



Monitoring coyote populations in Florida: Annual Update of the statewide scent station surveys 1997-2000.¹

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General Comments

In recent decades, the coyote (*Canis latrans*) has moved throughout Florida. It will likely continue to increase in numbers. Brady and Campbell (1983) did an early coyote study using mail surveys. Wooding and Hardisky did a similar one in 1990. Other early surveys looked for tracks, and other signs of coyotes (Maehr et al. 1996). Recent survey methods have included carcass collection, telephone interviews and scent station surveys (Main et al. 1999, 2000).

This report compiles information from the scent station surveys. The annual scent station survey began in 1997 and has grown larger each year, with a focus on central and south Florida (Figure 1). Over 700 track stations at more than 40 cooperating locations will be monitored during 2001.

Scent station surveys attract coyotes and other predators by the use of scented bait. The survey stations are smooth, prepared areas on the ground three feet in diameter. The tracks of animals that walk through the station are recorded. Stations with unidentifiable tracks due to rain or other reasons are recorded as inoperable.

The surveys are conducted annually and are used to monitor range expansion and population trends of coyotes and of other predators. Other predators also are monitored because increased numbers of coyotes may influence numbers of native predators by competing for food or through direct predation. Three meso-predators (medium sized predators) that may directly compete with coyotes that are being monitored include raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), and gray fox (*Urocyon cinereoargenteus*).

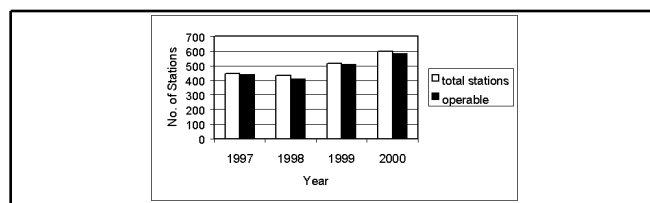


Figure 1.

Results from the scent station surveys are still in the early stages of analysis. They suggest a slowly increasing coyote population in Florida (Figure 2). However, the numbers of coyotes recorded were low. Therefore, this data should be viewed as initial data and additional surveys will be needed to confirm these trends. During 1999 and 2000 we began a survey of scent stations during both the first day and

1. This document is WEC-149, one of a series of the Wildlife Ecology and Conservation Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication: July 2001. Please visit the EDIS Web site at <http://edis.ifas.ufl.edu>

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the fifth day after setting out scent baits. The Day 5 survey had higher visitation rates. Although the number of inoperable stations increased slightly during Day 5, the number of operable stations was still greater than 90%. (1999: Day 1 = 98%, Day 5 = 93%; 2000: Day 1 = 97%, Day 5 = 92%).

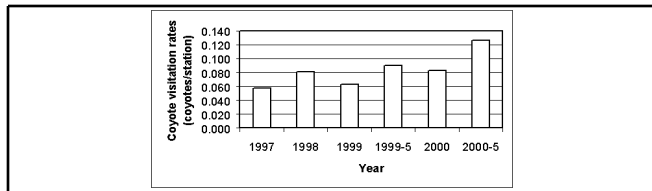


Figure 2.

The data from these suggests an increasing trend for coyotes. No such trends were observed for raccoon, fox, or bobcat (Figure 3). As with the coyote trend data, it is still too early to make strong conclusions. There may be some sign that raccoon populations may have declined during 1999, although the causes for any declines cannot be determined. Fox and bobcat data don't indicate any changes in population trends.

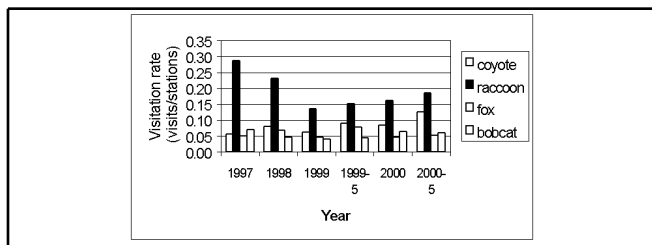


Figure 3. Visitation rates (visits/station) by coyote, raccoon, fox, and bobcat at scent stations during 1997-2000. Survey visitation rates are at Day 1 of survey except during 1999-5 and 2000-5, which represent sampling events at Day 5.

The number of scent stations monitored and visitation rates by coyotes during 1997-2000 is provided in (Table 1). Survey locations are listed by county, location, cooperators, and year.

Additional Information

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Acknowledgements

We thank the many cooperators listed in Table 1 who are contributing to this effort.

Table 1. Scent station survey cooperators during 1997-2000.

AREA	COUNTY	STATION	YEAR	YEAR	YEAR	YEAR
Tyndall Air Force Base	Bay	22	1997	1998	1999	2000
Babcock/Webb	Charlotte	35	1997	1998	1999	2000
Citrus Wildlife Management Area	Citrus	20				2000
Bear Island	Collier	10		1998	1999	
Fakahatchee Strand State Preserve	Collier	10			1999	2000
Fire Prairie Trail	Collier	10			1999	
Florida Panther NWR	Collier	10			1999	2000
Picayune Strand State Preserve	Collier	30	1997	1998	1999	
Rookery Bay NER	Collier	12				2000
CREW Lands	Collier/Lee	12	1997	1998	1999	2000
GDC RV Griffin	Desoto	14	1997		1999	2000
Tosohatchee	East Orange	14	1997	1998	1999	2000
Chassahowitzka	Hernando	14	1997	1998	1999	2000
Chinsegut	Hernando	6	1997	1998		2000
Croom WMA	Hernando	15	1997	1998	1999	2000
Avon Park Air Force Base	Highlands	52	1997	1998	1999	2000
Highlands Hammock State Park	Highlands	9	1997		1999	2000
MaCarthur (Buck Island)	Highlands	15	1997	1998		2000
Archbold Biological Station	Highlands	10	1997	1998	1999	2000
Arbuckle WMA	Lake	10		1998		
Seminole Forest	Lake	14	1997	1998		2000
Florida Gulf Coast University	Lee	5			1999	2000
Rutland Ranch	Manatee	9				2000
Myakka River State Park	Manatee/	30	1997		1999	2000
Ocala Wildlife Management Area	Marion, Lake	10				2000
J Dickson State Park	Martin	13				2000
Rock Springs Run	Orange, Lake	16	1997			2000
3 Lakes WMA	Osceola	30	1997	1998	1999	2000
Triple N R WMA	Osceola	17	1997	1998	1999	2000
Green Swamp WMA	Pasco	23	1997	1998		2000
Arbuckle WMA	Polk	20		1998	1999	2000
Walk in the Water	Polk	10		1998	1999	2000
Kicco WMA	Polk/Osceola	10		1998	1999	
Caravella WMA	Putman	12	1997	1998	1999	2000
Ordway Preserve	Putman	10				2000
Eglin Air Force Base	Santa Rosa	44		1998	1999	2000
Myakka Rs Forest	Sarasota	10	1997		1999	2000
Little Big Econ	Seminole	10	1997	1998	1999	2000
Guana River	St Johns	10				2000
Half Moon WMA	Sumter	10	1997	1998	1999	2000
Lake George WMA	Volusia	16	1997			2000
Tiger Bay WMA	Volusia	10	1997		1999	2000