## 2023-2024 Management Activities

On December 1, 2023 the Service published the 2023-2024 release plan. The plan discloses efforts undertaken from October 2023 through June 2024 in support of Red Wolf recovery in eastern North Carolina specific to the pairing and release strategies during that time frame. The following summary includes updates on those efforts and updates on the wild population as of September 2024.

*Eastern North Carolina Red Wolf Population (ENC RWP)*

*Releases*

In October 2023, an acclimation pen was constructed within the home range of the resident wild adult female Red Wolf (2225F), who birthed the previous two litters in the Milltail area of Alligator River National Wildlife Refuge (ARNWR). This was done in an attempt to create a new breeding pair after the tragic loss of 2323M (the previous breeding male in the Milltail family group) in September 2023. A male Red Wolf (2191M), born at Wolf Haven International in Tenino, Washington as part of the Red Wolf Saving Animals From Extinction (SAFE) program, was then placed in it on October 30, 2023. The pen was constructed in a way to allow for the wild Red Wolves to be able to interact with and get familiar with the male in the pen with the hope that after release he would pair with 2225F.

Soon after his placement in the pen, the Milltail pups began directly interacting with him through the fence and 2225F would come to the area periodically. In December 2023, one of the female yearlings (2414F) from the Milltail family group was captured and placed in the acclimation pen with 2191M. She was placed in the pen not with the intention that the two would pair but to increase the likelihood of him being accepted into the family group after release, both because the Red Wolves in the pen would be more familiar with one another and because it would likely increase the amount of interactions between the family group and the two in the acclimation pen. 2225F visited the pen more after her daughter was inside.

On January 26, 2024, 2191M and 2414F were released from the acclimation pen. The release of 2191M was timed with mating season and he and 2225F soon appeared to become a pair. Close monitoring throughout the winter and early spring raised hopes that this new pairing would be successful, and it was. On April 18, 2024, Red Wolf Recovery Program biologists confirmed the birth of a wild litter of 8 Red Wolf pups. When the pups were about 9 days old, biologists went into the den to quickly examine the pups, microchip them for future identification and cheek

swabbed for genetics before leaving the den, allowing 2225F to quickly return to continue caring for the pups.

Since late June 2024, the Milltail litter has not been definitively detected and identified during monitoring with remote sensing cameras, tracking and visual observation. Their known activity areas were buffered from management activities during that time. Monitoring will continue throughout their home range. No pup mortalities have been documented, however, pups approaching 5 months old are typically moving throughout the family group's home range with the adults and being seen on remote sensing cameras.

In November 2023, a wild female Red Wolf (2409F), who had previously been released as part of a family group on Pocosin Lakes National Wildlife Refuge (PLNWR) in May 2023, and a wild male Red Wolf (2411M) born into the Milltail family group in 2022, were captured separately by Red Wolf Recovery Program biologists and placed in an acclimation pen together on ARNWR to try and create a new breeding pair. They did not have a litter and were subsequently released in June 2024. Both are fitted with orange GPS/VHF collars and will be monitored.

In December 2023, a wild female Red Wolf (2413F) born into the Milltail family group in 2022 was captured by Red Wolf Recovery Program biologists and placed in an acclimation pen on ARNWR with a male (2444M), born in 2022 at the Endangered Wolf Center as part of the Red Wolf SAFE Program, to try and create a new breeding pair. In April 2024, the newly formed pair had a litter of 5 pups in the acclimation pen and they were all released in late May. Based on extensive monitoring using various methods (e.g., visual observations from a far distance, remote cameras, radio telemetry tracking from the ground and air, points from GPS collars via satellites), the family group moved a few miles away from the acclimation pen and settled in, including 2444M appearing to be transitioning well into the wild and as a new father. Tragically, his transition to the wild was cut way too short and he was a vehicle strike mortality on Highway 64 near Buffalo City Road on June 5. Monitoring of 2413F and the pups will continue, and feasible management actions will be taken to assist with survival of the pups, if possible, after the loss of the male.

Based on extensive monitoring, using multiple monitoring methods, there is no indication that the litter born to 2413F and 2444M survived after the mortality of 2444M. Pup survival is always a concern after the mortality of one of the breeding pair, particularly Red Wolves with their first litter, such as was the case with this pair. No carcasses have been found to confirm this.

In February 2024, a wild female Red Wolf (2359F), fostered into a den in 2021, was captured by private trappers and handed over to Red Wolf Recovery Program biologists. To try and create a new breeding pair, she was placed in an acclimation pen on PLNWR with a male (2443M) born in 2022 at the Endangered Wolf Center as part of Red Wolf SAFE Program. They did not have a litter in the pen. Based on

results from previous releases under similar circumstances (e.g., no litter, a male Red Wolf from the SAFE Program with no wild experience and the fact that they were not in the pen together during the bonding period or the full mating period due to the timing of her capture), 2359F was released in June 2024, but 2443M was not and will remain in the pen for now. Attempts will be made in the future to pair him with a wild female Red Wolf and release him if it is a successful pairing.

*Wild Population Update*

On November 19, 2023, a female pup (2501F) born in the Milltail family group in spring 2023 was captured. She was radio collared with an orange radio collar with orange reflective material and re-released. Unfortunately, on December 22, 2023 she was killed on Highway 264. Necropsy confirmed the mortality was a result of a vehicle strike.

On November 19, 2023 and the following day on November 20, 2023, the two remaining pups (2514F and 2515F) born in the Pungo family group in spring 2023 were captured. They were both collared with orange collars with orange reflective material and released within their family group's home range where they have remained with the breeding pair (2361F and 2307M).

| Red Wolf ID | Letter/Number on Collar |
|---|---|
| 2514F | A |
| 2515F | 7 |

In January 2024, four of the Red Wolf pups (2499M, 2500M, 2502F and 2503F) born into the Milltail family group on ARNWR in Spring 2023 were captured, fitted with orange collars with orange reflective material, and re-released. We did not capture the male pup fostered into the family group and have not been able to identify him on remote sensing camera footage for the last couple of months.

| Red Wolf ID | Letter/Number on Collar |
|---|---|
| 2191M | T |
| 2500M | V |
| 2502F | 9 |
| 2503F | 6 |

On February 25, 2024, an adult wild female Red Wolf (2538) was captured on private lands and added to the known population. She is estimated to be 7 years old.

On April 8, 2024, a wild female Red Wolf (2280) was captured after exhibiting uncharacteristic behavior for her, such as being visible close to open farm field roads, acting very lethargic, and appearing to have vision issues. After an initial evaluation at a local vet clinic, she was moved to the North Carolina State University (NCSU) Veterinary Hospital where she was diagnosed with an untreatable cancerous mass on her brain.

*St. Vincent National Wildlife Refuge, Florida (SVNWR)*

There is currently a pair of Red Wolves on St. Vincent NWR, including a male released from the SAFE population in early 2025, but a successful litter was not documented in 2023 this year based on monitoring.