

Nature reserve for Polish konik horses

Precious Ponies

ZBIGNIEW JAWORSKI

Research Station for Ecological Agriculture
and Preservation of Native Breeds, Popielno
Polish Academy of Sciences
zbigniew.jaworski@wp.pl

Polish koniks, a semi-wild breed of horse, are a kind of natural relic and a precious part of Poland's and Europe's heritage. Their unique biological and breeding characteristics have led them to be recognized as a reserve genetic resource for horse breeding. Due to their small numbers, they are also classified as an endangered breed

These small horses owe their name "Polish konik" to Prof. Tadeusz Vetulani, who introduced the term into

the hippological literature in the mid-1920s. Derived from the diminutive form of "horse" in Polish, the name now frequently appears in horse breed atlases published worldwide. Aside from a description of the breed, such atlases often mention a small town in Poland's Mazurian Lake District: the breeding center at Popielno.

Dun and striped

The Eurasian wild horse, called the tarpan (*Equus caballus gmelini* Ant.), which was still sporadically encountered in forested areas of eastern Poland, Lithuania, and Prussia until the end of the 18th century, is now extinct – all we have left are two skulls and skeletons plus descriptions, drawings, and photographs. Around 1780, the last of them were rounded up to the manor farm of the Zamojski counts in the town of Zwierzyniec near Biłgoraj, which then turned them over to the local peasants in 1806.



Zbigniew Jaworski

Most hippologists agree that reserve breeding is essential if the traits the Polish koniks inherited from their tarpan ancestors are to be preserved

Research 100 years later discovered that primitive small horses were still attested in the area, to a large degree reminiscent of the extinct wild tarpans. They were short, some 110–130 cm high at the shoulder, frequently having a dun (mouse-gray) coat and a dark stripe down their backs, and often striped limbs. In the mid-1920s these primitive ponies drew the attention of Jagiellonian University graduate Tadeusz Vetulani, subsequently a professor at Poznań University. Based on his research and observations, he hypothesized that a forest variety of the tarpan (*Equus cab. gmelini Ant., forma silvatica Vet.*) had split off from the populations living in the steppes of Eastern Europe and had survived into the mid 18th-century in the lands of Poland, Lithuania, and Prussia. Vetulani decided to try to demonstrate his hypothesis about the sylvan origins of the Polish koniks experimentally and set up the first reserve in 1936, placing konik horses into the Białowieża Forest environment.

Stallion and eight mares

This reserve breeding experiment was first interrupted by WWII, and later hampered by Professor Vetulani's premature death in 1952. Fortunately, a decision was made to continue the research initiated in 1936, with a forest reserve established alongside an existing breeding farm in Popielno (since 1949), which took in the group of Polish koniks from Białowieża. On 1 January 1955, the entire stud in Popielno was turned over to the Polish Academy of Sciences.

In fact, the term "reserve breeding" here means allowing the horses to live under conditions similar to the ones known to their wild ancestors. This means living a natural sylvan environment (a natural forest or meadow/forest ecosystem), in family/harem groups, in proximity to other wild animals. The horses and other animals at Popielno have complete freedom, with only very limited human interference.

The first koniks contributed to the reserve in 1955 were a herd of a stallion and eight mares. The horses of the four harem groups now in the reserve are for the most part descended from that herd. Each of these groups is headed by a lead stallion, who sires offspring, protects the herd from other horses, and enforces order within the herd. Subsequent rungs in the social hierarchy are held by mares depending on their individual character traits, and by young specimens depending on their age and their mother's rank. The composition of the herds is not constant, and sometimes shifts from year to year. The largest group is now led by the stallion Osowiec (born 1987), with 7 mares, the smallest by the stallion Mor (born 2000), with only 3.

The herd structure and the behavior of the free-living Polish koniks has indeed to a large extent grown similar to the customs of their wild ancestors, the tarpans. The

stallions have divided the reserve up into territories which they and their mares occupy, generally following the unwritten rules quite closely.

Living primitive genetic resource

The koniks living at the reserve have a quite sparse, yet varied habitat. In terms of fodder they are exceptionally indiscriminating and make do with whatever vegetation is available to them. They know how to make excellent use of it, which enables them to stay in excellent shape through the whole year. That is one of the primitive characteristics they inherited from their ancestors.

Konik reproduction at the reserve follows its natural rhythm, without any sort of human intervention or any assistance during or after birth. The animals regulate their breeding cycle on their own and choose their own partners. Human intervention only involves periodically leaving the necessary number of foals to ensure "up-keep" of the herd. The free-living horses are extremely procreative, with the foaling rate reaching 100% of mares in many years, or more than 92% over a 50-year period. The mares moreover remain fertile until a late age, sometimes continuing to give birth until 25–27 years old, then living even as long as 33 years. The absolute record-holder in Poland is the mare Tarka, who gave birth to her 25th foal at the age of 27.

In reserve breeding, foals are most frequently born from March to May, although individual births sometimes occur even in the heart of winter. The survival of newborns who come into the world even at -20° Celsius is evidence of their exceptional health, hardiness, and extreme vitality.

After more than 50 years these small, mousy-coated horses have truly made the Popielno peninsula their home. Most hippologists agree that such reserve breeding is essential if the traits the Polish koniks inherited from their tarpan ancestors are to be preserved. The Popielno Research Station of the Polish Academy of Sciences maintains the most genetically diverse herd of koniks, offering a considerable resource of primitive genes for boosting the diversity of horse breeds and types in Poland – a goal that is in line with world and national strategies for conserving biological diversity. ■

Further reading:

- Hroboni Z. (1959). Historic Outline of Primitive Horse Breeding in Poland [in Polish]. *Rocz. Nauk Rol.*, 73(4), 625–721.
- Jezierski T., Jaworski Z. (1995). *Polish Koniks at Popielno* [in Polish]. Jastrzębiec: IGIHZ PAN.
- Kownacki M. (1984). *Polish Koniks* [in Polish]. Warszawa: PWN.
- Pruski W., Jaworska M. (1963). Work and Research in Poland towards Regenerating the Tarpan Wild Horses [in Polish]. *Rocz. Nauk Rol., Ser. D*, 108, 3–108.