

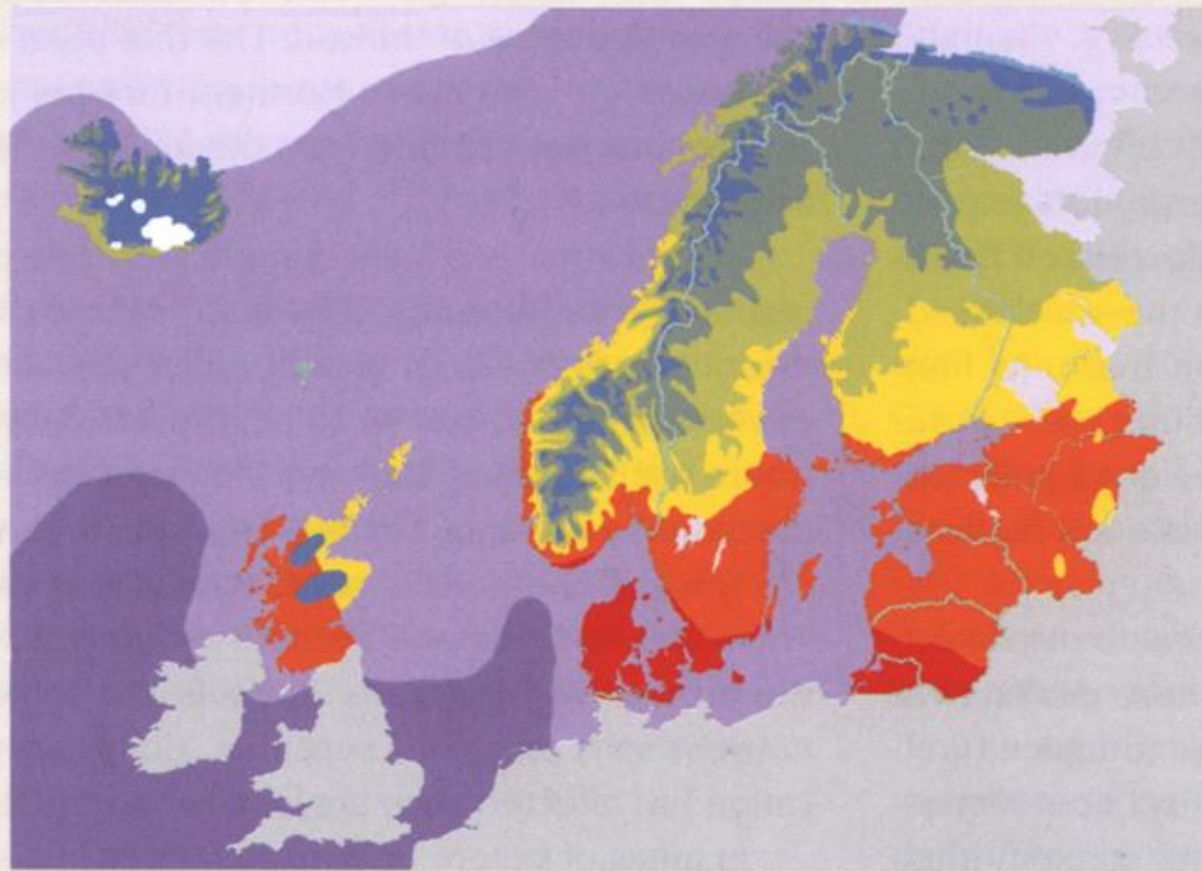
Species Restoration and Re-wilding

By Dr David Hetherington













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Scotland in a north European context



Vegetation zones

-  glaciers
-  high arctic
-  middle arctic
-  low arctic
-  alpine
-  northern boreal
-  middle boreal
-  southern boreal
-  boreo-nemoral
-  nemoral

Marine biogeographic areas

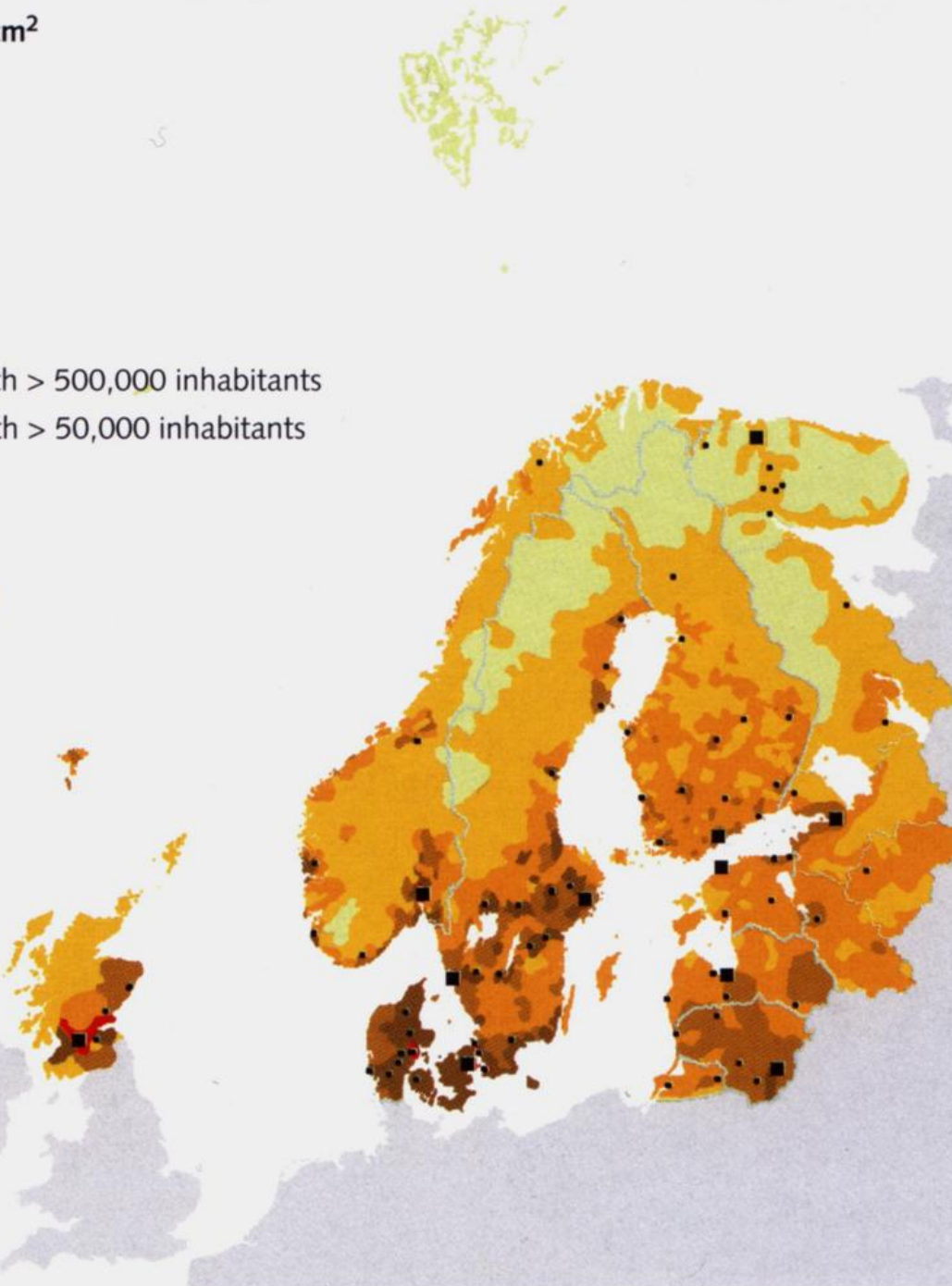
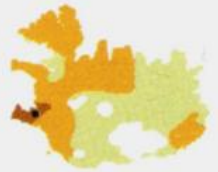
-  arctic and subarctic
-  Atlantic boreal
-  Atlantic warm temperate

Inhabitants/km²



200
50
25
10
1

- City with > 500,000 inhabitants
- City with > 50,000 inhabitants



Human population density in northern Europe





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Niall Benvie



Mark Hamblin



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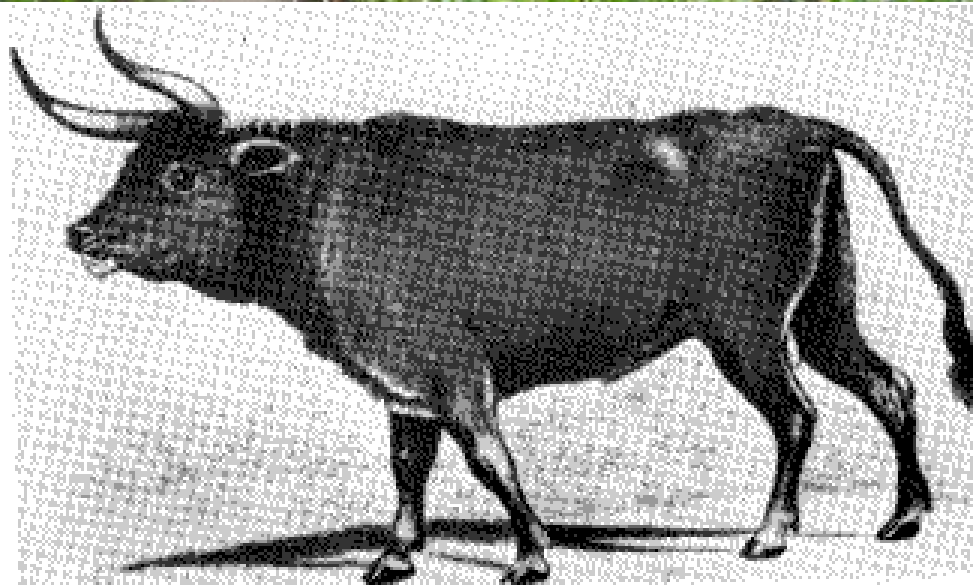
Colin Leslie



www.naturfoto.cz



Niall Benvie





Niall Benvie



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The movers and shakers in the northern forests – what we've lost

Country	Original number of native large mammal species	Remaining number of native large mammal species	Loss
Norway	9	9	0%
Finland	9	9	0%
Estonia	9	8	11%
Sweden	12	10	17%
Latvia	10	8	20%
Lithuania	10	8	20%
Scotland	10	2	80%

European distribution of Eurasian lynx



Karl Weber





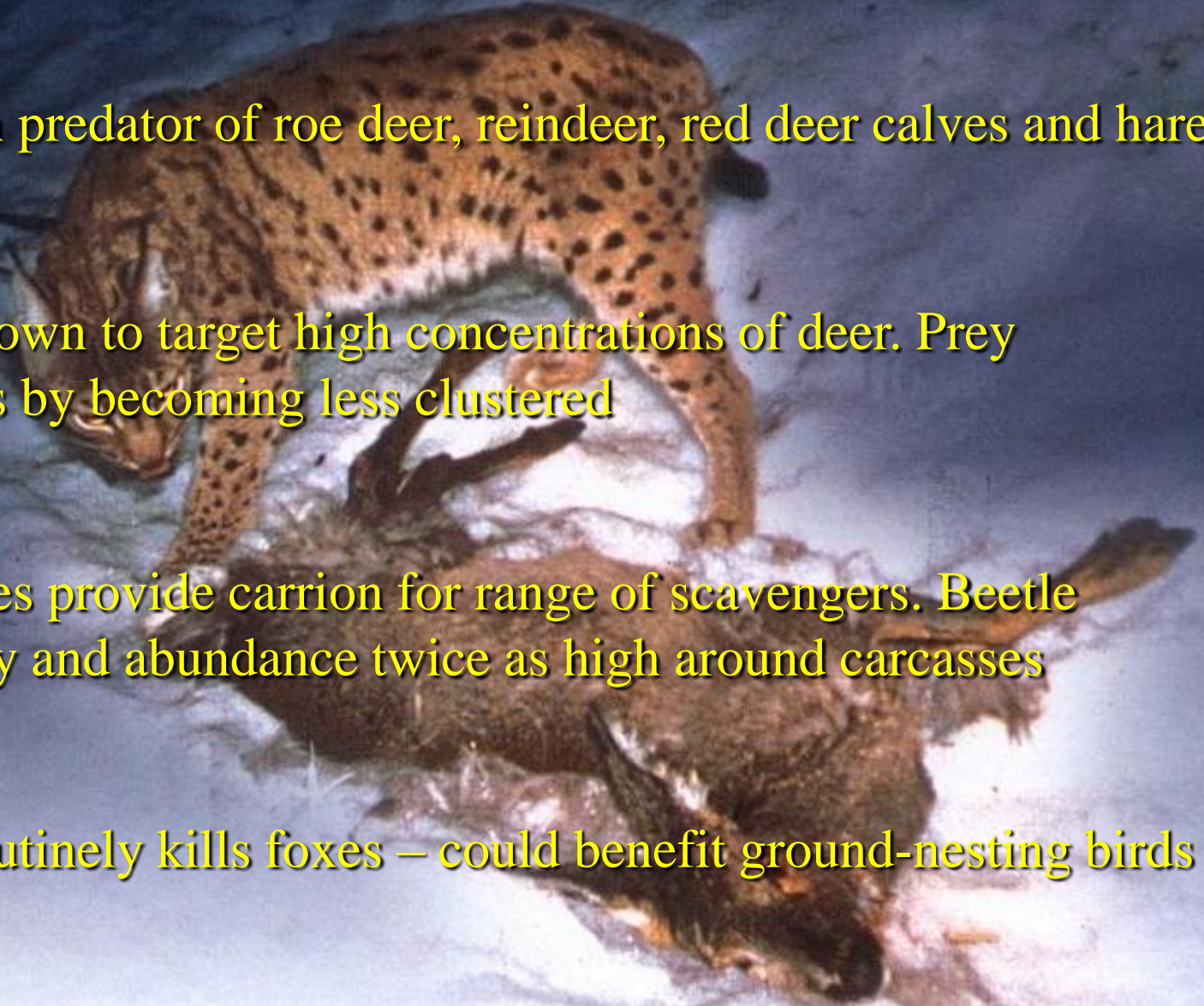
Prey spectrum of lynx in the Swiss Jura

(from Jobin *et al.*, 2000)

Prey species	Number of kills found	% of prey items
Roe deer	428	69.3
Chamois	133	21.5
Red fox	37	6.0
Brown hare	13	2.0
Marmot	1	0.2
Pine marten	1	0.2
Badger	1	0.2
Domestic cat	1	0.2
Wildcat	1	0.2
Capercaillie	1	0.2

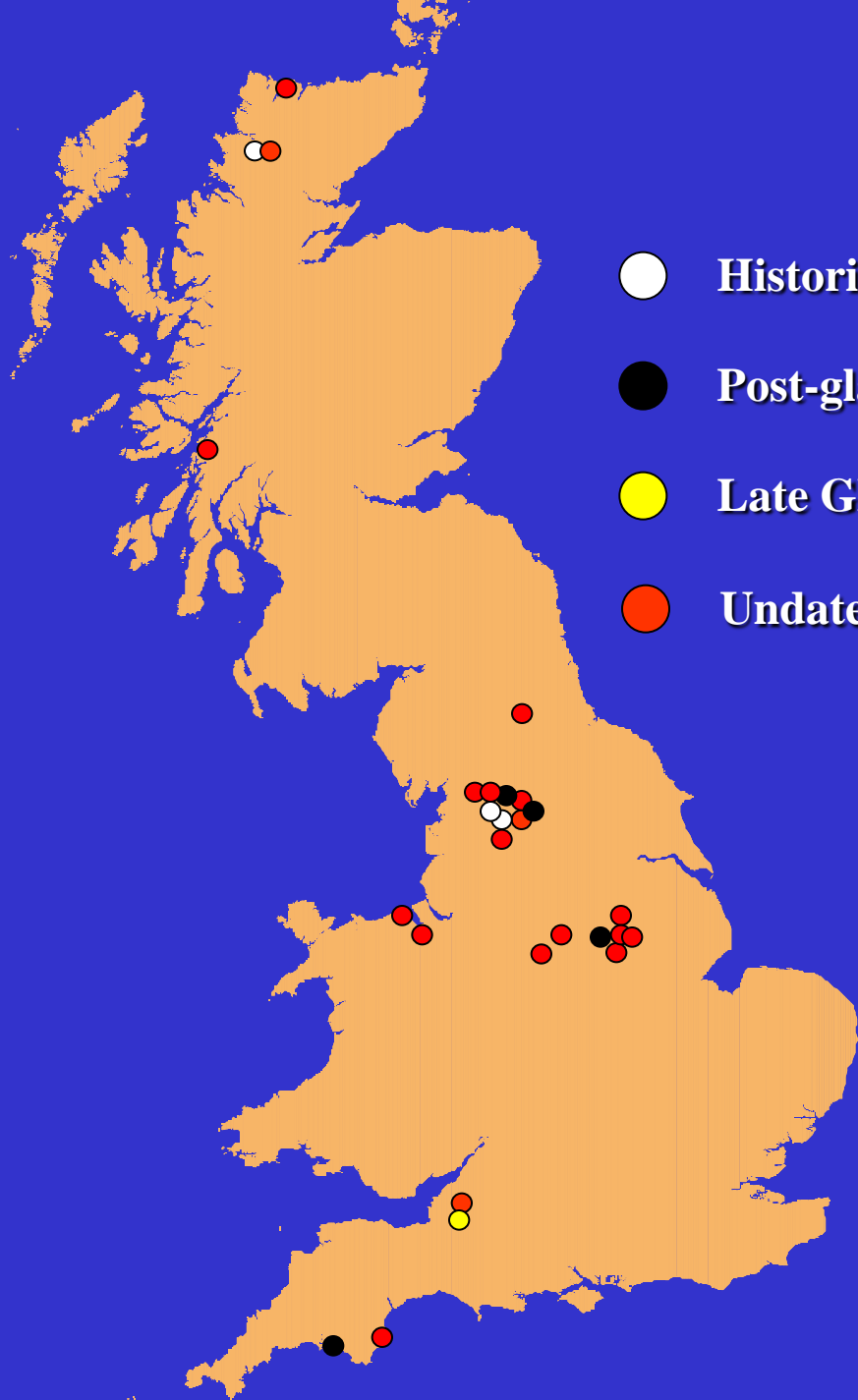
Ecological function of lynx

- Ambush predator of roe deer, reindeer, red deer calves and hares
- Lynx shown to target high concentrations of deer. Prey responds by becoming less clustered
- Carcasses provide carrion for range of scavengers. Beetle diversity and abundance twice as high around carcasses
- Lynx routinely kills foxes – could benefit ground-nesting birds



The distribution of historic and prehistoric remains of lynx in Britain

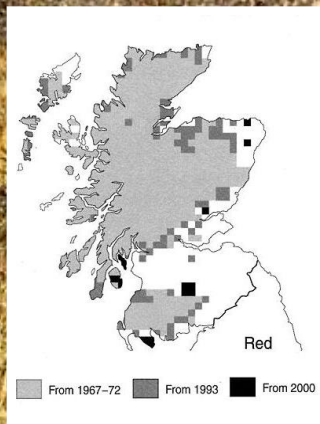
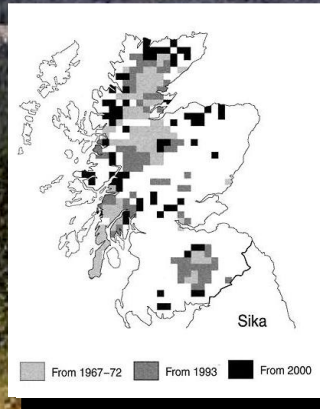
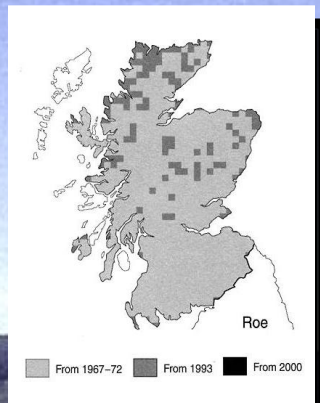
- Historic
- Post-glacial
- Late Glacial
- Undated

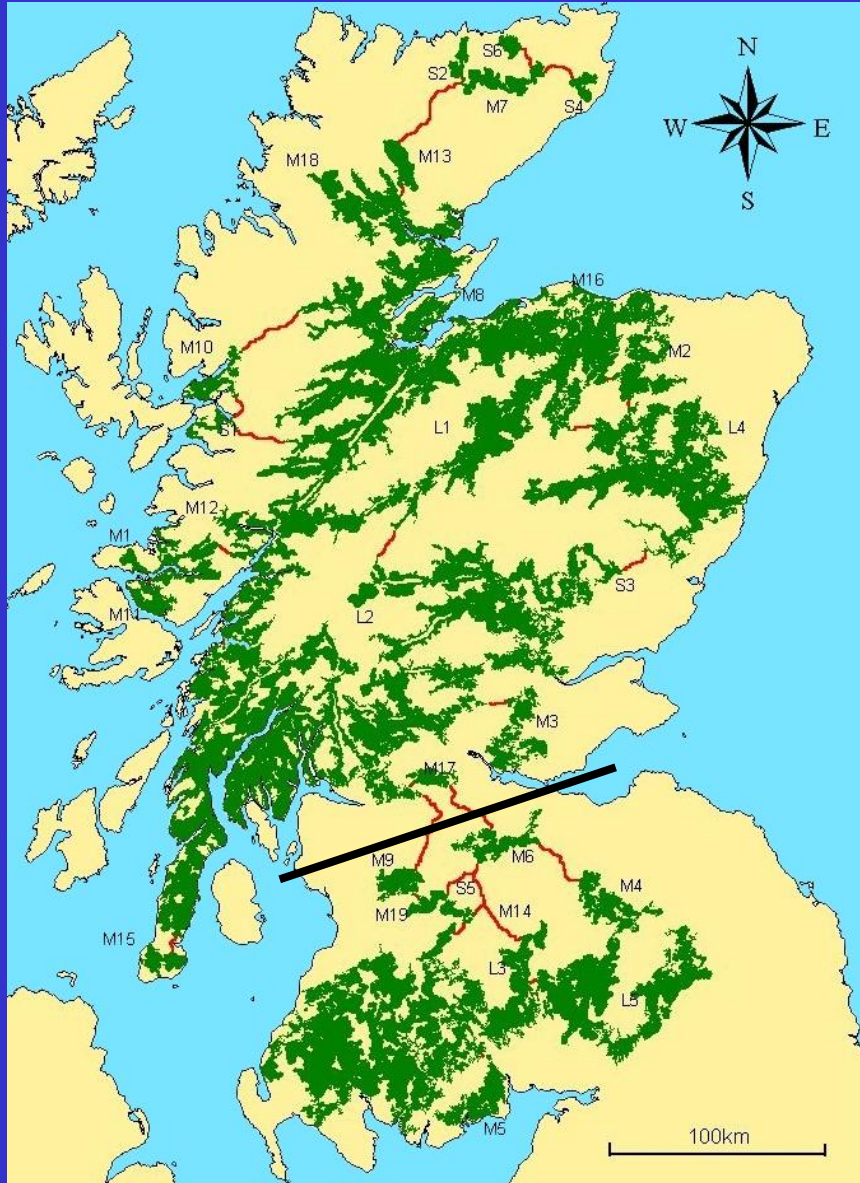




Modern Scotland

- 20th Century afforestation means forest cover now 20% for Scottish mainland
- The aim is to have 25% forest cover for the whole of Scotland by 2050, with a focus now on Forest Habitat Networks
- Roe, non-native sika and red deer now widespread and more numerous in woodland
- All 3 species can occur at high densities, which can create problems for ecology and for forestry
- All 3 species are potential prey for lynx





Average lynx population densities of 2.63 and 0.83 100 km^{-2} are predicted for the Highlands and Southern Uplands respectively.

Giving:

Highlands

394 lynx

Southern Uplands

51 lynx

Scotland total

445 lynx

Der Luchs

zurück im Harz

Mit einer Schulterhöhe von bis zu 70 cm ist der Luchs die größte heimische Katzenart. Unverwechselbar sind die charakteristischen Pinselohren, der typische Backenbart und der ungewöhnlich kurze Schwanz.



Botschafter für ein neues Naturverständnis

Die Zerschneidung der Landschaft z.B. durch Verkehrswege gefährdet nicht nur den Luchs. Grünbrücken und Grünkorridore mindern die Gefahren. Der Luchs ist ein Sympathieträger für solche Biotopverbundsysteme. Unterstützen Sie die Wiederansiedlung des Luchses mit Ihrer Spende! Nationalpark Harz, Kto. 190 015 0584, BLZ 250 500 00, Norddeutsche Landesbank Hannover Kontakt: www.nationalpark-harz.de



Nach einer Tragzeit von 10 Wochen bringt die Luchsin 1 bis 4 Junge zur Welt. Die Jungtiere bleiben etwa ein Jahr bei der Mutter. Danach legen sie auf der Suche nach unbesetzten Revieren oft viele Kilometer zurück.



Der Luchs ist ein Überraschungsjäger. Sein sprichwörtliches Seh- und Hörvermögen erlaubt es ihm, vor allem in der Dämmerung und nachts seine Beute aufzuspüren.



Als Einzelgänger beansprucht der Luchs ein eigenes Revier, das in der Regel mehr als 100 km² umfasst. Nur während der Paarungszeit von Februar bis April suchen die Männchen die Nähe der Weibchen.



Nationalpark
Harz



Karl Weber



Peter Cairns



Lynx depredation on sheep in Switzerland





Conclusions

- Scotland has lost many species and restored only some
- Compared to other European countries, we are still missing many of our large mammals and their ecological functions.
- The Highlands could support a viable, restored lynx population
- They could fulfill a missing ecological function as a year-round predator of woodland deer
- They would likely be a powerful icon of wildness
- However, lynx don't need remote wilderness and can readily exist in worked and farmed landscapes

Thank you!

