

Ministry of Environment of Denmark

Environmental Protection Agency

The Danish Environmental Protection Agency – Nordic cormorantmeeting 10-11 februar 2021

Under the Ministry of Environment of Denmark





<u>رنی</u>

Management of cormorants in Denmark

Egg oiling as a tool to limit numbers in existing colonies

&

Actions to limit succesful colonisation of new sites

&

Shooting to scare – a tool to limit damage







Types of regulatory options

Area	Reason	Dates	Permits issued in 2018 / 2019
Freshwater	1 km from active used fishing gear.	1. August – 31. March	15 / 20
Marine	1 km from active used fishing gaer.	1. August – 31. March	98 / 105
Of shore	Protection of fish in breeding areas.	1. August – 31. March	17 / 25
Freshwater (Streams, ponds etc.)	Protection of the species eel, salmond, trout, north sea houting and grayling.	1. August – 31. March	50 / 120
Freshwater (Streams, ponds etc.)	Protection of migrating smolt.	1. April – 31. May	21 / 19
Protected areas for fish (Marine)	Protection of migratory fish species.	1. August – 31. March	22 / 58
Protected areas for fish (Marine)	Protection of migratory fish species.	1. April – 31. May	13/10
Rest areas (Both night and day)	Protection of the species eel, salmond, trout, north sea houting and grayling.	1. August – 31. March	32 / 35
Kolonies (Oiling eggs, destroy nests and eggs)	Reduce damage at vulnurable fish stocks and recreational fishery.	March - April	15/11



Management of breeding colonies

Actions taken in breeding colonies have one of three aims:

- I. Avoid that cormorants are succesful in forming new colonies where it would be unfortunate
- II. Reduce the production of young in a few existing colonies in order to reduce colony size
- III. Keepa few of the existing colonies from expanding into neighbouring trees/islets where they are unwanted

Actions in colonies in 2020 as an example

- Actions were taken in 20 of the 90 colonies in the country
 - 13 colonies exposed toegg oiling
 - 6 colonies to reduce colony size
 - 7 colonies to avoid succesful colonisation of new sites
 - 3 colonies exposed to removal of nests and eggs
 - 5 colonies exposed to shooting of some adults to scare
- A total of 3695 nests were exposed to management.
 - This corresponds to 11.6% of all nests in the country in 2020.

86% of the nests exposed to management in DK in 2020 were oiled





Development in actions

Numbers of nests exposed to management





Development in actions

% of all nests in DK exposed to management





Effects of egg oiling



Egg oiling in Ringkøbing fjord





The cormorant colonies in Ringkøbing fjord (Natura 2000-area)



Development of colonies in Ringkøbing fjord



Egg oiling in Ringkøbing fjord Conclusion: Annual but variable intensity of immigration





Røndland Sansø





Example of long-term effects Rønland Sandø



Short-terms effects

- Food demands of parents will be lower during the breeding season
- Fewer young birds will be present immediately after fledging



Lerm-term effects

- Breeding numbers may start to decline after several years of intensive egg oiling due to
 - emigration of unsuccessful breeders
 - lack of new recruits after 2-5 years
- However, immigration may increase if food conditions become favourable



% of colonies existing in the 1st, 2nd, 3rd and 4th year after the colonisation attempt



Effects of actions in new colonies



A few conclusions – actions in colonies

- The success in avoiding successful establishment of new colonies seems to vary depending on:
 - How quickly actions are taken (most efficient if done in the very first years and early in the season, i.e. before incubation starts)
 - How intensive actions are (lowest chance of return if scaring activities are intensive and repeated)
 - The availability of alternative breeding sites
- Regulation of the size and distribution of the breeding population by oiling of eggs is difficult and there is no guarantee of success despite continuing oiling year after year (new birds may immigrate if food is easily available)

Shooting as a tool to limit cormorant numbers outside breeding season



Shooting to scare cormorants – with season effects scaring near the main night roost in a Danish fjord





Most cormorants shot in Denmark are shot in an attempt to limit numbers near fishing gear



Numbers of cormorants shot in Denmark 1994/95-2017/18 pr. season



Shooting in Ringkøbing fjord

Where were cormorants shot? Average for 2006-2013

28 Cormorant Management - the Danish EPA

- 496 hunters got a dispensation
- 114 of the hunters shot cormorants
- A total of 832 cormorants were shot



Thank you for your interest

- Caroline Vestergaard Mikkelsen¹, Jacob Sterup² & Thomas Bregnballe²
 - ¹Danish Ministry of Environment & ²Aarhus University

