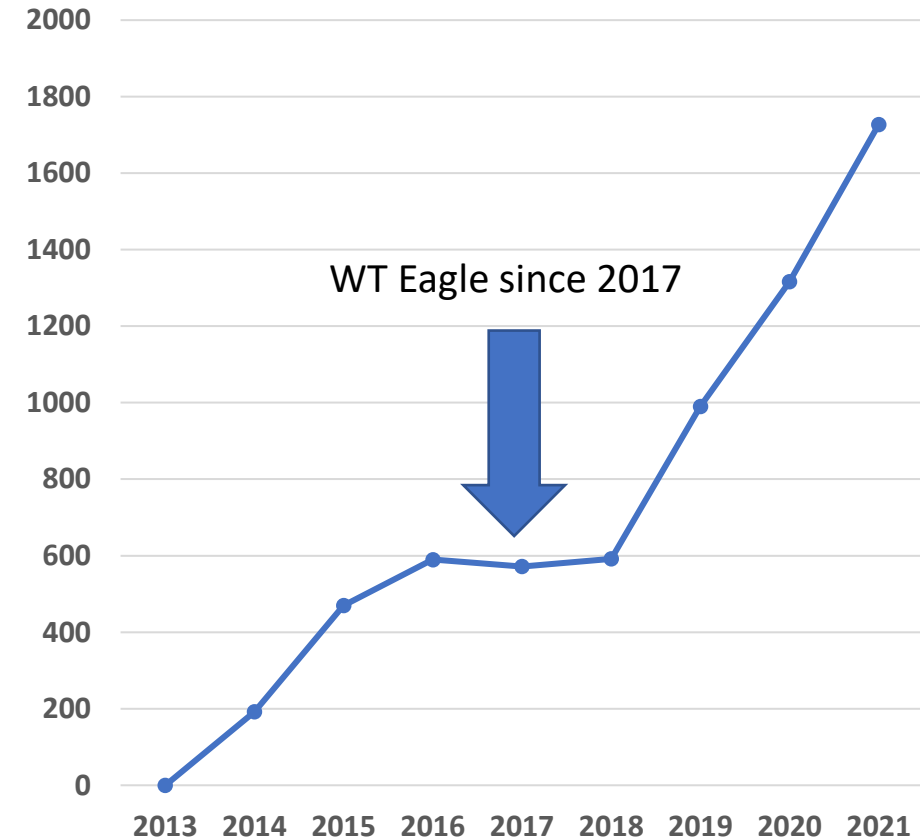
An example of a colony including a breeding pair of White-tailed Eagle in the colony forest during 2017-2020 (and nearby 2021)

Stora Buskören colony

Middle Gulf of Finland, Porvoo

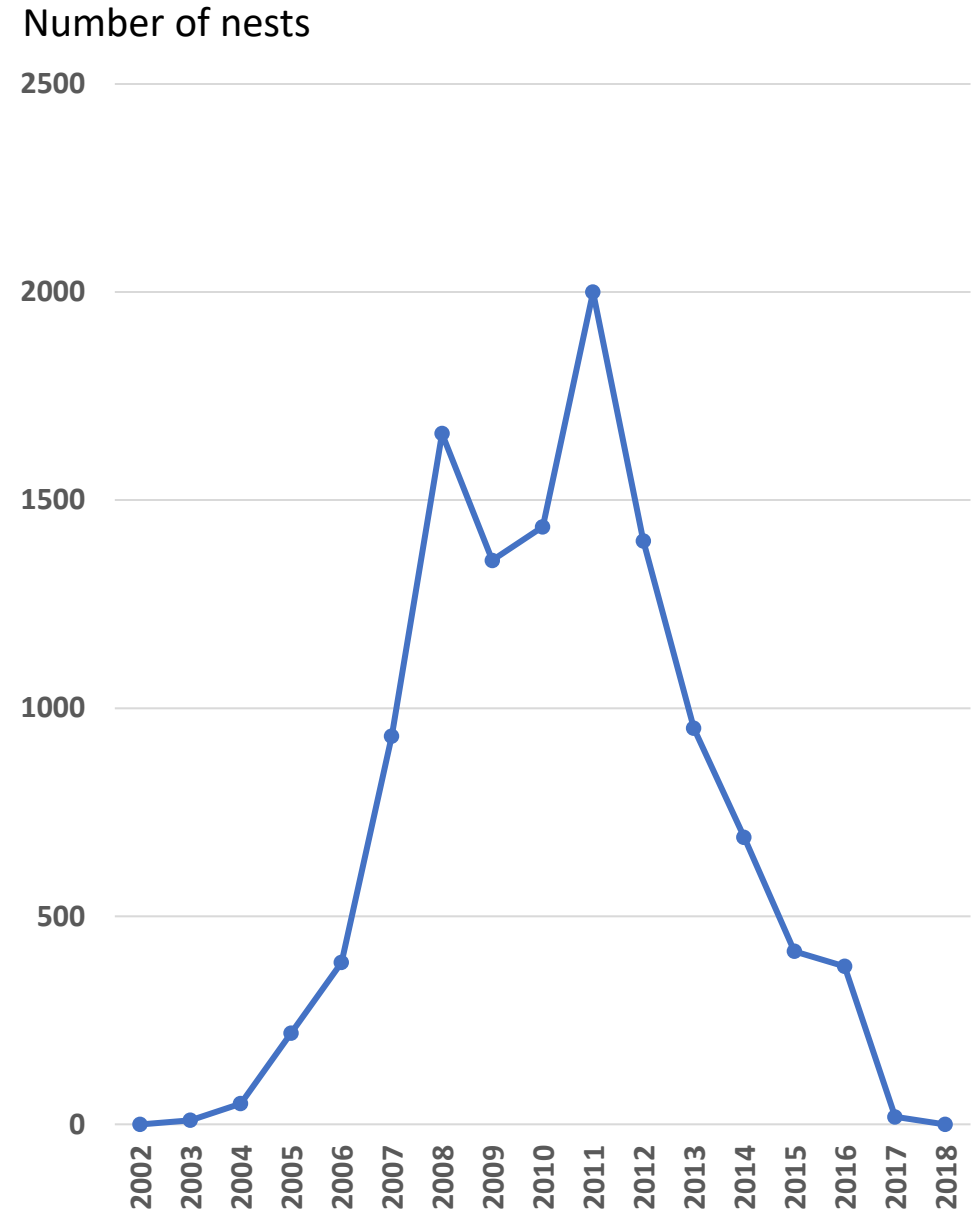
- **Continual growth in nest numbers since 2018, annually 31-67 %.**
- **No major losses in production of fledglings observed.**
- **A protective effect against predation of visiting White-tailed Eagles.**
- **The largest colony in the Gulf of Finland in 2020-2021.**

Number of nests



A case study of Äggskär colony Archipelago Sea, Nauvo

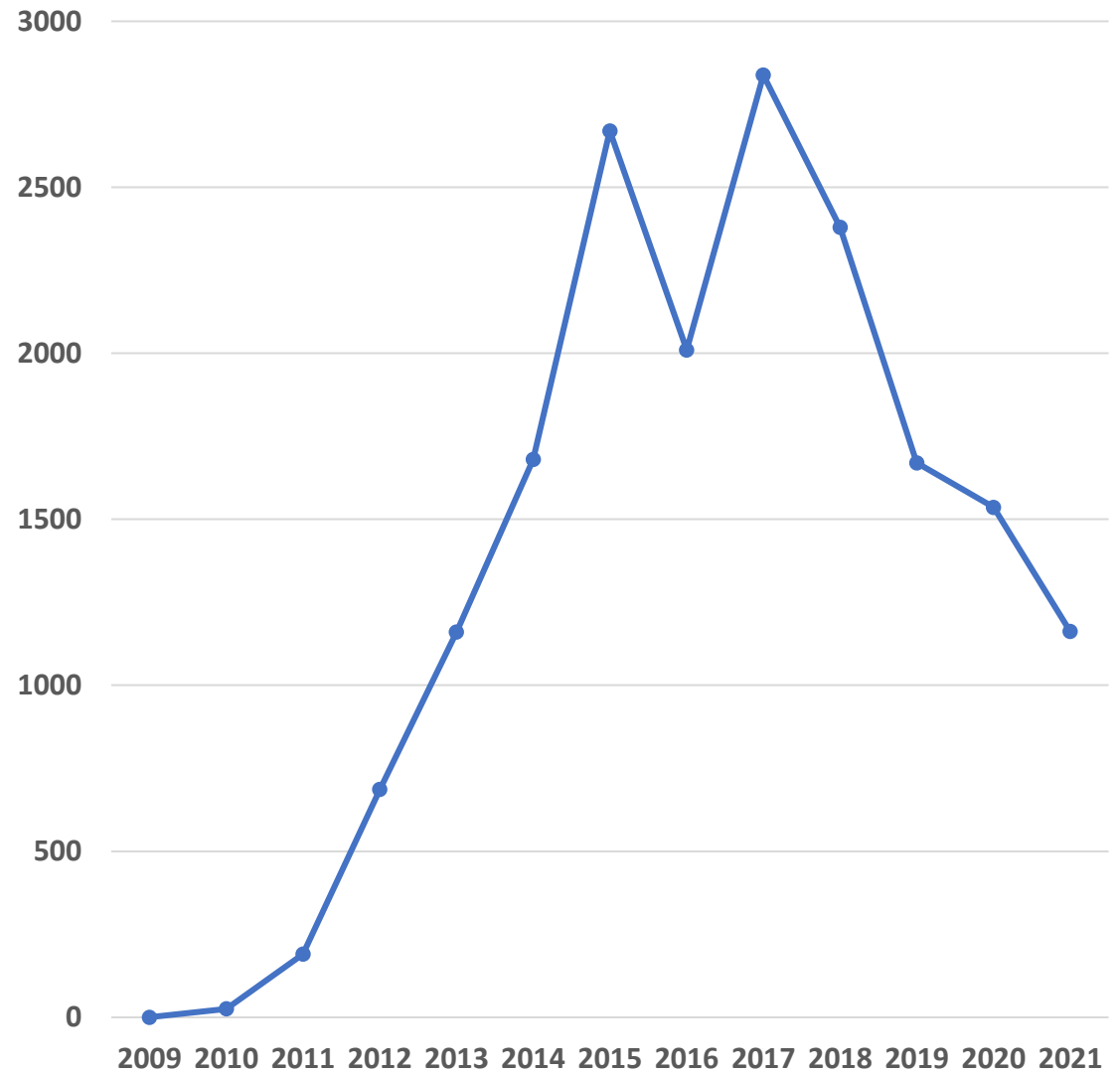
- **Heavy predation of White-tailed Eagles during 2010's.**
- **Up to 20-30 mainly immature WT Eagles simultaneously at the colony trees in breeding seasons.**
- **Took seven years to drop from 2,000 nests to zero. Lifespan 15 years.**
- **The largest colony in the Archipelago Sea in 2007-2012.**



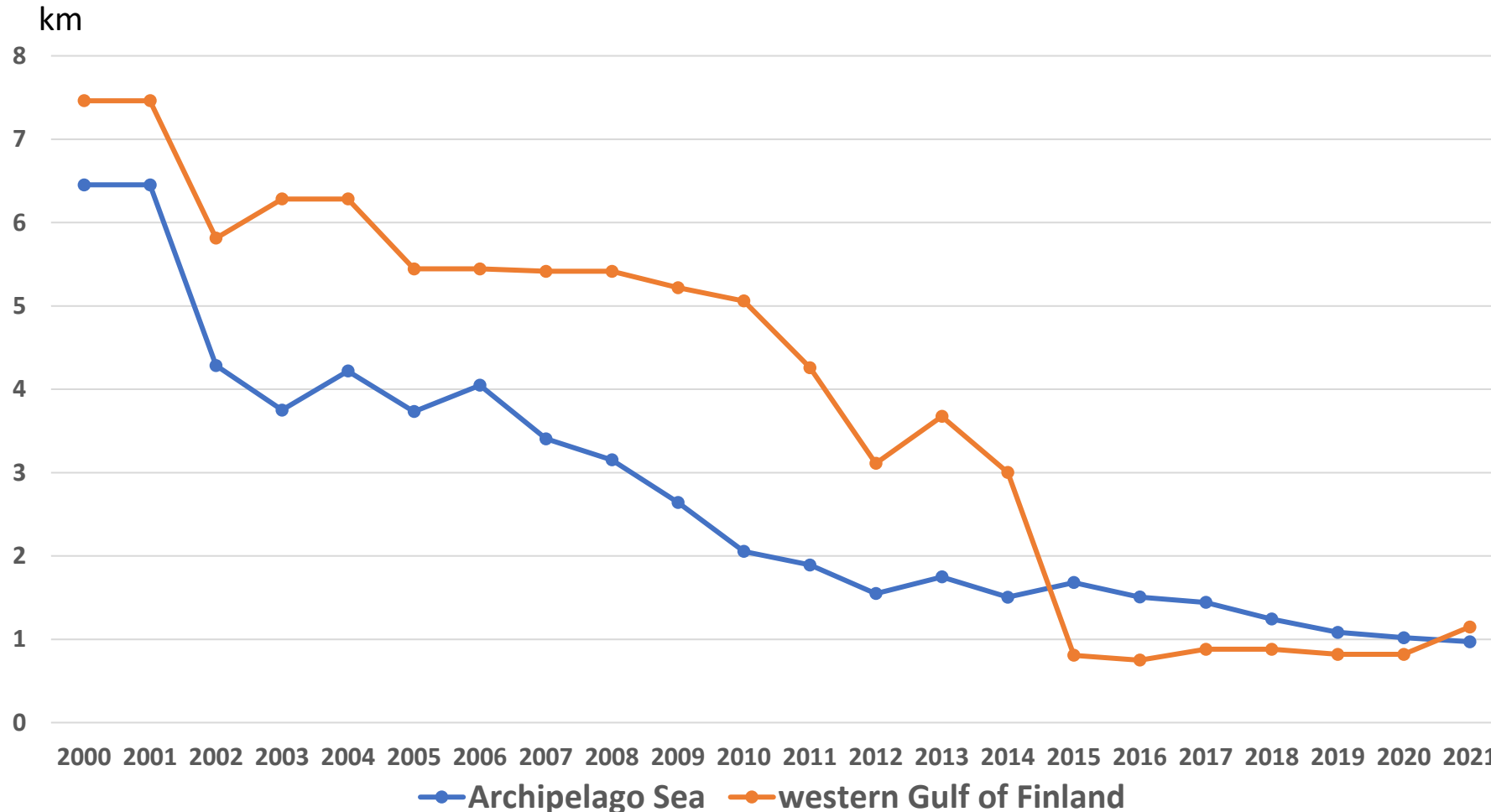
The next major countdown? Urpoinen colony Archipelago Sea, Uusikaupunki

- **Heavy predation of White-tailed Eagles in recent years.**
- **Up to 20 mainly immature WT Eagles simultaneously at the colony trees in breeding seasons.**
- **The largest colony in the Archipelago Sea in 2013-2018.**

Number of nests

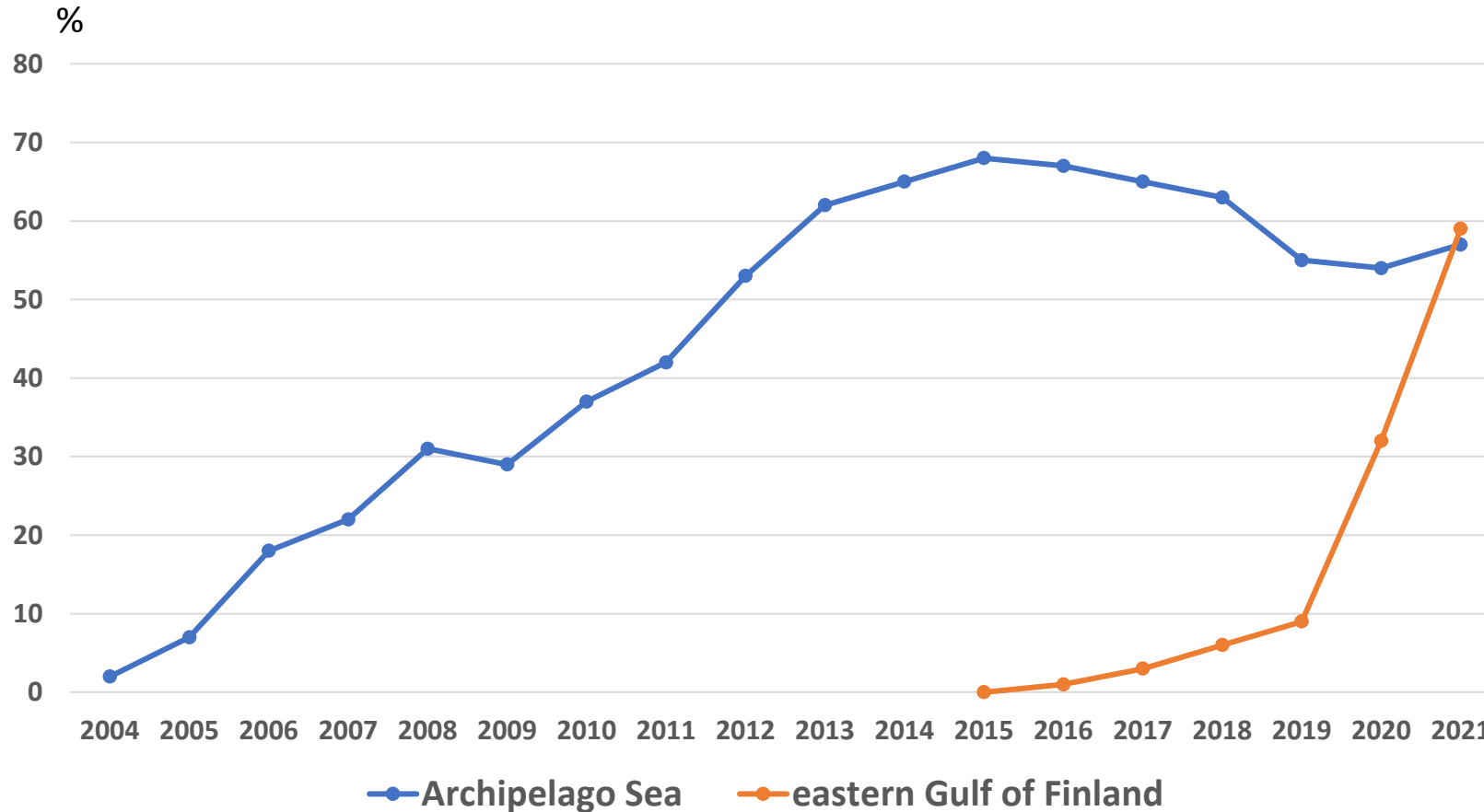


Getting closer to coastal areas



The mean distance (km) of Cormorant colonies to the nearest mainland coast or large inhabited island in the Archipelago Sea and in the western Gulf of Finland (Helsinki – Hanko) during 2000-2021.

Tree-nesting increasing



The proportion (%) of Cormorant nests located in trees in the Archipelago Sea and in the eastern Gulf of Finland (Loviisa – Virolahti) during 2004-2021.

Summary

The White-tailed Eagle is practically the only predator affecting heavily on Cormorant colonies in the Finnish archipelago. Most Finnish colonies are affected more or less by WT Eagles nowadays.

Some obvious effects:

- **Production of fledglings decreases more or less in affected colonies, or may fail totally => relatively less first-time breeders return to their natal areas.**
- **In certain colonies, even large ones, the impact can be drastic if predation is heavy and annual. Small first-year colonies may not succeed to breed in stronghold areas of WT Eagles.**
- **Colonies are getting closer to coast and large inhabited islands, especially in stronghold areas of WT Eagles (to some extent breeding more safe near human settlements).**
- **Tree-nesting is increasing, even in areas (eastern GoF) where predation has just started to strengthen (to some extent breeding more safe on forested islands than on open ground).**
- **May also affect on overall colony size and on size of first-year colonies (strong enlargement in nest numbers in both cases in the 2010's).**

Thank you!

