

Welcome!

The meeting will begin momentarily.

Thank you for your patience as we wait for others to join.

*Please join using computer audio
*Closed captioning is available by selecting
the Live Transcript button on your Zoom
toolbar and then selecting show subtitles.



Meeting Agenda

- Meeting Ground Rules
- Introduction
- USFWS Presentation Emily Weller
- Question and Answer Session
- USFWS Presentation Joe Madison
- 5-minute break
- Question and Answer Session
- Closing Remarks



- 1. The meeting is being recorded; and will be posted to the USFWS website.
- 2. Microphones and videos of participants will be automatically muted for the duration of the meeting.
- 3. Questions will be addressed during the Questionand-Answer sessions following each presentation.
- 4. If you submitted a question during registration, there is no need to resubmit that question.



September 2024



Emily Weller
Red Wolf Recovery Program Coordinator
emily_weller@fws.gov



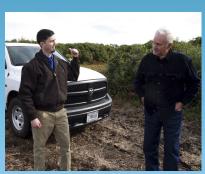
Team



- NC Program Field Team
 - NC Program Manager
 - 3 Field Biologists
 - PFW Biologist
 - o 1-2 Interns
- Coming Soon to NC
 - Wildlife Biologist
 - Community Engagement Specialist
- Program Support
 - Public Affairs Specialist
 - Raleigh ES Field Office
 - Refuges
 - Social Scientists
 - Law Enforcement

















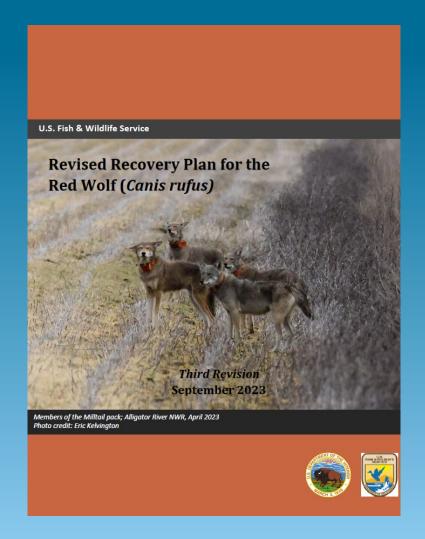
Red Wolf Recovery Program *History*

- Federally protected: 1967, 1973
- Program est. in 1973
- Declared extinct in wild in 1980
- 1987 Reintroduced into NC
- First program of its kind
- Paved the way for others





Red Wolf Recovery Program Final Revised Recovery Plan





Red Wolf Recovery Program Recovery Strategy

- Expand Distribution
 - Additional populations
 - Ideally different habitat types
 - No population sites have been identified
- Increase Population and Maintain Genetic Diversity Long-term
 - Robust captive population
 - Releases/pup fostering/translocations/ adaptive management
 - Not reliant on extensive human interventions
 - Address threats
- Implement Collaborative Conservation
 - Engage contributors
 - Shared understanding of goals, roles/responsibilities, and expectations





Red Wolf Recovery Program Criteria



Photo courtesy of Leigh Gill

- Criterion 1: 3 viable populations distributed to max redundancy
- Criterion 2: Each population meets the following criteria for viability:
 - 1 pop = at least 180; 2 = at least 280
 - o At least 80% GD maintained
 - Stable or growing for 10 yrs without extensive human interventions
 - o 95% probability of persistence for 100 yrs
- Criterion 3: Adequate mechanisms or longterm commitments are in place
 - Provide high level of certainty that Criterion
 will be maintained without ESA
 protections

Action Number	Action
1	Develop with State wildlife agencies criteria for and identify all potential ecologically and socially suitable reintroductions sites that could support a viable population of Red Wolves within the species' historical range
2	Further engage State wildlife agencies and other contributors in discussions and collaborative efforts to determine locations for additional Red Wolf populations
3	Increase capacity of the SAFE population to maintain a minimum of 400 Red Wolves to support establishment of wild populations of Red Wolves and maintain gene diversity
4	Develop controlled propagation plan for the SAFE population to optimize reproduction and reduce mortality to reach a minimum of 400 Red Wolves, and sustain a healthy population
5	Organize and maintain Red Wolf teams (RWT) for each population to work towards recovery
6	Develop and implement mechanisms for formal participation of all contributors for each population to ensure engagement of all perspectives in Red Wolf recovery
7	Develop and implement population-specific strategies and recommendations for each population with contributors
8	Sterilize or remove coyotes to minimize hybridization and facilitate establishment of Red Wolf populations
9	Conduct outreach, engagement, and school programs on Red Wolf conservation within local communities associated with Red Wolf populations to improve hunter, trapper, landowner, and global public awareness of Red Wolves and garner support for Red Wolf conservation at local and regional levels
10	Develop, with State wildlife agencies and other appropriate government entities, a management plan for transition of management authority for each population to ensure the population retains viability
11	Gather information needed to assess adequacy of existing management, long-term commitments, and regulatory mechanisms in mitigating or eliminating threats to Red Wolf in each population
12	Revise recovery plan to include site-specific recovery actions for new Red Wolf populations
13	Maintain or restore habitat within the ENC RWP area to provide sufficient resources to support a viable population
14	Implement and monitor strategies to reduce gunshot mortality in the ENC RWP to achieve the target 50% reduction of mortality, as detailed in Miller et al. 2023 PVA, to facilitate an increase in the Red Wolf population
15	Implement and monitor strategies to reduce vehicle strikes in the ENC RWP to achieve the target 50% reduction of mortality, as detailed in Miller et al. 2023 PVA, to facilitate an increase in the Red Wolf population
16	Increase law enforcement presence in ENC RWP area to assist in public outreach, deter illegal killing, investigate Red Wolf mortalities, enforce existing regulations, and coordinate with law enforcement from other agencies



- Recovery Implementation Strategy (RIS)
 - Stepped down activities
 - Flexible
- Spark Collaboration
- Coming Soon





What's Next?

- Complete the RIS
- Continue to manage/increase the ENC RWP
- Assist with increasing the SAFE population
- Conservation Conflict Transformation
- Identify potential new reintroduction sites





Red Wolf Recovery Program NC Red Wolf Team

- Recovery Action 5
 - Organize and maintain Red Wolf teams for each population to work towards recovery
- Very different than in the past
- Facilitates shared understanding
- Develop strategies to address threats
- Working on MOU





- Work with SAFE and others to increase capacity to increase the population
- SAFE Population Status
 - o 267 Red Wolves
 - 38% whelping success
 - o 80% pup survival
 - o 122 spaces (280-300 Red Wolves)
- SAFE Population Goal
 - o 400 Red Wolves
 - o Need 50 spaces!
- Red Wolf SAFE Action Plan 2024-2028
- Critical to Red Wolf Recovery







- Improving Relationships
 - Destructive → Productive
 - o Engage and give voice
 - Shared goals, shared problem solving
- Contracted with Constructive Conflict
 - Does not work for FWS
 - Address issues around Red Wolves
 - Reconcile and transform deep-rooted conflicts
 - Year 2 of 3-year contract







- Overall Goals include:
 - Trust, transparency, communication, operational functioning
 - Perceptions of and relationships among groups
 - Intra-group alignment/functioning and inter-group functioning
 - Positive ripple effect of increased shared-problem solving capacity and motivation
 - Demonstrated capacity to anticipate, prevent, and address conflict
- 3 Tasks
 - Assess conflict
 - Build capacity
 - Integrate CCT

https://www.constructive-conflict.com/red-wolf-meeting



Red Wolf Recovery Program Potential New Sites

- Service has yet not done an analysis
 - No sites have been identified
- Need State agency input
- Develop and implement process
 - **Biological**
 - Social
- Timeline?



Photo courtesy of David Busch



Red Wolf Recovery Program *Gulf Coast Canids*

- Studies conducted along Gulf Coast have found Red Wolf ancestry
 - Known ancestry
 - Ghost alleles
- It is not clear if these canids constitute Red Wolves.
 - Research studying morphology, genetics, and social dynamics critical to help clarify taxonomy.





Young female (top) and male (bottom) Gulf Coast canid. Photo courtesy of Joey Hinton



Red Wolf Recovery Program Summary

- New approach
- New recovery guide
- RIS
- Managing ENC RWP
- Conflict Transformation
- ID potential new sites emily_weller@fws.gov







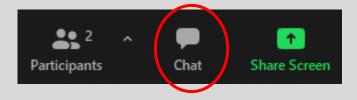


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- •We will try to answer questions in the order they are received.



Public Information Meeting Fall 2024



Joe Madison NC Program Manager/Wildlife Biologist



Eastern North Carolina Red Wolf Population NC Red Wolf Team

Ryan Nordsven
Senior Wildlife
Biologist
19 years





Morgan Lewis
Wildlife
Biologist
5 years



Luke Lolies
Private Lands
Biologist
4 years



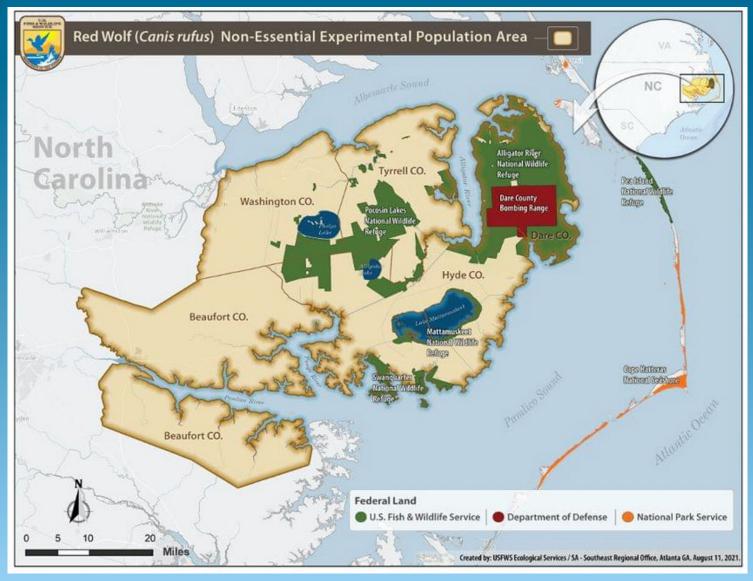
Laurel Reisman
Bio Tech
4 months







Eastern North Carolina Red Wild Population (ENC RWP)





Eastern North Carolina Red Wolf Population (ENC RWP)

- Department of the Eastern North Carolina Red Wolf Population: $R_{ele_{ase}}P_{lan}$ United States Fish and Wildlife Service
- Operate under an ESA 10(j) rule revised in 1995, in conjunction with applicable court decisions
- In January 2021, the U.S. District Court issued a ruling for USFWS to "draft a plan to release captive red wolves" in NC
- FWS develops and implements a yearly release plan every year since 2021
- Currently developing the 2024-2025 Release Plan
- ENC RWP population goal is at least 180 Red Wolves





Photo courtesy of Neil Jernigan

General Release Plan Goals:

- Focus on pup fostering opportunities, whenever possible
- Increase number of breeding pairs in the ENC RWP
- Attempt to pair wild Red Wolves together
- Attempt to pair Red Wolves from SAFE with unpaired wild Red Wolves within their territory or an open territory
- 3. If appropriate conditions exist, release a family group from SAFE in open territory



- Perpetually evaluating research, results of past management, similar species programs and our experience regarding releases to factor it into our actions in ways that will lead to the highest likelihood of success
- Informs the development of the annual release plan



Photo courtesy of Leigh Gill





Photo courtesy of Woody Sandy

- Won't negatively impact the genetic make-up or viability of the SAFE population
- Fed natural, whole prey food items
- 2-4 years old
- Enclosures away from public viewing, preferably larger enclosures
- Don't exhibit behavior indicative of habituation
- Limited genetic relatedness to the current wild population



Eastern North Carolina Red Wolf Population *Management Update - Release Changes*

- Selection factors for SAFE animals to be released – type of SAFE situation, keeper input, repro testing results, etc.
- Type of acclimation pen hard-sided
- Timing of releases wait until after mating and whelping season
- How we do releases –
 one person opening the
 door at dusk and leaving



Photo courtesy of John Stroud



Eastern North Carolina Red Wolf Population Management Update - Release Changes



Photo courtesy of Kerri Murphy

- Type of collars Now use only orange GPS/VHF combo collars for better tracking and ID
- Type of whole prey fed use to only feed roadkill deer. Now incorporate smaller prey regularly (e.g., rabbits, nutria)
- Make up of pairs have found that the combination of a SAFE male and wild female is the most likely to be successful
- Age of wild red wolves to pair out of necessity paired 1.5 year olds, now planning to focus more on 2+ year olds



 Fall and early winter – Move and/or construct acclimation pens











Photo courtesy of Eve Turek

- Conduct trapping November through March on ARNWR and PLNWR, as well as private land with landowner permission.
- Captures include wild Red Wolves to be placed in acclimation pens.
- Includes the initial collaring of pups born the previous spring
- This past winter collared the remaining 5 pups born on ARNWR and 2 pups born on PLNWR in spring 2023.



All SAFE born Red
 Wolves to be released
 and all captured wild
 Red Wolves will
 continue to be
 collared with orange
 GPS/VHF collars with
 orange reflective
 material.





2023-2024 Release Plan Actions

- Had 5 acclimation pens with Red Wolves in them to attempt to create new breeding pairs.
 - 2 with a SAFE born male and wild female
 - 1 with two unpaired, wild red wolves
 - 1 with a lone wild female
 - 1 SAFE born male within a wild female's territory





2023-2024 Release Plan Actions



Photo courtesy of Cyndi Goetcheus Sarfan

- One pairing of a SAFE male and wild female had a litter of 5 pups
- For the wild female (2538F) in penalone:
 - captured late in breeding season
 - intended male a vehicle strike mortality before capture
 - kept her in a pen in case she had a hybrid litter and we could foster
- No other pairs from acclimation pens stayed together.
- One SAFE male was not released since there was no litter



- Track and monitor every newly released Red Wolf daily
- Place supplemental food, when feasible, to help newly released Red Wolves transition to the wild
- Track all other wild Red Wolves multiple times per week
- Monitor throughout the ENC RWP with over 50 remote sensing cameras







Photo Courtesy of Jessica Suarez

- When Red Wolves are known to be spending time on private land, we contact the landowner to notify them of their presence and address concerns upfront
- Encourage folks to contact us anytime for questions or concerns
- Respond to calls, texts or emails with questions, concerns, sightings and potential issues
- Participate in meetings and/or give presentations, when invited (towns, civic groups, etc.)
- Address time-sensitive issues 24/7, when possible



2023-2024 Release Plan Actions

- Wild female (2413F) and SAFE born male (2444M) had a litter of 5 pups in the pen. Released in late May
- 2444M was transitioning well into the wild and caring for the pups
- 2413F was not staying with the pups or returning to them often. Not entirely uncommon for first time mothers to not provide optimal care
- 2444M was a vehicle strike mortality a few weeks later and 2413F did not return to the pups, who were 6 weeks





Fall 2023 – Milltail Pack breeding male (2323M) a vehicle strike mortality. Quickly constructed an acclimation pen in 2225's territory and placed a SAFE born male (2191M) in it.





Eastern North Carolina Red Wolf Population *Management - Den Work*

April 2024 - Confirmed a litter of 8 pups (4F, 4M)



Cheek swab for genetic analysis





Microchipping

General physical exam





- Third consecutive litter for 2225F, first with 2191M
- Stayed in area of the den for the first several weeks, as is typical
- Family group including the pups moved to a farm field area. We monitored from a distance for about 3 weeks. Area buffered for no management activity.
- Family group moved to another area more difficult to monitor for over a month but area buffered from farming activity
- No confirmed sightings of pups since



Eastern North Carolina Red Wolf Population *Existing Condition*

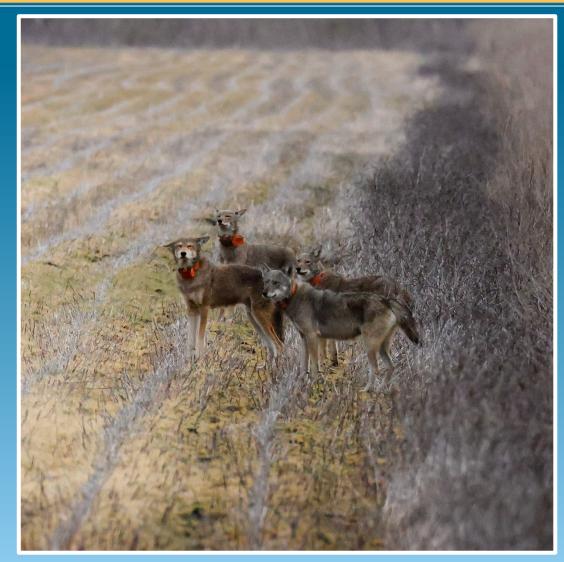
- Currently 16 known (radio-collared) adult/sub-adult Red Wolves
- All known adults/subadults have orange collars, 11 of which are also a GPS collar.
- Estimated total wild population of approximately 17 - 19 Red Wolves





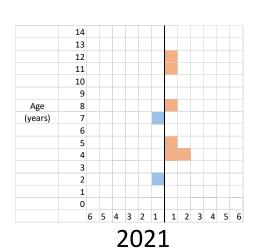
Eastern North Carolina Red Wolf Population *Existing Condition*

- Currently 2 Red Wolf breeding pairs/family groups (Milltail, Pungo)
- 7 of the 16 Red Wolves are on ARNWR
- 7 unpaired wild Red
 Wolves 2 years old or
 older 6 females, 1 male
- No Red Wolf/coyote hybrid litters the last 2 years.



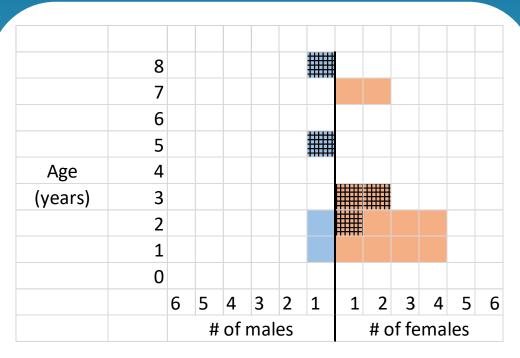


Eastern North Carolina Red Wolf Population Wild Red Wolf Age Structure



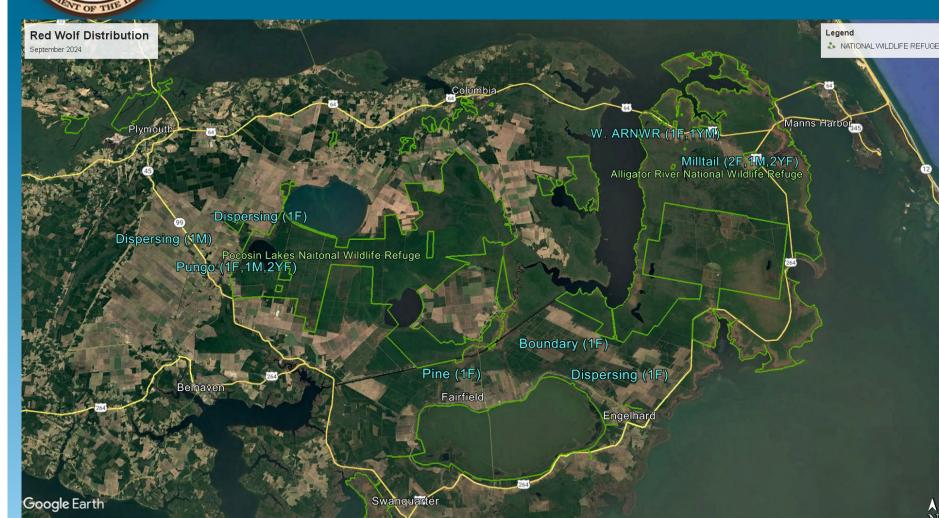
 31% of the wild population are direct releases from SAFE

 Includes both family group breeding males and one of the breeding females



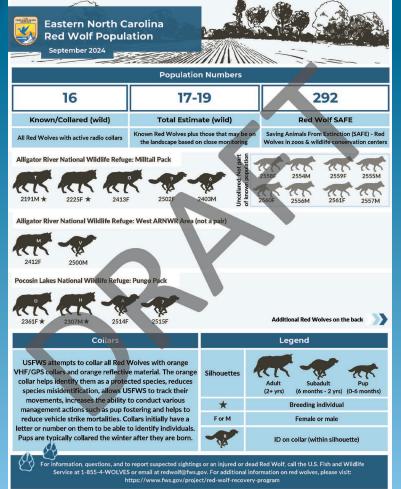


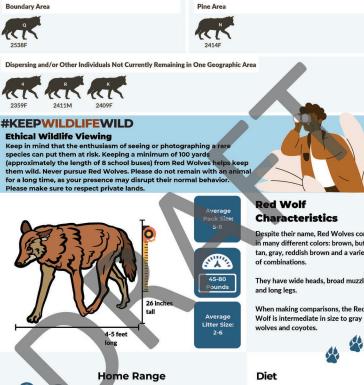
Eastern North Carolina Red Wolf Population Current Distribution





Eastern North Carolina Red Wolf Population Existing Condition





Average size:

32 square miles or 20,480 acres

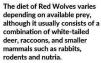
density to support a pack.

Red Wolves, like many other large mammals,

sizes are based on having a high enough prey

maintain and defend large spatial areas

referred to as home ranges. Home range



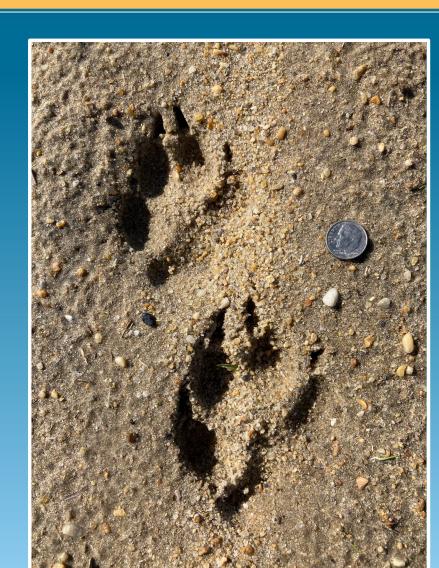
For information, questions, and to report suspected sightings or an injured or dead Red Wolf, call the U.S. Fish and Wildlife Service at 1-855-4-WOLVES or email at redwoil@ws.gov. for additional information on red wolves, please visit: https://www.fvs.gov/project/red-wolf-recovery-program

To ensure accuracy, please refer to population information coming



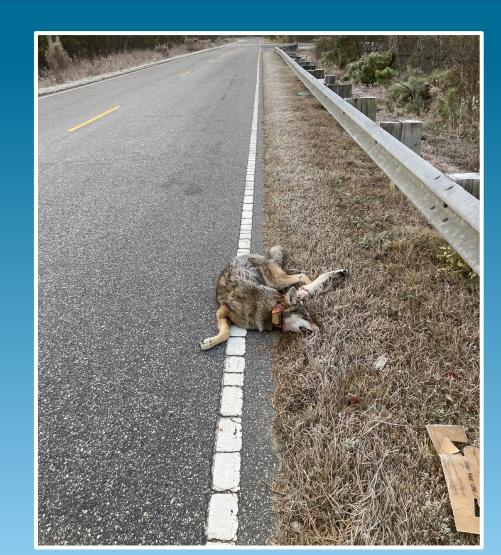
Eastern North Carolina Red Wolf Population *Existing Condition*

- 4 mortalities in 2024
- 2 vehicle strike mortalities on Highway 64
 - Both were 2 year old males (2410M and 2444M)
- 1 humanely euthanized (brain tumor)
 - 6 year old female (2280F)
- 1 unknown cause (under investigation)
 - 1 year old male (2499M)





- Vehicle strikes are the second leading cause of mortality since reintroduction
- It is the leading cause of mortality over the last 10 years
- Highway 64 through Alligator River NWR is the area where the most vehicle strike mortalities have occurred
- 16 different Red Wolves have been on or north of Highway
 64 in the last 5 years. 7 of







Enjoy your stay in red wolf country. For their safety and for yours when driving, please follow these important tips:

Watch for Red Wolves!

Most are wearing orange collars.



Vehicle strikes are a major threat to red wolves. Look for highway signs, this means that red wolves are in the area. However, red wolves can potentially cross roads throughout the area at

Help keep red wolves safe

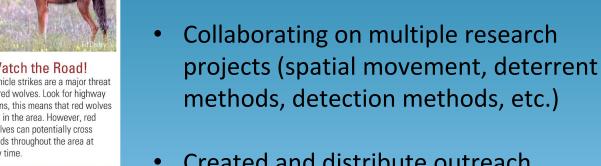
Please always be aware when driving, especially on Highways 64, 264, and 94.







any time.



Created and distribute outreach materials specific to vehicle strikes

Place mobile electronic highway signs in

Commissioned a Red Wolf Road Ecology

study - completed in September 2023

Red wolf use areas close to roads

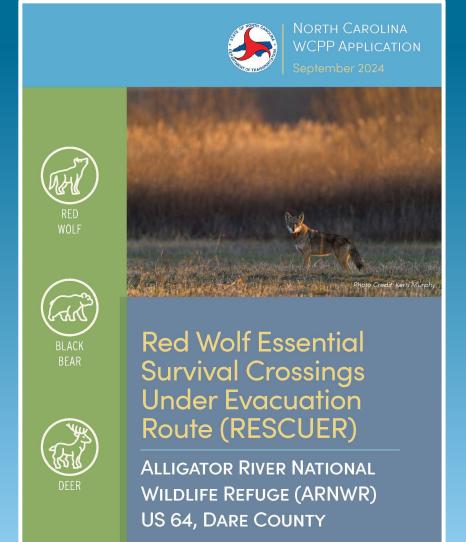
Orange reflective material on radio

collars to increase visibility

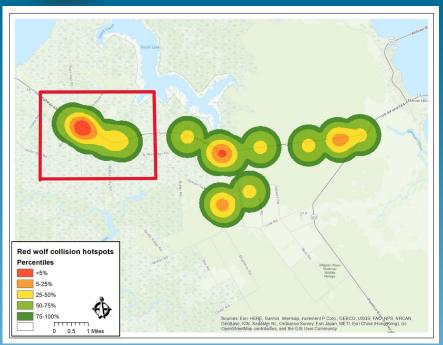
Work closely with NC DOT on roadkill



- Collaborating with NC DOT and NC Wildlife Resources Commission
- Submitted a grant proposal to the Federal Highways Administration's Wildlife Crossing Pilot Program for \$25 million
- Required 20% match in funding being covered by NC DOT and private donations secured through the Center for Biological Diversity and









- Phase 1 focuses on the placement of underpasses in the area along Highway 64 where the most Red Wolf vehicle strike mortalities and
- Would include multiple underpasses designed for all species present including black bear, white-tailed deer, small mammals, reptiles and





- Developed in the late 1990's by a group of scientists to establish methods to control interbreeding
- Entails removing some coyotes upon capture and sterilizing other captured coyotes. Decision based on location and red wolf presence
- Sterilized and released coyotes act as placeholders in areas currently without established Red Wolves
- Sterilized coyotes continue to hold/defend their territory but can't breed



- Done at no cost to landowners
- All sterilized coyotes are radio collared with white radio collars and released where captured
- Reduces hybridization and the coyote population locally
- Can benefit landowners and their land management goals
- Benefits Red Wolf recovery







- Population Viability Analysis of the Red Wolf (2023) recommends sterilizing 10% and removing 5% of the coyote population annually
- Our goal is to increase the level of coyote capture/sterilization
- FWS coyote capture/sterilization efforts focus on:
 - areas around acclimation pens
 - areas adjacent to existing Red
 Wolf presence
 - P4P parcels with past or present
 Red Wolf use



- FWS captured 24 coyotes during 2023-24 trapping season on Refuges and 4 private land parcels
- 20 coyotes sterilized, collared and released, 4 euthanized
- 2 more caught by private trappers were sterilized, collared and released by USFWS
- 4 sterilized coyote mortalities in 2024





Currently 36 sterilized coyotes



St. Vincent National Wildlife Refuge Red Wolf Island Propagation Site



Franklin
County
Apalachicola
Bay
NWR

Cape St. George
Island

Language Cape St. George
Cape St

- Established as propagation site off the Gulf Coast of Florida in 1990
- Maintain a breeding pair in the wild on the island.
- When young reach dispersal age they are captured and translocated to the ENC RWP
- Currently a Red Wolf pair on SVNWR, including a SAFE born male
- No indication of a litter in 2024.
- Plan to switch the male



Eastern North Carolina Red Wolf Population Community Engagement







- USFWS provides funding and technical assistance to landowners for habitat work to meet their land management goals
- Landowners agree to:
 - Allow Red Wolves to be present
 - Allow monitoring
 - And up to their comfort level allow for coyote sterilization



Red Wolf Coalition (RWC) Depredation Compensation Program

- Administered and funded by RWC
- Reimburses landowners for loss of livestock by Red Wolves
- Depredations by Red Wolves are very rare
- Valuable assurance to landowners, with hopes to increase tolerance and/or support



Contact USFWS within 24



Trapper Reimbursement Program



- Funded by North Carolina Wildlife Federation
- Reimburses licensed trappers for Red Wolves, radio-collared canids, and coyotes that can be sterilized/collared and released, that are captured during lawful trapping activities
- Canids must be transferred to USFWS alive and releasable
- Contact USFWS as soon as possible after capture





- Work collaboratively with the SAFE management team
- Closely coordinate on the release of Red Wolves from SAFE, including pup fostering
- Support efforts from both organizations on raising public awareness on Red Wolves
- Participating in research projects that include both organizations to inform actions to the benefit of the species



 Closely coordinate all canid management activities within the ENC RWP



 Coordinate with Refuges on habitat and refuge use conditions to support Red Wolves







- Operate outreach portion of Red Wolf Center
- Funding majority of Red Wolf Center interior remodel
- Equipment (Highway Signs, Acclimation Pens, Y-Poles)



- Cover the cost of all coyote sterilizations
- Fund temporary bio techs
- Equipment (Highway Sign, Acclimation Pen, Radio Collars)



Funding Dare County
 Transfer Station Fence
 Project



 Funding GPS/VHF radio collars for Red Wolves and coyotes





- NCSU Veterinary Hospital
- NCSU Engineering
 Students Mentor Program
- Pen space



- Red Wolf Teacher
 Ambassadors
- NC Teacher Education Program





- Contact the USFWS
 Red Wolf Team directly
 if you have any
 questions, concerns
 or issues related to
 Red Wolves
- We are available to work with you to address your concerns



Photo courtesy of Jessica Suarez



- Don't shoot collared canids and know the species before you shoot:
 - Illegal to shoot Red Wolves (orange collars)
 - Likely to your benefit to not shoot sterilized coyotes (white or black collars)
- Red wolves are federally protected under ESA. Killing or harming them is illegal
- Look closely for an orange collar. If you see orange, don't shoot!
- Drive with caution in areas with red wolves





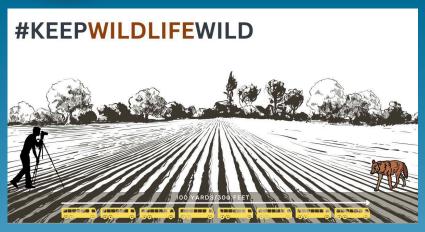




- Attend/engage in Red Wolf Recovery Program meetings
- Participate in Conservation Conflict
 Transformation efforts within the
 ENC RWP so your voice is heard
- Invite the Red Wolf Recovery
 Program to meet with your town or group
- Participate in the People's Process: A
 National Conversation about Thriving
 Communities, Tribes,
 Conservationists, Working
 Landscapes, and Wolves



Red Wolf Population in North Carolina How Can I Help and/or Get Involved?



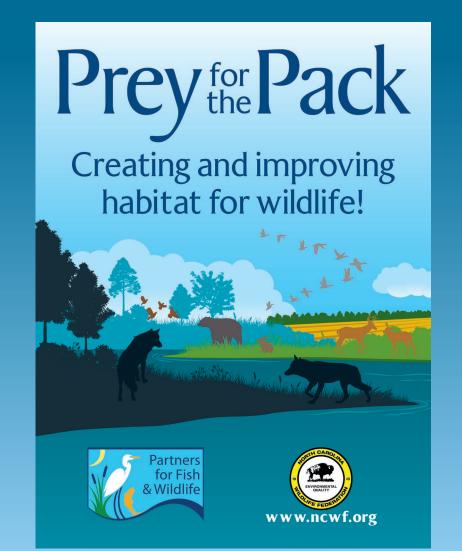
 Visiting eastern North Carolina and the counties comprising the only wild population of Red Wolves can help support the economy of local communities (e.g., lodging, food, gas, etc.)



 Visit one or more of the more than 50 zoos and wildlife conservation centers nationwide that are part of the Red Wolf SAFE Program



- Become a Prey for the Pack participant
- Receive funding and technical assistance from USFWS to work toward your land management goals





Eastern North Carolina Red Wolf Population Community Engagement

The USFWS Red Wolf Team is committed and available to work with you to address your questions and concerns regarding red wolves.

Who Should I Contact Regarding Red Wolves in Eastern NC?

- Red Wolf Hotline 1-855-4-WOLVES (1-855-496-5837) or redwolf@fws.gov
- Emily Weller, Red Wolf Recovery Program Coordinator at (337) 291-3090 or emily_weller@fws.gov
- Joe Madison, NC Program Manager/Wildlife Biologist at (252) 475-8259 or joseph_madison@fws.gov
- Luke Lolies, Private Lands Biologist and Prey for the Pack at (252) 256-3676 or luke lolies@fws.gov



5-minute Break

We will now take a 5- minute break before reconvening for the final question-and-answer session.

The Zoom meeting will stay running, so there is no need to leave and re-join.

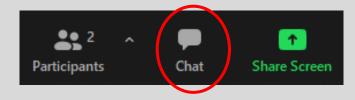


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Eastern North Carolina Red Wolf Population Community Engagement



Submit questions regarding this evening's presentation to:

- redwolf@fws.gov

Answers will be provided via:

- Direct email response and/or posted on the Red Wolf Recovery Program website

Visit our website for more information and updates:

https://fws.gov/project/red-wolf-recovery-program