Creative Problem Solving: ***The Cumberland Island Horse “Mess”***



The **Cumberland Island horses** are a band of [feral horses](http://en.wikipedia.org/wiki/Feral_horse) living on [Cumberland Island](http://en.wikipedia.org/wiki/Cumberland_Island) in the state of [Georgia](http://en.wikipedia.org/wiki/Georgia%2C_United_States). Popular myth holds that horses arrived on the island sometime in the 1500s with the arrival of the Spanish [conquistadors](http://en.wikipedia.org/wiki/Conquistadors).

**History**

Horses are not native to [Cumberland Island](http://en.wikipedia.org/wiki/Cumberland_Island). Popular myth states they were brought to the island by the Spanish in the 1500s. However it is believed that these first horses more than likely did not survive due to the lack of visits made by the Spanish and the local [Native Americans](http://en.wikipedia.org/wiki/Indigenous_peoples_of_the_Americas) on the island finding them of little practical use. In the 1700s the English began settling [Cumberland Island](http://en.wikipedia.org/wiki/Cumberland_Island). The horses seen there today are most likely descendants of horses brought by these settlers, as this is when a large majority of the horses began to roam freely and revert to their natural state, becoming [feral](http://en.wikipedia.org/wiki/Feral). (Animals that were once domesticated but have since returned to a state of nature are called, “feral”.) These animals are not “wild” in the sense that they are part of the naturally occurring fauna. They do, however, display the behavior of what are termed “wild” animals or wildlife.

During the 1800s, efforts were made to capture and make use of the horses. The first attempts were made by [Robert Stafford](http://en.wikipedia.org/wiki/Robert_Stafford) who owned a [plantation](http://en.wikipedia.org/wiki/Plantation) on the island. He allowed visitors to purchase and capture the horses, which Safford called "marsh tackies," for their own personal use. Those animals were then [selectively bred](http://en.wikipedia.org/wiki/Selective_breeding) over the years. After Stafford's use of the animals for income, the horses were next used as [cavalry](http://en.wikipedia.org/wiki/Cavalry) animals during the [American Civil War](http://en.wikipedia.org/wiki/American_Civil_War). After the war, records suggest that people from [Jekyll Island](http://en.wikipedia.org/wiki/Jekyll_Island) captured some of the horses for [horsemeat](http://en.wikipedia.org/wiki/Horsemeat).

Around 1881 [Thomas M. Carnegie](http://en.wikipedia.org/wiki/Thomas_M._Carnegie) bought two plantations on the island and introduced [Tennessee Walking Horses](http://en.wikipedia.org/wiki/Tennessee_Walking_Horse), [Paso Finos](http://en.wikipedia.org/wiki/Paso_Fino), and [Arabians](http://en.wikipedia.org/wiki/Arabian_horse) into the feral horse population in an attempt to improve the animals. Carnegie received a small amount of income from the buying and selling of these animals. Later, many island residents began introducing additional breeds into the herds on the island, further diversifying the bands of horses. In 1921, a large number of horses were brought on to the island from [Globe, Arizona](http://en.wikipedia.org/wiki/Globe%2C_Arizona), all of which had been running wild on western [rangeland](http://en.wikipedia.org/wiki/Rangeland).

During the 1950’s, Carnegie descendant Lucy Ferguson took hundreds of horses off the island to be sold on the mainland, and many sales and purchases of horses are also reflected in Carnegie documents in the Georgia archives.

Since the [National Park Service](http://en.wikipedia.org/wiki/National_Park_Service) acquired the island in 1972 few new horses have been introduced to the island, though four Arabians were introduced in the early 1990s in the hopes of diversifying and bettering the existing population. Since 1981, the Park Service has been monitoring the horses and tracking their impact on the environment.

**Characteristics**

These horses have developed independently from other coastal island horse populations, influenced both by the original animals brought over by European settlers and the addition of other bloodstock, including the [pleasure horses](http://en.wikipedia.org/wiki/Pleasure_horse) of the plantation owners, since the time of settlement. These horses have no specific [colorings](http://en.wikipedia.org/wiki/Equine_coat_color) or [markings](http://en.wikipedia.org/wiki/Horse_markings). They also tend to have longer [hooves](http://en.wikipedia.org/wiki/Horse_hoof) due to living on the soft [marshlands](http://en.wikipedia.org/wiki/Marshland). For the most part this has been an advantage to the horses because it provides greater [traction](http://en.wikipedia.org/wiki/Traction_%28engineering%29). Their hooves do get worn down a slight bit by the crushed shell and rock surfaces found on the interior of the island, preventing the horses from having excessively overgrown feet. These horses typically stand at 15 [hands](http://en.wikipedia.org/wiki/Hand_%28length%29) (60 inches, 152 cm). They also tend to have longer [backs](http://en.wikipedia.org/wiki/Back_%28horse%29) and legs than most other feral horses on the American East Coast.

Another notable feature of the Cumberland Island horse is its temperament and attitude. Visitors to the island often claim that upon encountering the animals in their natural habitat, it is wise to stay out of their way. The horses do not feel threatened by humans. They are said to have a mindset that they are the kings and queens of the island. Park rangers warn visitors before venturing out that, should they encounter the horses, they should "yield the right of way because they (the horses) won't." These horses tend to look at visitors to the island as an intrusion. The island "belongs to them."

**Uses**

Cumberland Island horses are not used exclusively in any particular aspect of [equestrian](http://en.wikipedia.org/wiki/Equestrianism) sport. However, the horses do act as the main attraction to [Cumberland Island](http://en.wikipedia.org/wiki/Cumberland_Island) for many tourists.

**Living conditions**

As of 2012, there were around 150 wild horses living on the island. This number continues to grow as there are few [predators](http://en.wikipedia.org/wiki/Predator) to diminish the bands. Many people living on the islands see the horses as an [unnatural threat](http://en.wikipedia.org/wiki/Introduced_species) on the island's [ecosystem](http://en.wikipedia.org/wiki/Ecosystem) since they feed on the scarce vegetation of the beaches and dunes. The horses live off of the wild [sea oats](http://en.wikipedia.org/wiki/Sea_oats) and [dune grasses](http://en.wikipedia.org/wiki/Ammophila_%28Poaceae%29) that are found on the beaches of the island. They also feed on the plants growing in the [marsh](http://en.wikipedia.org/wiki/Marsh) which are also responsible for the health of the [oceans](http://en.wikipedia.org/wiki/Ocean), [lakes](http://en.wikipedia.org/wiki/Lake), and [rivers](http://en.wikipedia.org/wiki/River) of the area. These horses also tend to have many different [parasites](http://en.wikipedia.org/wiki/Parasite) and afflictions such as [worms](http://en.wikipedia.org/wiki/Worm) and [mites](http://en.wikipedia.org/wiki/Mite) because they do not receive the veterinary care that most domestic herds receive. The average life span of the horses is 8–10 years old, according to locals.

**Controversy and Impact**

Feral animals, because they do not occur naturally within a particular ecosystem, can drastically alter that ecosystem and in some instances threaten its very existence by harming or eliminating key indigenous plant and animal species. Such is the case on Cumberland Island, where feral horses threaten the diversity and long term viability of the island’s natural resources.

The signs of the horses' impact on [Cumberland Island](http://en.wikipedia.org/wiki/Cumberland_Island) are evident. Many people believe that the horses are damaging the island and may hinder the development of the [dunes](http://en.wikipedia.org/wiki/Dunes) and marshes. There are a large number of trails and paths all over the island created by the horses. These trails are significantly larger and easier to spot than the average deer trail or a path created by any other smaller animal. It is common to find hoof prints in the [dunes](http://en.wikipedia.org/wiki/Dunes) and other soft [soils](http://en.wikipedia.org/wiki/Soil) of the marsh lands. The horses leave their marks in many other ways, including chew marks on tree branches and shrubs in addition to the [manure](http://en.wikipedia.org/wiki/Manure) found all over the island. Cumberland Island’s feral horses graze heavily on the smooth cord grasses, the primary plant of the tidal areas on the mainland side of the island. This grazing occurs primarily in the high marsh areas. These areas have experienced excessive damage which can be expected to become permanent if the horses are not prevented from using them.

Grazing reduces the density of the grasses in the marsh, which in turn negatively affects the marsh’s ability to trap and hold sediments.  This inability to trap sediment can lead to increased erosion and damage from storms.  Perhaps more detrimental to the marsh than grazing (removal of grass) are the negative effects of trampling.  As these large herbivores graze in these areas their hooves compress and churn the soil, thereby impeding the marsh’s ability to regenerate.  The overall effect is the loss of the marsh. Marsh grazing also reduces the number of fiddler crabs, a critical species in the salt marsh ecosystem.  Fiddler crabs, besides having a positive effect on spartina grass production, are a valuable food source for many of the animals inhabiting this ecosystem.   Grazing by horses mirrors competitive behavior of other native grazers.

Other noted impacts of feral horses on Cumberland include consumption of all Spanish moss within reach; negative effects on amphibians; disruption of nesting sea turtles; disturbance of brooding shore birds; and damage to archeological sites and artifacts

**Management and Impact**

It has been recommended that the Cumberland Island horse population be reduced and maintained at 49-73 horses to allow recovery of the island’s salt marshes. Lethal control programs to reduce feral horse populations, while effective, are seldom publicly acceptable. Therefore, population control efforts must focus on various nonlethal techniques, most notably, horse adoption or fertility control. Horse adoption programs can be quite expensive, and concerns exist about the long-term care of adopted horses. Additionally, mares may become more productive if foals are removed before weaning.

At one point in the 1970s, the [National Park Service](http://en.wikipedia.org/wiki/National_Park_Service) (NPS) made efforts to downsize the bands of horses due to the effects of their grazing patterns on the [ecosystem](http://en.wikipedia.org/wiki/Ecosystem). In 1996 legislation was passed by [Jack Kingston](http://en.wikipedia.org/wiki/Jack_Kingston) that prevented the NPS from taking measures to manage the horses. Since the Kingston's bill passed in 1997, there have been no further management attempts made. Since then there has been no organized human interference.

In recent years, as more attention has been given to the effect of the horses on the fragile island ecosystem, the Park has been exploring a number of options to find a balance between the island's ecological requirements and the spirit and history that the horses bring to its sandy shores, windswept dunes and cool shady lawns.

Science, law, economics, public opinion, and politics will each influence the National Park Service’s final decision on how best to address the island’s feral horses.   Whatever solutions are adopted to manage the feral animals of Cumberland Island, they are almost certain to be controversial.