

Geese and agriculture

- an increasing conflict



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Johan Måansson

Kristianstad, 2013-12-05





Viltskadecenter (VSC)

works with protected wildlife and damage

- Education, information and guidance
- Applied science, eg evaluating preventative methods
- Coordination of national wolf monitoring
- Report national monitoring of lynx, bear, wolverine and golden eagle
- Report statistic of damage caused by protected wildlife



Work on commission from the Environmental Protection Agency since 1996.





Why a conflict?

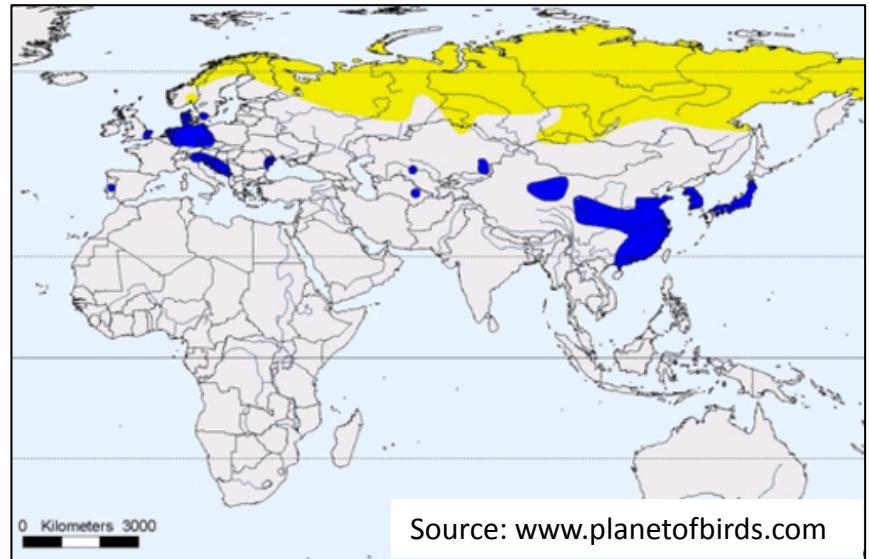
- 1. Damage on crops**

- 2. Conservation efforts vs damage**
 - Restoration of wetlands a potential problem
 - High grazing pressure close to reserves
 - Affecting other species (vulnerable)

Geese – why a problem?



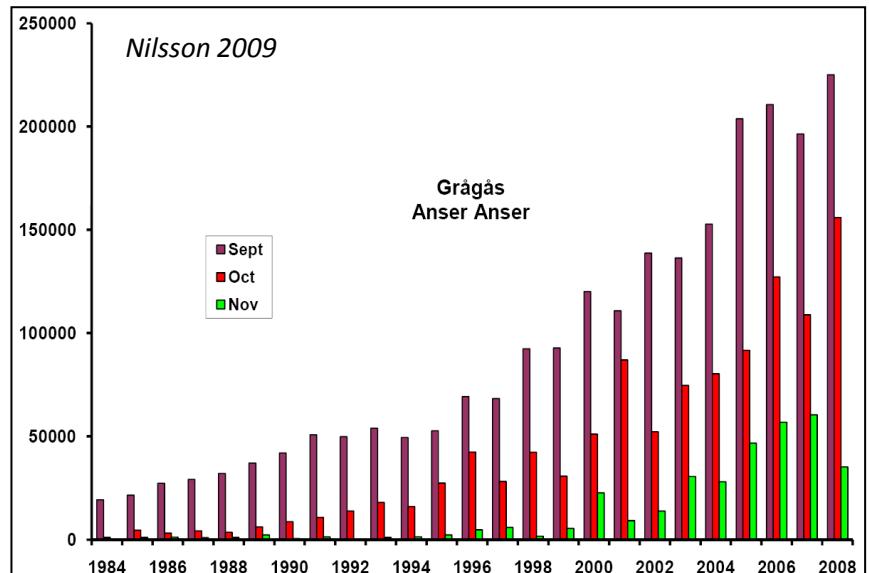
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Source: www.planetofbirds.com



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Damage on crops



Prevention of damage

The basic principle in Sweden

Damage caused by wildlife should be prevented by hunting or other preventive measures.



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Hunting Act 4§

”... promote with regard to public and private interests appropriate development of game populations”

Regulation of populations not always possible

- Vulnerable species
- Species that migrate and aggregate
- Conflicting goals
- No ability to regulate

Other solutions

"PUSH" & "PULL"

(Cook et al. 2007)

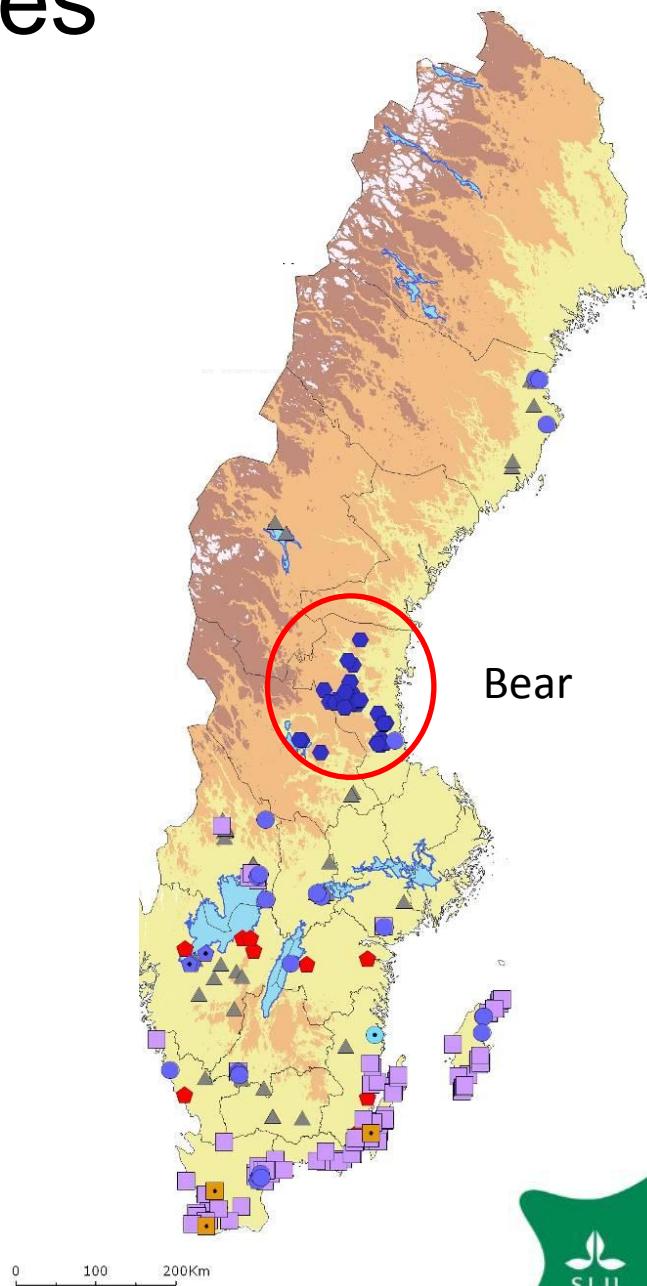
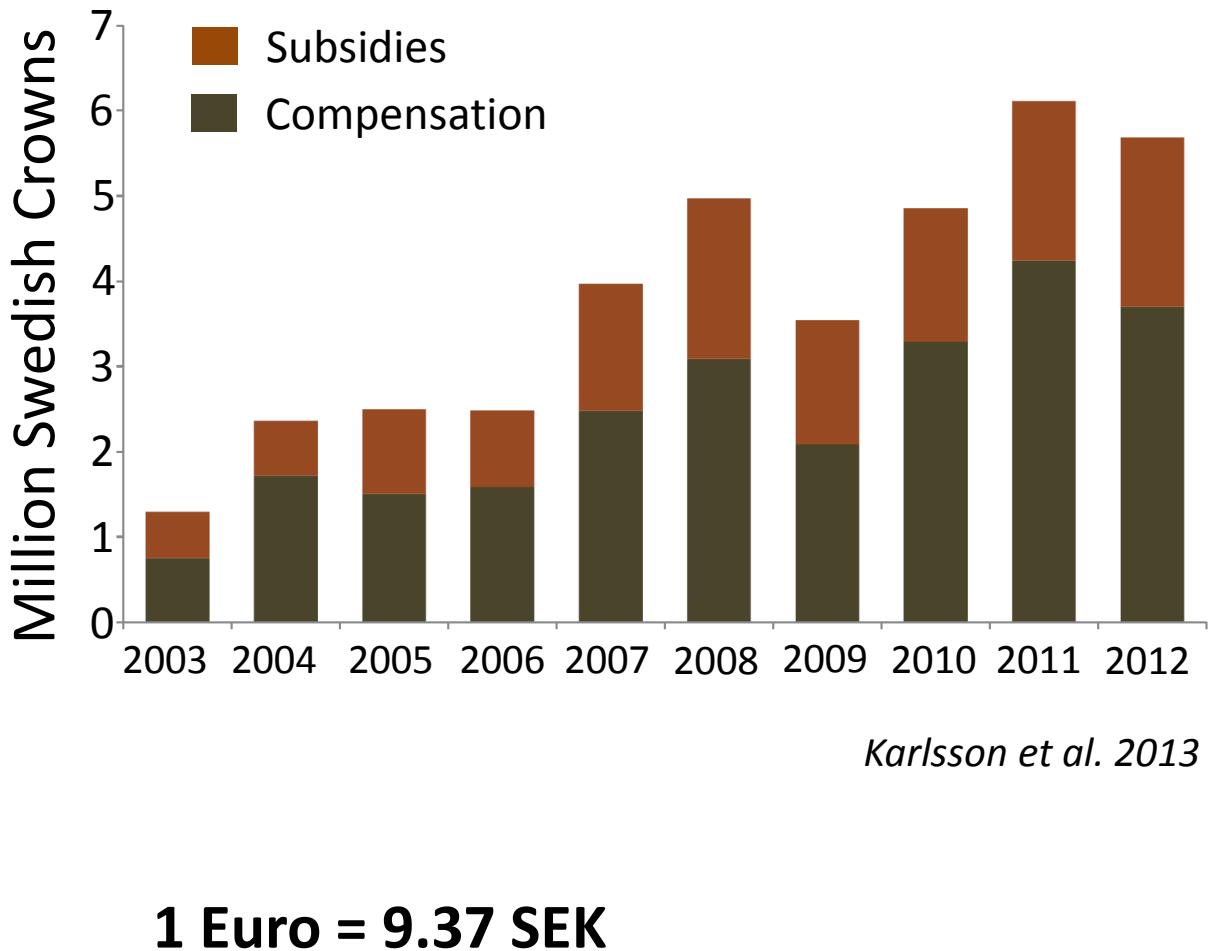


© P. Nilsson



© C. Elderud

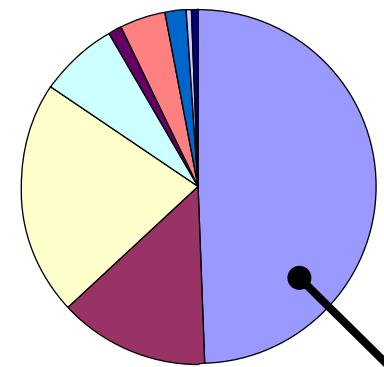
Compensation and subsidies



Different species – different “specialitets”

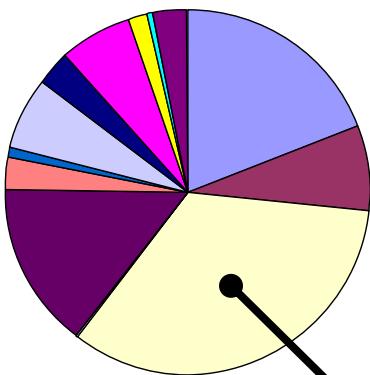
Måansson et al. 2011

Barnacle



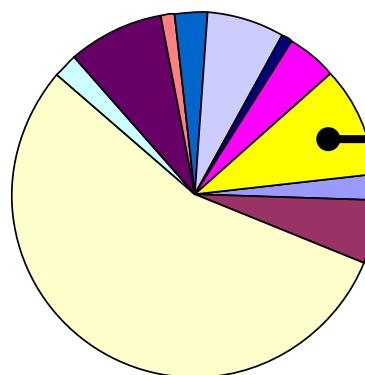
Grass ley/pasture

Greylag



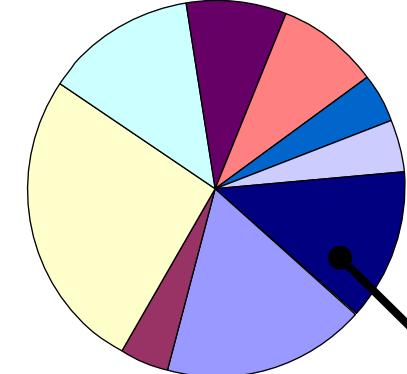
Barley

Common crane



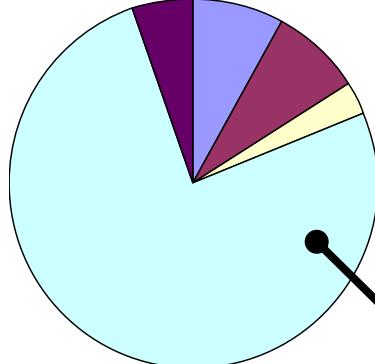
Potatoe

Bean



Carrot

Whooper swan

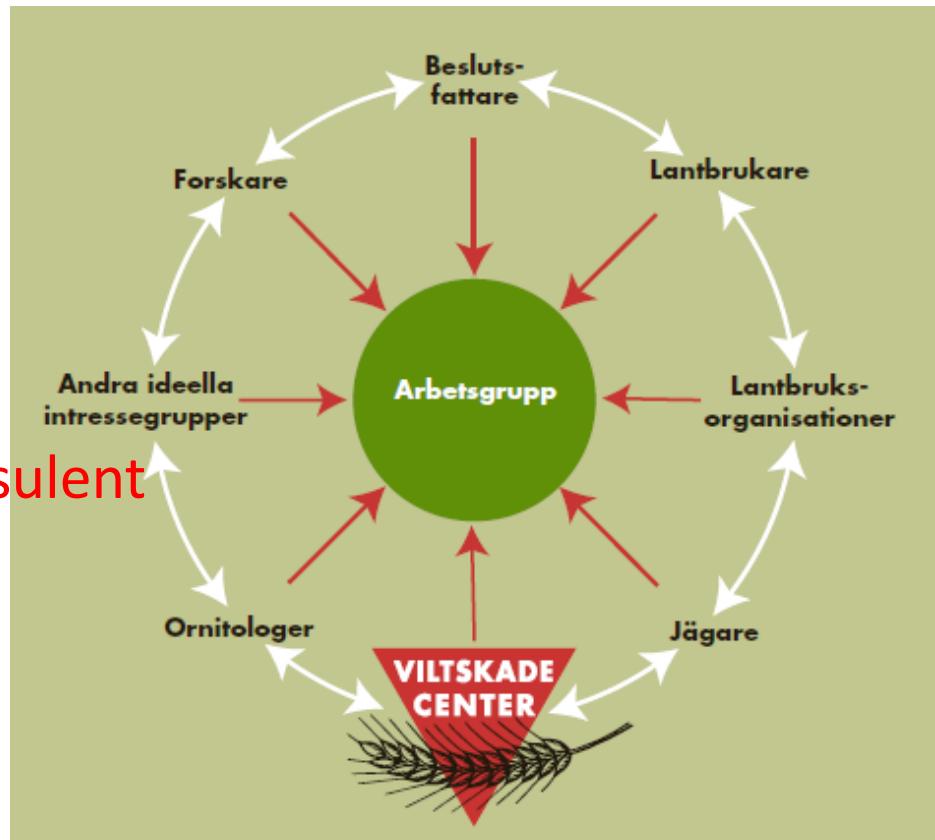


Rape seed

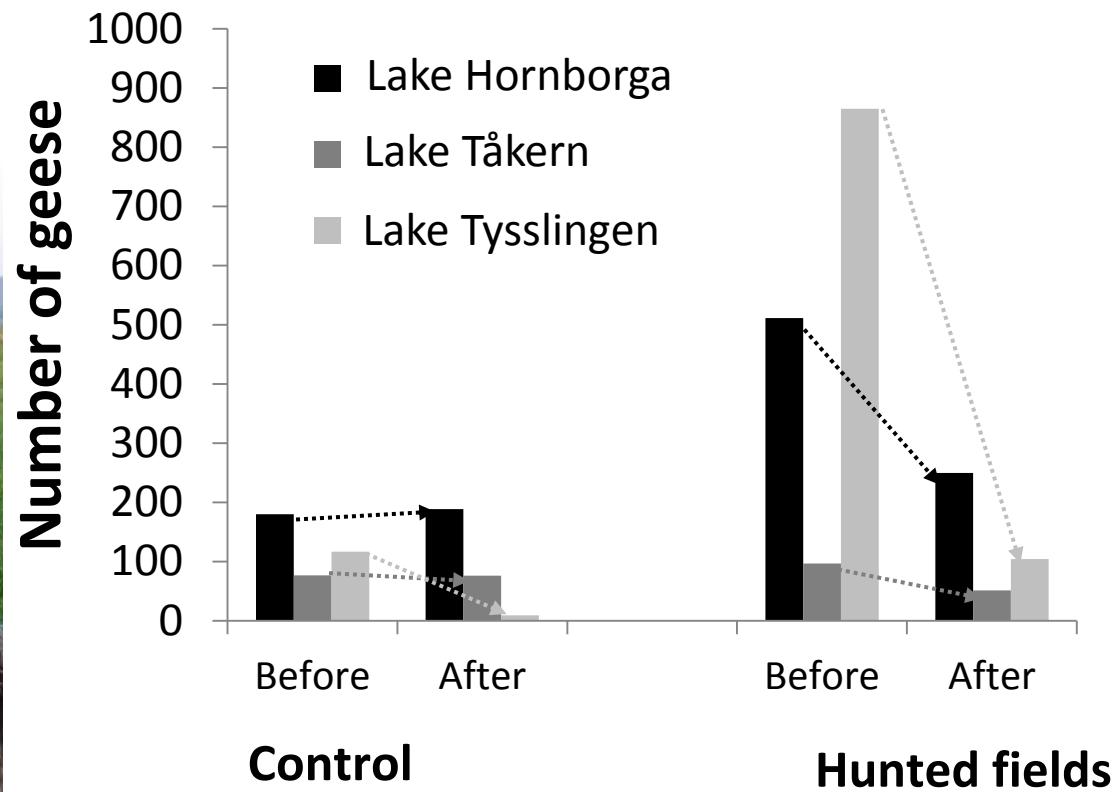
- Vall, Bete
- Fodersäd, Fodersäd/vall
- Korn
- Havre
- Höstvete
- Råg, Rågvete
- Vårsvete
- Blandsäd
- Raps
- Ärtväxter
- Potatis
- Isbergssallad
- Morot

Working-model for preventive actions

- Form a group – information
- Gather knowledge
- Perform actions
 - accommodation fields
 - scaring
 - hunting
 - resursperson/skrämselkonsulent**
 - fencing
- Evaluate
- Improve

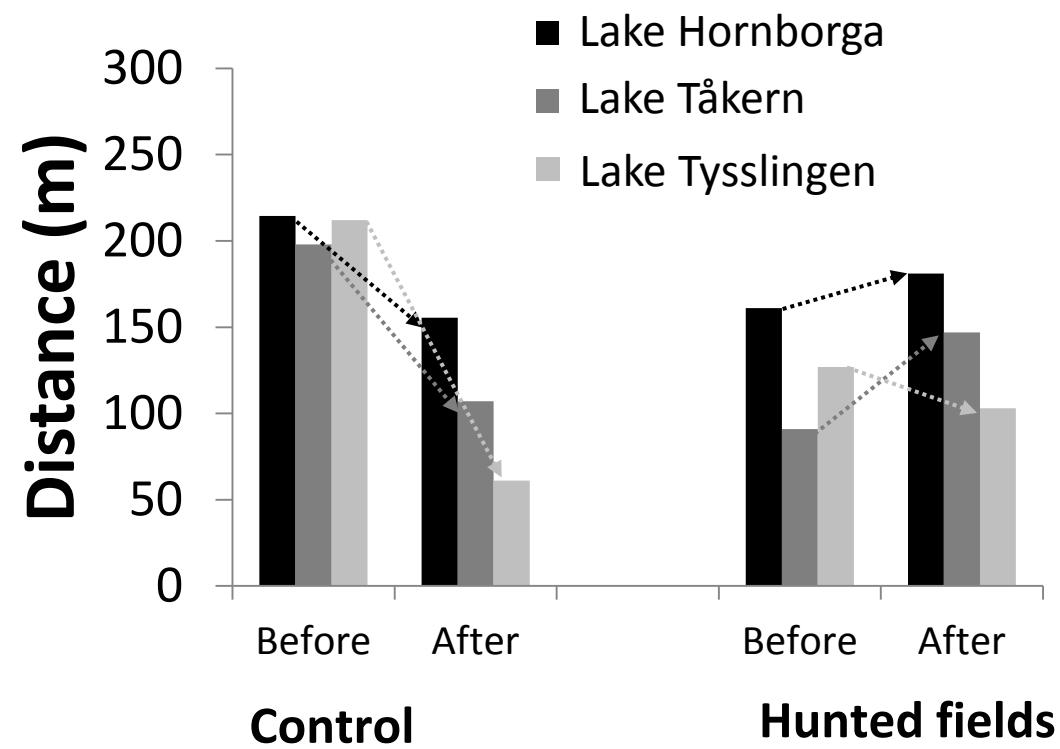


Evaluation 2013 - Local culling



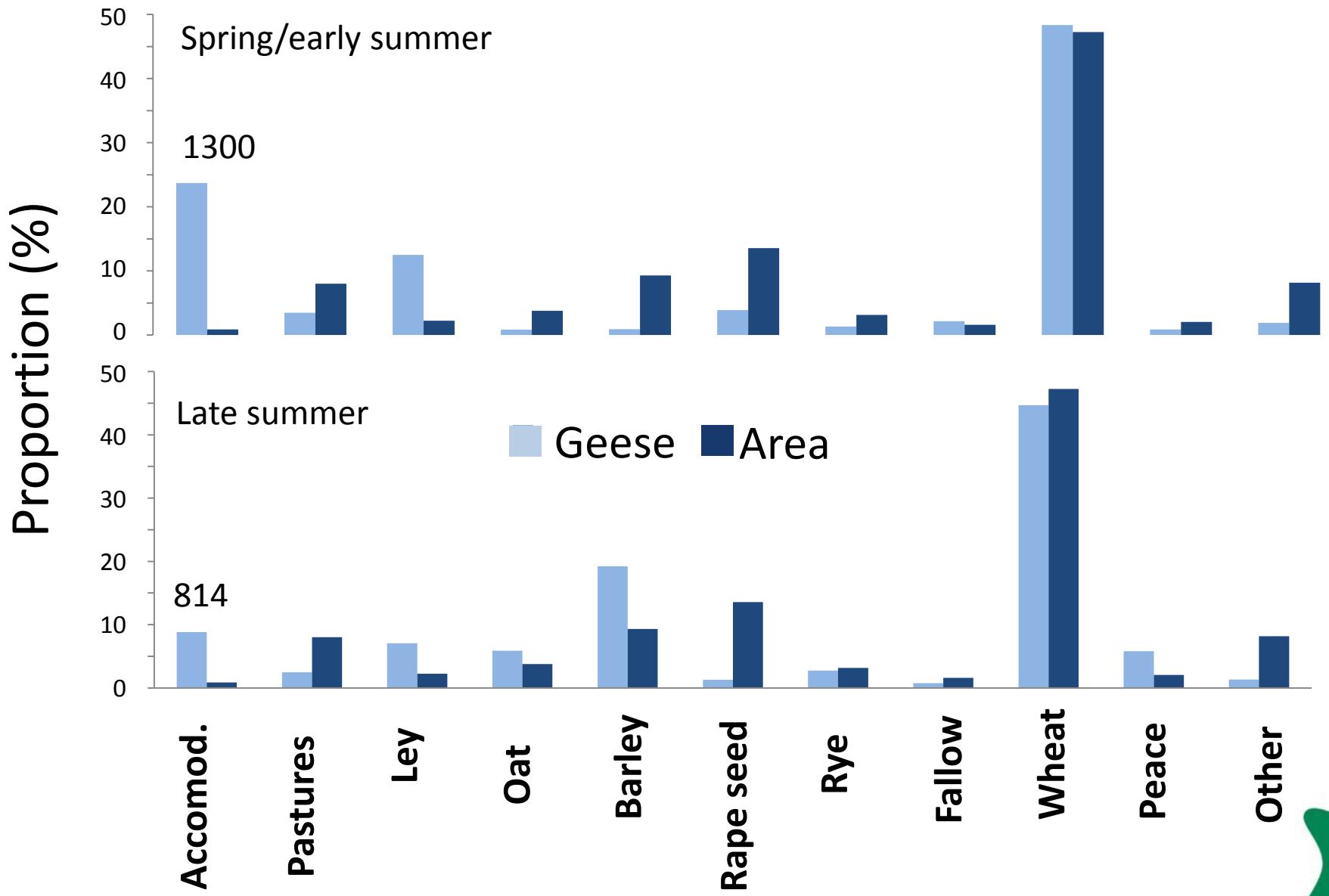
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Evaluation 2013 - Local culling



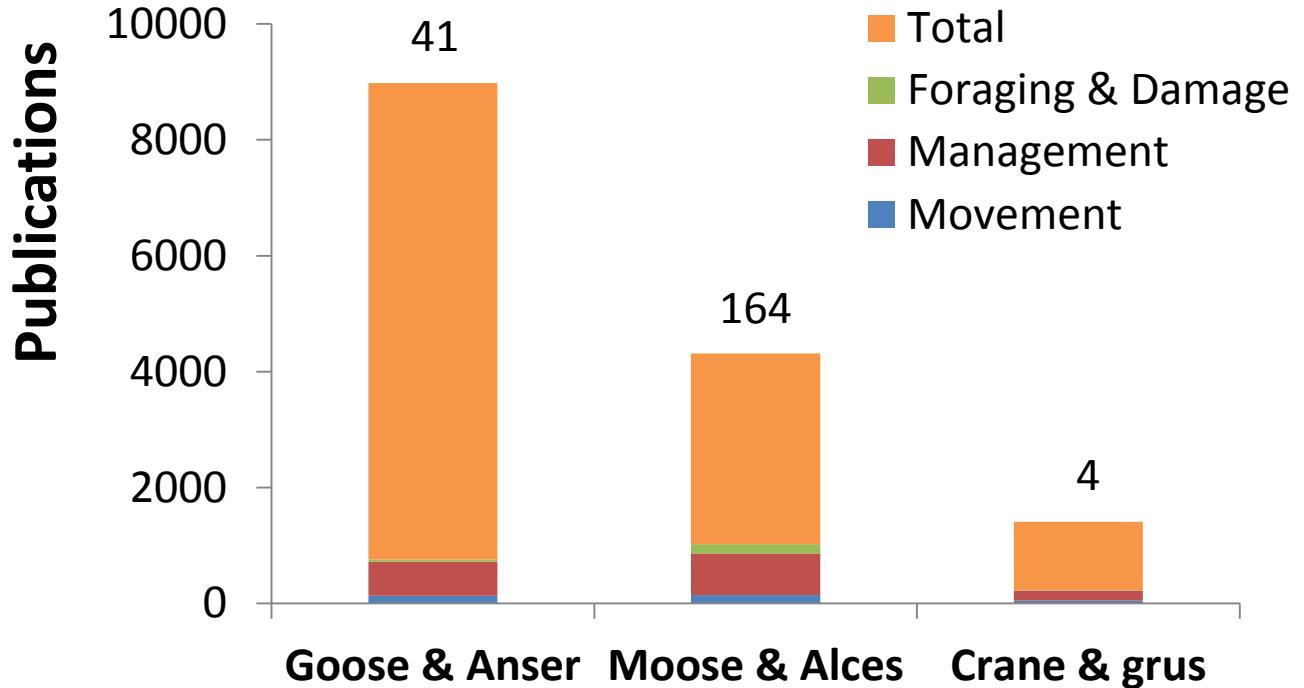
Evaluation 2013

Performance of accomodation field





What do we know??



Källa: Web of Knowledge 2013-04-03

Mixed flocks a problem for management



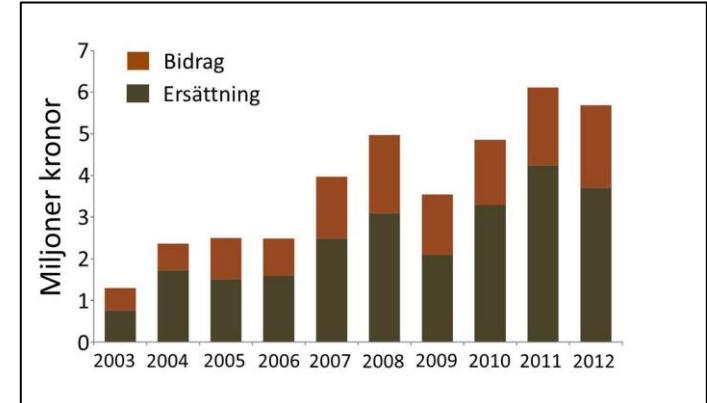
Short term vs long term solutions



Accommodation fields



Scaring



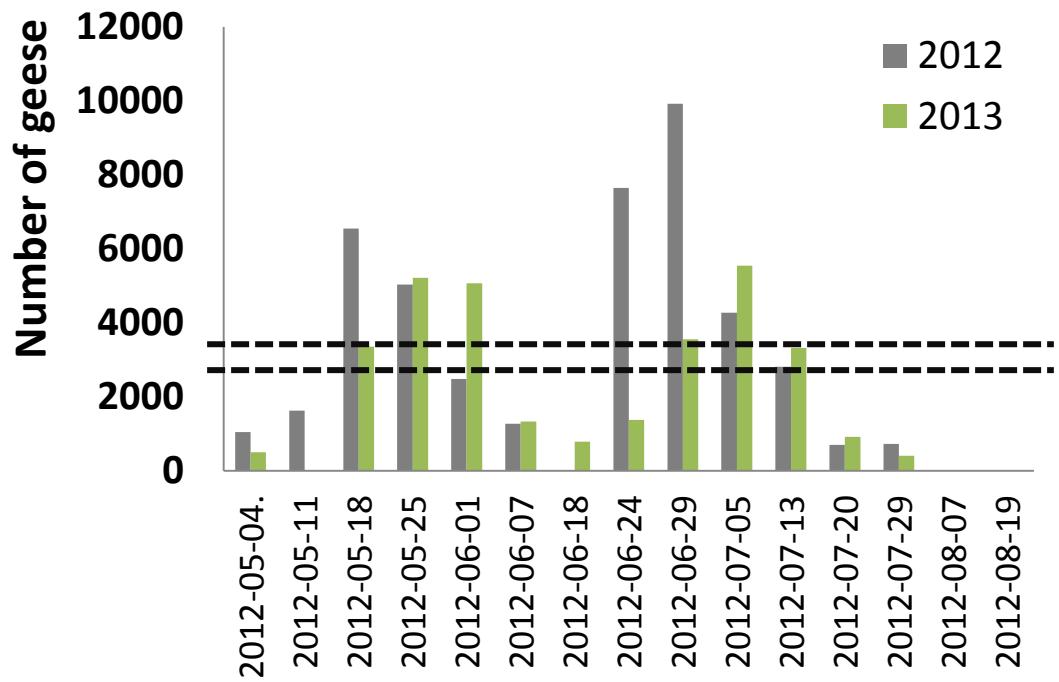
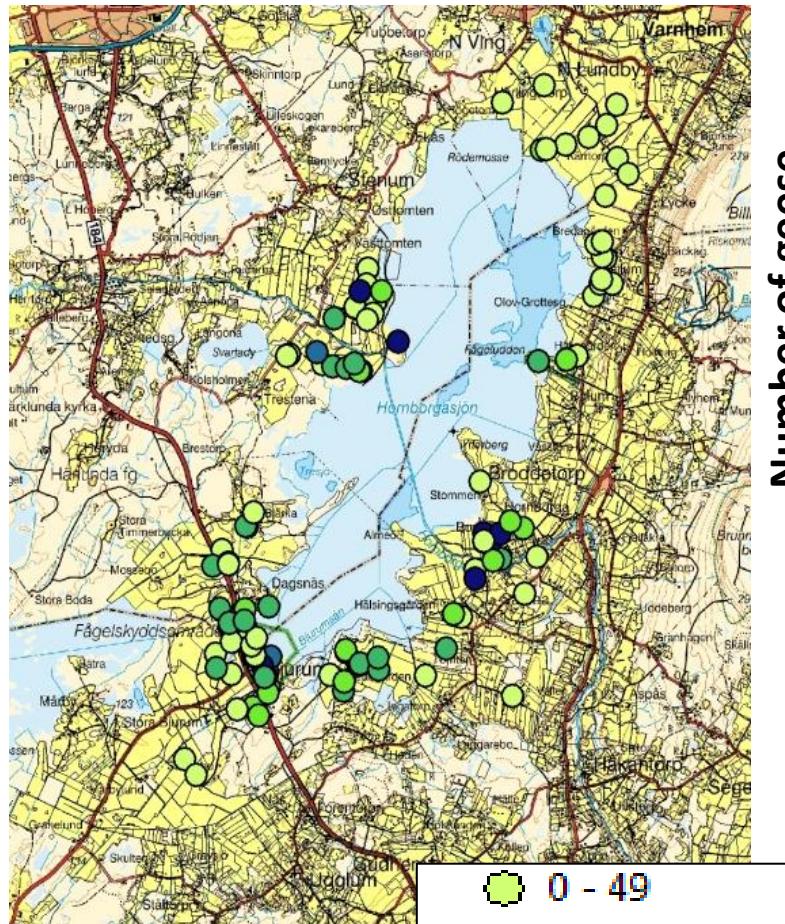
Compensation



- Regulate populations?

Conservation vs damage

weekly counts on fields at lake Hornborga



From ~236 000 to 331 000 goose-days
Damage?

WANTED

~~DEAD OR ALIVE?~~

Knowledge
about the system

