

Cape Lookout National Seashore Shackleford Banks Horses 2023 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 2023 calendar year.

Horse Population

The population is managed with a legislated target range of 120 to 130 horses [2]. At the end of 2023 there were 117 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 2023, the herd was 62% female and 38% male. Part of the reason that there are more females is that some females are living longer. Of the 24 horses 17 years old and older, only 1 is male. This male is unusual in that he is 28 years old, but he 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 29-year-old mare who has three generations of descendants. Contraception has been linked to increased longevity among treated females [3].

Birth and Mortality

In 2023, five foals were born. Herd mortality was 10% (12 horses). This is above the 6% average mortality from 1999 through 2022 but does not change that average. The twelve horses include four considered to be near the end of their natural lives. Three mares aged 25, 24 and 24 passed. A stallion passed at 15. A 6 year old female died unexpectedly and a 6 year old male died. A 6 year old male that was being transferred to the nearby N.C. Coastal Reserve and National Estuarine Research Reserve (the Rachel Carson Reserve) died under anesthesia; it was later determined that

his blood glucose was very low. A 3 year old male died after a brief decline; a 2 year old male that was not thriving died; a 2 year old female whose dam had died when she was 3 ½ months old died; a 1 year old male died and a 5 month old female died.

Genetics Data

Dung was collected from the foals of 2023 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 near the prescribed population range. Nine mares who had recent foals were contracepted in 2023.

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. 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. New in 2023 was the acclaimed Pony Patrol with 26 Volunteers in Parks (VIPs) making 2100 visitor contacts during the summer. Applications for VIPs for the 2024 season are open until Friday, February 23, 2024; go to <https://tinyurl.com/PonyPatrol2024> to apply.

Foundation for Shackleford Horses

During the year, the Foundation contributed over 3200 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. Removed 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 2022-2023."