## = Kaimanawa horse =

Kaimanawa horses are a population of feral horses in New Zealand that are descended from domestic horses released in the 19th and 20th centuries . They are known for their hardiness and quiet temperament . The New Zealand government strictly controls the population to protect the habitat in which they live , which includes several endangered species of plants . The varying heritage gives the breed a wide range of heights , body patterns and colours . They are usually well @-@ muscled , sure @-@ footed and tough .

Horses were first reported in the Kaimanawa Range in 1876, although the first horses had been brought into New Zealand in 1814. The feral herds grew as horses escaped and were released from sheep stations and cavalry bases. Members of the herd were recaptured by locals for use as riding horses, as well as being caught for their meat, hair and hides. The herd declined as large scale farming and forestry operations encroached on their ranges, and only around 174 horses were known to exist by 1979. The Kaimanawa herd was protected by the New Zealand government in 1981, and there were 1 @,@ 576 horses in the herd by 1994. A small, mostly unmanaged population also exists on the Aupouri Peninsula at the northern tip of the North Island. Roundups have been carried out annually since 1993 to manage the size of the herd, removing around 2 @,@ 800 horses altogether. The Kaimanawa population is listed as a herd of special genetic value by the United Nations ' Food and Agricultural Organization, and several studies have been conducted on the herd dynamics and habits of the breed.

## = = History = =

The first horses were introduced to New Zealand by Protestant missionary Reverend Samuel Marsden in December 1814, and wild horses were first reported in the Kaimanawa Range in central North Island of New Zealand in 1876. The Kaimanawa breed descended from domestic horses that were released in the late 19th century and early 20th century in the middle of the North Island around the Kaimanawa mountains. Between 1858 and 1875, Major George Gwavas Carlyon imported Exmoor ponies to Hawkes Bay and crossed them with local stock to produce the Carlyon pony. These Carlyon ponies were later crossed with two Welsh stallions, Kinarth Caesar and Comet, imported by Sir Donald McLean, and a breed known as the Comet resulted. At some point during the 1870s, McLean released a Comet stallion and several mares on the Kaingaroa Plains and the bloodline apparently became part of the wild Kaimanawa population. Other horses were added to the bloodline through escapes and releases from local sheep stations and from cavalry units at Waiouru that were threatened with a strangles epidemic. It is also thought that in the 1960s Nicholas Koreneff released an Arabian stallion into the Argo Valley region.

Throughout the 19th and 20th centuries , horses were harvested from the feral herds and used as riding and stock horses , as well as being used for their meat , hair and hides . Originally there were many herds that roamed land owned by the British Crown and the native M?ori , but many were eradicated with the intensification of large scale farming and forestry operations combined with increased mechanization that decreased the need for stock horses . Kaimanawa horses today have the highest amount of genetic similarity with the Thoroughbred and other Thoroughbred cross breeds .

Pressure from land development and an encroaching human population reduced the range and the number of the Kaimanawa horses , and in 1979 it was found that only about 174 horses remained . Starting in 1981 , the Kaimanawa population , range size , and herd movements began to be officially measured , and a protected area was formed for the breed in the Waiouru Military Training Area . Legislative protection was similar to the kiwi and other native species . There was a rapid increase in the herd size following the protection of the breed , and 1 @,@ 576 horses were known to exist in the area by 1994 . There is also a small population of horses on the Aupouri Peninsula at the northern tip of the North Island , which is mostly unmanaged by the New Zealand government . In 2008 , the Kaimanawa herds were the focus of a novel called Kaimanawa Princess , by Dianne Haworth .

## = = Breed characteristics = =

Many characteristics of the Comet type are said to be shown in the Kaimanawa horses today , although the varied gene input has produced a wide range of sizes , colours , and body types among the wild horses . The Kaimanawa breed varies widely in general appearance , with heights ranging between 12 @.@ 2 and 15 hands ( 50 and 60 inches , 127 and 152 cm ) high . Any coat colour or pattern marking is acceptable . They are usually well @-@ muscled . Their feral way of life has given them the ability to adapt quickly and live on very little , and they are usually sure @-@ footed and tough . They have a medium @-@ sized head in good proportion to their body , with wide variation in shape due to the different conformation of their ancestors . Kaimanawa horses have a short , deep neck with a thick throat area , straight shoulders , a deep girth , and a short to medium back . The hindquarters vary from sloping to well @-@ rounded . The legs are long and well @-@ muscled , with strong hooves , and hind hooves that are generally smaller than the front ones . All horses are considered to age a year on the first of August , regardless of their actual foaling date .

## = = Population control and study = =

Due to the increase in population after protective legislation was put into place , the Department of Conservation developed a management plan for the Kaimanawa herd in 1989 and 1990 . A draft plan was made available to the public for comment in 1991 , and the public made it clear that it objected to herd reduction through shooting from helicopters , and instead favored the horses remaining alive after being removed from the herd . However , core animal welfare groups felt that shooting was the most humane option . Trial musters were conducted in 1993 , 1994 and 1995 , and were successful , although costly and with a limited demand for the captured horses .

In 1994, a working party was established to look at the management of the Kaimanawa herd . They aimed to decide which organization was in charge of long term management , to ensure that the treatment of horses is humane , to preserve and control the best attributes of the herds , and to eliminate the impacts of the herds on other conservation priorities . Goals included ensuring the welfare of the horses , protecting natural ecosystems and features that the Kaimanawa herd may impact and keeping the herd at a sustainable level . Ecological objectives included ensuring that Kaimanawa horse does not adversely affect endangered , rare and biogeographically significant plants ; ensuring that the herd does not further degrade the ecosystems in which it lives ; and preventing the herd from spreading into the Kaimanawa Forest Park and the Tongariro National Park . Herd objectives included ensuring that the public was safe from roaming horses , while still allowing and improving public access to the herd and ensuring humane treatment of the horses ; reducing conflict between the herd and other ecological values and land uses ; and ensuring that the herd is contained to a population that is tolerated by the ecosystems in which they live while still maintaining a minimum effective population that is in general free ranging .

The Department of Conservation has since 1993 carried out annual culls and muster of Kaimanawas to keep the herd population around a target level of 500 horses . The target will be reduced to 300 horses in stages starting in 2009 . These horses are either taken directly to slaughter or are placed at holding farms for later slaughter or adoption by private homes . A main reason for the strict population control is to protect the habitat in which they live . This habitat includes 16 plant species listed as endangered , which the Kaimanawa may endanger further through trampling and overgrazing . These plants include herbs , grasses , sedges , flowers and mistletoes ; among these are Deschampsia caespitosa ( a very rare tussock grass ) , Peraxilla tetrapetala ( a vulnerable mistletoe ) and Libertia peregrinans ( a possibly locally extinct sand iris ) . The 2009 culling of the population removed 230 horses from the herd , the largest culling since the beginning of the program , with homes found for 85 % of the horses removed . Conservation of these horses is an important matter to the public , and between 1990 and 2003 the New Zealand Minister for Conservation received more public comments on the Kaimanawa horse than on any

other subject . In this period , more than 1 @,@ 400 requests for information and letters were received , with public interest peaking in 1996 and 1997 . This was due to a program of population reduction by shooting scheduled to begin implementation in 1996 ; due to public opposition the shooting was cancelled and a large scale muster and adoption program began in 1997 . In 1997 , around 1 @,@ 069 horses were removed from the range and adopted , reducing the main herd to around 500 , and reducing their range to around 25 @,@ 000 ha from around 70 @,@ 000 . Since 1993 , a total of around 2 @,@ 800 horses have been removed from the range . Only one injury resulting in the death of a horse is known to have occurred .

The United Nations ' Food and Agricultural Organization lists the Kaimanawa horses as a herd of special genetic value that can be compared with other groups of feral horses such as New Forest ponies , Assateague ponies , wild Mustangs , and with free @-@ living zebras . Kaimanawas are of special value because of their low rate of interaction with humans . This lack of interaction may result in a herd with more wild and fewer domestic characteristics , which is of special interest to researchers . Between 1994 and 1997 , students from Massey University studied a population of around 400 Kaimanawa horses to learn their habits and herd dynamics . A 2000 study found that although sometimes there are more than two stallions in Kaimanawa horse herds , only the two stallions highest in the herd hierarchy mate with the herd females . This differs from other feral horse herds , some of which have only one stallion that mates with mares , while others have several stallions that sire foals .