Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Institutionen för husdjurens biovetenskaper

Sveriges Ekokommuner, Södertälje, 22/5, 2025

Möjligheter med ett vildare Sverige

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MACKAY
mackaycartoons.net

BIODIVERSITY COLLAPSE

CLIMATE CHANGE

RECESSION

COVID-19

BE SURE TO WASH YOUR HANDS AND ALL WILL BE WELL.

”Fennoskandia” 18 kYPB



Återvandringen

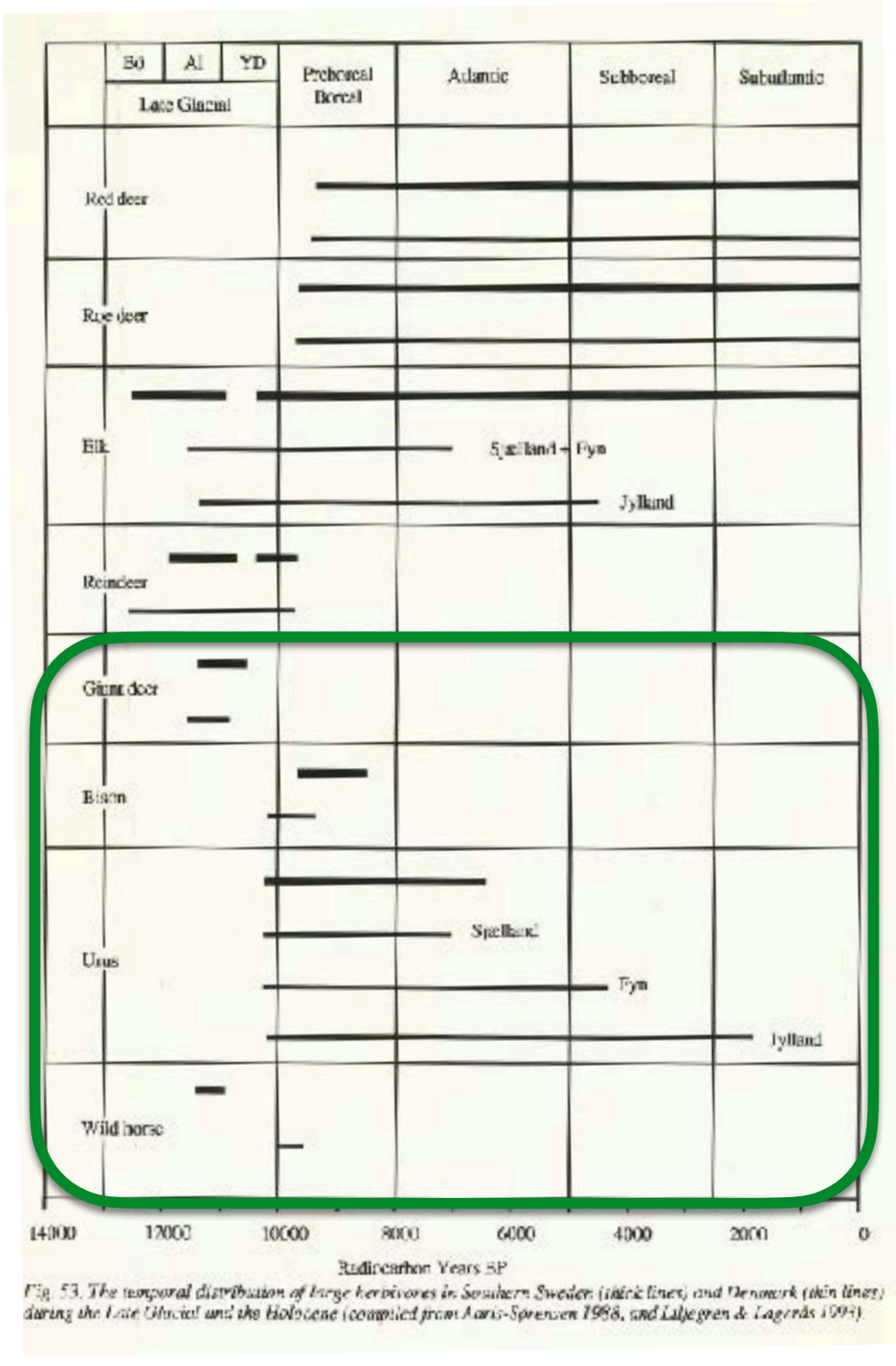


Fig. 53. The temporal distribution of large herbivores in Southern Sweden (thick lines) and Denmark (thin lines) during the Late Glacial and the Holocene (compiled from Aaris-Sørensen 1988, and Liljegren & Lagerås 1994).

Ekström (1993) *PhD Thesis, Lund University*

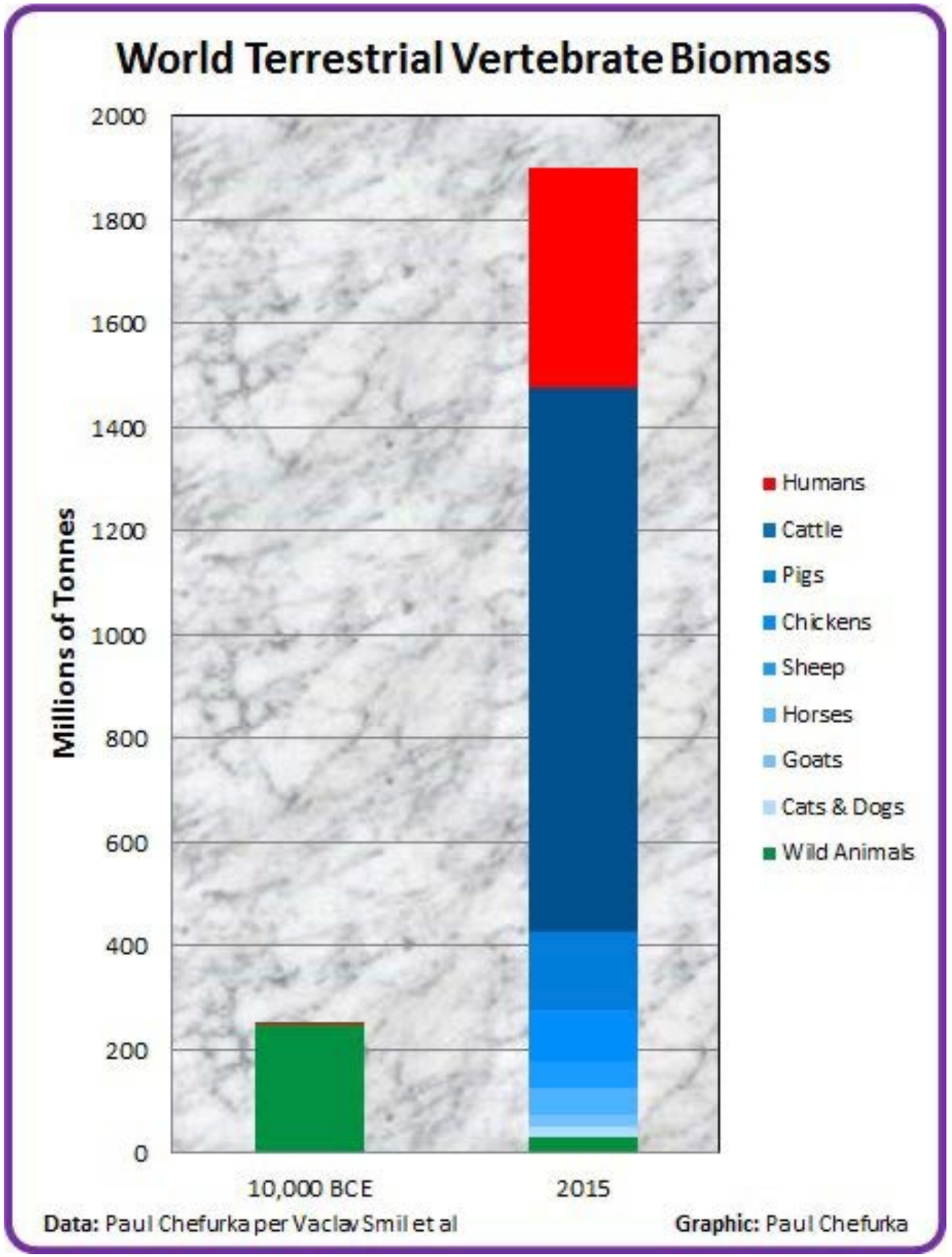
Gustav III - King of Sweden

1789 - free hunting
wildlife soon gone...

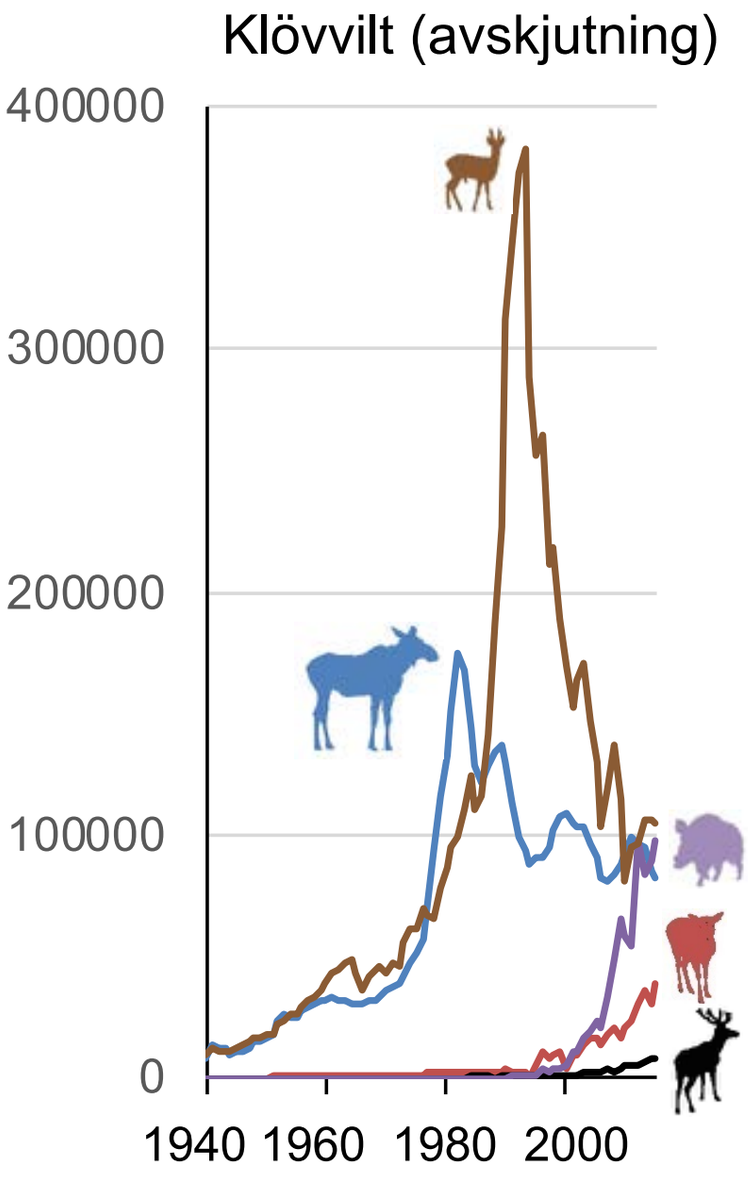
Först bytet, sedan jägarna…

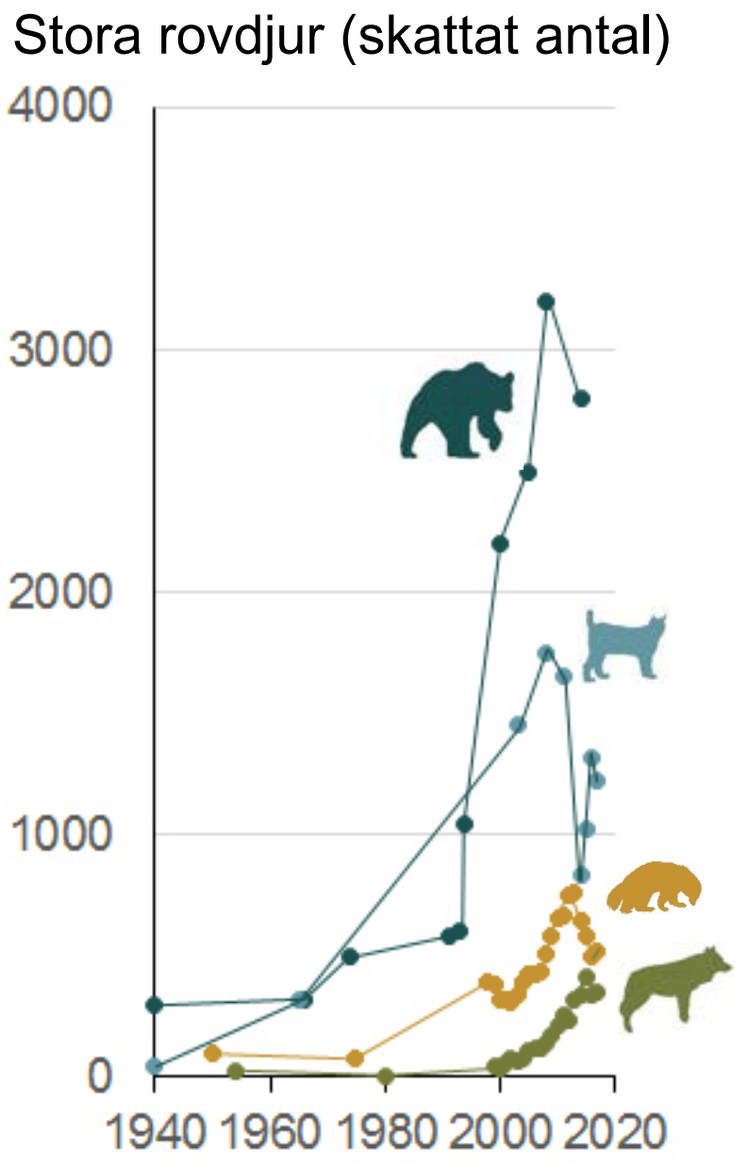


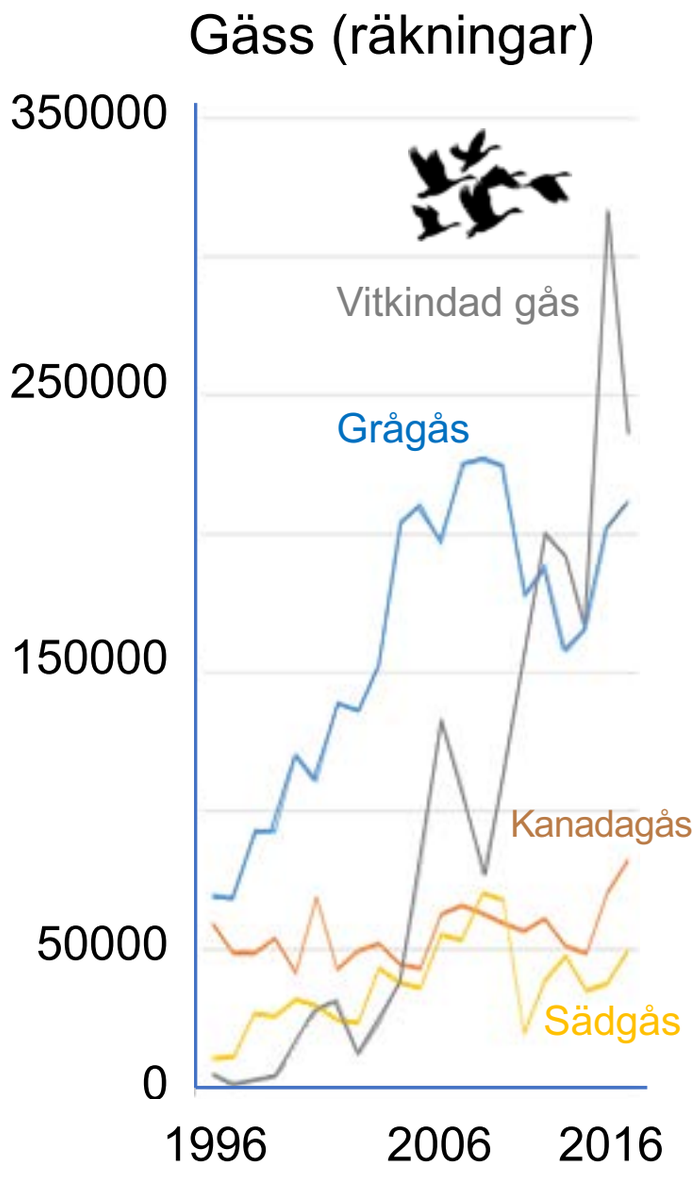
2. Wargjagt på skidor.


World Terrestrial Vertebrate Biomass
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Millions of Tonnes
10,000 BCE
2015
Humans
Cattle
Pigs
Chickens
Sheep
Horses
Goats
Cats & Dogs
Wild Animals
Data: Paul Chefurka per Vaclav Smil et al
Graphic: Paul Chefurka

Fauna restaurering







Widemo et al (2019) NV rapport 6889 (Fig B1)

Återintroduktioner



1920ies



1970ies



1990ies

Ekosystemtjänster stora däggdjur

Bidragande - ex kött, skinn, upplevelser

Reglerande - ex bete, predation, klimat

Stödjande - ex fröspridning, gödning

Kulturella - ex jakt, närhet, religion

Från skog till krog…





20 000 000 kg!





Data: Torsten Mörner, *Swedish Veterinary Institute*

WildFood

- Wildlife
- Semiferal Husbandry
- Fish
- Plants & Fungi

- Adaptive Management
- Animal Welfare
- Diseases
- Economy
- Ecosystem Services
- Ecotourism
- Food Quality
- Food Security
- Human Dimension
- Infrastructure
- International Perspectives
- Legislation
- Life Cycle Analysis
- Migratory Populations
- Outreach
- Public Health
- Regional Development
- Reproduction
- Restoration Biology
- Right of Access

Thulin (2024) *Novel Techniques in Nutrition & Food Science*

Sweden vs Yellowstone

Sweden

Area: 44 743 500 hectare

Ungulates:
Moose 240 000
Red deer 30 000
Fallow deer 100 000
Roe deer 300 000
Wild boar 200 000
Ungulate density: 19/1000 hectare

Large carnivores:
Ca 400 wolves, 3000 brown bears, 1000 lynx & 500 wolverines
Large carnivore density: 0,11/1000 hectare

Yellowstone NP

Area: 890 000 hectare

Ungulates:
Elk (red deer) 10 000-20 000 (winter 5000)
Mule deer 1,850–1,900 (winter >400)
American bison 5500
Moose >200
Bigohorn sheep 163
Pronghorn 466
Mountain goat 208
Ungulate density (winter): 13/1000 hectare
Ungulate density (summer): 20-31/1000 hectare

Large carnivores:
Ca 100 wolves, 150 brown bear (grizzly), 25-35 cougar, NN (500?) black bears, 10 lynx, 10 wolverines
Large carnivore density: 0,89/1000 hectare

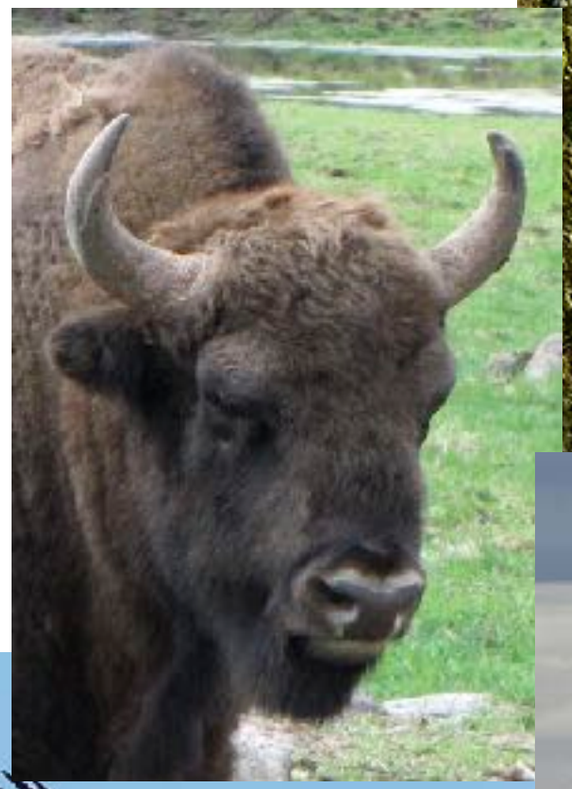
Sources:
National Parks Service: www.nps.gov
SLU Viltskadecenter: http://www.slu.se/centrumbildningar-och-projekt/viltskadecenter/Inventering/
Swedish EPA: https://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/?topic=58
Viltdata: http://www.viltdata.se
Kardell (2016): http://www.slu.se/globalassets/ew/org/centrb/cfw/files/ovrigt/kardell_2016_forest_grazing_pressure.pdf

Turism



Data:
Swedish Agency for Economic and Regional Growth (tourism)
Statistics Sweden's switchboard (forestry)

Framtida återintroduktioner?







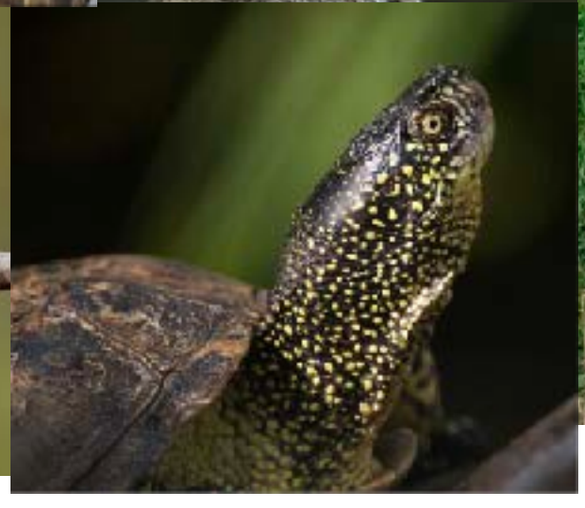














Russprojektet (åretruntbete med russ)

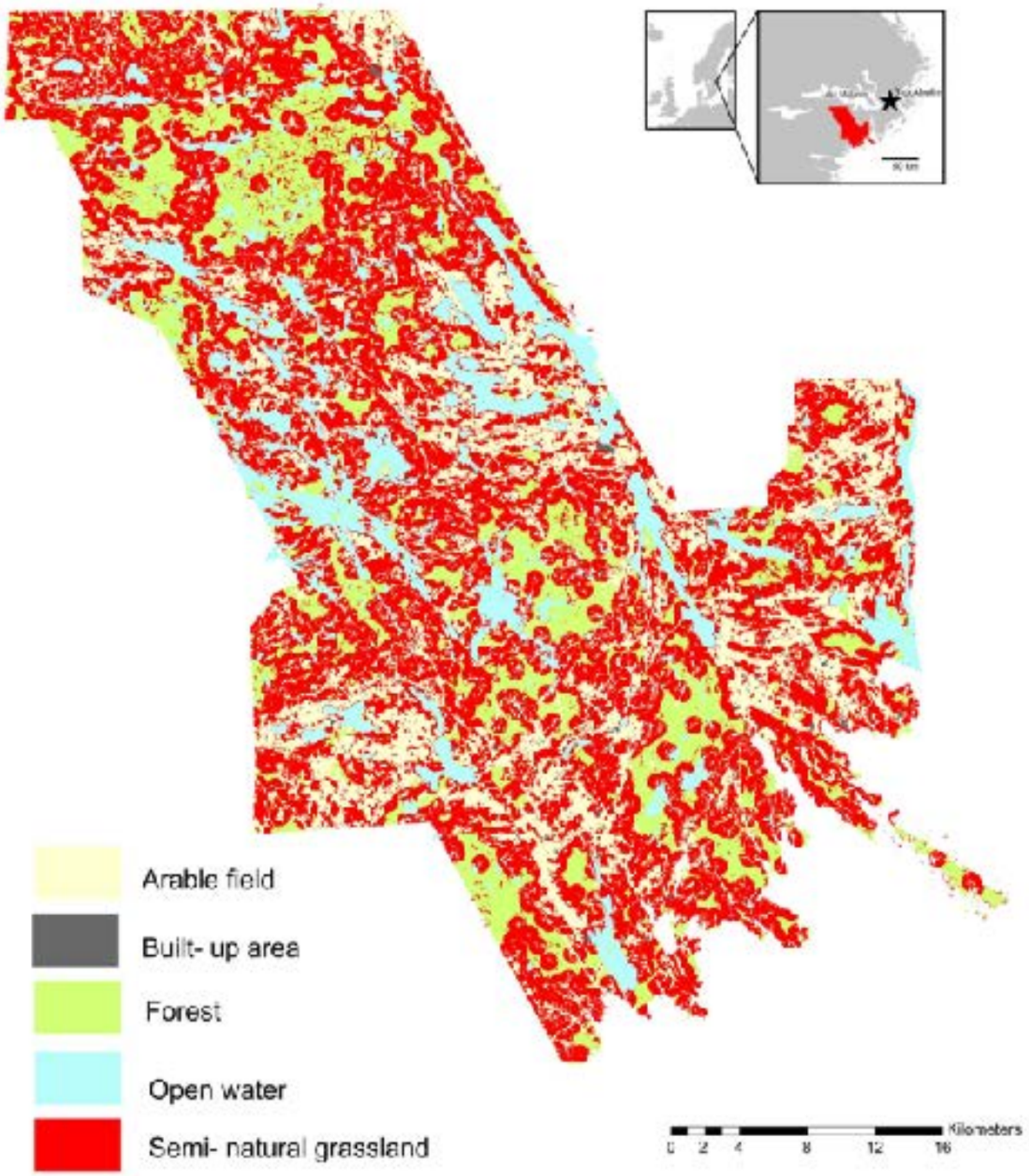
Maj 2014 - Juli 2016



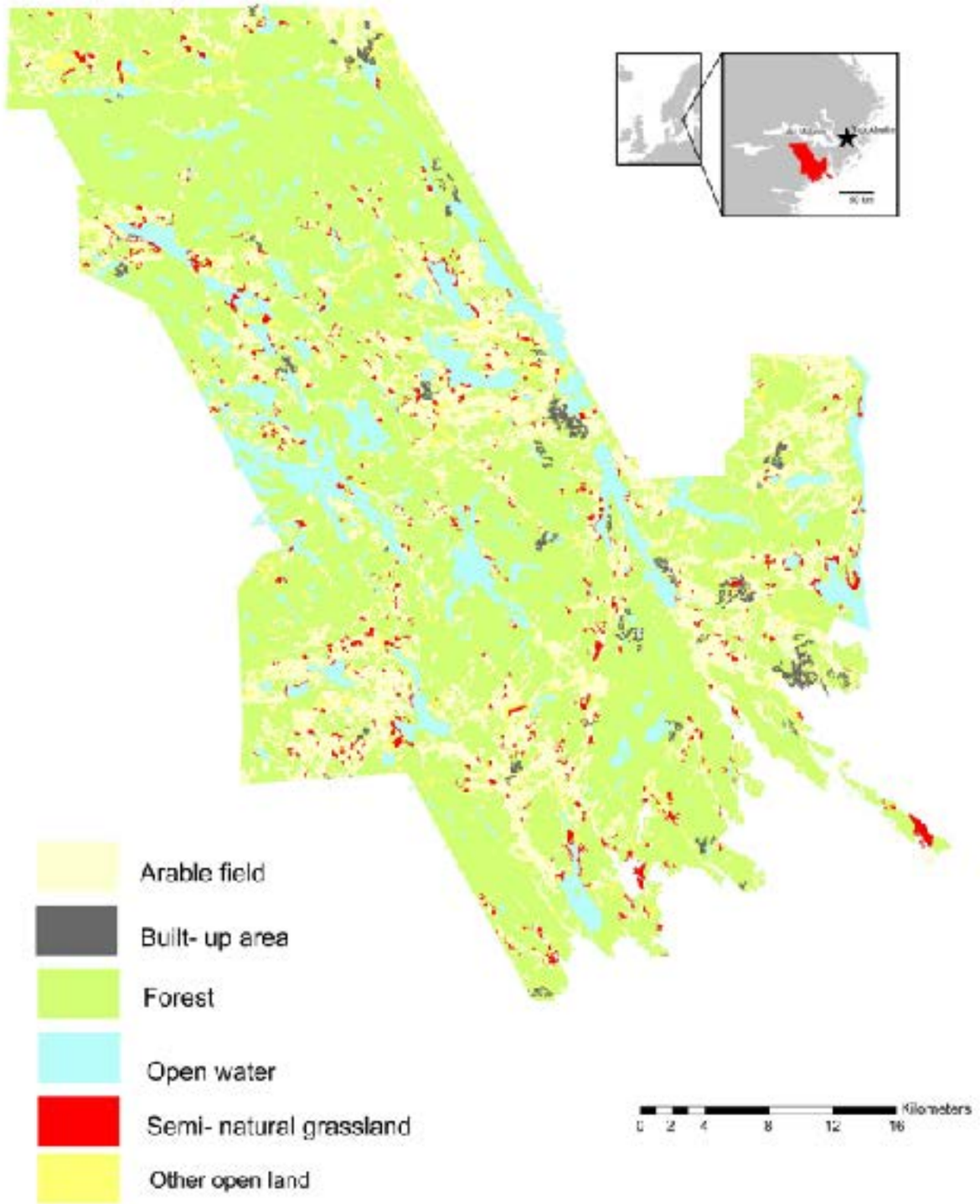


”rator”

Grassland extent 1901



Grassland extent 2012



Cousins et al (2015) *Ambio*

Visent i Sverige?

En genomförbarhetsanalys

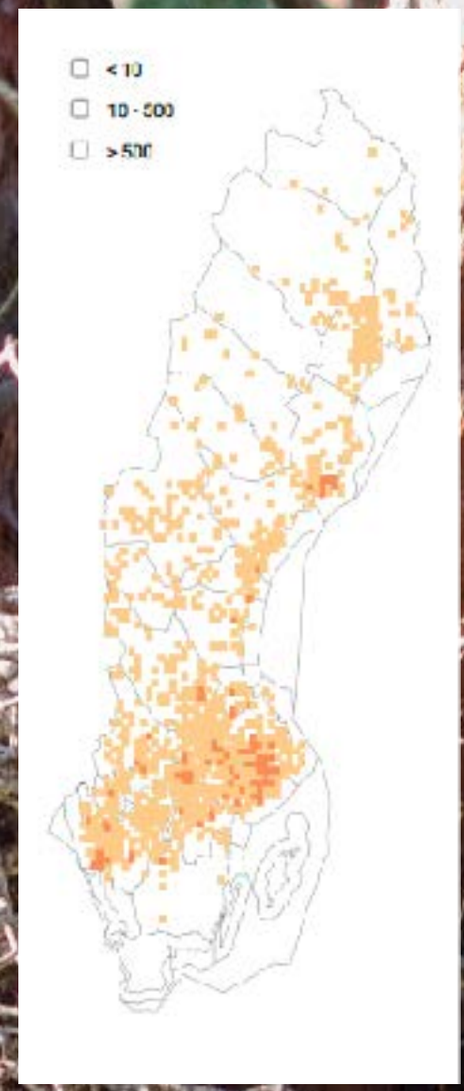
Skogssällskapet & SLU

Skogssällskapet

SLU

Black Stork Back



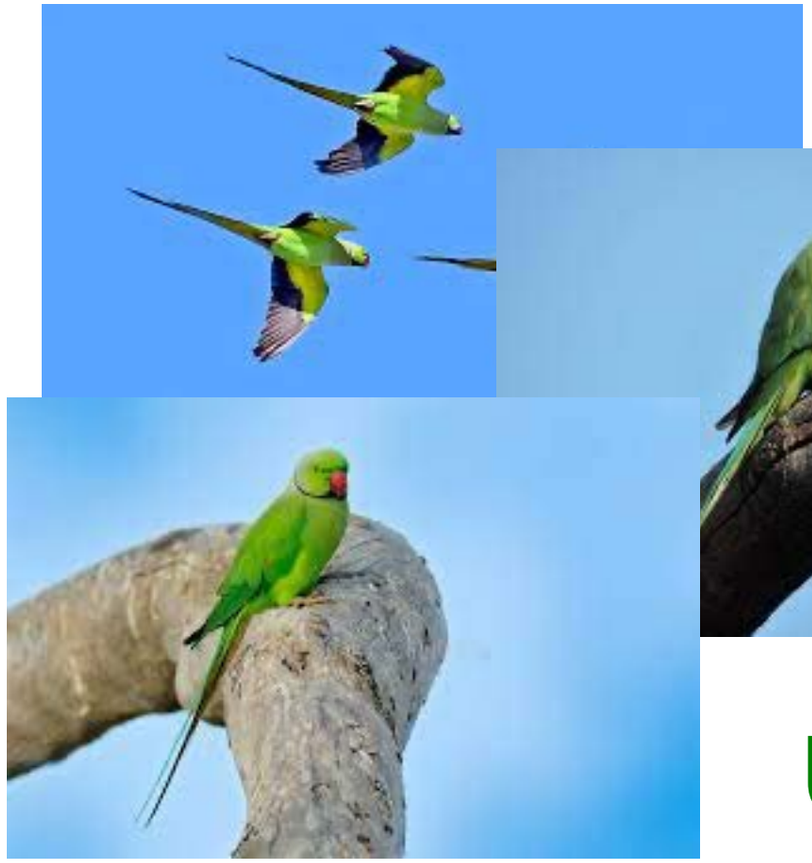


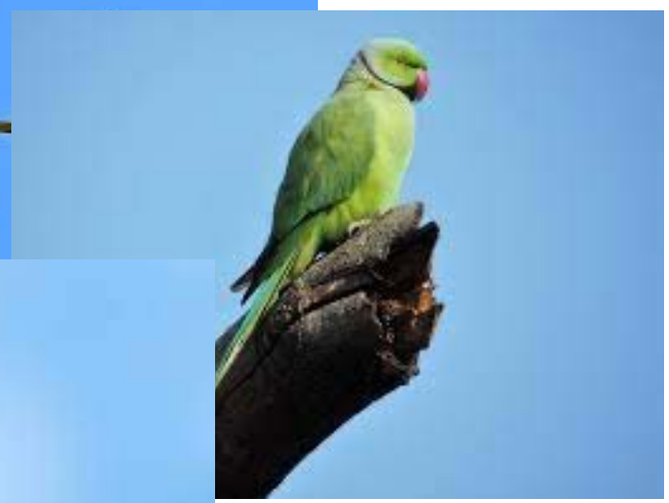
Thulin et al (2022) Ornis Svecica

Feralisering















Urban Parrots

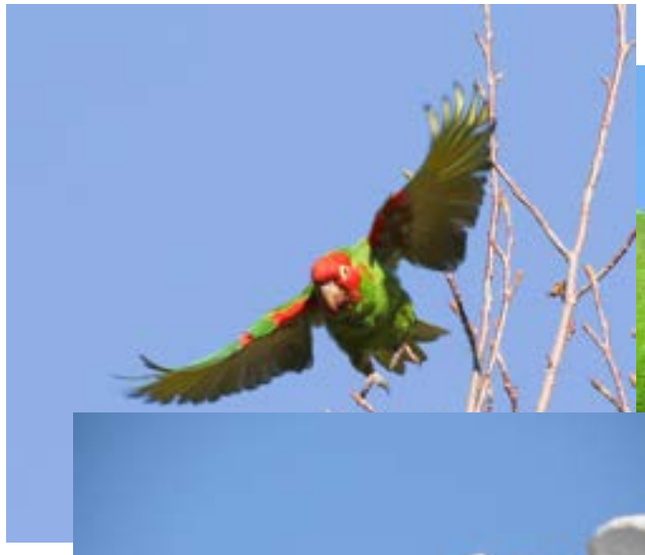
Emeralds of the Antropocene















MAY 12, 2025









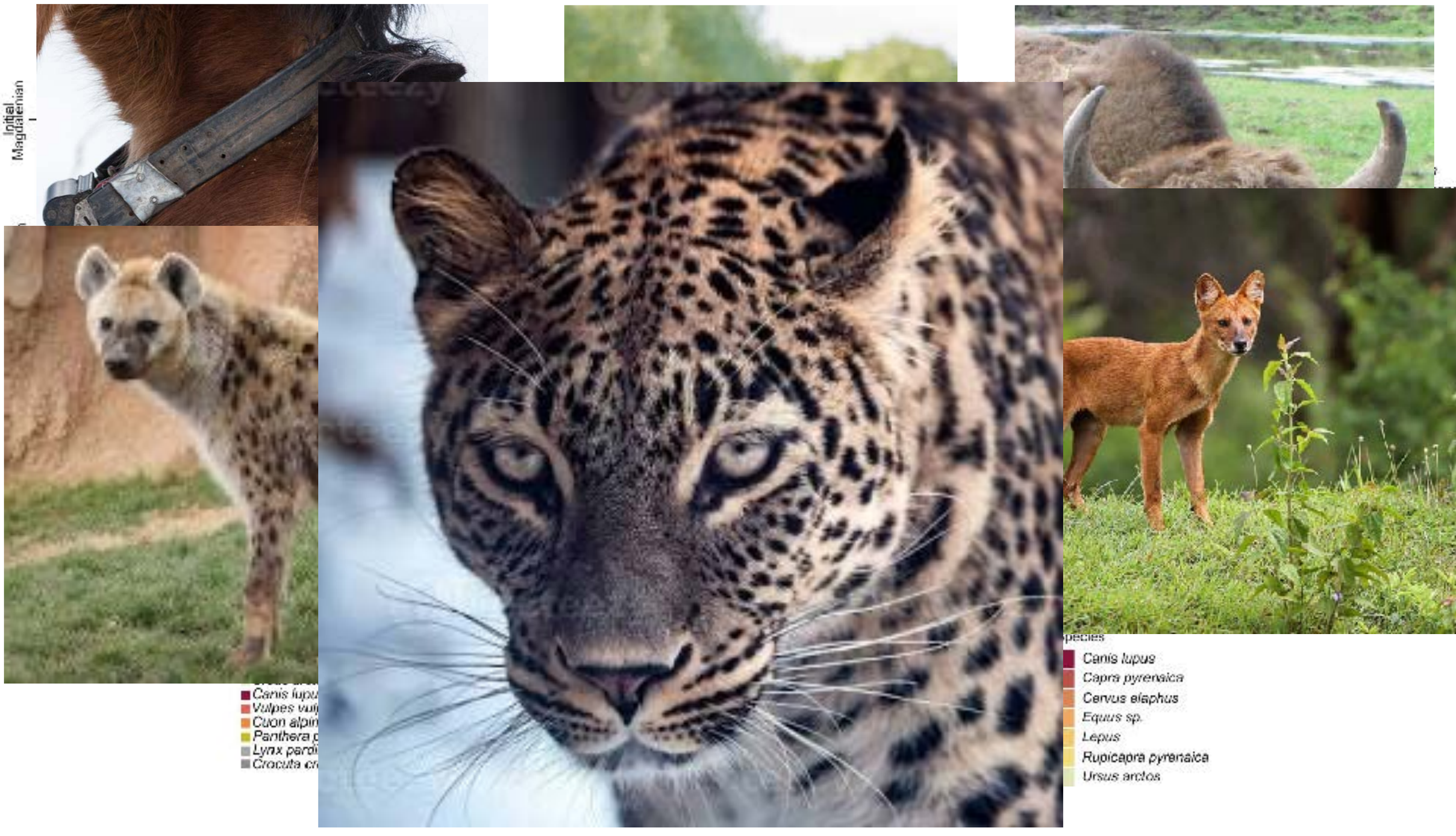






time.com

Paleontologiska fynd i Baskien (20-30.000 YBP)



Gelabert *et al*. (2025) *Nature Communications* **16**, 107



“The next century will, I believe, be the era of restoration in ecology”

Edward O Wilson (1992)

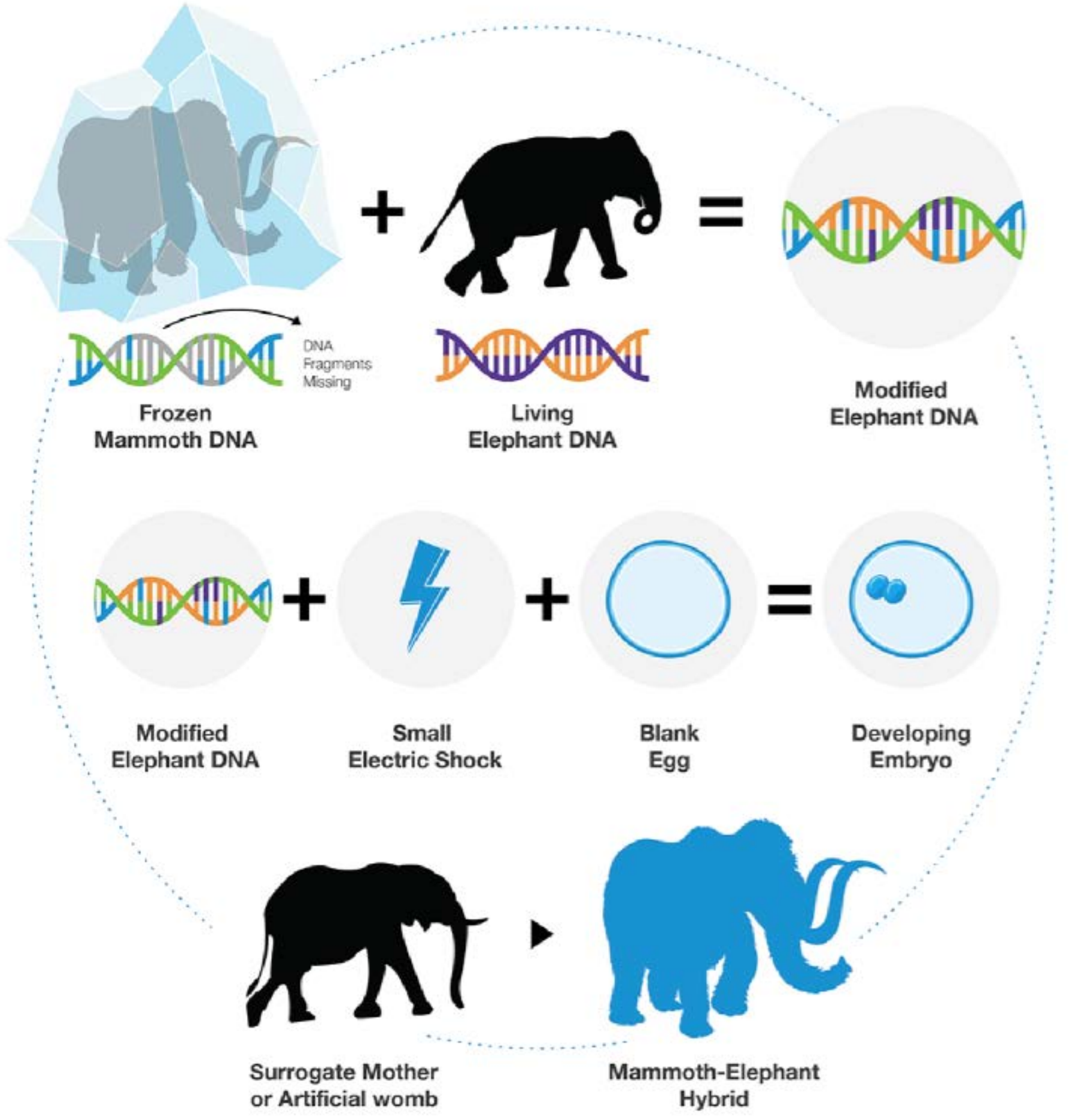
blagodarya dank danke dhan'yavāda
efcharistíes hvala gracias grazie kiitos,
köszönöm merci mulțumiri paldies
spasibo tak takk tack thanks 谢谢

Carl-Gustaf Thulin

Twitter: @CGThulin

Department of Animal Biosciences

Swedish University of Agricultural Sciences, SLU


DNA Fragments Missing
Frozen Mammoth DNA
Living Elephant DNA
Modified Elephant DNA
Modified Elephant DNA
Small Electric Shock
Blank Egg
Developing Embryo
Surrogate Mother or Artificial womb
Mammoth-Elephant Hybrid

Råd & tankar

Några råd
- ta tillfället
- följ hjärtat
- sätt höga mål
- utmana dig

Några erfarenheter
- kompromissa
- samarbeta
- hundår…
- besvikelser…

Framtiden…
- the return of experimental biology
- sustainable coexistance & resilient ecosystems
- 3 Rs of conservation; restore, reintroduce, rewild