

● The National Bank of Poland is putting into circulation coins of the Animals of the World series depicting the lesser horseshoe bat:

**2 zł** – struck in standard finish in Nordic Gold, on 19 April 2010;

**20 zł** – struck in proof finish in silver, on 21 April 2010.

## The National Bank of Poland

holds the exclusive right to issue the currency in the Republic of Poland.

In addition to coins and notes for general circulation, the NBP issues collector coins and notes.

Issuing collector items is an occasion to commemorate important historic figures and anniversaries, as well as to develop the interest of the public in Polish culture, science and tradition.

Since 1996, the NBP has also been issuing occasional 2 złoty coins, struck in Nordic Gold, for general circulation.

All coins and notes issued by the NBP are legal tender in Poland.

COINS ISSUED IN 2010 COINS ISSUED IN 2010

Since 1993, the NBP has been issuing coins of the „Animals of the World” series.

The „Lesser horseshoe bat” is the seventeenth theme in the series

Information on the issue schedule can be found at the [www.nbp.pl/monety](http://www.nbp.pl/monety) website.

Collector coins issued by the National Bank of Poland are sold exclusively at the Internet auctions held in the Kolekcjoner service at the following website:

[www.kolekcjoner.nbp.pl](http://www.kolekcjoner.nbp.pl)

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The coins were struck at the Mint of Poland in Warsaw.

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NBP

National Bank of Poland

# COINS



ANIMALS OF THE WORLD

Lesser horseshoe bat  
(*Rhinolophus hipposideros*)



# Animals of the World: Lesser horseshoe bat (*Rhinolophus hipposideros*)

- The lesser horseshoe bat (*Rhinolophus hipposideros*) belongs to the family of horseshoe bats (*Rhinolophidae*). Scientists distinguish only one, sizeable genus (*Rhinolophus*) within the horseshoe bat family. Currently, the genus consists of 77 species, five of which inhabit Europe. The geographical range of the lesser horseshoe bat covers the area from the Iberian Peninsula in Europe to Kashmir in Asia. The species also inhabits North Africa. It lives in uplands and lower regions of mountain areas. In Europe, the most numerous population of the lesser horseshoe bat lives in the Mediterranean Sea area. The northernmost sites have been reported in Western Ireland. In Poland, the habitat of the lesser horseshoe bat covers the Kraków-Częstochowa Highland, the Polish Carpathian mountains (excluding the Tatras) and the Polish Sudety mountains. Single specimens have been spotted in Podkarpackie and Śląsk Opolski area. The most numerous population inhabits the Beskidy mountains.
- The lesser horseshoe bat (average weight: 4–8 grams) is one of the smallest bats living in Poland. Its fur is soft and fluffy, light brown or grey-and-brown on the dorsal side; the bat's ventral fur is paler and greyish. Juveniles are coloured darker than adult bats. The lesser horseshoe bat has wide and short wings, which are grey and brown in colour. There is also a larger horseshoe bat (average weight: 19-30 grams) in the Polish fauna. It is much bigger and can be found very rarely.
- The lesser horseshoe bat's nose is covered with a fleshy growth; its part, surrounding the bat's nostrils, is called a horseshoe – hence the name of the bats. The lesser horseshoe bats send echolocation signals

of a frequency of 108-114 kHz through their nostrils, and the flap of skin around the nose helps intensify and direct the signals. The horseshoe bats are able to move their ears, and ear movements are synchronised with the echolocation signal emission.

- The lesser horseshoe bat usually roosts in warm attics, mainly in churches, where it forms small colonies (usually consisting of 10–200 bats) – allowing an ideal nursery roost. In the past, the species roosted also in caves and fortifications. The horseshoe bat winters alone or in colonies, always at a distance from other individuals, wrapping wing membranes around its body. The bat's hibernacula include caves, disused mines, abandoned quarries or fortifications. The lesser horseshoe bat chooses rather warm places (6–9°C), where the relative air humidity is high. It is loyal to its roosts and uses them year after year.

- The gestation period of the lesser horseshoe bat lasts approximately 75 days. Delivery of the young usually occurs between mid-June and mid-July. A female gives birth to one offspring which becomes self-sufficient after six to seven weeks. Representatives of the species attain sexual maturity in autumn at the beginning of the second year of their lives. In the natural habitat the lesser horseshoe bat's average life span is four to five years although its maximum life span is 29 years and 5 months.

- The lesser horseshoe bat is a sedentary species, and it stays in the same area throughout the year. Its feeding areas include forests, orchards, parklands, tree-covered pastures and stony hillsides, invariably within the range of 2,5 km from its roost. The peak of the lesser horseshoe bat's

hunting activity is in the early hours of the night. It shows preference for small insects (taxonomic orders of *Diptera*, *Hymenoptera*, *Lepidoptera*, *Neuroptera*, *Coleoptera*). It snatches them in mid-air or collects them from the surface of rocks, walls, leaves and tree trunks. Its flight is agile and resembles that of a butterfly. Young bats learn flying while clinging to their mothers.

- On the European Red List, the lesser horseshoe bat has been classified as vulnerable (VU), i.e. considered to be facing a high risk of extinction. According to the Polish Red Data Book of Animals, the species is classified under EN category, i.e. endangered species. A dramatic decline in the population of horseshoe bats in Europe (in Poland, reaching over 90%) took place in 1950s–1980s. This came as a consequence of a widespread use of highly toxic pesticides, both in agriculture and forestry. Currently, the population of the lesser horseshoe bat appears to have reached a stable number, and showing an increase in some locations. Nevertheless, it remains a species highly in danger of extinction. The main threats to the existence of the lesser horseshoe bat are: human disturbance in the bat's hibernacula, decreasing number of nursery roosts (improperly conducted renovation of churches) as well fragmentation and loss of foraging habitats, mostly as a consequence of ill-planned infrastructure development.

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COINS ISSUED IN 2010 COINS ISSUED IN 2010 COINS ISSUED IN 2010 COINS ISSUED IN 2010 COINS ISSUED IN 2010 COINS ISSUED IN 2010 COINS ISSUED IN 2010



FACE VALUE **20** ZŁ

metal **Ag 925/1000** ■ finish **proof** ■ diameter **38.61 mm**  
 weight **28.28 g** ■ mintage (volume) **100,000 pcs**

**OBVERSE:** An image of the Eagle established as the emblem of the Republic of Poland. Below the Eagle, the notation of the year of issue: 2010, underneath, an inscription: ZŁ 20 ZŁ. On the sides of the Eagle's legs stylised images of the national flag of the Republic of Poland. At the top a semicircular inscription: RZECZPOSPOLITA POLSKA (Republic of Poland). The mint's mark: M/W, under the Eagle's left leg.

**REVERSE:** In the central part, a stylised image of a flying lesser horseshoe bat. Above and to the left of the bat, stylized images of two bats flying at a distance. Above and on the right-hand side, against a fragment of a wooden shed, silhouettes of bats hanging upside down. Below, images of knolls and wooden buildings. At the bottom, in a semicircle from left to right, an inscription: PODKOWIEC MAŁY – Rhinolophus hipposideros (Lesser Horseshoe Bat – Rhinolophus hipposideros).

Obverse designer: **EWA TYC-KARPIŃSKA**  
 Reverse designer: **ANDRZEJ NOWAKOWSKI**



FACE VALUE **2** ZŁ

metal **CuAl5Zn5Sn1 alloy** ■ finish **standard** ■ diameter **27.0 mm**  
 weight **8.15 g** ■ mintage (volume) **1,700,000 pcs**

**OBVERSE:** An image of the Eagle established as the emblem of the Republic of Poland. Below the Eagle, the notation of the year of issue: 2010, underneath, an inscription: ZŁ 2 ZŁ. On the sides of the Eagle's legs stylised images of the national flag of the Republic of Poland. At the top a semicircular inscription: RZECZPOSPOLITA POLSKA (Republic of Poland). The mint's mark: M/W, under the Eagle's left leg.

**REVERSE:** In central part, a stylised image of a flying lesser horseshoe bat. Above, against cloudy sky, two bats flying at a distance. Below, an image of the sun setting above knolls. At the top, a semicircular inscription: PODKOWIEC MAŁY – Rhinolophus hipposideros (Lesser Horseshoe Bat – Rhinolophus hipposideros).

**ON THE EDGE:** The inscription, NBP, repeated eight times, every second one inverted by 180 degrees, separated by stars.

Obverse designer: **EWA TYC-KARPIŃSKA**  
 Reverse designer: **ANDRZEJ NOWAKOWSKI**