Out of Tibet—Highlights of the Yak's Journey to the New World

by Dianne Latona

Because yak look so natural on the farms and ranches of North America, it is sometimes difficult to believe they have been here for just over a century. It is assumed that the thousands of yak across our continent descend from surplus animals sold by zoos. While this may be true in part, the complete story spans several continents and involves a colorful cast of characters, from the Prime Minister of Canada to one of the founding pioneers of the Boy Scouts of America. As the Board Historian for IYAK I wrote "Timeline of the Domestic Yak". I feel compelled to share some of the more intriguing events involving yaks and their travels out of Tibet I ran across while writing the timeline. *[Editor's note: most of the articles, books and photographs referenced herein are available for viewing via the web version of this story, posted at IYAK.org]*

In the March 2011 issue of National Geographic Magazine a small timeline shows yaks were first domesticated about 4,500 years ago. Of all the livestock worldwide, yaks were the last to be domesticated. "Taming the Wild" explores the genetic components of domestication, showing how many of the species we have managed to tame over the millennia exhibit remarkably similar changes in behavior and appearance. Common traits emerge such as approachability, tolerance of physical contact, and spontaneous emergence of piebald (black-and-white) coats. (Royal coloration in the parlance of yak breeders) This suggests that it wasn't a Holstein sneaking into the zoo a couple hundred years ago that produced Royal colored yak; instead, it is a byproduct of domestication.

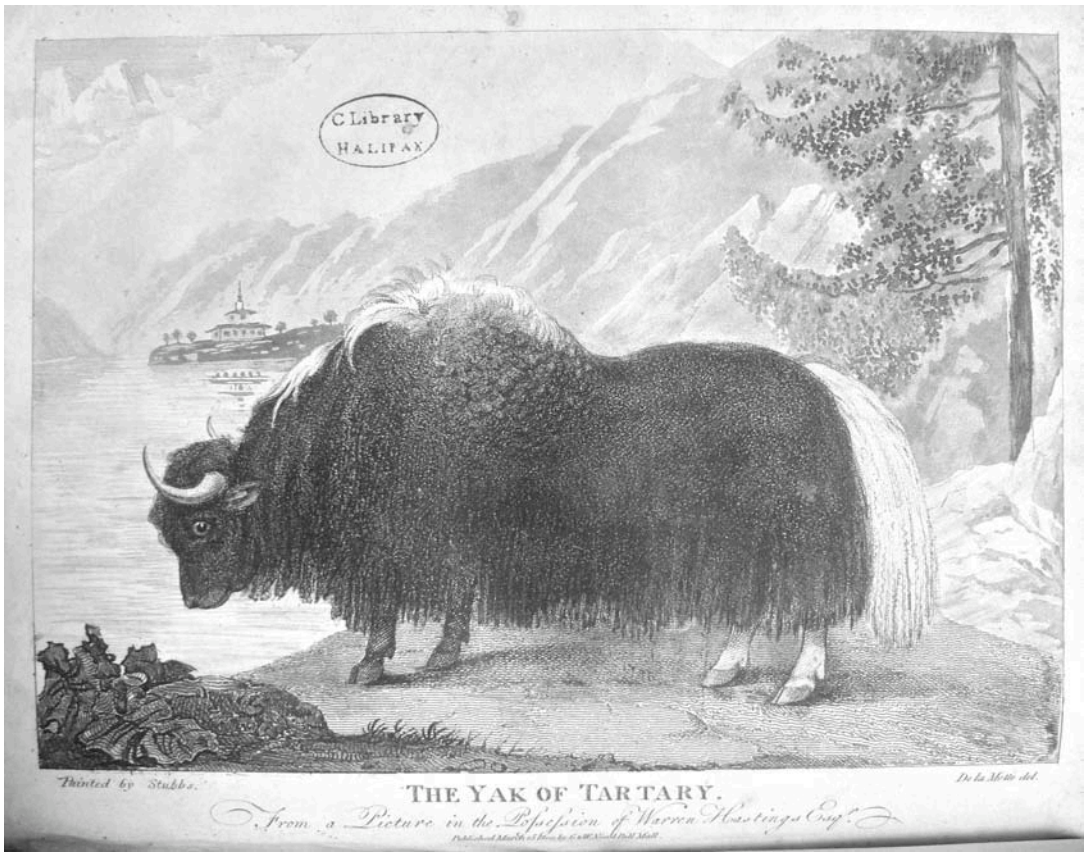
I would like to discuss the differences between Wild Yaks, Domestic Yaks, and feral Domestic Yaks. This casts light on some erroneous "facts" in the history of the Domestic Yak. Much of what follows comes from The Yak, 2nd edition, by Gerald Wiener, et al, the most comprehensive yak reference currently available. (This text is readily available both online and in print; look for a link on the IYAK website)

Wild Yaks, *Bos mutus*, are native to the high Himalayas and Tibetan Plateau, ranging anywhere from 12,000 to 18,000 feet above sea level. Mature males weigh as much as 2,200 lbs., while females are no more than 800 lbs. Most are brown-black with gray muzzles, but a few exhibit a lighter brown or golden color. They do not exhibit white coats or markings. Wild Yaks are so rigidly adapted to life at altitude that they have difficulty surviving below 10,000 feet. There are no Wild Yaks in any animal collections or zoological parks, with the possible exception of some zoos in China and Russia. The Datong Yak Farm in Qinghai Province breeds with Wild Yak bulls, but the bulls were caught as calves and acclimated to the lower altitude. The Wild Yak bulls are trained for artificial insemination collection as part of the farm's mission to improve the performance of Domestic Yak by crossing with them with Wild Yak, an ancient practice among Tibetan herders. The resulting hybrid vigor is widely appreciated, even if the more uncertain temperament is not.

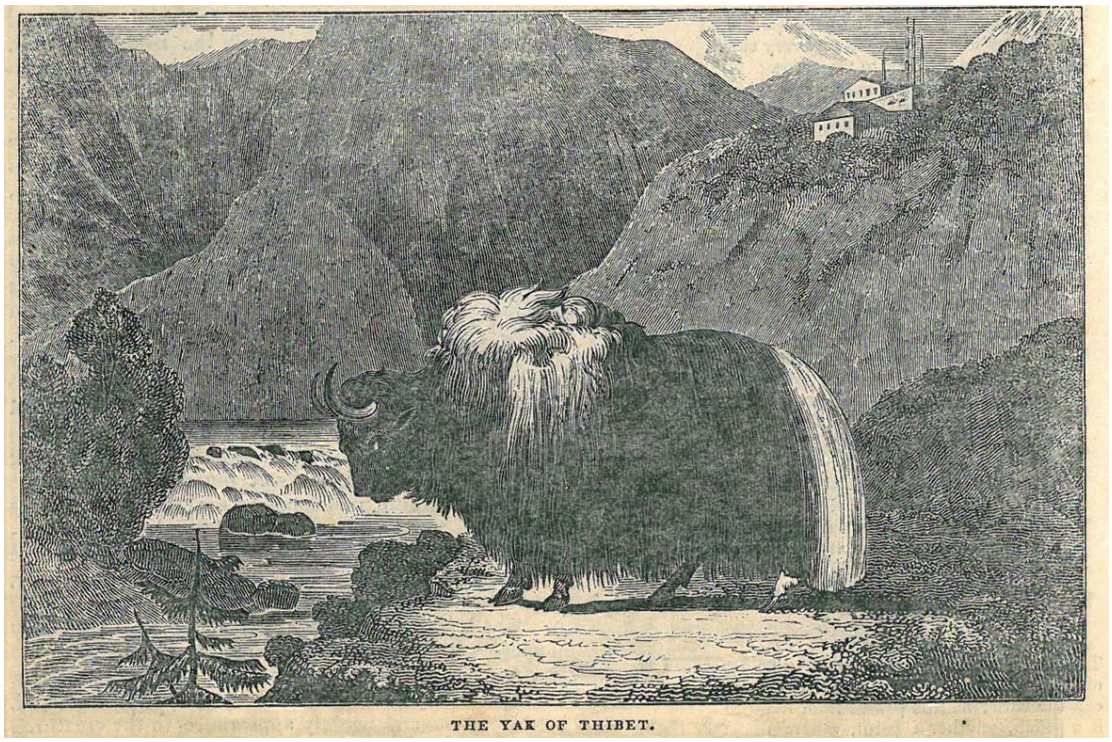
The Domestic Yak, *Bos grunniens*, originated with the pastoral Qiang people of the Qinghai-Tibetan Plateau. The Qiang culture domesticated sheep and goats over 10,000 years ago; then added horses, camels, and finally yaks. One can only speculate how they were able to catch Wild Yaks and how long the taming process took. These nomads roamed widely across Asia with their herds: north to Siberia, west to Afghanistan, south to India and east to the Yunnan Province of China. Yak flourished in all these areas despite the decreased elevations and varied climates. In many of these areas, the pastoralists continued to facilitate Wild/Domestic Yak crosses by driving their herds into high summer pastures, where the wild bulls would mate with the domestic yak cows. Not all of the domestic animals could be located when it was time to move to winter pasture; those that survived went feral. Like Wild Yaks, the survivors were likely to be brown-black and wary in order to evade predators. Anyone encountering such a herd could be excused for thinking them truly wild.

Exactly who was the first Westerner to “discover” yaks? There is compelling evidence to suggest it may have been Samuel Turner, a British captain. In 1783 he was sent to Bhutan by his cousin, Warren Hastings, to congratulate the lamaist regency on the recent reincarnation of a grand lama. Turner was graciously permitted an audience with the infant lama, who listened wisely to his compliments but made no promises. The one accomplishment Turner did manage was the acquisition of two yak bulls he sent to Hastings in England. Hastings had been the first Governor-Central of India and had an appreciation for the Far East and its culture. One bull died during the journey to England. The surviving animal, later christened by an appreciative public audience as the “Yak of Tartary” and “Camel of the Snow”, acclimated well enough to sire a number of calves on cattle. Hastings commissioned George Stubbs to create a portrait of this yak in 1791. This may be the first illustration of a yak in the Western hemisphere. Stubbs was noted for his extreme accuracy in depicting livestock.

An illustration of the first Yak in the Western Hemisphere



Although labeled “Painted by Stubbs”, this print from 1800 is an engraver’s copy of the original painting.



From “The Yak of Thibet” from The Saturday Magazine and attributed to engraver William Daniell.

“The Yak of Thibet” from The Saturday Magazine, October 11, 1834 (which can be found at Google Books) is part of the travelogue of German captain Leopold von Orlich recounting his numerous observations of life and customs in India. It is an impressive account. Von Orlich’s physical description of the yak is detailed and complimentary.

The Hastings bull is obviously an Imperial Trim; showing a full white tail, long white hind socks, and even some white in the mane. I was amazed and gratified to find a photo of a far more recent bull with nearly identical markings in the Summer 1994 issue of the Tibetan Yak Banner:

Some of you may recognize Bill Martin’s bull Lightning. We can only speculate on the genetic implications: did this first English yak leave progeny? Is the bull in the painting Lightning’s fifty-times-great-grandsire? Are there English breeding records of the “Yak of Tartary” ?

In 1854 a dozen yaks from Tibet were sent to the Museum of Natural History in Paris. After a suitable showing these yaks were dispersed to several regions of France for research purposes. They definitely made a positive impression with their hardiness and versatility, as evidenced by stories in several publications from that time period. Here is a drawing from “The Yaks in France” in Once a Week, Volume 1, 1859, edited by Eneas Sweetland Dallas.

The article itself covers natural history of the yak, as well as research conducted in France regarding wool, milk and meat attributes. Google Books: Once a Week, volume 1, page 391.

The May 1870 edition of American Exchange and Review reported on the French yaks and expounded on the perceived benefits of introducing yak to other regions of Europe. According to the article, there remained simply the challenge of breeding sufficient quantities of yaks to populate these areas. I was very impressed with the wealth of information contained in this report. Google Books: The American Exchange and Review, volume 17, page 192.

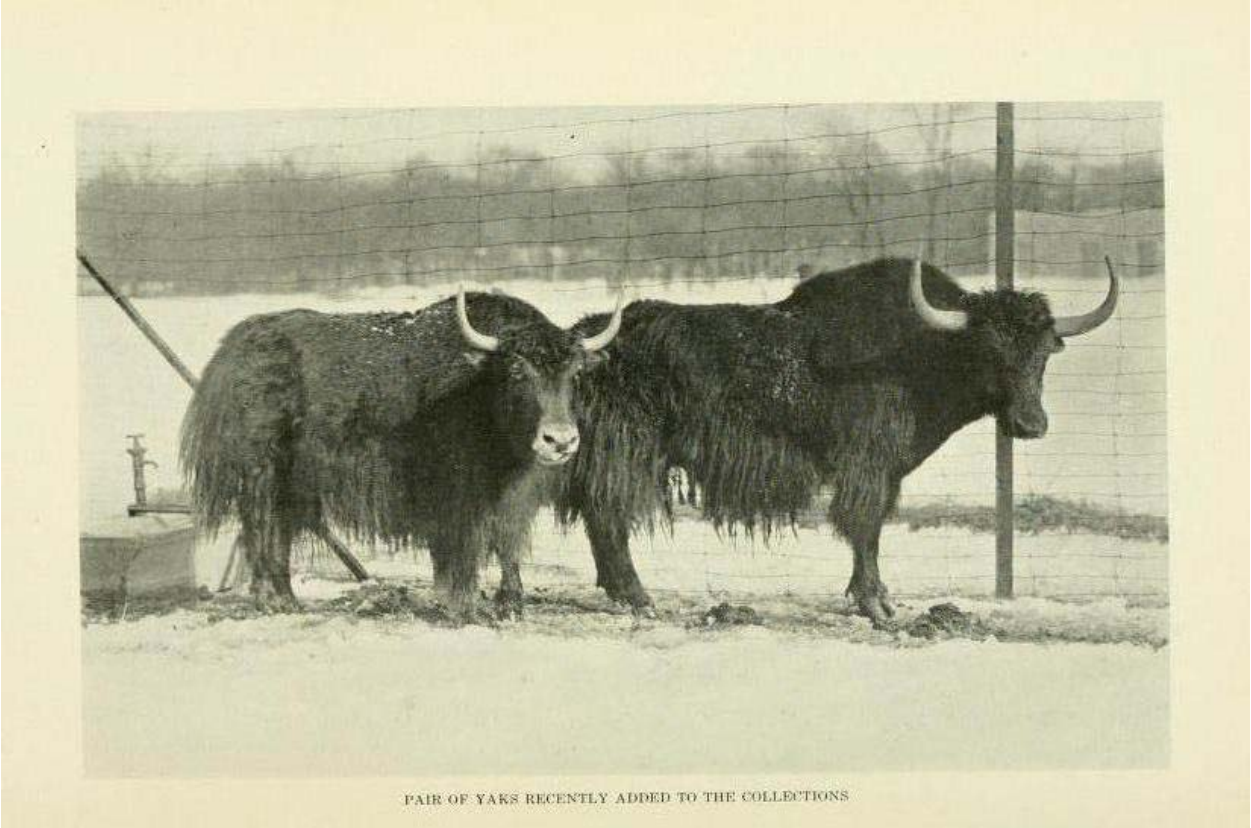
Yaks survived in the mountains of France for some time. Years after research was suspended, there were reports of "cattle/horse crosses" living in the remote upper slopes of the Cantal Province. Eventually the population dwindled to nothing, which is the case today. Aside from a few small herds in Great Britain, Switzerland, Italy, Norway and Sweden, the only yak found in Europe today are in zoos.

By the end of the nineteenth century at least two zoos in the United States had yaks in their collections but I have been unable to locate a reference documenting their first arrival. The 1871 annual report of the New York Department of Parks lists *B. grunniens* as "deposited for exhibition" on March 16th of that year but does not indicate which park. Central Park in Manhattan numbered a "yak antelope" among its collection in 1901. And yaks were reported born at the National Zoo in Washington, D.C. in both 1901 and 1902.

Early 1900's photo, yak in the National Zoo

I came across an intriguing article from the New York Times, 12/11/1898, which described the winter quarters for the animal residents of "Summer Parks" from a number of towns throughout the U.S. According to the article, the emerging trolley industry funded "pretty little parks" in the suburbs to encourage city dwellers to patronize their lines. From June through September a variety of entertainments were offered at these parks, including menageries. Rather than maintaining the animals year round town officials contracted for the animals and their attendants to arrive at the beginning of every summer and return to the winter quarters in Jersey City, New Jersey (back when it really was the Garden State) in the fall. "Yak from India" were among the animals housed at this facility which obtained its stock from dealers in Germany and England.

The article mentions three large firms, one in Hamburg, Germany, as the source for these animals. Hamburg was the home of Carl Hagenbeck, perhaps the most famous animal broker of all time. Hagenbeck originated the idea of the zoo without bars, displaying in enclosures that mimicked the animal's natural environment. He also practiced and promoted the philosophy of training animals through the use of kindness and reward rather than the crueler methods more commonly used at that time. Hagenbeck maintained a herd of yaks at his menagerie in Hamburg. In 1913 the Bronx Zoo acquired a pair of yaks from Hagenbeck, supposedly the first black yaks in the U.S. and proudly claimed to be of wild stock. Tim May of London brought to my attention a photo of these animals from the zoo's records.



PAIR OF YAKS RECENTLY ADDED TO THE COLLECTIONS

Yak in the Bronx Zoo, circa 1913.

I am sure you will agree with me that these animals are *not* Wild Yaks, not only is the bull an Imperial, but both look far too calm! Whether or not Hagenbeck knew these were domestic yak will remain a mystery but I am of the opinion he was quite aware of the fact.

Catching Yak in Thibet

Pall Mall Magazine, 1905. You have to wonder if there weren't several yak hair tents and Tibetan herders just out of sight!

A 1900 New Zealand publication that mentions Hagenbeck had eighteen yaks in Hamburg. One of Hagenbeck's clients was Herbrand Russell, the 11th Duke of Bedford and President of the London Zoological Society for 37 years. He may be best remembered as the man who saved the Pere David's Deer from extinction. This Chinese deer was hunted into oblivion in its native country but the far-sighted Duke purchased the remaining European zoo stock and provided a home for them in his 3000-acre deer park at Woburn Abbey. Many other herbivores roamed the estate, including yaks, and most of these animals were originally supplied by Hagenbeck. Unlike his colleagues at the Bronx Zoo, the Duke was well aware that his yaks were domestic. Below is a photograph of Woburn Abbey from the 1898 book Wild Oxen, Sheep and Goats of All Lands by Richard Lydeker.

Fig. 7.—Parti-coloured and White Domesticated Yak in the Park at Woburn Abbey. From a photograph by the Duchess of Bedford.

Yes, those are white yaks—and the written accounts of yaks from this time period describe yaks as white, piebald, grey or black. The polled cow at center appears to have a pattern similar to the Stubbs yak. There is polled stock in Germany and Switzerland today but not in North America, nor do we have most of the other colors and patterns present in the yak populations of Asia and Europe. But we do have black and so

did Woburn Abbey.

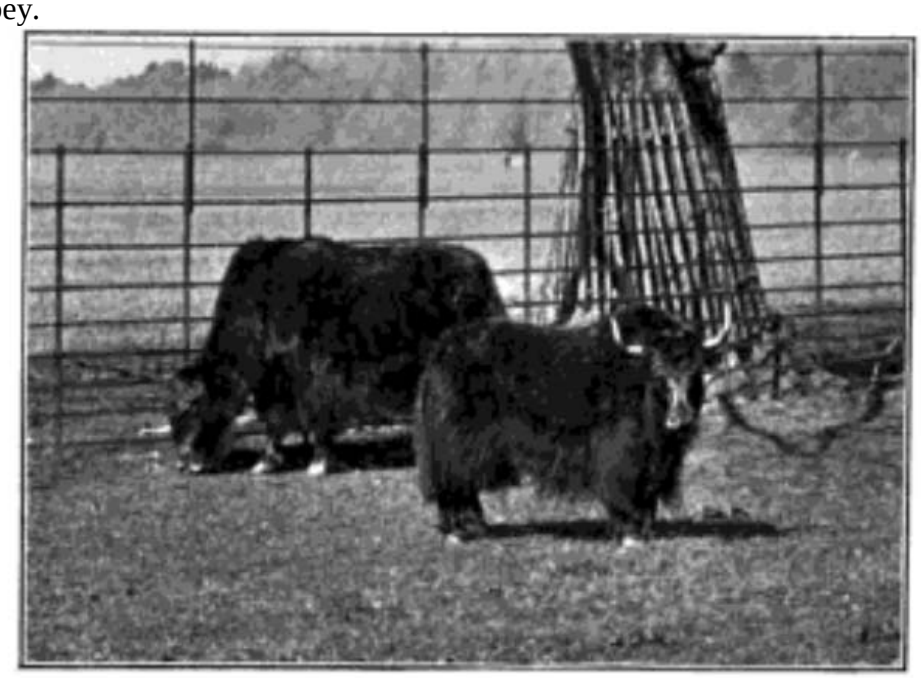


Fig. 9.—Black Domesticated Yak at Woburn Abbey. From a photograph by the Duchess of Bedford.

Above is a photo from Lydecker's 1907 book Game Animals of India, Burma, Malaya and Tibet, again taken by the duchess of Bedford. These may be some of the original foundation stock of North American yaks.

The fortuitous chain of events that catapulted the Domestic Yak in North America from zoo exhibit to ranch livestock was initiated by a single forward-thinking individual: Ernest Thompson Seton. As one of the founders of the Boy Scouts and the author of an impressive number of wildlife novels, Seton had the necessary skills to present key politicians with his persuasive ideas precisely when they needed advice on utilizing the vast resources of their nation.

Seton, a Scots-Canadian raised in England, traveled extensively in the remote northern prairies as a naturalist. It was here that he first considered bringing yaks to Canada. Yaks, he reasoned, would have no trouble surviving the harsh envitonment. They could be the perfect livestock for this inhospitable region; hardier than range cattle, more tractable than bison, and equipped with coats impervious to the most extreme cold. More importantly, they could serve as the key for his ultimate goal: the creation of a national park system in the form of game sanctuaries thus insuring the preservation of the wilderness he so loved. Furthermore, the government would be able to buy the land very cheaply at this time: no one thought it valuable and few wanted to settle in the bleak northern reaches. Seton presented his idea to Lord Albert Earl Grey, the Governor Central of Canada. Lord Grey presented Seton's idea in a letter to Lord Elgin, the Secretary of State for the British Colonies. In his letter Grey states that the Premier of Canada, Sir Wilfrid Laurier, had already requested a formal report from Seton.

The letter was dated November 14, 1907. By March of 1908, Seton was back in England visiting with Herbrand Russell (11th Duke of Bedford, President of Zoological Society, and savior of Pere David's Deer) to "make inquiries" concerning the Duke's herd of yaks at Woburn Abbey. Seton's original plan was to bring yaks from Tibet directly to Canada but Russell supported Seton's vision and offered to donate a small herd of fine breeding stock. The Canadian government did not hesitate to accept this

generous gift and by late spring of 1909 six yaks: “an aged bull, a yearling bull, two aged cows and two yearling heifers” had made the four-month-long journey from Woburn Abbey to Brandon, Manitoba.

Somewhere in the Canadian archives is a file labeled “W.W. CORY, OTTAWA. WITH PAPERS RE: A SHIPMENT OF YAK TO CANADA” dated November 10, 1908. William Wallace Cory was at that time Secretary of the Interior for Canada. The online catalog entry I located for this file includes reference numbers indicating where it can be located in the archives. Unfortunately it is physically inaccessible at present or so I was informed when I requested a copy. So the official record of the first importation of yaks into North America for agricultural purposes remains locked away in a “government warehouse”.

Word of Ernest Seton’s plan spread quickly, both through newspapers and Seton’s article “The Yak—A North American Opportunity” in Country Life in America, February 1909. This very large periodical was no doubt aimed at the upper crust of American Society, the lady and gentlemen hobby farmers who had the means to invest in prime real estate and quality livestock. I was able to purchase an original issue of this magazine in good condition. So, here, in the words of the man that started it all, is Seton’s very enjoyable argument for the yak. This was the first such promotion of *Bos grunniens* as New World livestock to the American public, with incredible photos of several beautiful examples.

Seton included the Country Life in America article as Appendix C in his 1911 book The Arctic Prairies. You can still find original and reprint copies of this book very easily on the Internet. It provides a glimpse into Seton’s style and personality and also his great appreciation for the North American wilderness.

The yaks arrived at St. John, New Brunswick in the spring of 1909 and traveled to Manitoba after a quarantine period. A report from 1927 on the history of yaks in Canada reveals that the four-month-long journey from Woburn Abbey to Brandon, Manitoba took its toll on the herd, but they recovered and seemed to thrive in their new setting. Unfortunately, as related by a small article in the Ottawa Citizen dated March 8, 1910 two of the yaks died a year later, of “peritonitis and acute indigestion”.

The survivors failed to reproduce in 1910 and 1911, and the low elevation was blamed. They were moved to Banff, and in 1913 began having calves. (Personally, I doubt that the elevation was the problem. More likely it was that the yearling bull and yearling heifers were not yet of breeding age). However, they made up for their late start, and by 1919 a sizeable herd was reported.

First yaks in Canada, pictured at Banff.

I estimate there could have been over thirty yaks by 1919. In that year, two bulls and two cows were taken to Buffalo Park, Wainwright, Alberta, to participate in breeding experiments involving bison and cattle. These trials were a continuation of the work started by Mossom Martin Boyd. At Big Island Stock Farm in Ontario he indulged in his passion for stockbreeding, working with cattle, horses and sheep. He is

credited with creating the Double Standard Polled Hereford and for being one of the first to introduce prairie bison genetics into beef cattle.

Boyd died the year his paper was published and it does not appear his family continued the breeding program. In 1916 twenty hybrids from his estate were purchased by the Experimental Farms Branch of the Canadian Department of Agriculture and sent to Wainwright in hopes of developing a more economical breed for beef production. The researchers soon discovered what Boyd had already reported: the F1 males were infertile and many calves were stillborn due to their large size relative to their beef cattle dams. The scientists decided to add yaks to the mix hoping they could bridge the gulf both in terms of genetic compatibility and fertility. Apparently the results were good and by 1921 all the yak had been moved to Wainwright to participate in the experiment.

As the years progressed with the Wainwright Experiment, the yaks proved to be excellent intermediaries, breeding readily with both cattle and bison. There was noticeable improvement in the percent of live calves but not of F1 male fertility. Also the older yaks did not exhibit the hardiness expected, requiring shelter and supplemental feeding to get through the frigid Alberta winters. By 1927 there were only four purebred yaks left at Wainwright as well as 23 animals that contained various amounts of yak, domestic cattle and bison genetics. At least half of these were the result of yak bulls crossed with cattle females.

A stereotype of the Wainwright yaks that was offered on eBay

The next reference I located is the full report of the Wainwright Experiment, dating from 1935. The 30 page Xerox copy of the original was provided to me through interlibrary loan. At some point I hope to have it scanned and available on the IYAK website.

The report of the Wainwright Experiment is detailed and thorough. This sentence under the category "Records" on Page 9 summarizes the purpose of this research:

> "The hybridization experiment was initiated on the practical basis of testing out hybrids for economy of meat production under severe and semi-domesticated conditions."

The report includes chapters on management, records, coat color, horns, conformation and more, comparing the various hybrid crosses to the parent species. It delves into genetics, particularly of color; it was interesting to see that a yak bull on Hereford cows produced brindled calves. The cattle used in this experiment were mostly Angus with a few Hereford, Shorthorn and Holstein. As for the bison blood, the researchers must have been dismayed to find that none of the 20 hybrids from the Boyd estate produced a single calf, despite all possible combinations with other hybrids, yaks and bison from the Alberta herd. The cause remains a mystery, many of these animals had been proven breeders back in their Ontario home. Sterility of the F1 male hybrids continued to be another obstacle for the research, as was the high mortality of calves and cows. The researchers concluded that yaks imparted no particular advantages that could not be had from working solely with bison and cattle. By 1928 all but a few yak crosses were pulled from the experiment.

Meanwhile, from 1919 until 1932, a similar hybridization experiment was being carried out by the United States Department of Agriculture in Alaska at the Fairbanks Experimental Station. The Canadian government provided a total of nine yaks, 3 males and 6 females, in 1919, 1923 and 1930. I wonder if some of the last ones were rejects from the Wainwright Experiment. Out of the nine only one bull and three cows survived long enough to participate in the undertaking, which evaluated pure yaks and yak/Galloway hybrids in terms of hardiness and meat quality. The study revealed that yaks were hardier, but the crosses fared adequately well. Meat quality was judged to be the same.

The Federal Experiment Stations were discontinued in 1932, casualties of the Great Depression. The only conclusion drawn from the Alaska study was that the yak was “worthy of more attention.” Unfortunately, further research never came to pass in North America. I could find no more references to yak as livestock here or in Europe. Once again, they were relegated to the zoo realm.

This is not the end of the story and my research continues. For additional information and article links please visit IYAK.org. Thanks to all of the people who assisted me by providing yak history information in the form of documents, photos, emails, phone conversations, and informal chats.

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