





## What is WILD?

The Wildtier-Informationssystem der Länder Deutschlands (WILD) is a nation-wide monitoring programme which collects data on the sightings, frequency and populations of wild animals. WILD is a project of the Deutschen Jagdschutz-Verband (German Hunting Association, in short DJV) and its regional hunting associations, and, since 2001 has been a permanent part of the ecological environment study. The most important goal is to develop strategies for conservation and sustainable use of wild animals.

Data collection in WILD is based on wild animal numbers in selected areas, the so-called reference areas, as well as on population estimates in as many of Germany's hunting grounds as possible. District owners support the project on a voluntary basis, thereby significantly contributing to the conservation of wildlife.

Additional data on brown hare, red fox, badger, carrion crow and partridge, as well as on factors which could affect their population density, is collected in the reference areas (e.g. landscape structure, land use and climate). In 2006, data on sightings and, in some cases, frequency of 24 other species was also collected nation-wide for the first time (area assessment, AA). Over 30,000 game tenants took part, corresponding to some 50% of districts nation-wide.

The results of the annual data collections are published in detail in the WILD annual reports ([www.jagdnetz.de](http://www.jagdnetz.de)); this brochure gives a summarised overview of the 2006 results.

## Brown hare

Since autumn 2001, brown hare populations are recorded in spring and autumn every year in the reference areas through spotlight censuses.

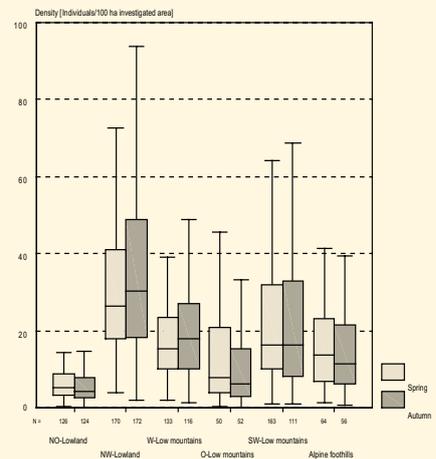
Data from 706 reference areas (spring)/631 areas (autumn) from 15 states were incorporated in the calculation of brown hare populations in 2006. The calculations of net growth rates are based on 583 reference areas which took part in both the spring and autumn counts. The developments of the 2002-2006 spring populations are shown through three assessments each using a different data basis.

The mean spring populations of brown hares fluctuated between 12 and 38 hares/100 ha in the western German states, and between 2 and 7 hares/100 ha in the eastern German states. The mean autumn populations varied between 10 and 53 (western Germany) or once again between 2 and 7 hares/100 ha (eastern Germany). The spreads range from below one to almost 145 hares/100 ha (spring) or 168 hares/100 ha (autumn).

The average net growth rates for brown hare populations in Germany were around 3% in 2006, with the summer growths since 2003 (20%) continuing to drop. The highest mean net growth rates were recorded in Lower Saxony, North Rhine-Westphalia, Hamburg and Bremen.



- Geographical regions of Germany:
- 1 - Northwest German Lowlands
  - 2 - Northeast German Lowlands
  - 3 - West German Low Mountain Range
  - 4 - East German Low Mountain Range
  - 5 - Southwest German Low Mountain Range
  - 6 - Alpine Foothills



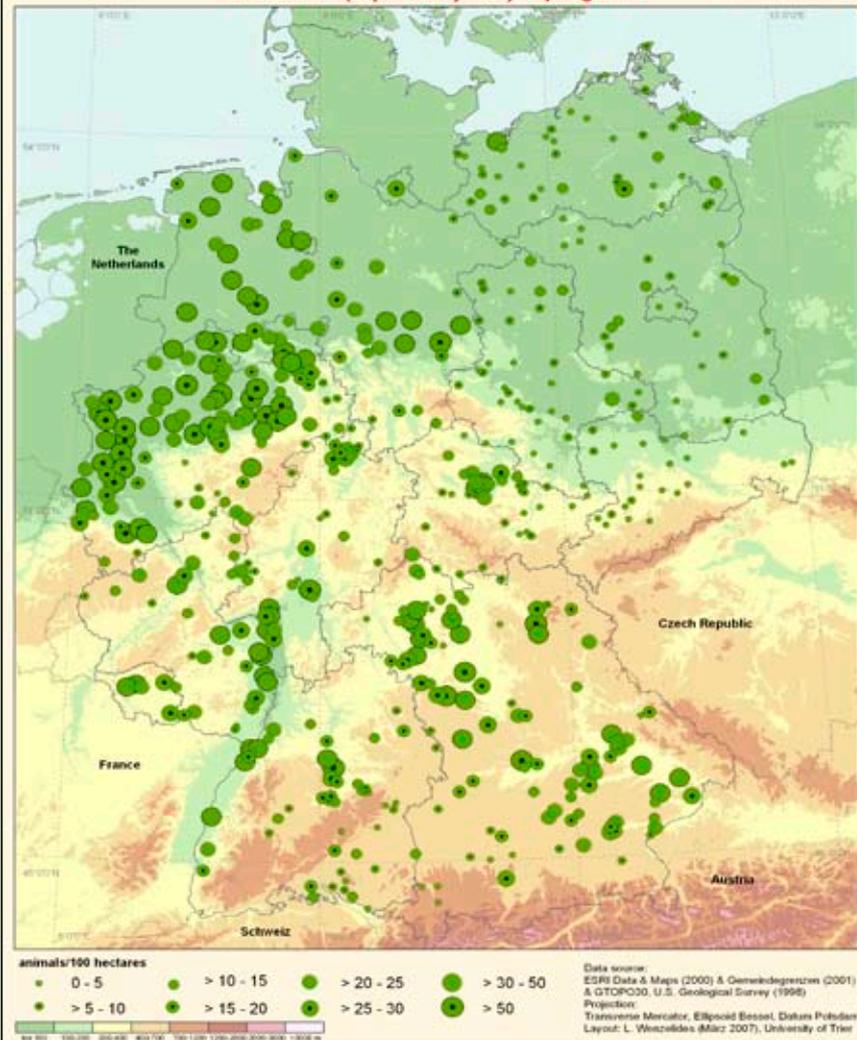
Comparison of spring and fall brown hare population densities between the geographical regions of Germany in 2006



## Wildtier-Informationssystem der Länder Deutschlands

on behalf of the German Hunting Association (DJV)

Brown Hare (*Lepus europaeus*) - Spring 2006



Spring population densities of the brown hare in the reference areas in Germany in 2006

The spring density of brown hares in Germany increased from 10 to 15 hares/100 ha between 2002 and 2006 based on all participating reference areas. Taking into account the addition or withdrawal of assessment areas, it must be assumed that this population growth of 5 hares/100 ha overestimates the actual situation. This is because, when analysing the population development in the 243 areas which continuously conducted spring censuses from 2002 to 2006, a rise in population densities was also recorded, which turned out to be much more moderate. The overall increase in hare density is therefore more likely to be around 30%. The assessment of population growth in the areas which had conducted censuses in two consecutive springs showed a similarly positive trend.

The increase in the brown hare population between 2002 and 2006 is essentially a result of the high net growth rate of 2003 ("the summer of the century"), which was clearly above the values for the other years.



Brown Hare  
(*Lepus europaeus*)

The brown hare originally inhabited the steppe, but has adapted very well to the contemporary cultivated landscape. It is found in almost all parts of Germany, mainly in wide open spaces, but also in forests.

The brown hare is clearly larger and thinner than the rabbit and has longer ears, which have a black tip. Its fur is yellow-brown with a reddish tinge. The brown hare's diet is purely vegetarian and very varied, depending on the choice. In low population densities, it lives individually or in pairs, and for higher densities, there is a tendency to form groups. There is a lot of social contact between the group members and, in early spring, larger gatherings, which are distinguished by the fierce courtship fights (so called mating time). No dens are dug, but rather, superficial hollows (seats) are used for protection. Gestation time is 42 days, and 2 or 3 leverets are born 3 to 4 times over the summer. Weather conditions, natural enemies and illnesses mean up to 80% of leverets often do not survive. After about 4 weeks, the leverets are independent, and are sexually mature at 6-8 months.

The brown hare comes under the hunting right and is only hunted on one day in November/December in most field districts during hunting season.



Red Fox  
(*Vulpes vulpes*)

The red fox is the most common and most widespread game species in Germany. It inhabits both field and forest districts and can adapt excellently to settled areas. In regions with lower densities, adult foxes live largely as loners outside mating season. In higher densities, it lives in hierarchically structured family groups comprising a male, a vixen and 1-4 other vixens (the daughters of the dominant vixen). During the day, it remains hidden in the forest, bushes, thick groves or grain fields. Self-dug dens are generally structured very simply; mother dens are somewhat more complex. Badgers' burrows are eagerly taken over and often co-inhabited. The fox's diet is very diverse, with its main prey being mice. Mating season is in January and February, and gestation time is 50-58 days. 4-8 pups are normally born, which remain at and in the den for 1 ½ to 2 months, and become sexually mature at around 10 months. The red foxes is subjected to the hunting right. In most German states, the older foxes, at the least, have a close season.

## Red Fox

2006 saw the fourth nation-wide uniform data collection on fox population densities, where data from 344 hunting districts (almost 266 200 ha) was assessed. With a mean value of almost 0.3 litters/100 ha across all hunting districts, the litter density achieved the lowest value nation-wide since the start of data collection in WILD. The mean spring population derived from the litter density was 0.7 foxes/100 ha, and the mean minimum summer density 1.9 foxes/100 ha. The average litter size for 2006 was 4.2 pups/litter - below that of the previous year. Differences were observed between the individual regional landscapes, with clearly higher litter sizes in the lowlands of north-western Germany.

For the first time, den location data was assessed in conjunction with the forms of land use existing in the hunting district. According to this, the recorded hunting district areas were divided into 13% forest, 86% agricultural and 1% other areas. The dens are often (38%) found disproportionately in the forest.



Den densities of the red fox in the reference areas in 2006

# Badger

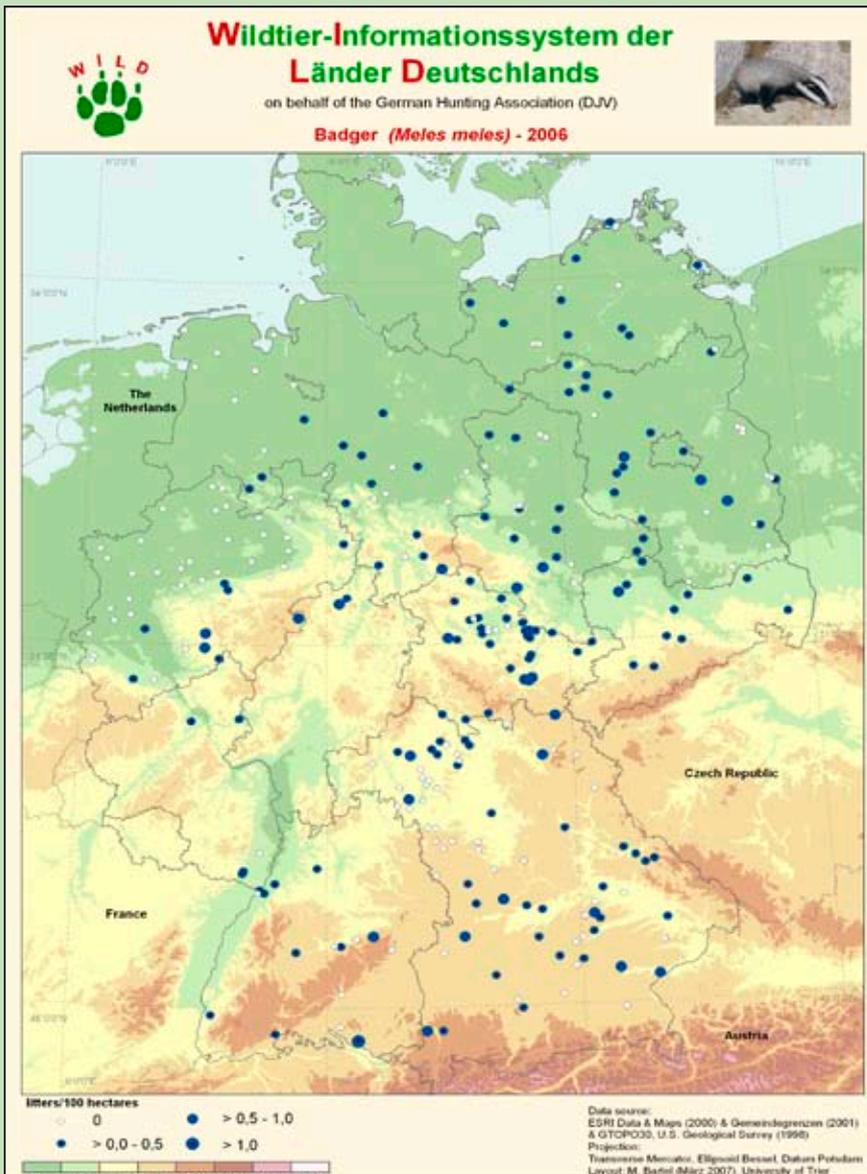
Data on badger sightings in Germany was collected as part of the area assessment. According to this, 75% of hunting districts had badger sightings. The den and litter mapping for badgers took place parallel to the red fox data collection. The litter densities recorded between 2003 and 2006 remained almost unchanged with 0.07 litters/100 ha in 2006. Based on the den and litter mapping, a minimum spring density of 0.2 badgers/100 ha was recorded across all hunting districts. Assuming a litter size of 3 pups/litter, this results in a minimum summer density of 0.4 badgers/100 ha.

The badger den location was also assessed for the first time in conjunction with the natural environment. The land usage of the hunting districts taken into account in the assessment is broken down as follows: 16% forest, 83% agricultural areas, 1% other areas. Conversely, a total of 57% of dens were located in the forest. Just 3% of dens were located in pure open space, demonstrating the significant connection to forests and well-covered structures.



**Badger**  
*(Meles meles)*

The badger belongs to the marten family and is easy to spot with its striking colouring. It is predominantly active at twilight and night, and lives rather socially in family groups. Up to 3 families live together in one den, which is very deep with many branches and is constantly expanded. Badgers are omnivores and their main diet consists of numerous small animals. The proportion of plant consumption is higher than for other game. Vixens in their second year of life have their mating season between April and June, while for older vixens this is mainly in February and March. However, mating is possible throughout almost the entire year. A variably long dormancy means the young are born in February/March. The breeding time stretches into June and at the age of around 1 ½ years, the badgers are sexually mature. The badger is also subject to the hunting right, with a hunting season from August to October.



Den densities of the badger in the reference areas in 2006



## Carrion Crow

The carrion crow populations were mapped over approximately 276,000 ha in 336 hunting districts of 8 German states. They provide a representation of the actual population situation and development of carrion and hooded crows through the pair densities, made up of breeding pair as well as district pair densities.

The pair densities in the German states in spring 2006 fluctuated on average between 0.3 and 2.2 pairs/100 ha and came to 1.1 pairs/100 ha nation-wide. High population densities of more than three pairs/100 ha were recorded in 15% of the participating hunting districts, while no reproducing Carrion Crow pairs could be observed in 12% of the hunting districts.

The pair densities remained stable at a federal level, as well as at regional landscape level, compared to previous years (2003-2005), taking into account all the participating hunting districts in the respective years. No significant changes were observed.



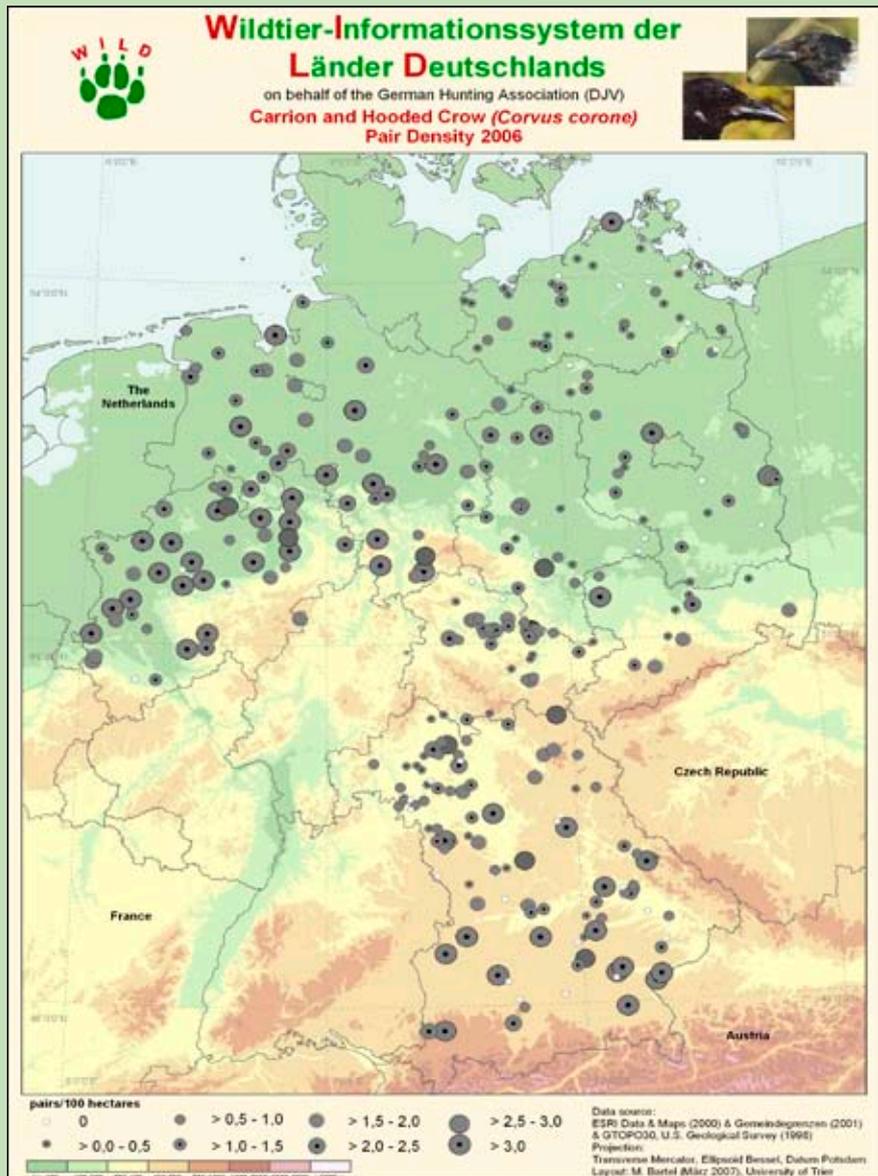
Carrion Crow  
(*Corvus corone corone*)

The carrion crow (*Corvus corone*) is found in Germany in two sub-species – the hooded crow (*C. c. cornix*) in the east and the carrion crow (*C. c. corone*) in the west. The sub-species intermix in an overlapping zone along the Elbe. The carrion crow is totally black but clearly smaller than the common raven, and is distinguished from the rook by the completely black beak. The hooded crow is distinctly recognised with its grey back and lower body.

Trees and bushes are used as nesting and sleeping places. In winter, the birds can be seen in large flocks, made up of territorial breeding pairs and errant "bachelor flocks". The breeding districts are defended by the pairs; young are sometimes tolerated in the vicinity for several years and help to defend, even during breeding.

The carrion crow is an omnivore, whose diet includes clutches of bird eggs. Mating season is in March/April, breeding time lasts around 3 weeks, followed by approximately 4 weeks of nestling time. Around 4-6 eggs hatch. Sexual maturity is reached at 2 years, but the first offspring normally occur in the third year of life.

Neither sub-species come under the federal hunting law, however they have been subject to the hunting right in some German states.



Pair densities of hooded and carrion crow in the reference areas in 2006

# Partridge

The partridge can be found as a breeding bird in all German states except Berlin. As part of the 2006 area assessment, the partridge population densities in the 27,000 participating hunting districts (7,800 municipalities) were estimated at approx. 70,000 pairs. The records are based on 9,935,000 ha of open space area, which corresponds to around 52% of the total open spaces of the participating German states. Because of the high proportion of open spaces not included and the missing data from two German states, it must be assumed that the actual partridge pair numbers in Germany are even much higher.

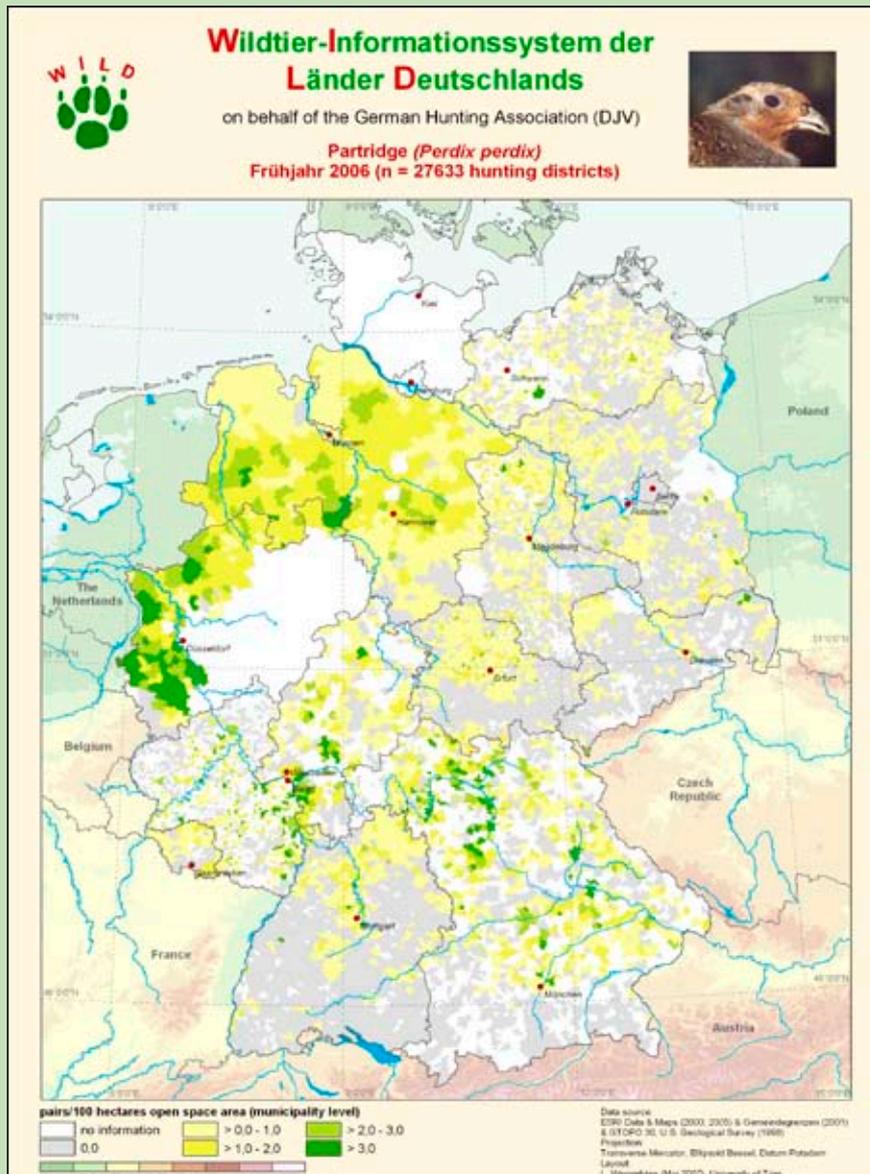
The sightings were concentrated in the south-western Lower Saxony and the western North Rhine-Westphalia. Pair densities differ greatly in the individual states and fluctuated on average between none and 1 pair/100 ha in spring 2006.

In Lower Saxony, North Rhine-Westphalia and Thuringia, the population densities have remained essentially stable at a low level over the last five years. A slight decline in population densities is indicated in Saarland.



Partridge  
*(Perdix perdix)*

The name “partridge” comes from the echoic mimicking of the species’ call, but it can also refer to vineyards (vines<sup>1</sup>) - its preferred habitat. As a bird of the steppe, the partridge mostly settles in open spaces, particularly habitats used agriculturally. The species prefers areas with less than 500 mm annual rainfall and an average yearly temperature above 8°C. Unlike other fowl, partridges mate for life. The hens mate in March/April. During this time, the cocks call intensively, which can be used for the population density assessment. The nest scrape, preferably found in high grass vegetation but also in grain fields or field bushes, is padded before 12 to 20 eggs are laid within a time frame of 20 to 25 days. The chicks hatch after about 24 days and leave the nest immediately. Successful breeding is highly dependent on the weather. Growth is very low in cold, wet summers, as the chicks are, on the one hand, sensitive to cold and dampness and, on the other, can only find very few insects, which are the main food source necessary for development. Both the hens and the cock lead the family groups, also called chains. Other older birds with no young of their own also occasionally join the chains. In winter, the chains often join together to form winter populations which disperse again in February/March. Because of the low population densities, the partridge plays no or just a very subordinate role in terms of hunting in almost all German states.



Pair densities of the partridge in the participating hunting districts (municipality level), spring 2006

<sup>1</sup> Apparent in the German terms: “Rebhuhn” for partridge and “Reben” for vines.



## European Rabbit

As part of the 2006 area assessment, 34% of the participating hunting districts recorded rabbit sightings, but the majority only with very low population densities (<10 animals). However, around 5% of the hunting districts recorded higher rabbit population densities with more than 100 individuals. These hunting areas were concentrated in the north-western lowlands, which are considered the rabbit's main area of prevalence.

The population density development of the last two years was stable in 45% of the hunting districts, 22% even assume increased densities. In 33% of the hunting districts, however, slight to significant declines in population were recorded, generally in the mountainous regions of northern German and northern Hesse, as well as the upper Rhine lowlands and the Thuringia Basin.

Myxomatosis and the Chinese epidemic (RHD) were confirmed by veterinarians or by clear disease symptoms in 14% and 9% of the hunting districts respectively. Regional sighting concentration points are in the north-western German lowlands and upper Rhine, as well as the Rhine-Main lowlands.

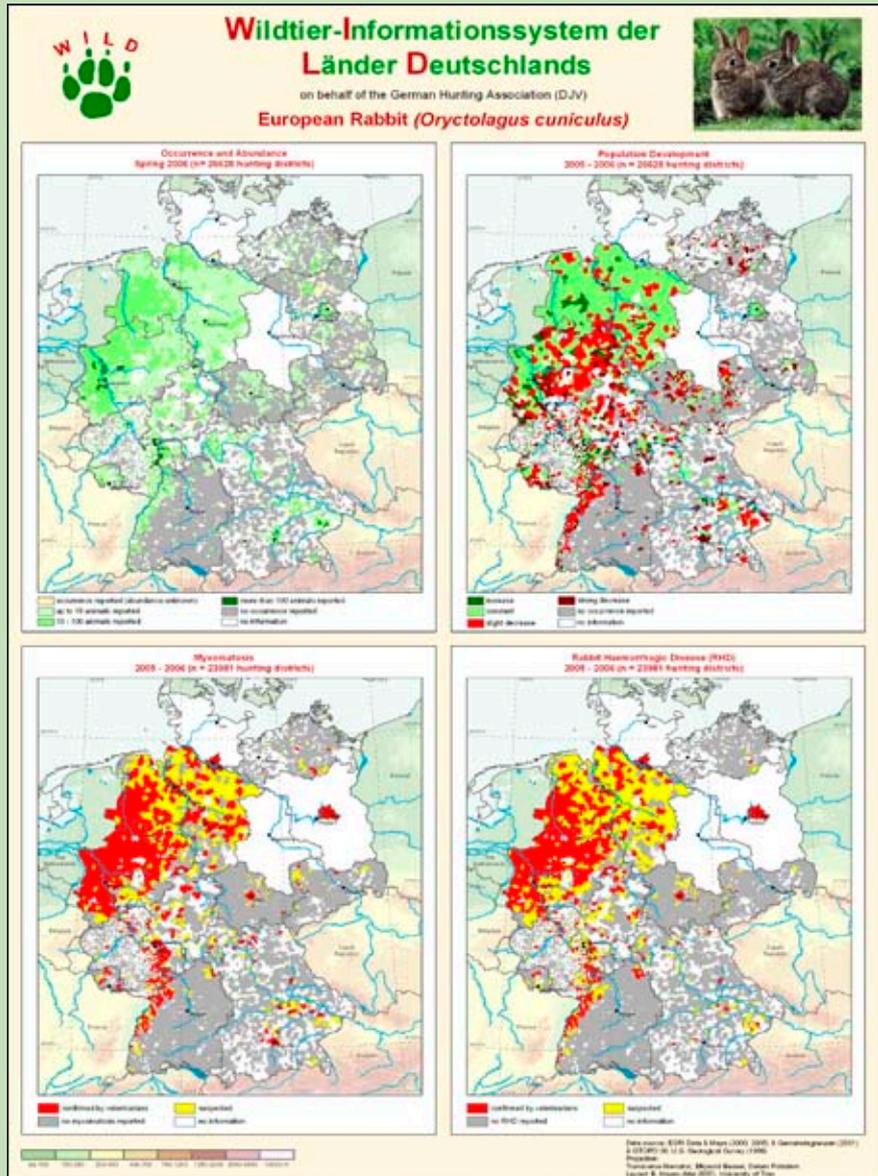


European Rabbit  
(*Oryctolagus cuniculus*)

The European rabbit originally inhabited vast areas of Europe (even what is present day Germany), but was repressed to the Iberian Peninsula and North Africa in the last Ice Age. Man only re-dispersed it across Northern and Central Europe as a popular source of meat from Roman times until the Middle Ages. Populations in Germany date back to suspensions/outbreaks from enclosures in the 12th century. It was not until the 18th century that significant population increases and corresponding damage caused by game animals was observed. To contain the damages, rabbits in France and Switzerland were infected with myxomatosis in 1952, which spread very rapidly. At the end of the 1980s, Rabbit Haemorrhagic Disease (RHD, Chinese epidemic) came along. Both diseases led to considerable slumps in populations as a result.

The social animal needs a mild climate, as well as soil which enables warrens to be dug, however it avoids closed forests and large fields. Its diet is purely plant-based and not very specialised.

Mating season begins in February and continues until August/September. After a 30 day gestation time, the doe puts 5-10 naked, blind young into a fur-lined nest 3 to 5 times a year. The young are independent after some 4 weeks and sexually mature after approximately six months. The European Rabbit is subject to the hunting right, with various hunting seasons in the German states.



Abundance of the European rabbit, population development and occurrence of myxomatosis and RHD in the municipalities of Germany 2005/2006

## Common Raven

According to WILD's records, the common raven is today found prevalently in eastern Germany. The main boundary for the most frequent sightings currently runs from the mouth of the Weser in Lower Saxony to the Weser highland and the Teutoburger forest. The southern border stretches from approximately the Rothaar Mountains, over the Rhone to the Thuringia Forest. The main sightings in north-eastern Germany are connected to populations in the Bavarian forest, the Alps and in the southern state of Baden-Württemberg through populations in the low mountain ranges in Hesse and northern Bavaria. Furthermore, exchanges are possible with Dutch and Belgian areas of prevalence through corridors in the Munsterland and the Eifel.

A comparison between the areas of prevalence declared in 1980 and the sightings documented in WILD for 2006 show spread speeds between 2 and 7 kilometers a year. The common raven quickly conquered the low mountain regions of Thuringia and northern Hesse, while the less-forested regions west of the Lüneburg Heath were only settled very reluctantly. In the coming years, a rapid development of the densely forested northern state of Rhineland-Palatinate is therefore to be expected. In contrast, a slower area expansion in the sparsely forested north-western Germany must be assumed.



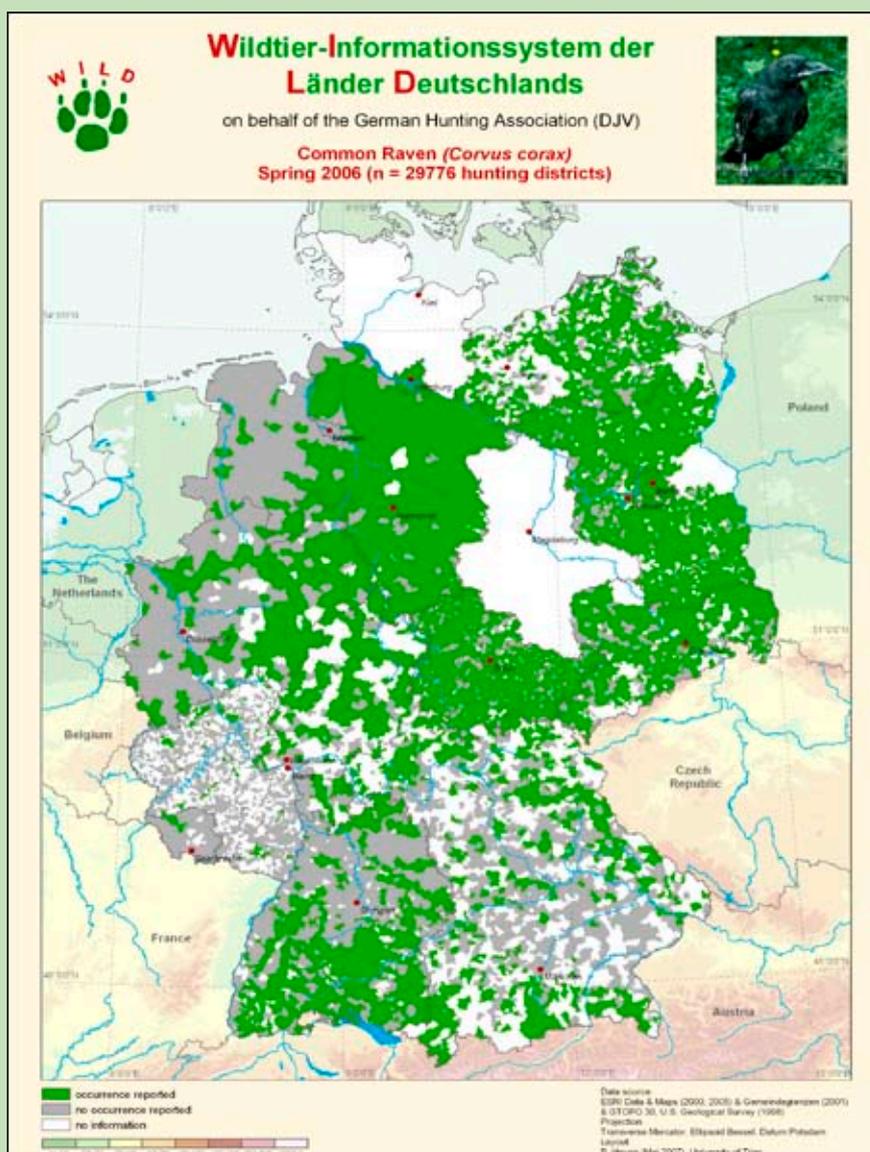
Common Raven  
*(Corvus corax)*

The common raven is our largest native songbird. The species can easily be distinguished from the similar looking carrion crow through its size and wedge-shaped tail feathers. It is an omnivore and catches insects, mice and wild young, but also feeds on carrion, scraps and grains.

A common raven population comprises bachelors and territorial pairs. As bachelors, they initially wander around far and wide in groups and capture uninhabited areas. After 3-4 years, the birds become sexually mature, but only mate in their second year of life within the bachelor covey. Pairs then remain together for the long-term and are very loyal to the district. The birds can be observed engaging in tandem acrobatic flying games during the mating season in winter. In February/March, approximately 4-6 eggs are laid in the nest built in rock-faces or trees. After around 12 days of brooding, the chicks hatch and remain in/at the nest for another 40 days. Family cohesion is more distinctive than with the carrion crow, because it lasts until late autumn.

Ravens can live for up to 40 years and enjoy a high profile, particularly for their role in numerous sayings, fairytales and various religions, which can probably be traced back to their exceptional intelligence and specific behaviour.

The species is subject to the hunting right, but has a close season all the year round.



Occurrence of the common raven in Germany, spring 2006 (municipality level)



Greylag Goose  
(*Anser anser*)

The greylag goose is one of the native species of geese. Between 1850 and 1950, however, populations slumped across Germany and Europe. The subsequent incipient phase of population recovery, supported by numerous (re)settlements and hunting regulations, has lasted until the present day. In the meantime, the population in Europe is estimated at 250,000. Given the population increase, a future area expansion is anticipated. The greylag goose is the direct ancestor of our domestic goose. The species, which can grow to weight 4.5 kg and live for up to 17 years, mainly breeds in England and northern Europe, but in the meantime, has also become more prevalent in Germany. Greylag geese live socially all year round. They mate in the autumn of their second year, but rarely breed before the age of four. Pairs mate for life.

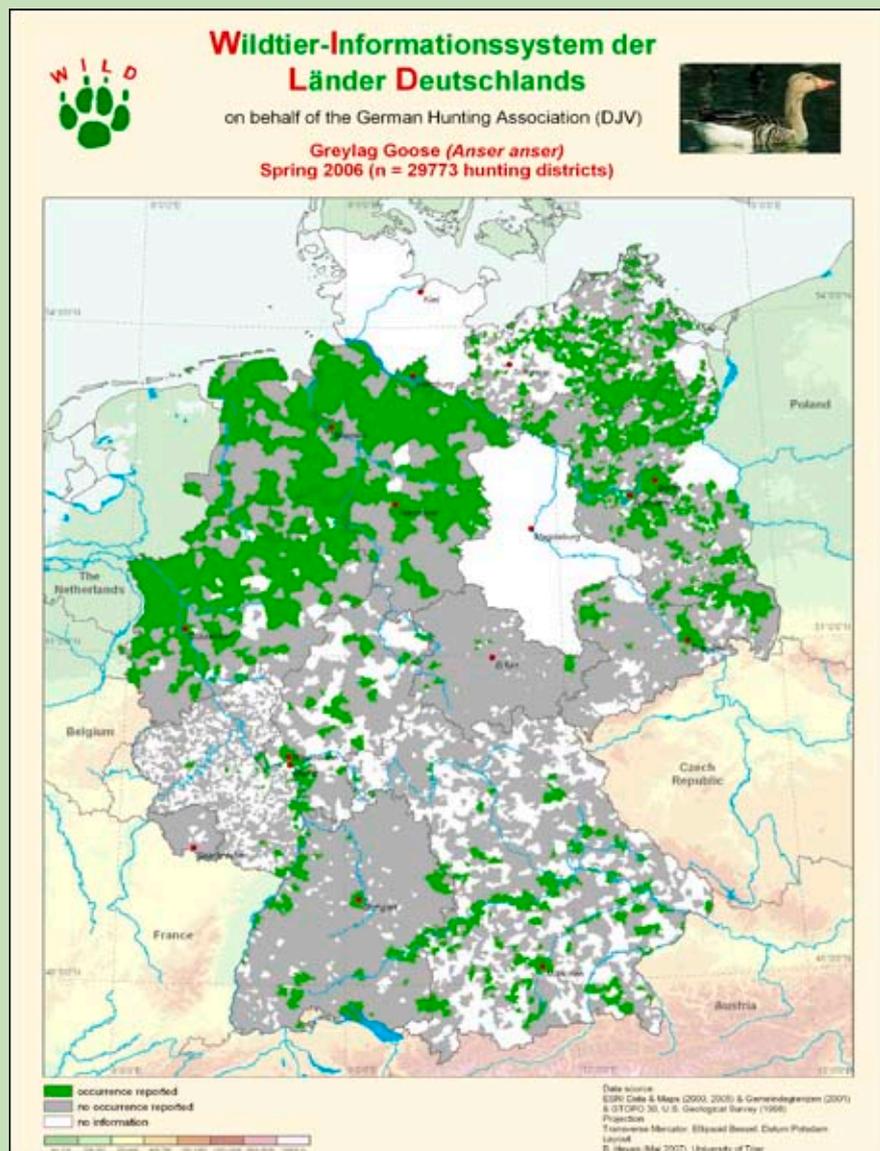
Greylag geese are migratory birds who head south in the autumn in their characteristic V formations. However, many birds no longer migrate to the traditional hibernation areas, as they are able to find enough food here in Germany even in winter. This means the greylag goose is increasingly becoming a sedentary bird and, when in large populations, can cause a lot of damage to agricultural areas.

## Greylag Goose

According to the 2006 area assessment results, the greylag goose is found in approximately 9% of all participating hunting districts as a breeding bird. It is most widely spread in northern Germany, particularly in Mecklenburg-Vorpommern, Brandenburg, North Rhine-Westphalia and Lower Saxony. In these states, it has already inhabited a large section of the suitable bodies of water. In contrast, the grey goose is not currently found as a breeding bird in Saarland, and is not very common in Thuringia.

In the south of Germany, breeding sightings are mainly concentrated on the Rhine and Danube and their tributaries. Furthermore, the greylag goose is also found as a breeding bird in various lakes in southern Germany.

There are many different estimates of the sizes of breeding populations in Germany; depending on the author, between 8,000 and 18,000 breeding pairs have been recorded, and added to this are the not yet sexually mature non-breeders, as well as approximately 60,000 non-migratory birds. The grey goose is subject to the federal hunting law, but is not hunted in all German states: it is protected all year round in Baden-Württemberg, Berlin and Thuringia.



Occurrence of the greylag goose in Germany, spring 2006 (municipality level)

## Canada Goose

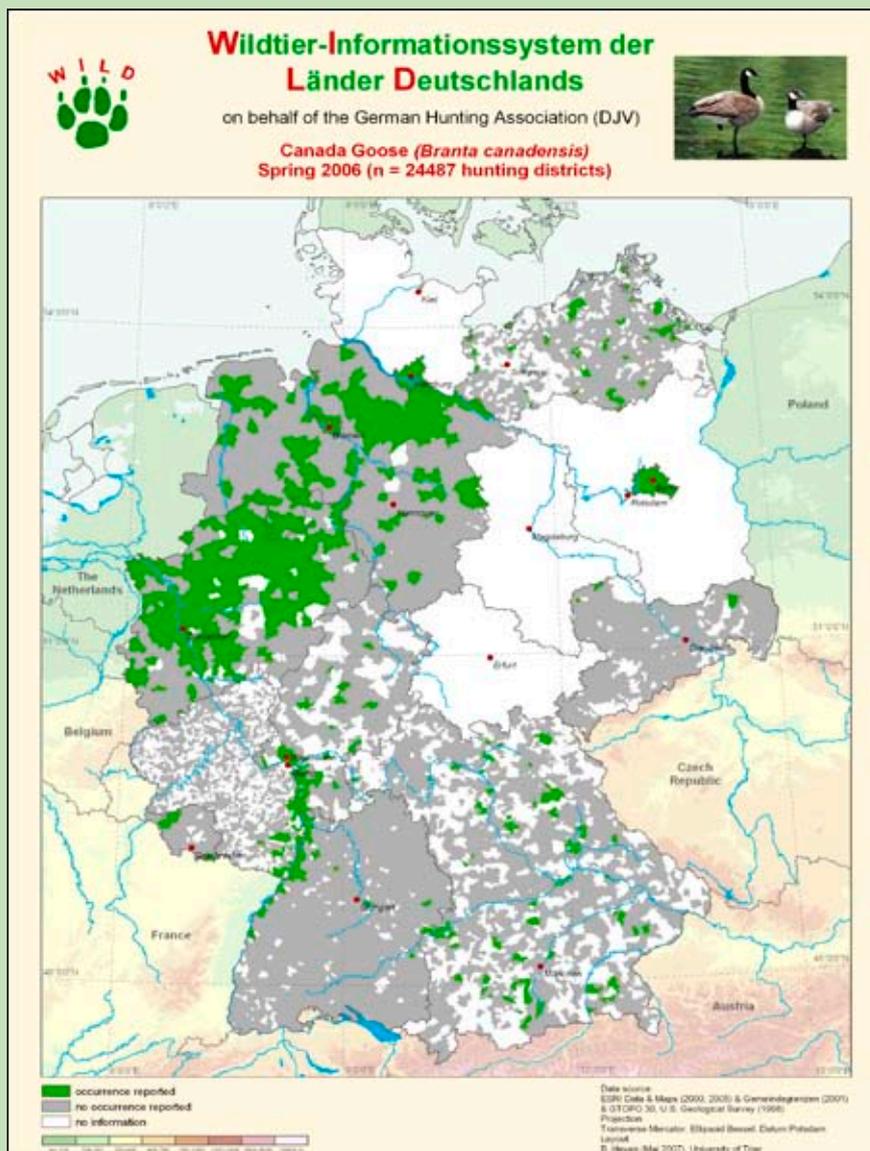
The main sightings of Canada geese are in the north-west German lowlands, particularly North Rhine-Westphalia and Lower Saxony along the Rhine, Elbe, Weser and Ems rivers and their tributaries. Another, clearly smaller, sighting area stretches along the upper Rhine region between Strasbourg and Wiesbaden. Aside from this, numerous isolated evidence has been recorded dispersed across all German states, often resulting in smaller local clusters, e.g. on the Danube near Ulm, on Lake Starnberg or on Lake Chiem. In total, the Canada goose is found as a breeding bird in just under 5% of all participating hunting districts.

The Canada goose is currently spreading within Germany, shown by comparing the 2006 Area assessment results with older dispersion maps. The north-west German lowlands in particular have become clearly more densely inhabited. The numerous observations outside the enclosed areas of prevalence also point to a further spread in sightings.



Canada Goose  
*(Branta canadensis)*

The North American Canada goose has been found in Germany as a breeding bird since the 1970s. The European populations existing nowadays can primarily be traced back to specific settlements and enclosure break-outs in Great Britain, Ireland, Scandinavia and the Netherlands. A population (2004) of 6000 breeding pairs is estimated for Germany. Cities in particular are often home to semi-tame park populations settling more and more in the surrounding area. The size of the winter population is estimated at between 15,000-20,000 animals. The original area of prevalence of the Canada goose is Canada and northern USA. Characteristic features of the Canada goose, which is somewhat heavier than the grey goose, are its black neck and head with white flecks on its jowls. The monogamous geese mate in their first or second year of life, even though the birds are not yet sexually mature at this age. The genus *Branta*, and therefore also the Canada goose, are subject to the federal hunting law. However hunting of them is governed differently in the various German states. It is protected all year round in Baden-Württemberg, Berlin and Thuringia.



Occurrence of the Canada goose in Germany, spring 2006 (municipality level)



## Egyptian Goose



Egyptian Goose  
(*Alopochen aegyptiacus*)

The Egyptian goose was originally found throughout all of Africa and the Balkans, except for extremely dry and vast wooded areas. In the 18th century, however, the European population disappeared. The mid 1960s saw a few examples from two Dutch animal enclosures released, and these quickly multiplied and spread. At the end of the 1990s, the German population was already estimated at 250 to 300 breeding pairs.

Both sexes are similar in their appearance, although the male is somewhat larger (up to 73 cm) and heavier (2.5 kg). The flecks on the eyes and chest, and the contrasting wing pattern (black pinion feathers and white elytrons) are characteristic of this species.

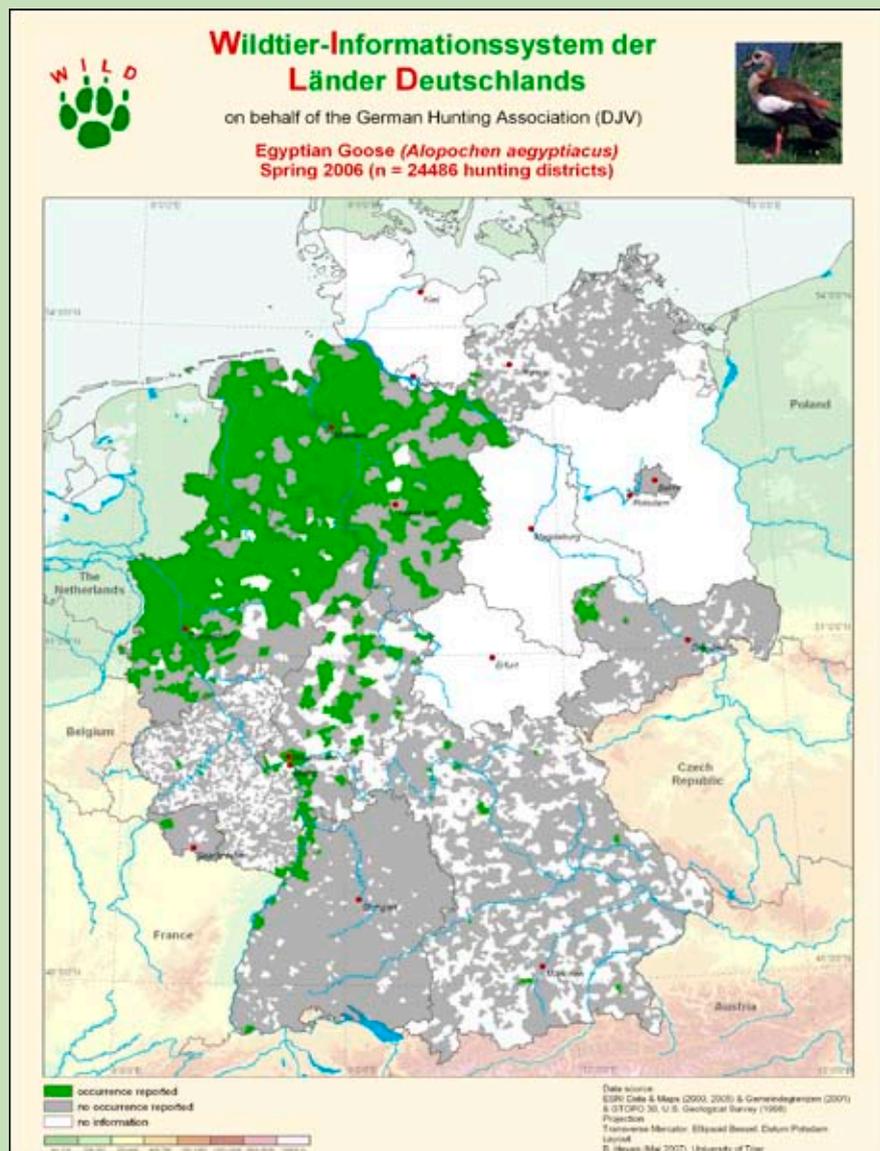
Egyptian geese live strictly territorially during brooding time and do not tolerate any other duck-life in the immediate vicinity of the nest. They are not very fussy when it comes to choosing a place for the nest. Brooding has been known to take place on the ground and in trees, although most nests are not far from water. 8-10 laid eggs are brooded on for around 28-30 days. The young are fully mature at 9-10 weeks and therefore completely able to fly.

According to the federal hunting law, the Egyptian goose may not be hunted. Lower Saxony, North Rhine-Westphalia and Schleswig-Holstein have declared it a white species and set specific hunting and close seasons.

With the exception of Berlin, Egyptian geese were observed as breeding birds in all states participating in the 2006 area assessment. A total of 8% of the hunting districts recorded breeding sightings. The Egyptian goose's main area of prevalence is located within the north-west German low lands in North Rhine-Westphalia and Lower Saxony (27% and 11% of the hunting districts respectively). For the time being, Mecklenburg-Vorpommern only recorded isolated sightings from the area around the border with Schleswig-Holstein and Lower Saxony. Another, clearly smaller area of prevalence is located in the upper Rhine region between Karlsruhe and Wiesbaden. Numerous breeding sightings also exist across all of Hesse (9% of the hunting districts).

The scattered isolated findings in southern and eastern Germany provide additional information on the spread potential of the Egyptian goose. Because of its adaptability and capacity to inhabit even urban living spaces, it will more than likely further expand its area in the future.

The current results for the 2006 area assessment indicate that the Egyptian goose is already found in more districts than the Canada goose.



Occurrence of the Egyptian goose in Germany, spring 2006 (municipality level)

# Wildcat

Known sightings are located in the low mountainous regions of Eifel, Hunsrück, Pfälzerwald, Taunus, Westerwald, Solling, Harz, northern Hesse mountains, Thuringia forest and Hainich. With some 1000 to 3000 animals, the population in Eifel, Hunsrück and Pfälzerwald is currently the largest for wildcats in Germany. Since 1984, several wildcat resettlement projects have been carried out in Bavaria. The results of the 2006 area assessment confirm these main areas of prevalence. Apart from these sightings, isolated records also exist for Hesse, Thuringia and Bavaria. The extent to which this involves roaming animals or established populations remains open.

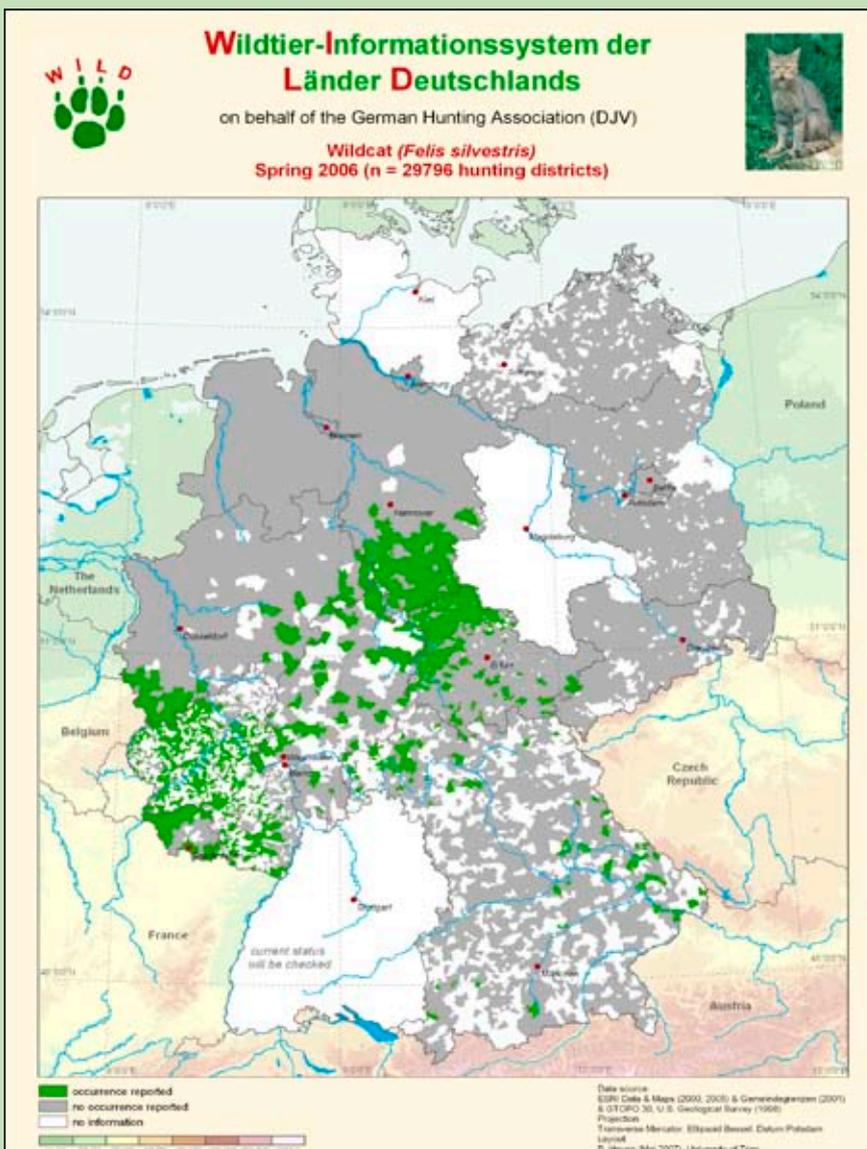
Overall, the results of the 2006 area assessment indicate a greater area of prevalence than a few decades ago. It must be taken into consideration, however, that, as one of Germany's rarest mammals, the wildcat is today very much the main focus of interests. The multiple sightings of wildcats could therefore stem more from a higher sensitivity of interested parties (e.g. scientists, researchers, hunters) and less from an actual increase in population numbers.



Wildcat  
(*Felis silvestris*)

The wildcat's original habitat stretches across all of continental Europe. In recent centuries, however, there was a significant decline in wildcat populations in Central Europe, which lasted until the 20th century. The main cause for this, aside from the increased forest usage of the woodlands, is the intensive chasing of wildcats. After the introduction of an all-year-round close season in 1934 and the prohibition of spring traps, wildcats gradually began to spread in Germany again. Today, the species is strictly protected on both a national and an EU level, and is also subject to the protection of the federal hunting law.

The wildcat is a forest dweller predominantly active at twilight and night, and feeds mainly on small rodents, but also on birds, mammals as big as hares, insects and amphibians. Mating season is in February/March. After a gestation time of 63-69 days, 2-6 blind young are born and suckle for 4 months. After just 2 months, they accompany their mother on the hunt, and are sexually mature at around 10 months.



Occurrence of the wildcat in Germany, spring 2006 (municipality level)



## Raccoon Dog

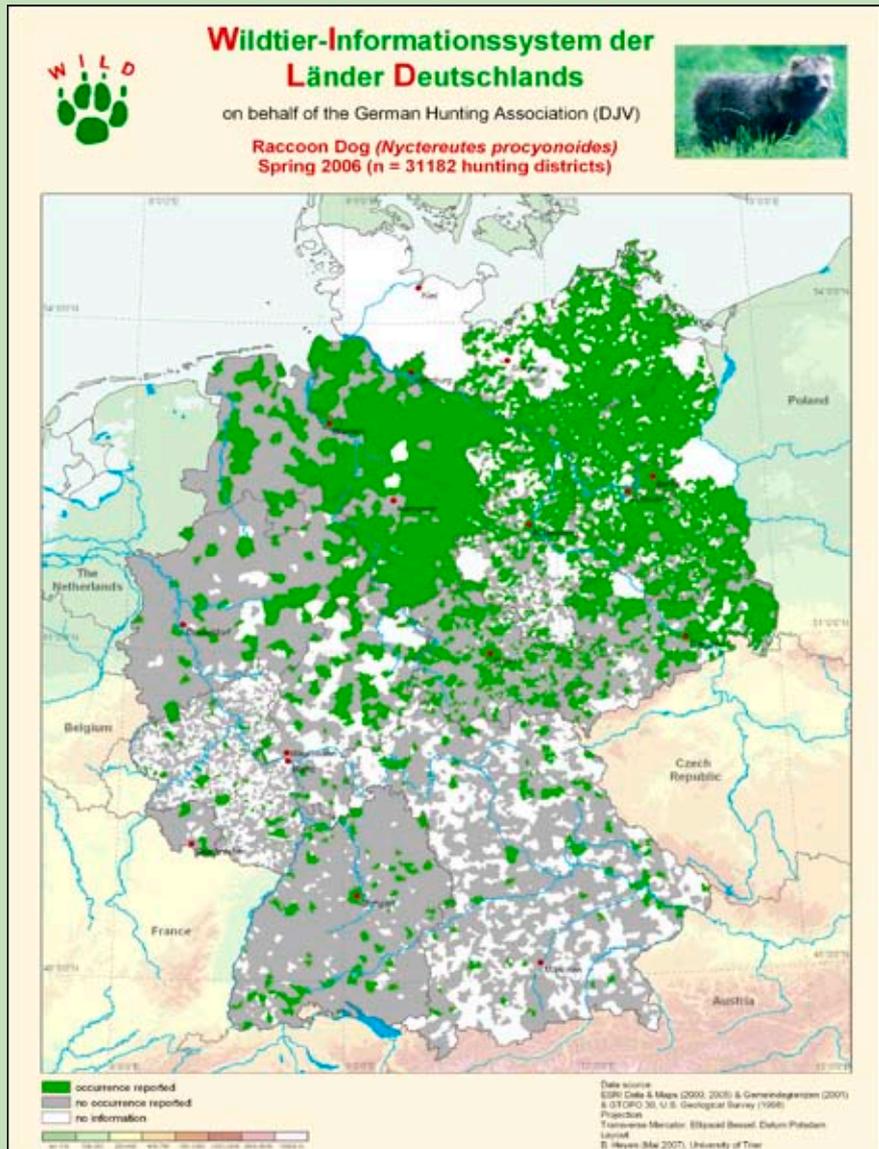
According to the results of the 2006 area assessment, the raccoon dog is found in all German states. The current concentration area is located in the north-east German lowlands, particularly Mecklenburg-Vorpommern, where it already forms part of the fauna in 90% of all the hunting districts. Over 60% of all Germany's raccoon tracks are found in this state alone; in some eastern regions, the raccoon tracks for the hunting year 2005/2006 even beat those of the fox. The sighting area around Mecklenburg-Vorpommern and Brandenburg stretches over into the other German states. The raccoon dog is already prevalent particularly in Lower Saxony, Saxony-Anhalt, Saxony and Thuringia. The proportion of hunting reserves with positive records here is between 13 and 35%.

Numerous isolated cases have been found in the other German states. The number of positive records across Germany is decreasing in the west/south. As the raccoon dog can only rarely be observed in low population densities because of its native lifestyle, an underestimation of sightings in the peripheral regions of the area of prevalence cannot be excluded. A further spread in sightings is to be expected over the next few years.



Raccoon Dog  
(*Nyctereutes procyonoides*)

In the first half of the 20th century, several thousand examples of the East Asian raccoon dog were released in a large part of the former Soviet Union to enrich the fur-bearing animal population. This resulted in their spreading westward. The first sighting in Germany dates back to 1962. Because of its similarity to the raccoon, mix-ups cannot be excluded, particularly in areas where the species is observed for the first time. The raccoon dog's preferred habitats are well-structured agricultural landscapes with wetlands. Other habitats are also being settled based on these optimum biotopes. The raccoon dog is an omnivore and feeds mainly on small animals, but also on plants. Mating time is in spring. After a gestation time of approx. 62 days, up to 8 initially blind pups are born, which become sexually mature at 8-10 months. The raccoon dog also uses old fox dens etc. to bring up its young. As a result of its vast spread in the last two decades, the raccoon dog has been subject to the hunting right in all states except Saarland and Bremen.



Occurrence of the raccoon dog in Germany, spring 2006 (municipality level)

# Raccoon

While sightings in Hesse can be traced back to a specific settlement on Lake Eder in 1934, the population in Brandenburg grew as a result of a farm break-out near Strausberg in 1945.

The current results of the 2006 area assessment show, however, that both these historic areas of concentration can no longer be clearly distinguished from each other. According to this, the current main sightings of raccoons are located in central and eastern Germany and stretch across Hesse, Saxony-Anhalt, Thuringia, Brandenburg and the eastern regions of Lower Saxony/North Rhine-Westphalia to Mecklenburg-Vorpommern, Saxony, Bavaria, Baden-Württemberg and Rhineland-Palatinate. The raccoon is today most commonly found in Hesse, Saxony-Anhalt, Thuringia and Brandenburg, where between 42 and 59% of the participating hunting districts recorded sightings.



Raccoon  
*(Procyon lotor)*

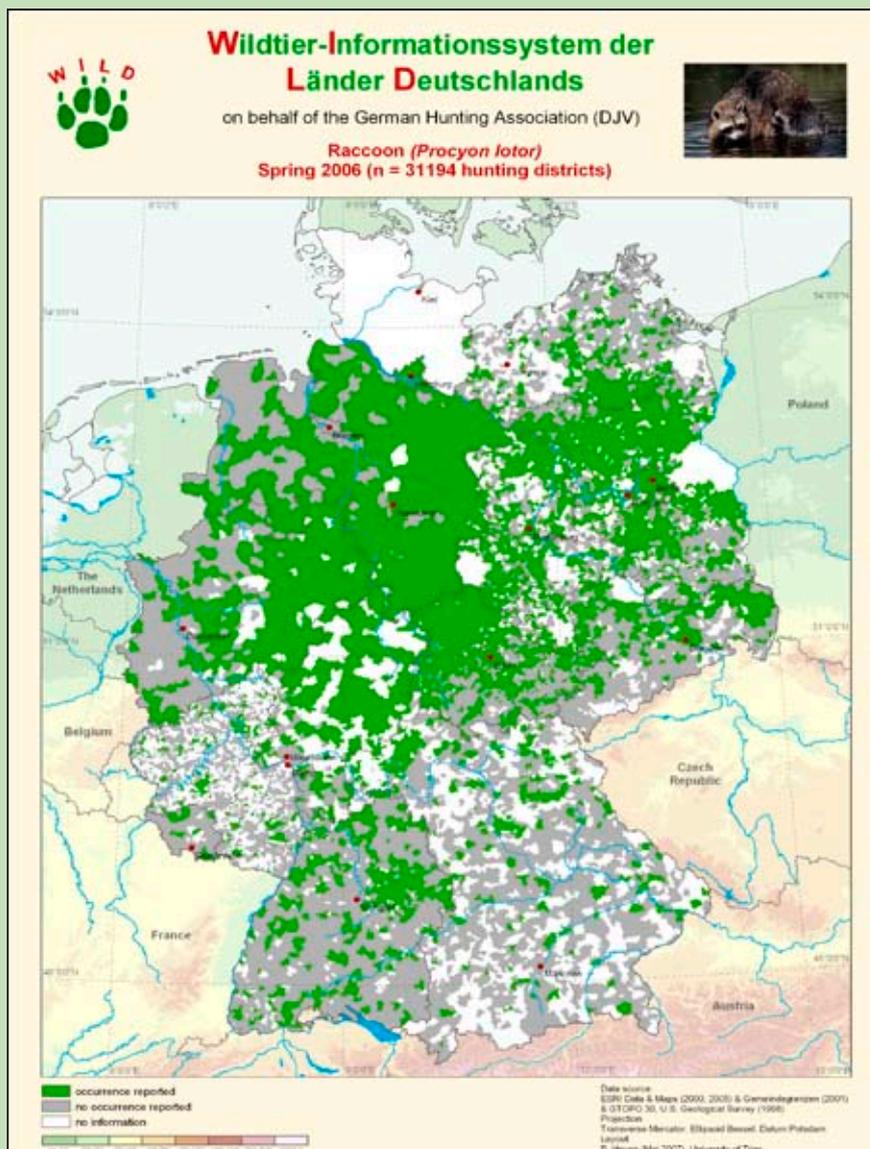
The raccoon, originating from North America, has been part of Germany's fauna since the first half of the 20th century. Since the 1990s in particular, the spread of raccoons has accelerated, documented by the significantly increased number of shooting records etc. Because of its similarity to the raccoon dog, mix-ups cannot be excluded.

Its preferred areas are well-structured (forested) habitats with a high proportion of water bodies and urban areas.

Raccoons are omnivores, are active at twilight and night time, and demonstrate a definite social behaviour. Food is frequently touched intensively, which often takes place at streams. It was therefore earlier assumed the animals washed their food.

Mating time is usually in February and, after approx. 65 days, 2-7 pups are born. They are initially blind and are suckled for up to 4 months. After around six months, they are gradually separated from their mother. The females are sexually mature at 1 year of age, and males at 2 years. Females often remain in the vicinity of their birthplace, while males look for territories further a field.

According to the federal hunting law, the raccoon is so far not considered a hunted wild species. With the exception of Saarland and Bremen, the German states have, however, subjected it to the hunting right.



Occurrence of the raccoon in Germany, spring 2006 (municipality level)



American Mink  
(*Mustela vison*)

North America is the original home of the mink or American mink. It came to Europe for fur-bearing animal breeding and, since the 1920s, has repeatedly found itself in hunting grounds as a result of various farm out-breaks and illegal animal releases. A significant outbreak took place in 1966 in Mecklenburg-Strelitz, which accelerated the spread in the north-east German lowlands. As the mink predominantly lives in the well-covered vegetation on the banks of water bodies and its tracks are very similar to those of the polecat, evidence is relatively hard to come by. Sightings must therefore rather be estimated.

The animals are active at twilight or night and live in self-dug dens or those they have taken over from other animals. The mink is very well adapted to living on and in the water and is a very good diver. As a carnivore, the species feeds on a variety of prey, e.g. clams, slugs, crabs, frogs, fish and clutches.

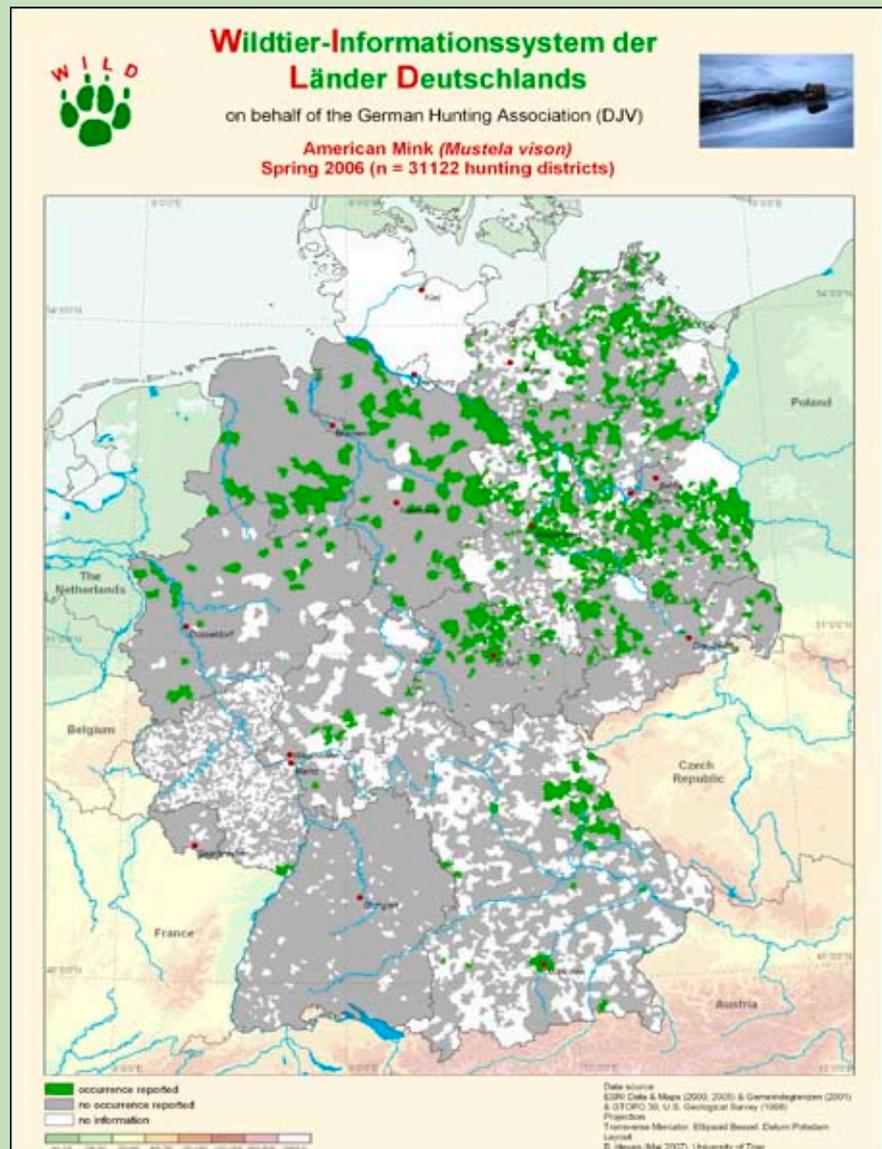
Mating time is from the end of February to March. Other fellow minks are only tolerated in the vicinity during this time. Once a year, the female gives birth to 2-10 young after a gestation time of 40-80 days and these are weaned after 5-6 weeks. The young leave the mother after approximately eighteen months. The females become sexually mature at approx. one year of age and the males at 18 months.

In the states of Berlin, Brandenburg, Hesse, Mecklenburg-Vorpommern, Lower Saxony, Saxony, Saxony-Anhalt, Schleswig-Holstein and Thuringia, the mink is subject to the respective regional hunting laws and can be hunted.

## American Mink

The concentrated areas of prevalence are located in the north-east German lowlands, particularly Mecklenburg-Vorpommern, Saxony-Anhalt and Brandenburg. The proportion of participating hunting districts with mink sightings in these states is between 14 and 18%. However, a complete settlement of land habitats is excluded from the outset, because of its semi-aquatic lifestyle. The branches of this main area of prevalence extend along the river and canal systems into the surrounding states, for example Lower Saxony and Saxony. Furthermore, a relatively compact area of prevalence has emerged in Thuringia in the Hemle-Unstrut lowlands, which is also presumably connected to the Elbe sighting through the Unstrut and Saale rivers.

Another exclave-like sighting area is located in Bavaria along the upper Palatine forest on the Naab and its tributaries. The population can be traced back to a farm outbreak in this region. Aside from various individual cases, smaller sightings with unclear origins exist in the other federal states. Only the states of Baden-Württemberg, Berlin and Saarland failed to post a positive record.



Occurrence of the American mink in Germany, spring 2006 (municipality level)

## Eurasian Otter

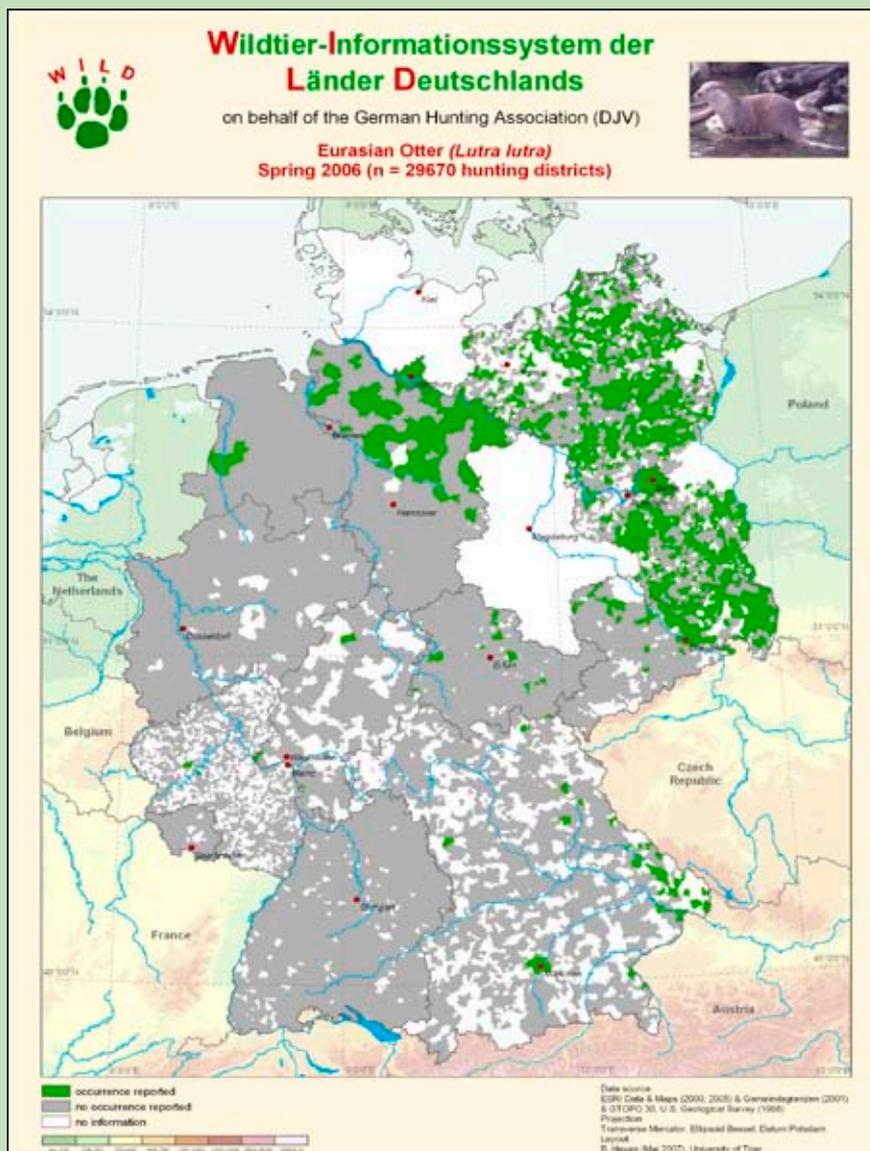
The central importance of a uniform, nation-wide recording of sightings is highlighted in the current otter protection schemes, so WILD included the Eurasian otter in the area assessment. The otter's main area of prevalence in Germany is documented as being in Brandenburg, Mecklenburg-Vorpommern and the north-eastern parts of Saxony-Anhalt and Lower Saxony.

Other sightings are found in western Lower Saxony, presumably dating back to animals originating from the Netherlands, where populations are currently being established through releases. In Bavaria, otters are primarily found in the Bavarian forest, having migrated from the Czech Republic and Austria. The results of the otter recordings in WILD essentially coincide with the areas of prevalence previously documented. In addition, information was able to be collected by WILD on further sightings in Rhineland-Palatinate, Hesse and Bavaria. The extent to which it deals with established populations or roaming individuals is currently being assessed.



Eurasian Otter  
*(Lutra lutra)*

The Eurasian otter, which is suited to an aquatic lifestyle, has become the leading species for protection of habitats near water in the past 30 years. The protective efforts date back to the 1960s, when the abolition of hunting seasons for the otter were removed in the former GDR (1962) and FRG (1968). National and international protection schemes have also been worked on since the mid 1990s. The otter persistently swims and dives to catch its preferred prey of fish, crabs and young waterfowl. The main mating season is in February/March and 1-4 young are born after a gestation time of approx. 60 days. These are initially blind and make their first attempt at swimming from their sixth week of life. The young are suckled for 8-16 weeks. Males become sexually mature at 2 and females at 3. The main cause of danger in Germany is traffic. Every year, up to 160 animals are run over, mostly in the immediate vicinity of water bodies. By re-designing bridge structures and otter-proof fences, these losses have been clearly reduced.



Occurrence of the Eurasian otter in Germany, spring 2006 (municipality level)



## European Beaver

The European beaver had almost died out across Europe at the start of the 20th century because of intense hunting. Remaining autochthonous populations survived in Germany with a total of some 100 animals on the Elbe. In the meantime, the species regained its original area of prevalence, which is essentially a result of resettlement projects. The population is currently estimated at around 15,000 beavers and has tripled in the last 10 years. A further spread, particularly in western and south-western Germany is highly likely.

The largest areas of prevalence for beavers according to the results of the 2006 area assessment are located in Bavaria and the eastern German states. Beavers have been sighted in Baden-Württemberg on the upper reaches of the Danube and Rhine, as well as west of Lake Constance. The Elbe and Oder, as well as their tributaries, particularly the Mulde, form the centres of the beaver population in eastern Germany. Populations have established themselves in Mecklenburg-Vorpommern independently from the Oder and Elbe populations. In the west of Germany, the beaver can be found particularly in Saarland (1994 and 2001 release into the wild), North Rhine-Westphalia (in the northern Eifel: 1981 release into the wild, and in the lower Rhine: 2002 release into the wild) and in Lower Saxony on the Ems and Elbe.



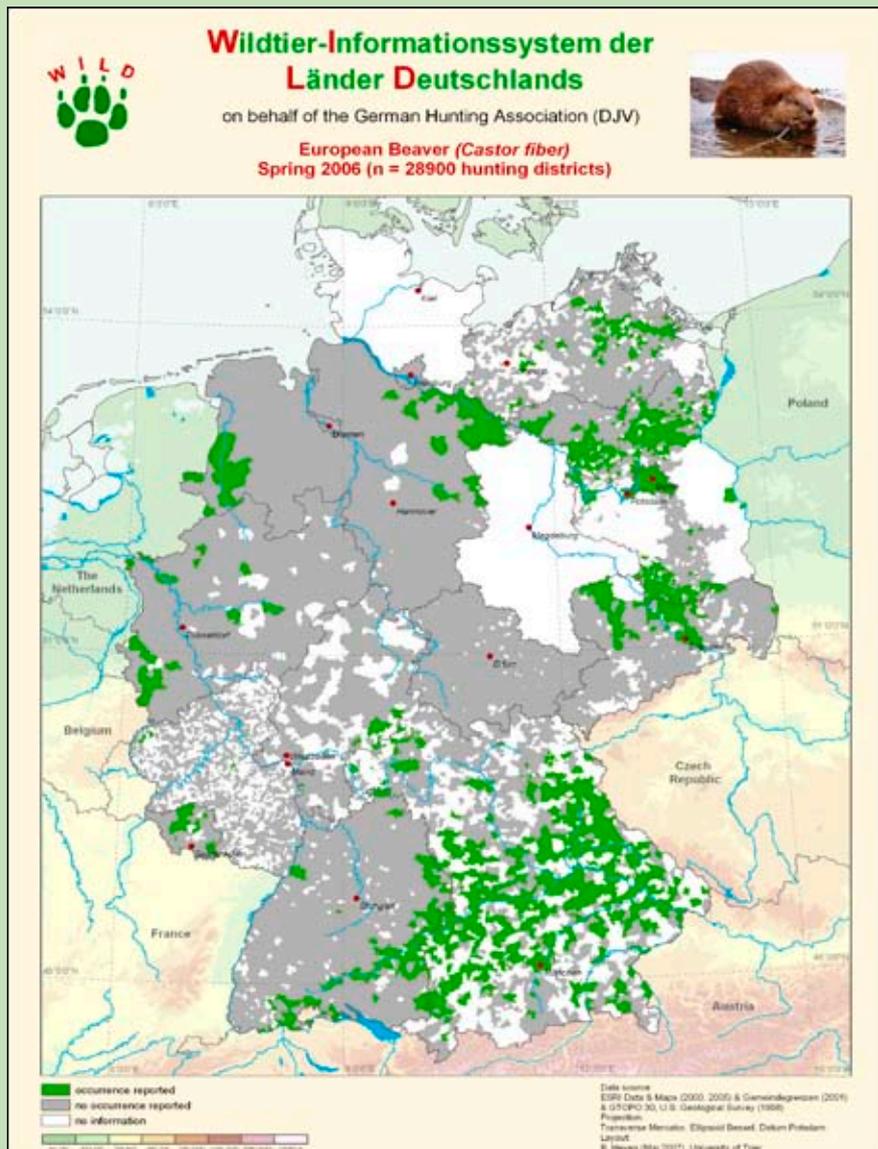
European Beaver  
(*Castor fiber*)

The beaver is one of the largest rodents and is closely related to the squirrel and the marmot. Beavers can grow to be 1.35 m long and weigh 36 kg. The average life expectancy in the wild is around 8 years, but in exceptional cases, they can live as long as 20 years.

Beavers live socially in families. The districts possessed by the family groups are defended against fellow beavers. The family comprises the parent animals and the offspring, which leave the family group at around 2 years of age and possess their own district with their own partner, with whom they generally spend their entire life. Beavers mate between January and March, and the 1-4 young are born after a gestation time of around 106 days.

The beaver population density is controlled by the number of non-possessed districts. As long as there are still districts free, its population can grow.

The beaver is not subject to the hunting right. Because of damages to agriculture, forestry, fishing and water supply and distribution, management measures were particularly necessary in Bavaria. The work of the beaver experts to resolve local conflicts has been successful here. For example, ruined areas are no longer used and damages partly compensated by private organisations. Some 500 beavers are also specifically removed from hunting grounds in Bavaria.



Occurrence of the European beaver in Germany, spring 2006 (municipality level)

# Nutria

During the course of the 2006 area assessment, all participating states, with the exception of Bremen, recorded nutria sightings. The nutria is most widely spread in North Rhine-Westphalia, Saxony-Anhalt, Rhineland-Palatinate, Lower Saxony, Hesse, Thuringia and Baden-Württemberg. The concentrated areas of prevalence are located, for example, in the Ems region and on the lower Rhine; local sightings are also scattered across vast areas of eastern Lower Saxony and Saxony-Anhalt. These stretch along the rivers to Saxony and Thuringia. Independently from the concentrated areas of prevalence, numerous isolated cases and smaller sightings are scattered across all federal states. Although no data from the 2006 area assessment is available for Brandenburg and Schleswig-Holstein, assessments from other authors also indicate extensive nutria sightings for these regions as well.

Overall, the results of the 2006 area assessment show clearly more and larger nutria sightings in Germany than was recorded in any other study. An expansion of sightings can particularly be observed in Lower Saxony and North Rhine-Westphalia. As the nutrias often fall victim to cold and snow-filled winters, an increased spread of this species is to be expected in the absence of severe winters.



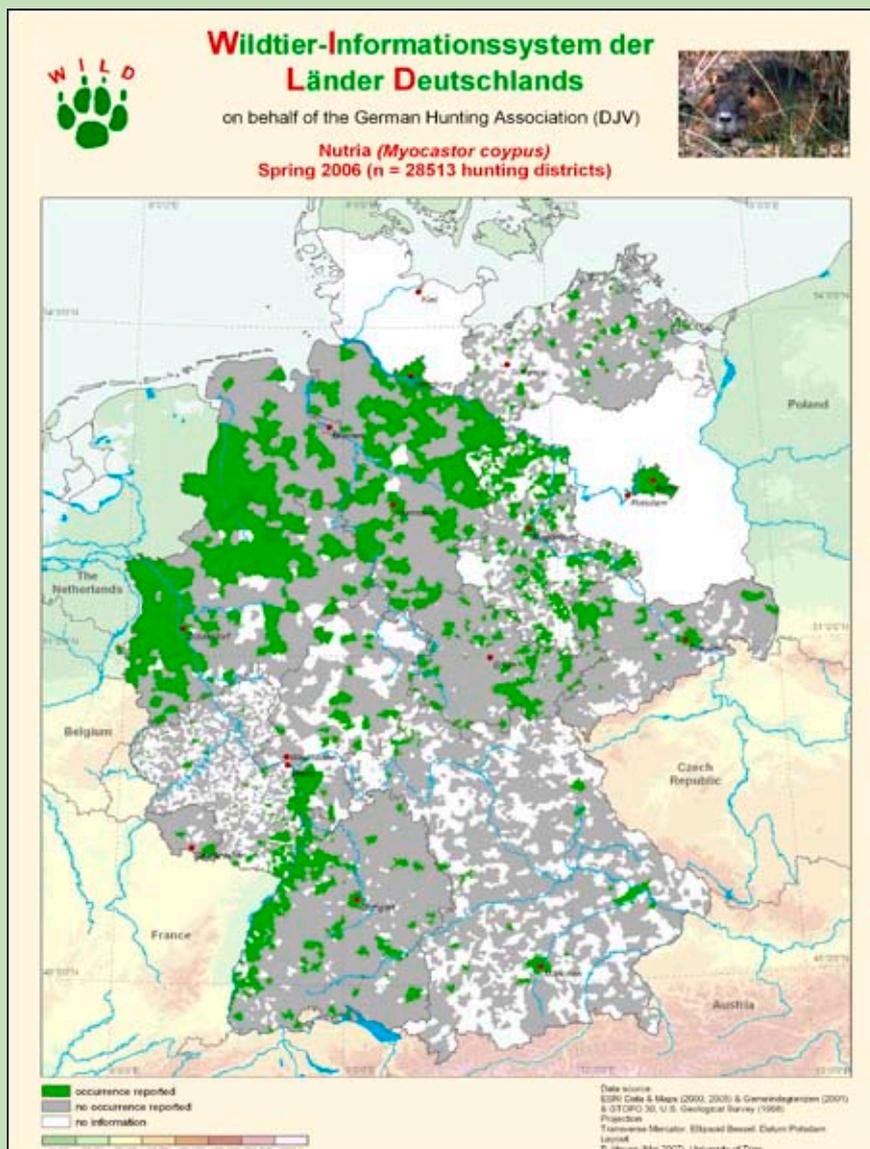
Nutria  
*(Myocastor coypus)*

The semi-aquatic nutria originates from South America. It came to Europe as a farm animal for fur and food at the end of the 19th century, and reached Germany in the 1920s. Various farm break-outs and releases meant more and more new, wild populations were since formed, some of which disappeared again. A massive wave of releases eventually resulted during the course of the reunification in the area of the former GDR, when numerous breeding centres let their animals go. In the meantime, the nutria, also known as a coypu, is considered as being established in Germany.

In areas where beavers or muskrats are simultaneously sighted, there is a higher risk of these being mixed up with the nutria.

The nutria prefers standing bodies of water rich in plants with large belts of reeds and marshlands. The bank is therefore eroded for their burrowing system. The animals live in small colonies and feed on reeds, roots, crops and smaller fish. Two to three times a year, the female gives birth to 3-7, sometimes even up to 13, developed young after a gestation time of 130 days. The young are able to swim after just a short period of time and are suckled in the water. They become sexually mature at 5 months.

They have already been subjected to the respective regional hunting laws in Baden-Württemberg, Bavaria, Berlin, Hesse, Lower Saxony, Saxony, Saxony-Anhalt, Schleswig-Holstein and Thuringia, and may be hunted.



Occurrence of the nutria in Germany, spring 2006 (municipality level)

Are you also a district owner whose interest has been aroused?

Do you want to actively support the WILD project?

If so, please contact your respective regional representative, who will be happy to provide you with more information.

Bundesland	Länderbetreuer	e-mail	Telefon
Baden-Württemberg	Dr. M. Pegel	manfred.pegel@lvvg.bwl.de	07525 / 942341
Bayern	Dr. D. van der Sant	dirk.vandersant@jagd-bayern.de	089 / 99023423
Berlin	Dr. H. Nösel	heike.noesel@lfe-e.brandenburg.de	03334 / 65125
Brandenburg	G. Greiser	grit.greiser@lfe-e.brandenburg.de	03334 / 65126
Bremen	H. Tempelmann	tempelmann@t-online.de	0428 / 2592849
Hamburg	M. Willen	mwi@ljev-hamburg.de	040 / 447712
Hessen	R. Becker	rolfw.becker@ljev-hessen.de	06032 / 936116
Mecklenburg-Vorpommern	R. Pirzkall	info@ljev-mecklenburg-vorpommern.de	03871 / 631216
Niedersachsen	Dr. E. Strauß	egbert.strauss@tiho-hannover.de	0511 / 8567620
Nordrhein-Westfalen	Dr. H. Schlepper	hschlepper@ljev-nrw.org	0231 / 2868600
Rheinland-Pfalz	F. Voigtländer	f.voigtlaender@ljev-rlp.de	06727 / 894419
Saarland	Dr. D. Hoffmann	daniel.hoffmann@bnl-petry-hoffmann.de	06824 / 7090940
Sachsen	F. Ende	ljev-sachsen@t-online.de	0351 / 4017171
Sachsen-Anhalt	O. Thärig	ljev.sachsen-anhalt@t-online.de	039205 / 417570
Schleswig-Holstein	H. Schmüser	hshmuser@ecology.uni-kiel.de	04347 / 710729
Thüringen	Dr. H. Nösel	heike.noesel@lfe-e.brandenburg.de	03334 / 65125

Fotografien: D.J.V. Feisberger, Friedmann, Müller, Rolles, Siegel, Weber

WILD-Zentren		
Institut für Biogeographie	Institut für Wildtierforschung	Forschungsstelle für Wildökologie und Jagdwirtschaft
Universität Trier Wissenschaftspark Trier-Petrisberg 54286 Trier	an der Stiftung Tierärztliche Hochschule Hannover Bischofsholer Damm 15 30173 Hannover	Landesforstanstalt Eberswalde Alfred-Möller-Straße 1 16225 Eberswalde
kleinr@uni-trier.de	egbert.strauss@tiho-hannover.de	alexander.muchin@lfe-e.brandenburg.de