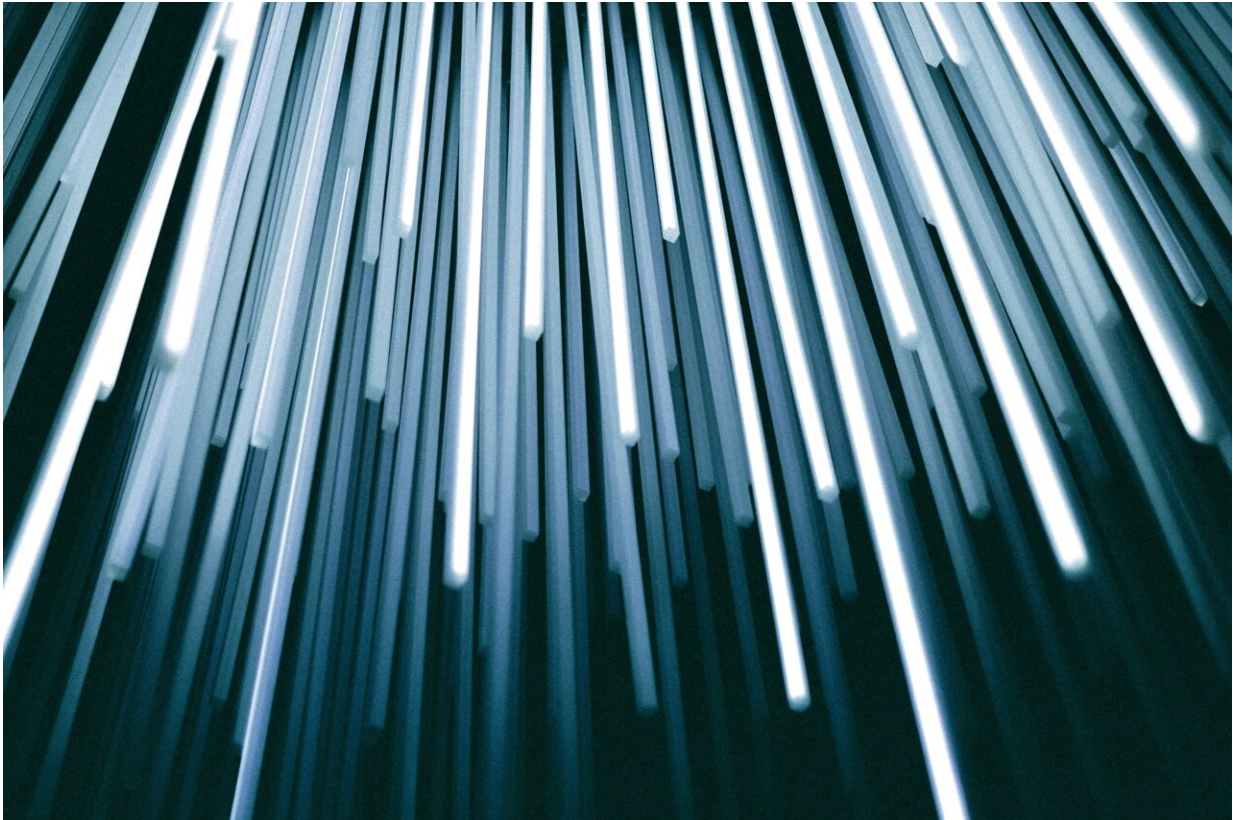


The history of Eurasian wild horses

May 25 2016, by Andrea Castelli



Credit: CC0 Public Domain

How Eurasian wild horses from the last glacial period, their living and extinct relatives, and 20th century back-breeds all ended up being called the same thing—and what is really behind that name

We don't know how many species or subspecies of [wild horses](#) lived in

Europe and Asia when early domestication attempts began, but we do know that only one of them escaped or resisted domestication, survived captivity, and is still living in the wild today. This enduring species are Przewalski [horses](#) (*Equus przewalskii*), also known as Mongolian wild horses or, in local language, takhi.

We also don't know how many species or subspecies were domesticated. The variety of domestic breeds we see today may have one or several ancestors, but many authors do not believe that Przewalski horses were among them, pointing instead to an extinct species of European wild horses (*Equus ferus*) of which the horses known as tarpans may have been the last surviving population. This explains why the word "tarpan" is widely used today as a synonym for wild horse, but where did the tarpans really come from?

There seem to be two different views on this. According to the first, the horses known as tarpans were the direct descendants of a wild population from Pleistocene times, regardless of how much they later mixed, or were mixed by humans, with domestic or [feral horses](#), while the second holds that they were nothing more than feral horses, no matter how ancient. From the pages of [Mammal Species of the World](#), Grubb (2005) reminds us that material evidence that the tarpan was a wild horse, distinct from Przewalski horses, "is limited to osteological material of two specimens and it has not been reliably identified with Pleistocene or Holocene local populations," so it is not surprising that "its status as a wild rather than a feral form is disputed."

This is how Kowalski (1967) summed up what we know about the wild horses of Europe and Asia:

In the open areas of the late Pleistocene, the wild horse was very common and was a principal prey of Paleolithic hunters. In the postglacial, the range of the wild horse contracted, beginning with

western Europe, and . . . now lives only in the semideserts of Central Asia Historical data prove the existence of wild horses in the Ukrainian steppes as late as the middle of the nineteenth century. These horses were described as a separate species . . . but they were more probably feral The postglacial development of forests made the existence of the wild horse in western and central Europe impossible, and the final limitation of its area to the semideserts of central Asia was the result of predation by man. (p. 359)

The historical data referred to by the Polish paleontologist are a series of written accounts from the eighteenth and nineteenth centuries. These early sources describe the tarpan as "a small animal, having a mouse-dun coat with a light underbelly, sooty to black limbs from the knees and hocks down, a short, frizzled mane, and a tail with short dock hair." This summary was given by Olsen (2006) who then remarked:

In fact, in most features the tarpan was very similar in appearance to the Przewalski horse, except that the coat was grayer and apparently turned very light in the winter. (p. 246)

The similarity evoked by this remark can be taken as evidence that the tarpan was indeed a wild horse, sharing primitive characters with Przewalski horses, but may also suggest a third possible answer to the question of where the tarpans came from. Though only rarely mentioned in the literature (Groves, pers. comm.), the coat of Przewalski horses can also turn lighter in winter, which would leave us only with the summer coat color difference between dun and mouse dun. What if what was recorded in the early eyewitness accounts were in fact sightings of Przewalski horses in wintertime? Yet another possibility is that, at the western end of their range, Przewalski horses had mixed with domestic or feral horses. For example, genetic studies suggest that interbreeding may have occurred in the past between Przewalski horses and domestic mares (Lau et al., 2009), a pattern that may have never been lost if the

same behavior is the reason why tarpan were ultimately hunted to extinction (Bököny 1974).

Regardless of their status, as many as three attempts to bring back the tarpan through selective breeding took place after their disappearance. In Poland, between 1936 and 1939, Vetulani used local horses among which may have lived the descendants of the last free-living forest tarpan—as distinct from steppe tarpan—although by then this lineage had already gone through captivity and domestication. The resulting breed is known as Konik—Polish for small horse—but often referred to as tarpan. In Germany, at around the same time, the Heck brothers used Przewalski horses, Koniks, and two domestic breeds for a similar program (Bunzel-Drüke 2001). The contribution from Koniks, however significant, is not nearly enough to make Heck horses the same as the vanished tarpan, and yet this is how they have since been known in Europe—and in North America, where six of them were imported beginning in the mid 1950s to become the founders of a new line. A stallion and two mares went to the Chicago Zoo, a pair at Catskill Game Farm, NY, and another mare to the Forth Worth Zoo (Blakely, 1981).

In the 1960s, in central Oregon, Harry Hegardt began a new back-breeding program using wild mustangs from the American west. Mustangs are believed to descend from the horses that crossed the Atlantic with the Spanish conquistadores, which in turn may have been closely related to the tarpan, but this connection would hardly make Hegardt horses, however fascinating their story, the same as tarpan, as they were described in the press.

Whether they were truly wild, a mix of wild and domestic horses, or nothing more than feral, the horses that lived in the forests and steppes of central and eastern Europe as late as the 19th century are the only ones we should call tarpan, without assuming that they had been living in the same place, as free and wild animals, since the end of the last

[glacial period.](#)

More information: Blakely, J. 1981. *Horses and Horse Sense: The Practical Science of Horse Husbandry*. Reston Publishing Company, Reston, VA.

Bököny, S. 1974. *History of Domestic Mammals in Central and Eastern Europe*. Akadémiai Kiadó, Budapest.

Bunzel-Drüke, M. 2001. Ecological Substitutes for Wild Horse (*Equus ferus* Boddaert, 1785 = *E. przewalskii* Poljakov, 1881) and Aurochs (*Bos primigenius* Bojanus, 1827), pp. 240–252 in Gerken, B., and Görner, M., eds., *Landscape Development with Large Herbivores: New Models and Practical Experiences*. Natur- und Kulturlandschaft 4. Paderborn University, Höxter.

Groves, C. P. 1994. Morphology, Habitat and Taxonomy, pp. 39–59 in Boyd, L. and Houpt, K. A., eds., *Przewalski's Horse: The History and Biology of an Endangered Species*. SUNY Press, Albany, NY.

Grubb, P. 2005. *Equus caballus*, pp. 630–631 in Wilson, D. E. and Reeder, D. M., eds., *Mammal Species of the World: A Taxonomic and Geographic Reference*, 3rd ed., vol. 1. John Hopkins University Press, Baltimore, MD.

Kowalski, K. 1967. The Pleistocene extinction of mammals in Europe, pp. 349–365 in Martin, P. and Wright, S., eds., *Pleistocene Extinctions: The Search for a Cause*. Yale University Press, New Haven, CT.

Lau, A. N., Peng, L., Goto, H., Chemnick, L., Ryder, O. A., and Makova, K. D. 2009. Horse Domestication and Conservation Genetics of Przewalski's Horse Inferred from Sex Chromosomal and Autosomal Sequences. *Molecular Biology and Evolution* 26 (1), pp. 199–208.

Olsen, S. L. 2006. Early horse domestication on the Eurasian steppe, pp. 245–269 in Zeder, M. A., Bradley, D. G., Emshwiller, E. and Smith, B. D., eds., Documenting Domestication: New Genetic and Archaeological Paradigms. University of California Press, Berkeley, CA.

This story is republished courtesy of PLOS Blogs: blogs.plos.org.

Provided by Public Library of Science

Citation: The history of Eurasian wild horses (2016, May 25) retrieved 24 April 2024 from <https://phys.org/news/2016-05-history-eurasian-wild-horses.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--