



Photo: Magnus Elander

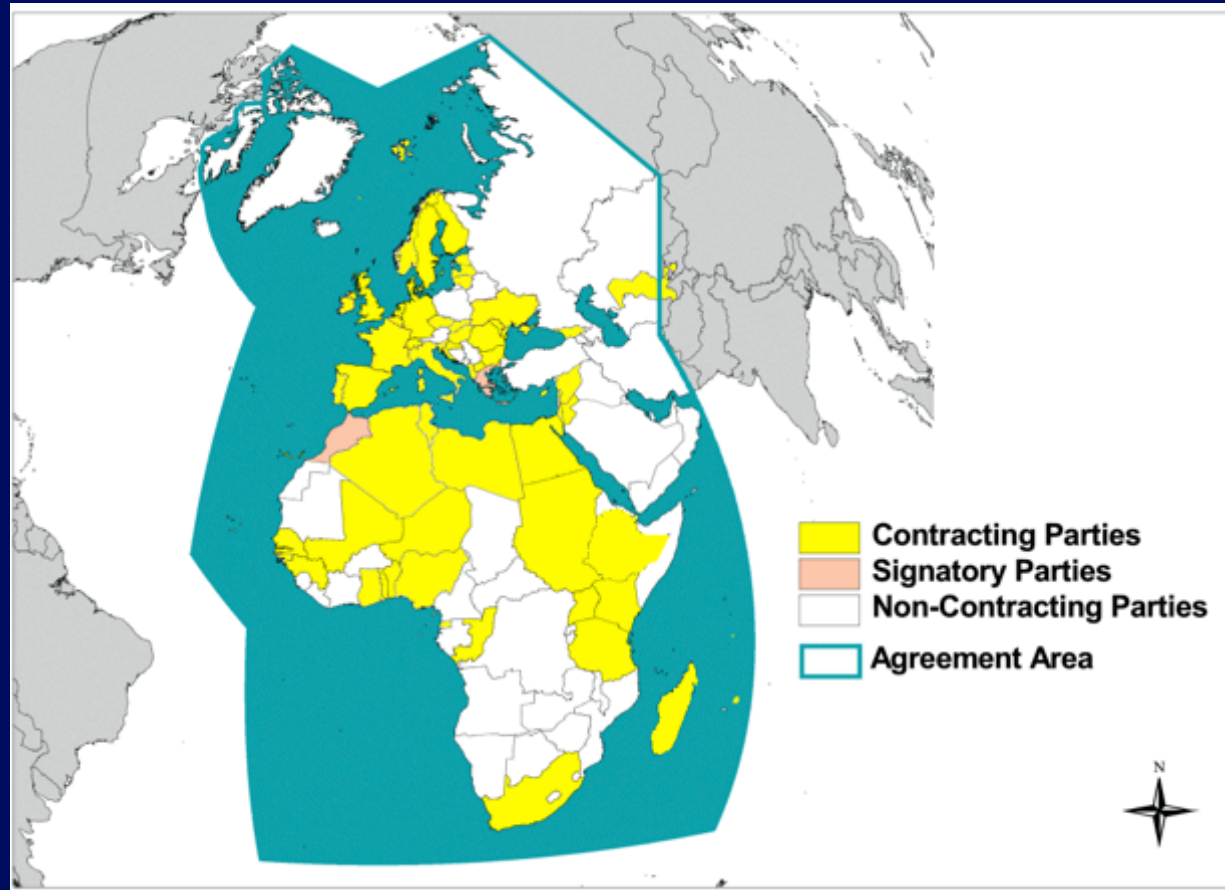
Adaptive harvest management of the Svalbard pink-footed goose population

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AFRICAN-EURASIAN WATERBIRD AGREEMENT

AEWA covers 118 countries in Europe, the Middle East, Central Asia, Africa + Greenland and the NE tips of Canada



AEWA species coverage

554 populations, 255 species, 28 families



Background

In its Strategic Plan for 2009-2017, the African-Eurasian Waterbird Agreement (AEWA) is calling for means to manage populations which cause conflicts with certain human economic activities.

The Svalbard population of the pink-footed goose *Anser brachyrhynchus* has been selected as the first test case for such an International Species Management Plan to be developed.



The Svalbard pinkfoot has been selected as the first case for a couple of reasons:

A rather well-defined flyway with relatively few countries involved

It represents a typical 'conflicting' goose species

There is an escalating agricultural conflict in Norway and a Norwegian wish to reduce the population size to alleviate the damage; no prior international consultation; risk of loss of control

Signs of increasing damage to tundra vegetation in Svalbard

A reasonably good biological background knowledge

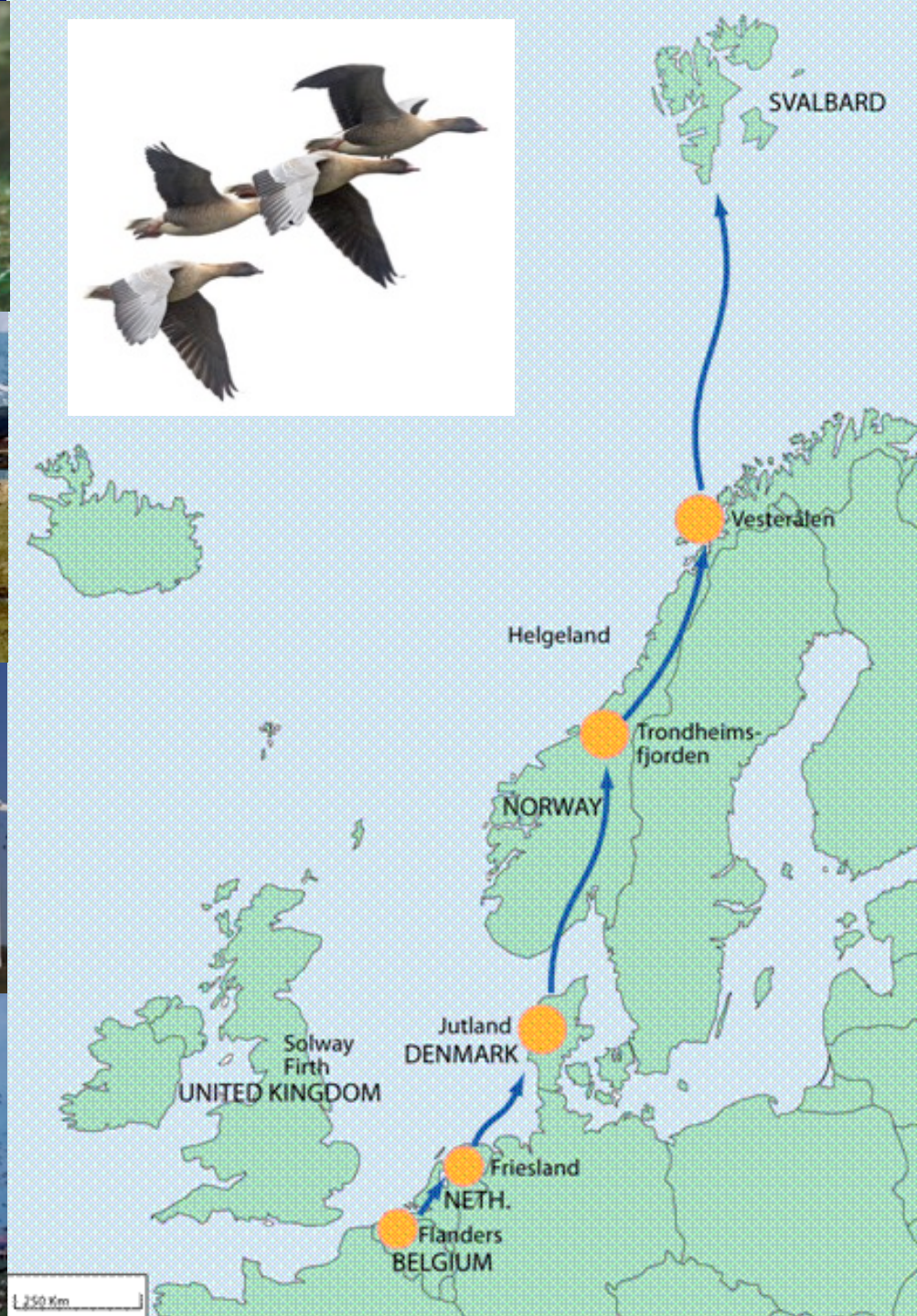
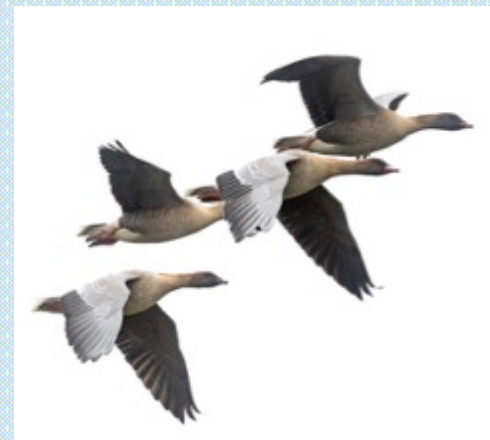
If this approach does not work for pinkfeet, it is not likely to be adopted for other populations

Flyway

A life in contrasting worlds

Geese cope with dynamic landscapes

And take advantage of climate change





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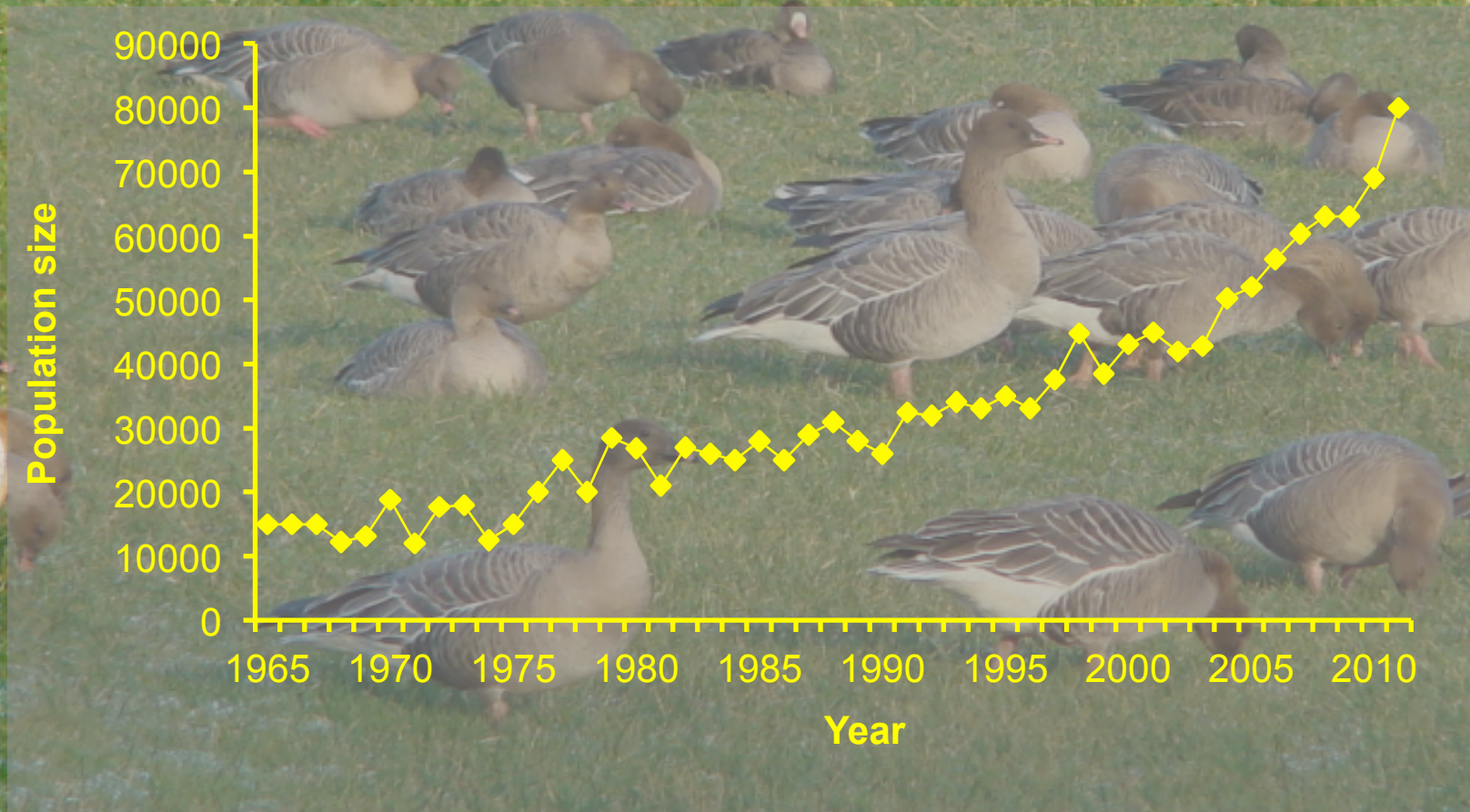
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Population development 1965-2011



Status regarding hunting

- Norway including Svalbard: open season
- Denmark: open season
- The Netherlands: protected
- Belgium: no open season



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Agricultural conflicts



Trønder-avis

Tirsdag 10. april 2006 • UKE 16 • nr. 88 • Løsningspris 15,00

NYHETER Milliondryss på Elvebredden i Steinkjer Side 18 og 19	SPORT Alexander odela festen for SFK Side 26 og 27	KULTUR Sissy Wish trives i Rock City Side 24 og 25
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Mer bilbråk



LEVMØR: John Thomas Krogstad i WestSide Racing oppfordrer myndighetene til å oppheve kjøreforbudet i Kirkegata. I motsetning faller frykt for Krogstad mye ure de neste månedene. **Side 8**

Tilstår incest

STEMMER: Den tidligere barnovervaksningslederen er tilnærmet forvildet, incest og seksuelle overgrep mot begge døtre sine. Mannen i 60-åra skal ved en tilfelle ha tilbudt døtrene 400 kroner for å ha samleie med ham. **Side 9**

Terrassehage for Liv Marit



STEMMER: Terrassen gir meg følelsen av å bo i en bolig med hage, synes Liv Marit Bomo. **Vår i hagen side 32-43**

Jager kortnebbgås

43.000 kortnebbgås kommer snart til å okkupere jordene på Innherred:



■ Væpnet med firehjul, hagle og gasskanon, venter gårdbrukerne Perry Frøysadal og Lars Bardal Flakkenberg på Sandvøllan i Inderøy på kortnebbgås. **Side 4 og 5**

Kostbar russefeiring

Metaplussen
Velkommen til
MOTESHOW
... "På reise"

Vår i lufta!
Tilbud dame- og herre-
SOFT-IS

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Signs of increasing 'grubbing' effects on tundra vegetation in Svalbard

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'Grubbing' effects on tundra vegetation





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Long-term study - internationally coordinated



- Population monitoring
- Bag statistics
- Capture-recapture study
- Year-round studies
- Experimental work
- Population modeling
- Individual based modeling



The Flyway Plan process and timeline



2010

Mar. 2011

on range states, spring 2011

A consultations, autumn 2011

AEWA MOP5 endorsement, May 2012

● - Implementation workshop, Aug. 2012

● - Working Group est., Nov. 2012

● - AHM starts, autumn 2013

Hunting experiments -

Sociological studies -

Monitoring tundra impacts -



Goal and Objectives of the International Species Management Plan for pink-footed geese

Goal:

To maintain the favourable conservation status of the Svalbard pink-footed goose population at flyway level while taking into account economic and recreational interests

Objectives:

- Maintain a sustainable and stable pink-footed goose population and its range
- Keep agricultural conflicts to an acceptable level
- Avoid increase in tundra vegetation degradation in the breeding range
- Allow for recreational use that does not jeopardize the population viability

A large flock of birds, likely geese or swans, is shown in flight over a body of water. The birds are densely packed, filling most of the left side of the frame. The background shows a hazy, blueish-grey sky and water.

Key actions agreed (1)

- Implement an adaptive management framework and modelling concept for the flyway population
- Maintain a population size of around 60,000 to prevent population to collapse or explode
- Optimise hunting regulations and practises to regulate the population size if needed and in range states where hunting is permitted
- Ensure sustainable hunting where practised (at present in Norway and Denmark) and following 'wise use' principals, including that crippling rates are kept at an acceptable level



Why an adaptive approach?

- The population processes as well as the environmental and political-administrative settings are highly dynamic
- Uncertainties exist regarding population dynamics and responses to management actions
- The present situation constitutes a management dilemma which calls for careful treatment and stakeholder consensus
- A flyway plan must therefore – in a structured way - be able to predict effects of management and efficiently react to the response by the system
- Internationally coordinated management will enhance exchange of knowledge and coordination regarding agricultural conflict resolutions, tundra impacts, sustainability of harvest including actions to reduce crippling

A large flock of birds, likely geese or swans, is shown in flight over a body of water. The birds are densely packed, filling the left side of the frame. The background is a soft, out-of-focus landscape with green hills and a blue sky.

What are the adaptive management prerequisites?

We need a structured decision process including:

International agreement on measurable **management objectives**

International agreement on appropriate **management actions**:

- availability of flexible regulatory systems in the range states

Close **cooperation between scientists and stakeholders**:

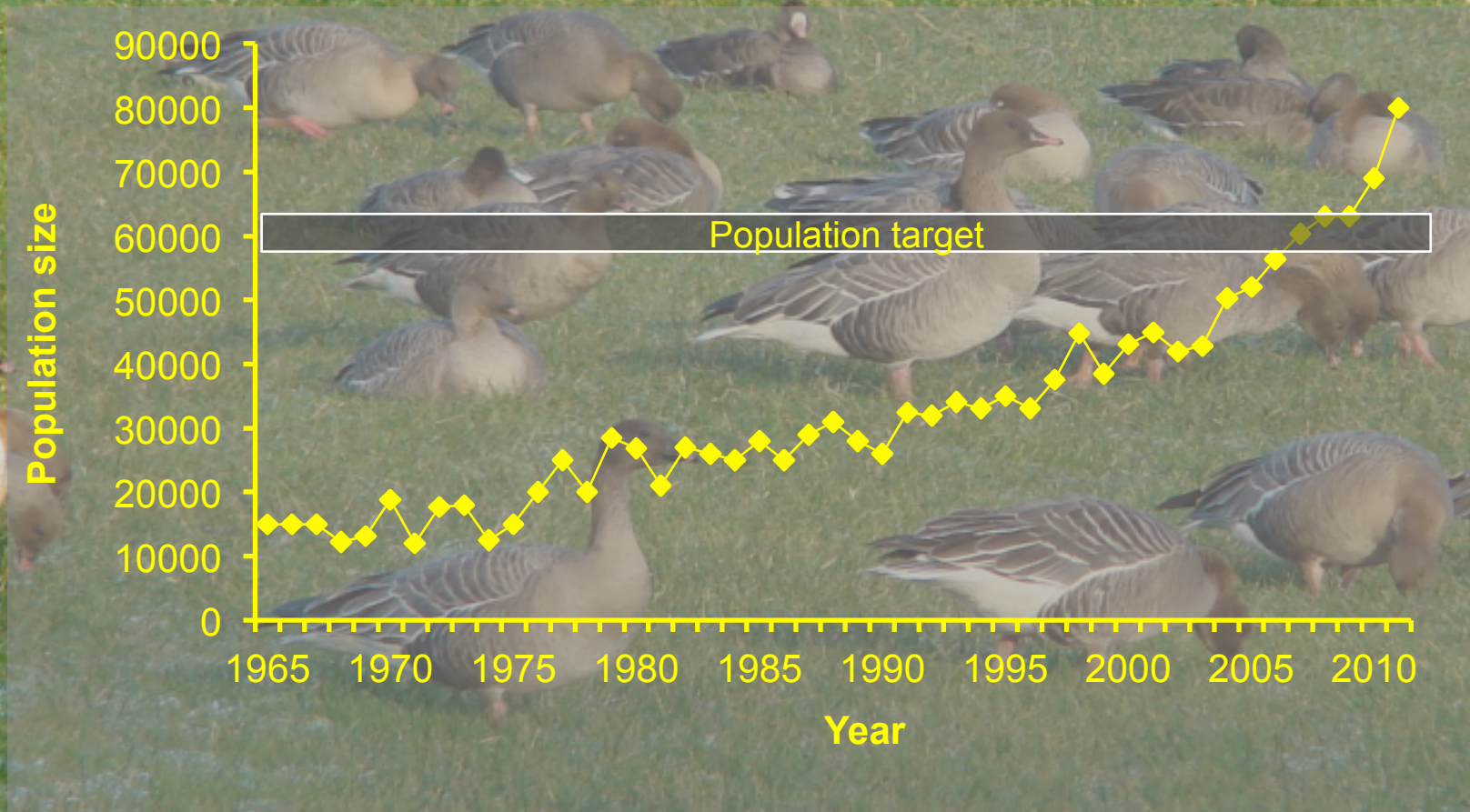
- develop predictive models of system response to management (a suite of competing models)

- monitor response to regulation, revise models and adapt management

- develop an effective system for reporting, evaluating and regulating management

- develop system for mutual learning as we go along

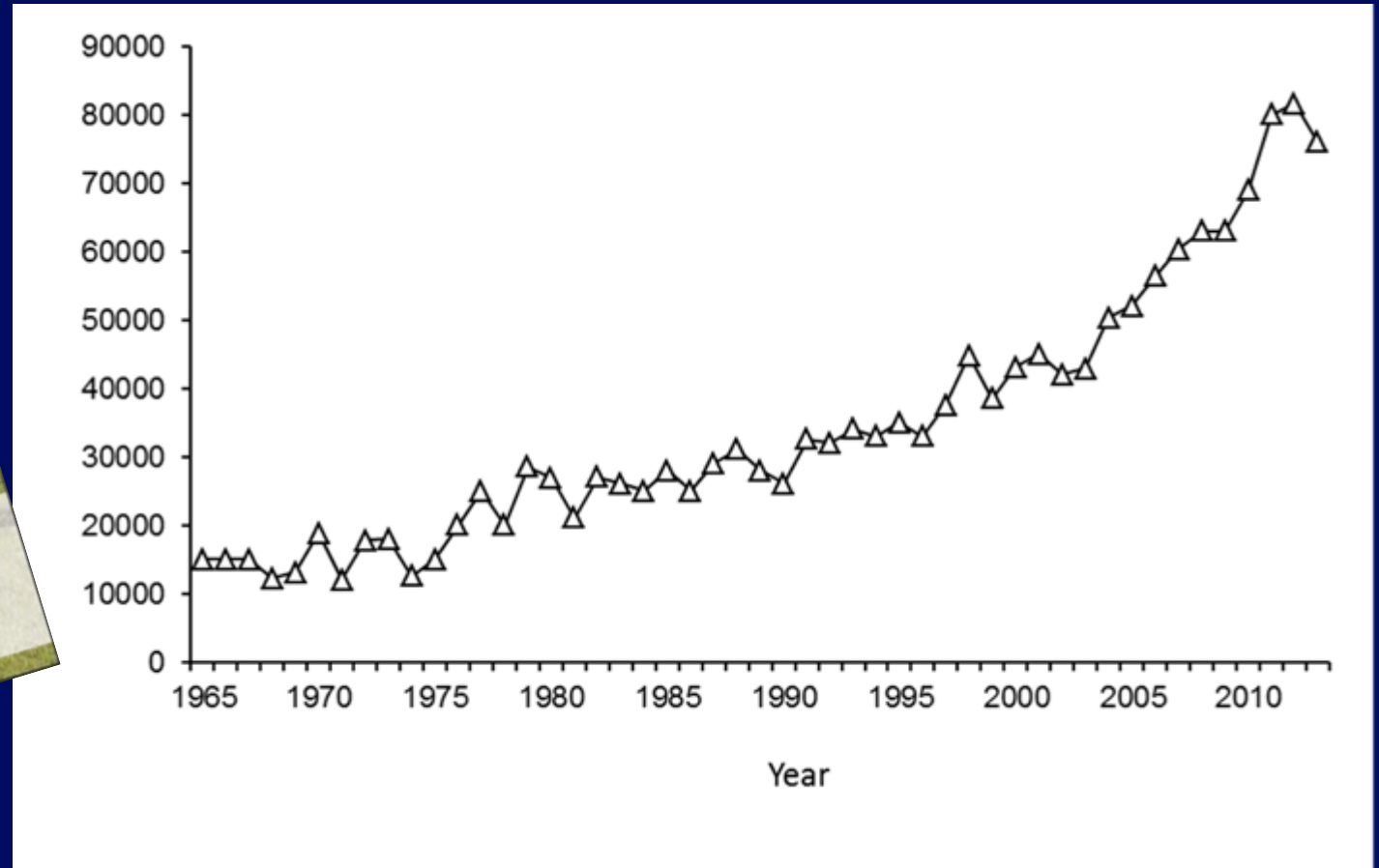
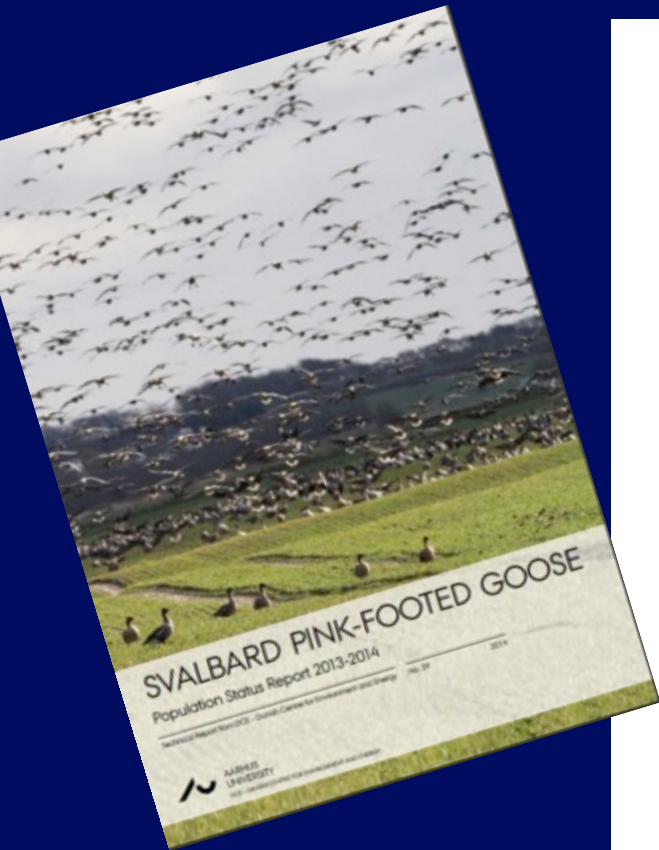
Setting a population target: A balance between biological viability and stakeholder interests



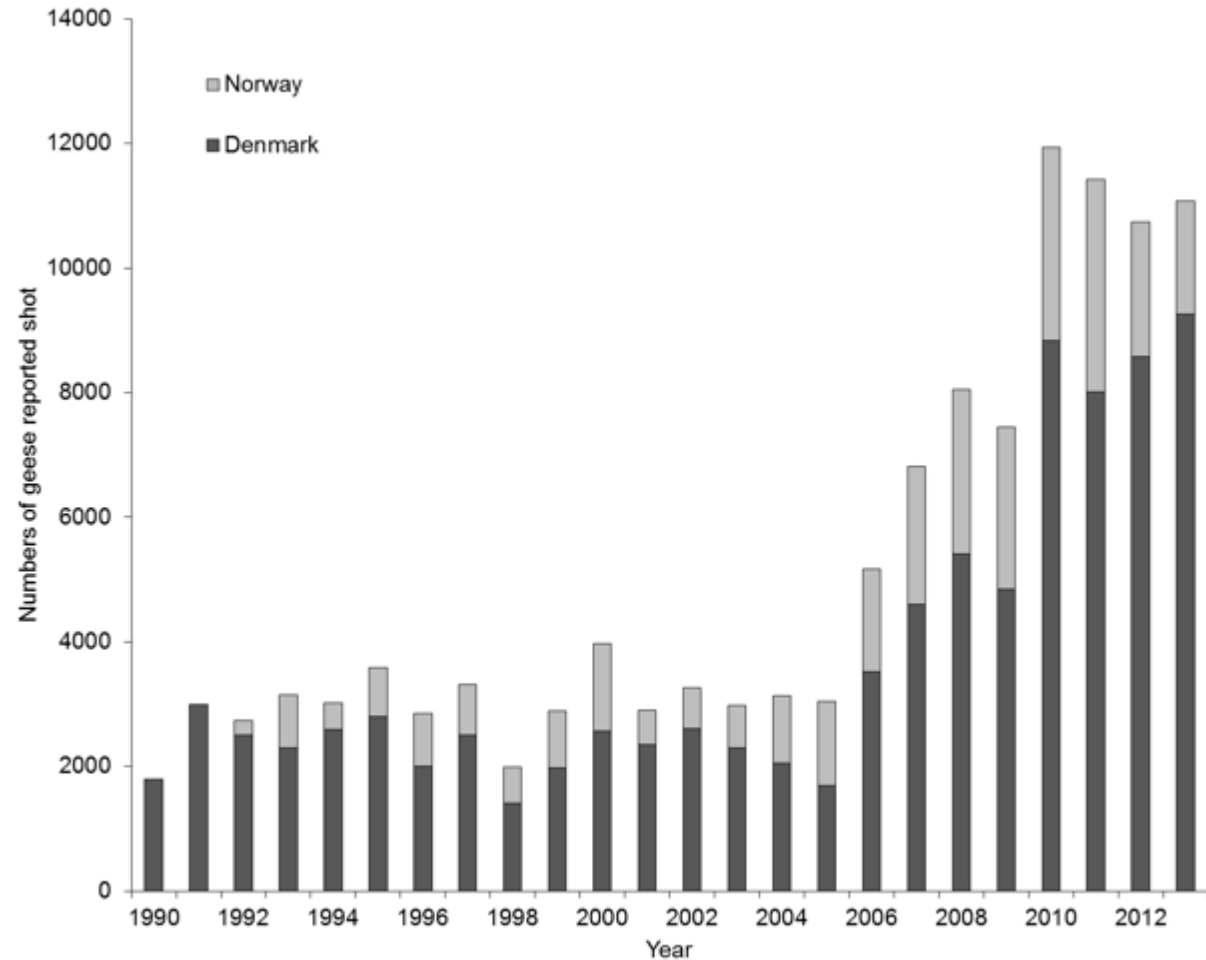
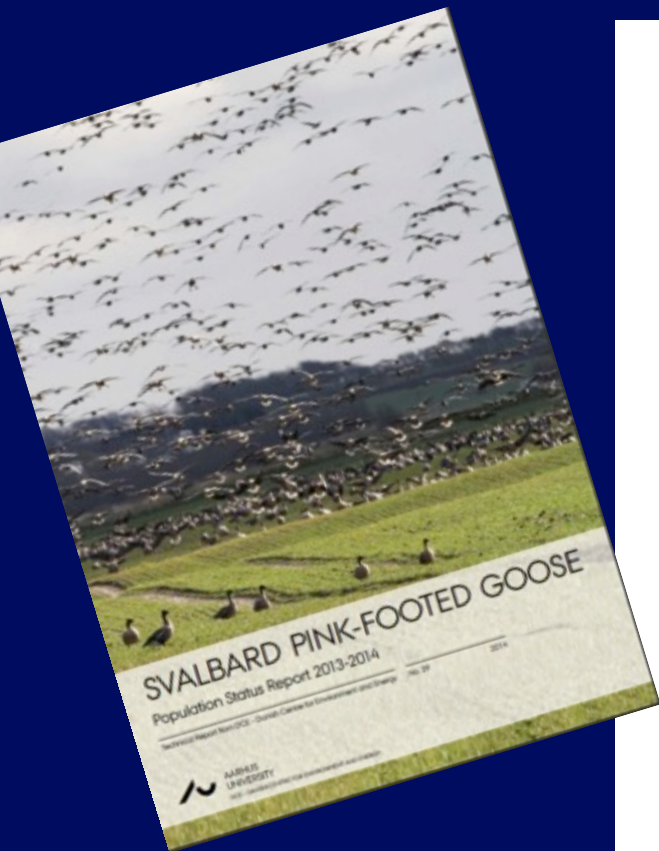
Annual cycle in adaptive harvest management decision-making process



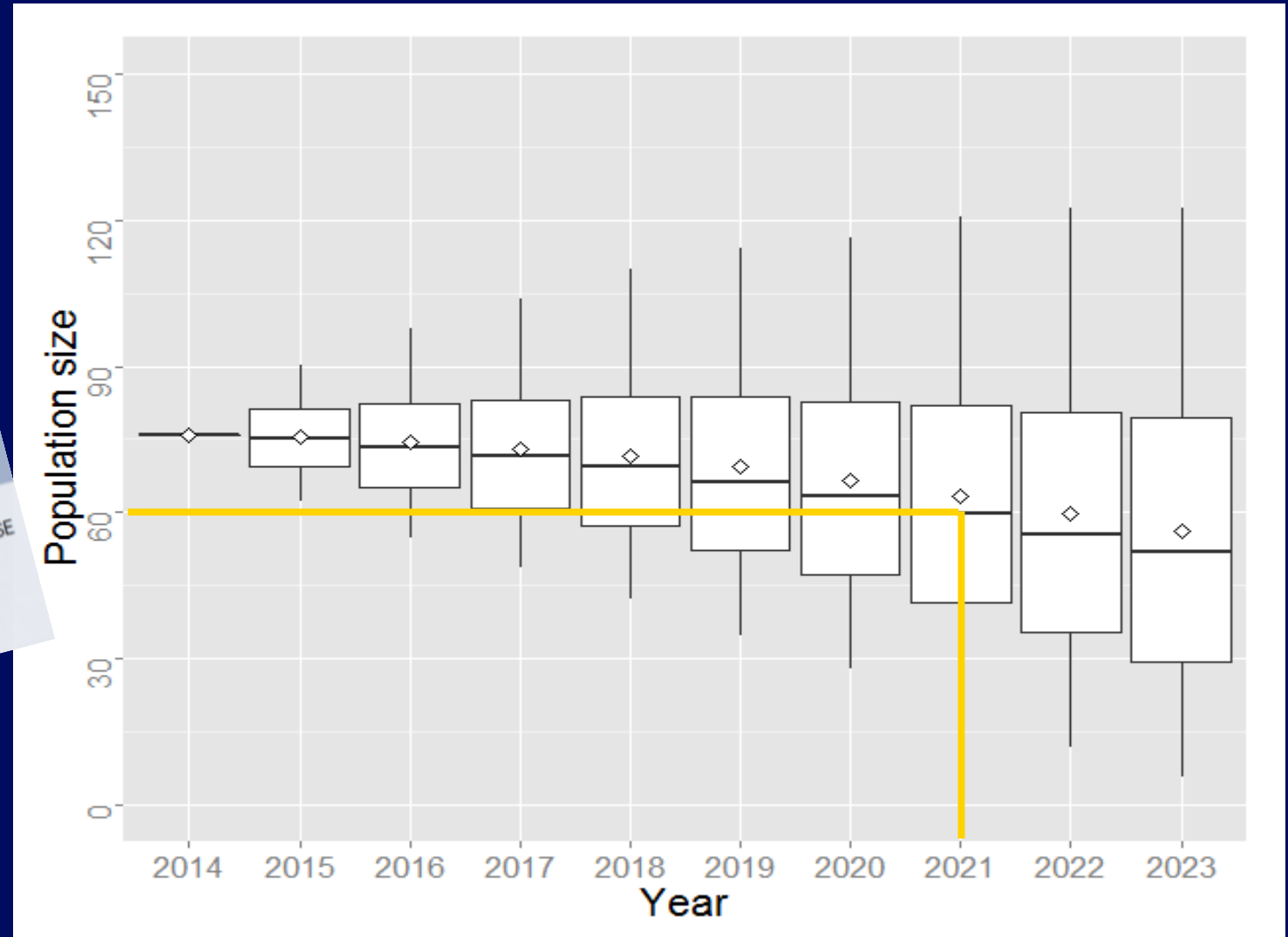
Status of the Svalbard pinkfoot population 2013/14 – population size



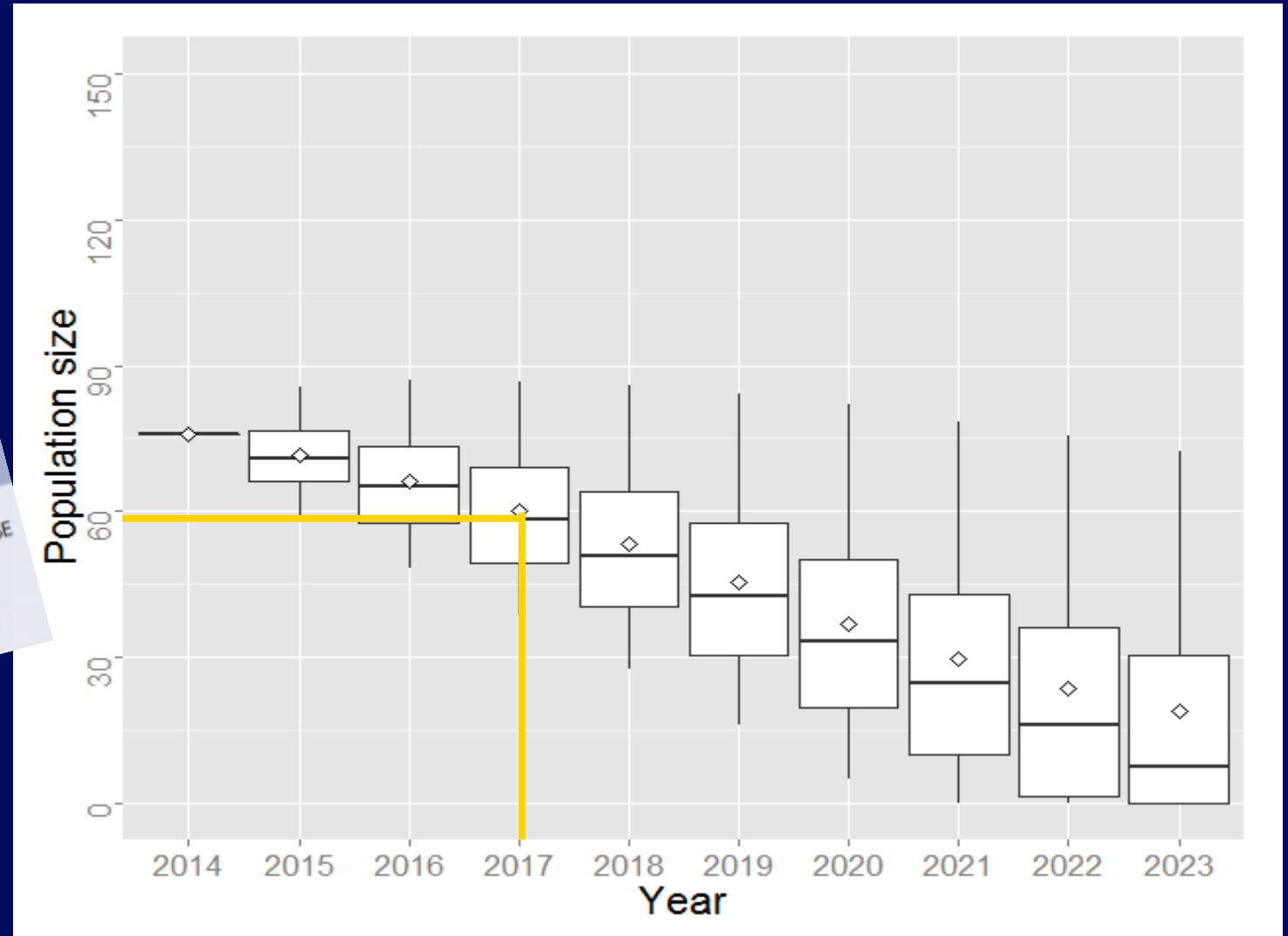
Status of the Svalbard pinkfoot population 2013/14 - harvest



Predicted population trajectory with stable harvest (11,300 per year)



Predicted population trajectory with increased harvest (15,000 per year)





International Species Management Plan for the Svalbard Population of the Pink-footed Goose

- **An opportunity to adaptively manage a changing situation**
- **Create governance structure from international to local level**
- **And learn with the potential to apply lessons to other species**

Visit our website: <http://pinkfootedgoose.aewa.info/>



AEWA International Working Group
for the Pink-footed Goose

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Pink-footed Goose (Anser brachyrhynchus) Sassendalen, Spitzbergen, Svalbard, Norway © Sergey Derelev, www.derelev-photography.com

The Pink-footed Goose

The Pink-footed Goose or "pinkfoot" (*Anser brachyrhynchus*) is classified as having a "Favourable Conservation Status" within Europe and is ranked as a species of Least Concern according to IUCN's global Red List criteria. Two biogeographical populations occur: the Iceland/East Greenland population and the Svalbard population.

Although the continued growth of the [Svalbard population](#) is a conservation success story, its increasing size has progressively brought the geese into conflict with agricultural interests causing considerable economic costs. Furthermore, there is also concern about the degradation of vulnerable tundra vegetation in Svalbard due to increased grazing by the growing numbers of pink-footed geese.

In order to ensure the sustainable management of the Svalbard Pink-footed Goose population the first management Plan under the African-Eurasian Migratory Waterbird Agreement (AEWA) was adopted for the species in 2012. The AEWA Pink-footed Goose [International Working Group](#), which consists of representatives from the four [range states](#) for the Svalbard population (Belgium, Denmark, the Netherlands and Norway) as well as observers, coordinates the implementation of the Svalbard Pink-footed Goose (SPIG) [International Species Management Plan](#) (ISMP).



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