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Wolf distribution, abundance and trends in Europe



Luigi Boitani,

IUCN - Large Carnivore Initiative for Europe
Università di Roma La Sapienza

Large Carnivore
Initiative for Europe



IUCN/SSC Specialist Group

LCIE, an IUCN/SSC group on the European Large Carnivores



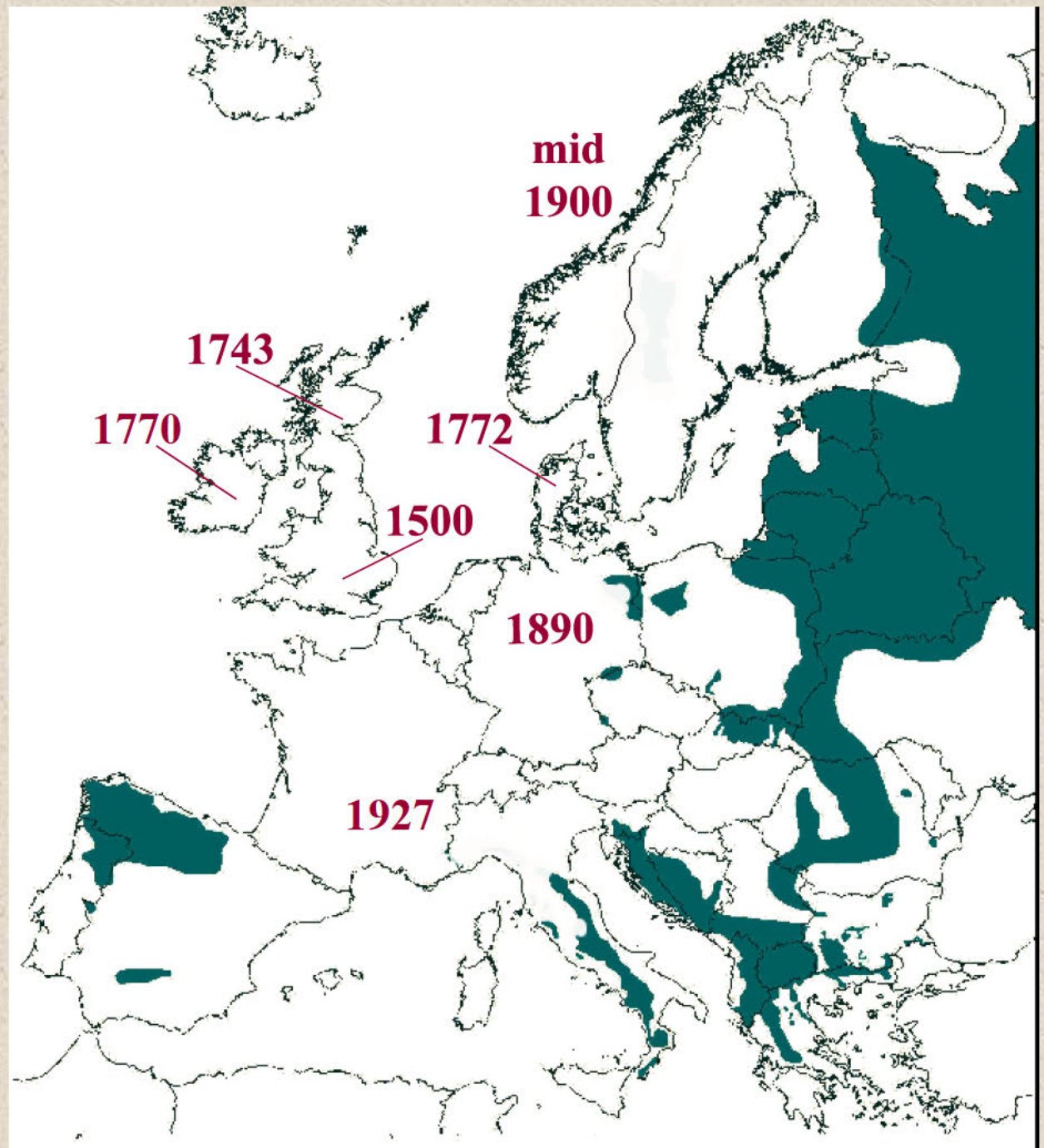
- Bear
- Wolf
- Eurasian lynx
- Wolverine
- Iberian lynx
- Jackal

- www.lcie.org

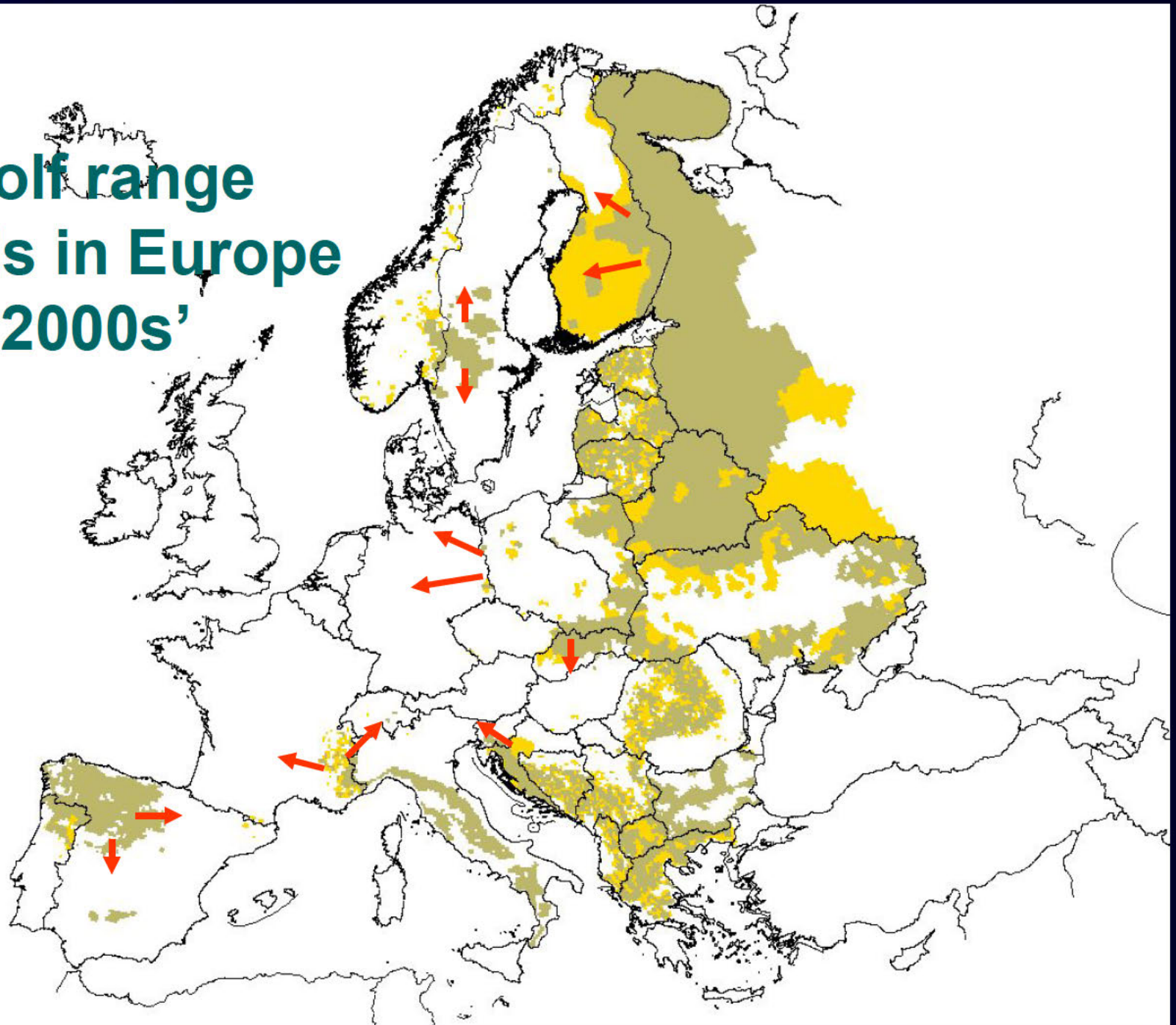


Eradication of wolves in Europe

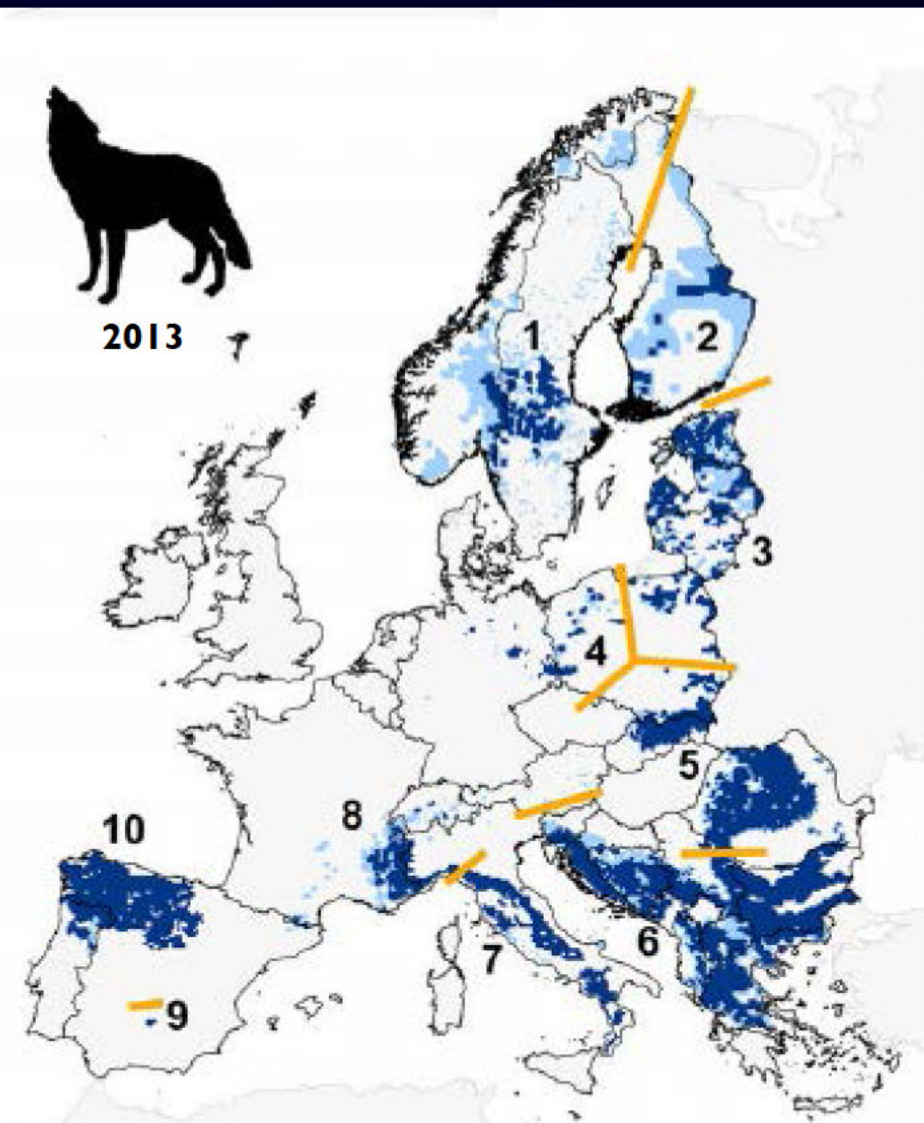
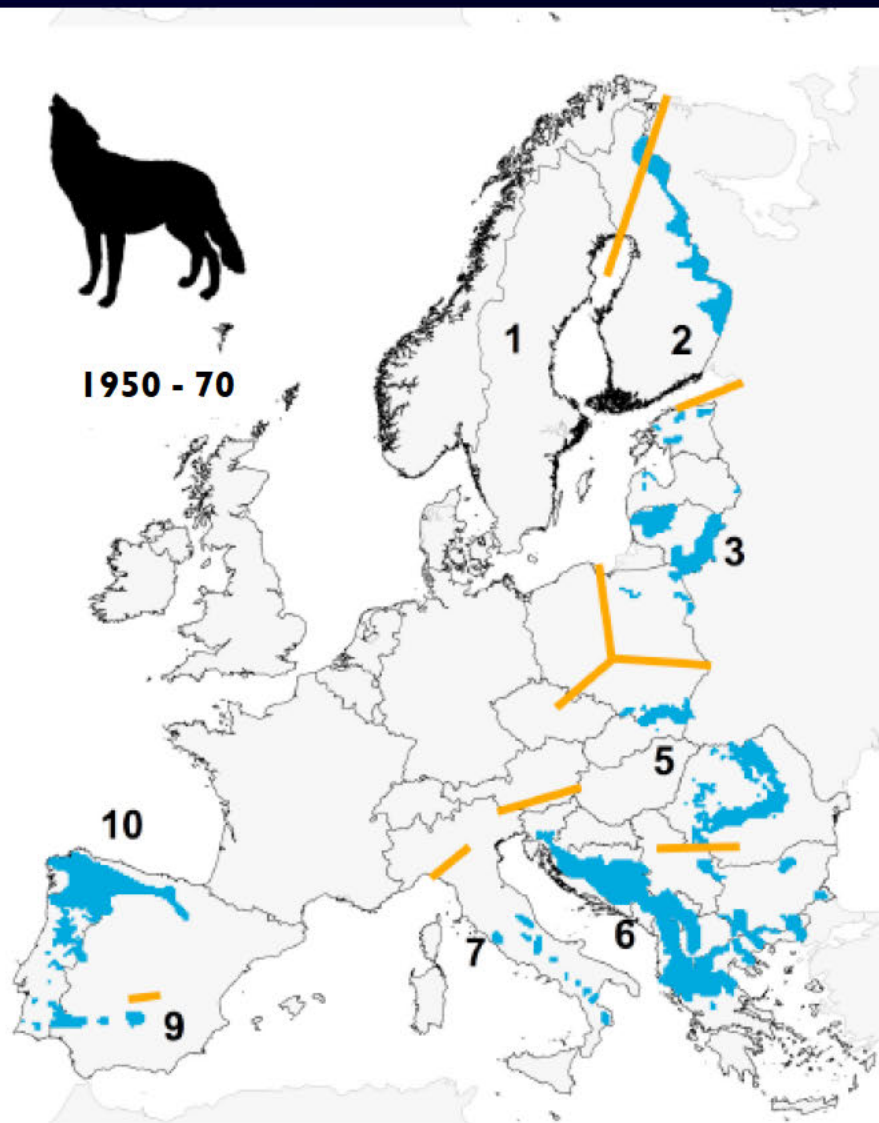
(ranges in 1960s')



Wolf range trends in Europe 2000s'



Wolf expansion in Europe 1960-2013





Wolf distribution in Europe (permanent and sporadic) 2017

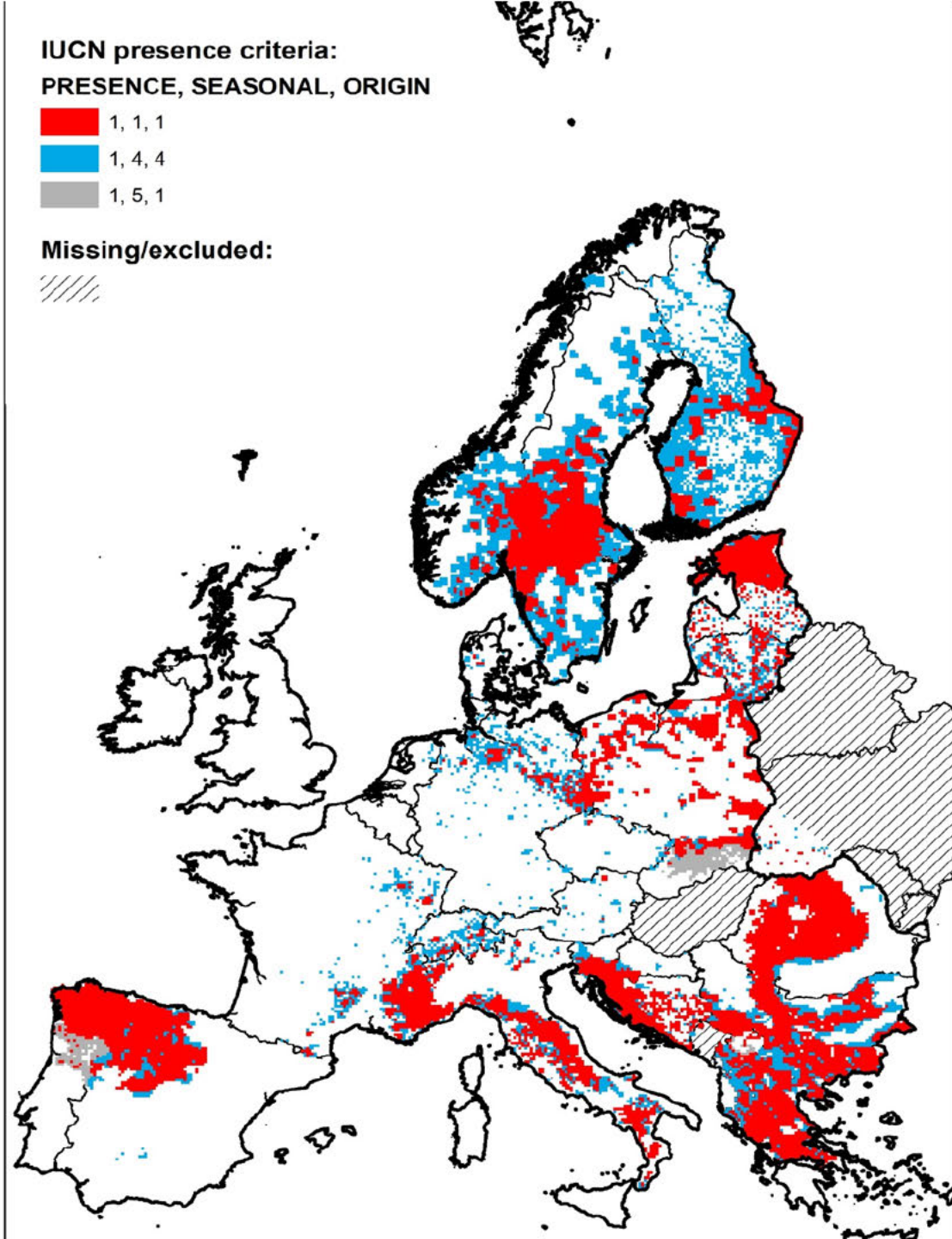
IUCN presence criteria:
PRESENCE, SEASONAL, ORIGIN

1, 1, 1

1, 4, 4

1, 5, 1

Missing/excluded:

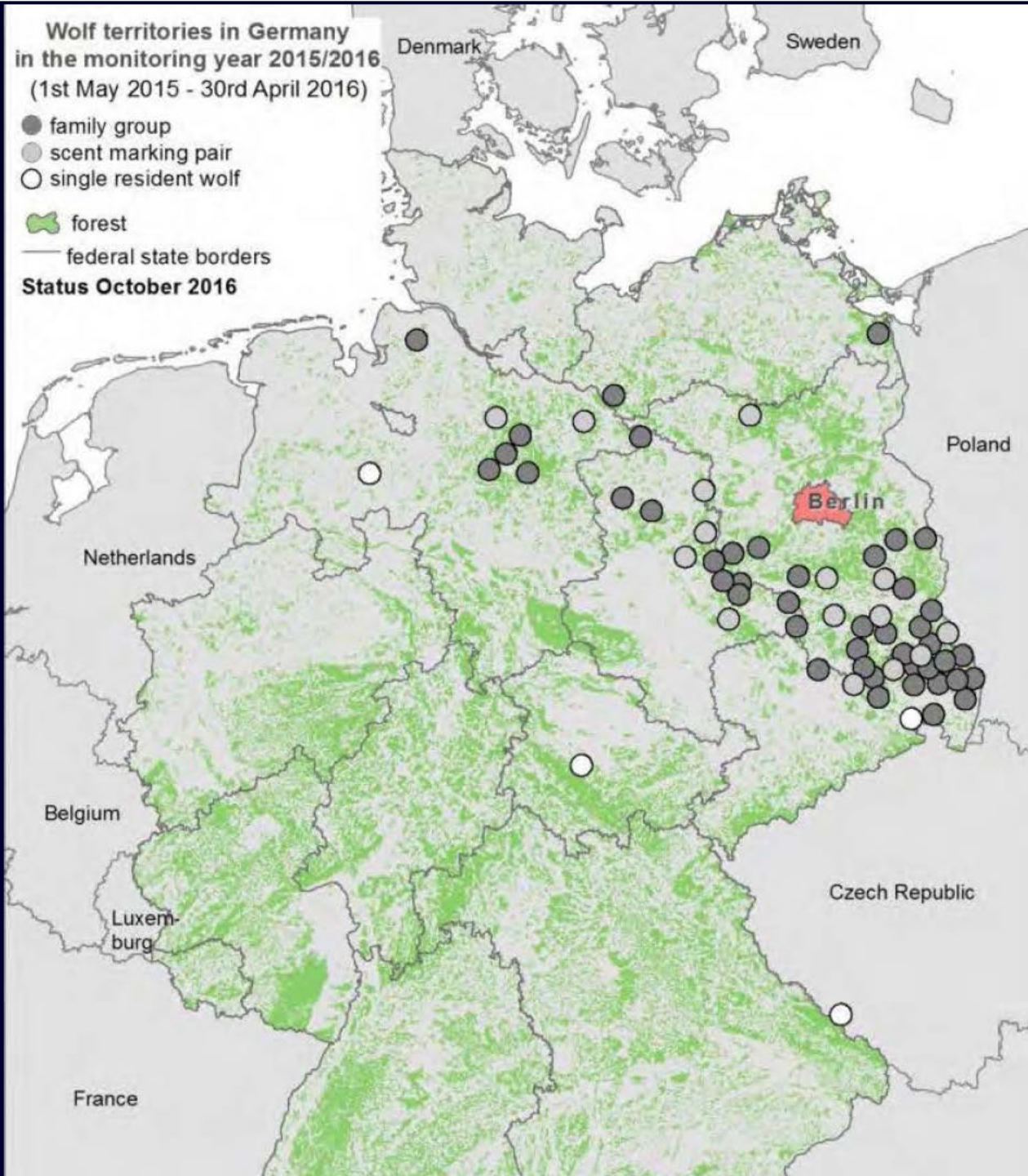


**Distribution of
confirmed wolf
territories in
Germany 2000**
1 pack



Distribution of confirmed wolf territories in Germany 2015/2016

46 packs
15 pairs
4 single resident wolves



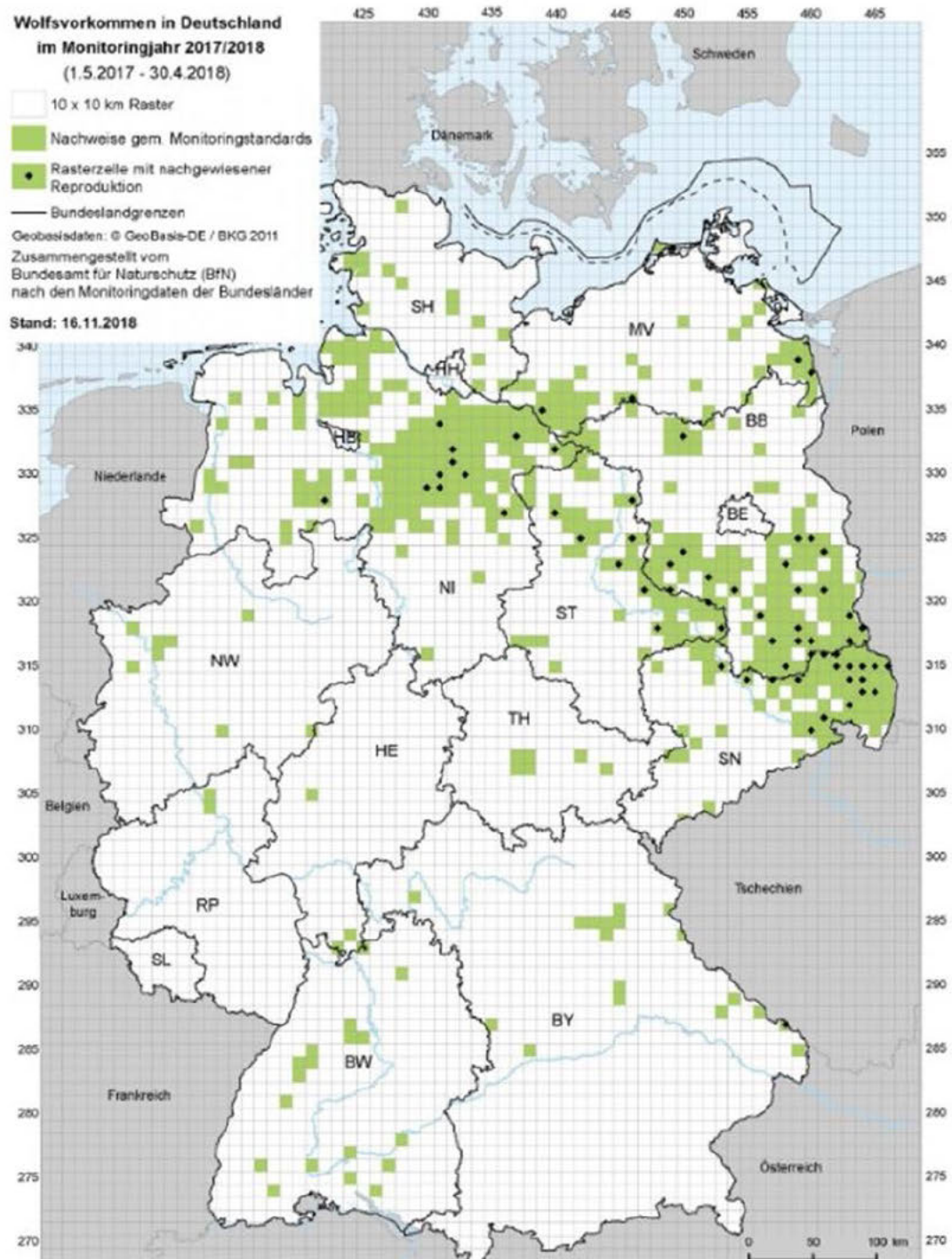
Distribution of confirmed wolf presence in Germany Nov. 2018

> 70 packs

growth:
34%/year

Wolfsvorkommen in Deutschland
im Monitoringjahr 2017/2018
(1.5.2017 - 30.4.2018)

- 10 x 10 km Raster
 - Nachweise gem. Monitoringstandards
 - Rasterzelle mit nachgewiesener Reproduktion
 - Bundeslandgrenzen
- Geobasisdaten: © GeoBasis-DE / BKG 2011
Zusammengestellt vom
Bundesamt für Naturschutz (BfN)
nach den Monitoringdaten der Bundesländer
Stand: 16.11.2018





Wolf populations in Europe (permanent presence) 2017

**Canis lupus populations
(only permanent cells)**

- Alpine
- Baltic
- Carpathian
- Central European
- Dinaric-Balkan
- Italian Peninsula
- Karelian
- NW Iberia
- Scandinavian
- Canis_lupus_EOO

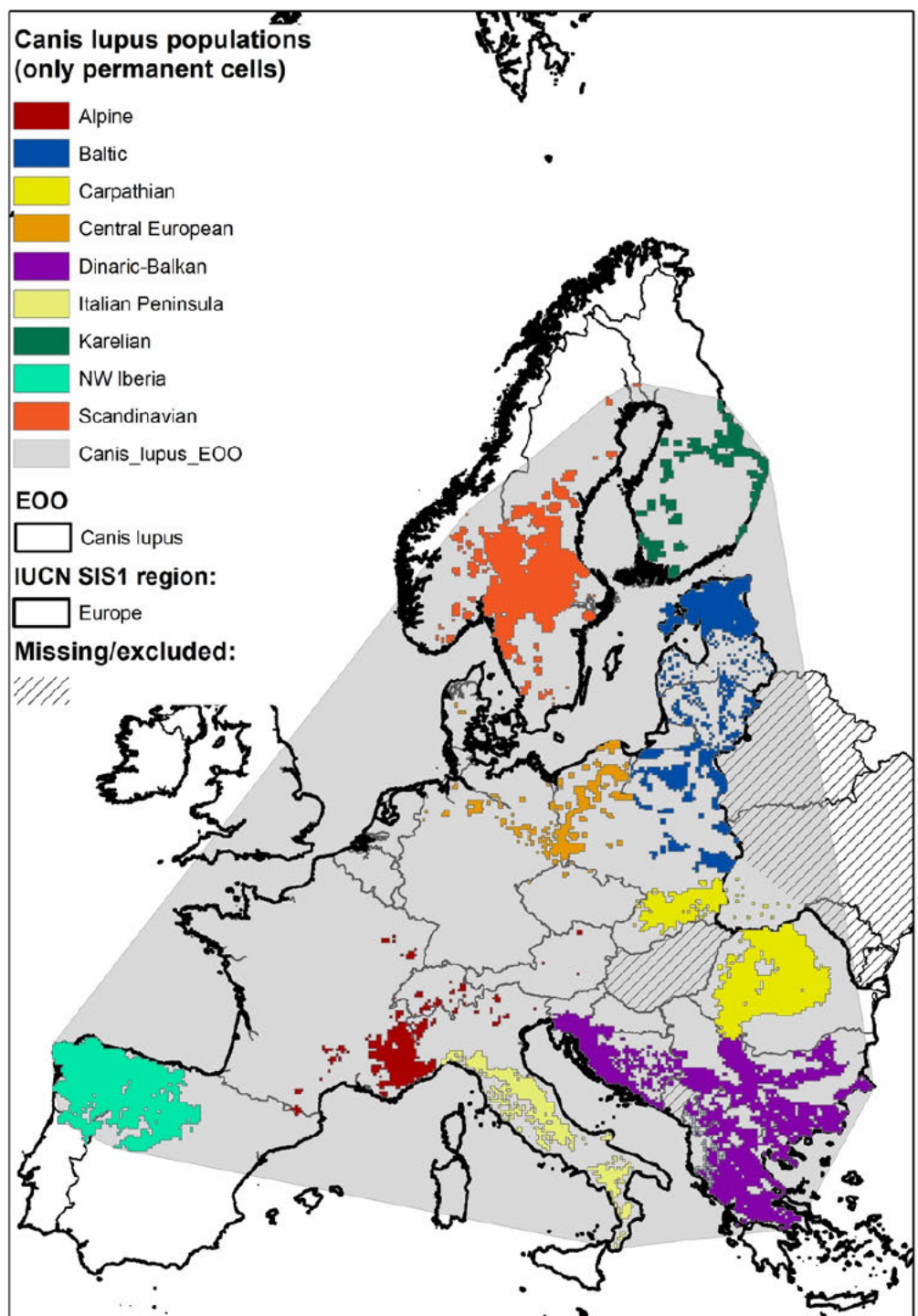
EOO

Canis lupus

IUCN SIS1 region:

Europe

Missing/excluded:



WOLF POPULATIONS OF EUROPE

Population	Last estimate (2011)	Most recent estimate (2016-7)	Trend	IUCN Red List Assessment	HD App.
Iberian	2200-2500	2500	Increasing	Near Threat.	IV-V
Western Central Alps	280	420-550	Increasing	Vulnerable	IV
Italian peninsula	600-800	1100-2400	Increasing	Near Threat.	IV
Dinaric – Balkan	c. 3900	c. 4000	Unknown	Least Conc.	IV-V
Carpathian	3000	3460-3840	Stable	Least Conc.	V
Baltic	870-1400	1713–2240	Stable	Least Conc.	V
Karelian	150-165	c. 200	Stable / increasing	Near Threat.	IV-V
Scandinavian	260-330	c. 430	Increasing	Vulnerable	IV
Central Europe	36 packs + 5 pairs	780-1030	Increasing	Vulnerable	IV
Europe		c.17,000	Increasing	Least Concern	
EU		13–14,000	Increasing	Least Concern	

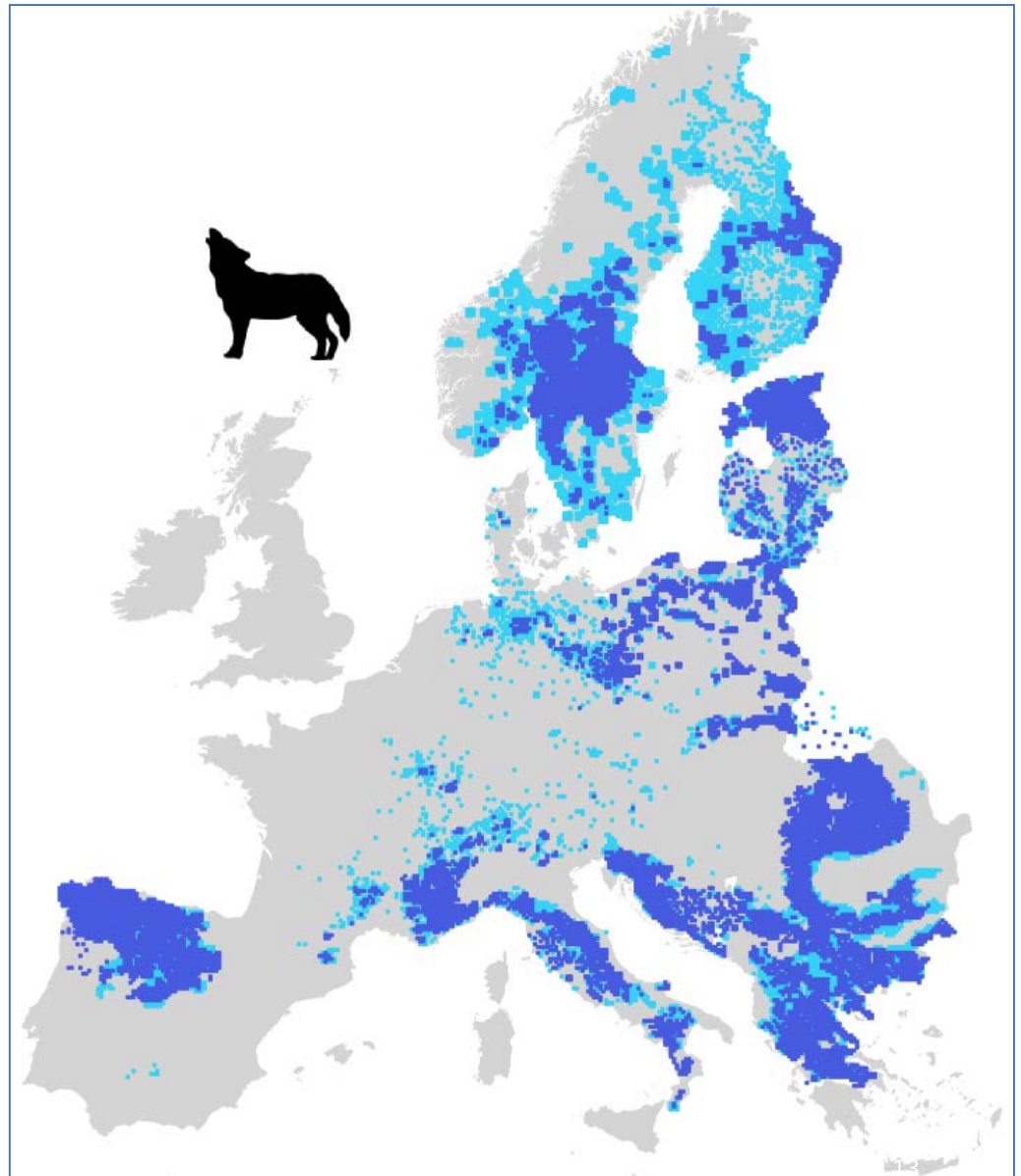
WOLF POPULATIONS OF EUROPE

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Carpathian	3000		Stable / increasing	Least Conc.	V
Baltic			Stable / increasing	Least Conc.	V
Karelian			Stable / increasing	Near Threat.	IV-V
Scandinavian	350	c. 430	Increasing	Vulnerable	IV
Central European	36 packs + 5 pairs	780-1030	Increasing	Vulnerable	IV
Europe		c.17,000	Increasing	Least Concern	
EU		13-14,000	Increasing	Least Concern	

GREAT DIVERSITY OF METHODS TO ESTIMATE NUMBERS AND RANGES

Wolf distribution 2017

- c. 17,000 in Europe
- c. 13 -14,000 in EU
- Increasing in numbers and ranges
- 9 populations
- Vulnerable – Least Concern



How many Large Carnivores in EU?

- Wolves ~ 14000
- Bears ~ 16000
- Eurasian Lynx ~ 9000
- Wolverine ~ 1300

Main causes of wolf increase

Disentangling the relative weight of each factor in quantitative and objective way is impossible

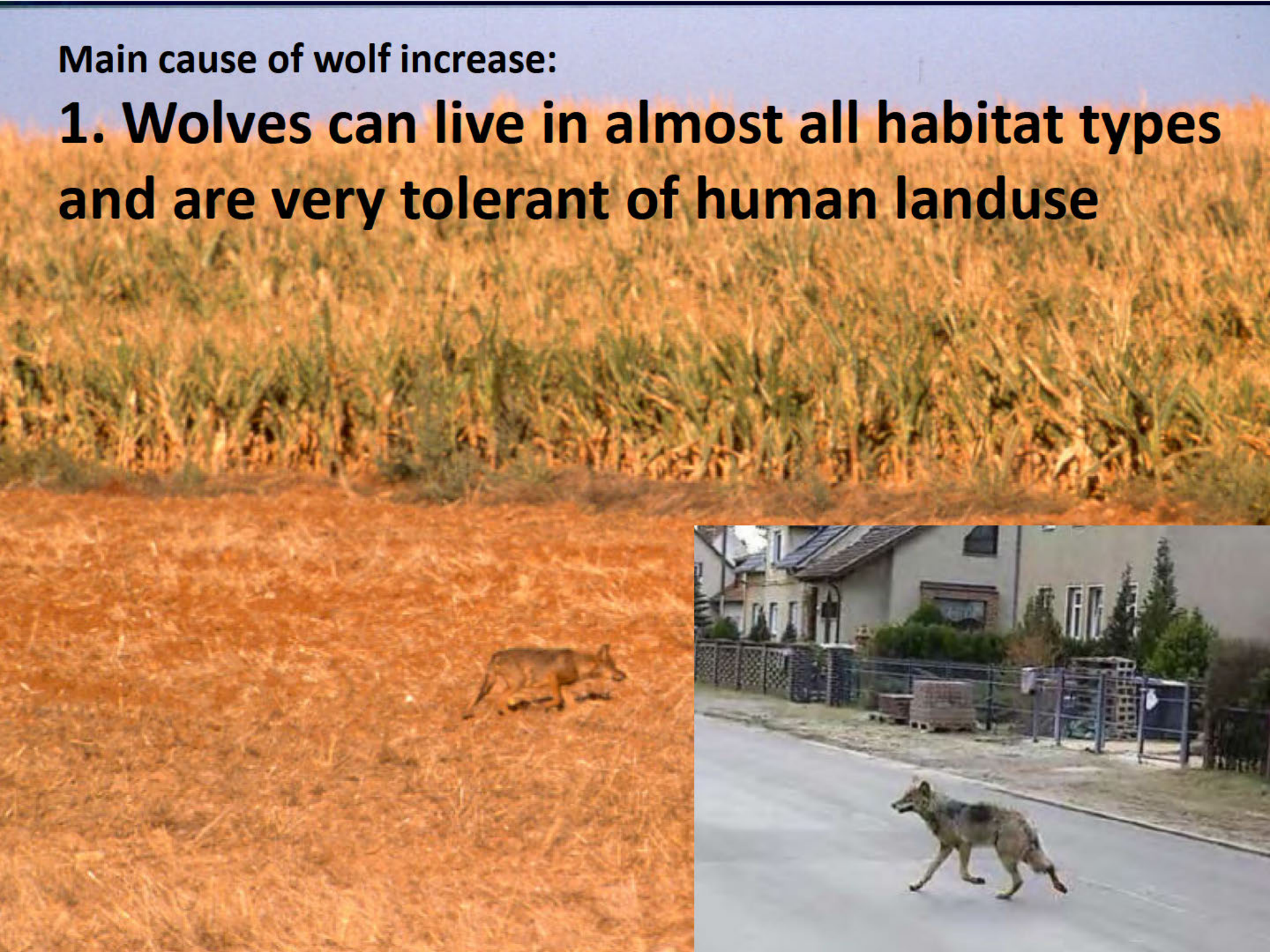
- Changes in land use patterns
- Increase in wild prey
- Natural recovery

- Changes in human attitudes (?!)
- Legislation (EU and national)



Main cause of wolf increase:

1. Wolves can live in almost all habitat types and are very tolerant of human landuse



Abandonment of Agricultural Lands Across Europe by 2030

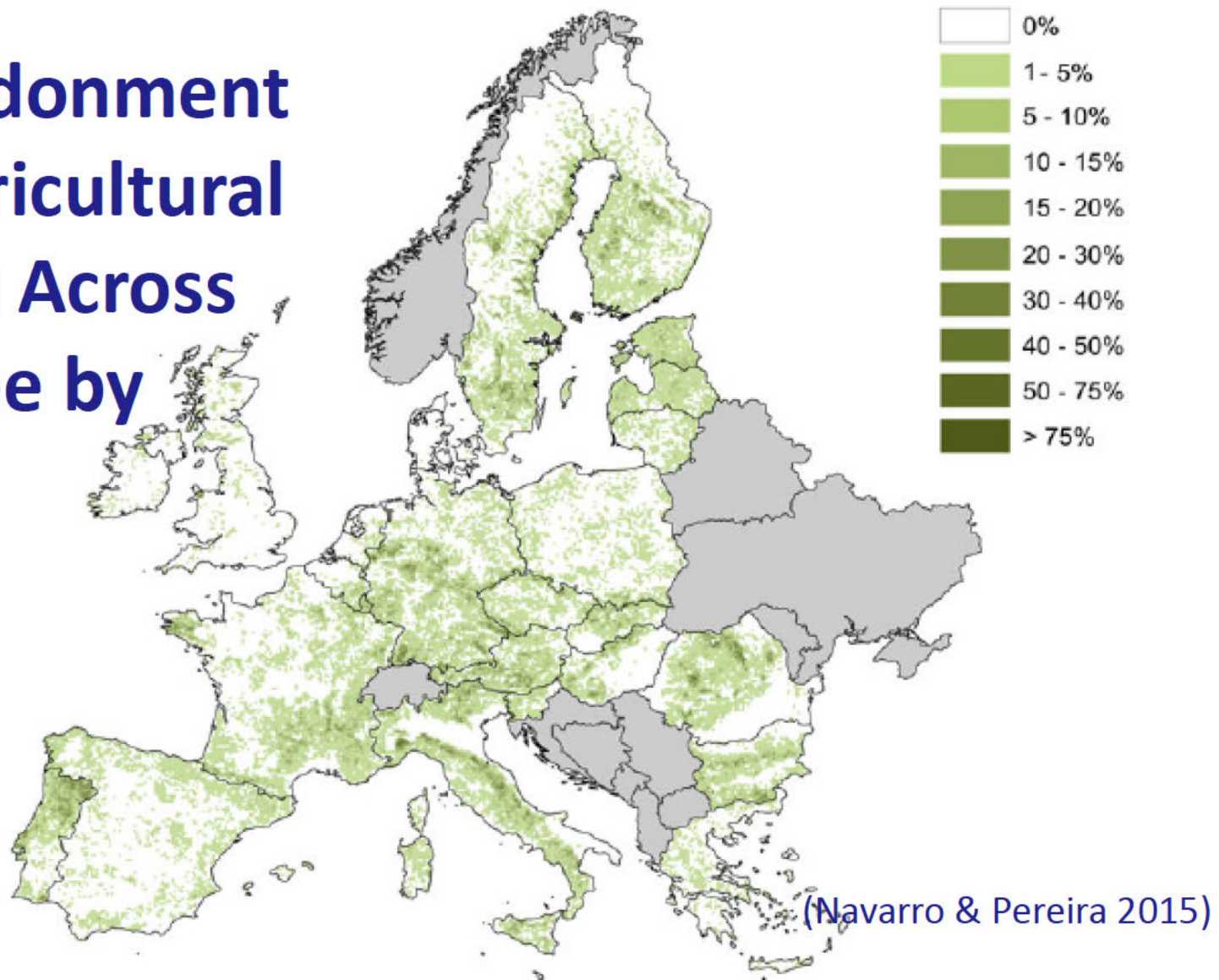


Figure 4. Localization of the hotspots of abandonment and rewilding in Europe. Those hotspots are areas categorized as “agriculture” in 2000 that are projected to become rewilded or afforested in 2030 and that are common to all four scenarios of the CLUE model (Verburg and Overmars 2009). Hotspots are expressed as a percentage of each 10-km² grid cell. Agricultural areas correspond to “arable land (non-irrigated)”, “pasture”, “irrigated arable land” and “permanent crops”. Rewilded and afforested areas correspond to “(semi)-natural vegetation”, “forest”, “recently abandoned arable land” and “recently abandoned pasture land”. Countries in *grey* have no data.

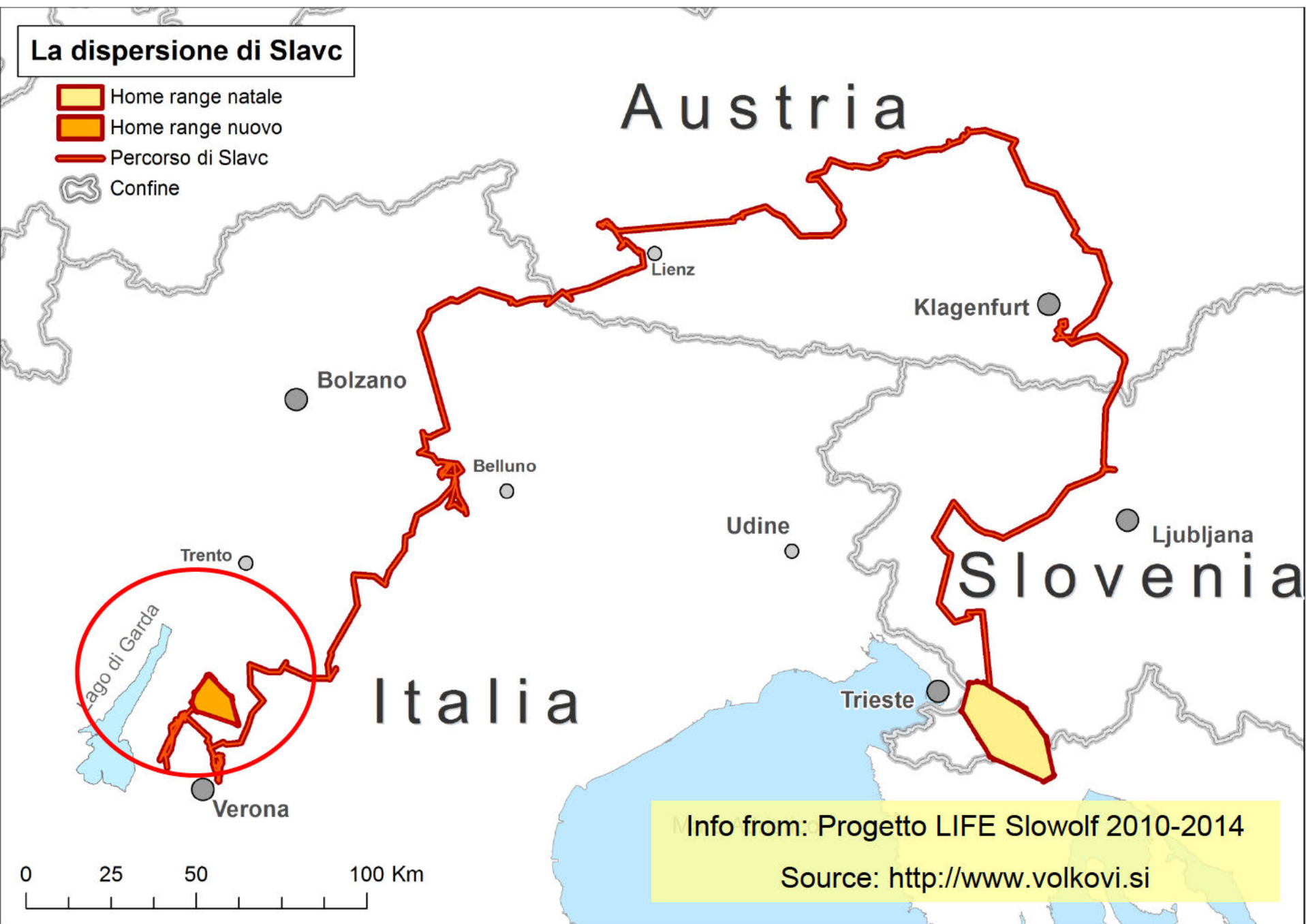
Main causes of wolf increase:

2. Wolves long distance dispersal:
>1500 Km



La dispersione di Slavo

- Home range natale
- Home range nuovo
- Percorso di Slavo
- Confine



Variability of wolf diet across Europe



Main cause of wolf increase:

3. Wolves feed on anything edible and the most accessible resource

Wolves and hybrids

- Generally less than 5% with isolated events
- Locally up to 75%, e.g. Grosseto (Italy)



Why conserve wolves

VALUES:

- *ecological*
- *scientific*
- *educational*
- *aesthetic*
- *cultural*
- *economic*
- umbrella sp.
- flagship sp.
- ... ethical !

