

Cape Lookout National Seashore Shackleford Banks Horses 2020 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 2020 calendar year.

Horse Population

The population is managed with a legislated target range of 120 to 130 horses [2]. At the end of 2020 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 2020, the herd was 62% female and 38% male for the third year in a row. Part of the reason that there are more females is that some females are living longer. Of the horses over 23 years of age, two are males but eight are females. The oldest horses living on the island are two 27 year old mares. Contraception has been linked to increased longevity among treated females [3].

Birth and Mortality

In 2020, twelve foals were born. Herd mortality was 5% (6 horses). This is slightly below the 6% average mortality from 1999 through 2019. The 6 horses were: a 25 year old mare, a 7 year old stallion, a 3 year old mare, a 2 year mare, a yearling colt, and a foal. No definitive cause of death was determined for any of the horses. Since 1999 the average lifespan of horses on Shackleford Banks has been approximately 11 years.

Genetics Data

Dung was collected from the foals of 2020 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. No mares were contracepted in 2020.

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 that 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.

Pony Patrol

During the year, the park, Reserve and Foundation developed a new volunteer program, "Pony Patrol." Applicants were selected to serve as wild horse public outreach volunteers. They were to help educate the public about the wild horses on Shackleford Banks and the Reserve. Training for the volunteers was developed for the program. However, because of the COVID-19 pandemic, initiation of the program was put on hold. Accepted applicants will be notified when the program is reinitiated. Announcements will be made when volunteer applications reopen.

Foundation for Shackleford Horses

During the year, the Foundation contributed well over 3336 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 nine volunteers; additional volunteers contribute significantly. Any horses removed from the island are turned over to the Foundation and are cared for at its rescue farm and 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 2019-2020."