

# **Cape Lookout National Seashore Shackleford Banks Horses 2022 Annual Report**

**National Park Service  
Cape Lookout National Seashore  
131 Charles Street  
Harkers Island, NC 28531**

## **Site Location and Description**

Cape Lookout National Seashore (the park) is located in the southern Outer Banks of North Carolina between Beaufort Inlet and Ocracoke Inlet. Here, the National Park Service (NPS) manages 56 miles of barrier islands. Shackleford Banks is the southernmost island in the park between Barden's Inlet to the east and Beaufort Inlet to the west. It lies south of the Town of Beaufort and Harkers Island. Shackleford Banks is approximately 8 miles long and ranges from less than 0.5 mile wide to nearly 1.5 miles wide where the eastern marsh islands are included.

## **Management Directives**

Federal legislation passed in 1998 as 16 U.S.C. §459g-4 [1] and the subsequent 2005 Amendment by Congress 109-117;119-§2526 [2] to the legislation protects the wild horses within Cape Lookout National Seashore. The horses are cooperatively managed by the park and the nonprofit Foundation for Shackleford Horses, Inc., (Foundation). This annual report on the status of the herd covers the 2022 calendar year.

## **Horse Population**

The population is managed with a legislated target range of 120 to 130 horses [2]. At the end of 2022 there were 124 horses on Shackleford Banks. Since 2005, when the last roundup was conducted, the year-end population has ranged between 105 and 126. No roundups are planned in the foreseeable future.

## **Gender and Age Structure**

At the end of 2022, the herd was 61% female and 39% male. Part of the reason that there are more females is that some females are living longer. Of the 22 horses 18 years old and older, only 1 is male. This male is unusual in that he is 27 years old, but he has only protected a harem for a short time during his life so has not worked as much as stallions normally do. The oldest horse living on the island is a 28-year-old mare who has three generations of descendants. Contraception has been linked to increased longevity among treated females [3].

## **Birth and Mortality**

In 2022, thirteen foals were born. One was removed illegally and turned over to the Foundation; the parties were charged and their court date is pending. Herd mortality was 7% (9 horses). This is slightly above the 6% average mortality from 1999 through 2021 but does not change that average. The nine horses included four considered to be at the end of their natural lives. Two mares aged 29 and 28 passed. A stallion passed at 26 which is old for a stallion but he had a breathing condition so did not work to protect a harem toward the end of his life. A 19 year old

stallion passed at the more typical age of death for a breeding stallion on Shackleford Banks. Also passed were three who had been gradually declining for unknown reasons: an 8 year old stallion and two 1 1/2 year old females. A 7 year old mare was euthanized for severed flexor tendons from an unknown injury and a 3 year old colt passed of suspected complications from an eye injury.

### **Genetics Data**

Dung was collected from the foals of 2022 by standard collection protocol [4] to determine offspring genotypes. Analysis was done according to protocol by the Laboratory for Ecological, Evolutionary and Conservation Genetics at the University of Idaho [5]. The maternal and paternal genotypes are known from previous analyses, and, using them, foal paternity is being determined. The resulting lineage data will be used for decision making for management actions by the park and Foundation.

### **Contraception**

Contraception has been used adaptively to manage the wild horse population beginning in 2000 [6,7,8,9]. Contraceptive doses are additive, with one dose providing, on average, one year of birth control. Judicious contraception use, along with natural births and mortality, should keep the herd as near as possible to the prescribed population range. Eight mares who had recent foals were contracepted in 2022.

### **Junior Ranger Activity: Wild Horse Protector**

Junior Ranger Wild Horse Protector activities continued on Shackleford Banks. This activity is designed for students in grades 6 through 8 but can be adapted to younger or older students. An adult checks out a backpack holding binoculars, handheld GPS, salinity meter, range finder, a glossary, and instructions. Participants work through activities like those the wild horse Biologist performs during census work. On completion, students receive an award and are certified as Wild Horse Protectors.

### **Education Campaign**

The Wild Horse Public Education Campaign (WHPEC), begun in 2011, continues. This is a collaboration between the park, the Foundation, and the nearby Rachel Carson Reserve National Estuarine Research Reserve (Reserve). The aim of the campaign is to educate people about the horses with an emphasis on the safety of the horses, park and Reserve visitors, and pets. The general message is to watch the horses without interacting with them or interrupting their natural behavior.

### **Foundation for Shackleford Horses**

During the year, the Foundation contributed 4000 volunteer hours performing diverse work related to the Shackleford Banks horses both on and off the island [10]. Its Board of Directors is comprised of ten volunteers; additional volunteers contribute significantly. Any horses removed from the island are turned over to the Foundation. Horses are likely cared for at the FSH rescue farm and may be made available for adoption, if possible. The Foundation raises money to help fund wild horse program needs.

## Citations

1. US Government Publishing Office Federal Digital System document, accessed February 22, 2016, <https://www.gpo.gov/fdsys/granule/USCODE-2011-title16/USCODE-2011-title16-chap1-subchapLXIII-sec459g-4>.
2. US Government Publishing Office Federal Digital System document, accessed February 22, 2016, <http://uscode.house.gov/statutes/pl/109/117.pdf>.
3. Jay Kirkpatrick, et al., "The practical side of immunocontraception: Zona proteins and wildlife." *Journal of Reproductive Immunology* 83 (2009): 151-157.
4. Lisette Waits, "Scat Collection Protocol," January 10, 2009.
5. Adams, Jennifer and Lisette Waits, "Paternity Analysis of Nine Foals Using Fecal Samples", Preliminary Report, January 11, 2016.
6. National Park Service, Cape Lookout National Seashore, Management Plan for the Feral Horse Herd on Shackleford Banks, 1996.
7. National Park Service, Cape Lookout National Seashore, Management Plan for the Feral Horse Herd on Shackleford Banks, 1999.
8. National Park Service, Cape Lookout National Seashore, Management Plan for the Shackleford Banks Horse Herd, 2005.
9. National Park Service, Cape Lookout National Seashore, Management Plan for the Shackleford Banks Horse Herd, 2010.
10. Foundation for Shackleford Horses. "Foundation for Shackleford Horses Volunteer Hours 2021-2022."