



AARHUS UNIVERSITY
DEPT. OF BIOSCIENCE

Nordic Cormorant meeting via Zoom

10-11th November 2020

CROSS-BORDER CORMORANTS

– BALTIC SEA OVERVIEW

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CONTENTS

- The breeding population
 - Distribution and development + Gaps in knowledge
- Where do cormorants go outside the breeding season
 - Links between location of breeding area and distribution outside breeding
- Plans for the future



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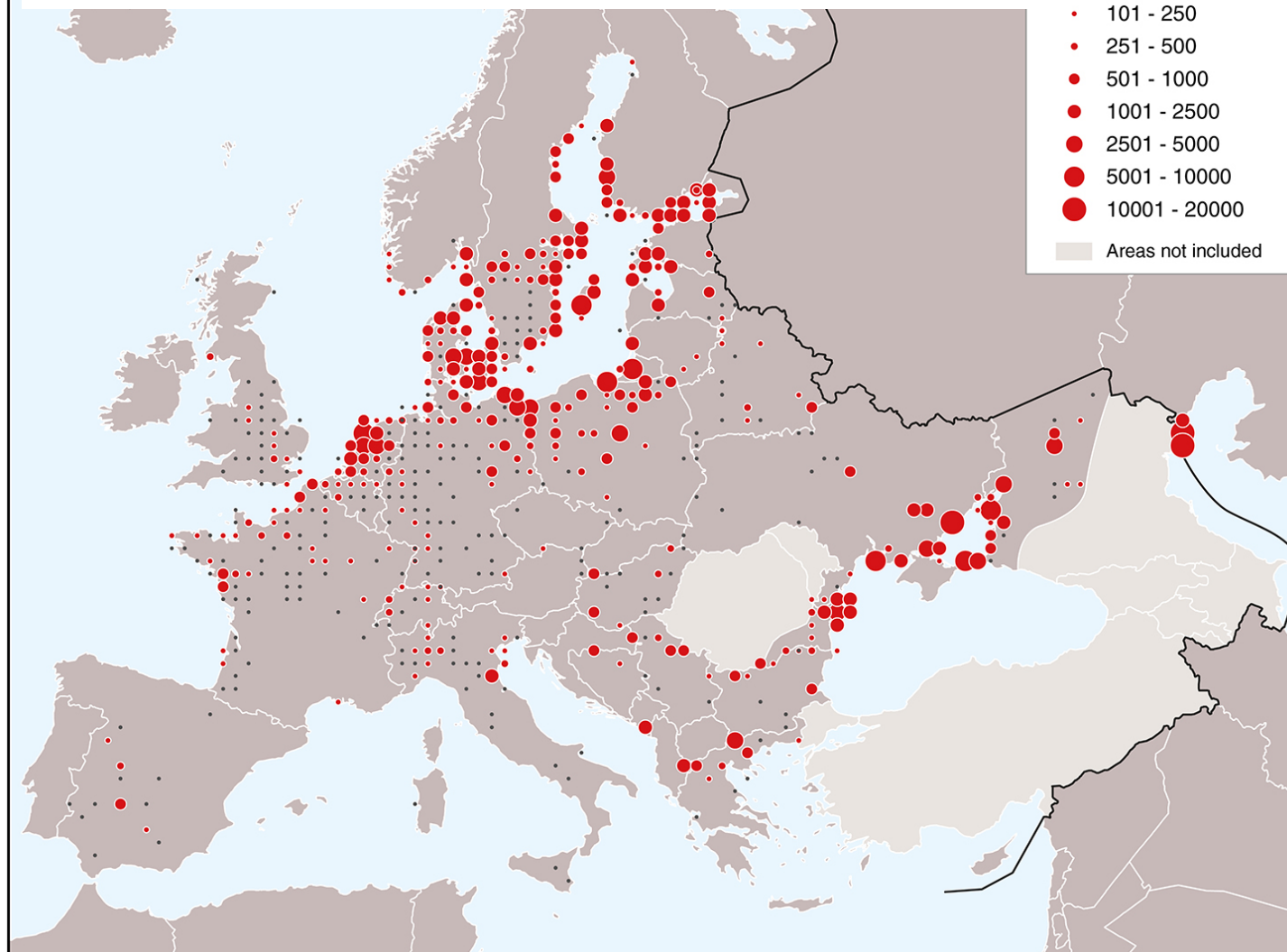
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THE BREEDING POPULATION



Breeding distribution of *sinensis* in 2012



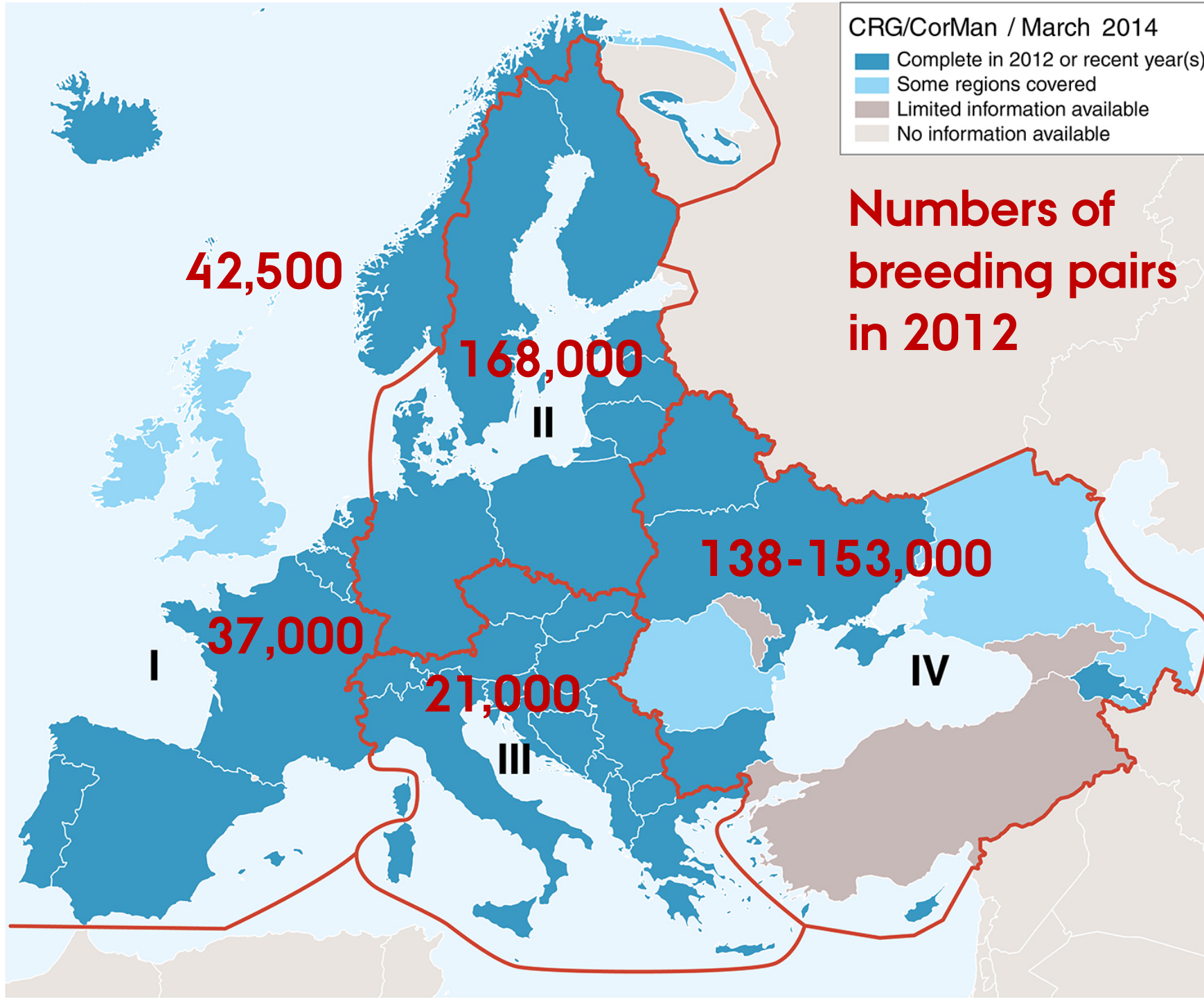
Cormorant counts in the Western Palearctic – Organised by the EC initiative *CorMan* in collaboration with the IUCN-Wetlands International Cormorant Research Group

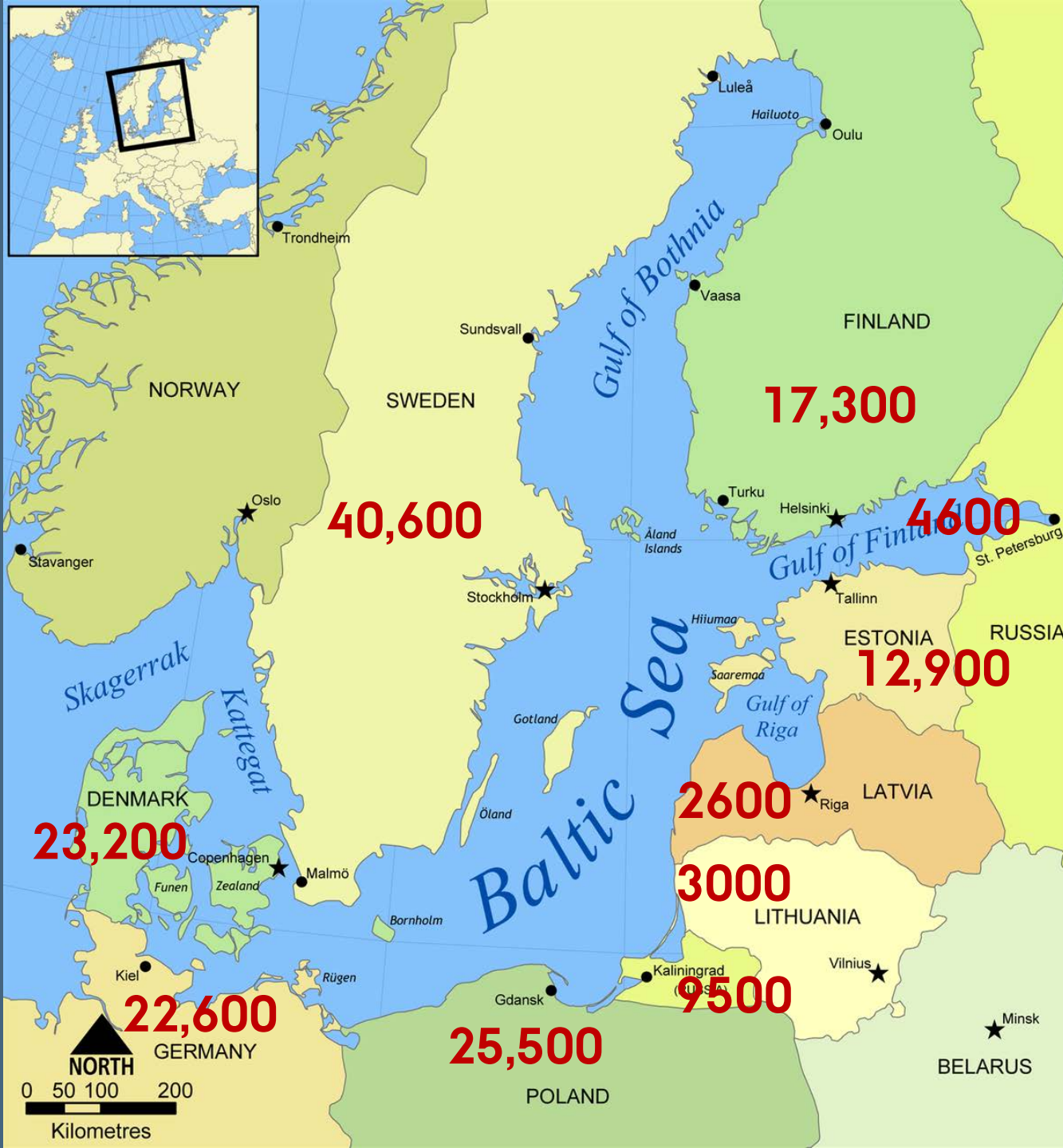


CRG/CorMan / March 2014

- Complete in 2012 or recent year(s)
- Some regions covered
- Limited information available
- No information available

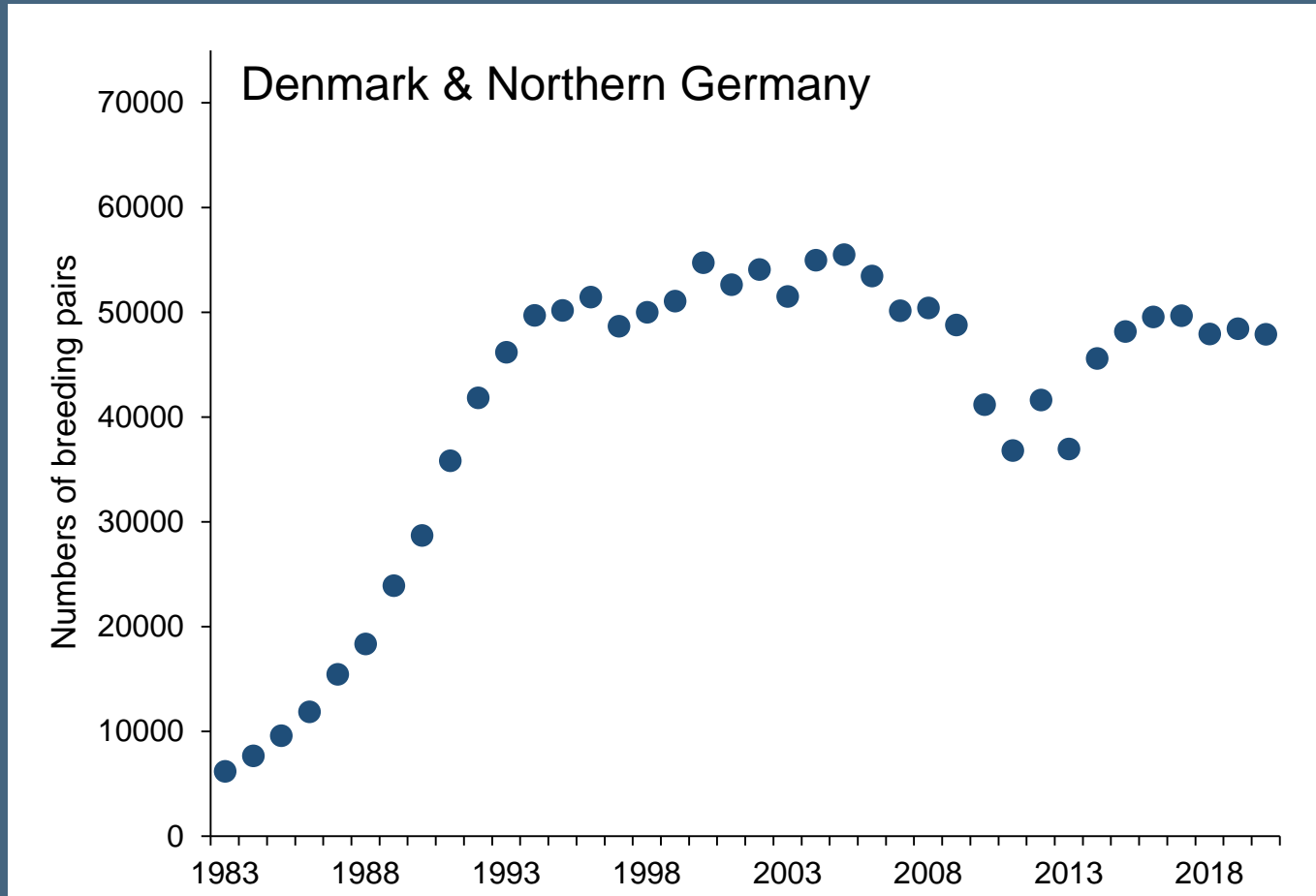
Numbers of breeding pairs in 2012







WESTERN BALTIC

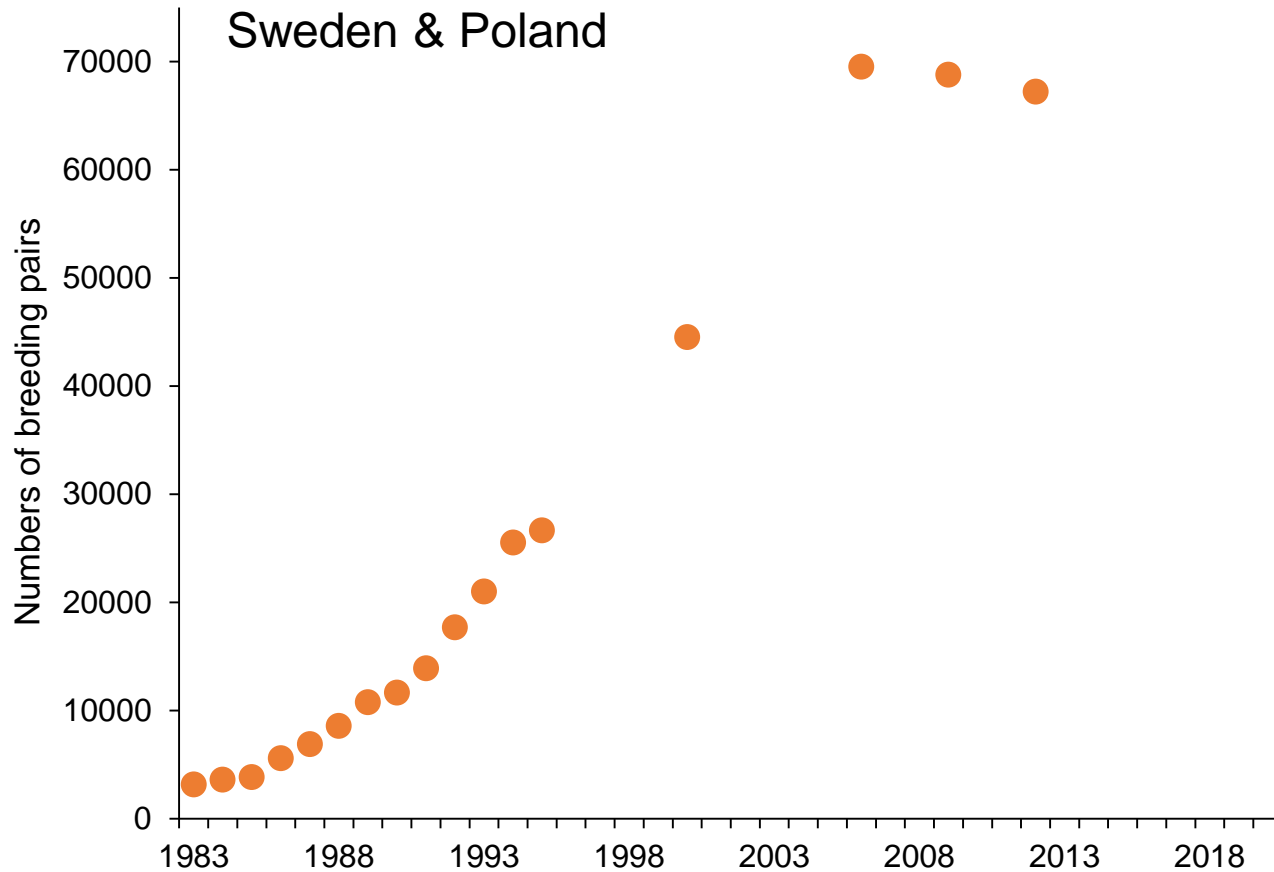




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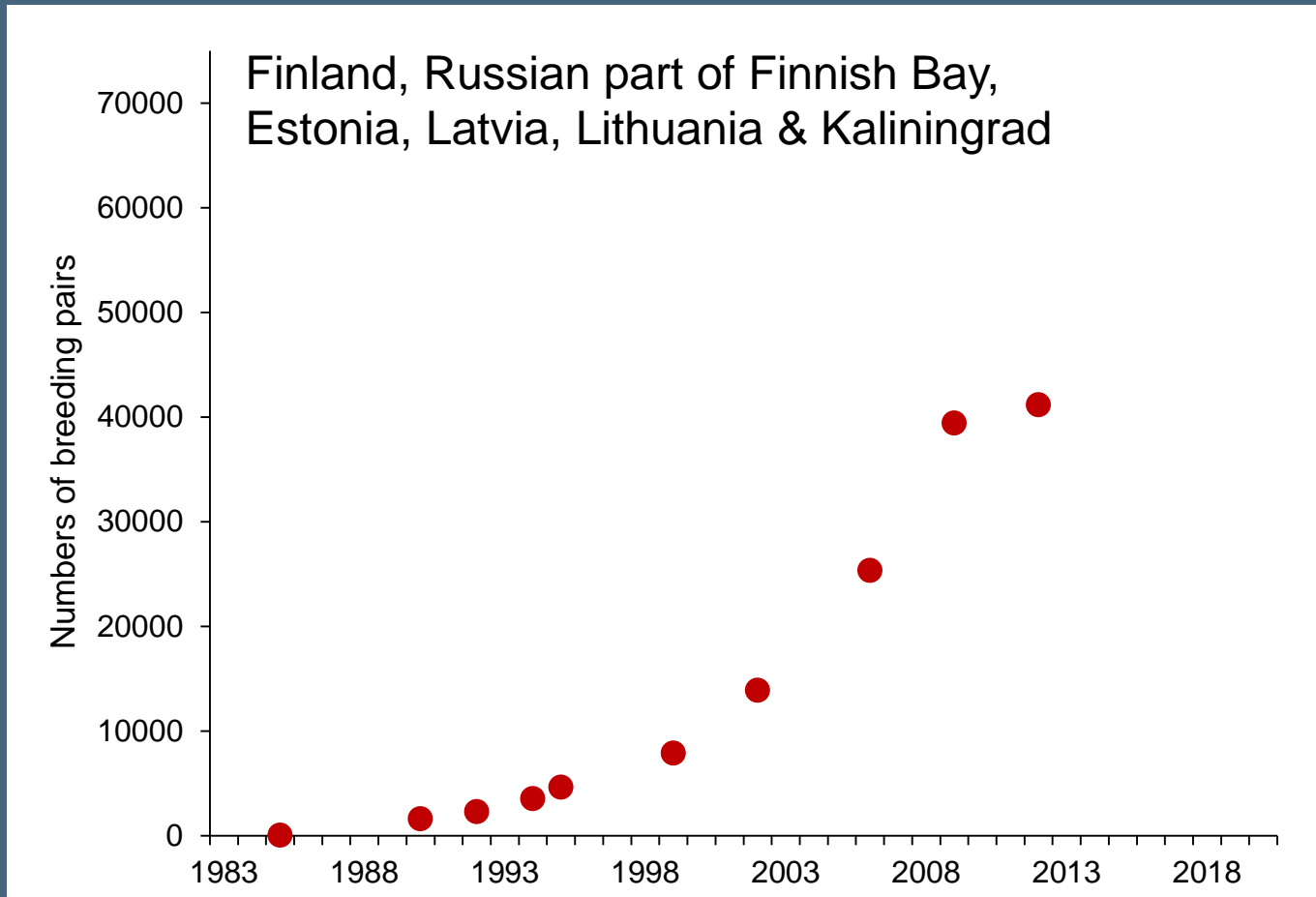
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CENTRAL BALTIC



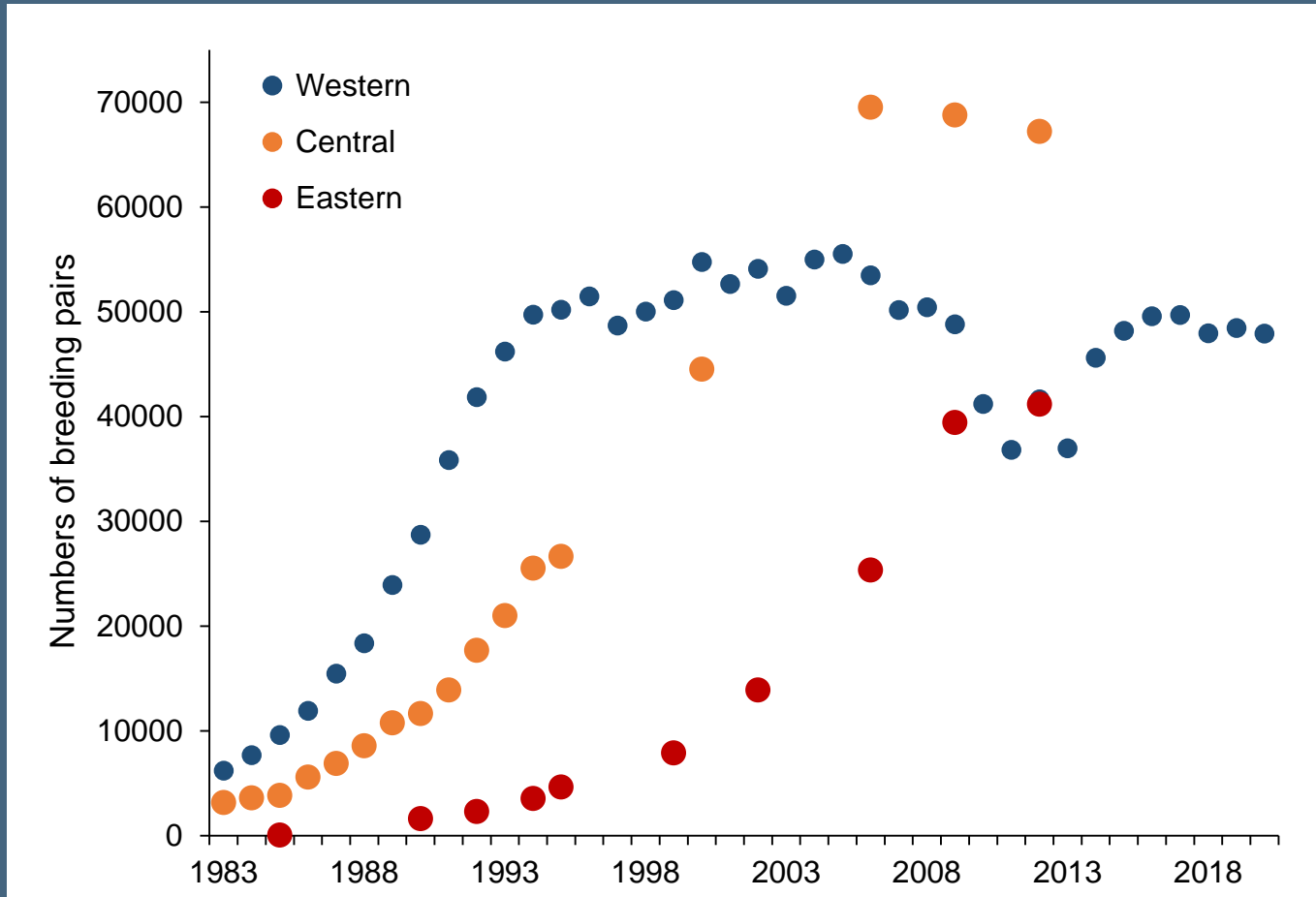


EASTERN BALTIC



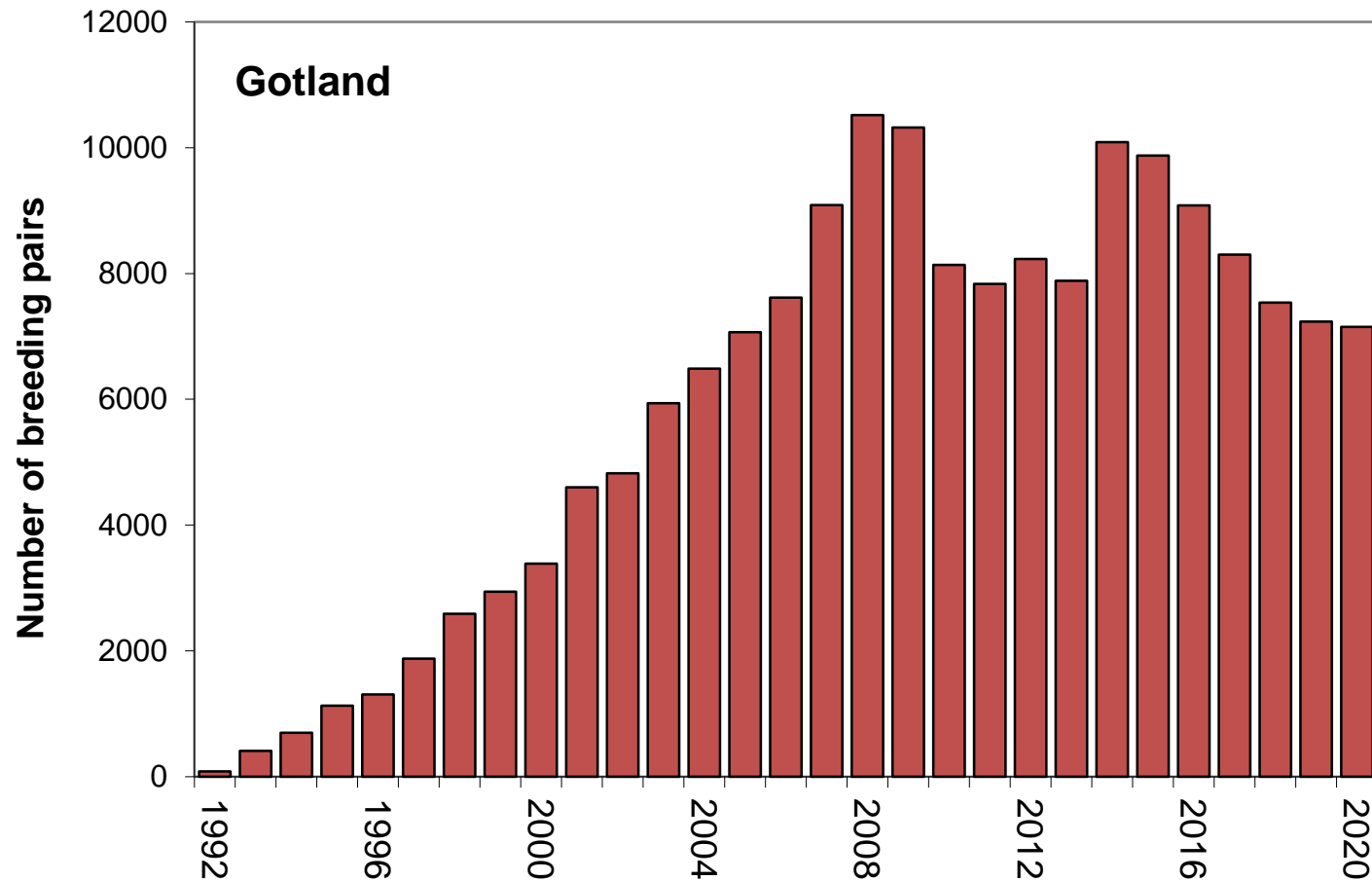


OVERALL DEVELOPMENT



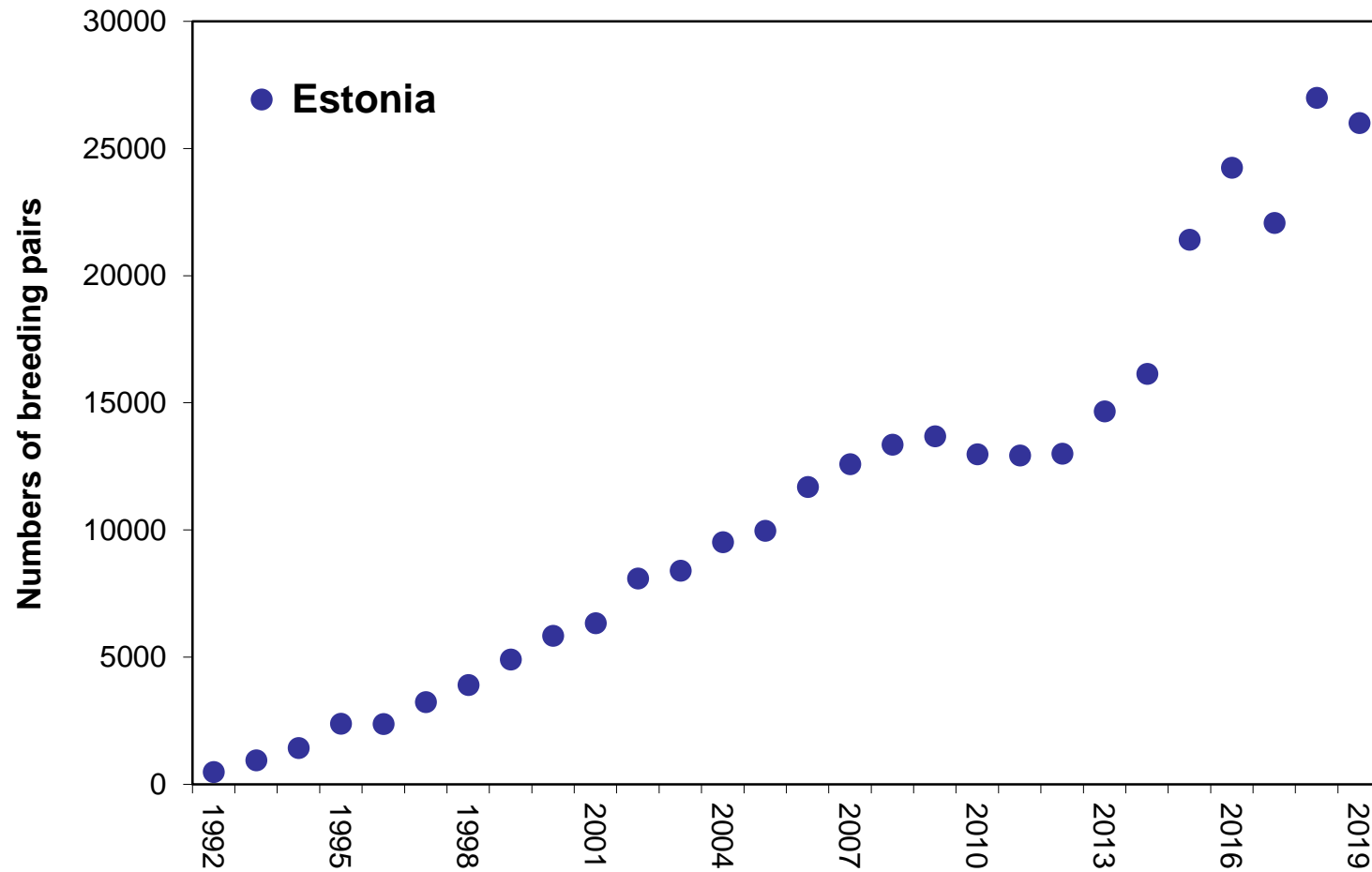


CENTRAL BALTIC SEA



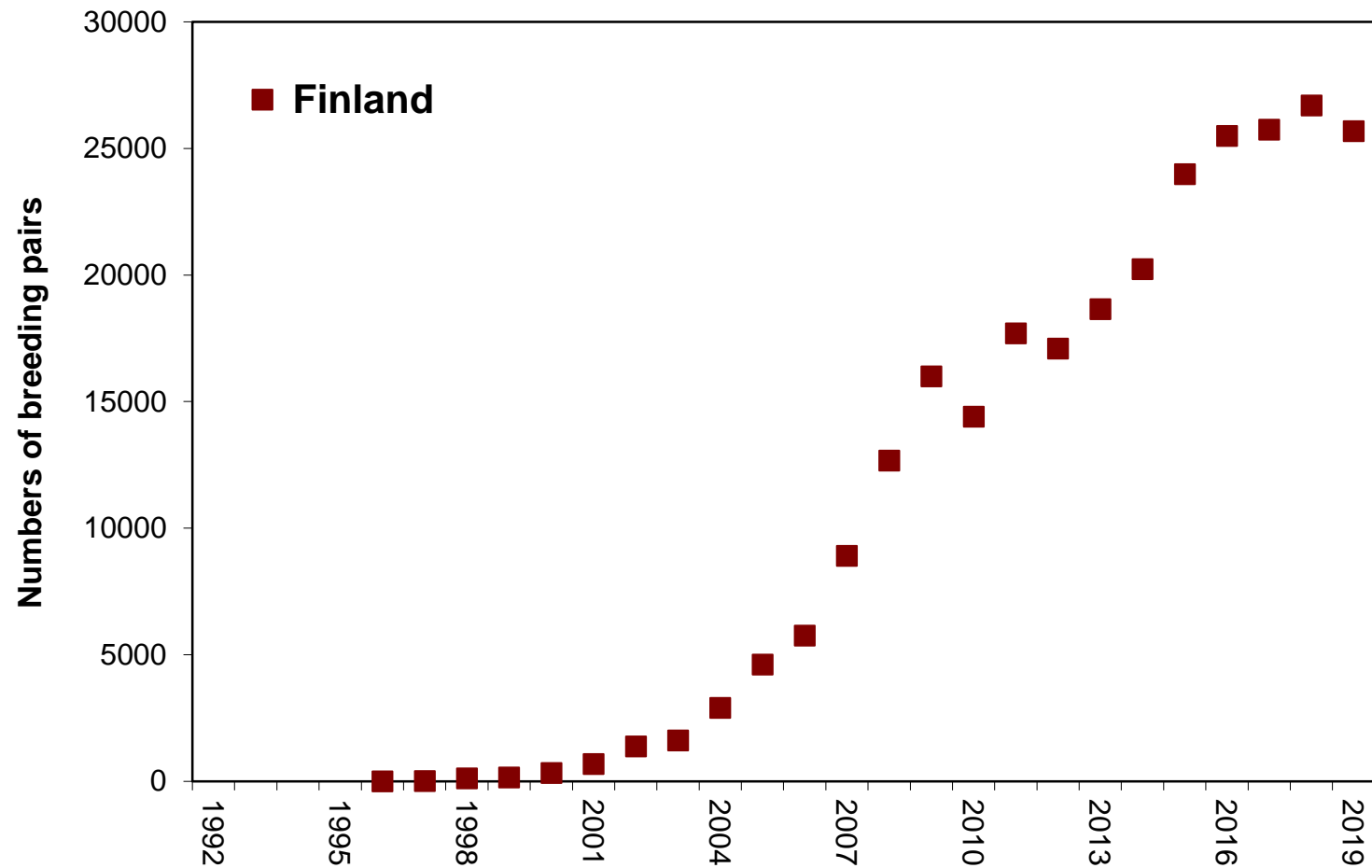


EASTERN BALTIC SEA



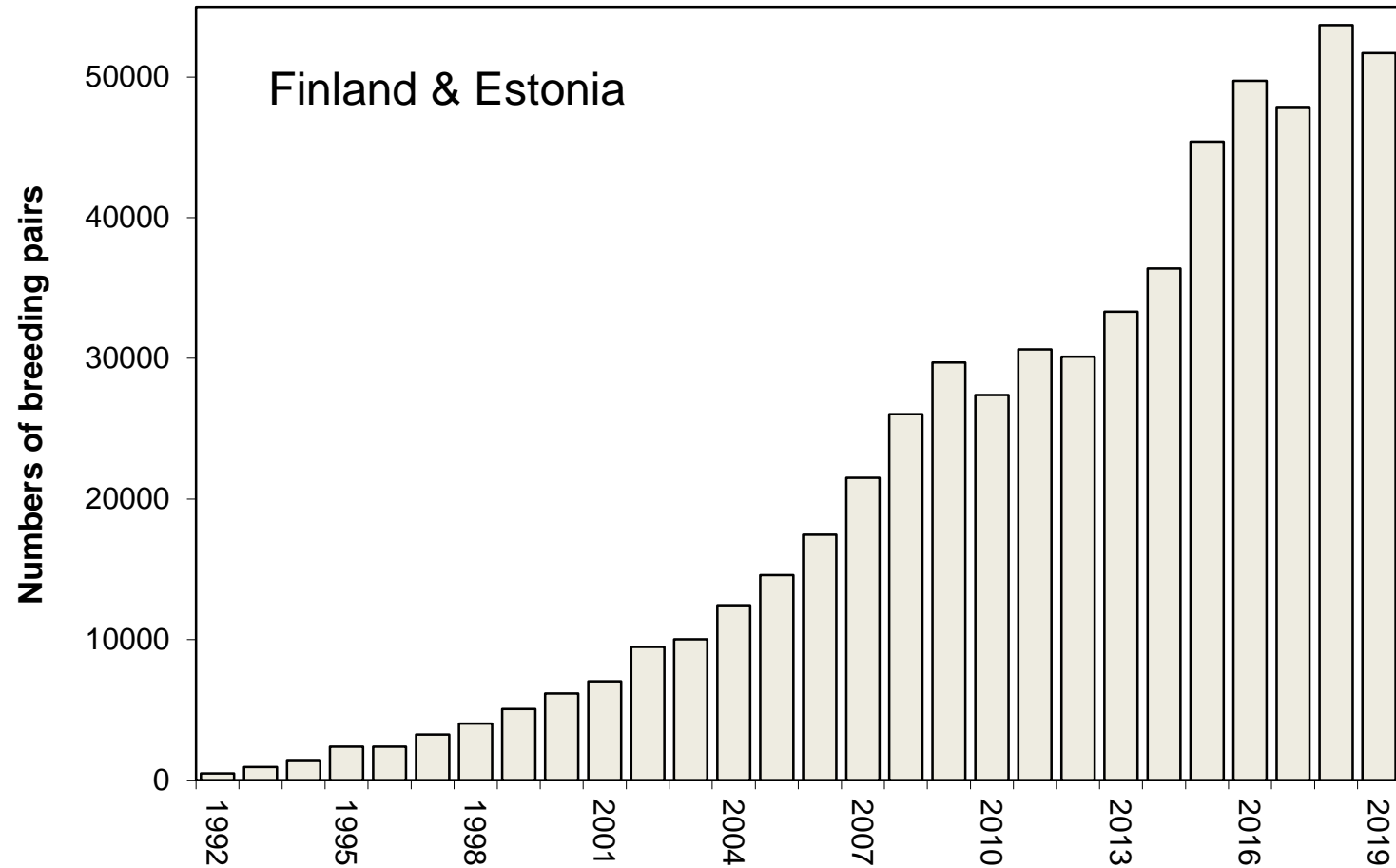


EASTERN BALTIC SEA





EASTERN BALTIC SEA





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THE LINK

BREEDING SITE

➔ DISTRIBUTION OUTSIDE BREEDING





BACKGROUND

Can numbers of cormorants in one area be brought down through population control in certain breeding areas ?



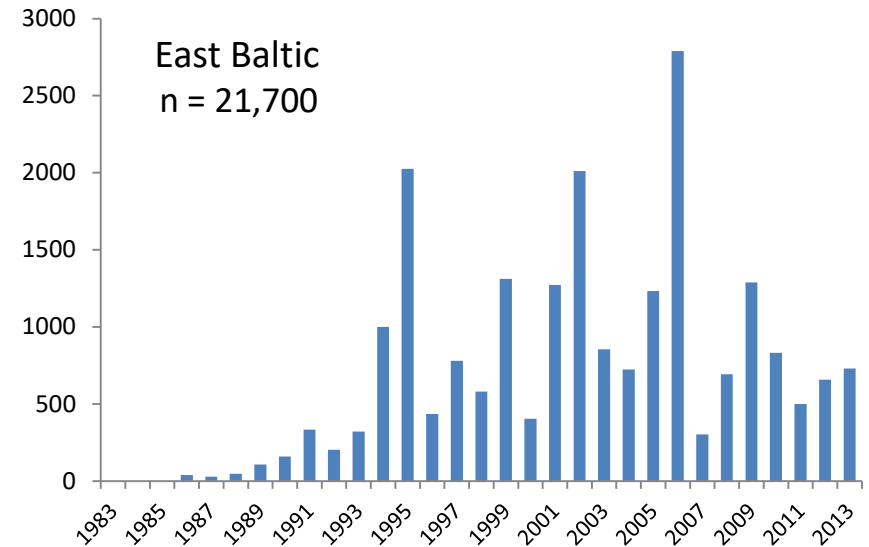
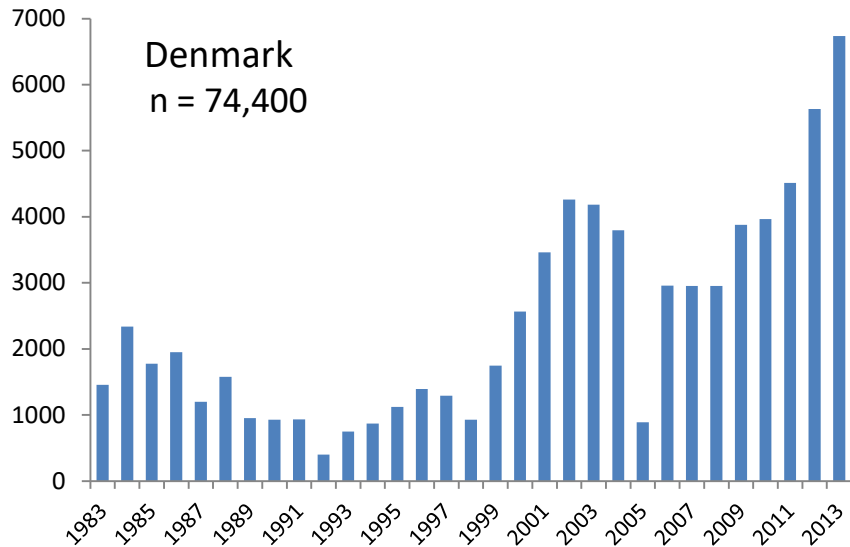
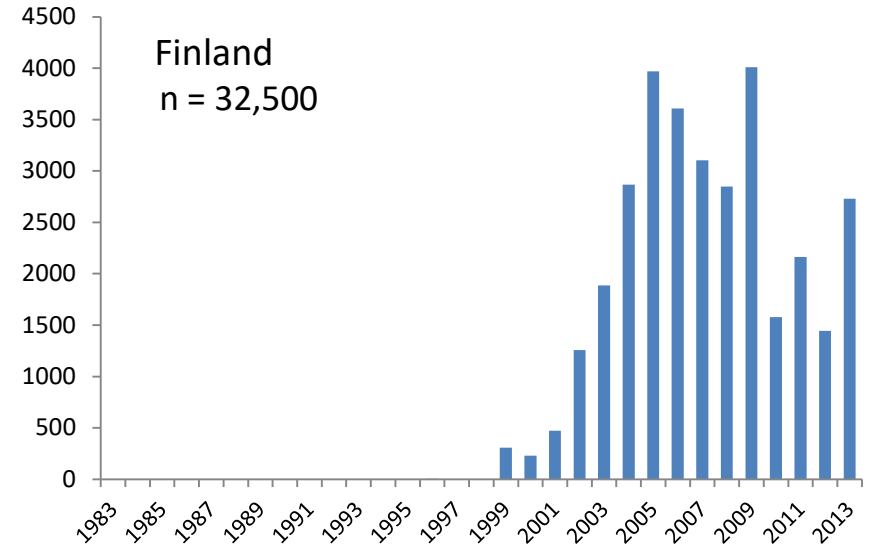
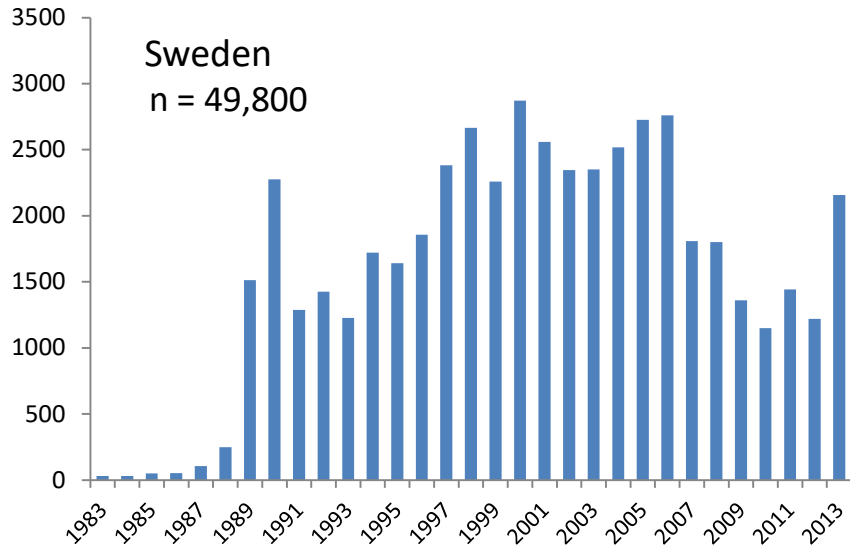
Relevant with knowledge about patterns of movements and factors affecting these

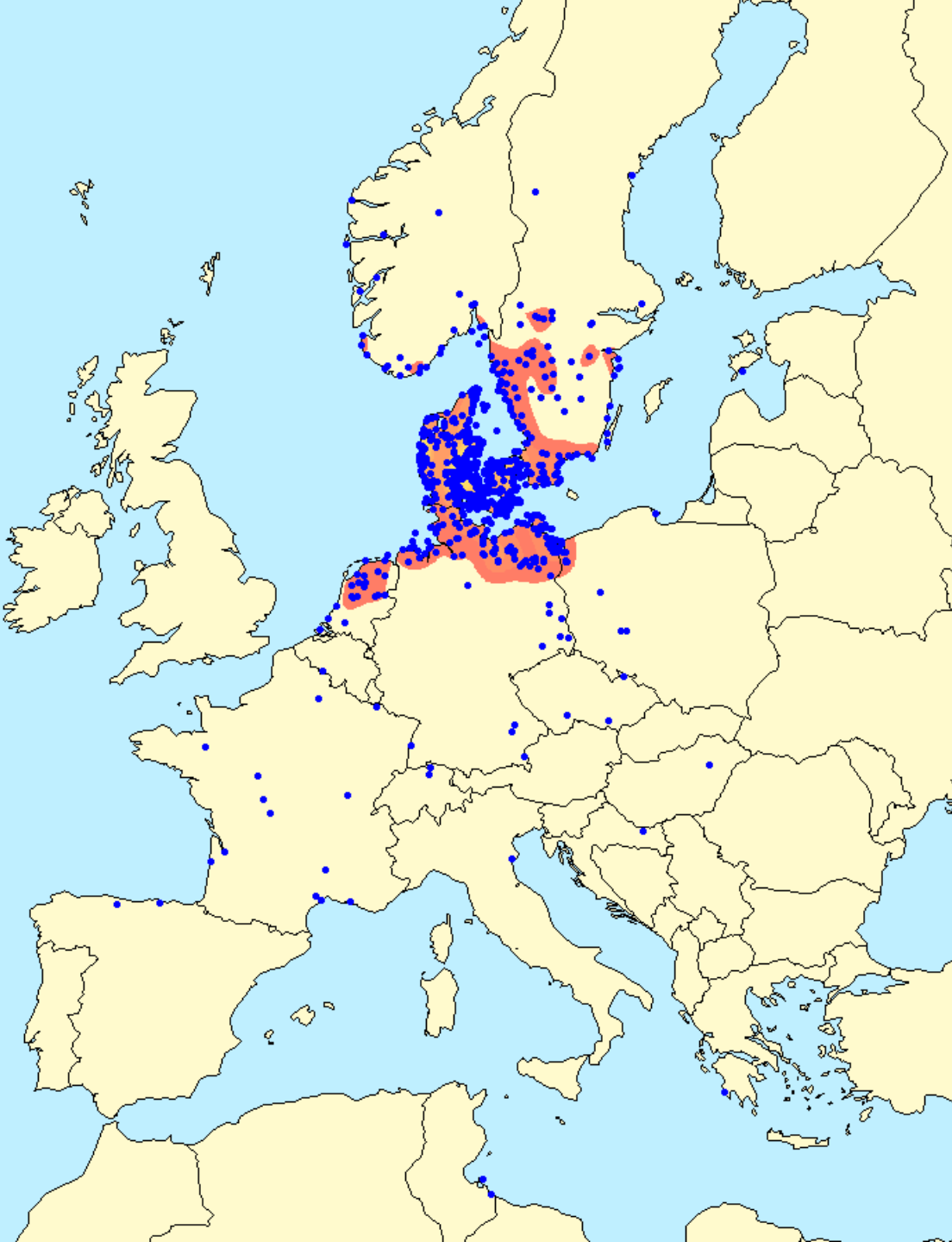
We used recoveries of ringed cormorants to
explore migration patterns and distribution

A European Commission funded project



Numbers ringed 1983-2013 – Examples





EXAMPLE:

Cormorants from

Denmark

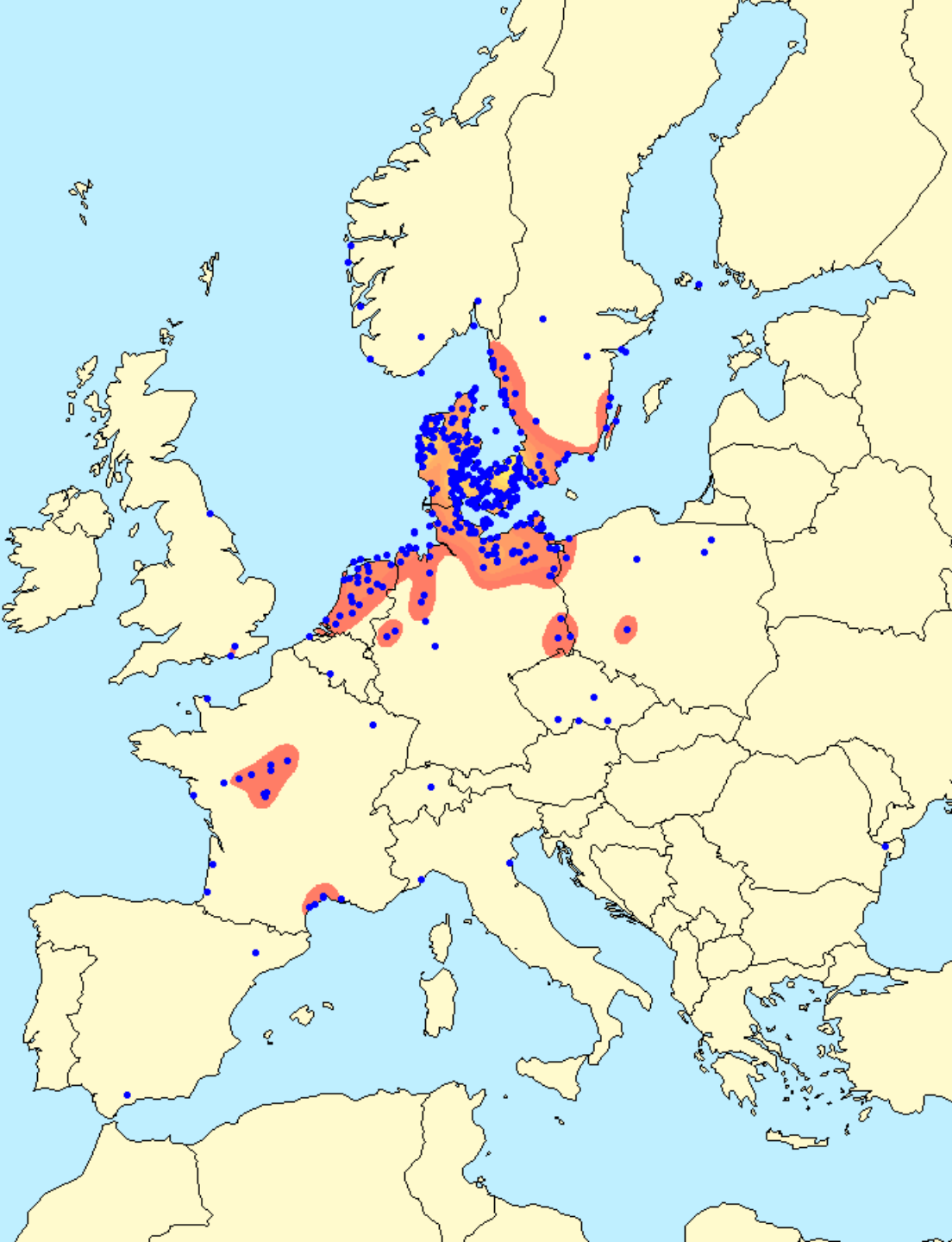
July – August

**Similar maps of cormorants
from other breeding areas
around the Baltic Sea will be
available in the report in press**

Cormorants from

Denmark

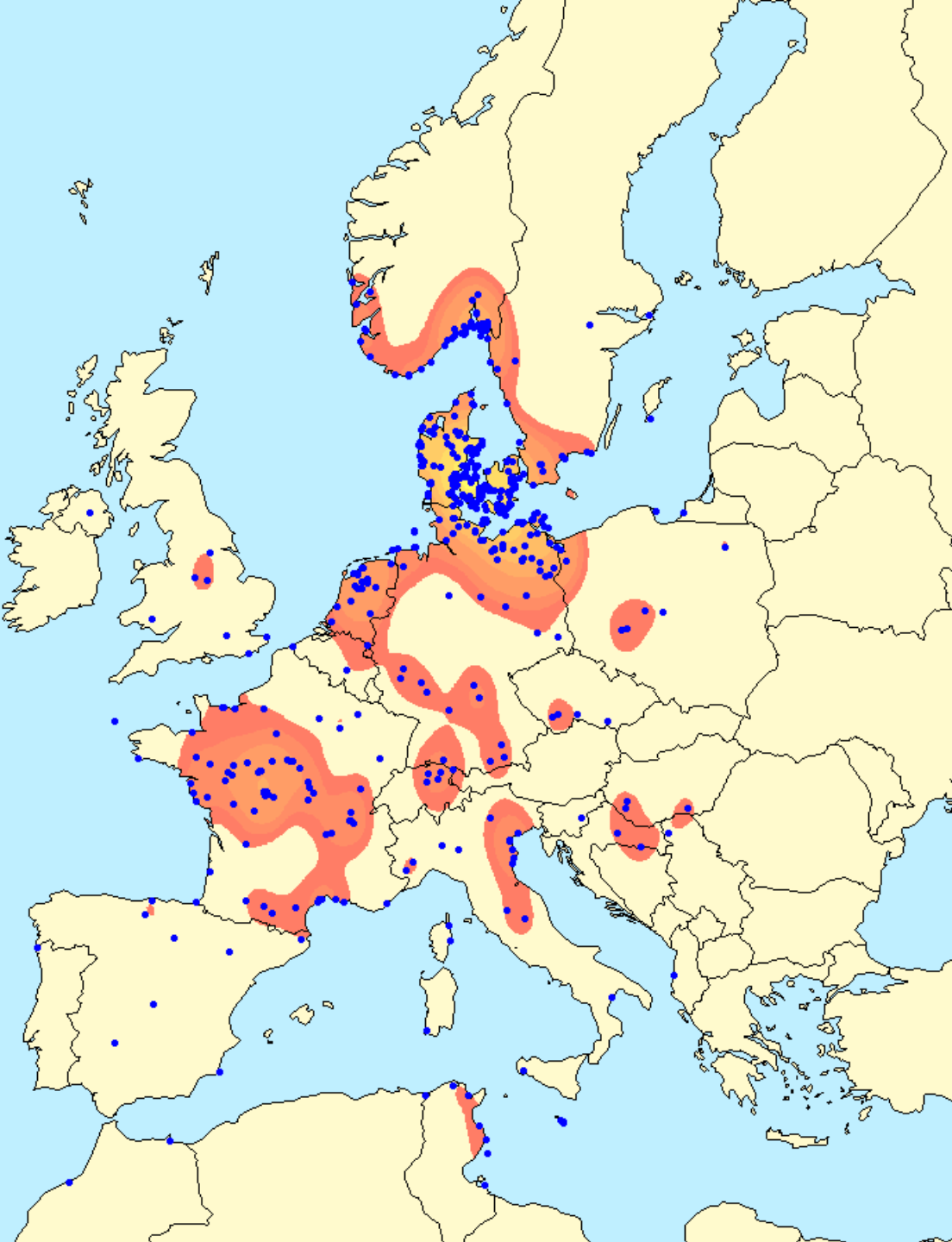
September



Cormorants from

Denmark

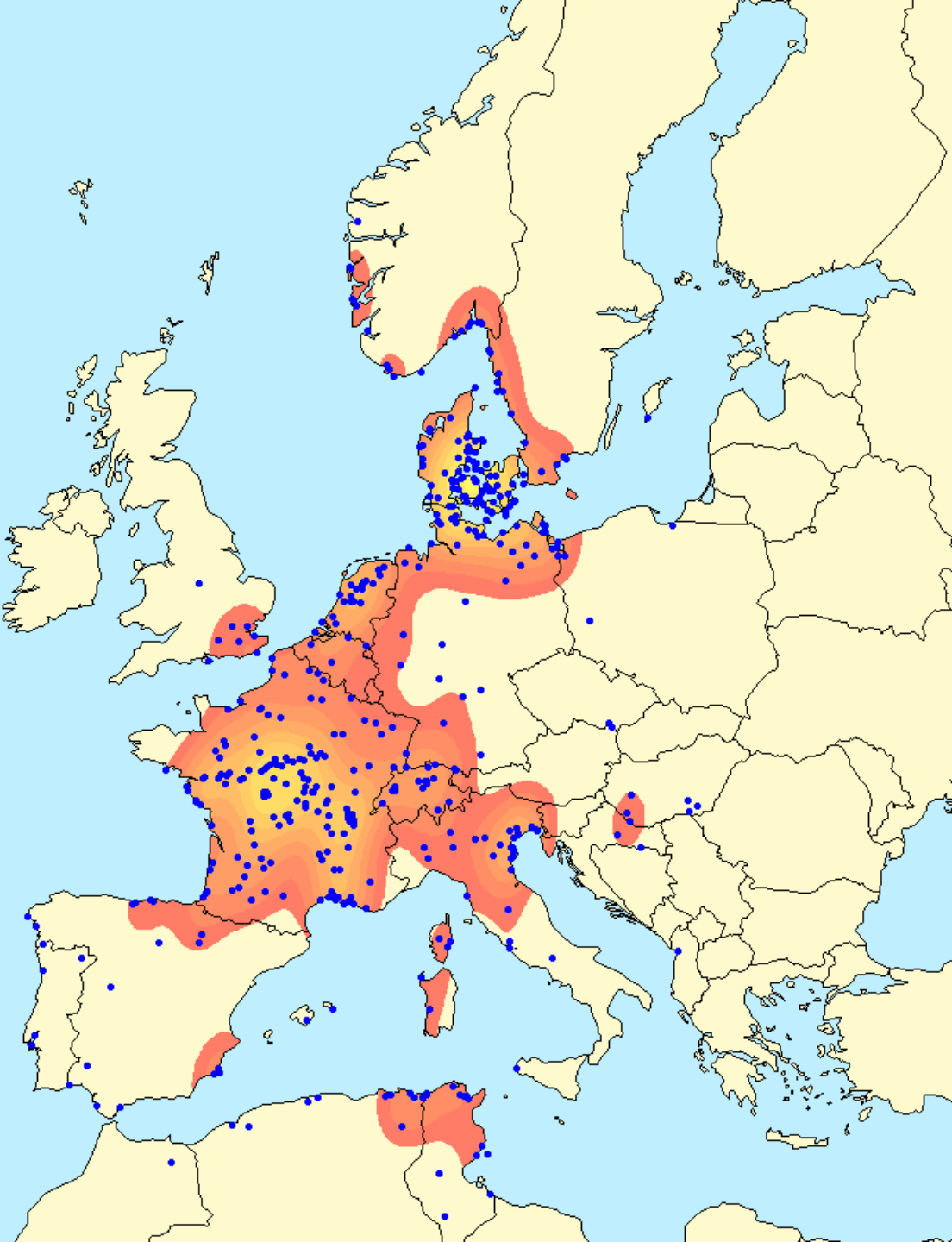
October



Cormorants from

Denmark

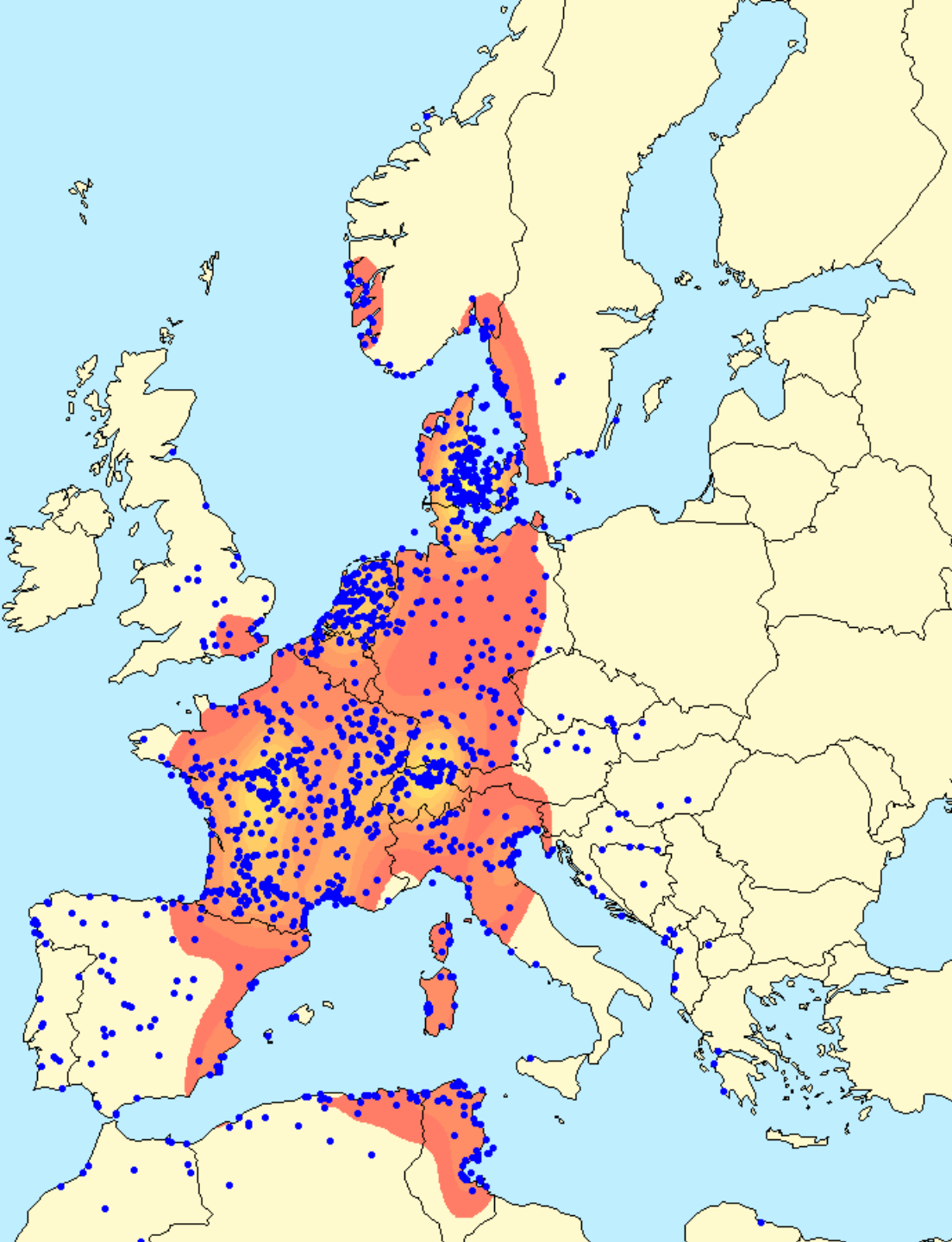
November



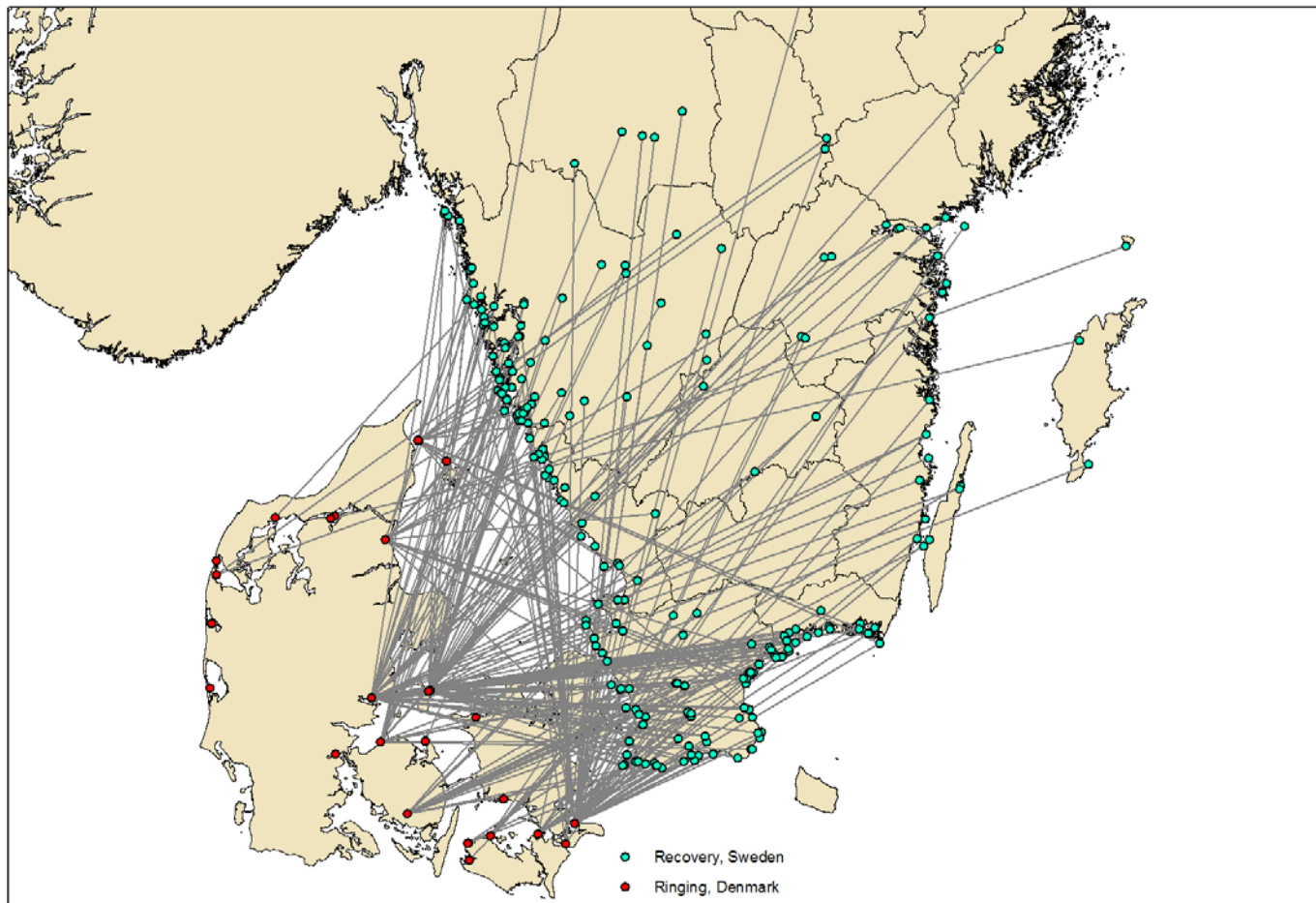
Cormorants from

Denmark

December-February



Recoveries of Danish cormorants in Sweden



Location of ringing/breeding area

West Denmark 2001-2013

East Denmark 2001-2013





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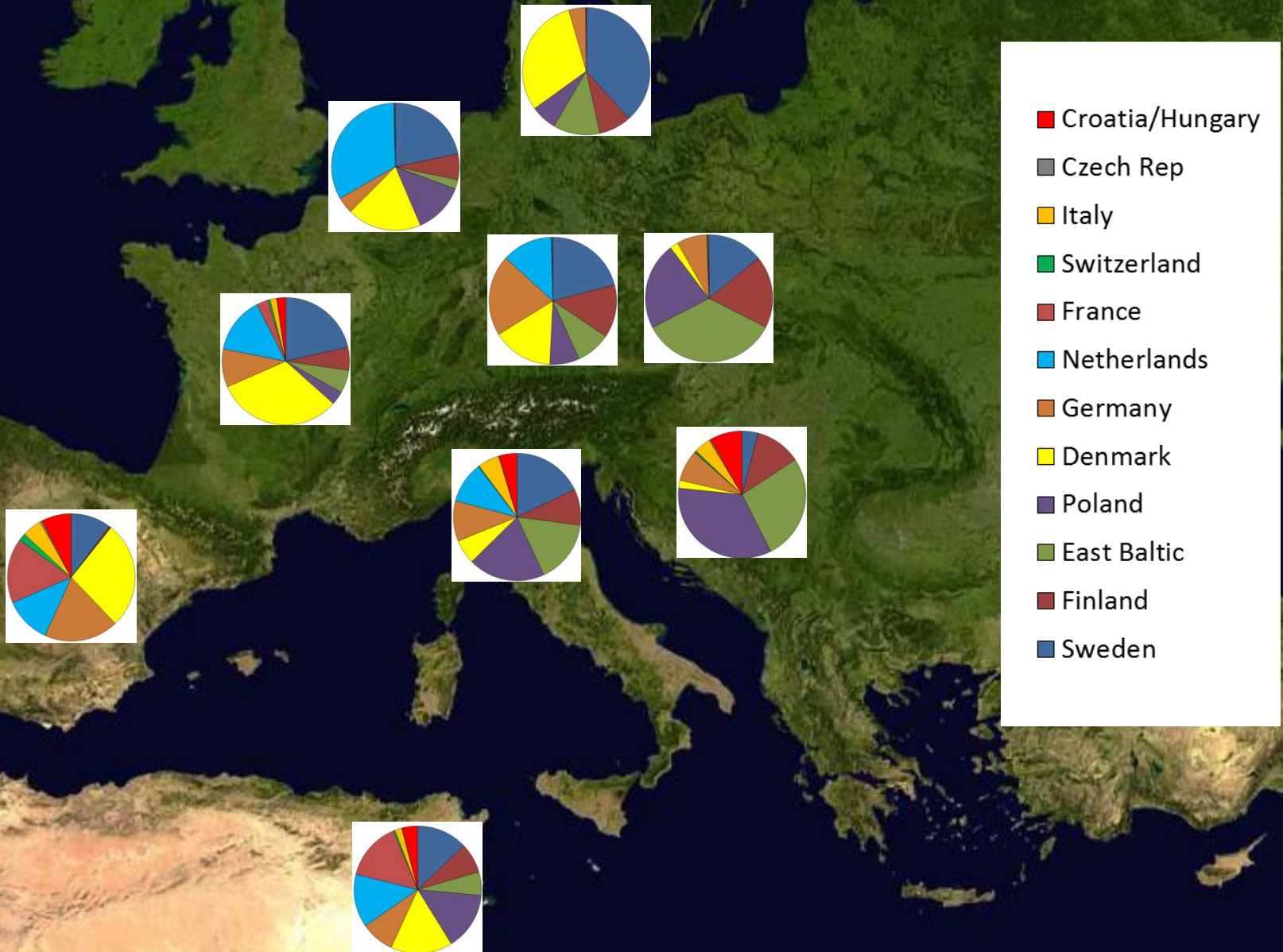
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TO WHAT EXTENT DO CORMORANTS MIX IN THEIR STAGING AND WINTERING AREAS



Composition of wintering populations 2010





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CHANGES IN MIGRATION PATTERNS AND DISTRIBUTION



Example – From one Danish colony

1945-78

1996-2004



Changes over time – major tendencies

- Western breeders have shifted westwards
- Tendency to shorter migration distance





CONCLUDING REMARKS

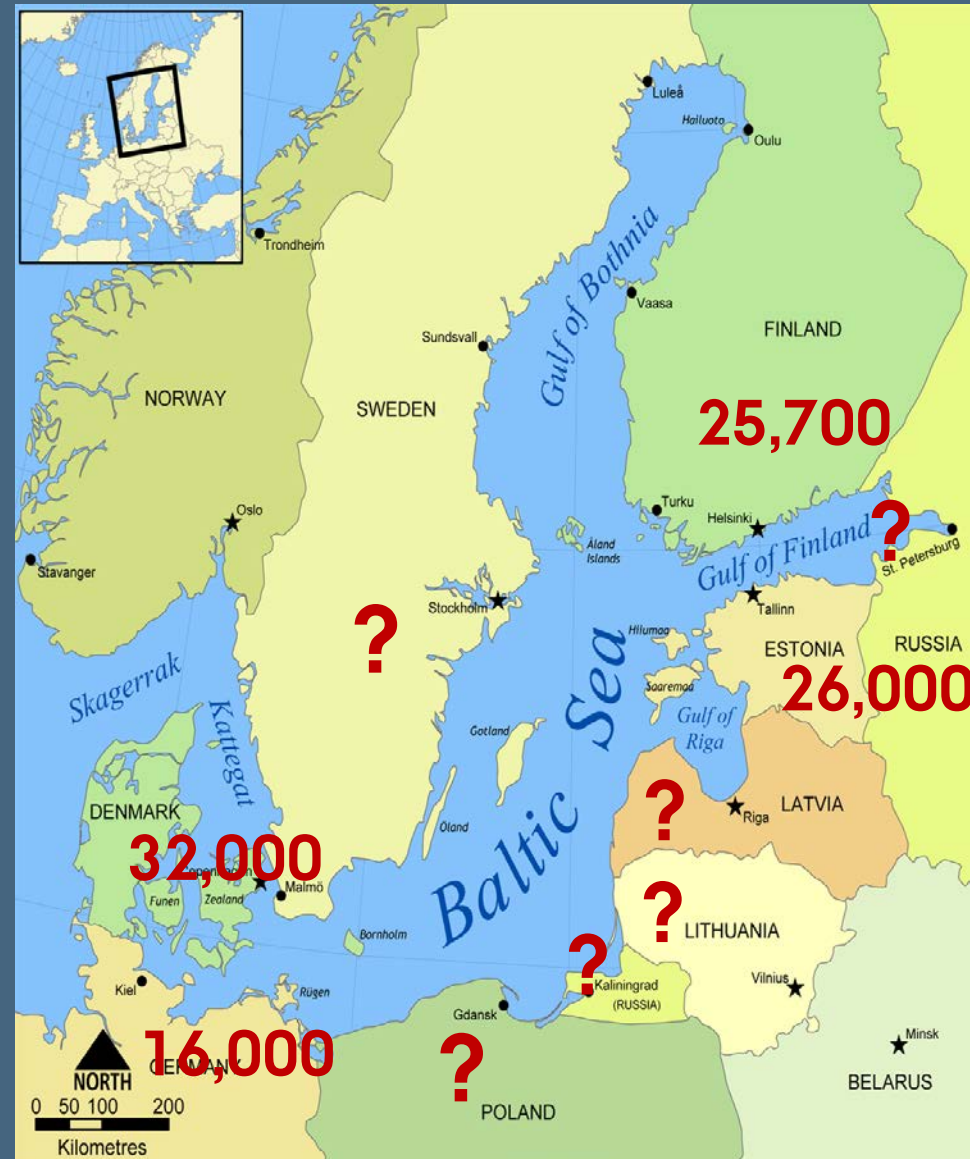
- There are links between the location of breeding areas and where cormorants occur outside breeding, **but:**
- Cormorants from different breeding areas start to mix extensively soon after the breeding season
- Western breeders have shifted westwards and now move shorter distances



THE FUTURE

1. We plan for a coordinated count with full coverage of the countries around the Baltic Sea in **2022**

- I will contact more of the relevant persons and countries
- Good ideas for where to apply for supplementary funding are welcome!





THE FUTURE

2. We plan for writing up results of the 2022 count and a description of how the breeding populations have developed, maybe including information about how individual countries deal with attempts to manage breeding numbers at local, regional and national scales
3. I try to finish the report on patterns of migration and distribution outside the breeding season





Many thanks to

the people participating in the ringing of
cormorants and in the colony counts

the ringing centres

DG Environment, European Commission
for funding

and you for your attention!