



# W.I.L.D.

## The Wildlife Information System of Germany

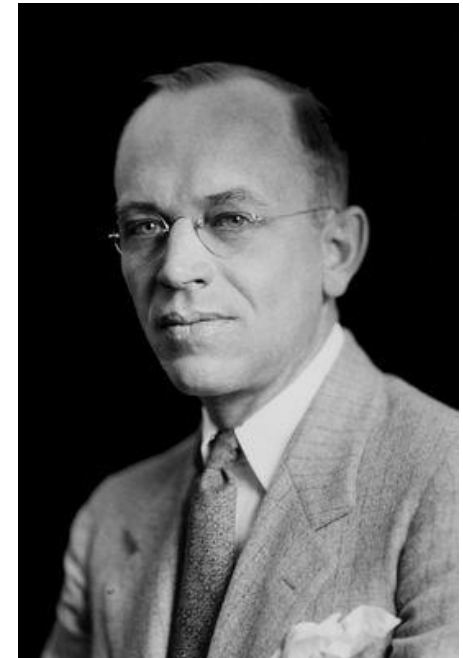
A hunters' initiative  
for biodiversity and sustainable use





"**M**easuring the response of game populations to changes-deliberate or accidental-in their environment is the big purpose. Continuous census is the yardstick of success or failure in conservation."

*Aldo Leopold, 1933. Game management.*



Picture: [www.aldoleopold.org](http://www.aldoleopold.org)



## Wildlife monitoring is an integral part of wildlife management

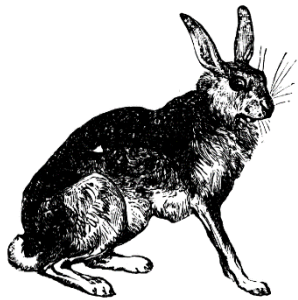
*... but we are still lacking data on*

- abundance
- spatio-temporal distribution
  - gender distribution
  - age patterns
  - health status
  - etc.

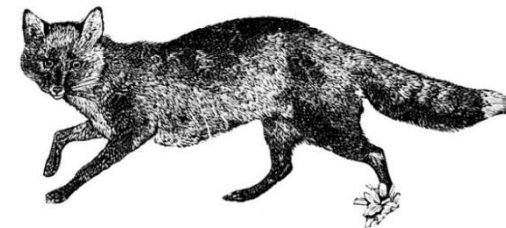
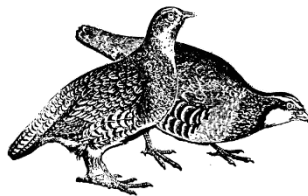
# Game species



... especially on animals that are not listed in the Habitat Directive (Council Directive 92/43/EEC), e.g. game species such as



- Brown hare (*Lepus europaeus*)
  - Partridge (*Perdix perdix*)
- Pheasant (*Phasianus colchicus*)
  - Red fox (*Vulpes vulpes*)
- European badger (*Meles meles*)
- etc.

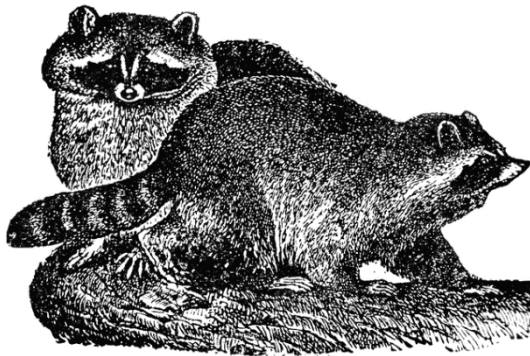


# Invasive alien species



*... as well as invasive alien species, such as*

- Raccoon (*Procyon lotor*)
- Raccoon dog (*Nyctereutes procyonoides*)
- American Mink (*Mustela vison*)
- etc.





In 2001, the German Hunting Association and its' federal hunting associations established the Wildlife Information System of Germany (W.I.L.D.)

## Aims of the long-term project

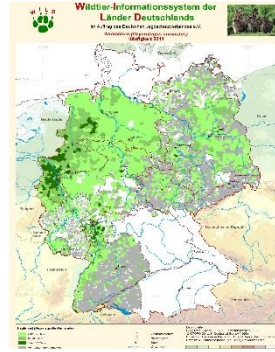
- Comprehensive recording of selected species of wildlife
  - Using scientific methods
  - For future representative data sets
- For protection and sustainable use of wildlife species
  - For political argumentations

# Elements of W.I.L.D.



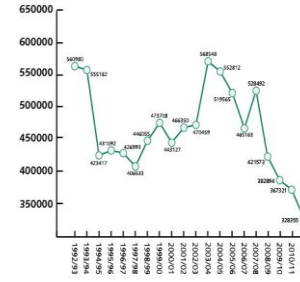
## Reference areas

- Wildlife counts
- Surveying and mapping



## Area assessment

- Wildlife estimates
- Presence/absence
- Additional data (e.g. health status)



## Hunting bag statistics

- Hunting bag statistics



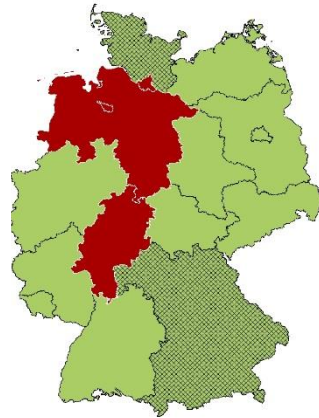
# The staff



Johanna Maria Arnold  
German Hunting Association (DJV)  
FACE General Assembly, Brussels, 13.09.2013



# Structure of W.I.L.D.



University of  
Veterinary  
Medicine  
Hannover  
(TiHo)



German  
Hunting  
Association  
(DJV)

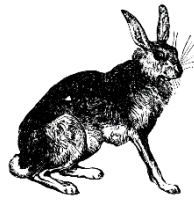


Eberswalde  
forestry state  
center of  
excellence  
(LFE)

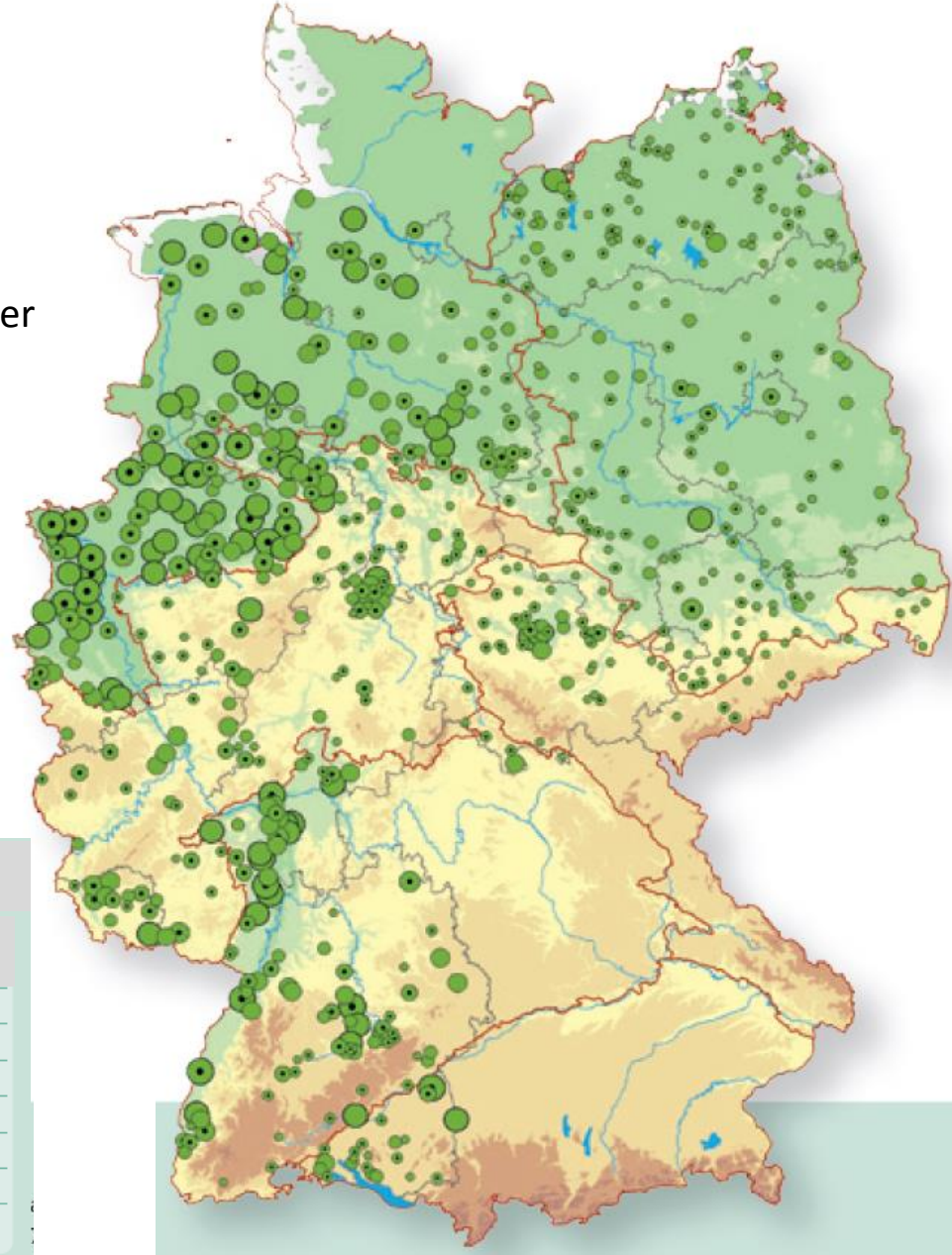
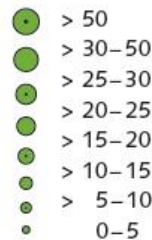
# Some results

**2011:** about 400 RA

- Western federal states: 9,8 – 31, individuals/km<sup>2</sup>
- Eastern federal states: 2,7 – 7,0 individuals/km<sup>2</sup>



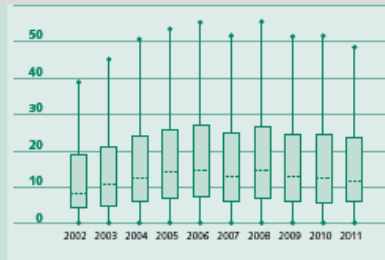
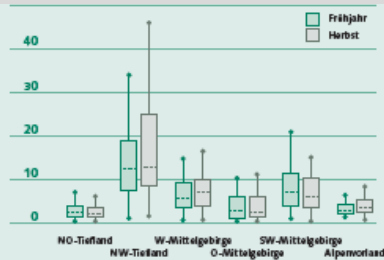
Individuals per  
km<sup>2</sup>



Geographic region

Development in RA

Population density per 100ha taxation area



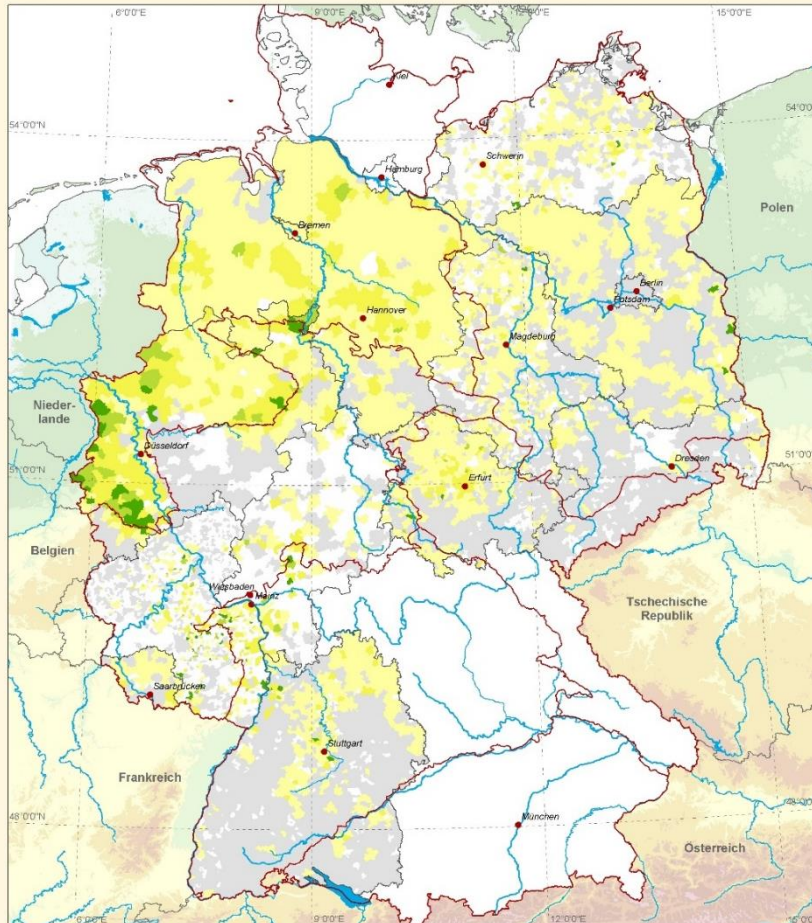
# Some results



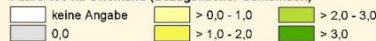
## Wildtier-Informationssystem der Länder Deutschlands

im Auftrag des Deutschen Jagdschutz-Verbandes e. V.

**Rebhuhn (*Perdix perdix*)**  
**Paardichte in Deutschland, Frühjahr 2011**



Paare/100 ha Offenland (Bezugsfläche: Gemeinden)



Datenquellen:  
ESRI Data & Maps (2000, 2008) & Gemeindegrenzen (2008)  
& GTOPO30, U.S. Geological Survey (1998)  
Projektion:  
Transverse Mercator, Ellipsoid Bessel, Datum Potsdam  
Entwurf: M. Barlet-Steinbach (Mai 2012), Universität Trier

**2011:** about 27 000 hunting districts (AA)

Present in 16 % of districts  
Number of breeding pairs in total: 40 902

- 0,33 breeding pairs/ km<sup>2</sup> (mean)
- Almost 0,0 breeding pairs/ km<sup>2</sup> (median)
- Declines almost all over the country





# Some results

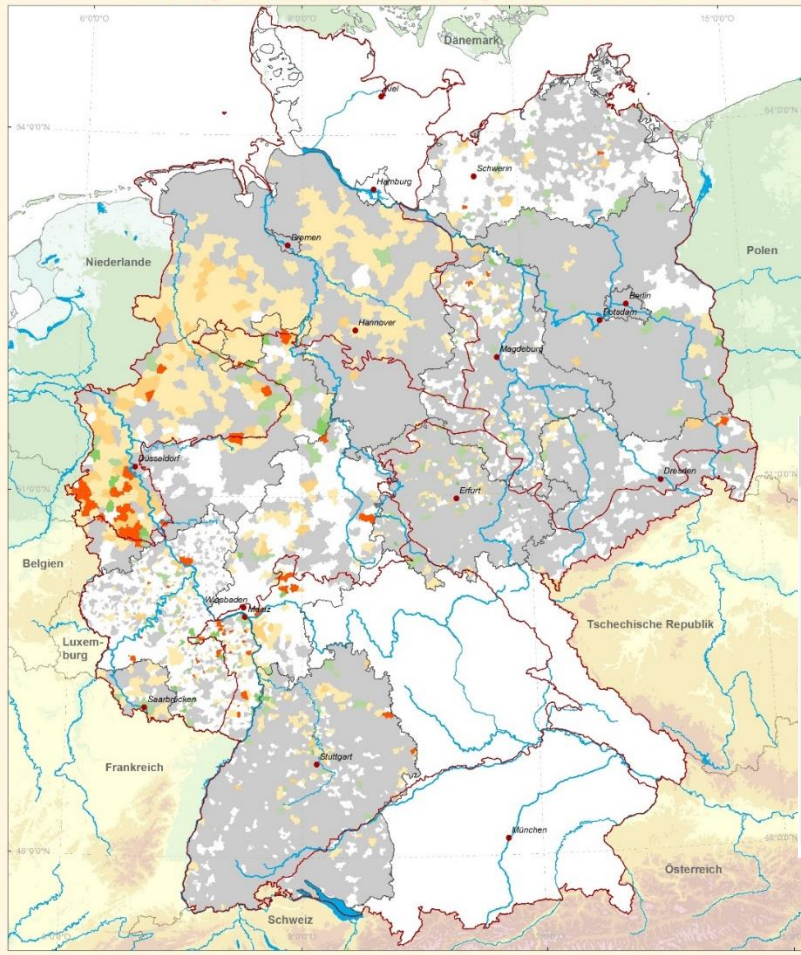


## Wildtier-Informationssystem der Länder Deutschlands

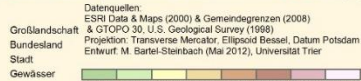
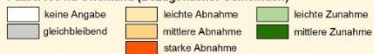
im Auftrag des Deutschen Jagdschutzverbandes e.V.



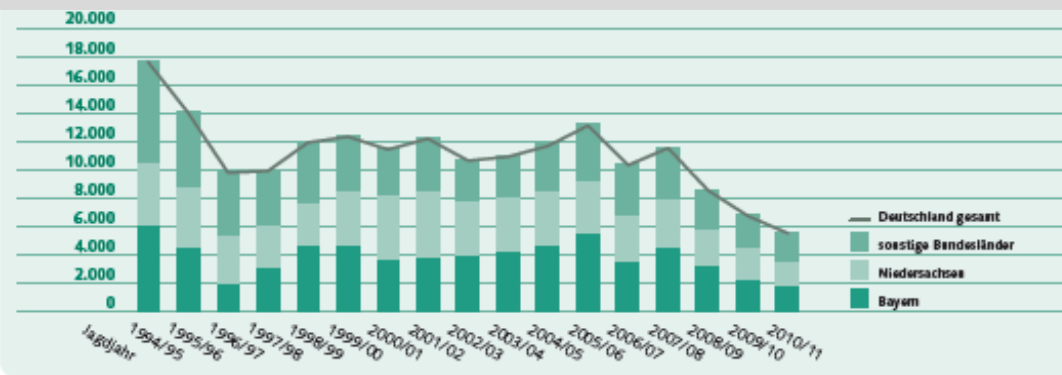
**Rebhuhn (*Perdix perdix*)**  
Entwicklung der Paardichte in Deutschland, Frühjahr 2006 bzw. 2009 zu 2011



Paare/100 ha Offenland (Bezugsfläche: Gemeinden)



## Partridge hunting bags



# Some results



## Wildtier-Informationssystem der Länder Deutschlands

im Auftrag des Deutschen Jagdschutz-Verbandes e. V.

**Fuchs (*Vulpes vulpes*) - 2007**



Großlandschaft  
Bundesland  
Gewässer

Datenquellen:  
ESRI Data & Maps (2000) & Gemeindegrenzen (2001)  
& GTOPO30, U.S. Geological Survey (1998)

Projektion:  
Transverse Mercator, Ellipsoid Bessel, Datum Potsdam

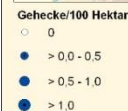
Entwurf: B. Heyen (April 2008), Universität Trier



## Wildtier-Informationssystem der Länder Deutschlands

im Auftrag des Deutschen Jagdschutz-Verbandes e. V.

**Dachs (*Meles meles*) - 2007**



Großlandschaft  
Bundesland  
Gewässer

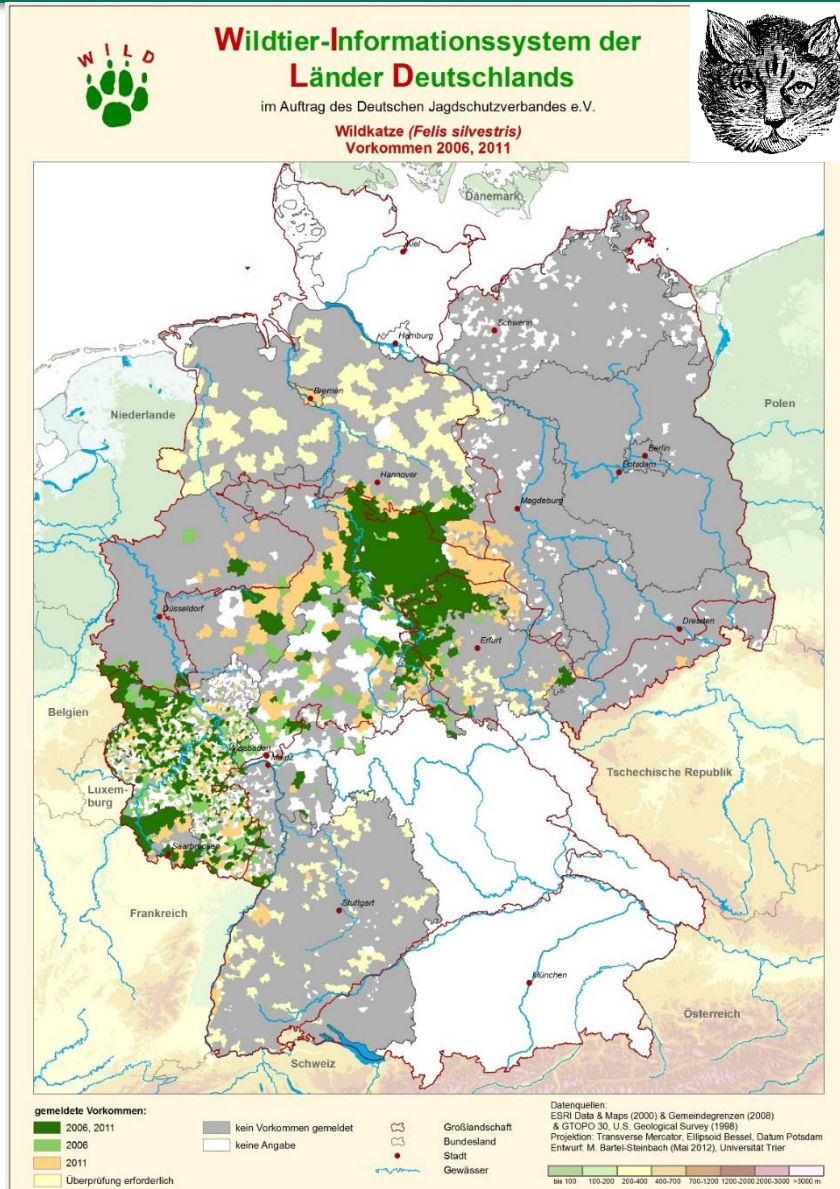
Datenquellen:  
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& GTOPO30, U.S. Geological Survey (1998)

Projektion:  
Transverse Mercator, Ellipsoid Bessel, Datum Potsdam

Entwurf: B. Heyen (April 2008), Universität Trier



# Some results



**2011:** about 27 000 hunting districts (AA)

Present in 10 % of districts

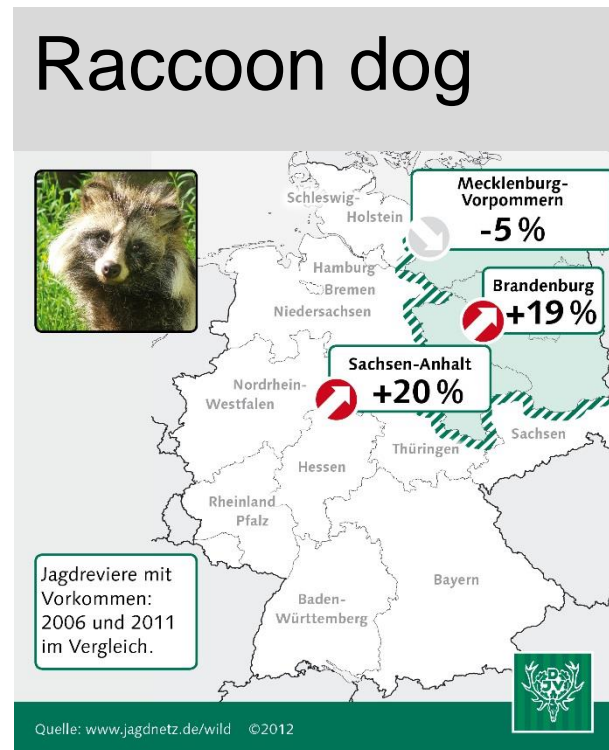
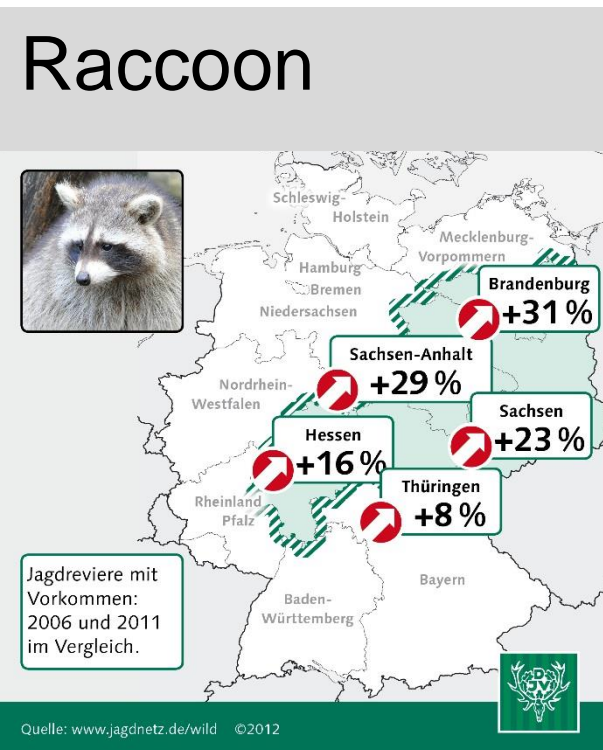
Estimates of the AA are evaluated before publishing

Population spreading

Tool to identify possible wildlife corridors



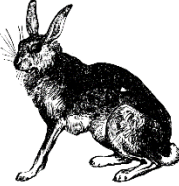
# Some results



**2011:** about 30 000 hunting districts (AA)

Invasive alien species spreading out in Germany

## The image shows two logos side-by-side. On the left is the 'Wild' logo, featuring the word 'WILD' in red, stylized, blocky capital letters above a large, black, stylized paw print. On the right is the 'WJV' logo, which features the call letters 'WJV' in a bold, black, serif font, superimposed on a white background that includes a stylized antler design.



Positive effects of arable land, negative impacts of grasslands on brown hare numbers (Ossen 2011)



## W.I.L.D. provides essential data

- allows the annual estimation of relative densities (partridge), absolute densities (hare) and productivity (average den size: fox, badger), etc.
  - long-term data sets

→ Powerful conservation and environmental management system  
→ Powerful monitoring tool



## W.I.L.D. provides essential data

### **for science**

W.I.L.D. is one module of long-term biomonitoring programmes, in combination with other long-term data, a deeper understanding of our ecosystem and impacts of anthropogenic activities can be gained (climate change)

### **for governmental authorities and NGOs**

Birds Directive, Habitats Directive, Convention on Migratory Species, African-Eurasian Waterbird Agreement, German National Strategy for Biodiversity



## W.I.L.D. provides essential data

### for hunting

Sustainable and responsible use of game animals

Arguments pro or contra hunting (e.g. partridge)

Political communication and lobbying





## W.I.L.D. – hunters' contribution to society

- Provide data for society at zero cost by German Hunting Association and its federal hunting associations and committed hunters
- hundreds of voluntary hours of hunters





## W.I.L.D.- a good example for cooperation

- hunters and scientists, wildlife managers
- powerful combination for modern wildlife management



# Thank you for your attention!



More information:  
[www.jagdverband.de/wild](http://www.jagdverband.de/wild)

[j.arnold@jagdverband.de](mailto:j.arnold@jagdverband.de)

