# The Secret Lives of Horses [Wendy Williams 2015]



#### In Brief

Scientists have long studied the best ways to train and treat domesticated horses, but they largely ignored the behaviour of free-ranging horses. Recent research has begun to fill that gap. Observations from long-term studies of wild horses show that the conventional, male-centric view of their power dynamics is wrong. In fact,

Wild at Heart: Untamed horses roam free in the Pryor Mountains of Montana Lisa Dearing

### **Family ties**

Researchers have found that, as with humans, individual bonds within bands may be more important than group identity. These bonds are sometimes based on family ties, but often they are just based on individual preference. These preferences can and do change: friendships come and go, foals grow up and depart to live elsewhere, male-female relationships some-times work out and sometimes don't. As a result, the social lives of horses are nothing if not tumultuous. Indeed, long-term observation of these animals in the wild is like following a soap opera. There is a constant undercurrent of arguing, of jockeying for position and power, of battling over personal space, of loyalty and betrayal.

# Who is in Charge?

The latest studies of behaviour under natural conditions show that these power dynamics are more complicated than previously thought. The conventional view, as described in a recent National Academy of Sciences report, is that "a harem, also known as a band, consists of a dominant stallion, subordinate adult males and females, and offspring." At first glance, this assessment would seem to be true: what people notice when watching wild horses is the uproar created by the stallions. But research by Jason Ransom of Colorado State University and others has shown that this male-centric view is wrong. Far from being subordinate, mares frequently initiate the band's activities with stallions quite often little more than hangers-on.

Ransom once watched a band of mares that stopped grazing and began heading for water, unnoticed by the stallion. When he looked up and saw his mares leaving, he panicked and ran after them, like a little boy calling out, 'Hey, where's everybody going?'" The mares ignored him. Whether the stallion caught up or not didn't appear to concern them.

# **Extra Marital Mob affairs**

Mares also sometimes have stallion preferences. They can resist males they don't like with surprising persistence, even when that male has established himself as the band's stallion. Joel Berger of the University of Montana studied the behaviour of two non-related mares that had spent several years together. The pair joined a band that was then taken over by a new stallion that asserted himself by attempting to copulate with them forcibly on numerous occasions.

The mares refused his attentions and repeatedly aided one another by kicking and biting the stallion as he tried to mate. It's long been known that female elephants cooperate, but before ethologists began systematically studying free-roaming horses, few people suspected that cooperating mares were capable not only of waging such a fight—but of winning it.

Fending off unwanted suitors is not the only means by which mare's rebel. For years Laura Lagos and Felipe Bárcena, both at the University of Santiago de Compostela in Spain, have been studying the behaviour of Garranos, free-roaming horses that live rough, tough lives in the rugged hills of north-western Spain and northern Portugal, where they are under constant threat from wolves.

In the course of their work, Lagos and Bárcena catalogued the behaviour of a pair of mares in one band that were strongly bonded with each other and that often stood just a bit apart from the rest of the band.

At breeding time, the mares went together to visit the stallion of another band. Lagos watched one of the mares consort with this stallion rather than with the stallion from her own band. Then the mares returned to their original group.

When the second mare was ready to breed, the duo again deserted their original band and its stallion to consort with the other stallion. Then, again, they returned to their original group. This was not an anomaly. The mares did the same thing the following year. "They prefer their own territory, but the stallion of the other band," she told me.

# **Persistence prevails**

Ransom tells of High Tail, a plain-Jane mare with a sagging back and poor coat who is part of a population of wild horses that roam the Pryor Mountains in the American West. With her glory days clearly over, you probably wouldn't give her a second glance, yet Ransom's data showed that this mare had had a rich and varied life that involved several of long-term male associates of her choosing.

Ransom first saw High Tail in 2003. The mare was passing her days in the company of Sam, a stallion born in 1991. Ransom thinks the two probably encountered each other during the wanderings of their youth. They stayed together for years, later other mares joined them. Research shows that roughly half the time mares and stallions bond in this peaceful fashion.

Until scientists applied ethological research techniques to horses, few observers believed mares to be capable of such subtle deceit. It turns out that, unlike stallions, mares do not need to have huge fights to get what they want. Instead they use the *technique of persistence*.

### Sitting Bull tries to join

Shortly after Ransom began following High Tail and Sam's band, he noticed a second young stallion hanging around nearby. Sam did not welcome this new stallion, dubbed "Sitting Bull." The more Sitting Bull tried to become part of the group, the more Sam fought him off.

The scientific literature contains accounts of satellite stallions learning how to cooperate with the lead stallion and thus gradually gaining the ability, on a limited basis, to mate with some mares, but Sam and Sitting Bull fought continuously. Sitting Bull stayed near, biding time.

#### Sitting Bull takes over

His chance came in 2004. Horses that live at the base of the Pryor Mountains constantly face the challenge of finding freshwater. High Tail's band often descended the steep walls of the Bighorn Canyon gorge to drink. One day Sam refused to allow Sitting Bull to come along. But a flash flood cut off the groups' escape route, so for two weeks they were isolated. Sam was weaker as the horses came up and an easy target for Sitting Bull to drive Sam off.

#### **Dealing with change**

Most of the band accepted the young stallion. Not High Tail. At every opportunity she left her band and headed off in search of her long time mate, Sam. Each time she left, Sitting Bull chased her back, snaking his head and baring his teeth to threaten her with injury. To avoid being bitten, she complied and returned to the band, but the next time Sitting Bull failed to pay attention, High Tail took off again. Weeks later Sitting Bull gave up and left her to Sam.

High Tail stayed with Sam until he died in 2010. Then one afternoon we saw High Tail with two other horses. One was a mare from her original band, the other was Sitting Bull. Rejected by High Tail in her younger years, he had now become her close companion. Primate Field researchers long ago discovered the ebb and flow of alliances within primate troops, but until recently no one has watched horses in the wild closely enough to understand that they, too, behave this way.

