

## **2020-2021 Management Activities**

In December 2020, two male red wolves were translocated from an island propagation site on St. Vincent NWR to Alligator River NWR in the NC NEP and placed in acclimation pens with older, resident female red wolves.

On February 9, 2021, the older female red wolf from the Milltail Pack and one of the translocated males were released from the acclimation pen. The male quickly incorporated with the resident red wolves of the Milltail Pack. Over the first three weeks after release, the male permanently displaced a sterilized coyote that had been hanging close to the younger female red wolf from the Milltail Pack. Since that time, the two red wolves have been paired, giving biologists hope that they will produce young in the spring of 2022

On February 10, 2021, the older female red wolf that spent the majority of her life on the Dare County Bombing Range and the other translocated male were released from their acclimation pen. Even though there was evidence of bonding while they were in the acclimation pen together, they did not stay together after release. The female traveled back and forth between the southern end of the Milltail territory and the bombing range since her release. Unfortunately, the male began traveling areas of the refuge not typically utilized by red wolves – including areas in close proximity to highways running through the refuge. Ultimately, he was hit and killed by a vehicle shortly after his release.

In February 2021, a private trapper captured a seven-year-old male red wolf on private land that was microchipped as a pup, but was never captured and collared as an adult. He was fitted with an orange radio collar and re-released where he was captured.

On February 7, 2021, a new male transferred from the North Carolina Zoo to St. Vincent NWR was released onto the island with the resident breeding female. He remained largely in an area of the island used less frequently by the other red wolves, but integrated with the other red wolves when they came together. The breeding female was found dead on the refuge on April 16, 2021. A cause of death has not been determined but foul play is not suspected. Shortly after that, the new male swam off St. Vincent NWR onto mainland Florida. After a highly coordinated community effort to locate the red wolf, he was safely recaptured five miles northeast of Mexico Beach, FL. He was transferred back to one of the captive facilities within the Red Wolf SSP program. There are now two red wolves remaining on St. Vincent NWR – a three-year-old female and a two-year-old female – sisters from different litters. Both females were born and raised in the wild on the refuge.

In March 2021, the Service developed a release plan to resume reintroductions of captive red wolves in North Carolina. This plan was amended in April 2021. The goal of the plan is to reestablish successful red wolf breeding within the NC NEP. Highlights from the amended plan included:

- Pursuing opportunities to foster captive-born red wolf pups into wild litters;
- Releasing at least one pair of captive red wolves onto NWR lands in the NC NEP; and,

- Closely monitoring the results of those efforts with a plan to conduct additional releases over the coming year, based on the results achieved.

During the winter of 2020-2021, the Service captured, sterilized, and released two coyotes on Alligator River NWR.

A vegetation management project, designed to support the prey base for red wolves, on Pocosin Lakes NWR is moving forward in the planning stages. Work on the ground began in fall 2021. This project is being done in collaboration with the North Carolina Wildlife Federation (NCWF).

In early 2021, in coordination with SSP experts, the Service identified four individual red wolves, at three separate SSP partner facilities, for release into the NC NEP. Two of the red wolves selected came from the Endangered Wolf Center in Eureka, Missouri, one came from Wolf Haven International in Tenino, Washington, and the fourth came from the Wolf Conservation Center in South Salem, New York. All four red wolves (two males and two females) arrived in the NC NEP between April 24, 2021 and April 30, 2021. On the day the last captive red wolves arrived from the SSP, all four red wolves were fitted with GPS collars and placed in temporary acclimation pens (one pair on Alligator River NWR and one pair on Pocosin Lakes NWR). Also of note for 2021, the fostering of four red wolf pups to a wild red wolf on Pocosin Lakes NWR. The pups, born at the Akron Zoo in Akron, Ohio, were flown to North Carolina via LightHawk Conservation Flying. The pups were placed with the wild red wolf on May 1, 2021.

On June 3, 2021, the female red wolf from the acclimation pen on Pocosin Lakes NWR was found dead on the edge of a rural road within the NC NEP. Initial evidence at the mortality site was indicative of a vehicle strike.

On June 27, 2021, the male red wolf released from the acclimation pen on Alligator River NWR was found dead, and on June 30, 2021, the female red wolf released from the acclimation pen on Alligator River NWR was found dead. Again, evidence at both scenes was suggestive of a vehicle strike.

On July 6, 2021, during a routine monitoring flight, wild red wolf 2186, a 5-year old male, was detected in “mortality mode” (GPS collar emits signal indicating no movement in 8 hours) just north of Lake Mattamuskeet in a field on privately owned lands. A ground-based search crew, operating under landowner permission, was able to locate the carcass. This animal was heavily scavenged therefore a determination of cause of death may not be possible.

On July 7, 2021, the Service was notified of an orange-collared canid, dead by the side of the road. Follow-up reconnaissance confirmed this to be red wolf 2044, an 8-year old male born in the wild that was translocated from Alligator River NWR to Pocosin Lakes NWR a few years ago. The evidence again suggests a vehicle strike.

Necropsy results are pending at this time for all of the above deaths.

Through coordination with the North Carolina Department of Transportation (NC DOT), the Service and NCWF have purchased portable electronic message boards that will be temporarily deployed when needed along roads/highways in locations throughout the NC NEP when and where red wolves, particularly recently released captive-born red wolves, are crossing roads regularly or remaining in close proximity to roads. The wording used on the signs will be in line with NC DOT policy and be based on previous research.

The GPS radio collars used on all red wolves to be released into the NC NEP will be modified to include strategically placed orange reflective material that will increase visibility of the animal along roadways at night, particularly when they are moving, and provide additional identification for hunters to potentially decrease gunshot mortality due to misidentification.

On October 3, 2021, the lone surviving red wolf released from captivity this spring, a male, was shot and killed on private land in the general area where he had established a territory over the last several months. The red wolf was killed by a private landowner who indicated the wolf was in the general vicinity of the landowner's chicken coop. The landowner self-reported the incident to North Carolina Wildlife Resource Commission Law Enforcement as soon as it occurred. FWS Special Agents are currently investigating the incident.

Remote camera footage from late October shows what appears to be two of the red wolf pups that were fostered in the den of a wild female red wolf this past spring. This indicates that at least two of the fostered red wolf pups, and possibly more, are still alive on the landscape at this time. The status of the other pups is unknown, but their absence from video is not an indication that they haven't survived. Targeted trapping of this family group will occur this winter once the pups are large enough to be radio-collared.