

# HEDGEHOGS







**hedgehog** - ёж

[ˈhedʒhɒg]



**four-toed hedgehog** -  
четырёхпалый ёж

[fɔː-təʊd ˈhedʒhɒg]



**North African  
hedgehog** -  
Североафриканский ёж

[nɔːθ ˈæfrɪkən ˈhedʒhɒg]



**Southern African  
hedgehog -**  
Южноафриканский ёж

[ˈsʌðən ˈæfrɪkən  
ˈhedʒhɒg]



**Somali hedgehog -**  
Сомалийский ёж

[səˈmɑːli ˈhedʒhɒg]



**Amur hedgehog -**  
Амурский ёж

[ɑːˈmʊə ˈhedʒhɒg]



**Southern  
white-breasted  
hedgehog** - Южный  
белогрудый ёж

[ˈsʌðən waɪt-breɪstəd  
ˈhedʒhɒɡ]



**European hedgehog** -  
Европейский ёж

[jʊ(ə)rəˈpiən ˈhedʒhɒɡ]



**Northern  
white-breasted  
hedgehog** - Северный  
белогрудый ёж

[nɔːθ waɪt-breɪstəd  
ˈhedʒhɒɡ]



**long-eared hedgehog** -  
длинноухий ёж

[lɒŋ-'iəd 'hedʒhɒg]



**Indian long-eared  
hedgehog** - Индийский  
длинноухий ёж

['ɪndiən lɒŋ-'iəd  
'hedʒhɒg]



**Daurian hedgehog** -  
Даурский ёж

['dɔːriən 'hedʒhɒg]



**desert hedgehog** -  
пустынный ёж

[ˈdezət ˈhedʒhɒg]



**Brandt's hedgehog** - ёж  
Брандта

[brænt'es ˈhedʒhɒg]



**Indian hedgehog** -  
Индийский ёж

[ˈɪndiən ˈhedʒhɒg]

# HEDGEHOG





A **hedgehog** is any of the spiny mammals of the subfamily Erinaceinae, in the eulipotyphlan family Erinaceidae. There are seventeen species of hedgehog in five genera found through parts of Europe, Asia, and Africa, and in New Zealand by introduction. There are no hedgehogs native to Australia and no living species native to the Americas.

Hedgehogs share distant ancestry with shrews (family Soricidae), with gymnures possibly being the intermediate link, and they have changed little over the last 15 million years. Like many of the first mammals, they have adapted to a nocturnal way of life. Their spiny protection resembles that of the unrelated porcupines, which are rodents, and echidnas, a type of monotreme.

Hedgehogs are easily recognized by their spines, which are hollow hairs made stiff with keratin. Their spines are not poisonous or barbed and, unlike the quills of a porcupine, do not easily detach from their bodies. However, the immature animal's spines normally fall out as they are replaced with adult spines. This is called "quilling". Spines can also shed when the animal is diseased or under extreme stress. Hedgehogs are usually brown, with pale tips to the spines, though blonde hedgehogs are found on the UK island of Alderney.

All species of hedgehogs can roll into a tight ball in self-defense, causing all of the spines to point outwards. The hedgehog's back contains two large muscles that control the position of the quills. When the creature is rolled into a ball, the quills on the back protect the tucked face, feet, and belly, which are not quilled. Since the effectiveness of this strategy depends on the number of spines, some desert hedgehogs that evolved to carry less weight are more likely to flee or attack, ramming an intruder with the spines; rolling into a spiny ball for those species is a last resort. The various species are prey to different predators: while forest hedgehogs are prey primarily to birds (especially owls) and ferrets, smaller species like the long-eared hedgehog are prey to foxes, wolves, and mongooses.

Hedgehogs are primarily nocturnal, though some species can also be active during the day. Hedgehogs sleep for a large portion of the day under bushes, grasses, rocks, or most commonly in dens dug in the ground, with varying habits among the species. All wild hedgehogs can hibernate, though not all do, depending on temperature, species, and abundance of food.

Hedgehogs are fairly vocal and communicate through a combination of grunts, snuffles and/or squeals, depending on species.

Hedgehogs occasionally perform a ritual called anointing. When the animal encounters a new scent, it will lick and bite the source, then form a scented froth in its mouth and paste it on its spines with its tongue. The purpose of this habit is unknown, but some experts believe anointing camouflages the hedgehog with the new scent of the area and provides a possible poison or source of infection to predators poked by their spines. Anointing is sometimes also called anting because of a similar behavior in birds.

Like opossums, mice, and moles, hedgehogs have some natural immunity against some snake venom through the protein erinacin in the animal's muscular system, although it is available only in small amounts and a viper bite may still be fatal. In addition, hedgehogs are one of four known mammalian groups with mutations that protect against another snake venom,  $\alpha$ -neurotoxin. Pigs, honey badgers, mongooses, and hedgehogs all have mutations in the nicotinic acetylcholine receptor that prevent the snake venom  $\alpha$ -neurotoxin from binding, though those mutations developed separately and independently.

## FOUR-TOED HEDGEHOG



The **four-toed hedgehog**, is a species of hedgehog found throughout much of central and eastern Africa.

Populations tend to be scattered between suitable savannah or cropland habitats, avoiding forested areas. The species common name is derived from the number of toes found on its hind feet. Due to its extensive range and stable wild population, the species is rated as least concern by the IUCN. There are no universally agreed subspecies of *A. albiventris*.

The four-toed hedgehog is an oval bodied animal between 5 and 12 inches in length and weighing between 14 and 39 ounces. Females are typically larger than males. It has short legs, short tail typically around 2.5 centimetres in length, a long nose, and small beady eyes. The ears and whiskers are both relatively large, implying that the animal has good senses. As its common name implies, and unlike related species, the four-toed hedgehog typically only has 4 toes on each hind foot, lacking the hallux. However, in some individuals, a small bony lump may be present in place of the hallux, or there may even be a well-developed toe, especially on the hind feet.

It can vary greatly in colouration, but typical wild specimens have brown or grey spines with white or cream colored tips. The fur on the body is speckled grey in color, with brown around the muzzle, and white face, legs, and underparts. The upper body is covered in spines varying from 0.5 to 1.7 centimetres in length, being longest on the upper surface of the head. The spines are variably colored, but always have a white base and tip.

Males have an externally visible penis, located in the mid-abdomen, but the testicles are recessed into pouches close to the anus. Females may have anything from two to five pairs of teats.

# NORTH AFRICAN HEDGEHOG



The **North African hedgehog** or Algerian hedgehog, is a mammal species in the family Erinaceidae native to Algeria, Libya, Malta, Morocco, Spain, and Tunisia. Little is known about this hedgehog, even though the most common breed of domesticated hedgehogs is a result of crossing a four-toed hedgehog with a North African hedgehog. Because this species of hedgehog is native to Africa, it has been suggested that it was introduced by humans to the other countries where it is now found, including France, Spain and the Canary Islands. Of the four African hedgehog species, the North African hedgehog is the only one of these hedgehogs that occurs outside Africa. Because the North African hedgehog has such a wide habitat range and has a seemingly stable population, both in the wild and in the domesticated capacity, it does not appear to currently be at risk.

The North African hedgehog closely resembles the European hedgehog but there are several distinct differences between the two species. The North African hedgehog tends to be smaller than its European counterpart, measuring between 20 and 25 cm long and weighing up to 650 grams. However, it is larger than the other African species of hedgehogs and has a longer snout and longer legs, making it a faster runner. Its face is light in colour, usually appearing to be white, and the legs and head are brown. The underbelly of this animal can vary in colour and is often either brown or white. Its ears are highly visible on the head of the animal and are large. The body is covered in soft spines, which are mostly white with darker banding. It is most distinguishable from physically similar relatives by the lack of spines on the crown of the head, meaning a lack of the widow's peak.

The species is commonly infested by the hedgehog flea.

## SOUTHERN AFRICAN HEDGEHOG



The **Southern African hedgehog** is a species of mammal in the family Erinaceidae. It is found in Angola, Botswana, Lesotho, Namibia, South Africa, Tanzania and Zimbabwe.

Their bodies are covered by sharp spines. The average mass of a fully grown male is 350g. The main color is brown but there are other colors too. A Southern African hedgehog is covered with spines all over its body except for its face, belly and ears, and these spines are made of keratin protein with a hollow shaft and a muscle for each spine. These unprotected body parts are covered with fur. They are dark brown and their spines are typically white at the base and dark brown at the tip. They have pointed snouts and typically have either a white or brown belly. The average length of the hedgehog is approximately 20 cm. The main characteristic of this type of hedgehog is that they have a white stripe across their forehead, typically, traveling from one leg to the other.

The Southern African hedgehog is insectivorous, with a wild specimen's diet consisting mainly of earthworms and crickets. However, the South African hedgehog has evolved to become mostly omnivorous due to habitat loss and trash from human civilization being readily available. The Southern African hedgehog is an omnivore and its diet typically consists of invertebrates, including beetles, grasshoppers, and slugs. They also eat small vertebrates including frogs and lizards. Since the hedgehog is known to frequent gardens, dog food has become another staple to their diet. Due to the fact that water is so scarce in the regions that the hedgehog lives, these hedgehogs are not reliant on free water and instead obtain most of their water through the food that they eat.



## SOMALI HEDGEHOG



The **Somali hedgehog** is a species of mammal in the family Erinaceidae. It is endemic to Somalia. The Somali hedgehog is nocturnal.

The Somali hedgehog is native to areas on the outer borders of Somalia. It is a savanna species that is believed to live mostly in grasslands and other open habitats. There is little known about this species, but from what is known there are believed to be no current threats to the hedgehog's habitat.

## AMUR HEDGEHOG



The **Amur hedgehog**, also called the Manchurian hedgehog, is a hedgehog similar to the European hedgehog in appearance and behaviour, although it is more lightly coloured. It is native to Amur Oblast and Primorye in Russia, Manchuria in China, and the Korean Peninsula. Like other hedgehogs, it uses scent and hearing while looking for prey, and the name "hedgehog" refers to the pig-like grunts it makes as it forages.

This hedgehog is closely related to and slightly larger and lighter in color than the European hedgehog, with a head-and-body length of between 160 and 290 mm and a very short tail. It weighs between 600 and 1,000 g. The head, back and sides are covered with long, sharp spines. These are of two different colours; some are plain white; others have a white or yellowish-brown base and tip, and a central portion that is mid to dark brown, giving the animal an altogether pale, brownish-grey colour. The quills on the head are separated from each other by narrow strips of bare skin. The quills, covered in keratin, are strong so that they don't break or fall out. These spines are used as a defense mechanism when they are threatened. The hedgehog curls up into a ball, where their quills are facing out and their face/head are curled inwards. The face and underparts are covered in pale hair.

## SOUTHERN WHITE-BREASTED HEDGEHOG



The **southern white-breasted hedgehog**, sometimes referred to as white-bellied hedgehog or white-chested hedgehog, is a hedgehog of Southwestern Asia. It is very similar in lifestyle and appearance to the European hedgehog, but the former has a white spot on its chest. For a long time these two species were considered to be one. The northern white-breasted hedgehog of Eastern Europe and Russia was formerly recognized as a subspecies of the southern white-breasted hedgehog but newer investigations see both as different species. The southern white-breasted hedgehog and European hedgehog can hybridize.

Unlike its European counterpart, the southern white-breasted hedgehog never digs dens. It prefers building grass nests in secluded places.

# EUROPEAN HEDGEHOG



The **European hedgehog**, also known as the West European hedgehog or common hedgehog, is a hedgehog species found in Europe, from Iberia and Italy northwards into Scandinavia. It is a generally common and widely distributed species that can survive across a wide range of habitat types. It is a well-known species, and a favorite in European gardens, both for its endearing appearance and its preference for eating a range of garden pests. While populations are currently stable across much of its range, it is thought to be declining severely in Great Britain.

The animal appears brownish with most of its body covered by up to 6,000 brown and white spines. Length of head and body is ~160 mm at weaning, increasing to 260 mm or more in large adults. This species has an extremely short tail as an almost vestigial feature, typically 20 to 30 mm. Weight increases from around 120 g at weaning to > 1,100 g in adulthood. The maximum recorded weight is 2000 g, though few wild specimens exceed 1,600 g even in autumn. Adult summer weight is typically somewhat less than in autumn, with an average of around 800 g and adult weights commonly as low as 500 g. Males tend to be slightly larger than females, but sex differences in body weight are overshadowed by enormous seasonal variation.

Hedgehog is unlike any other creature across most of its range. Where it co-exists with the northern white-breasted hedgehog, the two species are difficult to distinguish in the field, the latter having a white spot on its chest. According to the Guinness Book of World Records, *E. europaeus* is probably the largest species of hedgehog and is possibly the heaviest member of the order Erinaceomorpha, although the moonrat, similar in average mass if not known to equal the hedgehog's maximum weight, can attain a considerably greater length.

In Europe hedgehogs carry a large number of hedgehog fleas.



## NORTHERN WHITE-BREASTED HEDGEHOG



The **northern white-breasted hedgehog** is a species of hedgehog.

The range of the species extends in the west as far as Poland, Austria and the former Yugoslavia, and south to Greece and the Adriatic Islands, including populations on Crete, Corfu and Rhodes. It is found eastwards through Russia and Ukraine, as far east as the Ob River in Siberia. It is widespread throughout this range, and there are no signs of a significant population decline.

Taxonomically, it was for a time considered to be a subspecies of *E. europaeus*, and later a subspecies of *E. concolor*. Since the 1990s, it has been considered a separate species in its own right, following new genetic and morphological studies, with five subspecies - *E. roumanicus roumanicus*, *E. roumanicus bolkayi*, *E. roumanicus drozdovskii*, *E. roumanicus nesiotis*, and *E. roumanicus pallidus*.

The species is a common synanthrope and is known to carry not only the hedgehog tick, *Ixodes hexagonus*, but also *Ixodes ricinus*, the most common European tick species.

## LONG-EARED HEDGEHOG



The **long-eared hedgehog** is a species of hedgehog native to Central Asian countries and some countries of the Middle East. The long-eared hedgehog lives in burrows that it either makes or finds and is distinguished by its long ears. It is considered one of the smallest Middle Eastern hedgehogs. This hedgehog is insectivorous but may also feed on small vertebrates and plants. In captivity they can live for over 7 years.

Since the long-eared hedgehog is naturally parasite prone and can carry diseases as bad as plague, it is highly recommended that, if kept as a pet, it should be purchased from a respected dealer. Wild hedgehogs have been found to carry *Rhipicephalus sanguineus*, the brown dog tick, which can transmit Boutonneuse fever.

The length of the head and body of the long-eared hedgehog is approximately 120–270 mm, and the tail is 10–50 mm long. The skull is about 38–48 mm long. Unlike other species the pterygoids of the skull do not inflate and they do not relay information to the tympanic membrane. The ears of this hedgehog are 30–45 mm longer than the closest spine. They are used for heat radiation in the desert. Long-eared hedgehogs have great senses of hearing and smell that they use to hunt out food and detect predators. The long-eared hedgehog's spines are embedded in a unique muscle sheath that forms a bag-like structure which acts as protection for the hedgehog. They can withdraw into this pouch and erect their spines out to fend off predators if need be. The dorsal spines are white on the tip with darker banding below. They do not have dark and light areas on their faces. Also they do not have a gap of spines on the back of their necks that is common to other species of hedgehogs. The long-eared hedgehog has a light-colored underside along with whitish hairs on the tips of their ears. The tops and heels of their feet are covered with hair but the soles are bare. The long-eared hedgehog is smaller than the West European hedgehog; it weighs between 250–400 grams, and is much faster. It is less likely to curl up in a ball when approached by predators and will rather try and outrun or leap at predators with their relatively short needles.

## INDIAN LONG-EARED HEDGEHOG



The **Indian long-eared hedgehog** is a small species of mammal native to northern India and Pakistan. It is insectivorous and nocturnal.

The Indian long-eared hedgehog is a relatively small hedgehog (~17 cm, 200–500 grams). It is a nocturnal animal that is often found inhabiting burrows. Similar to most hedgehogs it has spines on its back, embedded into a muscle sheath. This sheath forms a bag-like structure that the animal can hide inside for protection. It can also erect its spines to further protect from predators. The Indian long-eared hedgehog has a well developed set of senses because of its large ears, eyes and whiskers near its snout. These senses, especially smell, help them find food and/or a possible partner.

The Indian long-eared hedgehog is insectivorous, feeding on small insects. Because of their arid desert habitat they often receive most of the water they need from their food supply.

The Indian long-eared hedgehog is found in India (Gujarat, Rajasthan and Uttar Pradesh) and Pakistan (North West Frontier Province, Punjab and Sindh). It experiences extreme heat in the months of May and June and very cold weather in December and January.

They are seasonal breeders. The males are active from March to August while the females are active from April to August. It is notable for a quite complex mating ritual that involves "dancing" around females for several days before mating.

## DAURIAN HEDGEHOG



The **Daurian hedgehog** is a solitary small hedgehog. It is listed in the Red book of Russian Federation as a protected species with an unclear status, generally considered to be endangered, although the IUCN lists it as "least concern". It populates the Transbaikal region of Russia (this region is sometimes called Dauria, hence the name) and Northern Mongolia. It lives in dens and inhabits both forests and steppes. The steppes consists mainly of grassland plains and scrublands. The Daurian hedgehog actively select scrublands and rocky areas, perhaps for greater cover and concealment from predators. This species of hedgehogs are known to utilize larger home ranges than other hedgehog species. The adult Daurian hedgehog is 15 to 20 centimeters long and weighs up to 1 kilogram (usually around 600 grams). Most live up to six years in nature. Like most hedgehog species in temperate regions, the Daurian hibernates during the winter.

After introduction and extensive use of pesticides in mid-1960s, the Russian population of the Daurian hedgehog suffered a major loss. Since that time, the species seems to have had a modest recovery, although the population has not yet returned to its original size. Currently, it seems to be moving northwards and closer to cities due to more abundant food, less danger from agricultural activities and newfound human tolerance for their presence. Cases of successfully starting new populations by artificially moving several adults to new areas have been reported. Due to the low population density of the region the complete status of this species is unclear.



## DESERT HEDGEHOG



The **desert hedgehog** is a species of mammal in the family Erinaceidae.

The desert hedgehog is one of the smallest of hedgehogs. It is 5.5 to 11 inches long and weighs about 10 to 18 ounces. The spines (or quills to give their correct name) on its back can be banded with coloring similar to the four-toed hedgehog. It is usually identified by its dark muzzle. If desert hedgehogs are threatened, their muscles go tight and pull the outer layer of skin around the body, making their quills stick out in all directions. The quills tend to be longer than other hedgehogs for better protection against predation. As such it is extremely difficult to catch one.

It is found in Bahrain, Algeria, Chad, Djibouti, Egypt, Eritrea, Iran, Iraq, Israel, Jordan, Kuwait, Libya, Mali, Mauritania, Morocco, Niger, Oman, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen, and possibly Ethiopia.

Breeding begins in March, after hibernation has ended. The female desert hedgehog gives birth to up to six young, in a burrow or concealed nest, after a gestation period of around 30 to 40 days. The young are born deaf and blind, and with the quills located just under the skin, to prevent damage to the female during birth. The quills emerge within a few hours, and the eyes open after around 21 days. The young desert hedgehogs are weaned after about 40 days. There is thought to be single litter each year.

## BRANDT'S HEDGEHOG



**Brandt's hedgehog** is a species of desert hedgehog native to parts of the Middle East and Central Asia. Its common name derives from its having first been described by Johann Friedrich von Brandt, a director of the Zoological Department at the St Petersburg Academy of Sciences.

Brandt's hedgehog is approximately the size of the West European hedgehog (about 500–1,000 g in weight and 25 cm in length), but has distinctively large ears (similar to the long-eared hedgehog), and is a much faster runner, due to lighter needle protection. Unlike the long-eared hedgehog, however, it is predominantly nocturnal.

The first and only study of the Brandt's hedgehog histological skin characteristics found three layers of skin the epidermis, dermis and hypodermis; while previous studies of other hedgehogs sited only two.

Brandt's hedgehog prefers arid desert areas and mountains. It often uses natural shelter, although it is still capable of digging dens when absolutely needed. It hibernates during colder weather.

# INDIAN HEDGEHOG



The **Indian hedgehog** is a species of hedgehog native to India and Pakistan. It mainly lives in sandy desert areas but can be found in other environments.

The Indian hedgehog can be compared to the long-eared hedgehog which has a similar lifestyle and appearance. It is known for its masked face, dark with a white top, somewhat similar to a raccoon. It is relatively small with the adult male weighing about 435 grams and the adult female about 312. They are quite fast, although not as fast as the long-eared hedgehog. Its color is predominantly brown with a few lighter shades of brown. The tail is only about 2-4 centimeters long. It has a stocky body with a short head, a long snout, small, dark eyes, and relatively large ears. Its legs are a gray-brown color with 5 digits on each and small but strong claws.

Being a part of the family Erinaceidae, the Indian hedgehog has a very diverse diet consuming insects, frogs, toads, bird eggs, snakes, and scorpions. Although it doesn't hibernate, it is still capable of slowing down its metabolism when food is scarce. When danger presents itself, the Indian hedgehog rolls up into a ball. The upper side of the body has spines to protect from predators. The Indian hedgehog is capable of digging burrows about 45 cm long. They use these to sleep in and to stay hidden from danger. Any open burrow is fair game and they inhabit any that are vacant. Like all hedgehogs, these animals go through a process called self-anointing. They spread their own saliva on their spines and fur after tasting or smelling something that is unfamiliar to them. This behavior occurs in both sexes, at all ages, and at any time of the year.