



THE HUMANE SOCIETY
OF THE UNITED STATES

**Hearing on the Restoring Our American Mustangs (ROAM) Act
(H.R. 1018)**

**U.S. House of Representatives
Committee on Natural Resources**

**Testimony of Wayne Pacelle
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March 3, 2009

I am Wayne Pacelle, president and CEO of The Humane Society of the United States, and I want to thank you, Chairman Rahall, and members of the Committee for the opportunity to testify in support of H.R. 1018, the Restoring Our American Mustangs (ROAM) Act. We are grateful to you and Representative Raul M. Grijalva for introducing this important legislation, and I offer HSUS's support of the bill on behalf of our 10.5 million members and constituents.

Restoring Our American Mustangs (ROAM) Act

Overview

For years, the HSUS has advocated for the protection and welfare of wild horses and burros. As an active member of the American Wild Horse Preservation Campaign Coalition, we work collaboratively with many wild horse advocacy groups to preserve and properly manage these animals in their habitats in the West. It is our belief that free-roaming horses and burros deserve first to be given every chance to live out their lives wild and free. When intervention is required, we owe them our best efforts to ensure that any human actions that affect their lives – such as gathers, transportation, confinement, and adoption – are done in a way to assure their humane treatment. In recent years, the Bureau of Land Management (BLM) - the very agency that is Congressionally charged with protecting and managing these animals - has failed time and again to protect these creatures. The BLM has (1) taken over half of the horses and burros off the range without any sound plans to attend to their long-term needs, (2) often offered scant scientific justification for their removal, (3) adopted animals to unscrupulous individuals who have then sent them to slaughter, and (4) even now proposed to kill large numbers of wild

horses taken from the rangeland, in order to wipe away the problems created by its own actions.

All of this could have been prevented, if, beginning in the 1980's, the BLM had taken a more balanced approach to the "multi-use" charge for public lands. Instead, the agency chose to favor livestock ranchers at every turn, and to fail to use immunocontraception as a humane management tool. Ironically, the use of immunocontraception would not only have benefited horses and burros, but also the public lands and the taxpayer.

The legislation introduced this year by Chairman Rahall and Representative Grijalva is a needed course correction and a reining in of an agency that has failed in its mission to protect horses. under the terms of the landmark Wild Free-Roaming Horse and Burro Act of 1971 (1971 Act). If passed, not only would the bill restore longstanding protections for wild mustangs, it would also require the BLM to take the first step toward a rational, fiscally responsible and compassionate program, while fulfilling the mission, spirit and original intent of the 1971 Act – to protect wild horses and burros on our public lands for Americans to appreciate and enjoy for generations to come.

Restoring Longstanding Protections for Wild Horses and Burros

The most critical issue addressed by H.R. 1018 is the restoration of protections to wild horses and burros. Wild horses and burros had been protected from commercial sale and slaughter since the passage of the 1971 Act. However, these protections have been disregarded, and also eroded by amendment to the original 1971 Act. As a result, thousands of protected horses have been sold at auctions and shipped to slaughter plants.

The first of these amendments was passed in 1978, directing the BLM to destroy "excess wild free-roaming horses and burros for which adoption demand...does not exist."¹ Following the passage of this amendment, from 1981 to 1982, the BLM killed at least 47 horses, but the killing stopped when public dismay prompted the Director of the BLM to issue a policy prohibiting the destruction of healthy these animals.

To further ensure the protection of wild horses and burros, from fiscal years 1988 to 2004, Congress prohibited the BLM from using funds to destroy healthy wild horses and burros who had not yet been adopted. In late 2004, an extremely controversial rider - commonly referred to as the "Burns Amendment" - was inserted into the Fiscal Year (FY) 2005 Omnibus Appropriations bill by Senator Conrad Burns (R-MT). This amendment directed the BLM to sell "without limitation" animals who were either more

¹ 16 U.S.C. § 1333(b)(2)(C).

than 10 years old or had been passed over for adoption at least three times.² As a result, approximately 8,400 wild horses and burros became eligible for sale in 2005, and since then, BLM has sold more than 2,700 horses and burros under this authority.

Without any opportunity for public review or even a Congressional hearing, the Burns Amendment robbed wild horses of critical federal protection which they had been granted for over 30 years. In reaction to an overwhelming outcry by the American public, Sen. Burns then claimed that horses sold pursuant to this amendment would end up in good homes, not at slaughter. Sure enough, a few months into the implementation of the amendment, at least 41 wild horses sold by the BLM ended up at a slaughter plant. And today, it appears that American wild horses are still being sent to slaughter.

“Without limitation,” as BLM was aware of at the time, can be a euphemism for sale to a “killer buyer.” Killer buyers are the middlemen who purchase horses at auctions only to then sell them to slaughter, often times outbidding sanctuaries and others who want to provide good homes for these animals. The BLM has attempted to avoid allowing the sale of wild horses to slaughter, but despite the agency’s efforts, many of these animals end up in slaughterhouses because once an animal’s title has been passed, it is nearly impossible to prevent sale to slaughter. This is exactly how 41 horses ended up at a slaughter plant following implementation of the Burns’ Amendment. In April 2005, Dustin Herbert of Oklahoma purchased six horses from the BLM and told the agency he intended to use the horses for a church youth program. Instead, Mr. Herbert sent them immediately to slaughter in Illinois. Also, in the same month, 35 of the 83 horses initially bought by a Sioux Indian group were later re-sold to a broker and went to slaughter at the same Illinois plant.

As amended, the 1971 Act requires the BLM to destroy excess animals and/or sell them without limitation. Due to concerns about public and Congressional reaction to the massive slaughter of healthy horses, BLM has chosen not to destroy excess animals or sell them without limitation. But in an effort to comply with the law and reduce costs associated with caring for an increasing number of wild horses in short and long-term holding facilities, the BLM announced that for FY 2009, they would consider euthanizing about 2,300 horses in short-term holding (about one-third of the animals currently in short-term holding) and selling, without limitation, about 8,000 animals from both short and long-term holding.

The announcement generated enormous outcry from the public, national media, and Congress, and prompted separate letters from Senator Dianne Feinstein, as well as Chairman Rahall and Rep. Grijalva, and Rep. Kucinich that criticized this proposed

² 16 U.S.C. § 1333(e)(2).

policy. Additionally, in order to address BLM's noncompliance with the Act, as amended, the General Accounting Office (GAO) recommended in its October 2008 report, "Effective Long-term Options Needed to Manage Unadoptable Wild Horses" (2008 GAO Report) that BLM:

“[d]iscuss with Congress and other stakeholders how best to comply with the act or amend it so that BLM would be able to comply specifically with 1) the act's requirement for the humane destruction of excess animals and 2) the possible slaughter of healthy horses if excess animals are sold without limitation, under certain circumstances, as the act requires.”³

As a first step towards that goal, H.R. 1018 would allow BLM to comply with the 1971 Act by removing the “destruction of healthy animals” and “sale without limitation” requirements, pushing them to instead utilize several alternatives for the long-term management of these animals.

We firmly believe that no horse should pay the ultimate price for the agency's mismanagement and that killing horses, or allowing them to be sold to slaughter, is not the answer. The BLM made a social contract with Americans when it placed horses in long term care: The horses would be cared for life, and the commitment should be honored.

Reformation of Wild Horse and Burro Management Policies and Procedures

In addition to encouraging BLM to work with stakeholders and Congress to amend the 1971 Act in order to achieve compliance, the 2008 GAO Report also recommended that the BLM “develop cost-effective alternatives to the process of caring for wild horses removed from the range in long-term holding facilities and seek the legislative changes that may be necessary to implement those alternatives.”⁴

To that end, H.R. 1018 also provides the “legislative changes” necessary to address the on-the-range management policies and procedures that are directly responsible for the increasing number of “excess” animals managed off-the-range, the rising costs associated with their care, and the resulting budget crisis that prompted the BLM to consider killing and/or selling over 8,000 animals to solve the agency's fiscal problems.

In years following the passage of the Act, wild horse and burro populations inevitably grew, generating claims by the livestock industry and other wild horse opponents that the

³ GAO, *Bureau of Land Management: Effective, Long-term Options Needed to Management Unadoptable Wild Horses*, GAO-09-110 (Washington D.C.: October 2008), page 63.

⁴ Id.

animals were competing with livestock herds. To pacify wild horse opponents, Congress passed the Public Rangelands Improvement Act of 1978⁵ which amended the original 1971 Act by, among other things, directing the BLM to determine Appropriate Management Levels (AML), or the “optimum number of wild horses which results in a thriving natural ecological balance and avoids deterioration of the range,” on its Herd Management Areas (HMA).

However, this charge has been difficult to implement. The science behind the establishment of AMLs is flawed, and therefore many management decisions related to the appropriate number of horses gives the appearance of science without the proper foundation. Today, the BLM maintains 199 HMA’s covering over 34 million acres of public lands in 10 western states⁶ and, the aggregate AML established by the BLM for these HMAs is approximately 27,200 horses and burros. However, the estimated current wild horse population on HMAs is 33,100, which exceeds the established AML by about 5,900 animals.

From 1971 to 2007, the BLM has removed over 267,000 wild horses and burros from the range. In FY 2001, in an attempt to placate private ranchers holding federal permits to graze cattle on public lands, the BLM requested a budget increase from \$19.8 million to \$34.4 million to begin a major initiative to remove large numbers of mustangs and to reach the upper limit of AML by 2005.⁷ Between 2001 and 2007, the BLM removed approximately 74,000 (or 10,600 animals per year) from the range - a dramatic increase from previous years. The agency burned through tax dollars in conducting these programs and it chose not to apply the one option recommended by GAO that could actually blunt the increasing costs- an aggressive contraception program for the horses returning to the range. Therefore, again, many of those herds gathered during those years have met or exceeded their AML’s.

Also, unfortunately, the accelerated removals implemented to reach AML could never conceivably be absorbed by a responsible adoption program, and as a result, the budget increases initially requested by the BLM to reach AML goals on-the-range are now being diverted to care for thousands of animals who were previously removed from the wild and are now housed in BLM long-term holding centers.

For example, in FY 2007, the BLM spent \$38.8 million on its wild horse and burro program, but the cost for holding wild horses and burros in short and long-term facilities

⁵ Pub. L. No. 95-514, § 14, 92 Stat. 1803, 1808 (1978) (amending 16 U.S.C. §§ 1332–1333).

⁶ BLM manages wild horses and burros on 199 HMAs that are comprised of 29 million acres of BLM land and an additional 5.35 million acres of non-BLM land.

⁷ U.S. Department of the Interior, BLM, *Living Legends in Balance with the Land, A Strategy to Achieve Healthy Lands and Viable Herds, The Restoration of Threatened Watersheds Initiative* (Washington D.C., 2000).

was \$21.9 million - more than 50% of the BLM's total budget for managing wild horses and burros that year. In FY 2008, the cost of holding and caring for these animals exceeded \$27 million - or almost 75% of the FY 2008 enacted funding level of \$36.2 million - for the total wild horse and burro program.⁸

And yet, even with the rising costs to care for animals removed from the range, the BLM continued to use "gathers" as a primary tool for managing animals on the range. As of today, BLM still plans to remove another 5,000 animals in FY 2009. And despite warnings from the GAO⁹ and the Department of Interior's Office of Inspector General (OIG)¹⁰ that long-term facilities would prove more expensive than anticipated and would only serve as temporary solutions to the BLM's dilemmas, since 2001, the agency has increased the number of short-term holding facilities from 14 to 24, and the number of long-term facilities from one to 11. This short-sighted thinking will never solve the problem, and a course reversal is long overdue.

Fortunately, H.R. 1018 provides the BLM with the legislative authority to engage in reforms of its wild horse management policies and procedures – both on and off the range – to effectively address the current problems and prevent the recurrence of this wrong-headed approach.

Identification of New Rangelands and the Establishment of Sanctuaries

First, in an effort to reduce the costs of management both on and off the range, H.R. 1018 directs the BLM to identify new, appropriate rangelands and establish sanctuaries for wild horses and burros. Clearly, additional rangelands would reduce the number of animals removed from the range every year and enable the agency to return animals currently in holding facilities, or those removed in gathers on HMA's, to the range.

Under the 1971 Act, the land available for the management of wild horses and burros is limited to the areas where these animals existed at the time it was passed. The original, designated herd areas (HA) consisted of 53.5 million acres compared to the existing HMA acreage of 34.3 million acres - a difference of 19.2 million acres; and the BLM owned acreage that is specifically managed for wild horses and burros has changed from 42.2 million acres to 29.0 million acres – a reduction of 13.2 million acres.

⁸ U.S. Department of the Interior, BLM, *Wild Horse and Burro Quick Facts*
http://www.blm.gov/wo/st/en/prog/wild_horse_and_burro/Fact_Sheet.html

⁹ GAO, *Rangeland Management: Improvements Needed in Federal Wild Horse Program*, GAO/RCED-90-110 (Washington D.C.: Aug. 20, 1990).

¹⁰ U.S. Department of the Interior, Office of Inspector General, *Selected Aspects of the Wild Horse and Burro Program* (Washington, D.C., May 1994).

Under the 1971 Act, as amended, the BLM also has the authority to increase public lands available for wild horses and burros by:

- a) Increasing AMLs on existing HMAs;
- b) Expanding the acreage of existing HMAs; and/or
- c) Designating new HMAs.

As stated previously, the BLM currently manages 33,100 animals on 34 million acres of land, and if 19.2 million acres of land designated by law for wild horses and burros is available and capable of sustaining them, the BLM has an obligation to allow the recolonization of these lands by wild horses and burros. These lands could potentially sustain more than 16,000 animals – more than half of the animals currently housed in short and long-term holding centers.

Furthermore, the GAO stated in its October 2008 report that “it is important [for the BLM] to consider increasing AML or expanding HMA...to accommodate non-reproducing herds. Increasing the number of reproducing animals on the range without corresponding solutions for fertility control or declining adoption demand, will, in the long run, only exacerbate the BLM’s problems with excess animals.”¹¹

By directing the BLM to identify new lands and establish sanctuaries, this bill would allow the agency to relocate non-reproducing herds to areas where these animals were not found at the time of the 1971 Act. This would permit many of the horses currently in holding facilities, and those removed in future gathers on HMAs, to be released on available public lands and reduce off-the-range management costs.

At this time, I would like to acknowledge and applaud Madeleine and T. Boone Pickens for attempting to help with constructive solutions. As many of you know, Mr. and Mrs. Pickens have offered to help with the creation of life-time sanctuaries for thousands of wild horses and burros currently housed in the BLM’s short-term and long-term holding facilities.¹² But the generosity of others should not prompt the BLM to fail to get its own house in order.

Development and Implementation of Immunocontraception

Another management strategy that the BLM is directed to pursue under H.R. 1018 is the development of humane, sustainable contraception programs for managing wild horses on the range, which would result in fewer animals removed, and reduce off-the-range

¹¹ GAO, *Bureau of Land Management: Effective, Long-term Options Needed to Management Unadoptable Wild Horses*, GAO-09-110 (Washington D.C.: October 2008), p. 59.

¹² “A Dramatic Rescue for Doomed Wild Horses of the West.” *The Washington Post*, November, 18 2008.

management costs. This suggestion is not new to the BLM. As early as 1982, the National Academy of Sciences called on the agency to use PZP immunocontraception, finding it an effective technology and part of a pro-active management strategy. And in its 1990 report on the BLM's wild horse management program, the GAO found then that keeping excess animals in long-term holding was costly and recommended that BLM examine alternatives, such as treating animals with reproductive controls and releasing them back on the range.¹³ Further, in 2004, the U.S. Geological Survey found that the use of PZP reduced the cost of wild horse management and would allow wild horses to stay on the land.

Time and again, peer-reviewed studies have shown that costs could be significantly decreased by treating more mares with the immunocontraceptive PZP (porcine zona pellucida) and returning them to the range, rather than detaining them indefinitely in holding centers. For instance, a recent issue of the *Journal of Wildlife Management*, J. Bartholow (USGS) determined that contraception on-the-range could reduce total wild horse and burro management costs by 14%, saving \$6.1 million per year.¹⁴ This study demonstrates conclusively that the use of contraception could easily result in a reduction in the continuing long-term expenses associated with the BLM's wild horse and burro management program.

Thanks to the generosity of the Annenberg Foundation, the HSUS and the BLM are currently engaged in a large-scale field study to determine the management-level options for using PZP to control population growth in wild horse herds. This study holds great promise for significantly reducing and/or eliminating costly, stressful gathers in cases in which a particular herd is at or above biological carrying capacity, and requires human intervention to reduce and stabilize the population in order to maintain a healthy, viable herd. This work should immediately be expanded to as many herds as possible as an alternative to gathers and long term holding. With an efficacy rate of over 90%¹⁵, a comprehensive contraception program could dramatically reduce the financial stress on the agency and allow the BLM to once again focus its resources and efforts on range management programs.

¹³GAO, *Rangeland Management: Improvements Needed in Federal Wild Horse Program*, GAO/RCED-90-110 (Washington D.C.: Aug. 20, 1990).

¹⁴ Bartholow, J. 2007. Economic benefit of fertility control in wild horse populations. *J. Wildl. Mgmt.* 71(8):2811-2819.

¹⁵ Turner, J.W. et al. 2007. Immunocontraception in wild horses: one inoculation provides two years of infertility. *J. Wildl. Mgmt.* 71(2):662-667.

Balancing Adoption Demand with On-the-Range Management Activities

In addition to requiring that the BLM exhaust “all practicable options of maintaining populations of wild free-roaming horses and burros” before removing them from the range, H.R. 1018 also only provides the Secretary with the option of removing animals from the range if “an adoption demand exists.” In other words, even if current wild horse populations exceed established AMLs, under this bill, the BLM would not be permitted to remove more animals from the range than the agency could reasonably expect to place with qualified individuals based on current adoption rates.

Since 2000, the number of animals removed from the range has exceeded the number of animals adopted due to increases in removals by the BLM coupled with steady decline in adoption demand. Since 2001, 74,000 animals have been removed from the range compared to about 46,000 adopted or sold, and the average number removed between 2001 and 2007 was about 10,600 compared to the average adoption rate of about 6,300 annually. Although the BLM adopted less than 3,000 in 2007, and considered destroying or selling 8,000 “excess” animals, it has announced plans to round up another 5,000 animals in 2009, adding 2,000 more animals to its long-term inventory and another \$1 million to its budget deficit.

Not only would H.R. 1018 reduce off-the-range management costs by only allowing the BLM to remove animals from the range when adoption demand is adequate, it also directs the BLM “to implement creative and more aggressive marketing strategies for the adoption program” in an effort to increase adoption rates and further reduce off-the range management costs.

BLM’s Adopt-A-Horse Program has been overlooked and neglected for years. When the agency began aggressively removing more horses from the range than could be adopted annually a decade ago, the program suffered as a result. This bill will provide the BLM with the support and incentives necessary to develop and implement state-of-the-art strategies to promote the adoption program, as well as expand its training program. This is critical because in order for the adoption program to be successful, it is essential that the horses - and potential adopters - be given suitable training to ensure a successful outcome, prior to placing the horses in new homes. Organizations like the Mustang Heritage Foundation (MHF) have had enormous success in working with certified trainers to gentle, train and place wild horses with qualified individuals. We hope the BLM will seize every opportunity to work with MHF and other wild horse rescue groups to learn from their success and maximize the potential of the Adopt-A-Horse program.

Alleviating Stress and Discomfort Associated with Gathers

As mentioned previously, the BLM routinely conducts “roundups” or “gathers” to remove “excess” animals from the range, and to treat animals with PZP and release them back into the wild. As with most wild animals, any effort to capture, handle, restrain, and transport wild horses, no matter how carefully planned and executed, will inevitably cause a certain amount of stress and discomfort. However, this fact in no way reduces or minimizes the ethical obligation of those charged with managing wild horses to reduce, to the greatest extent possible, the physical and emotional anguish these wild animals endure during gathers.

Unfortunately, as many who have observed wild horse gathers can attest, methods for capturing, handling and transporting wild horses during gathers are centered, more often than not, on human convenience rather than animal welfare. For example, aggressive methods, such as helicopters and other airborne devices, should only be used as a last resort to gather a few remaining animals on the range. Further, this method should only be applied as a last resort after more passive, humane methods, including water trapping and nutrient baiting, have been used to gently lure and capture the majority of the targeted animals at the gather site. Instead, helicopters, airborne devices, and motor vehicles such as are the BLM’s preferred method for gathering animals, and cause an enormous amount of stress and trauma. However, these methods are largely unnecessary given the available alternatives.

Other Considerations not Addressed by the ROAM Act

Other issues that have not been addressed in the bill, but need to be considered, include the lack of effort made to keep family bands intact during the gather process, when animals are removed and released back onto the range following gathers. Wild horses form tight-knit bands, or family units that consist of several generations of individuals who are, more often than not, related to one another. To the greatest extent feasible, the BLM should make as much effort as possible to ensure that these bands remain intact in order to (1) minimize the stress and trauma associated with gathers, and (2) maintain critical social units if the band is released back onto the range.

Additionally, in gathers alone, BLM employees and contractors need to be given clear guidance that the welfare of the animals must be their paramount concern. To ensure this, clear guidelines for reporting and rectifying instances of cruelty should take place in a timely fashion. Running animals into such a panic that they trample each other in the chute or are driven under a vehicle, unnecessary yelling around animals who are stressed,

allowing injured animals to remain with healthy animals due to the convenience of the staff, are all unacceptable management practices that must to be prohibited.

Further, the BLM has a written policy to release older animals during gathers since it is well-documented that older animals generally do not tolerate the stress of transportation and are unlikely to be adopted. And yet, because they are less likely to add to the overpopulation problem, older animals are still frequently removed during gathers, rather than released back onto the range. It is critical that instead of only seeing the benefit of a short-term management strategy by removing these older horses during gathers, the BLM adhere to its own policy by leaving them on the range.

These examples clearly illustrate the need for the BLM to overhaul its policies and procedures for conducting gathers to ensure that the agency's methods minimize, to the greatest extent possible, the inherent stress and discomfort involved in these operations. In order to accomplish this, these policies must be consistent with the most up-to-date science on wild horse behavior, and focus on both the immediate and long-term needs of the animals involved in gather operations.

Conclusion

In summary, the passage of the ROAM Act, H.R. 1018, would not only restore longstanding protections to wild horses and burros in the U.S., but it will provide the BLM with the legislative support necessary to revolutionize the current wild horse and burro management program from one that is often inefficient, costly, and cruel to one which is technologically advanced, cost-beneficial, and humane. Such an endeavor would be of great benefit not only to our treasured wild horse and burro populations, but also to the American taxpayer.

Wild Horses as Native North American Wildlife

By Patricia M. Fazio, Ph.D.

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Henry Fairfield Osborn, a mammalian paleontologist at the American Museum of Natural History, called horses "... one of the gifts of America to the world." He was giving an address titled "Origin and History of the Horse" before the New York Farmers at the Metropolitan Club in New York City on December 19, 1905. His paleontological explorations during the late 1800s had yielded a surprising discovery... that horses evolved in North America.¹⁶ Since Osborn's early finds, fossil remains of the horse, representing every phase of evolutionary modification, over 57 million years, have been found on this continent. In fact, horse evolution is cited as a classic example of the evolutionary process, where natural selection molds characteristics, both biological and behavioral, that promote survival.¹⁷

It was once thought that horse evolution was a smooth, gradual, straight-line process, with horses becoming progressively larger, possessing fewer toes, and alterations in teeth structure that changed horses from browsers to grazers. However, it is now known, through improved dating techniques (geochronology) and advances in interpreting evolutionary development and taxonomy, that nearly all natural experiments in horse evolution failed, that several genera of horses often co-existed at the same time, and that a chart of horse evolution resembled a human family tree – branching and complex. The genus Equus, which includes modern horses, zebras, and asses, is the only surviving genus in a once diverse family of horses that included 27 genera. However, between 13,000 and 11,000 years ago, this last surviving genus appeared to be endangered, as well, when horses became

¹⁶ Henry Fairfield Osborn, "Origin and History of the Horse," Address presented before The New York Farmers, Metropolitan Club, New York, 19 December 1905, p. 1

¹⁷ "Unbroken Spirit: The Wild Horse in the American Landscape," 2001. Buffalo Bill Historical Center, Cody, Wyoming http://www.bbhc.org/unbrokenSpirit/evolution_1.cfm

extinct in North America.¹⁸ Had it not been for westward migration, over the Bering Land Bridge, into northwestern Russia (Siberia) and Asia, the horse would have faced complete extinction. However, they survived, spread to all continents of the globe, except Australia and Antarctica, and about 6,000 years ago, Equus caballus was first domesticated in Asia. In 1493, on Columbus' second voyage to the Americas, Spanish horses were brought to North America, first in the Virgin Islands, from where they radiated onto the American Great Plains through Spanish exploration and conquest.¹⁹

Horses have traditionally been considered non-native, "feral," and exotic in North America. This was based on the argument that E. caballus (or the caballoid horse) was not present on this continent when horses disappeared 11,000 to 13,000 years ago. The horse brought back by the Spanish was thought to be a different species than the species present in North America at extinction. However, the relatively new (27-year-old) field of molecular biology, using mitochondrial DNA analysis, has recently found that the modern horse, E. caballus, is genetically identical to E. lambei, a horse, according to fossil records, that represented the most recent Equus species in North America prior to extinction. Not only is E. caballus genetically equal to E. lambei, but no evidence exists for the origin of E. caballus anywhere except North America.²⁰

According to a paper published by Uppsala University researcher Ann Forstén, of the Department of Evolutionary Biology, the date of origin for E. caballus is set at approximately 1.7 million years ago in North America. Scientists – galloping along – are leaving the old methods of paleontology and taxonomic classification in the dust. The older taxonomic methodologies looked at physical form for classifying animals and plants, relying on eyeball observations of physical characteristics. While earlier taxonomists tried to deal with the subjectivity of choosing characters

¹⁸ "Horse Evolution" by Kathleen Hunt from http://www.talkorigins.org/faqs/horses/horse_evol.html; Bruce J. MacFadden, *Fossil Horses: Systematics, Paleobiology, and Evolution of the Family Equidae* (New York: Cambridge University Press, 1992), p. 205

¹⁹ Patricia Mabee Fazio, "The Fight to Save a Memory: Creation of the Pryor Mountain Wild Horse Range (1968) and Evolving Federal Wild Horse Protection through 1971," doctoral dissertation, Texas A&M University, College Station, 1995, p. 21

²⁰ Ann Forstén, 1992. *Mitochondrial-DNA timetable and the evolution of Equus: Comparison of molecular and paleontological evidence*. Ann. Zool. Fennici 28: 301-309

they felt would adequately describe, and thus group, genera and species, these observations were lacking in precision. Reclassifications are now taking place based on the power and objectivity of molecular biology. If one considers primate evolution, for example, the molecular biologists have rewritten the rules and have provided us with a completely different evolutionary pathway for humans, and they have described entirely different relationships with other primates. None of this would have been possible prior to precise data collection now available through mitochondrial DNA analysis.

Carles Vilà, also of the Department of Evolutionary Biology at Uppsala University, has corroborated Forstén's work. Vilà et al have shown that the origin of domestic horse lineages was extremely widespread, over time and geography. Their work also supports the existence of the caballoid horse in North America before its disappearance.²¹

The molecular biology evidence is indisputable. The fact that horses were domesticated before they were reintroduced matters little from a biological viewpoint. They are the same species that originated here, and whether or not they were domesticated is quite irrelevant. Domestication altered little biology, and we can see that in the phenomenon called "going wild," where wild horses revert to ancient behavioral patterns. James Dean Feist dubbed this "social conservatism" in his paper on behavior patterns and communication in the Pryor Mountain wild horses. The reemergence of primitive behaviors, resembling those of the plains zebra, indicated to him the shallowness of domestication in horses.²²

The issue of feralization and the use of the word "feral" is a human construct that has little biological meaning except in transitory behavior, usually forced on the animal in some manner. Consider this parallel. E. przewalski disappeared from Mongolia a hundred years ago. It has survived since then in zoos. That is not domestication in the classic sense, but it is captivity. Then they were released a few years back and now repopulate their native range in Mongolia. Are they a

²¹ Carles Vilà, Jennifer A. Leonard, Anders Götherström, Stefan Marklund, Kaj Sandberg, Kerstin Lidén, Robert K. Wayne, Hans Ellegren. 2001. *Widespread origins of domestic horse lineages*. *Science* 291: 474-477

²² James Dean Feist and Dale R. McCullough. 1976. *Behavior patterns and communication in feral horses*. *Z. Tierpsychol.* 41: 367

reintroduced native species or not? And what is the difference between them and E. caballus in North America, except for the time frame and degree of captivity? The key element in describing an animal as a native species is (1) where it originated; and (2) whether or not it co-evolved with its habitat. Clearly, E. caballus did both, here in North America. There might be arguments about “breeds,” but there are no scientific grounds for arguments about “species.” The non-native, feral, and exotic designations given by agencies are merely reflections of their failure to understand modern science, but it is also a reflection of their desire to preserve old ways of thinking to keep alive the conflict between a species (wild horses) with no economic value anymore (by law) and the economic value of cattle, sheep, and goats.

Native status for wild horses would place these animals, under law, within a new category for management considerations. As a form of wildlife, embedded with wildness, ancient behavioral patterns, and the morphology and biology of a sensitive prey species, they may finally be released from the “livestock-gone-loose” appellation. Fifty-seven million years of evolution cannot be dismissed as superficial or inconsequential. In the twists and turns of natural experimentation, the horse has developed into the wind drinker of the North American plains and mountains and has earned the right to be free.

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Further references:

Range Relationships of Feral Horses With Wild Ungulates and Cattle in Western Alberta, Salter, RE and Hudson, RJ, Journal of Range Management (J. RANGE MANAGE. Vol. 33, no. 4, pp. 266-271. 1980).

[<http://md1.csa.com/partners/viewrecord.php?requester=gs&collection=ENV&recid=263218&q=&uid=1044139&setcookie=yes>]

- There is not a lot of overlap between deer, moose and elk with horses, but a 66% overlap of cattle and horses.

Dietary Relationships among Feral Horses, Cattle, and Pronghorn in Southeastern Oregon, Michael L. McInnis and Martin Vavra (Journal Of Range Management 40(1), pp. 60-66, January 1997).

[http://oregonstate.edu/dept/eoarcunion/Martin_Vavra/PDF_Pubs/VJRM_40_60.pdf]

- Wild horses dietary overlap with pronghorn is low (7-26% depending on season) and high with cows (62-78%), according to a study performed in Oregon.

Journal of Arid Environments, Erik A. Beever and Peter F. Brussard (Volume 59, Issue 2, October 2004, Pages 271-297).

[http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WH9-4BYRS22-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&_view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=6ed25b9dc9d5ff2aaba12a5bb9a2ced4]

- Refers to the notion that “[M]ammal species richness did not differ between horse-occupied and horse-removed sites,” and “[c]ommunity completeness did not differ statistically between horse-removed and -occupied sites.”

Horses and Cattle Grazing in the Wyoming Red Desert, I. Food Habits and Dietary Overlap L. J. Krysl, M. E. Hubbert, B. F. Sowell, G. E. Plumb, T. K. Jewett, M. A. Smith and J. W. Waggoner (Journal of Range Management, Vol. 37, No. 1 (Jan., 1984), pp. 72-76).

[<http://www.jstor.org/stable/3898828>]

- Reports the 72-84% dietary overlap in cows and horses.