Rae McKenzie Policy & Operations Officer NatureScot





Migratory populations

- Greenland Barnacle Geese
- Svalbard Barnacle Goose
- Icelandic Greylag Goose
- Greenland White-fronted Goose
- Taiga Bean Goose
- Pale-bellied Brent Goose

Resident population

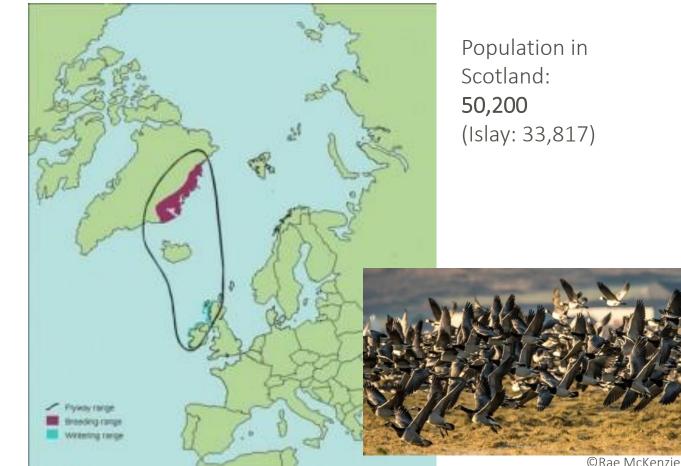
Greylag Goose

Non-native population



Canada Goose

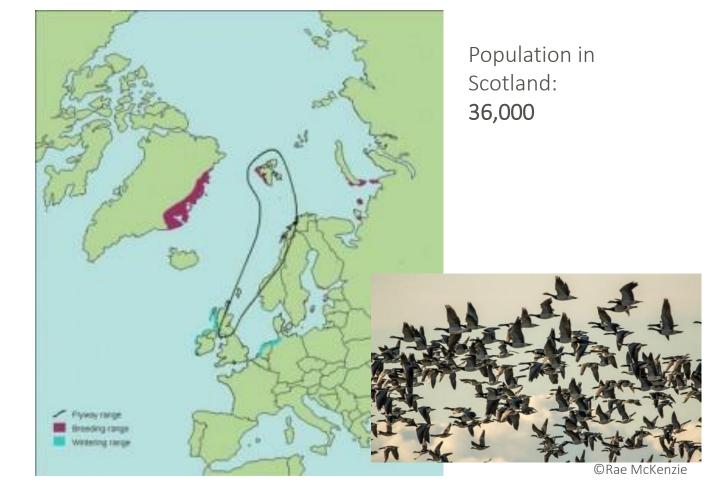
Greenland Barnacle Goose Range





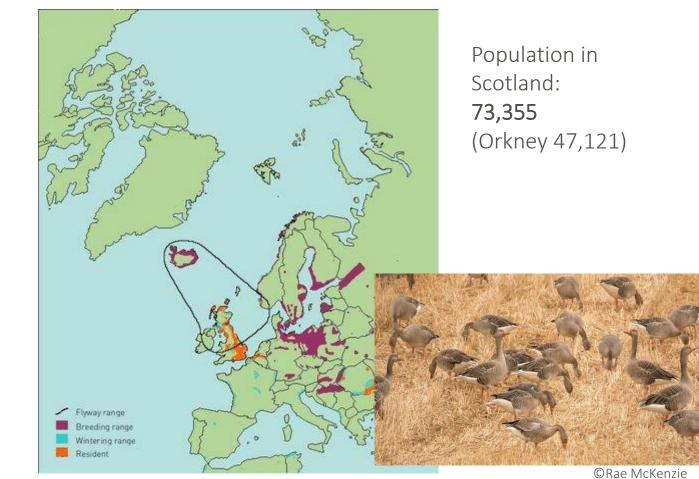
©Rae IVI

Svalbard Barnacle Goose Range



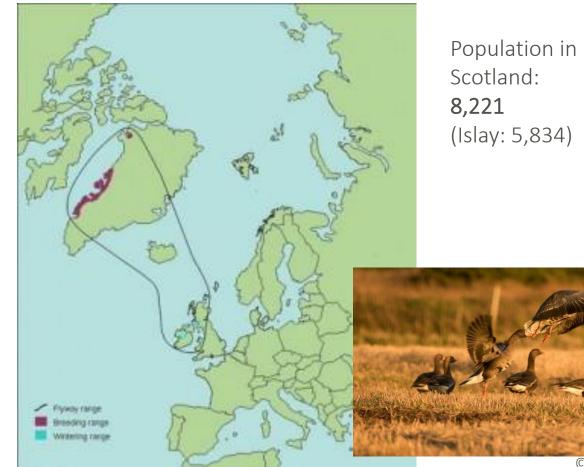


• Icelandic Greylag Goose Range





• Greenland White-fronted Goose





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• Pink-footed Goose



Population in Scotland: **500,928**



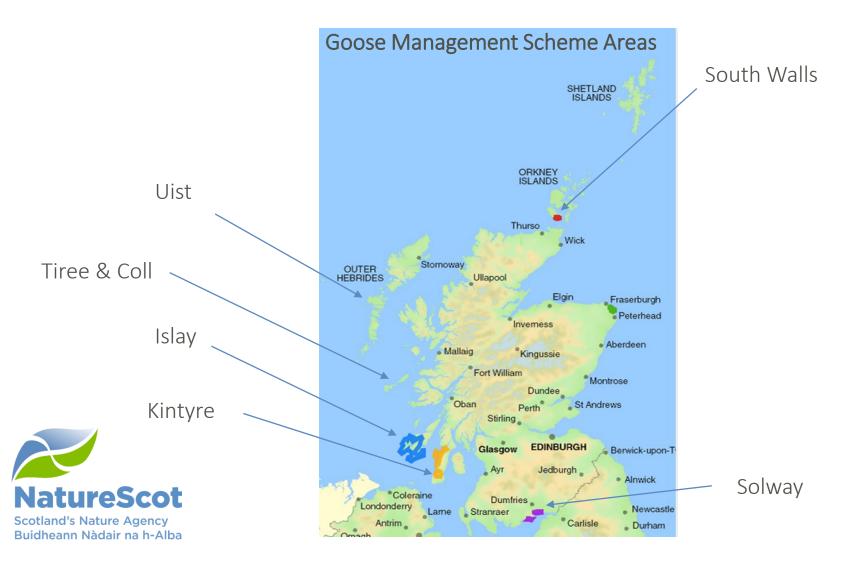
Pink-footed Geese © WWT / Paul Marshall

• Taiga Bean Goose





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Damage

Loss of crops (grass and barley)

- Increased grass reseeding frequency
- Reduced yield
- Reduced grazing
- Delayed turnout of in-wintered stock
- Delayed sowing





Measurement of damage

- Mostly calculated by proxy, based on historical data
- Assumption that higher density = increased damage
- Most damage is done to younger grass and ripe barley
- More recent work looking at grass measurements (Islay)





Costs

- Goose management schemes in Scotland pay farmers c.£1.2m per annum
- Most of the payment relates to a contribution towards the cost of the damage (compensation)
- The schemes also support undisturbed feeding areas and, in some cases, allow scaring.
- On Islay, a 10 year strategy aims to reduce damage by reducing numbers of geese.



Islay Strategy

- Adaptive management approach
- Supports ongoing goose management scheme
- Provides compensation for impacts
- Allows derogation shooting to reduce impact
- Bag limits informed by population model
- Includes feeding and scaring areas
- Grass damage monitoring carried out





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Islay Grass Damage Monitoring

- Used paired exclosures
- Measured grass height and coverage
- Grass exposed to goose grazing is shorter
- Winter goose grazing affects spring grass growth
- A reduction in population should reduce grazing pressure/damage
- Unlikely that the reduction is consistent across Islay





Impact modelling

- Needed for management of Annex 1 species to reduce agricultural damage
- Currently looking to develop model that applies to 2 barnacle goose populations
- Is it possible to share resources and costs to work across more goose populations?



Thank you

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