

**FIRST RECORD OF THE RED FOX FROM THE BARRIER ISLAND REGION
OF EAST-CENTRAL FLORIDA**

JOSEPH S. WEIDLICH¹, JANE A. PROVANCHA, AND KRISTINA M. HERPICH
*Dynamac Corporation, Environmental Support Contract, MS-ESC
Patrick Air Force Base, Florida 32925*

The red fox (*Vulpes vulpes*) is found throughout much of North America except for southeastern Virginia, eastern North Carolina, the far Southwest, and the Rocky Mountain region (Whitaker and Hamilton 1998). This species was not found in Florida prior to the 1950s (Sherman 1952), although it currently occurs throughout much of the peninsula (Whitaker and Hamilton 1998). Distribution records suggest the red fox moved into the Florida Panhandle during the 1950s and its subsequent expansion throughout the mainland peninsula is the result of immigration from bordering states and intentional and accidental introductions (Layne 1997). We report occurrence of the red fox from the barrier island region of east-central Florida.

On 5 February 2002, we observed a red fox on Cape Canaveral Air Force Station (CCAFS), a 6,396 ha U.S. Air Force Installation located on the east coast of central Florida in Brevard County (Fig. 1). At approximately 0800, the fox was traveling west along Central Control Road towards the CCAFS industrial area. It crossed the road several times, often running down the middle of it, and traveled along the vegetation beside the



Figure 1. Red fox photographed on Cape Canaveral Air Force Station, Brevard County, Florida, 5 February 2002. Photograph by Kristina M. Herpich.

¹Current Address: Dynamac Corporation, Mail Code DYN-2, Kennedy Space Center, Florida 32899

road. The fox appeared to be searching for food and was observed pouncing on and eating a small, unidentified prey item. We observed the fox for approximately ten minutes and photographed it with a digital camera before it disappeared into the vegetation just before entering the industrial area. A road-killed red fox was reported the following day; however, efforts to obtain this specimen by JSW proved unsuccessful, as the fox had been picked up before it could be collected.

Prior to this sighting, only anecdotal reports of "fox" sightings during nighttime deer surveys have been made, often without positive identification to species (Angy Chambers, pers. comm.). Other similar-sized predators found on the CCAFS include the native gray fox (*Urocyon cinereoargenteus*) and the bobcat (*Lynx rufus*). Gray foxes are only occasionally observed; bobcats are frequently observed. The CCAFS is one of three federal lands that support large, healthy populations of the federally threatened southeastern beach mouse (*Peromyscus polionotus niveiventris*) (U.S. Fish and Wildlife Service 1993). This species as well as other native small mammals may be negatively impacted by red fox predation. The red fox was reported to excavate and subsequently destroy burrows of the Alabama beach mouse (*P. p. ammobates*) on Bon Secour National Wildlife Refuge (Swilling and Holler 2002). Red foxes have also been cited as predators of sea turtle eggs and hatchlings, and of chicks of colonial ground-nesting birds such as Least Terns (*Sterna antillarum*) and Black Skimmers (*Rynchops niger*) (J. A. Gore in Layne 1997). Due to their similar feeding habits and habitat overlap, the red fox may be a significant competitor of the gray fox (Layne 1997), although Sunquist (1989) suggested that the coexistence of the two species in north-central Florida was facilitated by differences in habitat use and dietary preferences. As the most widespread reservoir of rabies (Chomel 1993), the red fox may have serious impacts on other mammals in this area as vectors of disease.

ACKNOWLEDGMENTS.—The 45th Space Wing CES/CEV provided helpful comments to an earlier draft of this note. We thank Clay Gordin of the 45th Space Wing Environmental Flight for his support of the Environmental Support Contract.

LITERATURE CITED

- CHOMEL, B. B. 1993. The modern epidemiological aspects of rabies in the world. *Comparative Immunology and Microbiology of Infectious Diseases* 16:11-20.
- LAYNE, J. N. 1997. Nonindigenous mammals. Pages 157-186 in *Strangers in Paradise: Impact and Management of Nonindigenous Species in Florida* (D. Simberloff, D. C. Schmitz, and T. C. Brown, eds.). Island Press, Washington, D.C.
- SHERMAN, H. B. 1952. A list and bibliography of the mammals of Florida, living and extinct. *Quarterly Journal of the Florida Academy of Sciences* 15:86-126.
- SUNQUIST, M. E. 1989. Comparison of spatial and temporal activity of red foxes and gray foxes in north-central Florida. *Florida Field Naturalist* 17:11-18.
- SWILLING, W. R., JR., AND M. C. WOOTEN. 2002. Subadult dispersal in a monogamous species: the Alabama beach mouse (*Peromyscus polionotus ammobates*). *Journal of Mammalogy* 83:252-259.
- U.S. FISH AND WILDLIFE SERVICE. 1993. Recovery plan for the Anastasia Island and Southeastern beach mouse. Atlanta, Georgia. 30 pp.
- WHITAKER, J. O., JR., AND W. J. HAMILTON, JR. 1998. *Mammals of the eastern United States*. Cornell University Press, Ithaca, NY.