



# Red Wolf News

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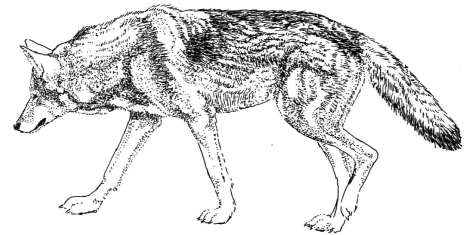
## Using Scat Samples to Manage Red Wolf/Coyote Hybridization

Following is an article by Jennifer Adams, a graduate student at the University of Idaho. The article is a summary of her study with Brian Kelly under Dr. Lisette Waits.

The U.S. Fish and Wildlife Service recently implemented an adaptive management plan to minimize hybridization between sympatric populations of red wolves (*Canis rufus*) and coyotes (*Canis latrans*) in northeastern NC. One objective is to create and maintain a coyote free zone on the Alligator River National Wildlife Refuge (ARNWR) which represents 20% of the red wolf recovery area. Continued hybridization between these species could eliminate unique red wolf genotypes through introgression of coyote DNA. To assess hybridization risk, it is necessary to know the spatial distribution and number of coyotes. We are addressing this question using non-invasive genetic sampling of fecal samples (scat). During April and May, scat samples will be collected along all refuge roads and GPS coordinates will

be taken at each scat. The scats will be assigned to species (dog, coyote, red fox, gray fox, bobcat or red wolf) using a newly de-

veloped restriction enzyme analysis method of the cytochrome b region of mitochondrial DNA. All coyote scats will be genotyped at 3-4 microsatellite loci to identify individuals. The approximate location of each coyote in the ARNWR will be plotted using downloaded GPS coordinates on a refuge map. Results will be used to determine the spatial distribution and extent of coyote colonization within the ARNWR and to focus management efforts to decrease hybridization through trapping and removing coyotes. These techniques will help implement the adaptive management plan in other portions of the reintroduction area and play a key role in efforts to recover the red wolf.



### **Wild wolf population in Northeastern North Carolina**

- Wolf population is estimated at 96, 66 of which are radio collared. Eight sterilized hybrids and 2 sterilized coyotes are also radio collared in the recovery area.
- Wolves range over about one million acres of public and private land.
- Known changes to the wolf population this quarter were: 6 new wolves being monitored and 3 deaths.

### **Brian Kelly Accepts Position in Albuquerque**

Brian Kelly, the Red Wolf Coordinator of Field Projects, accepted the position of Mexican Wolf Species Coordinator in Albuquerque, New Mexico. He will be resigning from the Red Wolf Project in April. Brian will be most remembered for identifying the need and creating the strategy to address hybridiza-

tion. His other accomplishments in only two years with the Red Wolf Program are too many to describe. Although he will be greatly missed, we wish Brian and his family the very best as they settle in New Mexico. The Mexican Wolf Recovery Program will be fortunate to be under his leadership.

This newsletter is a publication of the US Fish and Wildlife Service.

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