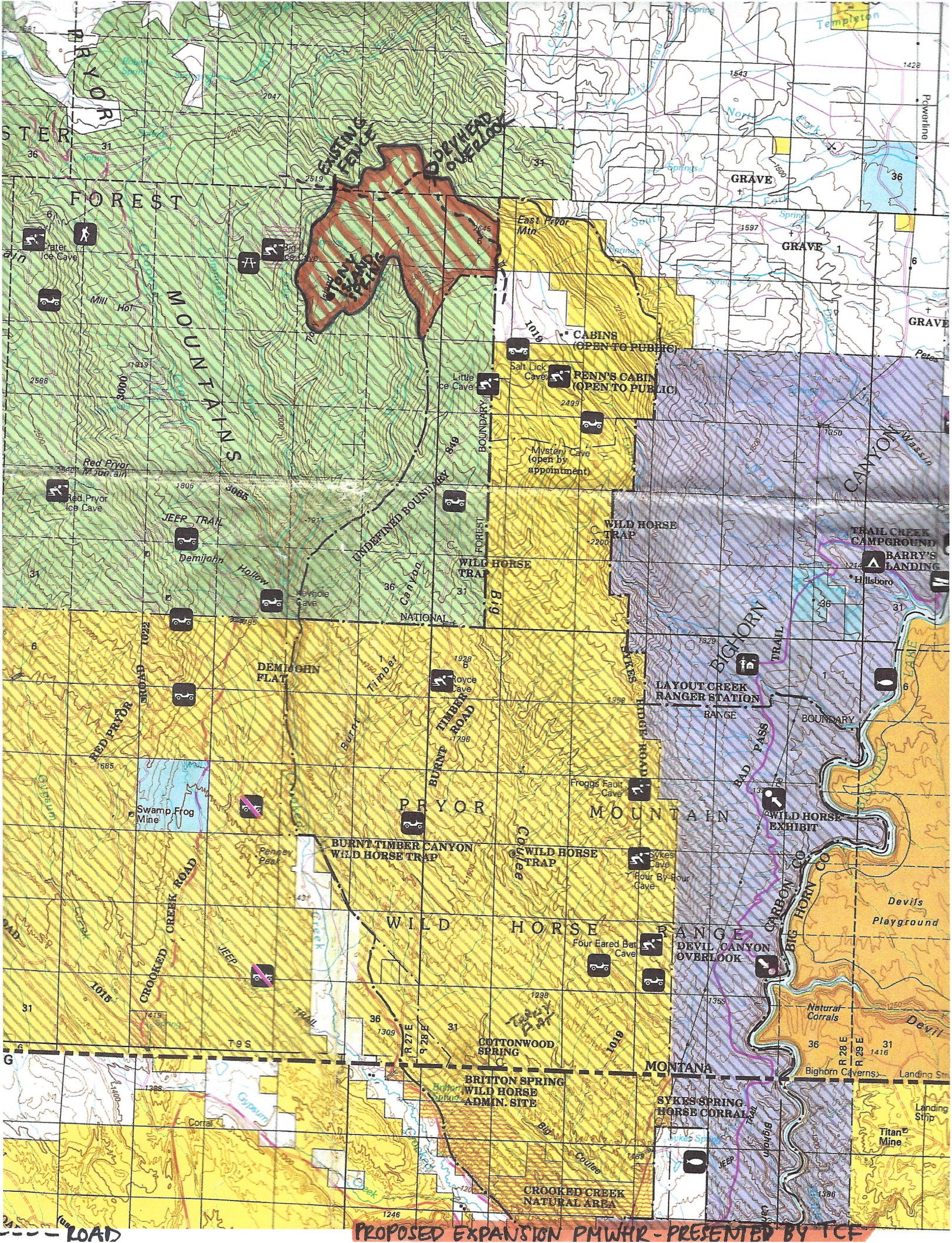
# Appendix #1

## *Maps of proposed expansion as presented by The Cloud Foundation*

**Notes**
The expansion would include the area from the current boundary up to the flat, non-forested part of Tony Island and Tony Island Spring (Dryhead Overlook excluded). It would also include the grassy valley between the triangular-shaped peak (east of Tony Island) and Cloud's Island (the most southern end of the proposed expansion), which is lovingly called 'the secret garden'. Additionally, the expansion would include the Western part of Cloud's Island, which is currently separated by the PMWHR boundary. The triangular-shaped peak does not need to be included in the expansion, since, as far as we know, horses have not used this area in the past.

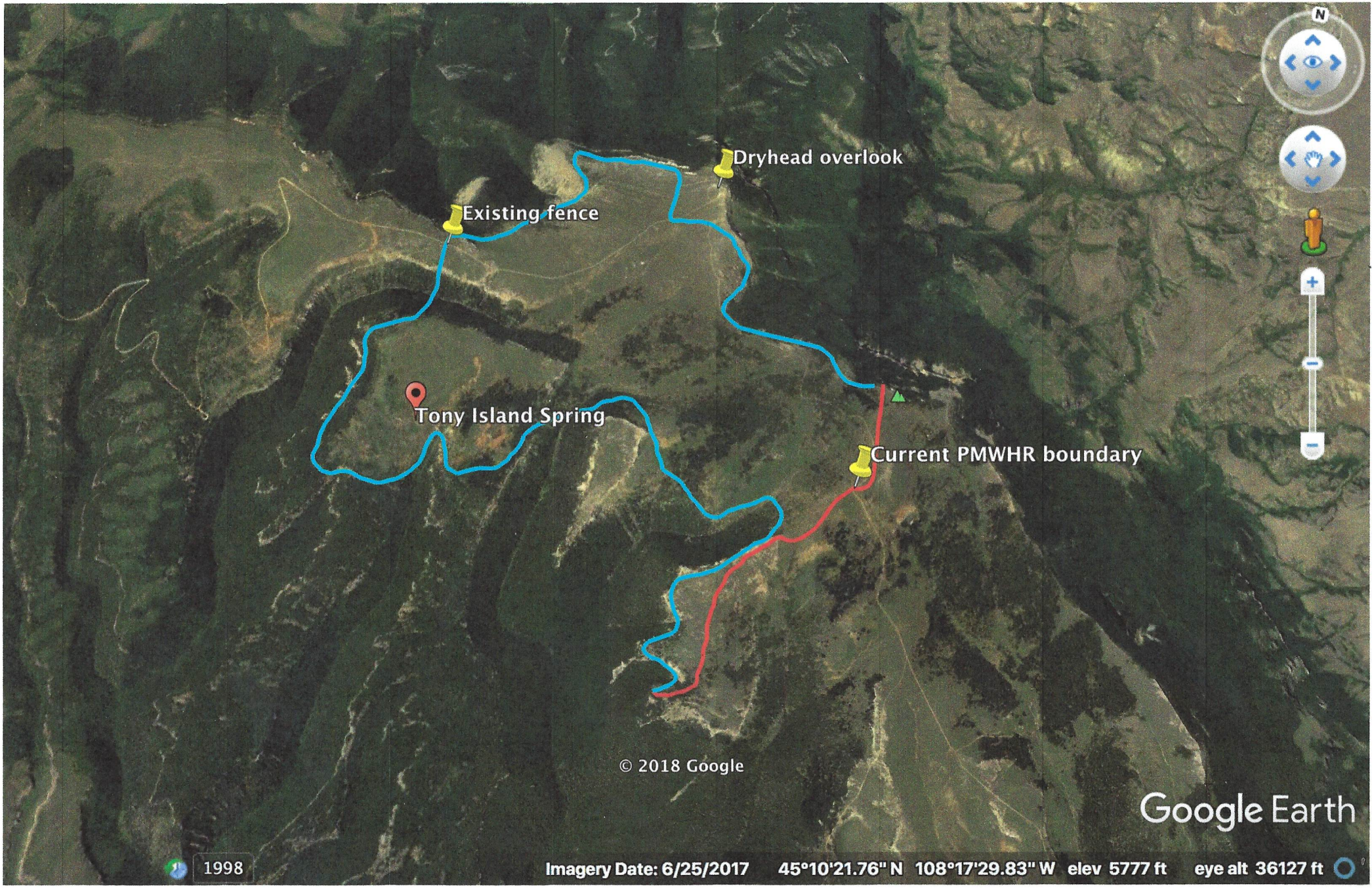
These areas were historically used as summer ranges by about half of the bands that go up the mountain, which are not more then 50 to 60 horses. There would be no need for additional water catchments, since the horses can drink at either Tony Island Spring, the snow crater, or at the big pond in the current horse range. The only additional infrastructure that would be needed, is some fencing at places where horses could possibly trail through the canyons, and the replacement of the cattleguard at the proposed western boundary with a 'wild-horse-Annie-guard'. However, the vast majority of the area is bounded by natural barriers and the most important fence that cuts off access further west into the Forest Service lands, does already exist.

In addition, by allowing the Pryor Mountain Wild Horses into the proposed area, visitors of one of the most popular wild horse populations in the United States will be able to observe the horses much easier. The road that leads through Forest Service lands into the PMWHR does not require a 4x4 vehicle but is accessible with normal vehicles as well. Since the PMWHR is a main source of income for many surrounding enterprises, we are confident that the expansion will contribute to the local economy.




PROPOSED EXPANSION PMWHR - PRESENTED BY TCF

PROPOSED EXPANSION - PRESENTED BY THE CLOUD FOUNDATION



# Appendix #2

*E. Gus Cothran. 2013. Genetic Analysis of the Pryor Mountain Wild horse Range, MT. Department of Veterinary Integrative Bioscience, Texas A&M University.*

**Notes**
Page 1 – 5.

# Genetic Analysis of the Pryor Mountains Wild horse Range, MT

E. Gus Cothran

August 22, 2013

Department of Veterinary Integrative Bioscience
Texas A&M University
College Station, TX 77843-4458

The following is a report of the genetic analysis of the Pryor Mountains Wild horse Range, MT.

A few general comments about the genetic variability analysis based upon DNA microsatellites compared to blood typing. The DNA systems are more variable than blood typing systems, thus variation levels will be higher. Variation at microsatellite loci is strongly influenced by allelic diversity and changes in variation will be seen in allelic measures more quickly that at heterozygosity, which is why more allelic diversity measures are calculated. For mean values, there are a greater proportion of rare domestic breeds included in the estimates than for blood typing so relative values for the measures are lower compared to the feral horse values. As well, feral values are relatively higher because the majority of herds tested are of mixed ancestry which results in a relatively greater increase in heterozygosity values based upon the microsatellite data. There are no specific variants related to breed type so similarity is based upon the total data set.

**METHODS**

A total of 45 samples were received by Texas A&M University, Equine Genetics Lab on February 21, 2013. DNA was extracted from the samples and tested for variation at 12 equine microsatellite (mSat) systems. These were *AHT*4, *AHT*5 *ASB*2, *ASB*17, *ASB*23, *HMS*3, *HMS*6, *HMS*7, *HTG*4, *HTG*10, *LEX*33, and *VHL*20. These systems were tested using an automated DNA sequencer to separate Polymerase Chain Reaction (PCR) products.

A variety of genetic variability measures were calculated from the gene marker data. The measures were observed heterozygosity *(Ho)* which is the actual number of loci heterozygous per individual; expected heterozygosity *(He)*, which is the predicted number of heterozygous loci based upon gene frequencies; effective number of alleles *(Ae)* which is a measure of marker

system diversity; total number of variants *(TNV)*; mean number of alleles per locus (*MNA*); the number of rare alleles observed which are alleles that occur with a frequency of 0.05 or less (*RA*); the percent of rare alleles (*%RA*); and estimated inbreeding level *(Fis)* which is calculated as 1-*Ho/He*.

Genetic markers also can provide information about ancestry in some cases. Genetic resemblance to domestic horse breeds was calculated using Rogers' genetic similarity coefficient, *S*. This resemblance was summarized by use of a restricted maximum likelihood (RML) procedure.

**RESULTS AND DISCUSSION**

Variants present and allele frequencies are given in Table 1. No variants were observed which have not been seen in horse breeds. Table 2 gives the values for the genetic variability measures of the Pryor Mountains Wild horse Range herd. Also shown in Table 2 are values from a representative group of domestic horse breeds. The breeds were selected to cover the range of variability measures in domestic horse populations. Mean values for feral herds (based upon data from 126 herds) and mean values for domestic breeds (based upon 80 domestic horse populations) also are shown.

Mean genetic similarity of the Pryor Mountains Wild horse Range herd to domestic horse breed types are shown in Table 3. A dendrogram of relationship of the Pryor Mountains Wild horse Range herd to a standard set of domestic breeds is shown in Figure 1.

**Genetic Variants:** A total of 75 variants were seen in the Pryor Mountains Wild horse Range herd which is slightly above the mean for feral herds and slightly below the mean for domestic breeds. Of these, 15 had frequencies below 0.05 which is below the average percentage

of variants at risk of future loss. Allelic diversity as represented by *Ae* is somewhat higher than the average for feral herds as is *MNA*.

**Genetic Variation:** Both observed heterozygosity and expected heterozygosity in the Pryor Mountains Wild horse Range herd is above the feral mean. *He* is slightly higher than *Ho* which could indicate the very beginning of evidence of inbreeding. However, the difference at this point is not statistically significant.

**Genetic Similarity:** Overall similarity of the Pryor Mountains Wild horse Range herd to domestic breeds was low for feral herds. Highest mean genetic similarity of the Pryor Mountains Wild horse Range herd was with Light Racing and Riding breeds, followed by the Old World Iberian breeds. As seen in Fig. 1, the Pryor Mountains Wild horse Range herd clusters within a group of Iberian horses. Previous studies had indicated Iberian ancestry for this herd but cluster results have not always supported the qualitative indications. As with most trees involving feral herds, the tree is somewhat distorted.

## SUMMARY

Genetic variability of this herd in general is on the high side but compared to past sampling of this herd, variability levels for all measures has been in decline. This is likely due to the population size that has been maintained in recent years. Overall, the herd is showing evidence of Spanish heritage that is stronger than seen recently, although the known mixed ancestry is still apparent. This is possibly due to the efforts to remove horses derived from introductions.

## RECOMMENDATIONS

Current variability levels are high enough that no immediate action is needed. However, there has been a general trend for a decline in variations levels of the herd. If the trend continues

the variability levels of the herd could drop below the feral average within the next five to ten years. The best way to maintain current levels would be to increase population size if range conditions allow.

# Appendix #3

*Wockner et al. 2013. Habitat Suitability Model for Bighorn Sheep and Wild Horses in Bighorn Canyon and the Pryor Mountain Wild Horse Range.*

**Notes**
Page 2.

# Habitat Suitability Model for Bighorn Sheep and Wild Horses in Bighorn Canyon and the Pryor Mountain Wild Horse Range

October 6, 2003

Gary Wockner[1], Francis Singer[2], Kate Schoenecker[2]

[1]Natural Resource Ecology Lab, Colorado State University, Fort Collins, CO
[2]USGS, Biological Resource Division, Fort Collins, CO

## I. Introduction

The purpose of this habitat suitability model is to provide a tool that will help managers and other researchers better manage bighorn sheep and wild horses in the Bighorn Canyon National Recreation Area and Pryor Mountain Wild Horse Range. One of the most persistent concerns in the management of the Pryor Mountain wild horse population is whether or not the horses compete with native bighorn sheep for available forage or available space. Two studies have been conducted that have shown no obvious, convincing competition between the two species. A study of diets and habitat-use of both species revealed substantial diet overlap only during some seasons, but there was considerable spatial and habitat separations between horses and bighorns during all seasons (Kissell et al. 1996). This empirical data was then used in a modeling exercise that predicted that neither the current (about 160 horses at the time of this analysis) nor larger numbers of wild horses on the area (e.g. about 200 horses) would result in reduced numbers or condition of bighorn sheep (Coughenour 1999). But competition is a very complex biological process to document. Bighorns might already be spatially avoiding wild horses.

A second concern for managers is that earlier studies suggest both species are not using many areas of the range that appear to be suitable (Kissell et al. 1996, Gudorf et al. 1996). A primary goal for the management of both species is to increase their numbers for purposes of genetic conservation and viability. The bighorn sheep population declined during the mid-1990's from a peak of about 250 animals to only 100-120 animals at present. Absolute minimum goals for genetic viability in the bighorn sheep herd (genetic effective population size of $N_e \geq 50$) suggest at least 150 animals should be present, while studies of persistence suggest populations of 300+ are more likely to recover rapidly and persist should the population experience an epizootic die-off (Singer and Zeigenfuss 2001). Since all bighorn sheep populations are potentially vulnerable to disease epizootics, managing for larger populations of 200–300 animals appears to increase the potential for long-term persistence (Berger 1990, Singer and Zeigenfuss 2001).

Wild horses are not prone to rapid disease die-offs. However, minimum goals for genetic viability in the Pryor Mountain wild horses ( $N_e \geq 50$) require that at least 160 animals be present on the range (Singer et al. 2000). Since the $N_e \geq 50$ goal is set for the breeding of domestic animals, and since the vagaries of drought, severe winters, predation, and other stochastic events cause stress in wild animals, larger goals for $N_e$ (e.g. $N_e \geq 100$) for wild horses are even more desirable (USDI, BLM 1999; Gross 2000). Expanding the area of the wild horse range is one option, but the prospects for expanding the range do not appear to be great (L. Coates-Markle, BLM, pers. comm.) A second option would be to increase the amounts of useable habitat for horses on the existing range. One goal of this modeling effort was to use GIS-based habitat analyses and ground-truthing to determine why wild horses are not using some areas of the range, and to explore the potential for making some of these areas useable.

# Appendix #4

*R. Hall. 1972. Wild Horse Biology and Alternatives for Management, Pryor Mountain Horse Range. Bureau of Land Management.*

**Notes**
Page 9, page 99.

Average harem group is three to four (3.4) animals. It is composed of a lead mare, a stud whose function is breeding and holding the unit together, and other subordinate animals. Larger harem groups may contain two males and both of them may, on occasion, breed. Males born to the unit are sometimes kicked out as yearlings; other groups may tolerate young males until at least three. Stud groups, composed of young studs not yet capable of obtaining a harem, have a much looser organization The group is led by a dominant stud. Individual members may wander from the group to return later, or they may join another group of all male animals.

Range trend has been sharply downward for several years. The 120-130 horses presently on the range are too many for the available forage.

Some competition exists between mule deer and horses, especially on intermediate browse species.

Management will consist of population control and proper distribution. Distribution will be accomplished by water manipulation and/or fencing. In the future, other management methods will be tried as they are developed.

# I. CAPABILITIES AND OPPORTUNITIES FOR DEVELOPMENT WILD HORSES

## A. Objective

Expansion of the existing boundaries of the Pryor Mountain Wild Horse Range would be returning wild horses to areas of historic use. Expansion is compatible with PL 92-195 and is also a sound management procedure. (PL 92-195, Appendix #11)

Adding areas of traditional use presents two distinct advantages 1. it would give the horses a better opportunity to express ingrained behavioral traits (territorial establishment) that have been denied to them under the crowded conditions prevalent on the range and 2. additional forage would be made available.

If we are to manage a wild horse population, we must give them every opportunity to express their biotic potential. Enhancing the "wild nature" of the horse is a management objective of paramount importance. A second, and related, management objective is the maintenance of a healthy, viable herd capable of expressing natural behavior.

The additional forage obtained from expansion of the horse range would serve as a buffer or reserve for the horses. Estimated time for re-establishment of the horses into new areas is two years. During this adjustment period, two possibilities exist 1. reduce the horses to the carrying capacity of the present range. Then, based on

distribution of the horses in expansion areas allow the horses to increase to carrying capacity of their respective areas of use.

2. Do not reduce the horses at the present time, but allow the horses to expand into new areas. This expansion may be facilitated by driving horses into the new areas.

The eventual goal is to provide healthy, productive horses capable of expressing their biotic potential on a healthy, productive range.

B. Habitat Expansion

Wild horses have occupied all of the Pryor Mountain Complex in the past. Man has now eliminated the horses on most of these areas.

Expansion of the habitat could occur if the barriers to movement of the horses were eliminated. The barriers to movement into additional areas are fences, private land and natural barriers. PL 92-195 states that expansion of horse herds into areas not occupied by wild horses on December 15, 1971, would not be considered. Areas considered below probably had wild - free roaming horses on them on the above mentioned date.

Overlay - Expansion Potential depicts areas to be considered. (Appendix #8)

1. Area 1 - Mystic Allotment - Acreage 2064 - C. C. 27 HU's
Horses seem to prefer this area during the winter months. The fence north of Mystery Cave is in poor repair and has allowed horses to enter this allotment. Last winter (1971-72) five horses wintered on Mystic Allotment and moved back into the horse range during the middle of May. Another group of horses used this area intermittently during the summer months.

# Appendix #5

*Ron Hall's email to Patricia M. Fazio.*

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----- Message from "Patricia M. Fazio" <patricia-m-fazio@bresnan.net> on Thu, 26 Aug 2010 15:01:27 -0600 -----

**To:** "Jim Sparks" <Jim_Sparks@blm.gov>

**Subject:** Wild Horse Herd Areas (Original) vs. Herd Management Areas (Current)

-----Original Message-----
From: Ron_Hall@blm.gov [mailto:Ron_Hall@blm.gov]
Sent: Wednesday, December 17, 2003 9:35 AM
To: Patricia M. Fazio
Cc: Bea_Wade@nv.blm.gov; Terry_Woosley@nv.blm.gov
Subject: Re: Wild Horse Herd Areas (Original) vs. Herd Management Areas (Current)

I have forwarded your information request to Bea Wade as she maintains our database. Bea is in Denver this week but should return next week.

There are numerous issues that may result in a decision to not manage wild horses and burros in a particular Herd Area or Herd Management Area. Some areas in southern Nevada are receiving attention now due to unsuitable habitat and a continual history of emergencies. Some of these are in the Mohave vegetative type that has the grass component largely missing so does not provide good wild horse habitat. In addition to inadequate forage or water, other conflicts such as recreation, mining, urban interface, or private land issues may result in a decision to not manage wild horses or burros in a particular area.

There were flights on the Pryor Mountains both prior to and subsequent to PL 92-195. Horse use was present on the old "Mystic Allotment" or Herman Kruger Allotment on the top of the mountain. In addition horses regularly used the Lost Water area on the Forest Service. The area over towards the Dryhead Overlook was not used much by horses but there was an occasional horse in these areas on top of the mountain. The Dryhead area up to the Sorensen Ranch was routinely used by wild horses both prior to the passage of the act and afterward.

I have been out of town and in looking through my e-mail I see that Don Glenn responded to some of your request. Bea is working on data compilation for the HMA database as indicated.

# Appendix #6

*Letter by Gail Tillett Good.*

Gail Tillett Good
P.O. Box 453
Lovell, WY 82431
(406) 484-2583
Sept. 7, 2006

Declaration of Gail Tillett Good:

1. The Tillett Family has had Livestock forest permits on Crooked Creek Drainage and Dry Head Drainage of The Pryor Mountains long before I was born in June 1944. Wild horses roamed The Pryor Mountains as long as I can remember. About 1968, Edna Anderson sold out to Joe Good, my grandfather-in-law. That put me riding for livestock on both East and West Pryor Mountain on surrounding foothills in 1969, 1970, 1971, 1972. Before, after, and during those years I have seen wild horses on Commissary Ridge, Tony Island, Ice Cave Ridge (Big Ice Cave), Crooked Creek, and Wyoming Creek. Above the road at Demijohn Hollow, the dark brown stallion I call "My Shadow" or "Shadow" ran this area with his little band of about 14. In 1971, "Shadow" got me bucked off the colt I was riding in June-July into the bottom of Crooked Creek and Wyoming Creek. When we surprised him, his band charged past us, and my green broke colt started bucking. I went over the edge and into Crooked Creek. Pat Marchant was with me and caught my colt on top of Commissary Ridge. When she got back, she said it was the funniest thing she ever saw. I bounced off two wild mustangs before going over the edge; not funny. I was wet, a little bruised, but okay. Later that week I saw the flaxen-maned sorrel bunch, about 16 or 18 head, on Tie Camp Flat above the road at Tibb's Hollow.

2. Additional places I have seen wild horses are Dry Head Overlook, the Ranger Station on top, a patch of timber called "Ma Strong's Timber Patch," Tie Flat, Head of Crooked Creek, Tibb's Hollow above the road, Wyoming Creek, Camp Wyoming, in the timber above the road between Camp Wyoming Creek and Second Springs, below the road at Demijohn Hollow, and the upper end of Demijohn Flat and on top of West Pryor and in the foothills around West Pryor on Joe Good's BLM permit. Yes, I have seen wild mustangs from 1969 through 1971 in all the places just described by me, as well as in the foothills around East Pryor Mountain and as far north as Caroline Lockhart' Ranch, Joe Smith's, and Dead Man.

3. I can take anyone to Commissary Ridge, Tony Island, Big Ice Cave areas and show them wild horses. My Shadow's grandson Little Shadow still runs that area. I saw him about a week ago.

4. Joan Brownell wrote a report several years ago about the Pryor wild horses and where they roamed but she failed to interview me and my mother, Abby. Both of us would have been happy to speak with her about the presence of wild horses in the places indicated above.

Pursuant to 28 U.S.C. §1746, I swear that the foregoing is true and correct.

Gail Tillett Good

Executed this 7th day of September, 2006.

# Appendix #7

*Hope Ryden's picture and statement.*

Forest Service land June 1970
photo by Hope Ryden

Hope Ryden
345 East 81st Street
New York City 10028
April 26, 2000

Ginger Kathrens
Taurus Productions
107 South 7th Street
Colorado Springs, Co 80905

Dear Ginger,

Of course, I remember you from the 1997 Pryor Mountain Resource Management Forum and have been aware of your continuing interest in the horses. Congratulations on forming a Wild Horse and Burro Freedom Alliance. Coalitions are difficult to form and my hat is off to you.

I am well aware of the move being made by the Forest Service to fence out the horses and I have communicated with Linda Coates-Markel, Pat Fazio, and Rev Schweiger on this issue. Since I was unable to attend hearings on the matter, I relied on the above named individuals to present my arguments, which included a xerox of a photograph that I took on the land in question prior to the passage of the Wild Horse and Burro Act. The original slide is still in its cardboard mount, which was stamped and dated, June 1970, by the National Geographic. (That year the magazine had sent me to shoot illustrations for the article I was writing on wild horses, published January 1971). In the foreground of this picture is a spirited stallion and, in the background of the shot, West Pryor is clearly visible, thus establishing the exact location of the horse.

Over the 33 years that I have followed and photographed the herd, I have seen many horses on the very section of the Forest Service land now in dispute. Clearly, the horses have made long and important use of that part of the mountain. A recent phone conversation with Linda confirms that she agrees, and would welcome any and all support on the issue.

Please use this information as needed in arguing against the fencing project. I have enclosed a xerox of the picture. Meanwhile I will retain the original slide in its dated, pristine mount as proof of its authenticity.

Sincerely,

Hope Ryden

Hope Ryden

# Appendix #8

*Linda Coates-Markle (1998) Record of Buck n' Pole Fence Repair Activity (administrative boundary) on PMWHR/Custer National Forest.*

# Current Record of Buck n' Pole Fence Repair Activity (administrative boundary) on PMWHR/Custer National Forest

**Prepared by:** Linda Coates-Markle, State Wild Horse and Burro Specialist.
**Date:** August 13, 1998.

## Record of Activity:

August 1997 - In response to Forest Service concerns, BLM organized the Montana Conservation Corps to completely repair the existing administrative fenceline.

June 22, 1998 - Minor repairs to buck n' pole fence (replaced broken poles) were accomplished by BLM seasonal employee and student interns.

June 26, 1998 - BLM observed Pierre's band near Big Ice Cave.

June 30, 1998 - Pierre's band was pressured, by BLM, back onto PMWHR and further repairs were made on fence.

August 8, 1998 - Citizen's Watch Group observed Plenty Coup's band on Forest Service side of fence.

August 10, 1998 - Two harems (Flash, (& Starman GK) and Shaman) were observed, by BLM, below Dryhead Overlook, near Krueger water hole.

Four additional harems (Cocomo, Plenty Coup, Challenger, Bigfoot) were seen, by BLM, within 50 yards of fence on Forest Service side.

BLM repaired four sections of buck n' pole fence. Replaced broken poles in two of the sections and re-nailed poles in remaining sections.

The horses had broken down two sections of fence, just east of the cattle guard. The sections of fence fell in line with historic horse migratory trails. BLM repaired one of the sections and took down the poles in the other. BLM decided that this approach would be the best for the horses and fence. As such, horses would have an area to cross and would not pressure or break down any more of the fence in order to gain access.

August 12, 1998 - BLM modified cattle guard, on administrative boundary, to 1 1/2" openings to reduce injury risk to horses. Flagged wire gate still remains intact across the cattle guard.

**Current Horse Status on Forest Service** - 5-7 harems (20-30) seem to be frequenting the area between the buck n' pole fence, the area below the Dryhead Overlook and the Krueger water hole.

**Current Fence Status** - One section of the fence, lying across a traditional migratory trail, is completely open (all poles removed) in order to save the remaining fence and reduce injury risk to horses.

**Current Fence and Horse Monitoring Status** - BLM will continue to monitor the fence, several times a week, to check for additional repairs thereby reducing potential injury to horses.

**Management Concerns** - The Pryor herd has ingrained behavioral tendencies to extend their distribution onto Forest Service lands generally about August through September of each year. This coincides with forage maturation and moderate to heavy grazing concentration on the highest elevations of the designated range. It is unlikely that these behavioral tendencies will be prevented by the existing boundary fenceline. Upon completion (~1 year) of current research efforts on equine genetic viability issues and ecosystem modelling, the BLM and Forest Service have agreed to clarify options regarding horse use and distribution patterns on Forest Service land bordering the top of the designated range.

# Appendix #9

*BLM. 1974. Pryor Mountain Complex. Land Use Decisions*.

Relative to the Mystic area (formerly called Area 4 in the green brochure), a rancher expressed deep concern for his livestock operation if wild horse use was allowed to continue in his allotment. One reason for his concern was that he felt the BLM could not hold the wild horse use in his allotment down to 10 horses as recommended. He claimed to have watched the horses periodically increase to far greater numbers in the past. His points had considerable merit. As an alternative, he recommended the expansion of horse use into Tony Island which was part of the old Pryor Spur Allotment on the Custer National Forest. He considered Tony Island a traditional use area for wild horses.

A detailed field analysis was made which identified a more favorable opportunity than was proposed in the recommended course of action. The allotment could be divided to completely separate livestock from wild horses. This separation would contain the wild horses within the horse range, eliminate the complications associated with common use, and at the same time, provide a fence boundary that would be relatively easy to maintain from winter snow damage.

This course of action has been adopted as the decision, but several other factors influenced the decision such as cattle grazing relationships to the north on BLM and Forest Service land that are discussed in Problem Title #15.

Relative to the Upper Crooked Creek area (formerly Area 2 in the green brochure), modification of the recommended course of action was urged by the Tillett family. They suggested that only the area between Britton Springs and the Tillett Ridge Road lying east of the county road be included in the expansion area. This comment had considerable merit since there would be less fencing expense, elimination of two cattleguards, no appreciable sacrifice of forage to the horse range, and it would create less disruption to the Tillett livestock operation. Thus, the suggestion has been adopted as the decision.

Relative to the Lower Crooked Creek Area (formerly called Area 3 in the green brochure), the recommended course of action has been reversed to permit wild horses to start using this area excluding a small portion at the east end which lies south and east of the county road. The exclusion is allotted to the Tillett family for livestock grazing.

At the present, two livestock operations are authorized to graze in this Lower Crooked Creek area to the extent of 22 AUM's for Marchants and 16 AUM's for Tilletts. The Marchants support the decision to add the area to the horse range, and the Tilletts oppose it. See Problem Title #15 for the related decisions on livestock grazing.

# Appendix #10

*Forest Service. (1980). Wild Horse Use on National Forest Lands in Pryors. An Analysis of the current situation; possible management alternatives; and, a recommended course of action.*

WILD HORSE USE
on
NATIONAL FOREST LANDS IN PRYORS

An analysis of the current situation;
possible management alternatives; and,
a recommended course of action.

Recommended: Phillip N Jaquith
District Ranger
Date: 3/25/80

Approved: [signature]
Forest Supervisor
Date: 3-26-80

Exhibit 5

offers this opportunity, is the Mystic area. This area is located on top of the mountain and is accessible from Tillett Ridge and Sykes Ridge.

The Mystic area is occupied by horses from Tillett Ridge and Sykes Ridge during the breeding season. There is no documented evidence that interchange breeding occurs, but it appears that the libido of studs would increase the probability that interchange breeding does occur in this particular area.

Portions of the formal Wild Horse Range are used by mule deer for wintering. These deer move onto N.F. lands in early spring. Their feeding affects the Juniper-Blacksage Ecosystem more than other systems within the analysis unit. This is due to concentration below snowline. The horse herd also moves onto the Juniper-Blacksage Ecosystem in the spring. Thus competition between deer and horses is a factor primarily during the spring.

Generally speaking, forage conditions on the analysis unit are classed as fair to good with a static condition. Measurements were taken in two ecosystems by Staffmen McKittrick, Kehrberg and South during three field seasons. The lower elevations, that covered by the Juniper-Blacksage Ecosystem, are sparsely vegetated. In this ecosystem, over 54 percent of the ground area is unvegetated (35% rock, 9% bare, and 10% litter). There is little forage available for use by wild horses.

The other ecosystem measured has better ground cover conditions. Mountain Grassland is 31 percent unvegetated (13% bare ground, 17% litter and 1% rock); this ecosystem was the most productive. The other systems in the area range somewhat in between these two ecosystems.

Their analysis did not map the ecosystems in terms of suitable or unsuitable range for horses. More study will be needed to map that detail.

I estimate that fewer that 15 horses presently use the entire NFS area. Half of these are located on lands outside the 4,200 acres in question. Much of the use of the lower section of the trial area is used during the spring. The Douglas-fir system provides hiding and termal cover as well as some forage.

The 4,200 plus acres of NFS lands in question are not the only NFS lands presently being used by wild horses. Field review in 1978 and 1979 indicated horse use well west of the trial area. The photo on page 4 shows five horses in the furrowed area north and west of the formal Range and north of the NFS lands being considered for addition to the formal Range. Horse use was noted as far west as the catchment basin at Dryhead Overlook and at Tony Island Spring. There are no

barriers to horse movement from the formal Range short of the Crooked Creek Allotment fence and the steep escarpment at the Dryhead Overlook. These areas were designated for no grazing by domestic livestock or wild horses in the Pryor Mountain Management Plan (1974).

In 1979, the Lost Water Canyon area was recommended for designation as a Research Natural Area (see map p-5). The R.N.A. includes areas on the north end presently being used by wild horses. The R.N.A. is outside the area being tested in the assessment. Horses are precluded from the major part of the R.N.A. by steep canyon walls. Part of this area has also been nominated as a Wilderness Area (see map p-7. Formal action has not taken place by the Congress on the nomination for Wilderness.

## III. EVALUATION CRITERIA

1. Management of wild horses must be in accord with 36 CFR 222 Grazing and Livestock Use on the NFS; Wild Free-Roaming Horses and Burros.

   This CFR formulates the Agency regulations as they pertain to the "Wild Free-Roaming Horses and Burros Act of 1971". In the final EAR or EIS for the PMWHR as developed (hopefully jointly) by the BLM and FS, these regulations should

# Appendix #11

*Letter from John Nickle (Pryor Mountain Wild Mustang Center, Lovell) to Linda Coates-Markle.*

Mr. & Mrs. John T. Nickle
P. O. Box 434
LOVELL, WYOMING 82431

April 13, 2000

Linda Coates-Markle
Wild Horse and Burro Specialist
BLM
PO Box 36800
5001 Southgate Drive
Billings, Mt. 59107

Dear Linda,

The slide program/talk you presented in Lovell yesterday about the Pryor horse management concerns and results of the ongoing professional studies was excellent. It was clear, understandable and to the point. Here are some thoughts that I came away with:

1- The studies are very important. They are providing baseline information as well as allowing realistic projections to be made. Their continuation is an essential element in developing a "best guess" long term (200 yr) plan.
2- The very real uniqueness of these animals and the utter lack of same phenotype replacement animals from anywhere else in the world should be the number one consideration in herd management objectives.
3- Best numbers in order to keep the unique herd characteristics seem to be 200 head.
4- Additional contiguous forage areas should be acquired to keep the animals in good shape and to protect and improve range quality.

I may have some more thoughts on this later.

No one interviewed me on the subject of traditional use of the Pryors by some of the horses. In the late 60's and early 70's, Lynda and I observed some of the herd on the west Pryor, on top of the southern end. I clearly recall 2 separate bands, one had 6-8 horses with a black stud, while the other band had 4-5 horses with the first blue roan I remember seeing. Until then I hadn't realized there were still horses from the herd surviving outside of the established range boundary.

Thanks for your help and support of the Pryor Mountain Wild Horse Center. Your insight and knowledge of horses throughout the west can add a great deal of valuable information to the center.

Sincerely,

John T. Nickle

# Appendix #12

*Interview with Reverend Floyd Schweiger.*

**Reverend Schweiger Interview, May 23, 2005.**

**Interview with Reverend Floyd Schweiger Regarding Pryor Mountain Wild Horses**
*Conducted by Ginger Kathrens*
*Notary Present: Cherie Trautman, Bighorn County, Wyoming*
*May 23, 2005- Lovell, Wyoming*
*Also present: Nancy Dillon of Lovell, Wyoming.*

Ginger Kathrens (GK): Reverend Schweiger, when did you see your first wild horse?

Reverend Flyod Schweiger (RS): I guess it must be in 1962-3, somewhere around there….

RS: The question has always been asked to me, 'well where in the Pryor Mountains are the horses?' and people who wanted to find them or locate them, and to that I only have one answer: the Pryor mountain horses are located all over the Pryor Mountains.'

-Break-

In the area east of Warren there were horses on those flats because people from the red lodge zoo would come down and I recall their shooting several horses, loading them up on flat bed trucks and taking them back to the Red Lodge zoo and feeding their cats and bears and other things with them. There were horses north of the present boundary line of the park service and Jay Corell and I went out there one day and we saw an airplane circling around and we were wondering what it was doing. We went out there and we found out that it was Andy Gifford who was rounding up wild horses out in that area. We went back the next day and here he came with two truckloads of wild horses and I particularly noticed one of them because it was a white horse and there are so few white horses or were any white horses in the Pryor Mountains.

There were horses on the Big Pryor. When I first came here it was common knowledge that the Lewis Sheep Estate would tell their sheepherders to go out and shoot the stallions. That was the simplest way of keeping these horse herds in numbers. So if you ask me, where were there wild horses? Well, they were all over, except that I would have to qualify that and say, they were where there was water. In the wintertime of course, the horses covered the entire range because they ate snow. But in the summertime they usually stayed where there was water.

GK: And In 1968 the range was created and in 1971 the Wild Horse and Burro Act was passed. During that period specifically, were the horses present atop the horse range proper and into the area known as Tony Island?

RS: they were always up there, and that's my point, any knowledgeable person, and coincidentally when BLM did their interview on this whole matter they asked only BLM

and Park Service personnel. They never asked any local people. They asked Bess Tillett, they never did, I asked her: Did you ever see any horses west of that buck and pole fence? She said that she saw 15 beautiful mane and tail horses that were west of there. If you know anything about the Pryor horses you know that there were an awful lot of flaxen mane and tail, sorrel horses up there in the early days as were there a lot of red roans. But in the course of the various round-ups, people would always those horses and so those horses were readily removed from the herd. But were there horses there, yeah. I talked to Herman Kruger one time. He's the man who had the private land up there which later on he leased to the BLM and which also contains the Kruger springs and is a wonderful source of water for the horses today. And he says too, that the horses he knew of that existed outside and west of that pole fence where always horses that were in the vicinity of Tony's Island.

GK: What's the water source there [on Tony Island]?

RS: It's a spring. a free-flowing spring and there is a constant flow of water there and that's why the horses always come up when they come up Burnt Timber ridge it's an easy trail that goes right into this Tony's Island. That's always been a natural part of the wild horse range and I think that is important for us to remember at this day that you can't just suddenly cut off one part.

Several times I was up there [on the mountain top], I was just sitting there wadding away the time and here I see a horse come, maneuver around several times and come out the other side. And I just stood there, I couldn't believe it. I couldn't believe—and this wasn't this fence that is there today, this was a well-constructed pole fence and these horses would just go right through that thing. They became so intelligent about moving through that fence. And of course, why?, you have to ask the reason why. Because they wanted to go westward. They wanted to go towards that Tony's Island area where there was water and also it was part of their home range. Home range is such an important part for wildlife and surely the game and fish must recognize such a thing.

*-break-*

The horses used everything. They used Krugar's pond, they used that little pond down by Penn's cabin, and they used Tony's Island and they used the Big Ice Cave if they could get there, but they were fenced off from that. So horses will go where there is water-people must recognize that fact and if you want to come back to that old question again, where were there horses? There were horses where there was water. Only a fool would not admit to that.

Wildlife will follow the grass and will follow the snow. The horses will graze up on top of the mountain depending on where the snow is. They will also graze up as the grass freshens, as it gets greener they will go up the mountain. So I don't see really, what the big problem is in anybody trying to say that there were no horses up there. I think that I have mentioned this fact that Hope Ryden took some pictures even of having some horses on the skyline and if you know the country you can tell that the background of this whole