

# Equine Evolution: Part 1

By Janice M. Ladendorf

## Introduction

The common ancestor of the horse, donkey, and zebra roamed the prairies of North America four million years ago. Horses evolved from that extinct species and their population has expanded and declined more than once. The latest episodes occurred 200,000 years ago and 25,000 years ago. Two to three million years ago, true horses began migrating to the Old World over the Bering Strait land bridge that once linked the continents. Many migrations back and forth are thought to have occurred.

Man and horse have co-existed for at least two million years, mainly in Eurasia. Our first relationship with them was one of predator and prey. Horses today may still carry memories of this time in their bodies, buried beneath the instincts that shape much of their behavior. Wild horses instinctively fear humans, just as they do cougars or wolves. These fears can still surface unexpectedly and explosively in domestic horses. One trigger may be our scent. Those who eat meat always give off a scent horses can quickly identify.

Between 13,000 and 11,000 years ago horses disappeared from their birthplace in North America. Controversy still exists over when and why that happened. The equine species may have died out more than once and been restored by migrations from Eurasia. Disease is one explanation for their final

disappearance. Another is prehistoric man hunted them to extinction. Neither explanation accounts for the simultaneous disappearance of other large herbivores and the predators who lived off of them. A changing climate may be the best explanation for the disappearance of all these species.

Like all other breeds of horses, the ancestors of the Spanish horse came from the prairies of North America. When the conquistadors brought their horses with them to the New World, they returned to their original home. Are our mustangs feral or native horses? They are domesticated horses who escaped from man; but if their species is native to this continent, then they would have more protection under our current laws. Even though DNA analysis has determined they are native to this continent, this information has been rejected both by ranchers and those who make the laws governing the treatment of wild horses. Considerable controversy exists over whether or not a few members of the original species of wild horse survived and inter-bred with the horses brought over by the Spanish conquistadors.

As horses migrated from North America through Asia and Europe, they had to have encountered many variations in climate, elevation, and food supply. As equines adapted to these variations, they would have evolved into different types of animals. Environment



The Yakut pony.

does have considerable impact on body type. When

the sun never set on the British Empire, they discovered how much environment could influence equine body type. For example, when the British army imported horses to India, their descendants soon came to resemble the native animals who had already adapted to that environment.

## True Wild Horses

Experts have identified four species of the true wild horse, each one of

which evolved in a different environment.

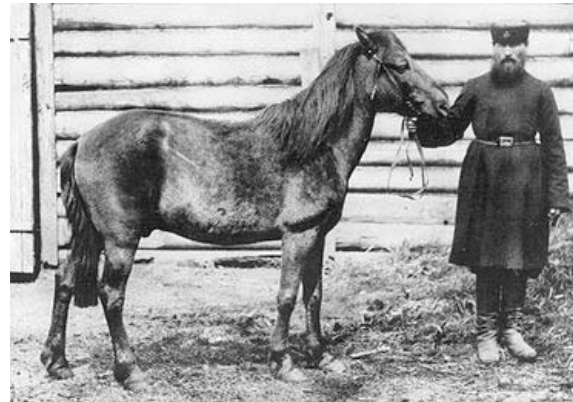
a) The heavy forest horse ("Equus caballus silvaticus")

This species thrived in the forested swamps of northern Europe during glacial times and has long been extinct. It probably evolved into "Equus caballus germanicus." Traces of a heavy-bodied, slow-mov-

ing horse have been found in Scandinavia and dated at 12,000 B.C. Other traces have been found in northwest Germany and dated at 3000 B.C. They are believed to be the ancestors of our modern cob and draft breeds.

b) Przewalski's horse ("Equus caballus przewalski")

About 50,000 years ago, this species split off from "Equus caballus" and



The tarpan. This photo was taken in 1884 and alleged to be of a tarpan, but some think it is a half-bred or feral horse.



Drawing of a live tarpan yearling who has not yet grown a full mane or tail, by Borisov, 1841.

survived in eastern Asia until recent times. When bred to true horses, in two generations the offspring no longer has the two additional genes of Przewalski's horses. A few members of this species were preserved in zoos and some of them have been returned to the wild in Mongolia.

Is there any genetic

relationship between Przewalski's horse and the Mongolian pony? Due to its intractable temperament, some believe it could not have been the ancestor of any of our modern breeds, but it did run on the same open ranges as the Mongolian ponies. Some recent research suggests there is no relationship, but one could have been created by stallions stealing domestic mares. The Mongolian pony is thought to be the ancestor of various other Asian breeds. As it migrated west with invading tribes, it may also be the unacknowledged ancestor of various European breeds.

c) The tundra horse

This species may have once lived in Siberia, but according to author Elwyn Hartley Edwards, sightings of herds of wild white horses were reported in northwestern Siberia as recently as 1964. It is probably one of the remote ancestors of the Yakut pony. This breed can survive in polar climates because it has short, wide feet and an exceptionally heavy coat. Some traces of similar DNA have recently been found in the wild herds of Chilcotin in British Columbia.

d) The tarpan ("Equus caballus gmelini")

This species ranged over Eastern Europe and Western Russia. The tarpan is thought to be one of the main ancestors of our modern breeds of light horses. The last true member of this species was killed in the late 19th century.

In 1841, an artist named Borisov did draw a live tarpan yearling who had not yet had time to grow a full mane or tail. This drawing is shown below. In my opinion, it does resemble the photograph above of the alleged tarpan.

Three efforts have been made to re-create the tarpan by breeding back from domestic breeds.

The first one is the konik

horse [Polish for little horse or pony], bred back from farm horses that are native to Poland. Tarpans once roamed this area and are thought to have been ancestors of these horses. They are now recognized as a normal equine breed.

The second one is the Heck horse, bred back from the konik, Przewalski's horse, Gotland ponies, and Icelandic ponies. Gotland ponies come from a remote island in Sweden and are thought to be direct descendants of the tarpan. Although these horses have been marketed as tarpans, scientists do not regard them as true members of this extinct species.

The third is the Hegardt or Stroebel horse, bred back by an American rancher from mustangs and ranch horses. They do resemble the konik and Heck horses, but appear to be more compact and refined. In my opinion, they are more like Sorraias, a Portuguese breed that strongly resembles the tarpan. Some believe this is another species of the true wild horse and the ancestor of the Andalusian.

In my opinion, the first true horses were probably stocky, compact, and heavy boned with relatively short backs. Horses with this build need less fodder and can quickly spin around and kick to defend themselves. Depending on early nutrition, their size could have varied from 13 to 15 hands. Their color was probably bay. In the late 1800s, an American cavalry officer traveled round the world looking at all kinds of horses. He believed feral horses tended to revert to this type of steppe pony, as they have on Sable Island east of Nova Scotia.

Climate does affect equine body type. Horses who endure cold winters and have to dig through the snow for their food, need to be heavier than those who live in warmer



Przewalski's horses.

# Building the Future of Racing

BY ANNISE MONTPLAISIR

**O**n the gloomy morning of June 20, six youth from across Minnesota gathered at the Canterbury Park stable gate, anxiously awaiting the start of the 2015 Youth Day at the Races – an event that grants 14- to 18-year-olds the opportunity to dive into the

to front and include a multitude of speakers involved in the racing industry. This year I was simply tagging along to take pictures, but in 2013 I was one of the participants following closely on Doug's heels.

The Youth Day class of 2015– Katie Orth, Emily Schminich, Megan Kathrein,

Minnesota Racing Commission Office, a chat with the horsemen's bookkeeper and clerk of scales, track photographer, stewards and a trip to the press box.

My laugh for the day came while we were visiting the paddock before a quarter horse race. One of the horses decided to release

his pent up energy by double-barrel kicking one of the bushes that lines the paddock. One Youth Day participant turned and looked at me with a deadpan face and said, "That bush had it coming!"

Youth Day at the Races culminated with an exam to test each participant on the knowledge she had acquired throughout the day and determine the scholarship recipient. On our way to the test room, one of the girls told me that she really didn't care about winning – it was the experience of being at the track that meant the most to her. I thought that was pretty cool.

Kennedy Stanek, a 14-year-old from Lino Lakes, was crowned the winner.

Stanek became interested in horse racing after visiting a harness racing track with her family as a youngster.

"I really loved watching the races," Stanek said. "So I would go on the computer and research horses and watch online races, and after a while I really got into it."

Although Stanek enjoys harness racing, she says that her heart lies in thoroughbred and quarter horse racing, and hopes to seek a career in the industry as a trainer or jockey.

"[Youth Day at the Races] enforced my decision to work in racing, Stanek said.

"[It] makes me think that I really need to push towards racing because if I don't I will miss out on something big."

Youth Day at the Races serves as a regional racing experience to the AQHYA National Racing Experience, held in conjunction with the AQHA Bank of America Challenge Championships. To be eligible for nomination to nationals, a youth must be a member of the American Quarter Horse Youth Association and between the ages of 16 and 18.

Emily Schminich, 17, of Sauk Rapids, will represent Minnesota at the 2015 National Racing Experience, held at Lone Star Park in Grand Prairie, Texas, in November.

I was fortunate enough to attend Youth Day at the Races and go on to win the National Racing Experience in 2013 at Los Alamitos racecourse in Cypress, California. While I was there, I learned that MQHRA (Minnesota Quarter Horse Racing Association) has a positive track record of youth who attended Youth Day at the Races before advancing on to win the NRE. I tracked down two other previous winners to share their experiences.

Hannah Koch became interested in racing as a child, and participated in Youth Day at the Races in 2006.

"MQHRA offers a great program for youth who want to learn about what goes into a day on the track!" Koch says. "How many other programs are willing to collect trainers who want to see youth learn about their careers and what goes into these equine athletes? That is pretty awe-

some – we need more youth to take advantage of that!"

Koch attended the National Racing Experience at Lone Star Park in 2006, and Los Alamitos in 2007. She emphasized the horsemanship skills she gained from both experiences, and still applies those lessons today with her own horses that she competes with in barrel racing.

"I actually was lucky enough to go to NRE twice. The first year I went... [I] was paired up with trainer Bill Hoburg. I think what sticks with me the most from my week with him was to always turn your horse out in the best possible condition. Even if the horse was just going on to the hot

"Whether it be cold hosing, poultice or icing to keep them tight after they worked out, to a properly wrapped leg, we spent a lot of time in [Paul Jones'] barn learning how to care for legs. I can't even remember how many times I had to re-wrap the same leg that first day...but what an important lesson!"

"I was blessed to have studied hard and been given a lot of tools prior to going to Los Alamitos that allowed me to compete and receive a \$3,000 scholarship," Koch said. In addition to the scholarship money that MQHRA graciously granted me, that money paid for a semester of my education at University of Minnesota, Morris."

Koch currently works as an office manager to a trucking company while continuing to train her family's horses.

"We actually have a few barrel horses that are off of the track," Koch says. "I have a couple of retired horses from Canterbury every year to restart and re-home as barrel horse prospects, both off-the-track thoroughbreds and quarter horses. I am not involved in active horse racing – more of the 'after' career of some of the racehorses that we are lucky to have up in Minnesota."

Barbara Scheiding participated in Youth Day at the Races at Canterbury Park in 2008.

"I think my favorite part was actually talking to the trainers and jockeys, and learning what their days are like, getting up early in the mornings and working," Scheiding said.

Scheiding advanced on to the NRE that same year, which was held at Evangeline Downs in Louisiana. "I gained a lot of experience," Scheiding said. "And it helped me understand the racing world a little bit

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Photos (Used with permission): Right: Youth Day at the Races participants checking out the starting gate at Canterbury Park.

Above: Fortune in a Wagon, pg. 9, ran in a trial for the Canterbury Park Quarter Horse Derby on the same day as Youth Day, and ended up winning the derby a couple weeks later in a dead heat with another horse named Feature a Runaway. The girls were allowed to get in the win photo with Fortune in a Wagon after she won the trial. Photos by Annise Montplaisir

daily routine of life on the racetrack.

In addition to gaining an education about the horse racing industry, youth are tested on the knowledge they acquire throughout the day for the chance to win a \$1,000 scholarship and a trip to the AQHYA (American Quarter Horse Youth Association) National Racing Experience (NRE).

Led by Doug Steiskal, the group trudged over the rain-soaked ground to the racetrack to commence their tour, which would cover the entire racetrack from back

Alyssa Distler, Evangeline Swanson and Kennedy Stanek – all happened to be members of the Minnesota 4-H horse project, and came from varying equine backgrounds and experience levels.

On the backside of the track – the area where racehorses are stabled – the group visited with gate crew members, trainers, owners, and learned about alternative methods of conditioning racehorses, including swimming.

The front side tour included a visit to the

