

Session 2 : Preparing for emerging threats:
examples of best practice



Management of invasive geese in Flanders

Tim Adriaens
Managing invasive mammals and birds
3-4 July 2013 , Ghent (Belgium)



Reducing the Impact of
Non-native Species in Europe
www.rinse-europe.eu

"Investing in your future"

Crossborder cooperation programme 2007-2013 Part-financed by the European Union (European Regional Development Fund)

Problems caused by geese

Damage to agriculture

Ecological effects

- ☛ eutrophication
- ☛ Trampling
- ☛ grazing & herbivory
- ☛ hampering ecological restoration
- ☛ soil and water pollution
- ☛ competition (?)
- ☛ pathogen transmission (e.g. *Bd*)

Nuisance

- ☛ eutrophication of ponds and lawns
- ☛ birdstrike hazard









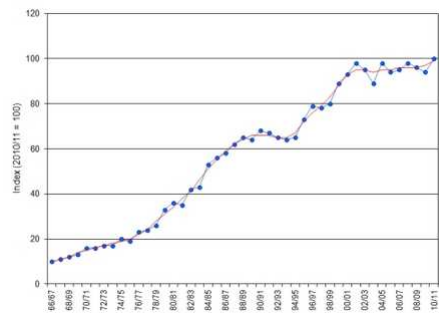


© Vildaphoto.net

Canada goose

Branta c. canadensis

- Long-lived
- growth rate 20%/year
- Mature at 3ys
- 4-7 eggs
- incubation 28-30d
- Flanders 2000 bp, NL 3000 bp
- Breeding part of population remains at breeding ground
- Non-breeders tend to disperse



Management of geese

Reduction of adult numbers

- ☛ Culling (shooting, trapping)
- ☛ Preventing reproduction (egg removal, nest destruction, pricking, oiling)

Habitat management

- ☛ Bank steepening
- ☛ Island removal
- ☛ Accessibility for predators
- ☛ Dense shore vegetation
- ☛ Reduce open area
- ☛ Reducing available foraging area

Integrated management strategy

Issue of scale



Learning from population modeling



- ☛ adult survival = highest elasticity
- ☛ culling geese is more effective
- ☛ culling: lower numbers need to be harvested
- ☛ egg reduction cannot halt growth
 - find 88 % of all nests
 - no replacement clutches
 - perfect management

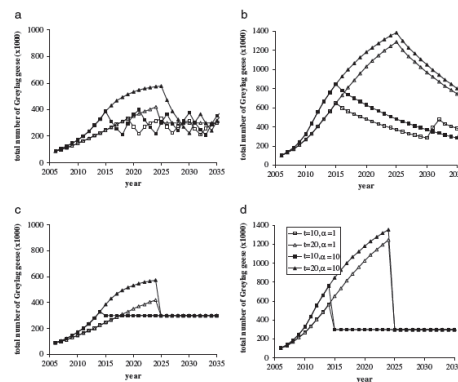


Figure 8. Simulations of the effect of management by egg reduction (a, b) and culling of birds (c, d) on the abundance of Greylag geese (sub-adult and adult males and females) under density dependence in gosling rearing habitat, with the amount of this habitat based on Van der Jeugd (2006). Management started in 2015 or 2025. Initial conditions as in fig. 4. Models were parameterized with Ooijpolder (a, c) and Swedish life-history data (b, d) and evaluated with weak ($\alpha=10$), and strong ($\alpha=1$) density dependence.

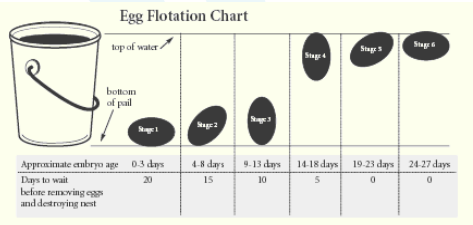
Klok et al. 2010 *Animal Behaviour*

Rockwell et al., 1997

Egg reduction



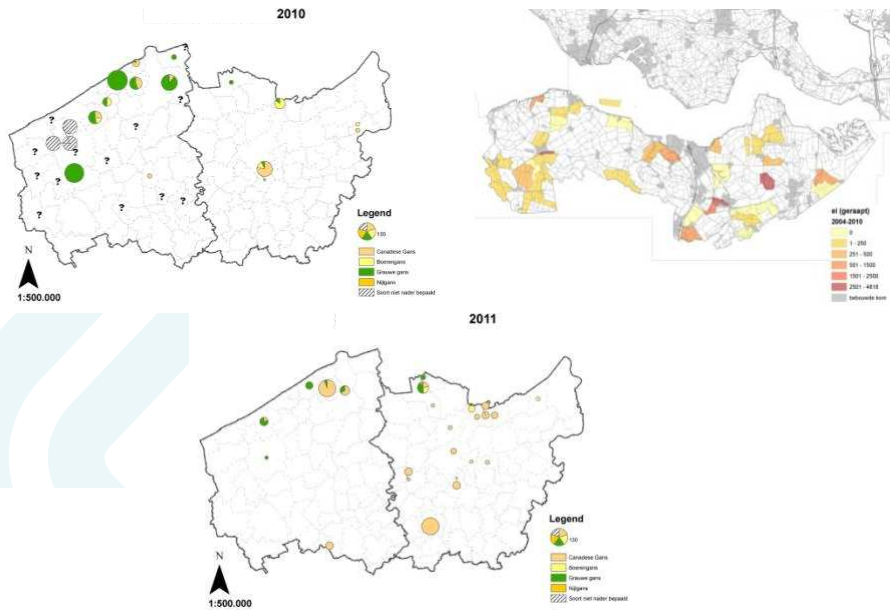
- Eggs cool → laying is not finished (come back)
- Eggs warm → check incubation stage



- Report (species, # nests, # eggs, # eggs treated, embryo stage)
- Useful method to stabilise local breeding populations

e.g. <http://www.youtube.com/watch?v=2CLIL-381Lw>

Egg reduction






© Jan Rodts

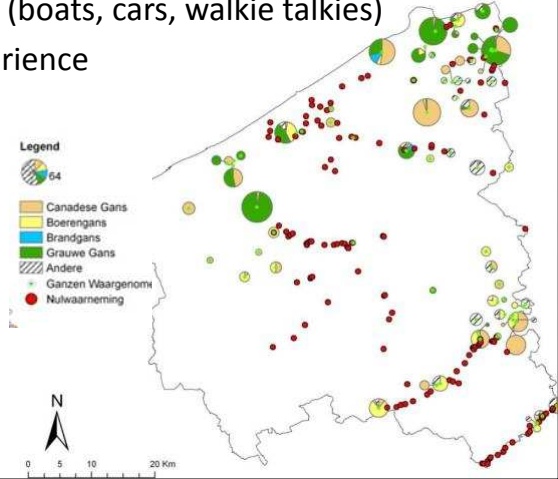


Moult capture




- 🦉 Good knowledge of moulting sites
- 🦉 Prospections: visit potential locations from second week of June (preferably 2 times)
- 🦉 Logistics and materials (boats, cars, walkie talkies)
- 🦉 Some money and experience
- 🦉 A veterinarian

	8 juni	16-17 juli
Grauwe gans	329	1897
Canadese gans	313	207
Boerengans	157	198
Nijlgans	87	94
Brandgans	11	7
Indische gans	1	0
Chinese knobbelgans	0	1
Magelhaengans	0	1
Totaal	898	2405

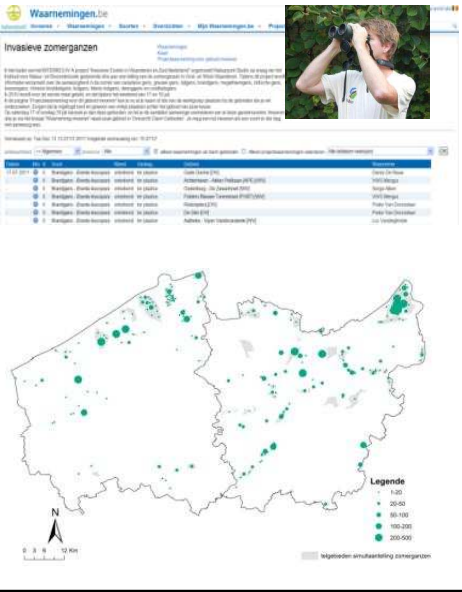


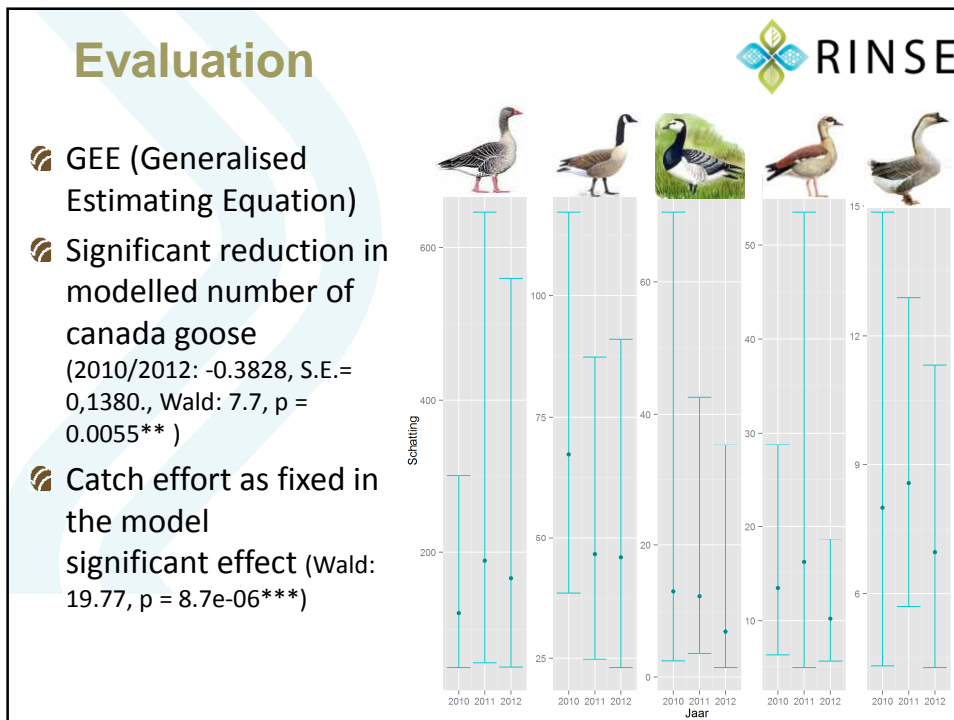
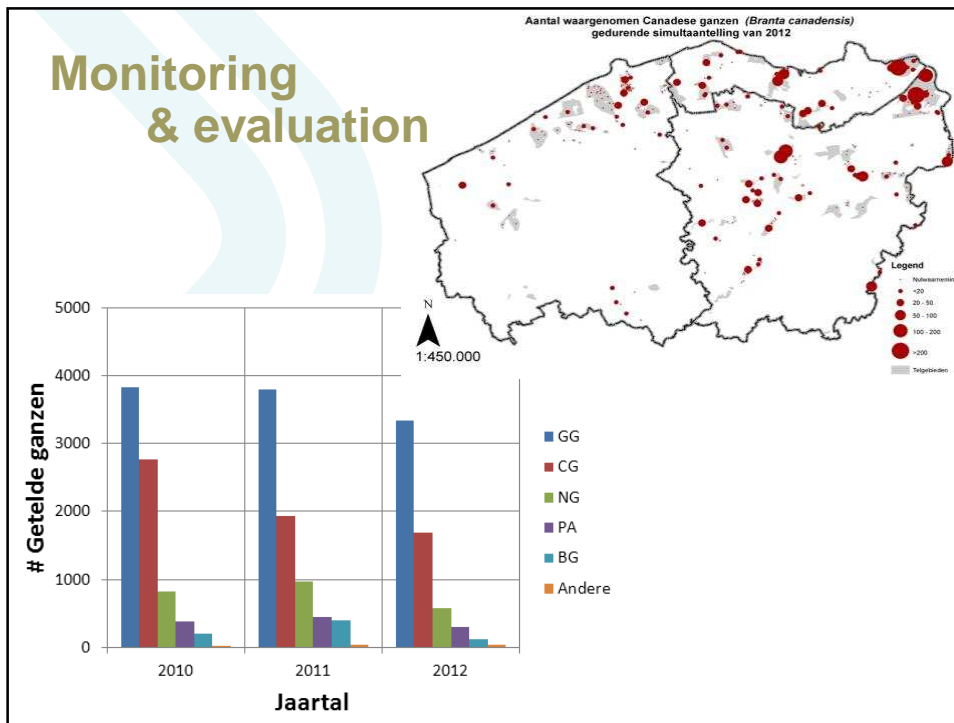
Monitoring & evaluation



Simultaneous counts

- 🦉 3rd weekend of July
- 🦉 Volunteer network
 - 🦉 Bird working groups
 - 🦉 Natuurpunt Studie
 - 🦉 SOVON
- 🦉 Fixed set of counting areas
- 🦉 Incl. zero counts
("no geese" vs "not counted")
- 🦉 Representative trends





Management cost



Moult capture (excl. preparation cost & coordination)

- ☛ Example: Rijdtmeersen Brakel
 - ☛ 2010: 952,66 € (74 Canada + 26 domesticated)
 - ☛ 2011: 549,28 € (67 Canada + 8 domesticated)
- ☛ Example: Kessel-Lo
 - ☛ 2011: 1647,84 € (149 Canada geese)
- ☛ Euthanasia: 1,23 €/bird
- ☛ Despatch of birds: 2,77 €/bird



Integrated, cross-border




Interreg IVA Invexo


- ☛ Border region (Flanders & South of the Netherlands)
- ☛ 2009-2012
- ☛ Geese:
 - ☛ Total: 800.000€
 - ☛ Coordination: 180.000€
 - ☛ Management actions: 265.000€
 - ☛ Awareness & communication: 185.000€
 - ☛ Monitoring and evaluation: 170.000€
- ☛ 50 % cofinancing EFRO




www.invexo.eu


Obstacles...









Pink-footed




white-fronted




greylag



barnacle



egyptian



Canada

wintering geese

Summering geese (also in winter!)

exempt species (NL)

exemption possible for control (NL)

game species, open season

game species, no open season

protected species

not protected exotic/domesticated species

Public support

Prevention & sensibilisation

-  Communication towards stakeholders (hunters, farmers, conservationists)
-  Communication towards the public

Pay attention to what happens with the animals

-  Humane methods (and legal !)
-  Useful purpose
-  (to eat or not to eat IAS...)



Thank you !



Photos

- Vildaphoto.net
- RATO
- INBO
- Jo Packet



© Vildaphoto.net

Thankies

- Karel van Moer
- Elke van den Broeke
- Natuurpunt Vogelwerkgroepen and www.waarnemingen.be
- SOVON Vogelonderzoek Nederland



Reducing the Impact of
Non-native Species in Europe
www.rinse-europe.eu

"Investing in your future"

Crossborder cooperation programme 2007-2013 Part-financed by the European Union (European Regional Development Fund)