

## TEXAS ANNUAL SUMMARY OF SWIFT FOX

Robert Sullivan, Texas Parks and Wildlife Department, P. O. Box 669, Canyon, TX 79015.

### Conservation and Management Activities

#### I. CURRENT AND FUTURE PLANS FOR MANAGEMENT

- A. Current goals of Texas Parks and Wildlife Department (TPW) will be to finish the current research in progress and initiate future research to assess den site ecology of foxes in the Panhandle Region.
- B. No additional research, surveys, or management options are currently planned.
- C. Future conservation efforts will be dictated by results of our research efforts and current political events. We expect to continue to offer the fox as part of our Land Owner Incentive Program (LIP) and will include management considerations in our ongoing efforts at short- and mid-grass prairie restoration in the Panhandle Region.

II. LANDOWNER INCENTIVE PROGRAM (LIP) – We currently have no landowners that are specifically managing for swift fox on their property and we have received no inquires by landowners for technical guidance to manage swift fox.

#### III. RESEARCH IN PROGRESS

- A. Research Title: Relationships of Swift Fox and Coyotes in Northwest Texas
- B. Researcher: Jan F. Kamler, Ph.D. Candidate, Texas Tech University
- C. Background and Objectives: *Abstract* – Swift fox (*Vulpes velox*) populations have declined throughout their range and until recently this species was under consideration for listing as a threatened species by the USFWS. Recent studies in CO and KS indicate that the current distribution and number of foxes are significantly affected by coyote (*Canus latrans*) predation. In August 1998, we initiated a study to determine the relationships of swift fox and coyotes in northwest Texas. Research is currently being conducted at two study sites: (1) a 100 sq. km area of range land located on Rita Blanca National Grasslands; and a 100 sq. km area of private land interspersed with rangeland, cultivated and CRP fields. Radio-collared swift fox and coyotes were monitored throughout 1999, and home ranges, densities, habitat use, and survival rates for both species were compared within and between sites. Future research includes continuation of monitoring and initiation of coyote removal from one study site to determine the

affects that coyotes have on the ecology of swift fox in the Panhandle Region of the High Plains.

#### IV. PROPOSED RESEARCH

- A. Research Title: Swift Fox and Coyote Interactions in Short-grass Prairie of Northwest Texas: Dietary Overlap and Den Site Activity.
- B. Researcher: Patrick R. Lemons II, Candidate for Master of Science Degree, Texas Tech University.
- C. Background and Objectives: *Abstract* – Recently the swift fox (*Vulpes velox*) was proposed for listing under the Federal Endangered Species Act. Once abundant throughout the short-grass and mid-grass prairies of North America, numbers of swift foxes declined rapidly with human settlement. Habitat destruction, trapping, and poisoning are thought to have reduced its numbers. Poisoning campaigns to control wolf (*Canis lupus*) and coyote (*Canis latrans*) are implicated as the primary cause of declines in populations of swift fox; however, coyotes also kill swift fox. This behavior may be the result of both exploitative and interference competition. Another possible explanation for predation of swift foxes by coyotes is competition for resources. The degree of overlap in swift fox and coyote diets is not well documented and dietary overlap may relate to the severity of competition between the two carnivores. Another area that may influence swift fox populations is pup-rearing behavior. Objectives of the study are to determine the : (1) seasonal and yearly dietary differences between swift fox and coyotes; (2) dietary differences in swift foxes on and off coyote controlled territories; (3) what contribution helpers make to pup-rearing; (4) if parental roles change with the presence of a helper in fox societies; (5) if helpers increase success of rearing pups; (6) frequency of helpers on and off coyote controlled sites; (7) proportion of time spent at den sites by each parent; (8) role of each parent in rearing pups (9) if role of each parent changes with the presence of a helper; and (10) pre-emergent and overall pup-rearing success and litter sizes.