



Better Training for Safer Food *Initiative*

**How to design a “Wild boar”
infected area**
Vittorio Guberti

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BTSEF

Warsaw October 2016

First point

African swine fever cannot be managed directly:

No treatment

No vaccine

The probability to eradicate or control the infection is linked to the CORRECT MANAGEMENT the INFECTED WILD BOAR POPULATION and the HABITAT in which it lives

Outbreak management following ASF detection in wild boar

Define the infected area

Protect the domestic pig population (census and biosecurity)

Management of the infected wild boar population

Which are the risk factors that enable a wild boar population to play the role of epidemiological reservoir of the ASF virus

Presence of the virus

Size of the population

Density of the population

Size and density define the wild boar geographical distribution

Age and gender of the infected wild boar population

Type of hunting

Period of the year during which the virus has been detected/introduced

Risk factors

Size and density: likelihood of virus spread and persistence (no wild boar no ASF)

Wild boar geographical distribution: where the virus can spread through the continuity of the wild boar geographical distribution (fine scale)

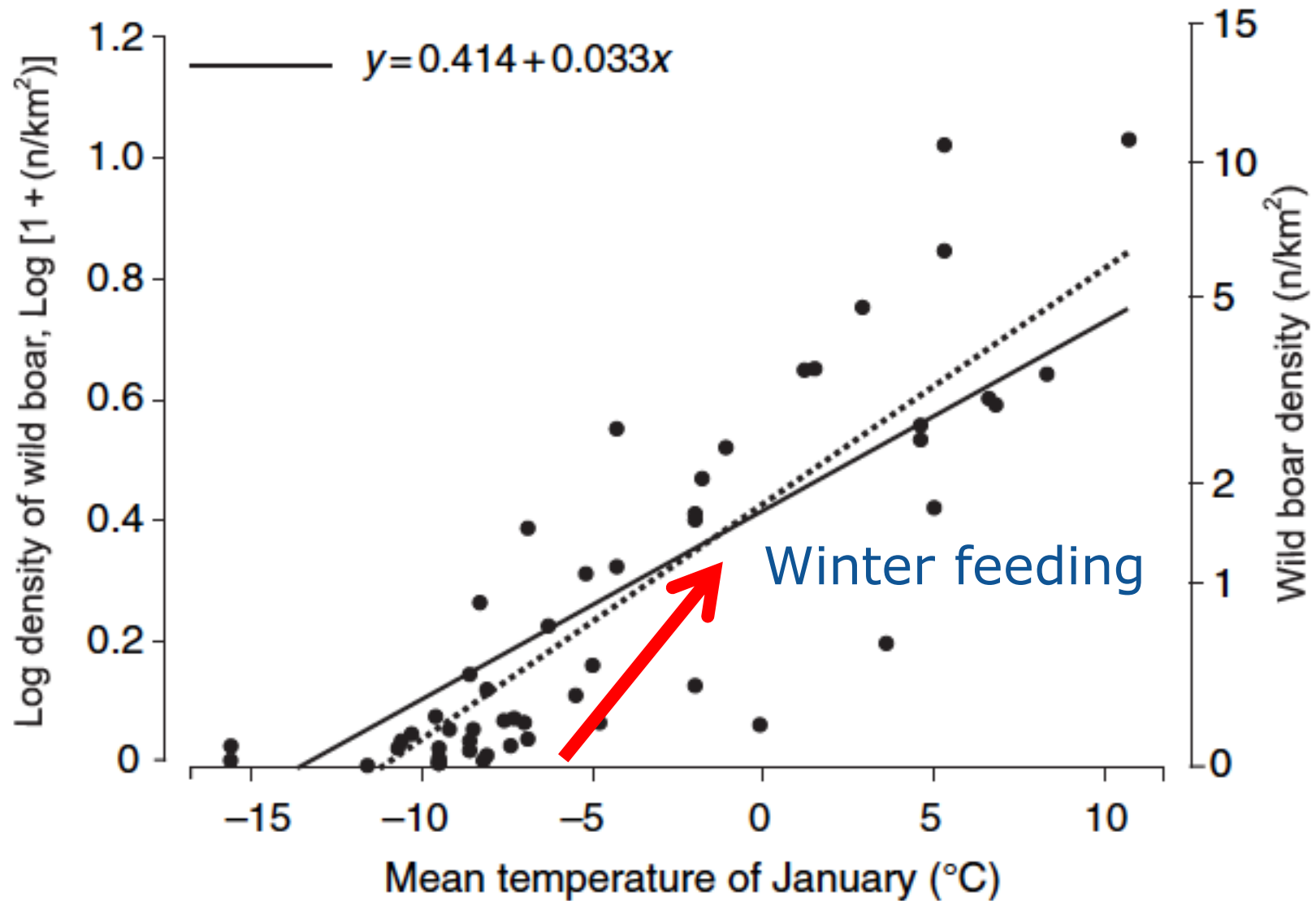
Mean age of the population: younger population are less productive

Gender unbalanced populations: more females than males; adult females are less hunted

Type of hunting: target hunting less productive than driven hunts

Period of the year: ASF summer peak due to new borne recruitment in the population; rutting season (Winter)

Wild boar population size and winter temperature

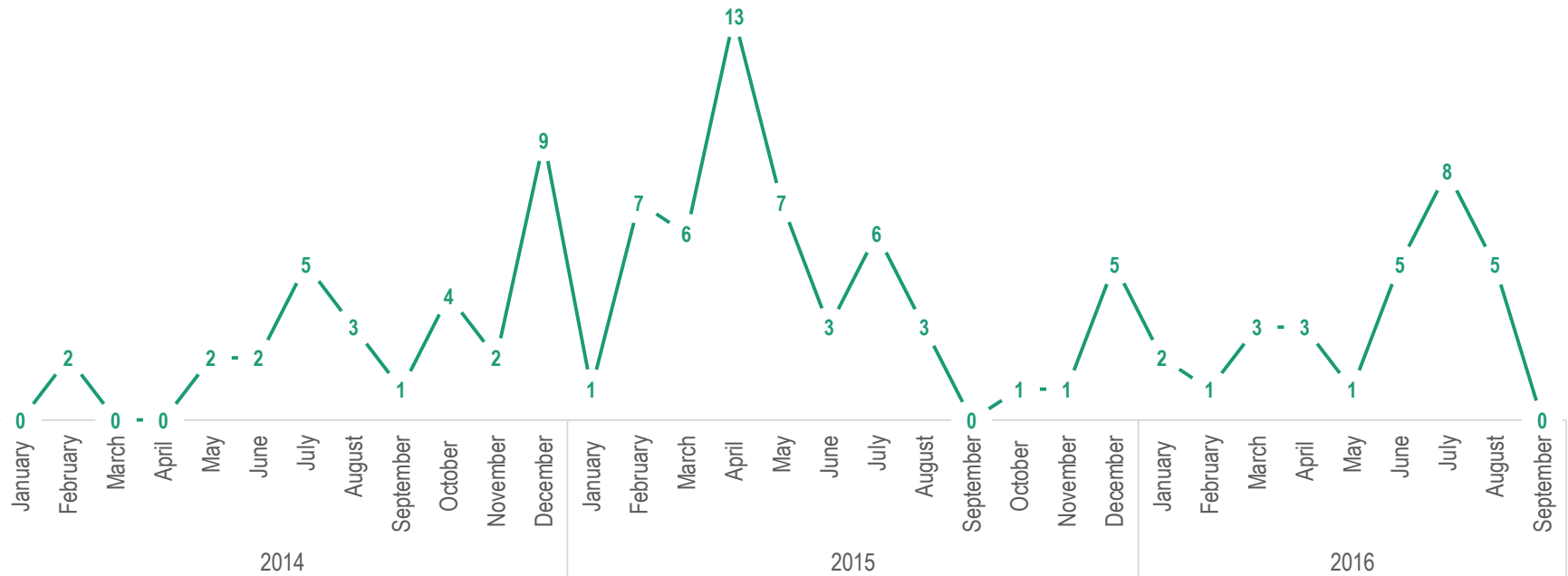




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ASF seasonality

NO. OF CASES OF ASF IN WILD BOAR IN POLAND (2014-2016)



Infected area: which characteristics have to be taken into account?

The historical and current geographical distribution of the infection;

Epidemiological investigations

Wide boar home range, geographical distribution

Landscape structure

Wild boar infected area

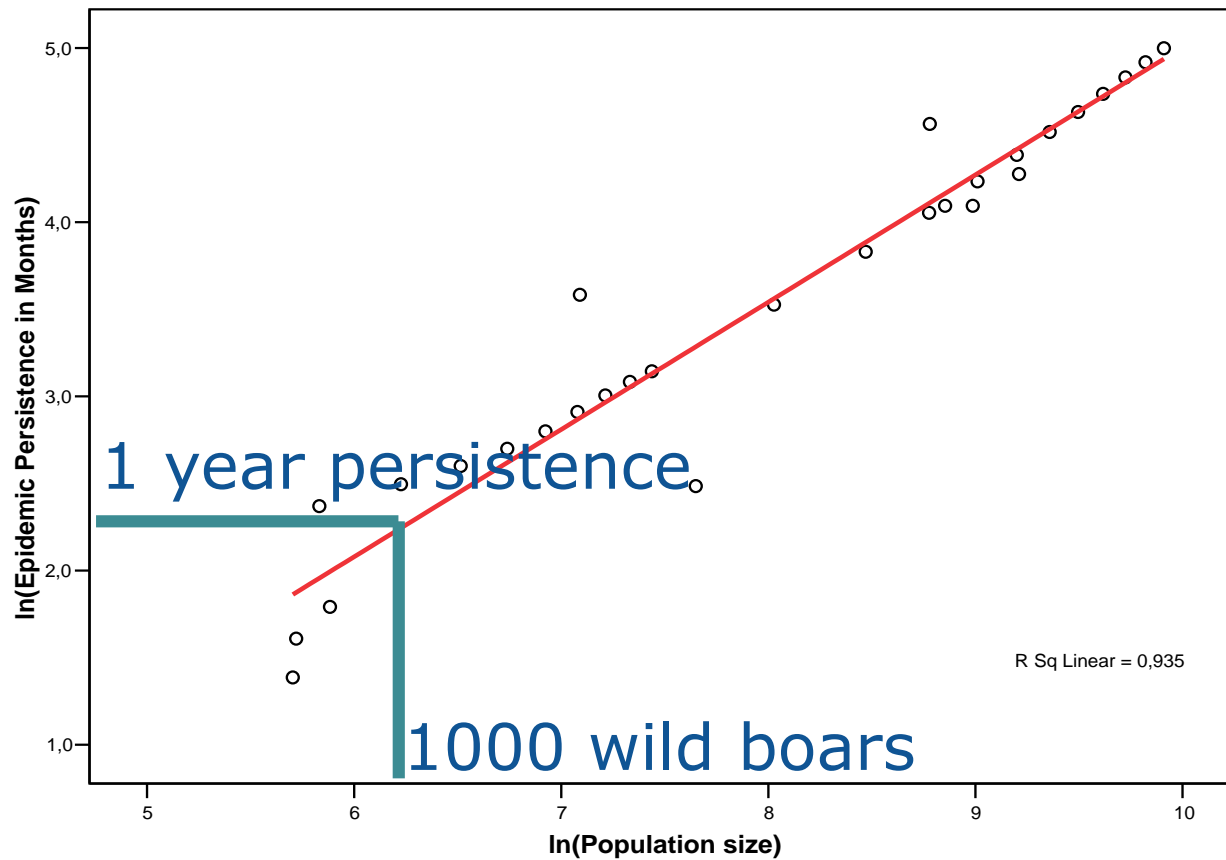
All the suitable wild boar habitat in geographical continuity

Borders defined by artificial or natural barriers

Not less than 200 km²

Easy to identify

Why 200 square km: CSF in wild boar

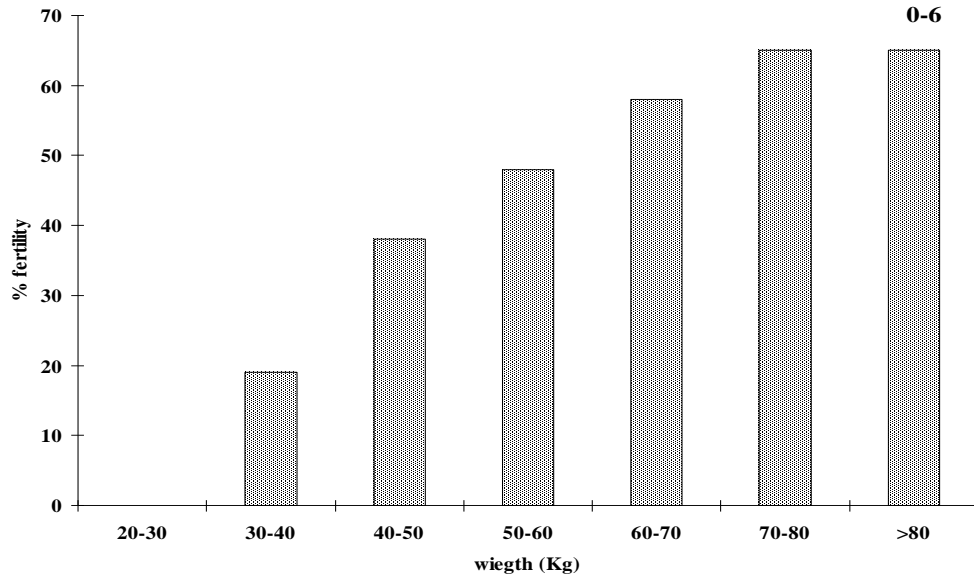
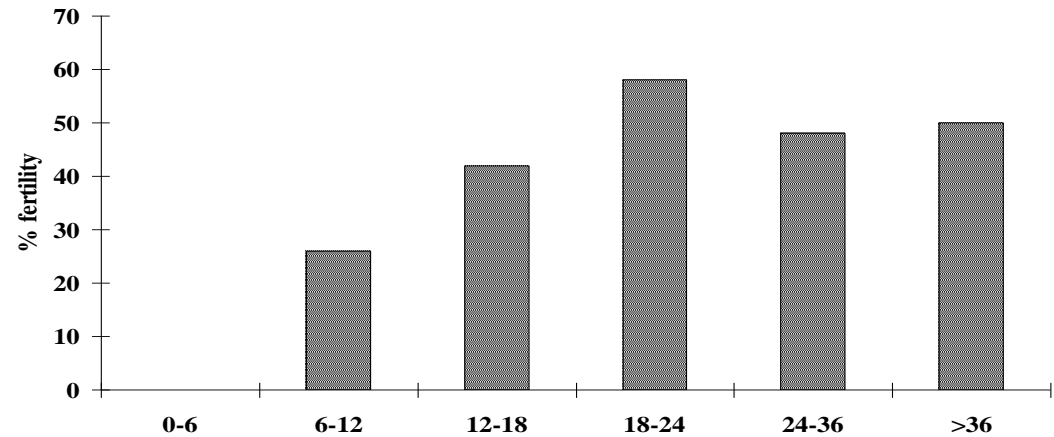


200 square km infected area does it fit for ASF?

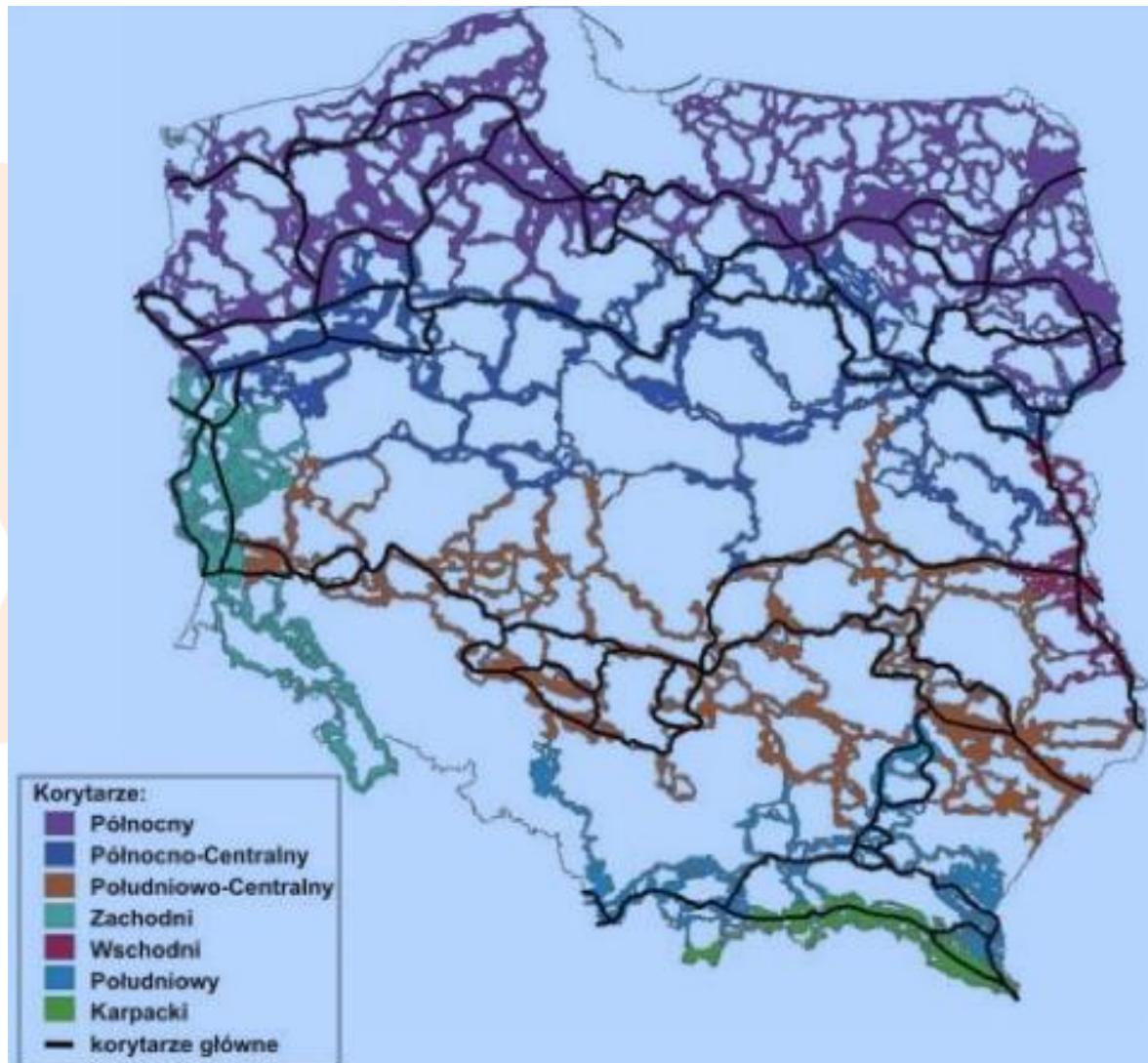
YES

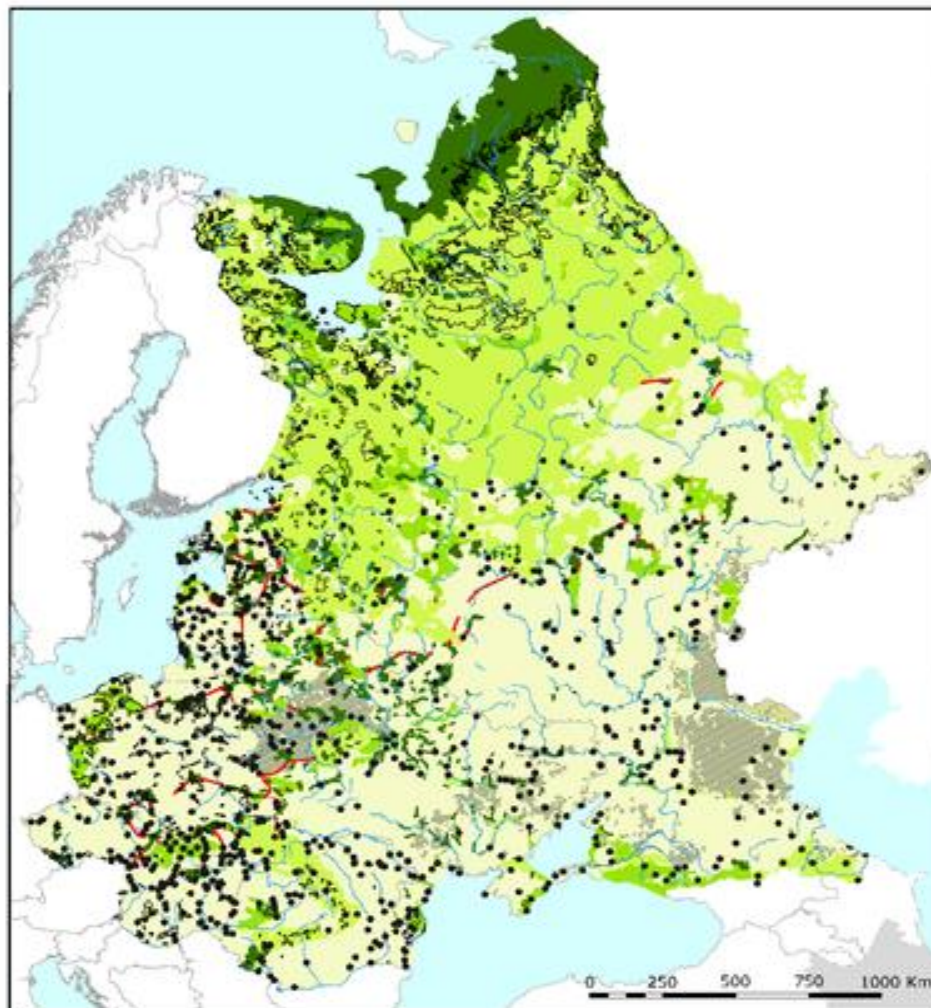
- 1) It is possible to see the infection after several months
- 2) It is a reasonable wild boar management unit
- 3) According to the average wild boar densities it is possible to sample with appropriate intensities
- 4) **It is a correct "ASF in wild boar" management unit**

Wild boar fertility according to age classes and weight










Artificial corridors





Pan-European Ecological Network for central and eastern Europe

-  Very large area: 5 times or larger than the critical size for the most demanding species
-  Large area: 1-5 times the critical size. Enlargement or connection by corridors desirable
-  Suboptimal size. Enlargement and/or connection to other areas highly desirable
-  Major parts are cultivated
-  Internationally designated or acknowledged areas/sites
-  Corridor for forest habitat
-  Outside report coverage



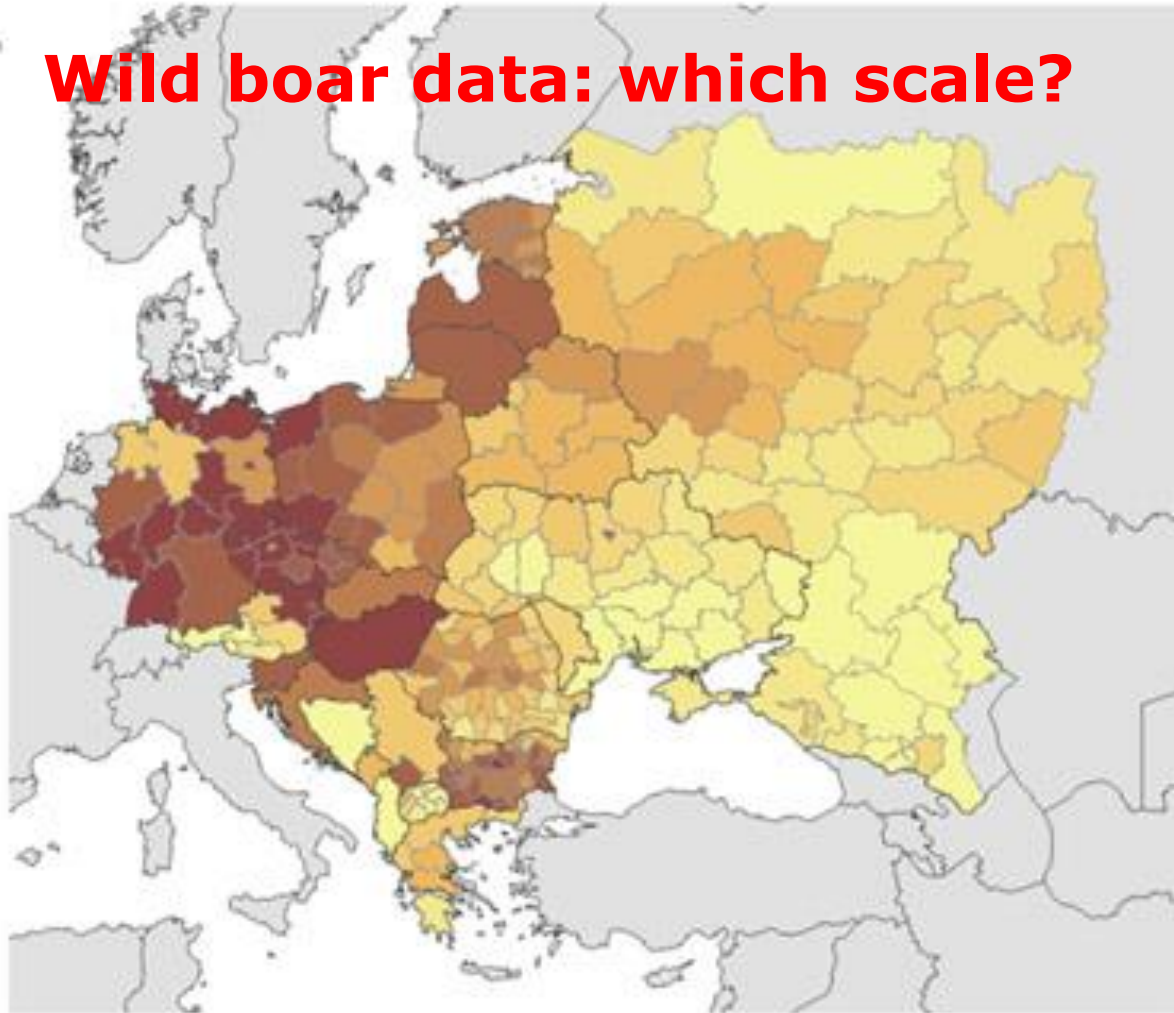
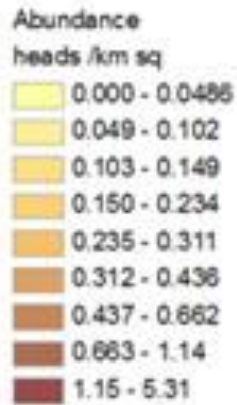
Which geographical scale?

Country, region, municipality or hunting ground?

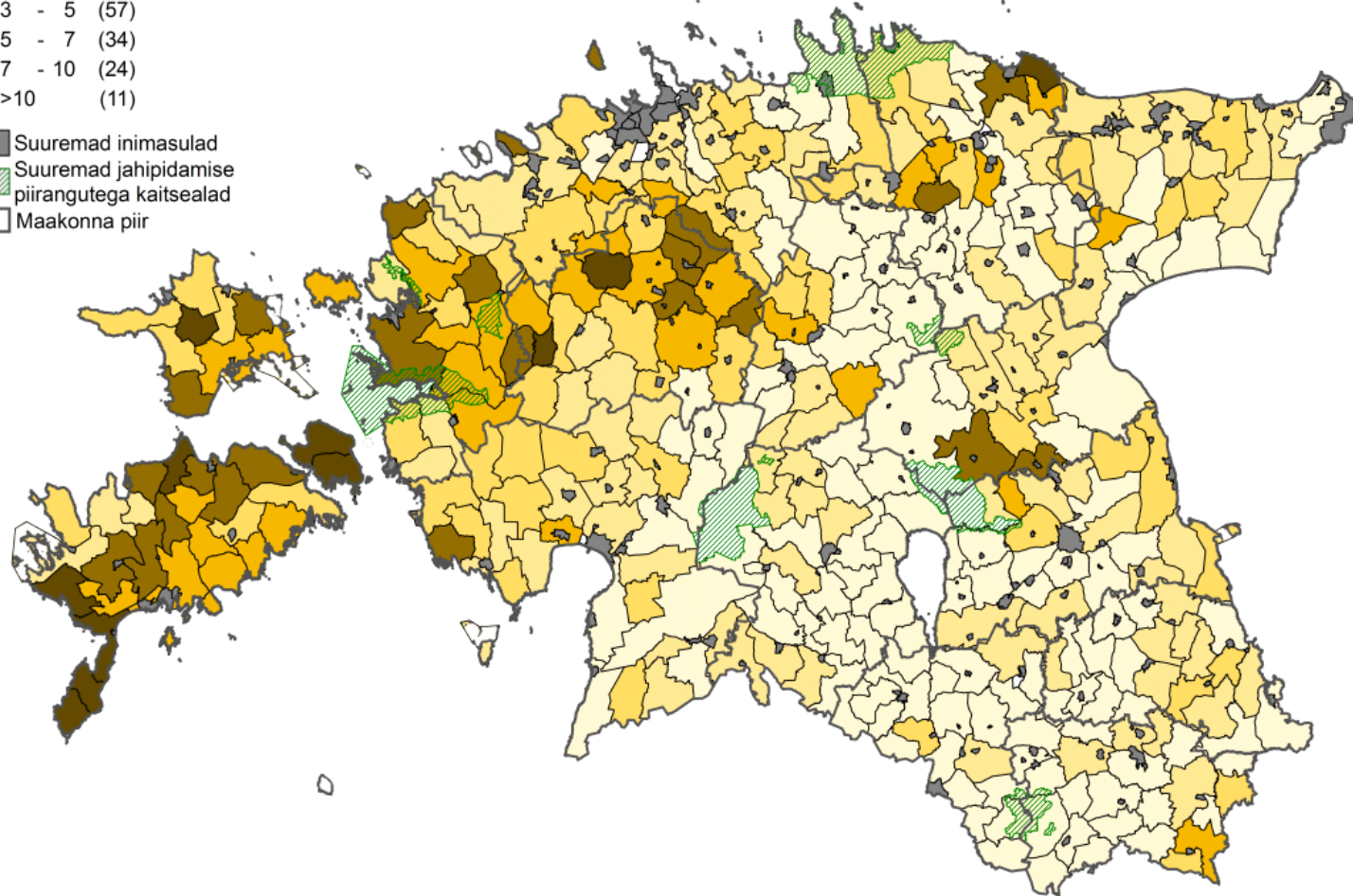
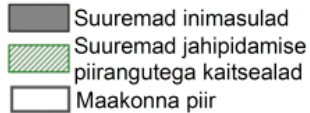
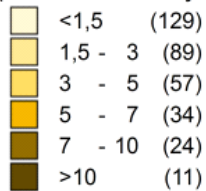


Wild boar data: which scale?

0 250 500 1,000 km

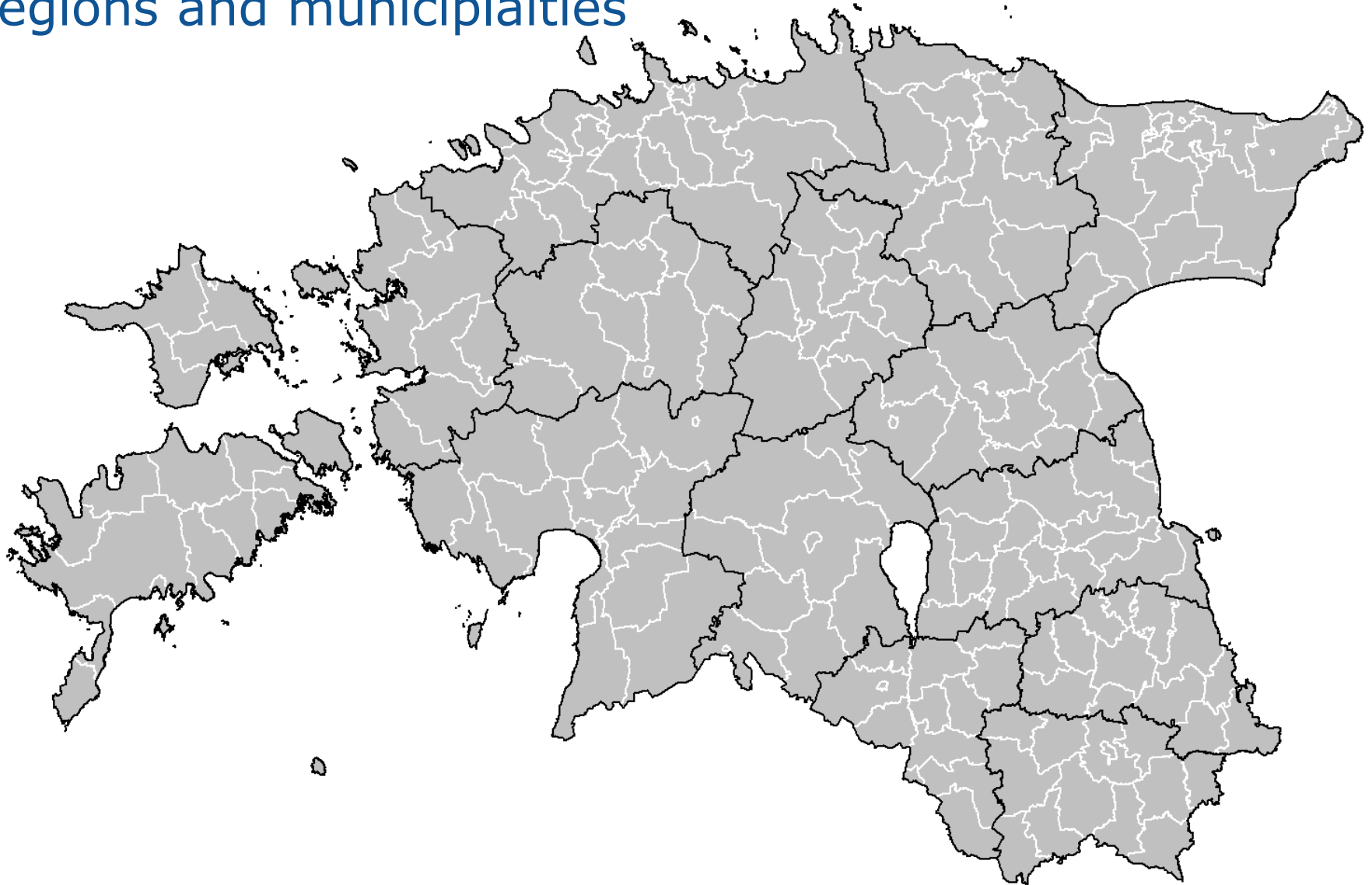


Metssea asustustihedus jahipiirkonniti
(isendit 1000 ha jahimaa kohta)



Density of wild boars (individuals per 1000 ha of hunting ground) in hunting districts by hunters estimations (census) in spring 2016.

Regions and municipalities

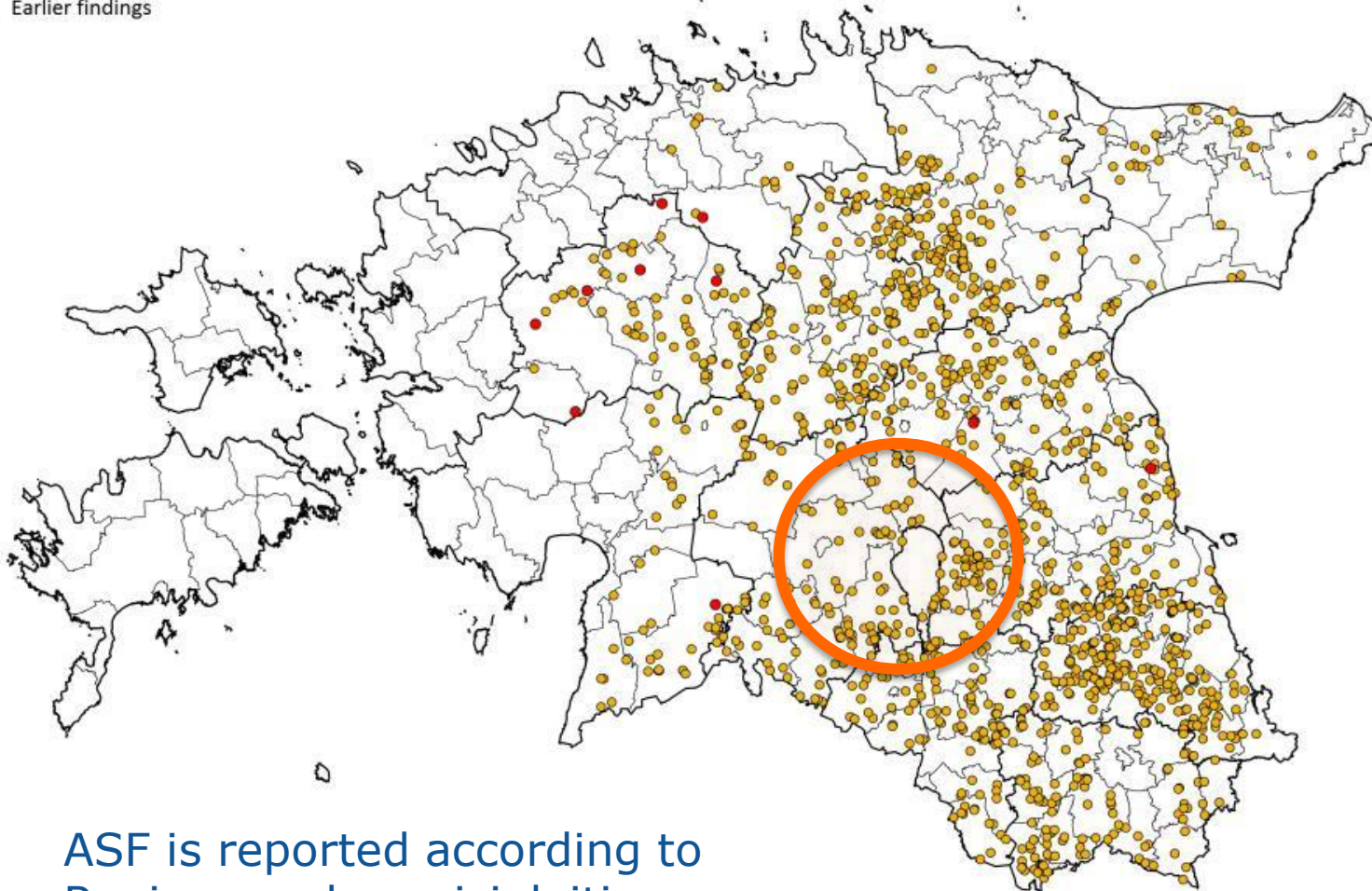




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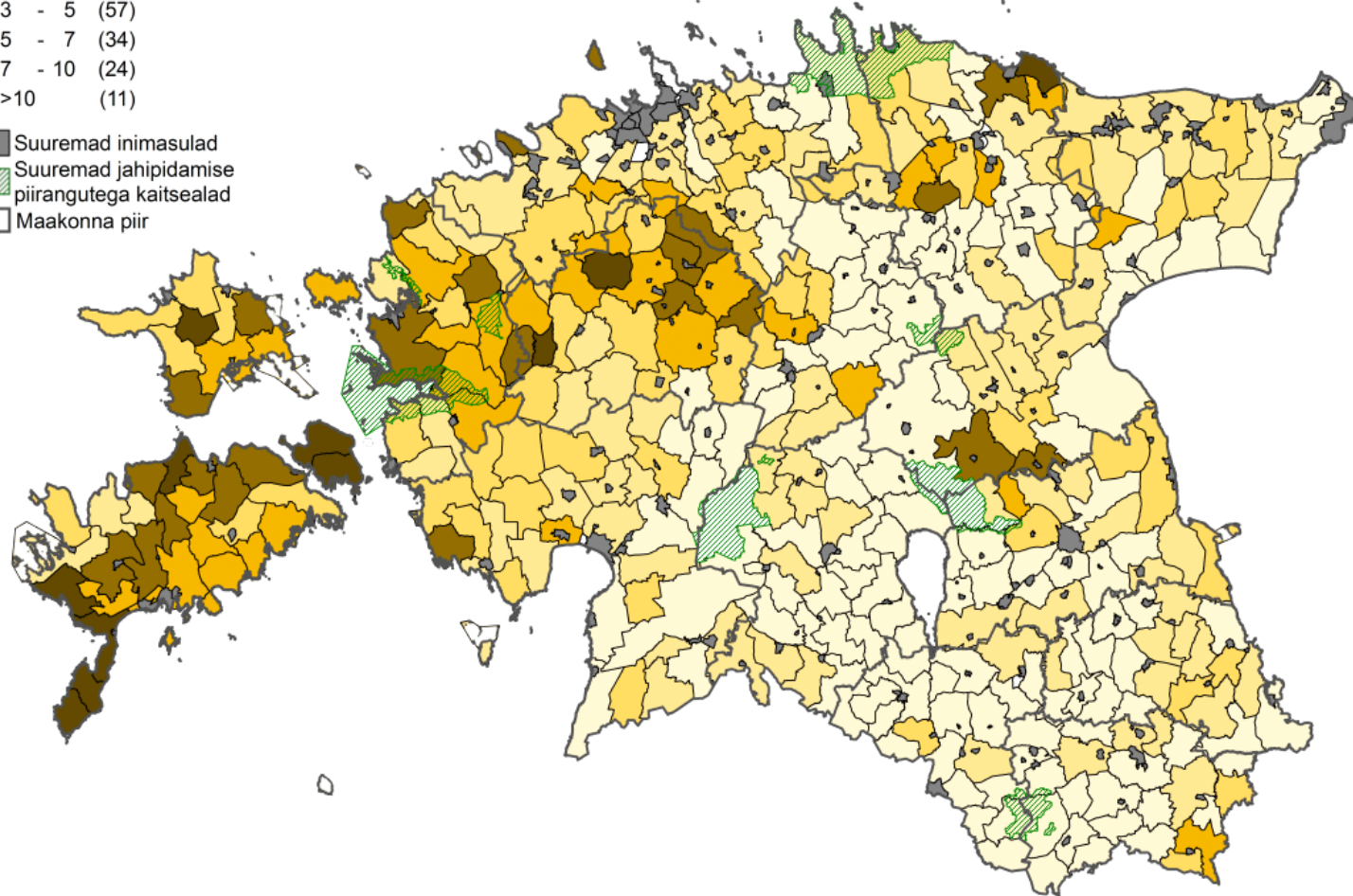
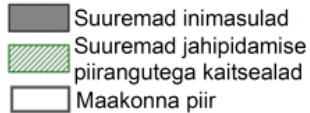
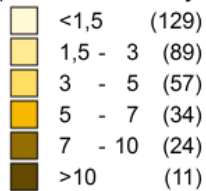
ASF in wild boars

- 13. August -19.August 2016
- Earlier findings



ASF is reported according to
Regions and municipalities

Metssea asustustihedus jahipiirkonniti
(isendit 1000 ha jahimaa kohta)



Density of wild boars (individuals per 1000 ha of hunting ground) in hunting districts by hunters estimations (census) in spring 2016.

Actions foreseen in wild boar infected areas: **hunting ground** is always the management unit

Hunting regulations

Define hunting bag and timing of hunt

Hunting methodologies (driven hunts, targeted hunting etc.)

Wild boar artificial feeding

Biosecurity to be applied during hunting and related activities

Sampling and testing shot wild boars

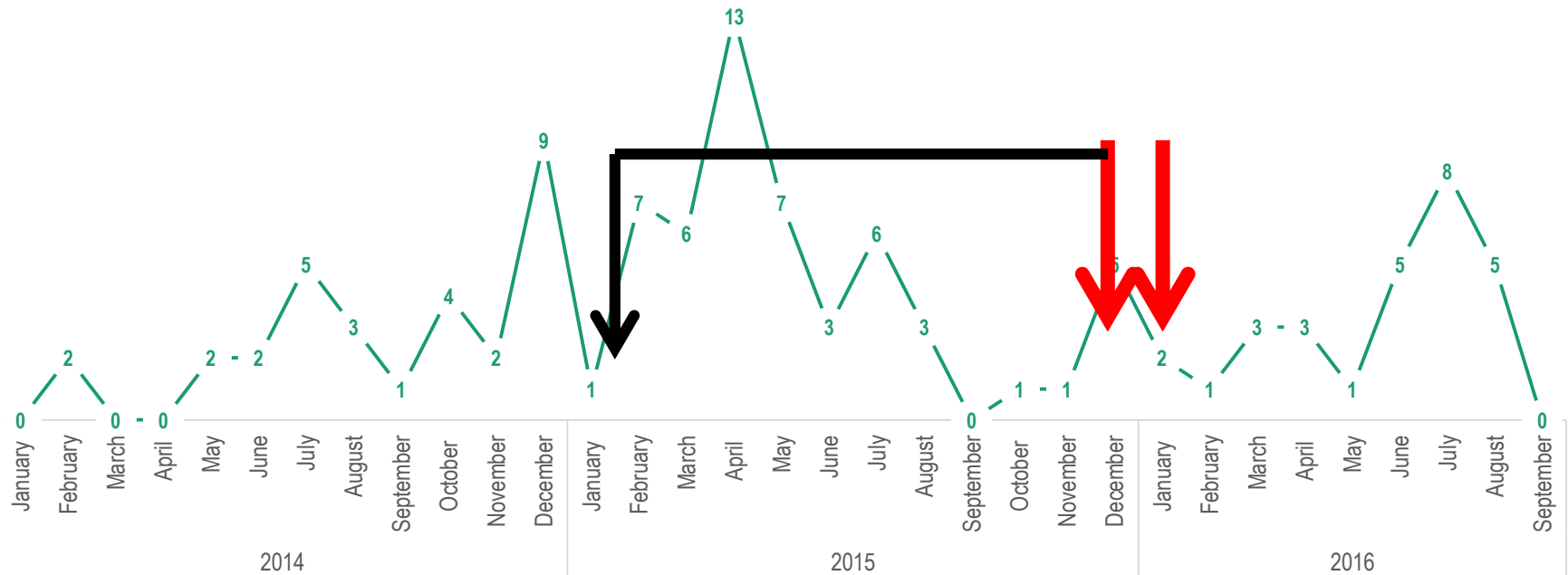
Safe disposal of infected carcasses and hunted animals

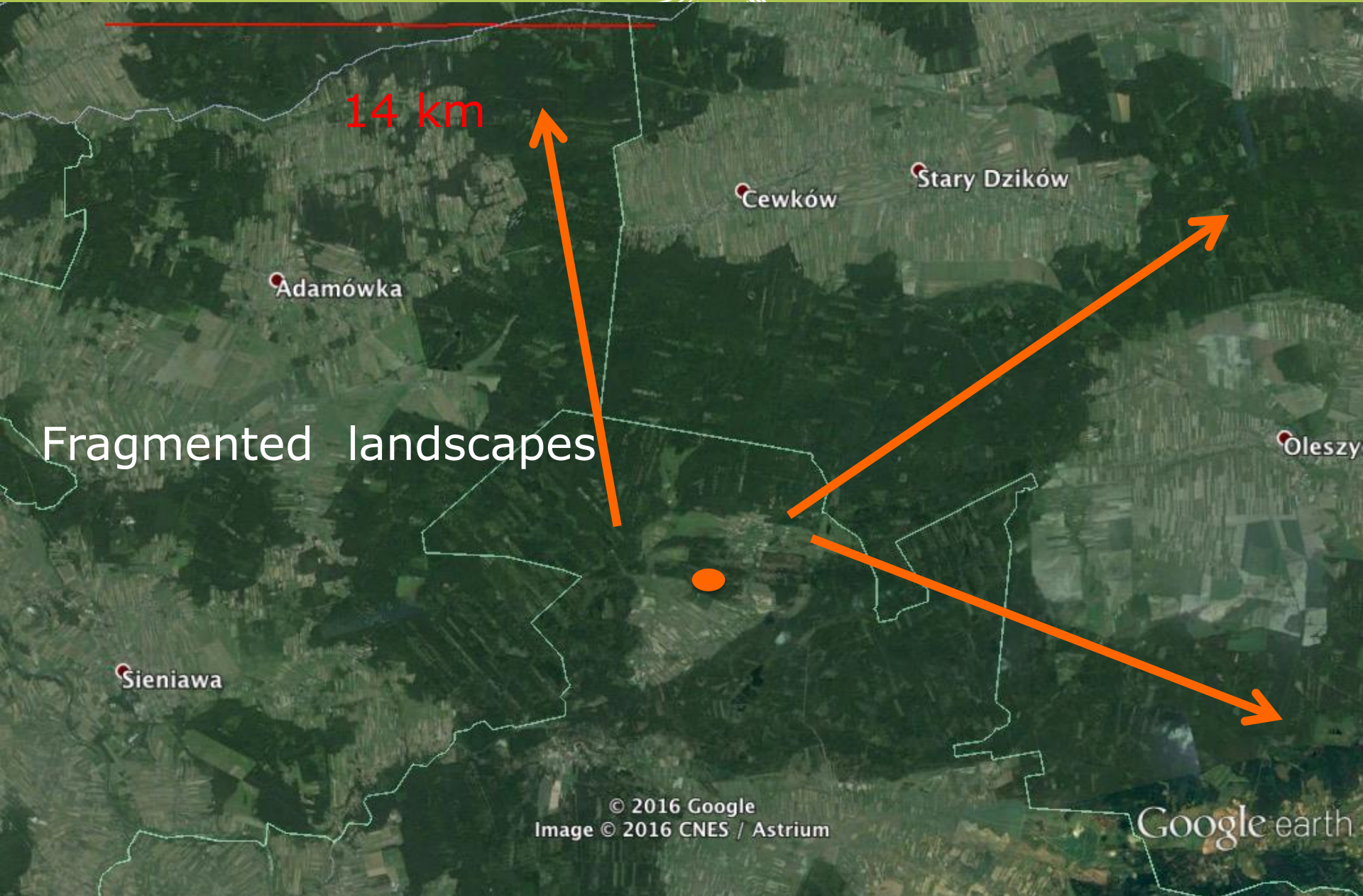


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ASF reporting: wild boar biology

NO. OF CASES OF ASF IN WILD BOAR IN POLAND (2014-2016)





Fragmented landscapes

14 km

Adamówka

Sieniawa

Cewków

Stary Dzików

Oleszy

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Google earth

Take at home message

Eradication/control of ASF in wild boar is aimed in protecting domestic pigs

Wild boar infected area will last 24 months after the last virus detection

Small infected areas: will not ensure a good protection of the domestic pigs (ASF in wild boars not correctly managed)

Large infected areas: will affect the domestic pig sector due to restrictions

The infected area

large enough for a proper management of the infected wild boar management

Borders defined by wild boar management units (hunting grounds)

Data reported according to the wild boar biology and not (only) according to the calendar year

Thanks for the attention





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