

The Wild Horse in North America

The Round-the-World 10,000 Year Journey of E. caballus

Compiled from numerous sources by Karen M. Parker, Wild Horse Advocate and Photographer

The history of the wild horse in North America is a convoluted and fascinating journey, encompassing the entire world and roughly 10,000 years. Their migratory paths, based on fossil remains, indicates that they crossed into Asia via the Bering Land Bridge and spread into northern Europe, southwest across the Iranian Plateau, and into northern Africa. Along the way the horse was domesticated, probably about 4,000 to 6,000 years ago in the Black Sea region of Asia.

E. caballus spreads over the Bering Land Bridge into Asia.

1519, Hernando Cortez brings 16 horses from Spain to the shores of today's Vera Cruz, Mexico. *E. caballus*, HOME AGAIN!

The last Ice Age occurred approximately 12-15,000 years ago. During this period, the shallow seas now separating Asia from North America near the present day Bering Strait dropped about 300 feet and created a 1,000 mile wide grassland steppe, exposing the Bering Land Bridge. Across this vast steppe, plants and animals traveled in both directions, and humans entered the Americas over the world's ancient crossroads.

The horse evolved in North America some 55 million years ago. Then 5.5 million years ago, the genus *Equus* diverged from early horses. And 1.4 to 1.6 million years ago, the modern horse (*E. caballus*) evolved and there is no evidence that it evolved anywhere except North America. While they may have been extinct in North America during the last Ice Age, when they made their astonishing journey home they were simply reintroduced native wildlife and not the "exotic" or non-native animals as they are now classified. Anyone who views science objectively would come to the same conclusion, the horse is indigenous to North America.

The sole survivors of *E. caballus*, which counts hundreds of extinct species, includes seven extant species: the Mongolian wild horse, or Przewalski's horse (*E. przewalskii*), the common or plains zebra (*E. burchelli*), the Grevy's zebra (*E. grevyi*), the mountain zebra (*E. zebra*), the wild ass (*E. asinus*), the Asiatic wild ass (*E. hemionus*), and of course, the modern horse.

Home Again: The Wild Horse Returns to North America

In 1492, the Spanish reached the New World and in 1519, Hernán Cortés (aka Hernando Cortez), a Spanish conquistador who led an expedition that caused the fall of the Aztec empire, brought 16 horses from his ships to the shores of what is today Vera Cruz, Mexico. And with those steps, the horse completed its round-the-world 10,000 year journey to the land of its origin. But, paleontologists refused to accept these horses as "native" to North America. They believed that the horses that Cortez and others brought back were a different species from those that disappeared 10,000 years earlier.

By the late 1500s and perhaps sooner, the Spanish had established colonies in the southwestern United States and were herding cattle with horses. But the southwest was not the only origin of the post-Columbian wild horse in North America. By the late 1500s Spanish exploration was bringing horses up from Florida, the Mississippi and west across the plains. By the late 1700s French explorers were bringing horses from the north, and after the Lewis and Clark expedition, English horses were finding their way into the mix.

Science Proves Wild Horses are as Native as the Grasslands of the American Plains



It has only been about 55 years since Watson and Crick discovered the structure of DNA, and it has only been about 35 years since modern molecular biology techniques have been applied to the study of evolution. The sheer abundance of horse bones, and especially horse teeth, in the fossil record has made the horse the single most frequently cited paradigm of evolution. There are more than half a million specimens of fossil horses in museum and academic collections in North America alone. Explaining evolution has never been easy, and educators and museum curators naturally seized on the well-documented fossil history of the ever popular horse as their best illustrative example. But this linear picture of evolution is somewhat misleading. Horse evolution is full of branches, dead ends, and blind turns.

Today, the sequence of the Mitochondrial (mt) DNA of the horse (*Equus caballus*) is known. The frozen carcass of an *E. lambei* was unearthed in Alaska, providing intact tissue and DNA for analysis. The analysis can find no significant differences between *E. caballus* and *E. lambei* and demonstrated they are genetically equivalent. This makes it undeniable that the horses Cortez brought back were anything but a reintroduced wildlife species. Because they had been domesticated before they were returned, many tried to use the term "feral" to belittle the native classification. Now, feral refers to any species that was once domesticated and then went wild. Wild is wild, regardless of previous domestication, due to their high degree of pre-adaptation.

The Horses Role in Human Progress and Civilization

Of the more than 4,000 species of mammals that have occupied the earth during the last 10,000 years, the horse is one of fewer than a dozen that have achieved widespread success as domesticated animals. Recent archaeological and animal behavior studies strongly support the idea that domestication was not the human invention it was long supposed to have been, but rather a long, slow process of mutual adaptation, of coevolution. Those animals that began to hang around the first permanent human settlements gained more than they lost. Some were killed and eaten, but for every cow or sheep or horse killed, many more flourished on the crops they robbed from our fields and the incidental protection they gained from other predators in the proximity of human habitations. The horse became the engine that drove agriculture, exploration, and war. Entire civilizations rose and fell on the backs of horses. They are remarkable, adaptable wild animals deserving our respect and protection.