

WOLVES









wolf - волк

[wɒlf]



**tundra wolf -
тундровый волк**

['tʌndrə wɒlf]



**arabian wolf - арабский
волк**

[ə'reɪbiən wɒlf]



**steppe wolf - степной
ВОЛК**

[step wɒlf]



**himalayan wolf -
гималайский ВОЛК**

[hɪmə'leɪən wɒlf]



**mongolian wolf -
монгольский ВОЛК**

[mɒn'gəʊliən wɒlf]



eurasian wolf -
евразийский волк

[jʊə'reɪzjən wɒlf]



indian wolf -
индийский волк

['ɪndiən wɒlf]



italian wolf -
итальянский волк

[ɪ'tæliən wɒlf]



iberian wolf -
иберийский волк

[aɪˈbɪəriən wʊlf]



african golden wolf -
африканский золотой
волк

[ˈæfrɪkən ˈgəʊldən wʊlf]

Wolf



The wolf, also known as the gray wolf or grey wolf, is a large canine native to Eurasia and North America. More than thirty subspecies of *Canis lupus* have been recognized, and gray wolves, as colloquially understood, comprise non-domestic/feral subspecies. The wolf is the largest extant member of Canidae, males averaging 40 kg and females 37 kg. Wolves measure 105–160 cm in length and 80–85 cm at shoulder height. The wolf is also distinguished from other *Canis* species by its less pointed ears and muzzle, as well as a shorter torso and a longer tail. The wolf is nonetheless related closely enough to smaller *Canis* species, such as the coyote and the golden jackal, to produce fertile hybrids with them. The banded fur of a wolf is usually mottled white, brown, gray, and black, although subspecies in the arctic region may be nearly all white.

Of all members of the genus *Canis*, the wolf is most specialized for cooperative game hunting as demonstrated by its physical adaptations to tackling large prey, its more social nature, and its highly advanced expressive behaviour. It travels in nuclear families consisting of a mated pair accompanied by their offspring. Offspring may leave to form their own packs on the onset of sexual maturity and in response to competition for food within the pack. Wolves are also territorial and fights over territory are among the principal causes of wolf mortality. The wolf is mainly a carnivore and feeds on large wild hooved mammals as well as smaller animals, livestock, carrion, and garbage. Single wolves or mated pairs typically have higher success rates in hunting than do large packs. Pathogens and parasites, notably rabies virus, may infect wolves.

The wolf is the largest member of the Canidae family, and is further distinguished from coyotes and jackals by a broader snout, shorter ears, a shorter torso and a longer tail. It is slender and powerfully built with a large, deeply descending rib cage, a sloping back, and a heavily muscled neck. The wolf's legs are moderately longer than those of other canids, which enables the animal to move swiftly, and to overcome the deep snow that covers most of its geographical range in winter. The ears are relatively small and triangular. The wolf's head is large and heavy, with a wide forehead, strong jaws and a long, blunt muzzle. The skull is 230–280 mm in length and 130–150 mm in width. The teeth are heavy and large, making them better suited to crushing bone than those of other canids. They are not as specialized as those found in hyenas though. Its molars have a flat chewing surface, but not to the same extent as the coyote, whose diet contains more vegetable matter. Females tend to have narrower muzzles and foreheads, thinner necks, slightly shorter legs, and less massive shoulders than males.

Adult wolves measure 105–160 cm in length and 80–85 cm at shoulder height. The tail measures 29–50 cm in length, the ears 90–110 mm in height, and the hind feet are 220–250 mm. The size and weight of the modern wolf increases proportionally with latitude in accord with Bergmann's rule. The mean body mass of the wolf is 40 kg, the smallest specimen recorded at 12 kg and the largest at 79.4 kg. On average, European wolves weigh 38.5 kg, North American wolves 36 kg, and Indian and Arabian wolves 25 kg.

Females in any given wolf population typically weigh 2.3–4.5 kg less than males. Wolves weighing over 54 kg are uncommon, though exceptionally large individuals have been recorded in Alaska and Canada. In middle Russia, exceptionally large males are given a maximum weight of 69–79 kg.

The wolf has very dense and fluffy winter fur, with a short undercoat and long, coarse guard hairs. Most of the undercoat and some guard hairs are shed in spring and grow back in autumn. The longest hairs occur on the back, particularly on the front quarters and neck. Especially long hairs grow on the shoulders and almost form a crest on the upper part of the neck. The hairs on the cheeks are elongated and form tufts. The ears are covered in short hairs and project from the fur. Short, elastic and closely adjacent hairs are present on the limbs from the elbows down to the calcaneal tendons. The winter fur is highly resistant to the cold. Wolves in northern climates can rest comfortably in open areas at $-40\text{ }^{\circ}\text{C}$ by placing their muzzles between the rear legs and covering their faces with their tail. Wolf fur provides better insulation than dog fur and does not collect ice when warm breath is condensed against it.

In cold climates, the wolf can reduce the flow of blood near its skin to conserve body heat. The warmth of the foot pads is regulated independently from the rest of the body and is maintained at just above tissue-freezing point where the pads come in contact with ice and snow. In warm climates, the fur is coarser and scarcer than in northern wolves.

Female wolves tend to have smoother furred limbs than males and generally develop the smoothest overall coats as they age. Older wolves generally have more white hairs on the tip of the tail, along the nose, and on the forehead. Winter fur is retained longest by lactating females, although with some hair loss around their teats. Hair length on the middle of the back is 60–70 mm, and the guard hairs on the shoulders generally do not exceed 90 mm, but can reach 110–130 mm.

A wolf's coat colour is determined by its guard hairs. Wolves usually have some hairs that are white, brown, gray and black. The coat of the Eurasian wolf is a mixture of ochreous (yellow to orange) and rusty ochreous (orange/red/brown) colours with light gray. The muzzle is pale ochreous gray, and the area of the lips, cheeks, chin, and throat is white. The top of the head, forehead, under and between the eyes, and between the eyes and ears is gray with a reddish film. The neck is ochreous. Long, black tips on the hairs along the back form a broad stripe, with black hair tips on the shoulders, upper chest and rear of the body. The sides of the body, tail, and outer limbs are a pale dirty ochreous colour, while the inner sides of the limbs, belly, and groin are white. Apart from those wolves which are pure white or black, these tones vary little across geographical areas, although the patterns of these colours vary between individuals.

In North America, the coat colours of wolves follow Gloger's rule, wolves in the Canadian arctic being white and those in southern Canada, the U.S., and Mexico being predominantly gray. In some areas of the Rocky Mountains of Alberta and British Columbia, the coat colour is predominantly black, some being blue-gray and some with silver and black. Differences in coat colour between sexes is absent in Eurasia; females tend to have redder tones in North America. Black-coloured wolves in North America acquired their colour from wolf-dog admixture after the first arrival of dogs across the Bering Strait 12,000 to 14,000 years ago. Research into the inheritance of white colour from dogs into wolves has yet to be undertaken.

Wolves occurred originally across Eurasia and North America. Deliberate human persecution because of livestock predation and fear of attacks on humans has reduced the wolf's range to about one-third of what it once was. The wolf is now extirpated (locally extinct) in much of Western Europe, the United States and Mexico, and in Japan. In modern times, the wolf occurs mostly in wilderness and remote areas. The wolf can be found between sea level and 3,000 m. Wolves live in forests, inland wetlands, shrublands, grasslands (including Arctic tundra), pastures, deserts, and rocky peaks on mountains. Habitat use by wolves depends on the abundance of prey, snow conditions, livestock densities, road densities, human presence and topography.

Like all land mammals that are pack hunters, the wolf feeds predominantly on wild herbivorous hoofed mammals that can be divided into large size 240–650 kg and medium size 23–130 kg, and have a body mass similar to that of the combined mass of the pack members. The wolf specializes in preying on the vulnerable individuals of large prey, with a pack of 15 able to bring down an adult moose. The variation in diet between wolves living on different continents is based on the variety of hoofed mammals and of available smaller and domesticated prey.

In North America, the wolf's diet is dominated by wild large hoofed mammals (ungulates) and medium-sized mammals. In Asia and Europe, their diet is dominated by wild medium-sized hoofed mammals and domestic species. The wolf depends on wild species, and if these are not readily available, as in Asia, the wolf is more reliant on domestic species. Across Eurasia, wolves prey mostly on moose, red deer, roe deer and wild boar. In North America, important range-wide prey are elk, moose, caribou, white-tailed deer and mule deer. Wolves can digest their meal in a few hours and can feed several times in one day, making quick use of large quantities of meat. A well-fed wolf stores fat under the skin, around the heart, intestines, kidneys, and bone marrow, particularly during the autumn and winter.

Nonetheless, wolves are not fussy eaters. Smaller-sized animals that may supplement their diet include rodents, hares, insectivores and smaller carnivores. They frequently eat waterfowl and their eggs. When such foods are insufficient, they prey on lizards, snakes, frogs, and large insects when available.

Wolves in northern Minnesota prey on northern pike in freshwater streams. The diet of coastal wolves in Alaska includes 20% salmon, while those of coastal wolves in British Columbia includes 25% marine sources, and those on the nearby islands 75%.

In Europe, wolves eat apples, pears, figs, melons, berries and cherries. In North America, wolves eat blueberries and raspberries. Wolves also eat grass, which may provide some vitamins. They are known to eat the berries of mountain-ash, lily of the valley, bilberries, cowberries, European black nightshade, grain crops, and the shoots of reeds.

In times of scarcity, wolves will readily eat carrion. In Eurasian areas with dense human activity, many wolf populations are forced to subsist largely on livestock and garbage. Prey in North America continue to occupy suitable habitats with low human density, the wolves eating livestock and garbage only in dire circumstances. Cannibalism is not uncommon in wolves during harsh winters, when packs often attack weak or injured wolves and may eat the bodies of dead pack members.

Tundra wolf



The tundra wolf, also known as the Turukhan wolf, is a subspecies of grey wolf native to Eurasia's tundra and forest-tundra zones from Finland to the Kamchatka Peninsula. It was first described in 1792 by Robert Kerr, who described it as living around the Yenisei, and of having a highly valued pelt.

It is a large subspecies, with adult males measuring 118–137 cm in body length, and females 112–136 cm. Although often written to be larger than *C. l. lupus*, this is untrue, as heavier members of the latter subspecies have been recorded. Average weight is 40–49 kg for males and 36.6–41 kg for females. The highest weight recorded among 500 wolves caught in the Taymyr Peninsula and the Kanin Peninsula during 1951–1961 was from an old male killed on the Taymyr at the north of the Dudypta River weighing 52 kg. The fur is very long, dense, fluffy and soft, and is usually light and grey in colour. The lower fur is lead-grey and the upper fur is reddish-grey.

The tundra wolf generally rests in river valleys, thickets and forest clearings. In winter it feeds almost exclusively on female or young wild and domestic reindeer, though hares, arctic foxes and other animals are sometimes targeted. The stomach contents of 74 wolves caught in the Nenets Autonomous Okrug in the 1950s were found to consist of 93.1% reindeer remains. In the summer period, tundra wolves feed extensively on birds and small rodents, as well as newborn reindeer calves.

Arabian wolf



The Arabian wolf is a subspecies of gray wolf which lives on the Arabian Peninsula, the Negev Desert, the Sinai Peninsula, and Jordan. It is the smallest wolf subspecies, and a desert-adapted subspecies that normally lives in small groups. It is omnivorous, eating carrion and garbage, as well as small to medium-sized prey.

The Arabian wolf is small for a wolf. It stands on average 25–26 inches at shoulder height and the adult weighs an average of 45 pounds. The cranial length of the adult Arabian wolf measures on average 200.8 mm, which is smaller than most wolves. Along with the Indian wolf, it is probably smaller than other wolves to help it adapt to life in a hot, dry climate. This is an example of Bergmann's rule, where mammal size varies by the warmth of their environment. Its ears are proportionally larger in relation to its body size when compared to other sub-species of *Canis lupus*, an adaptation probably developed to help disperse body heat. Arabian wolves do not usually live in large packs, and instead hunt in pairs or in groups of about three or four animals. They have a short thin coat which is usually a grayish beige color, "... a mixture of black and slightly buffy grey" according to Pocock. Similar to other canines, the Arabian wolf does not have sweat glands and so it must control its body temperature by rapid panting, which causes evaporation from the lungs. Occasionally the pads of the third and fourth toes are fused in the back; a feature which differentiates its tracks from a dog's. It is distinguished from the Indian wolf by its smaller skull, smaller size and thinner coat.

Steppe wolf



The steppe wolf, also known as the Caspian Sea wolf, is a subspecies of grey wolf native to the Caspian steppes, the steppe regions of the Caucasus, the lower Volga region, southern Kazakhstan north to the middle of the Emba, and the steppe regions of the lower European part of the former Soviet Union. It may also occur in northern Afghanistan and Iran and occasionally the steppe regions of Romania and Hungary. The German name is Steppenwolf, whence the novel (1927) by the German author Hermann Hesse got its name. Studies have shown that this type of wolf is known to carry rabies. Due to its close proximity to domestic animals the need for a reliable vaccination is high.

It is of average dimensions, weighing 35–40 kg, thus being somewhat smaller than the Eurasian wolf and its fur is sparser, coarser and shorter. The flanks are light grey, and the back is rusty grey or brownish with a strong admixture of black hairs. The guard hairs on the withers usually do not exceed 70–75 mm. The fur of steppe wolves in Middle Asia and Kazakhstan tends to have more reddish tones. The tail is poorly furred. The skull is 224–272 mm long and 128–152 mm wide.

Himalayan wolf



The Himalayan wolf is a canine of debated taxonomy. It is distinguished by its genetic markers, with mitochondrial DNA indicating that it is genetically basal to the Holarctic grey wolf, genetically the same wolf as the Tibetan wolf, and has an association with the African golden wolf. No striking morphological differences are seen between the wolves from the Himalayas and those from Tibet. The Himalayan wolf lineage can be found living in the Himalayas, the Tibetan Plateau, and the Central Asian highlands predominantly above 4,000 m in elevation because it has adapted to a low-oxygen environment, compared with other wolves that are found only at lower elevations.

The Himalayan wolf has a thick, woolly fur that is dull earthy-brown on the back and tail, and yellowish-white on the face, belly, and limbs. It is about 110 cm long and 76 cm tall at the shoulder. It is larger than the Indian wolf. It has closely spaced black speckles on the muzzle, below the eyes, and on the upper cheeks and ears. It weighs about 35 kg.

The heart of the Himalayan wolf withstands the low oxygen level at high elevations. It has a strong selection for RYR2, a gene that initiates cardiac excitation.

Mongolian wolf



The Mongolian wolf is a subspecies of the grey wolf which is native to Mongolia, northern and central China, Korea, and the Ussuri region of Russia.

The fur fulvous, on the back longer, rigid, with intermixed black and grey hairs; the throat, chest, belly, and inside of the legs pure white; head pale gray-brown; forehead grizzled with short black and grey hairs. Hab. Chinese Tartary. Called Chanco. The skull is very similar to, and has the same teeth as, the European wolf. The animal is very like the Common Wolf, but rather shorter on the legs; and the ears, the sides of the body, and outside of the limbs are covered with short, pale fulvous hairs. The length of its head and body are 110 cm; tail 38 cm.

Eurasian wolf



The Eurasian wolf, also known as the common wolf or Middle Russian forest wolf, is a subspecies of grey wolf native to Europe and the forest and steppe zones of the former Soviet Union. It was once widespread throughout Eurasia prior to the Middle Ages. Aside from an extensive paleontological record, Indo-European languages typically have several words for wolf, thus attesting to the animal's abundance and cultural significance. It was held in high regard in Baltic, Celtic, Slavic, Turkic, ancient Greek, Roman, and Thracian cultures, whilst having an ambivalent reputation in early Germanic cultures.

The European wolf's head is narrower, and tapers gradually to form the nose, which is produced on the same plane with the forehead. Its ears are higher and somewhat nearer to each other; their length exceeds the distance between the auditory opening and the eye. Its loins are more slender, its legs longer, feet narrower, and its tail is more thinly clothed with fur. The shorter ears, broader forehead, and thicker muzzle of the American Wolf, with the bushiness of the hair behind the cheek, give it a physiognomy more like the social visage of an Esquimaux dog than the sneaking aspect of a European Wolf.

Indian wolf



The Indian wolf is a subspecies of grey wolf that ranges from Southwest Asia to the Indian Subcontinent. It is intermediate in size between the Himalayan wolf and the Arabian wolf, and lacks the former's luxuriant winter coat due to it living in warmer conditions. Within this subspecies, the "Indian plains wolf" is genetically basal to all other extant *Canis lupus* apart from the older-lineage Himalayan wolf, with both proposed as separate species. The Indian wolf travels in smaller packs and is less vocal than other variants of the grey wolf, and has a reputation for being cunning.

The Indian wolf is similar in structure to the Eurasian wolf, but is smaller, more slightly built, and has shorter fur with little to no underfur. It is typically around 57-72 cm at shoulder height, with males ranging from 19-25 kg and females 17-22 kg in weight. Its length ranges from 103-145 cm from nose to tail. Like the Arabian wolf, it has short, thin fur in summer, though the hair on the back remains long even in summer, an adaptation thought to be against solar radiation. The fur is generally greyish-red to reddish-white with grey tones. The hairs are grizzled with black, particularly on the back, which sports a dark V-shaped patch around the shoulders. The limbs are paler than the body, and the underparts are almost completely white. Pups are born sooty-brown, with a milk-white patch on the chest that fades with age. Black specimens are rare, but have been recorded in India's Solapur district and two regions of Iran.

Italian wolf



The **Italian wolf**, also known as the **Apennine wolf**, is a subspecies of grey wolf native to the Italian Peninsula. It inhabits the Apennine Mountains and the Western Alps, though it is undergoing expansion towards the north and east. As of 2019, the Italian wolf population is estimated to consist of 600–700 individuals. It has been strictly protected in Italy since the 1970s, when the population reached a low of 70–100 individuals. The population is increasing in number, though illegal hunting and persecution still constitute a threat. Since the 1990s, the Italian wolf's range has expanded into southwestern France and Switzerland.

The Italian wolf typically weighs 25–35 kg, though some large males have been weighed at 40–45 kg. It measures 110–148 cm in body length and 50–70 cm in shoulder height. The pelt is generally of a grey-fulvous colour, which reddens in summer. The belly and cheeks are more lightly coloured, and dark bands are present on the back and tail tip, and occasionally along the fore limbs. Black wolves have been reported in the north-central Apennines, though their origin is unknown, as some melanistic individuals show no sign of wolf-dog hybridisation. It typically lives in packs of two to seven individuals.

Iberian wolf



The Iberian wolf, also known as Spanish wolf, is a subspecies of grey wolf. It inhabits the northwest of the Iberian Peninsula, which includes northern Portugal and northwestern Spain. It is home to 2,200-2,700 wolves which have been isolated from mixing with other wolf populations for over a century. They form the largest wolf population in Western Europe.

Cabrera identified two types of wolves living in Spain. In comparison, *C. l. lupus* had a pale, undefined stroke on the cheek that contrasts with the white on the throat; *C. l. signatus* had a white stroke on the cheek that joins the white throat and with a reddish snout; and *C. l. deitanus* was much smaller and with more colouring than the wolves to the north is described by Cabrera as being 140-180 cm in head and body length, and 70-80 cm height at the shoulders.

The Iberian wolf differs from the more common Eurasian wolf with its slighter frame, white marks on the upper lips, the dark marks on the tail, and a pair of dark marks in its front legs that give it its subspecies name, *signatus* ("marked"). The subspecies differentiation may have developed at the end of the Pleistocene Ice Ages due to the isolation of the Iberian Peninsula when glacier barriers grew in the Pyrenees and eventually reached the Gulf of Biscay in the west and the Mediterranean in the east.

Height is 70-90cm and body length 110-140cm. Females weigh 25-35kg while Males weigh 35-55kg.

African golden wolf



The African golden wolf or African wolf is a canine native to North Africa, West Africa, the Sahel, northern East Africa, and the Horn of Africa. It is the descendant of a genetically admixed canid of 72% gray wolf and 28% Ethiopian wolf ancestry. It is listed as least concern on the IUCN Red List. In the Atlas Mountains, it was sighted in elevations as high as 1,800 m. It is primarily a predator, targeting invertebrates and mammals as large as gazelle fawns, though larger animals are sometimes taken. Its diet also includes animal carcasses, human refuse, and fruit. The African golden wolf is a monogamous and territorial species; offspring remain with the family to assist in raising their parents' younger pups.

The African golden wolf is intermediate in size between the African jackals and the small subspecies of gray wolves, with both sexes weighing 7-15 kg, and standing 40 cm in height. There is however a high degree of size variation geographically, with Western and Northern African specimens being larger than their East African cousins. It has a relatively long snout and ears, while the tail is comparatively short, measuring 20 cm in length. Fur color varies individually, seasonally and geographically, though the typical coloration is yellowish to silvery grey, with slightly reddish limbs and black speckling on the tail and shoulders. The throat, abdomen and facial markings are usually white, and the eyes are amber-colored. Females bear two to four pairs of teats. Although superficially similar to the golden jackal (particularly in East Africa), the African golden wolf has a more pointed muzzle and sharper, more robust teeth. The ears are longer in the African golden wolf, and the skull has a more elevated forehead.