What drives wild boar populations?

Ulf Hohmann

Research group - Wildlife Ecology
Research Institute for Forest Ecology and Forestry

67705 Trippstadt
Germany

11. International Symposium on Wild Boar & Other Suids

- **5. to 8. September 2016**
- **in Luxembourg**

- **see www.emwelt.lu/wildboar, abstract booklet (www.environnement.public.lu/wildboar/programme/WBS2016_abstract-booklet_V20160827.pdf), page 43**

Forschungsanstalt für Waldökologie und Forstwirtschaft

Landesforsten Rheinland-Pfalz

What drives wild boar populations?

Factors that can influence wild boar population growth

Voges du Nord – Palatinate Forest System

Harvest rate as a proxy of population size

Summary/Conclusion/Discussion

Wild boar harvest in Europa

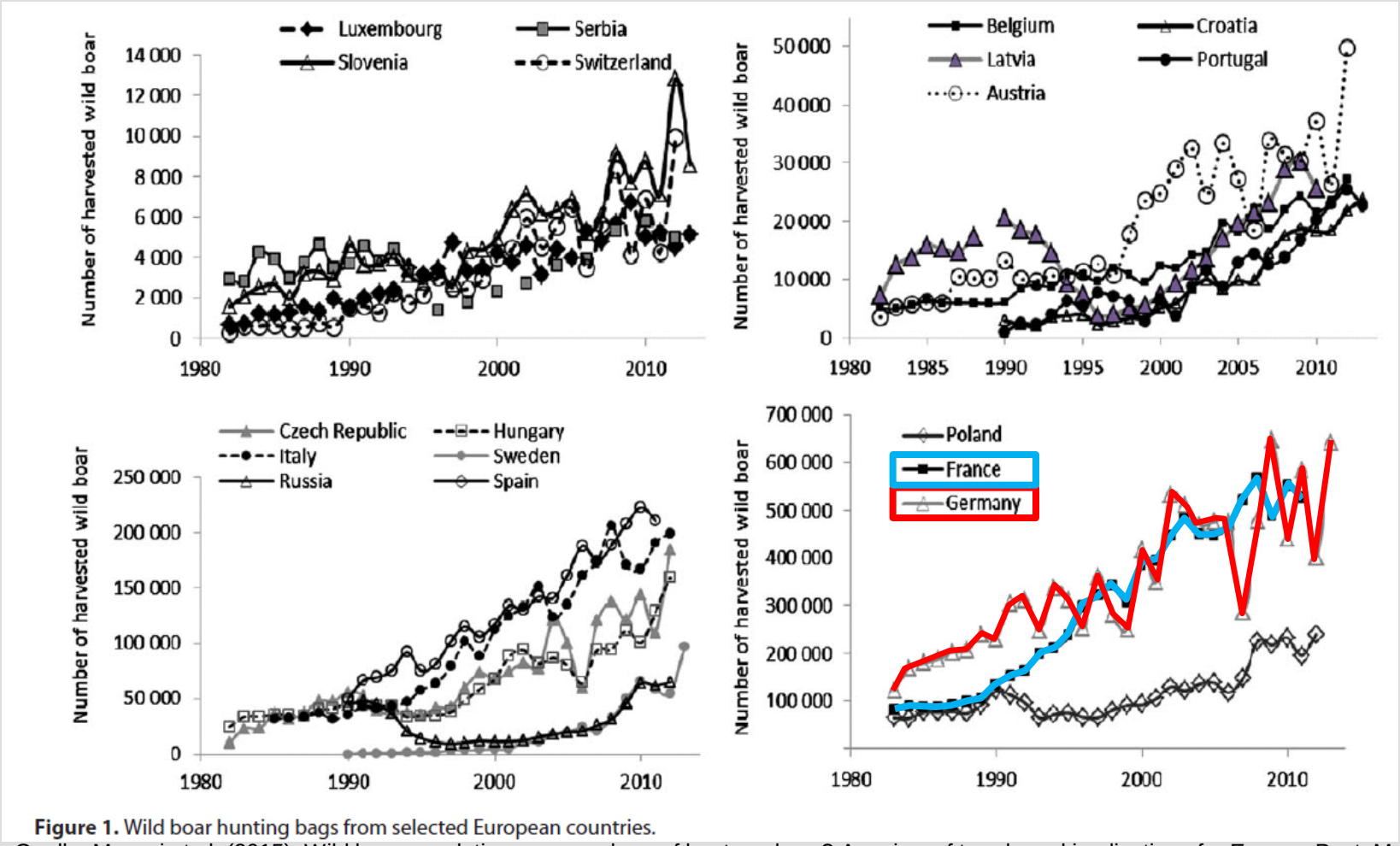


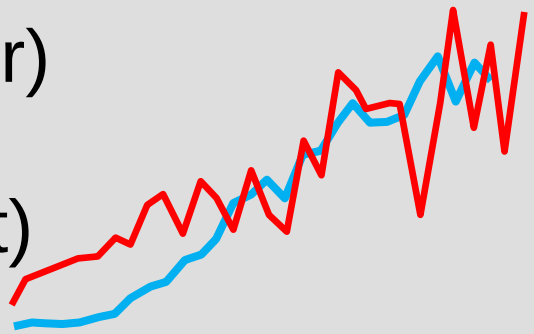
Figure 1. Wild boar hunting bags from selected European countries.

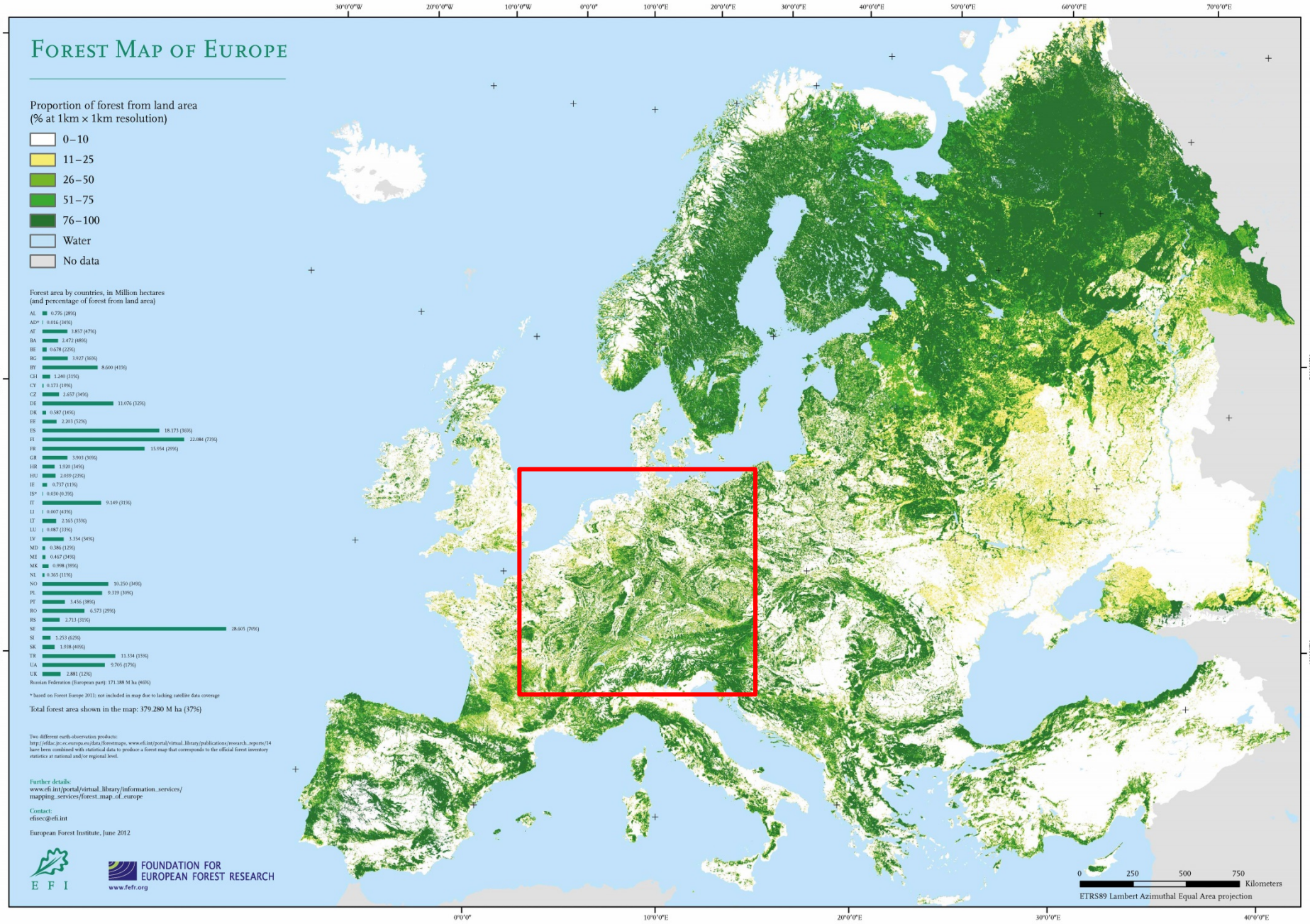
Quelle: Massei et al. (2015): Wild boar populations up, numbers of hunters down? A review of trends and implications for Europe. Pest. Manag. Sci.. doi: 10.1002/ps.3965.

Wild boar harvest in Europa

Often mentioned factors/causes explaining wild boar population increase:

- Increased nitrogen input
- Warmer climate
- Intense agriculture (food, cover)
- Hunting management
- (e.g. feeding, selective harvest)
- Abandoned areas
- Better forest ecosystem (mast, cover) and more





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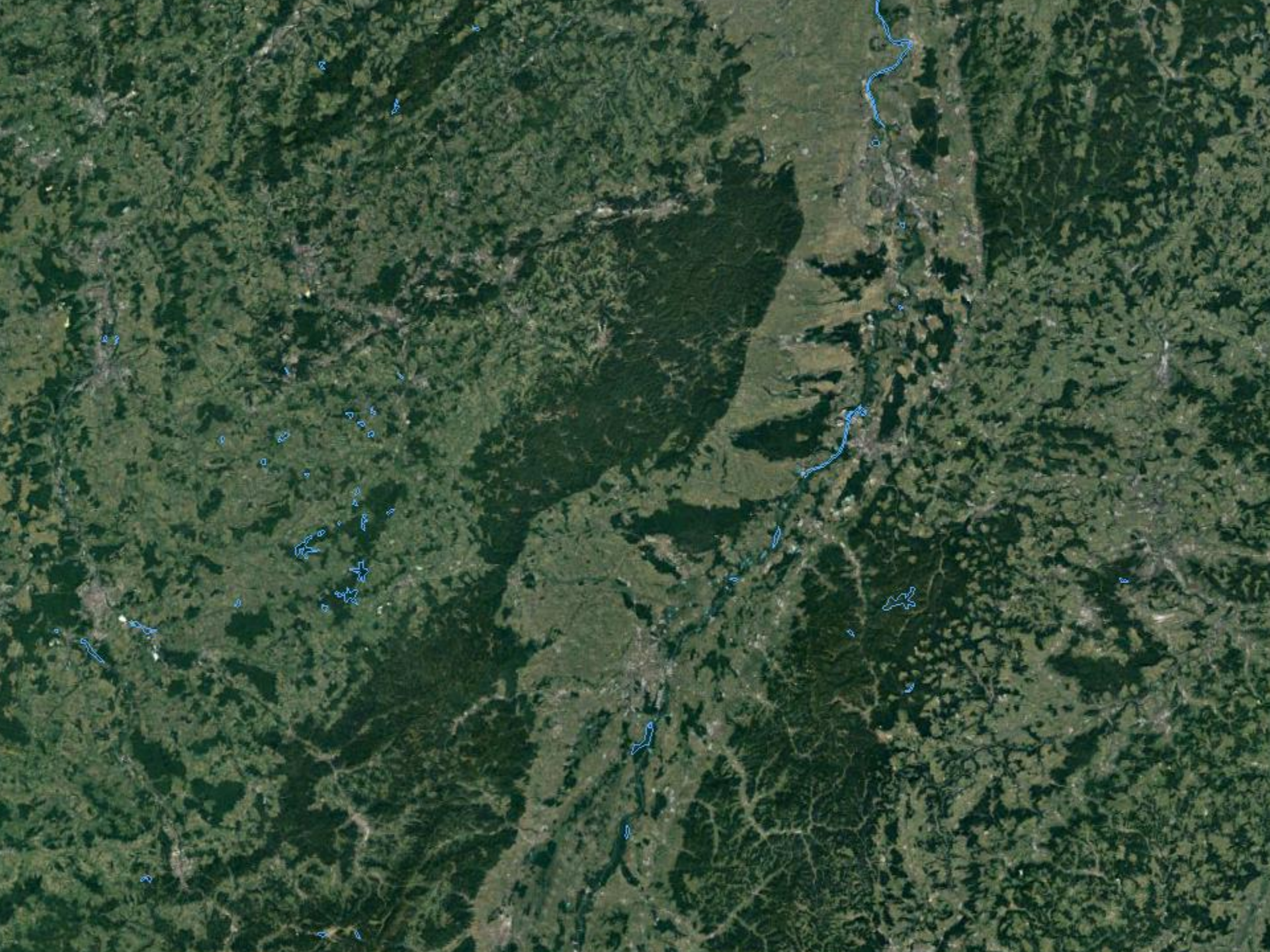
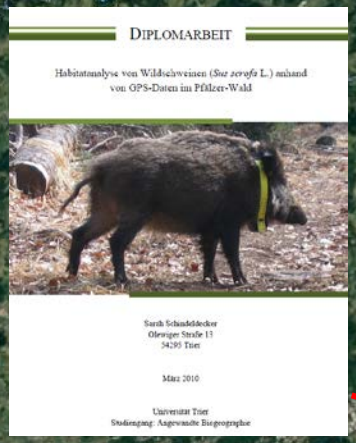
Google earth




DIPLOMARBEIT

Habitatanalyse von Wildschweinen (*Sus scrofa* L.) anhand von GPS-Daten im Pfälzer-Wald

Sarah Schindelecker
Olewiger Straße 13
54295 Trier

März 2010

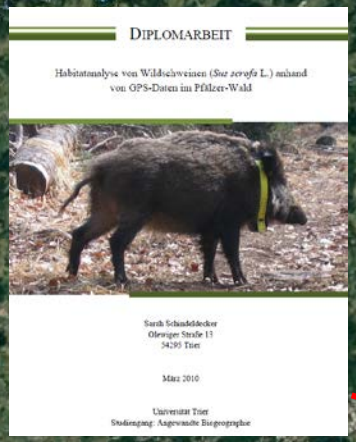
Universität Trier
Studiengang: Angewandte Biogeographie

Schindecker (2010)

Ebert, Huckschlag, Schulz & Hohmann (2009): Eur. J. Wildl Res.

30 km

Bildaufnahmedatum: 1/1/1970 49°11'19.87" N 7°47'12.83" O Höhe 339 m



Schindecker (2010)

Ebert, Huckschlag, Schulz & Hohmann (2009): Eur. J. Wildl Res.

700 ha*

Ø 95 % Kernel home range

30 km

Germany

Palatinate Forest 170.000 ha

France

Voges du Nord 130.000 ha


Surroundings forest/agriculture habitats
Germany
Mostly closed forest (no crops)
France
Surroundings forest/agriculture habitats
30 km
© 2009 GeoBasis-DE/BKG
Image Landsat

Voges du Nord / Palatinate Forest

Some often mentioned factors/causes explaining wild boar population increase:

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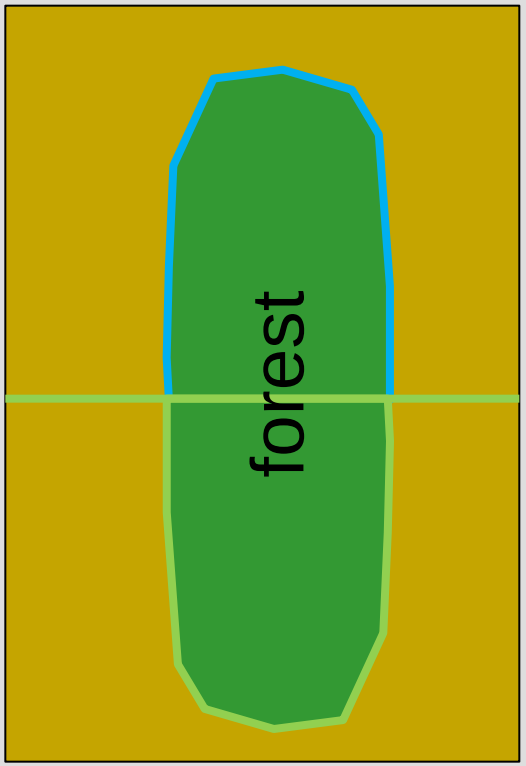

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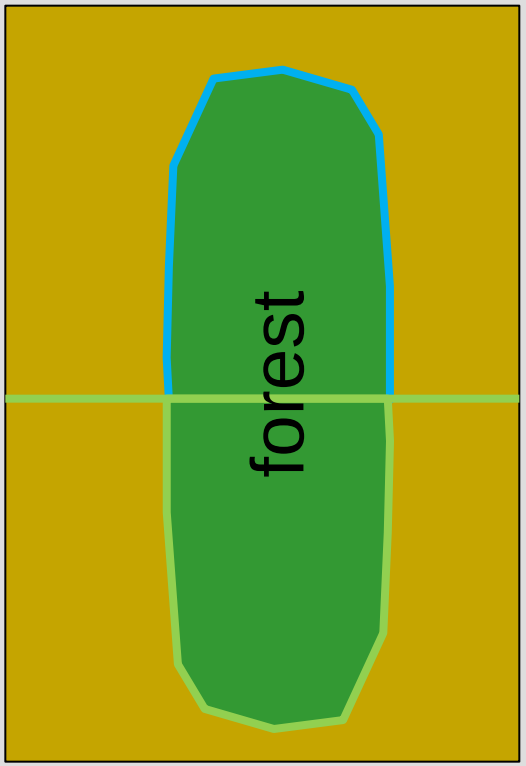

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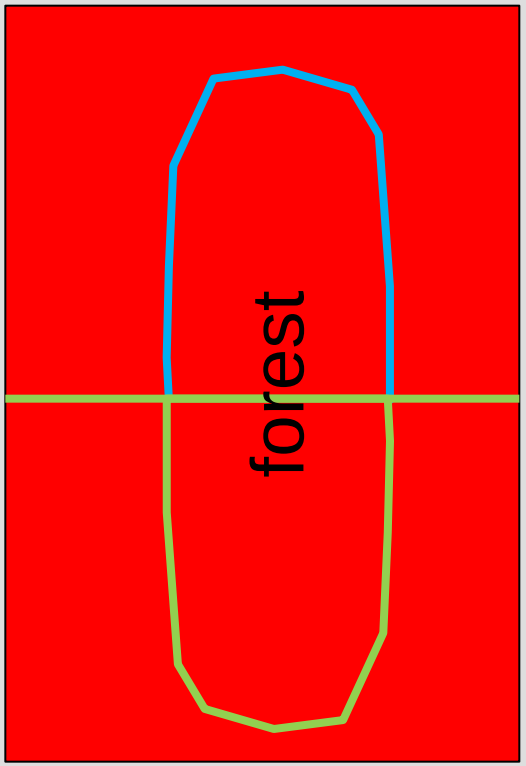

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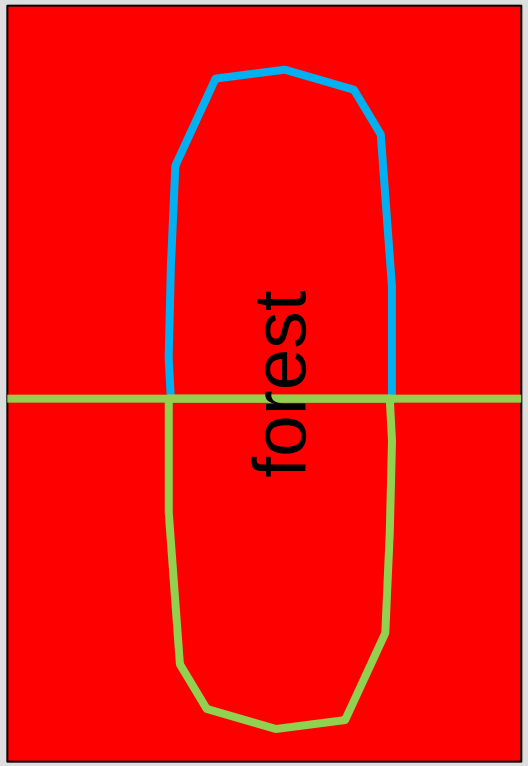

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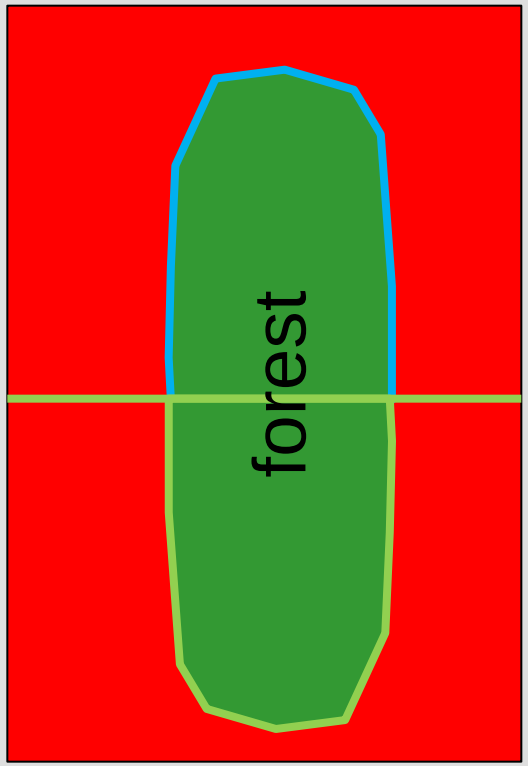

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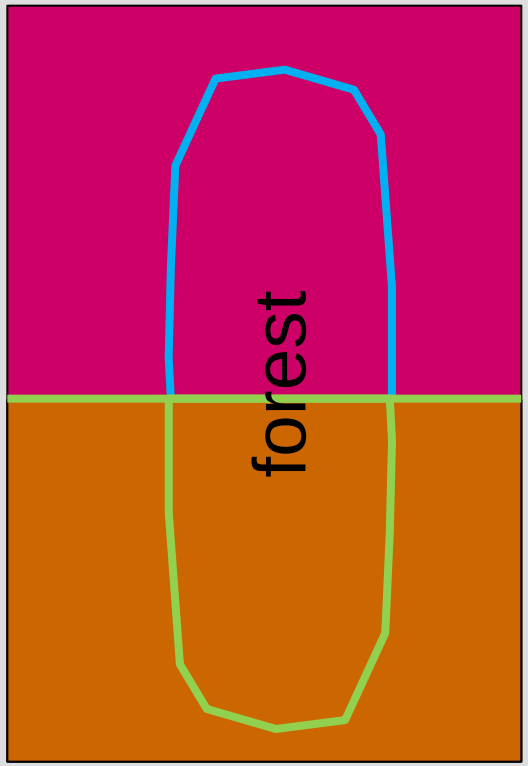

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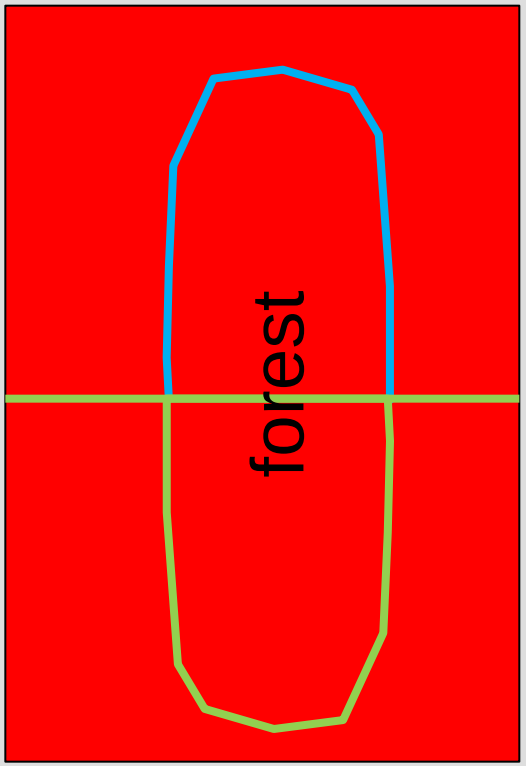

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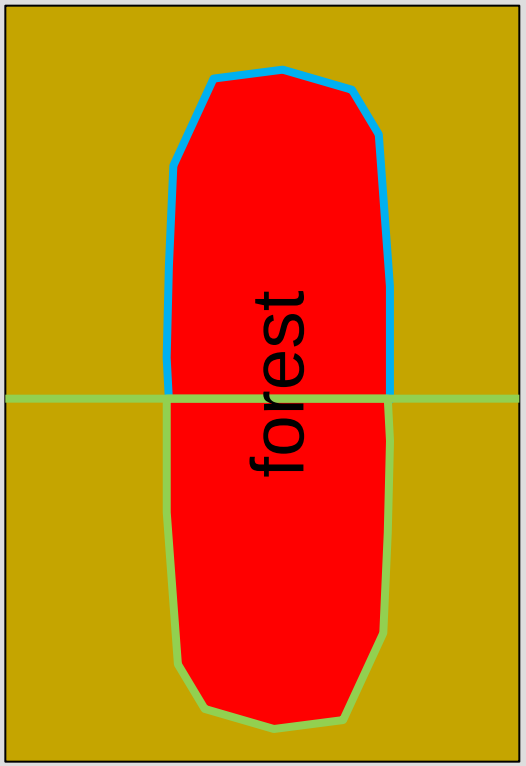

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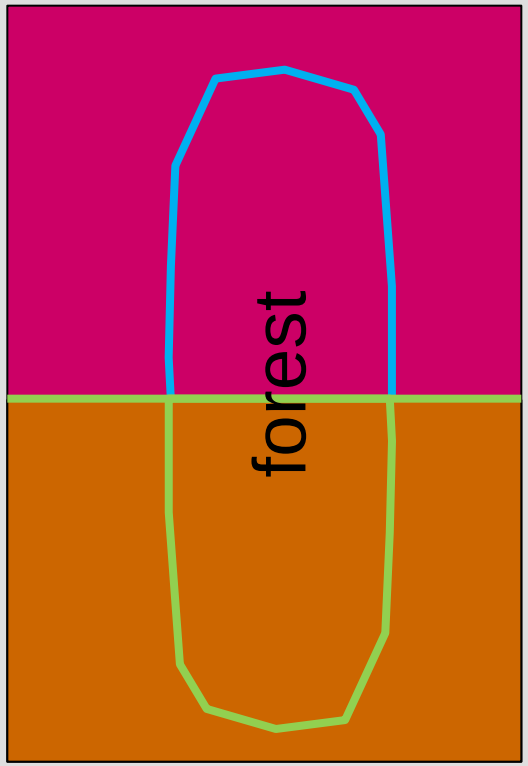


Voge[illegible] Forest


DEUTSCH-FRANZÖSISCH-SCHWEIZERISCHE OBERRHEINKONFERENZ

Arbeitsgruppe Landwirtschaft

CONFERENCE FRANCO-GERMANO-SUISSE DU RHIN SUPERIEUR

Groupe de Travail Agriculture

Rapport du groupe d'experts Chasse au Comité directeur de la Conférence du Rhin Supérieur sur le thème « La chasse au sanglier dans la région du Rhin supérieur / Stratégies d'adaptation à l'évolution des populations de sangliers » (« Rapport sur les populations de sangliers »)

Sanglier mâle adulte

Som[illegible]
facto[illegible] oar
popu[illegible]

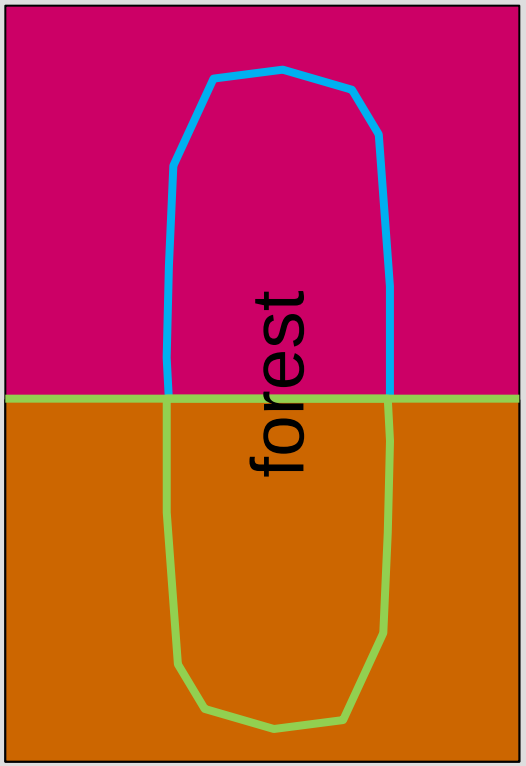
- l[illegible]
- [illegible]
- [illegible]
- Hunte[illegible]
- [illegible]
- [illegible] last,

cover)

Germany

border

France

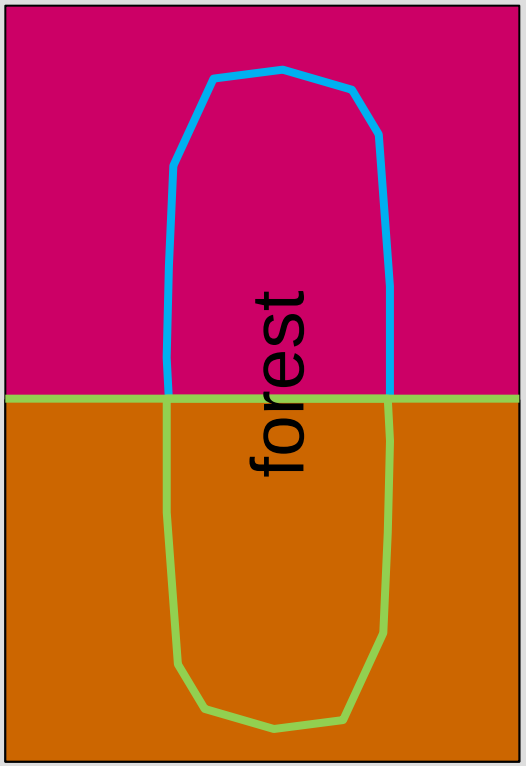


Voges du Nord / Palatinate Forest

RheinlandPfalz

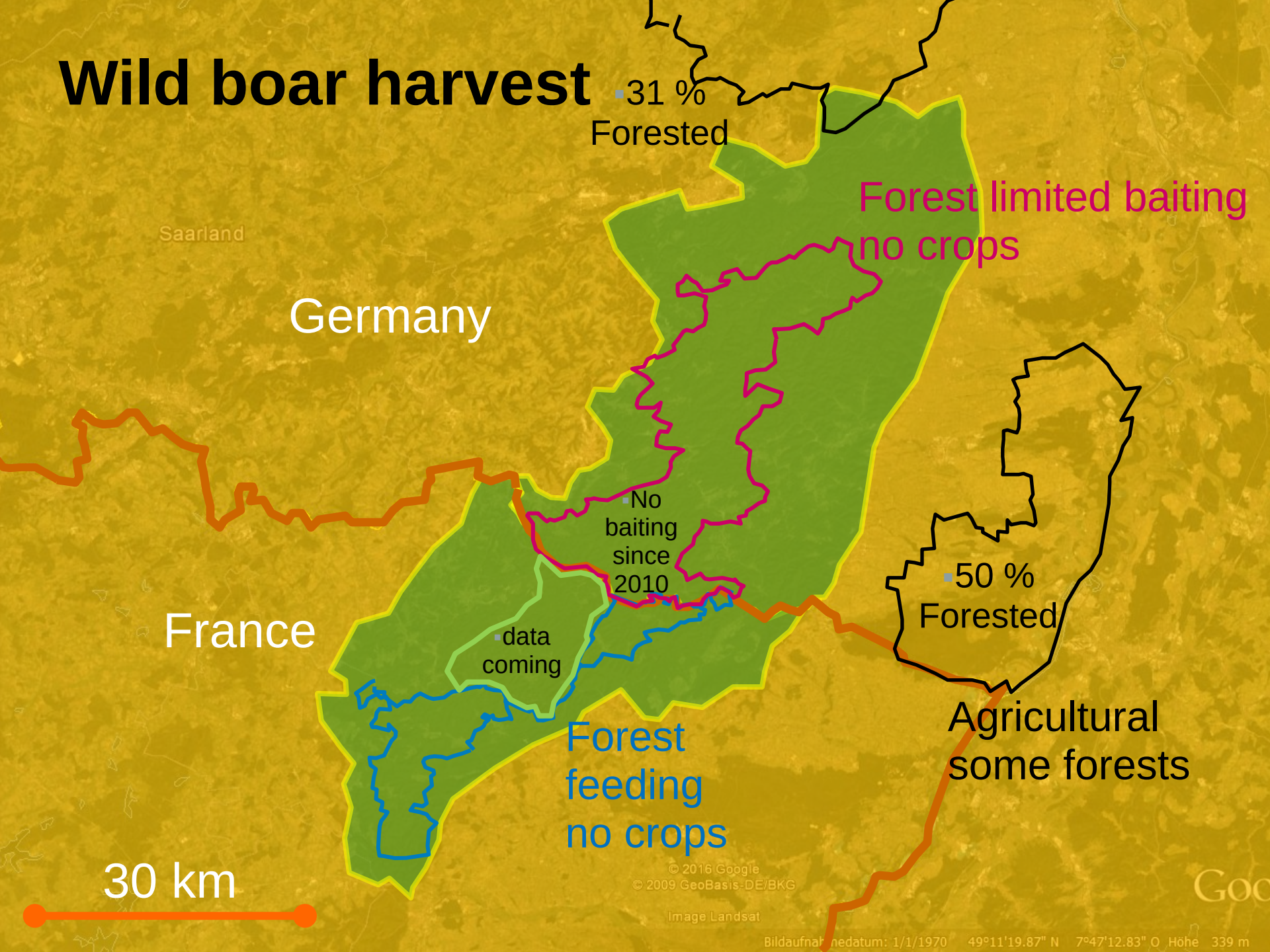
Management of wild boar

France (Alsace)	Germany (Rhineland-Palatinate)
Similar hunting-season -& -restrictions	
Different regulations in baiting/feeding:	
10 kg / 100 ha* per day	0,6 kg / 100 ha* only after consumption



*for a 400 ha forested hunting area

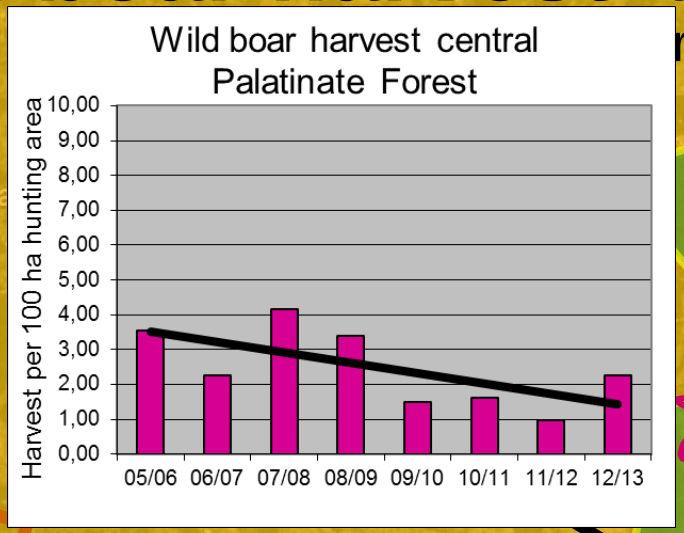
Landesforsten Rheinland-Pfalz

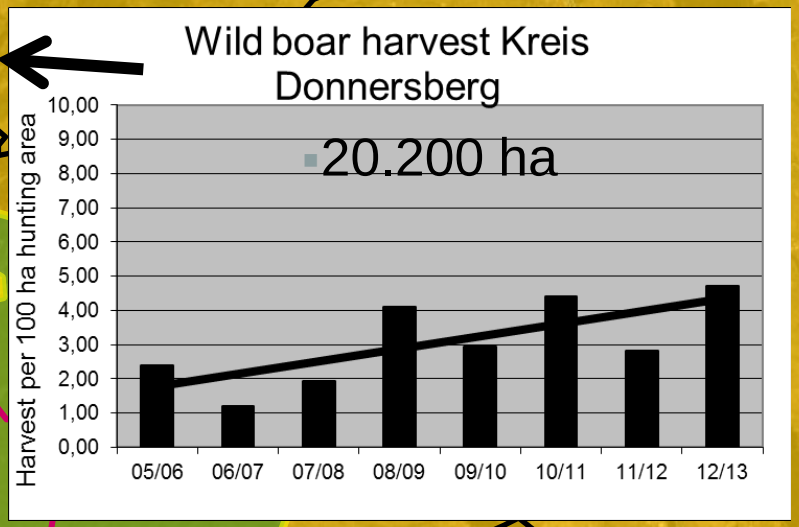

Wild boar harvest
31 %
Forested
Forest limited baiting
no crops
Saarland
Germany
No
baiting
since
2010
50 %
Forested
France
data
coming
Forest
feeding
no crops
Agricultural
some forests
30 km
© 2016 Google
© 2009 GeoBasis-DE/BKG
Image Landsat
Bildaufnahmedatum: 1/1/1970 49°11'19.87" N 7°47'12.83" O Höhe 339 m

Wild boar harvest

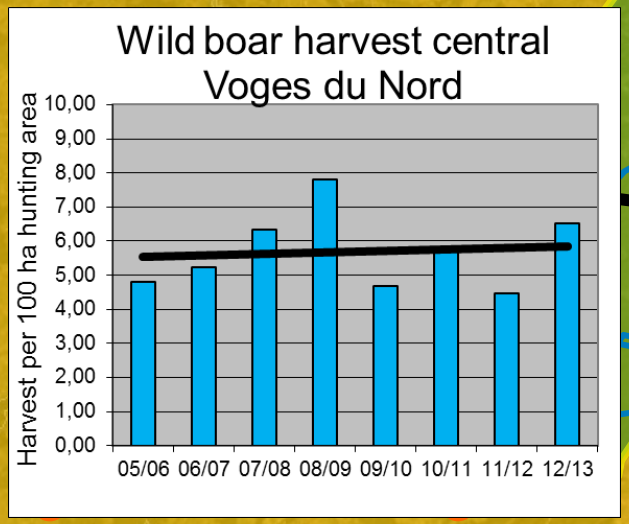
31 %

rested

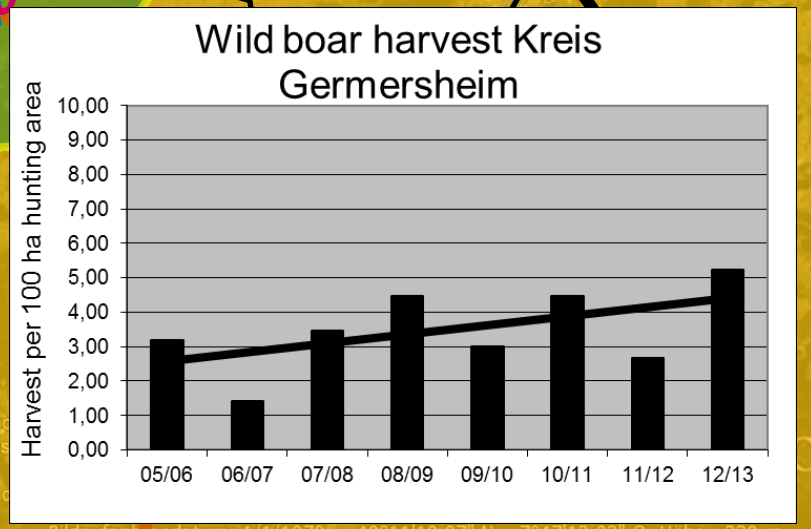




50 %



Forest
feeding
no crops



Summary

A large forest with no access to crops and limited baiting
wild boar population rel. low, trend negative (2005-2013)

A large forest with no access to crops but feeding
wild boar population rel. high, trend positive (2005-2013)

Similar in more opern areas with access to crops

Conclusions

In large closed forests wild boar (rare situation in Europe) could be regulated by natural factors effectively, even today!

Global factors like climate change, higher masting frequency etc. were obviously of lower relevance.

Extensive feeding can outbalance natural regulation in large forests like in agricultural areas

With access to high energetic diet in agricultural, partly forested areas wild boar populations were also high and increasing

Conclusions

Short:

Wellbeing of wild boar is more a consequence of local, direct anthropogenic supports (intended or unintended)

Effect of more global factors limited (forest effect)

Discussion

Harvest data presented here for Voges du Nord still incomplete („Bitche“ area missing)

Voges du Nord smaller, so edge effects higher

Harvest data are just a proxy of population size

Comparison with other large forest systems helpful

Thanks also to

Philippe Wolff Regine Marti-Schaller
Departement Bas-Rhin and
Marc Bacher, ONF
Georg Wilhelm, ZdF
providing data

Sonja Said and Eric Baubet,
ONCFS
Patrice Stoquert, ONF
charing discussion

- More information see www.fawf.wald-rlp.de
- → Forschungsbereiche → Ökologische Waldentwicklung → Wildökologie

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Rheinland-Pfalz