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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

IUCN
The World Conservation Union

Species Survival Commission

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

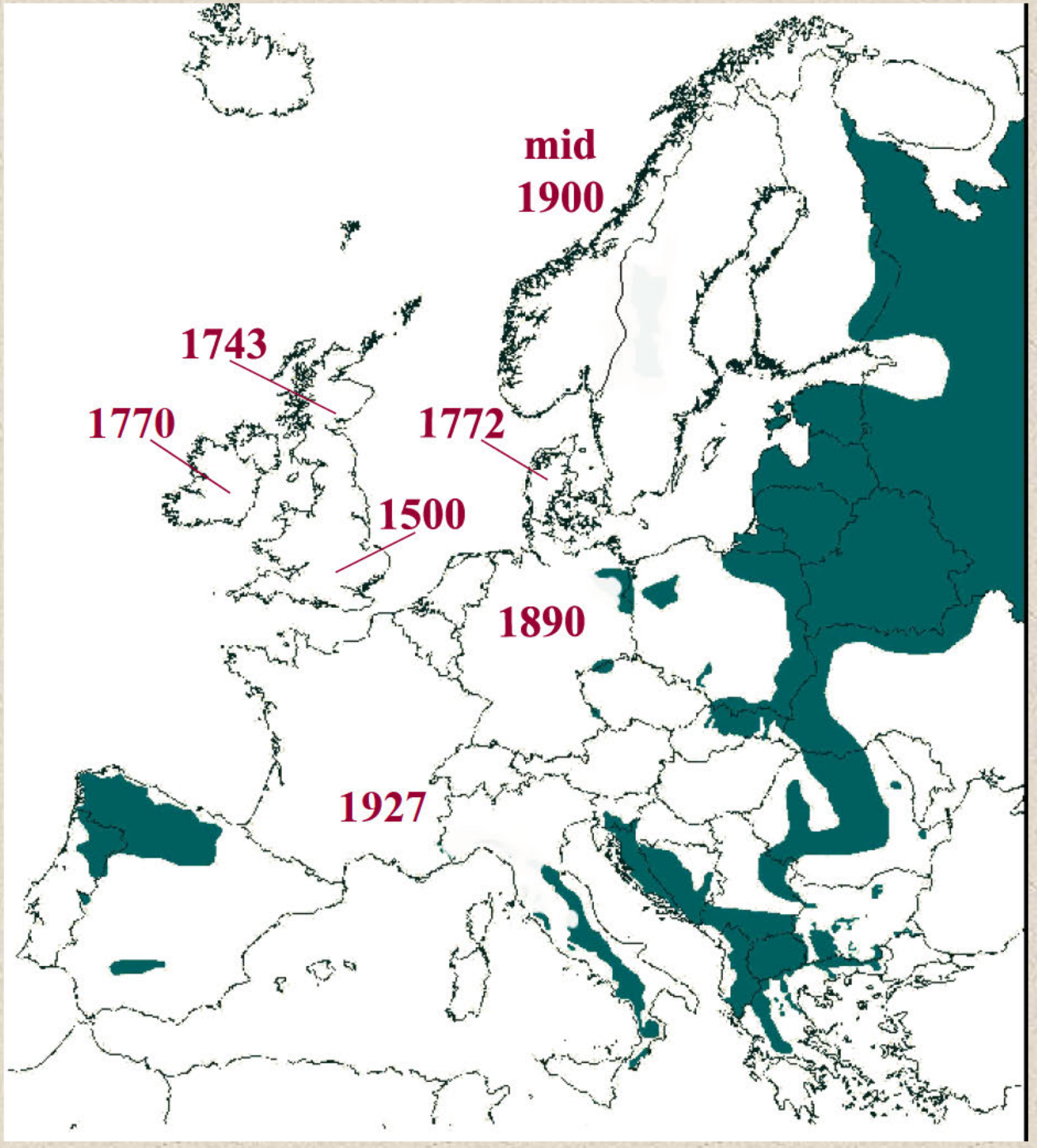
Large Carnivore Initiative for Europe

IUCN/SSC Specialist Group

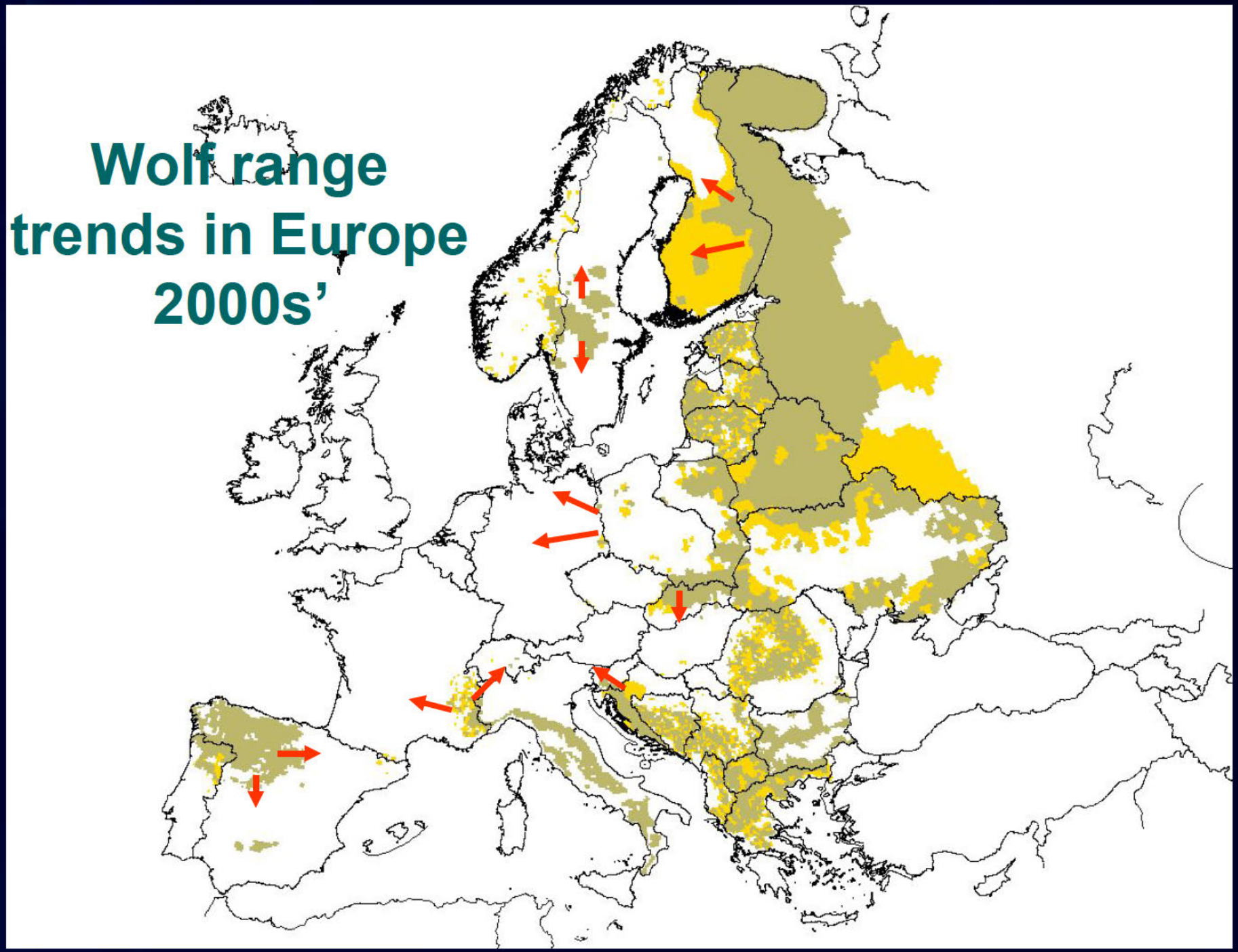
- www.lcie.org

Eradication of wolves in Europe

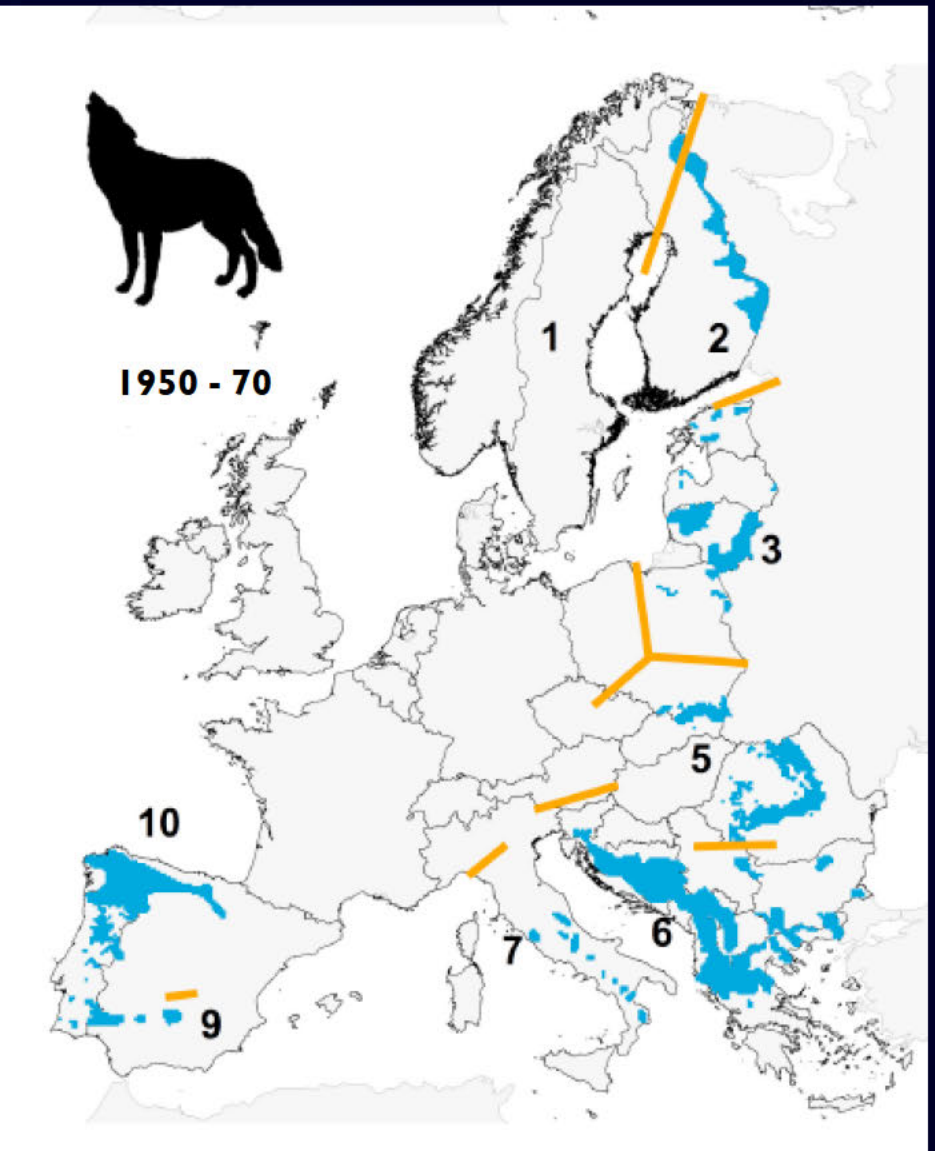
(ranges in 1960s')

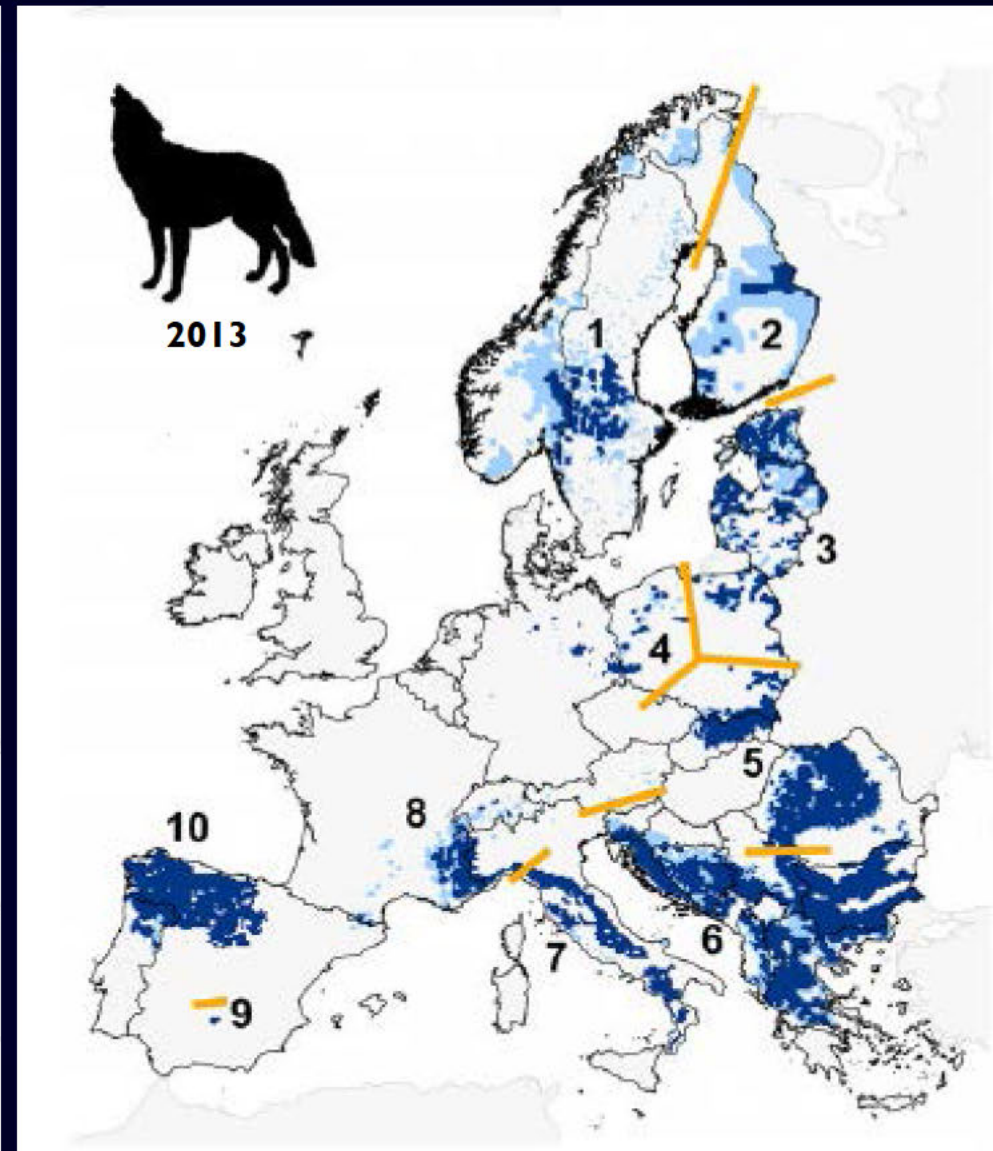


Wolf range trends in Europe 2000s'



Wolf expansion in Europe 1960-2013

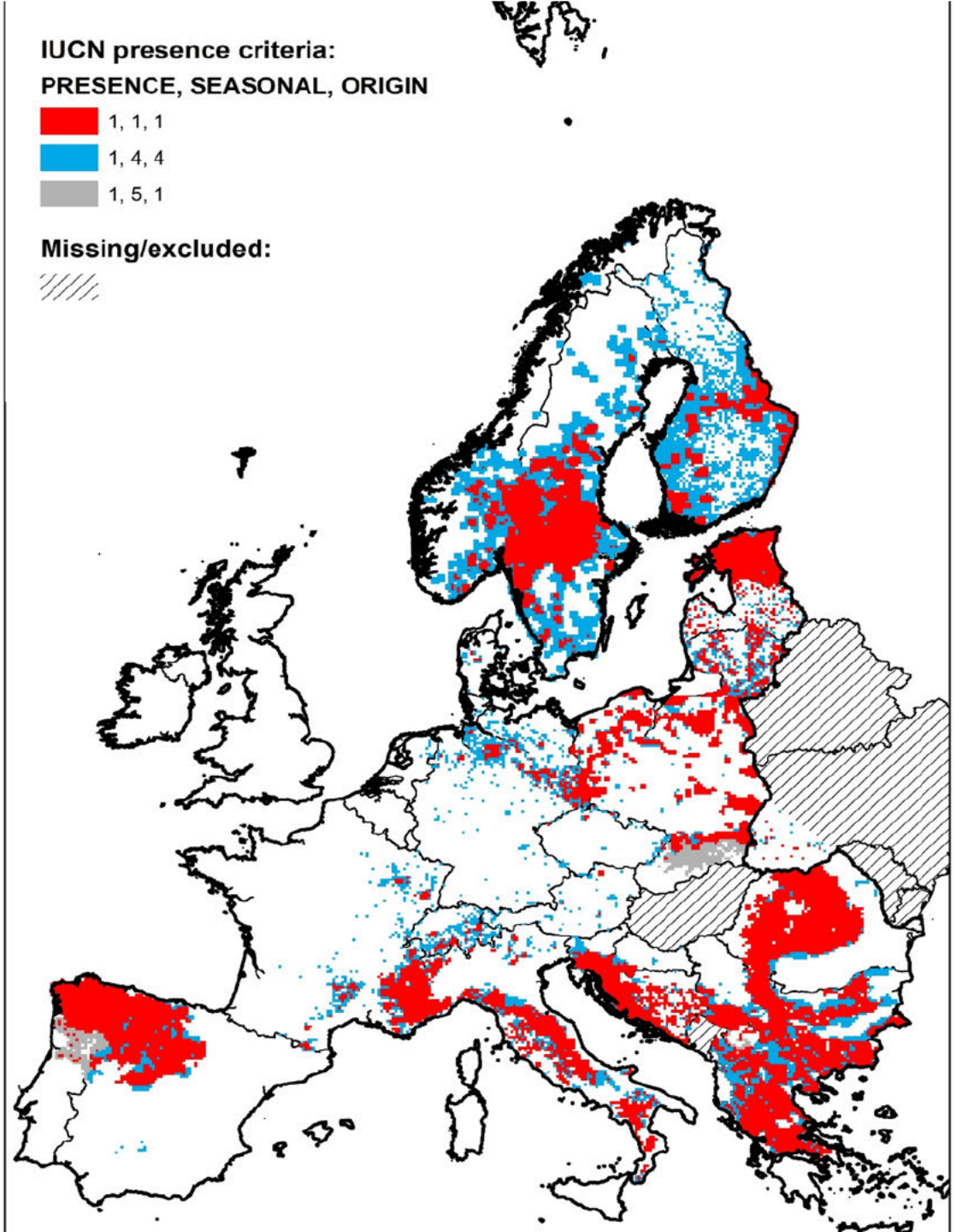




Wolf distribution in Europe

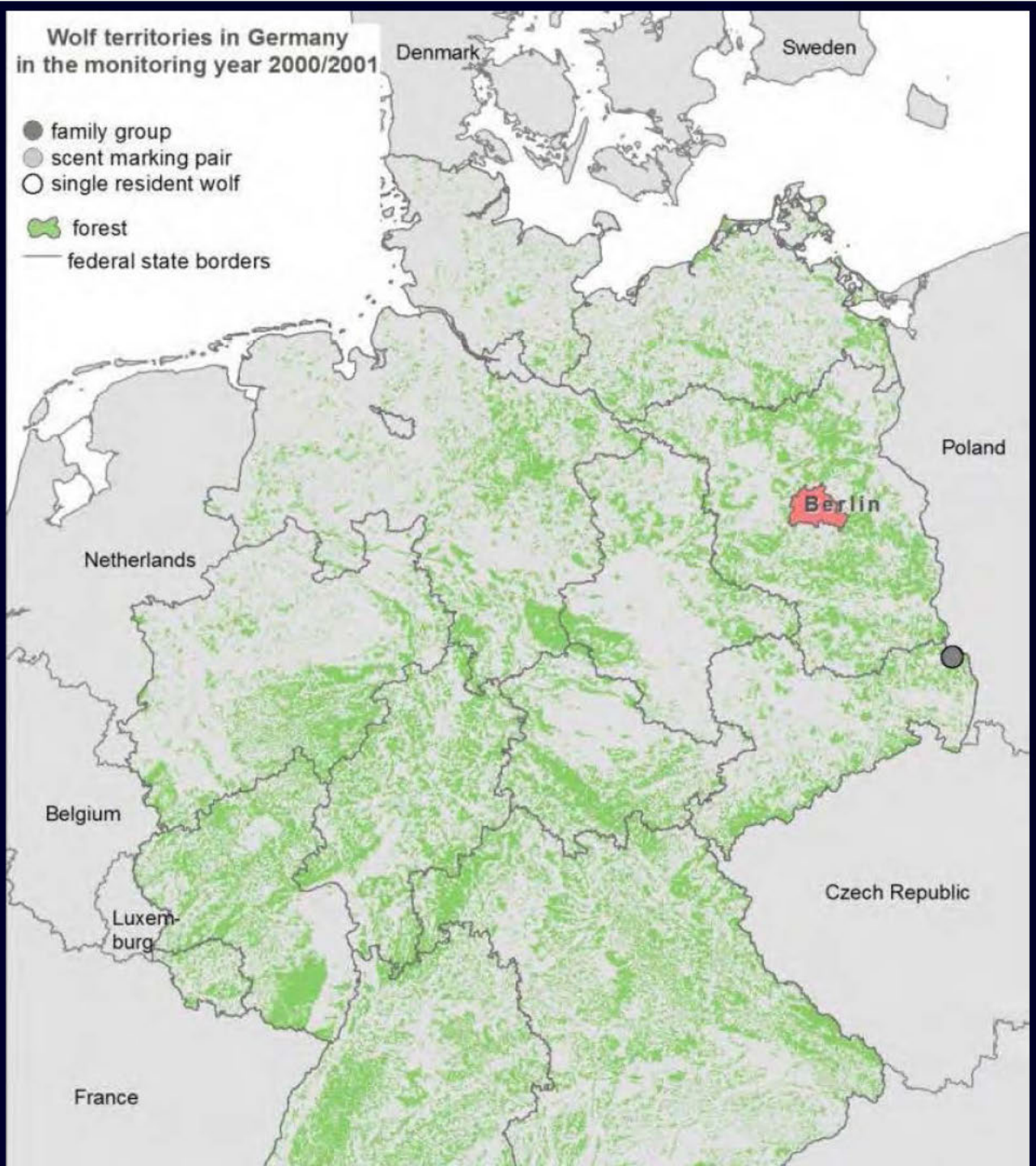
(permanent and sporadic)

2017



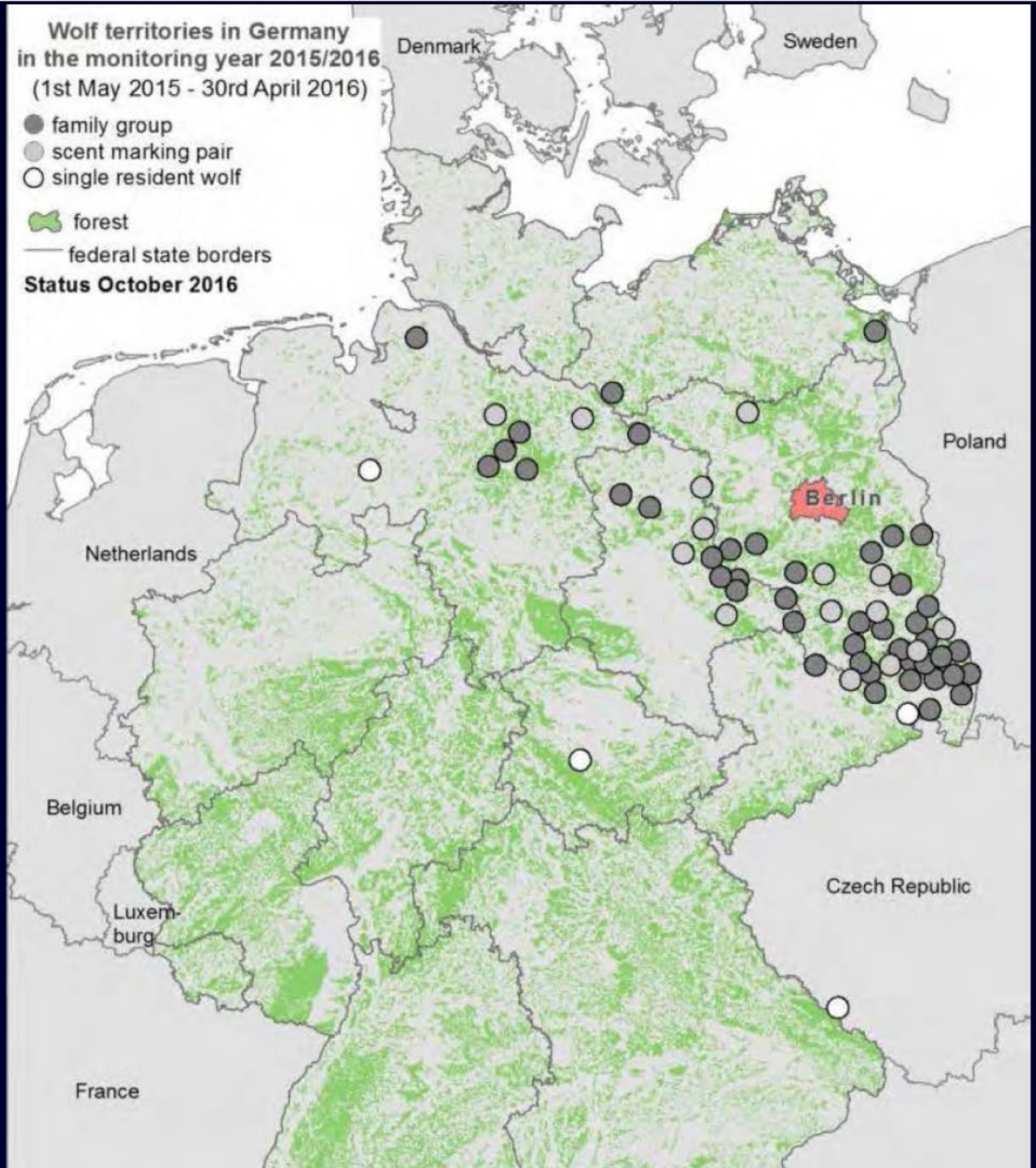
Distribution of confirmed wolf territories in Germany 2000

1 pack



Distribution of confirmed wolf territories in Germany 2015/2016

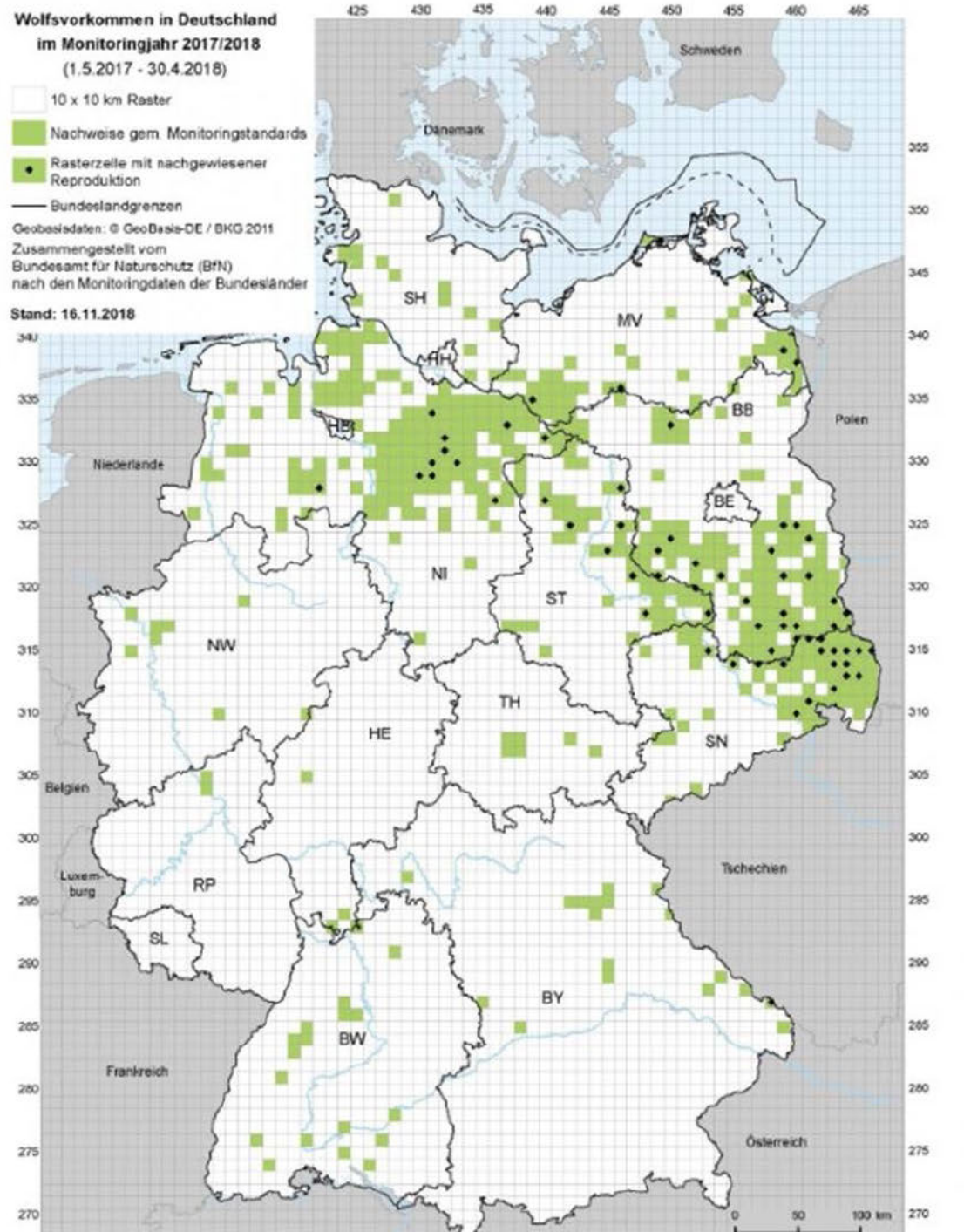
46 packs
15 pairs
4 single resident wolves



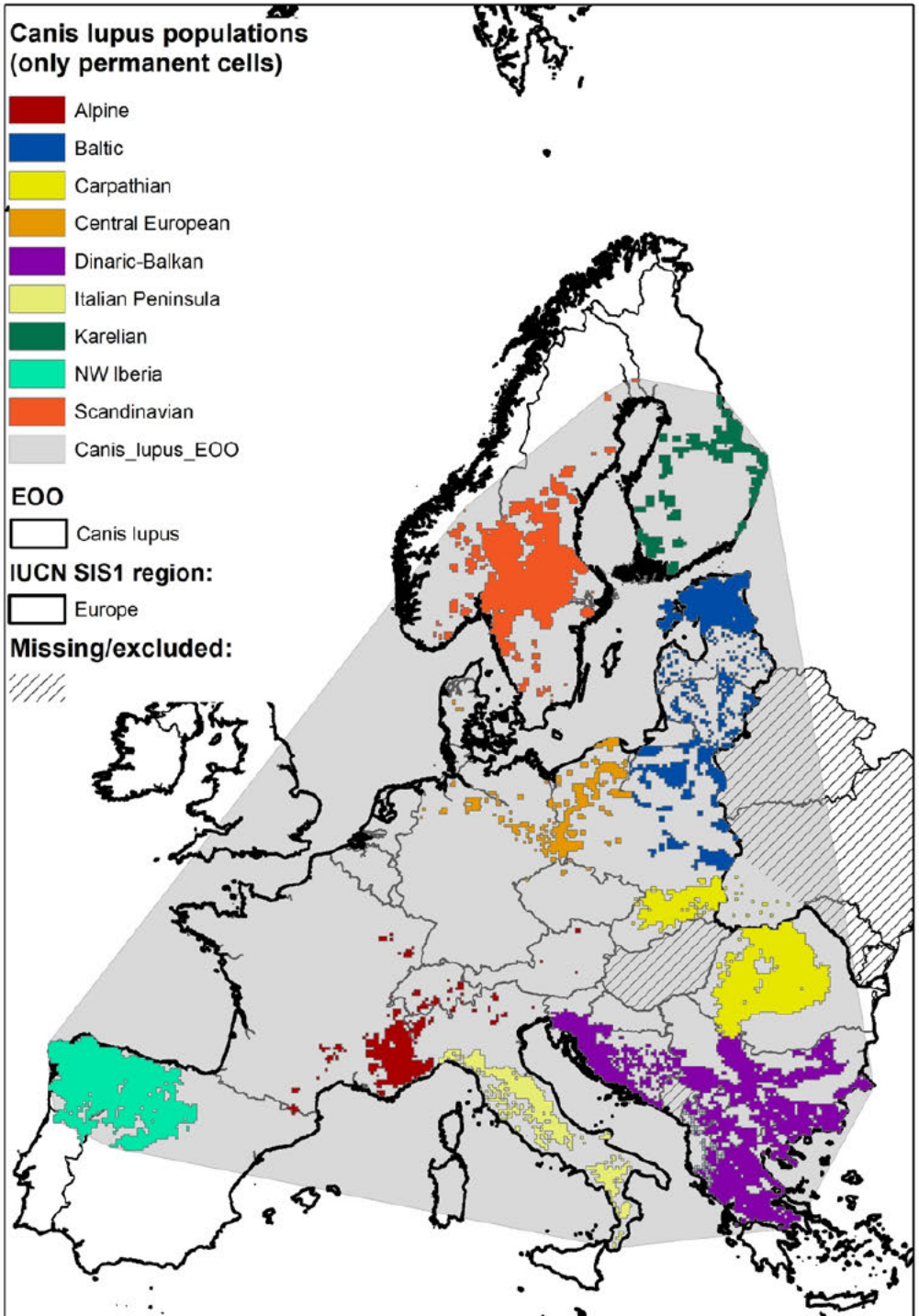
Distribution of confirmed wolf presence in Germany Nov. 2018

> 70 packs

growth: 34%/year



Wolf populations in Europe (permanent presence) 2017



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

Population	Last estimate (2011)	Most recent estimate (2016-7)	Trend	IUCN Red List Assessment	HD App.
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Western Central Alps	280	420-550	Increasing	Vulnera	IV
Italian peninsula	600-800	1100-2400	Incr		IV
Dinaric – Balkan	c. 3900	c. 400			IV-V
Carpathian	3000			t Conc.	V
Baltic			ble	Least Conc.	V
Karelia			Stable / increasing	Near Threat.	IV-V
Scandi	30	c. 430	Increasing	Vulnerable	IV
Central E	36 packs + 5 pairs	780-1030	Increasing	Vulnerable	IV
Europe		**c.17,000**	**Increasing**	**Least Concern**	
EU		**13–14,000**	**Increasing**	**Least Concern**	

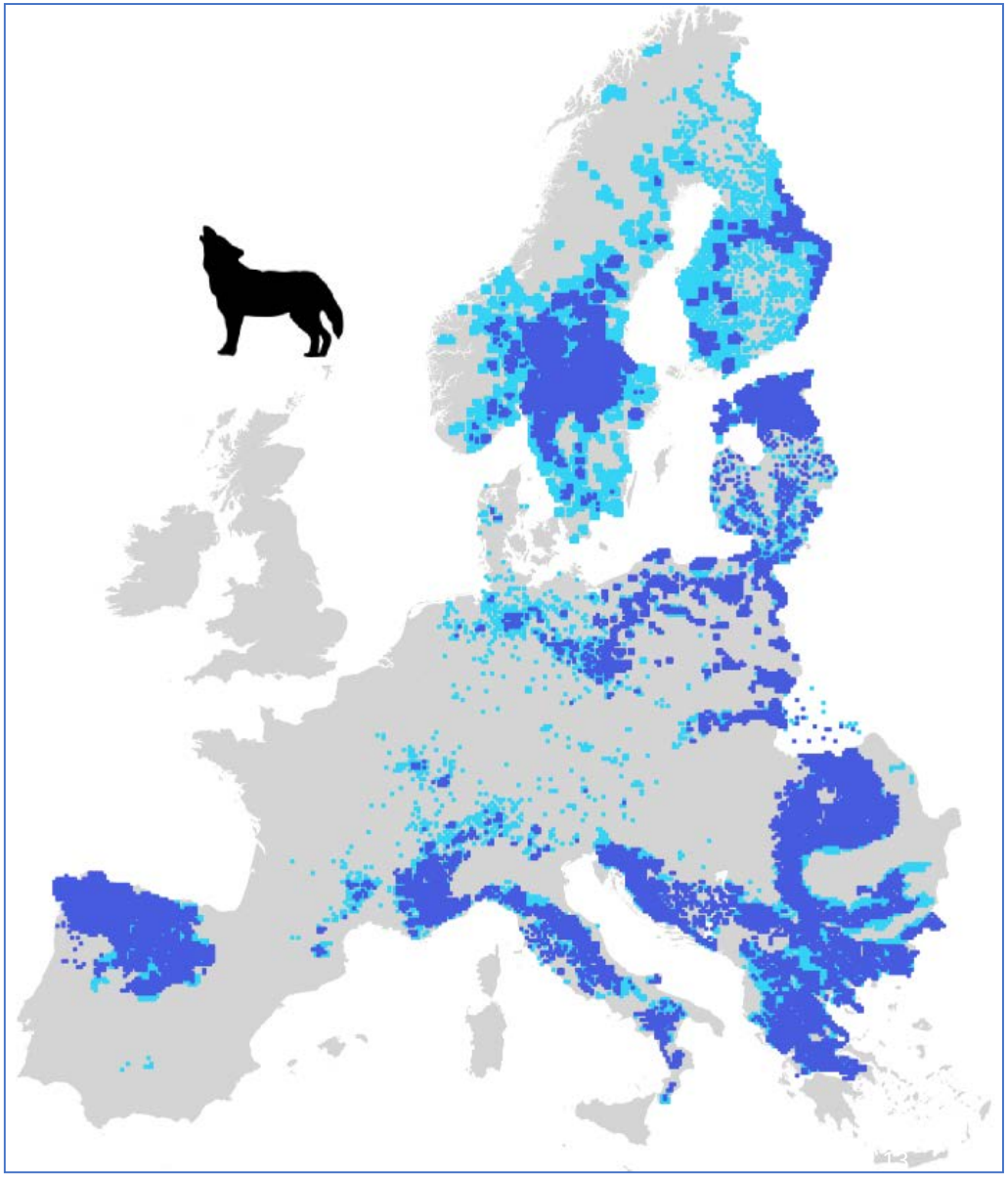
GREAT DIVERSITY OF METHODS TO ESTIMATE NUMBERS AND RANGES

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

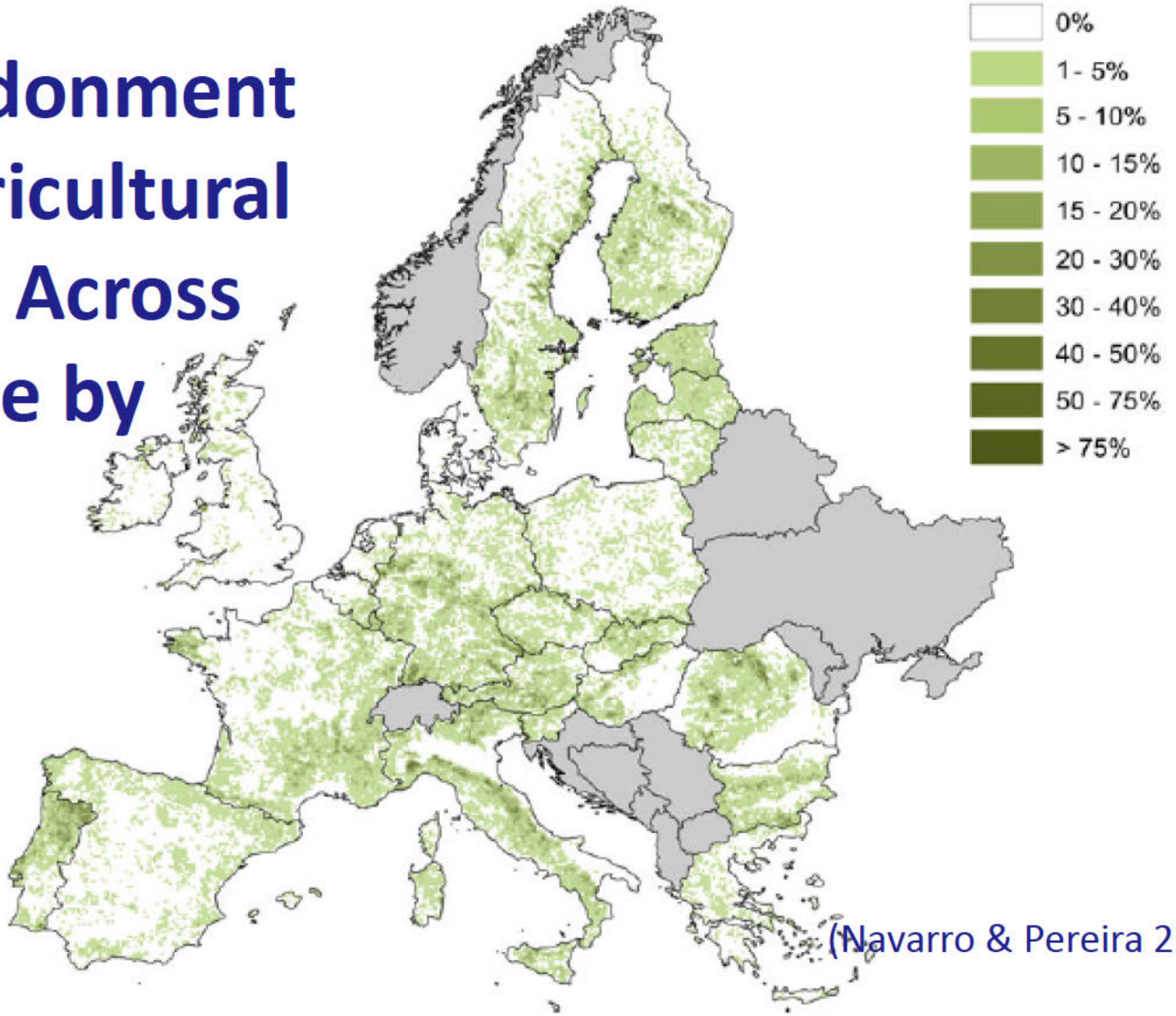
- Changes in land use patterns
- Increase in wild prey
- Natural recovery

- 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

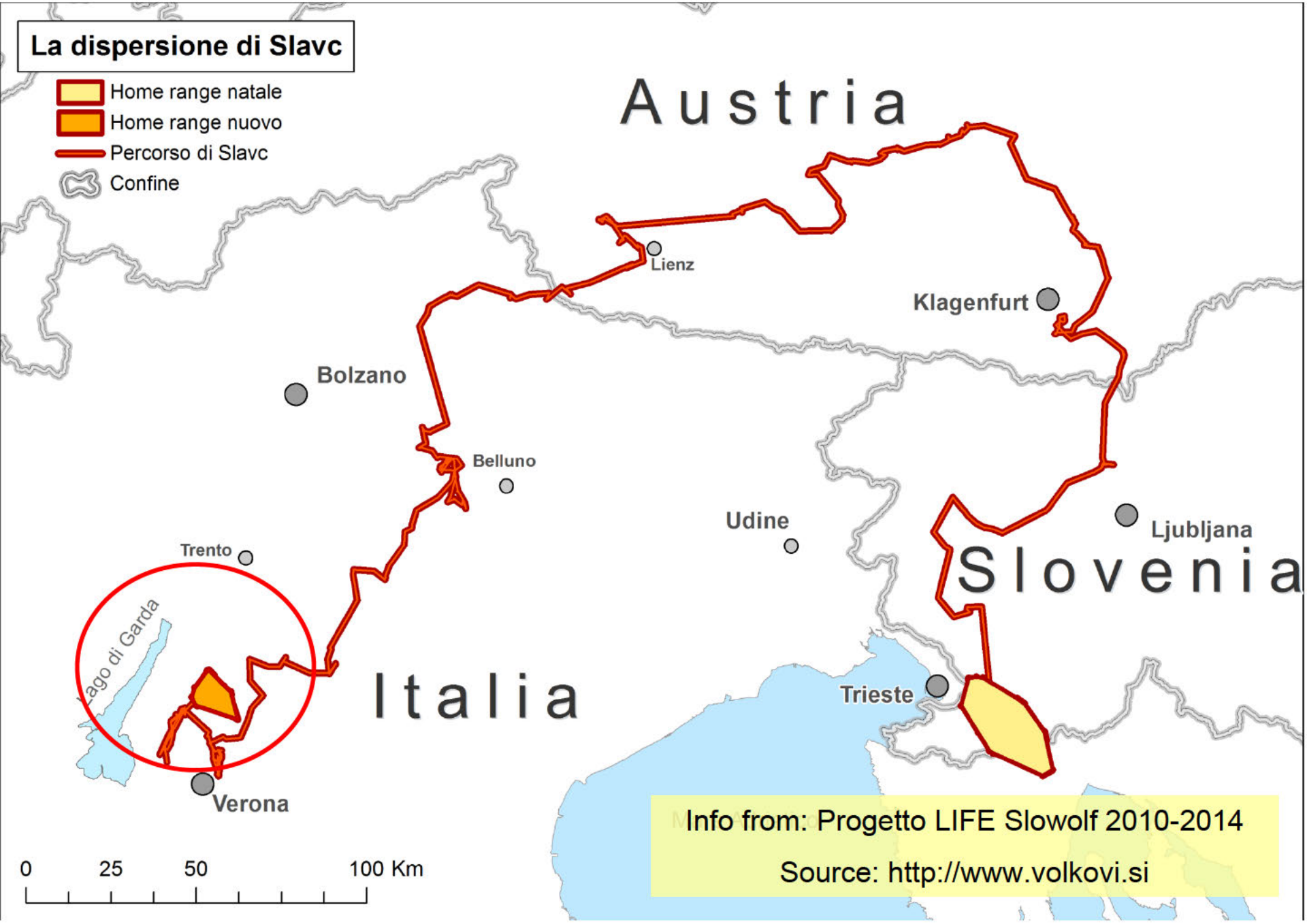


(Navarro & Pereira 2015)

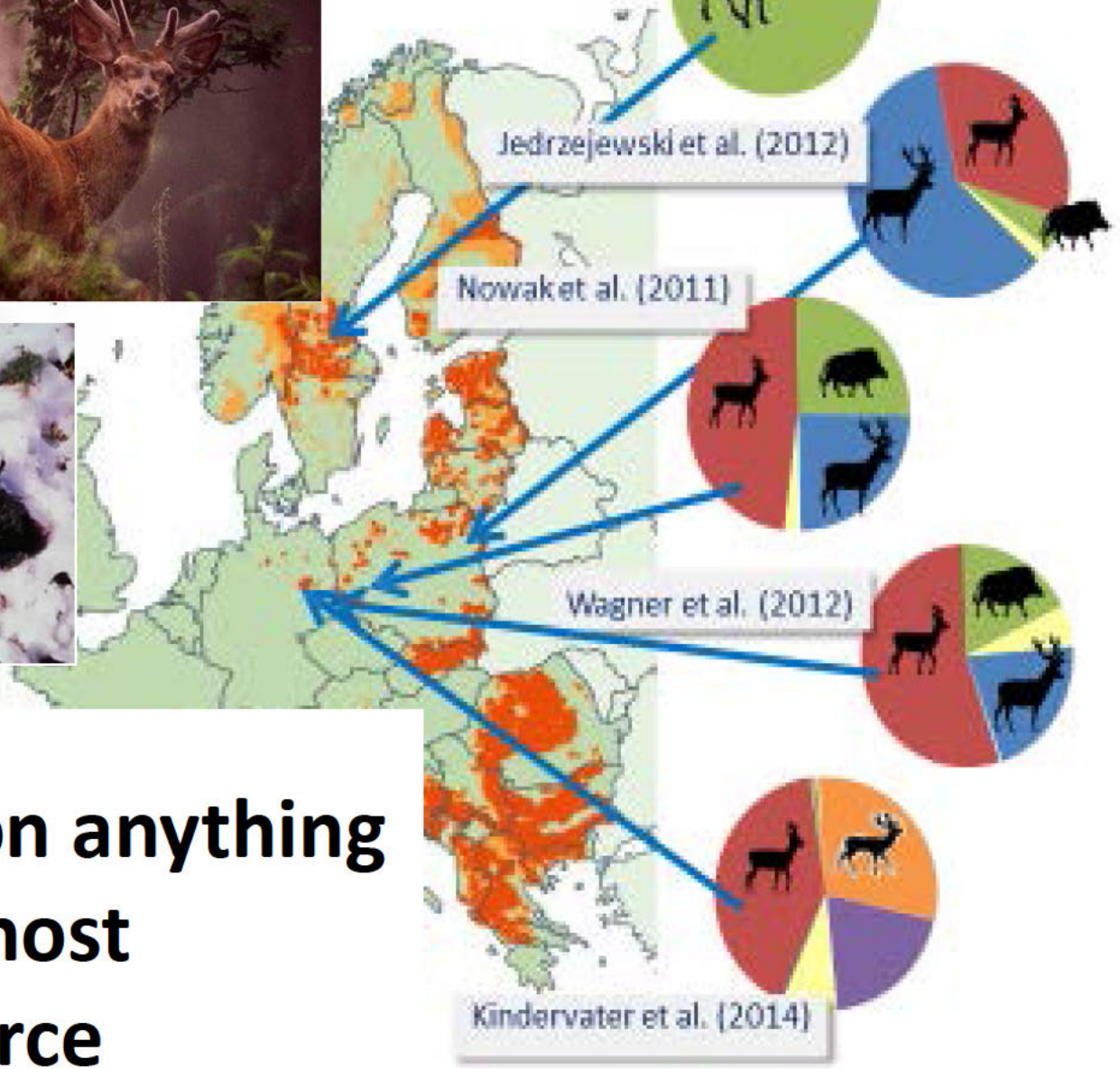
Figure 4. Localization of the hotspots of abandonment and rewilding in Europe. Those hotspots are areas categorized as "agriculture" in 2000 that are projected to become rewilded or afforested in 2030 and that are common to all four scenarios of the CLUE model (Verburg and Overmars 2009). Hotspots are expressed as a percentage of each 10-km^2 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 Slavc
Home range natale
Home range nuovo
Percorso di Slavc
Confine
Austria
Lienz
Klagenfurt
Bolzano
Belluno
Udine
Ljubljana
Slovenia
Trento
Lago di Garda
Italia
Trieste
Verona
0
25
50
100 Km
Info from: Progetto LIFE Slowolf 2010-2014
Source: http://www.volkovi.si

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)

Wh conserv wolves

VALUES:

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