

TEXAS AGRILIFE EXTENSION SERVICE – WILDLIFE SERVICES
COYOTE MANAGEMENT REPORT – 2nd QUARTER 2011
CITY OF AUSTIN AND TRAVIS COUNTY
(01 APRIL – 30 JUNE 2011)

Coyote management activities conducted by the Texas AgriLife Extension Service – Wildlife Services (WS) for this reporting period include direct control activities as well as activities that provided technical assistance to constituents to prevent and alleviate conflicts with coyotes in the City of Austin and Travis County. Technical assistance information was provided to 145 constituents reporting observations of coyote activity or conflicts through the city of Austin’s “311” non-emergency, operator assisted telephone call system. The total number of coyote observations received the 2nd Quarter of 2011 represents a 20% decrease from the total number of observations reported during the 1st Quarter of 2011 ($n = 181$) (Figure 1), and a 123% increase above the total number of complaints received during the 2nd Quarter of 2010 ($n = 65$).

Since the initiation of coyote management in January of 2005 in Travis County and the City of Austin, complainant reports of bold or aggressive coyote behavior exhibited a decreasing trend until the 2nd Quarter of 2007 when there was no apparent trend exhibited until what appears to be an increasing trend of bold and aggressive behavior observed beginning the 4th Quarter of 2010 (Figures 1 - 6). All 311 coyote complaint calls are ranked on a scale of 0 – 7, and are based on the citizen’s report of the type of behavior exhibited by coyotes (Figure 9). The average behavioral score index of 1.6 exhibited by coyotes in Travis County and the City of Austin during this reporting period is 23% greater than the average behavioral score index of 1.3 reported during the 1st Quarter of 2011, and reflects a 78% increase above the average behavioral score index of 0.9 reported during 2nd Quarter of 2010.

The average behavioral scores exhibited by coyotes as measured from the 1st Quarter of 2005 through the 2nd Quarter of 2011 declined at a rate of approximately 2.2% ($p < 0.00567$; 0.7% – 3.7%, 95% CI) per quarter (Figure 5), with average behavioral score indices of 2.4 and 1.6 exhibited during the 1st Quarter (January – March) of 2005 and the 2nd Quarter of 2011, respectively (Figures 1 and 4). There is no significant change (i.e., $p > 0.05$) in the trend of average behavioral scores from the 1st Quarter of 2006 ($p > 0.57467$) and 2007 ($p > 0.17924$) through this reporting period. However, the average behavioral scores exhibited by coyotes from the 1st Quarter of 2008, 2009 and 2010 through the 2nd Quarter of 2011 exhibited increasing trends of approximately 3.7% ($p < 0.00706$; 1.2% – 6.2%, 95% CI), 6.5% ($p < 0.00799$; 2.2% – 10.8%, 95% CI) and 12.3% ($p < 0.01870$; 3.4% – 21.2%, 95% CI) per quarter, respectively (Figure 5). The total number of complaints involving observed aggression toward pets or humans reported during the current quarter ($n = 7$) increased 133% from 3 observed incidents reported during the 2nd Quarter of 2010 (Figure 3). There has been no significant change in the trend of annual average behavioral scores exhibited by coyotes from pre-coyote management treatment in 2004 ($p > 0.07142$) and management periods 2005 ($p > 0.33958$), 2006 ($p > 0.98611$), 2007 ($p > 0.37347$), 2008 ($p > 0.16899$) and 2009 ($p > 0.22751$) to the current reporting period (Figure 6).

The total number of complaint calls received during the 1st Quarter of 2011 from the area initially identified as a high priority area for coyote control (i.e., the 78731 zip code area) in 2004 – 2005 ($n = 8$) has decreased 33% below the 12 reports received during the 1st Quarter of 2011, but increased 100% above the total number of calls ($n = 4$) received from the area during the 2nd Quarter of 2010. Constituent reports of the proportion of daylight observances of coyotes in streets and yards versus observance of coyotes during night hours or in greenbelts has increased from 35% reported in the 1st Quarter of 2011, to 45% observed during the current reporting period (Figure 2).

The cumulative and relative measure of coyote behavior density (CBD = c ; r) during this reporting period was greatest in zip code area 78727 (CBD = 47.0; 15.7), 78735 (CBD = 32.1; 10.7) and 78746 (CBD = 17.4; 5.8) (Figures 7 and 8).

Figure 1

311 COYOTE CALLS & AVERAGE OF REPORTED BEHAVIORAL SCORES AS REPORTED IN THE CITY OF AUSTIN AND TRAVIS COUNTY, TEXAS (JANAURY - MARCH 2005 through APRIL - JUNE 2011)

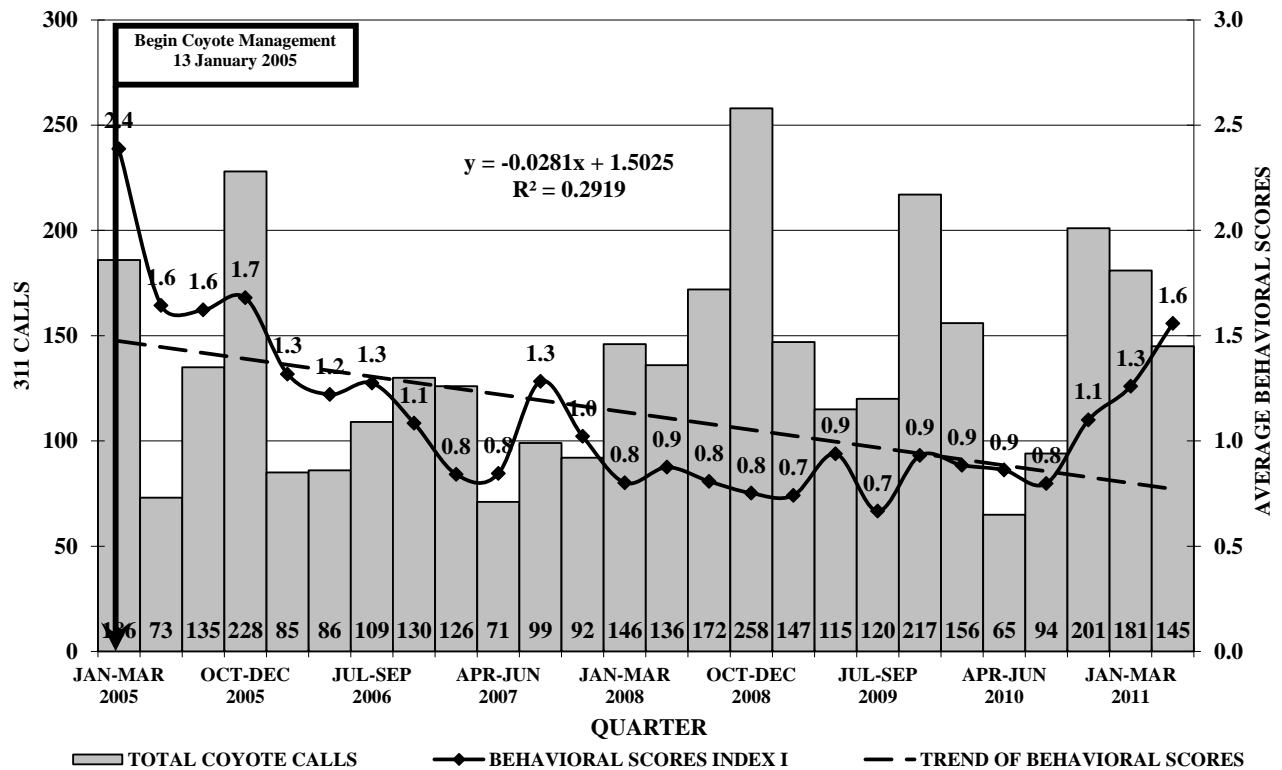


Figure 2

QUARTERLY OBSERVATIONS OF COYOTE ACTIVITY REPORTED IN THE CITY OF AUSTIN AND TRAVIS COUNTY, TEXAS (JANAURY - MARCH 2005 through APRIL - JUNE 2011)

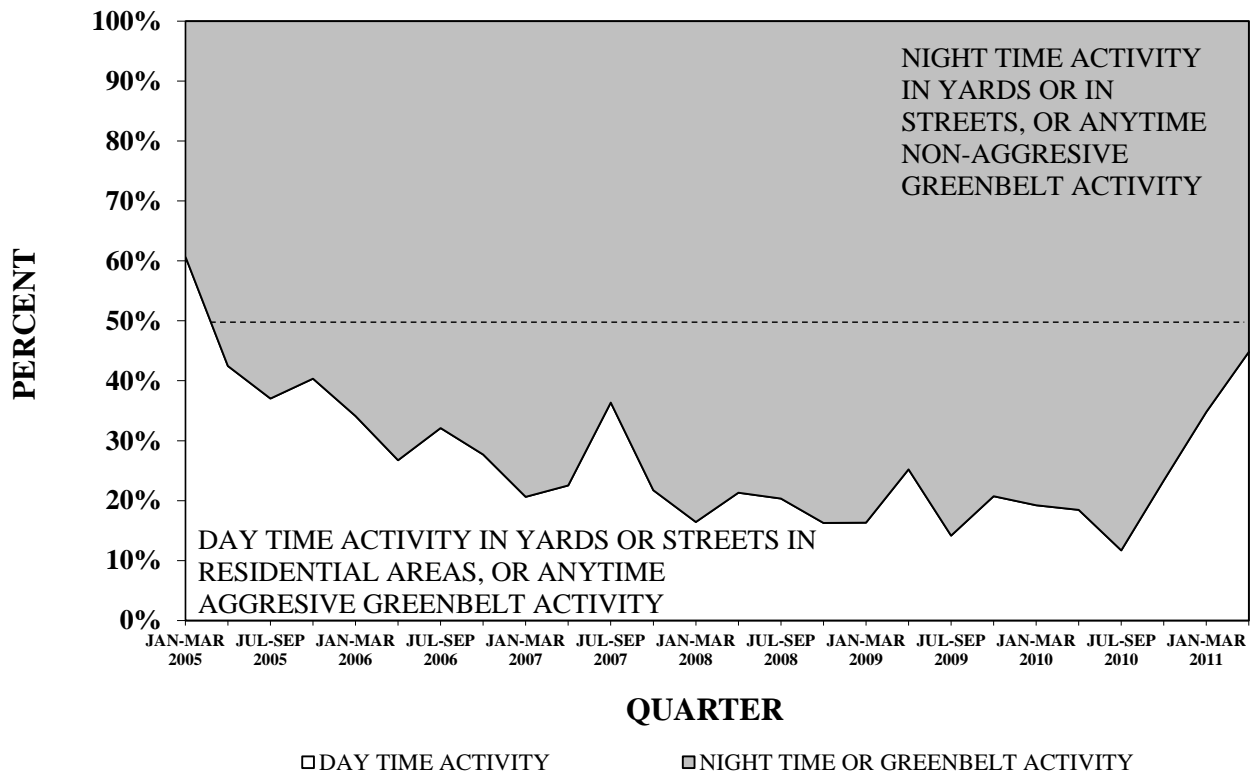


Figure 3

**COYOTE PREDATION ON PETS OR OTHER BOLD OR AGGRESSIVE COYOTE BEHAVIORS
REPORTED IN THE CITY OF AUSTIN AND TRAVIS COUNTY, TEXAS
JANAURY - MARCH 2005 through APRIL - JUNE 2011**

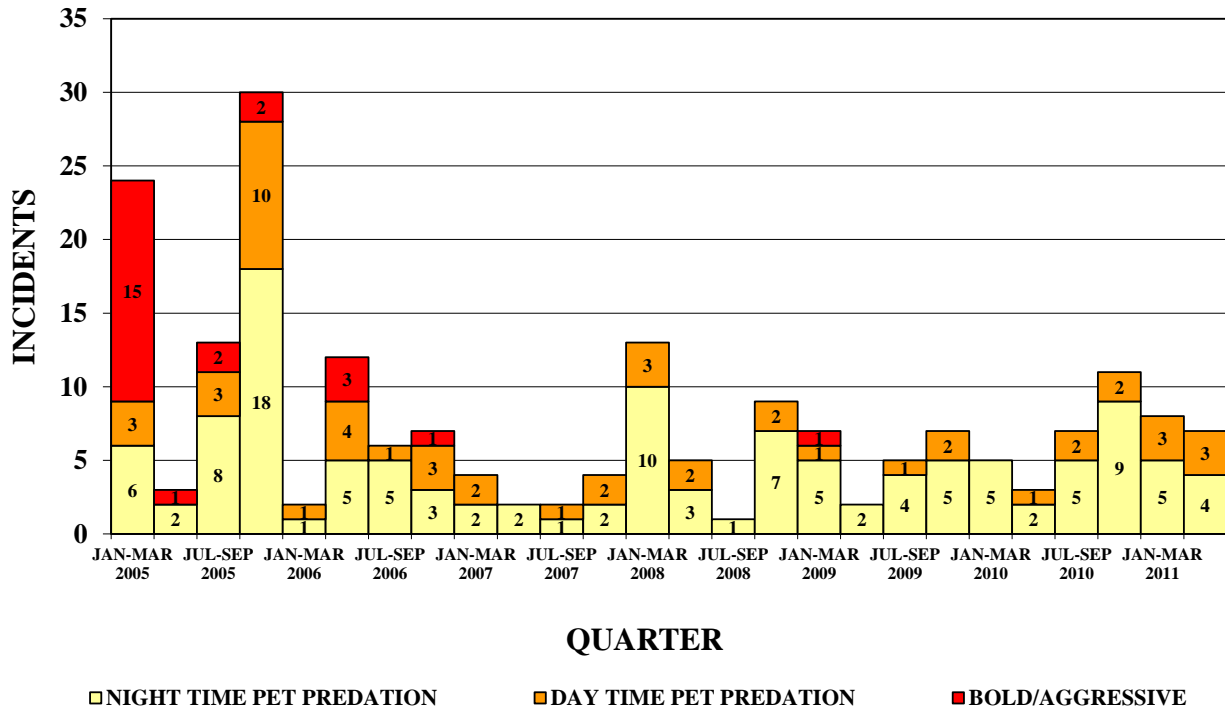


Figure 4

**QUARTERLY INDICES OF COYOTE BOLD AND AGGRESSIVE BEHAVIOR AS
REPORTED IN THE CITY OF AUSTIN AND TRAVIS COUNTY, TEXAS
(JANAURY - MARCH 2005 through APRIL - JUNE 2011)**

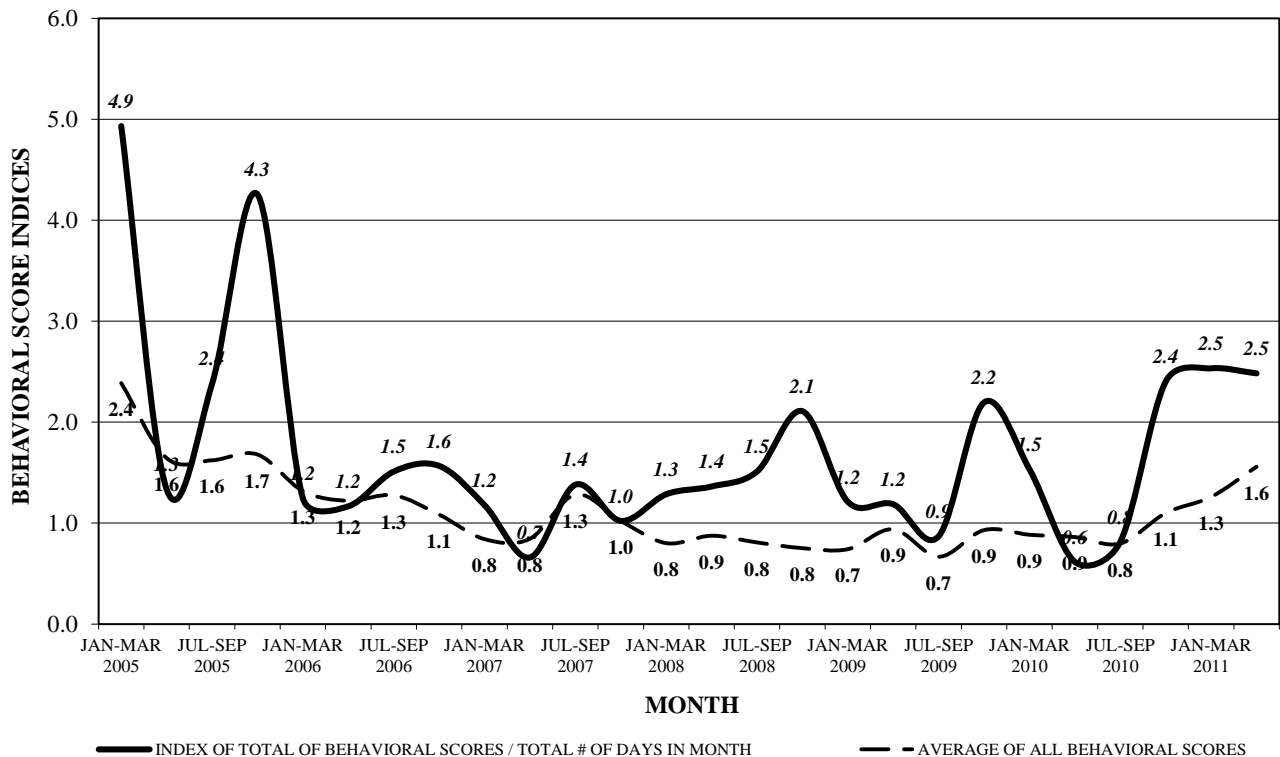


Figure 5

QUARTERLY TREND OF INDEX OF COYOTE BOLD AND AGRESSIVE BEHAVIOR AS REPORTED IN THE CITY OF AUSTIN AND TRAVIS COUNTY, TEXAS (JANAURY - MARCH 2005 through APRIL - JUNE 2011)

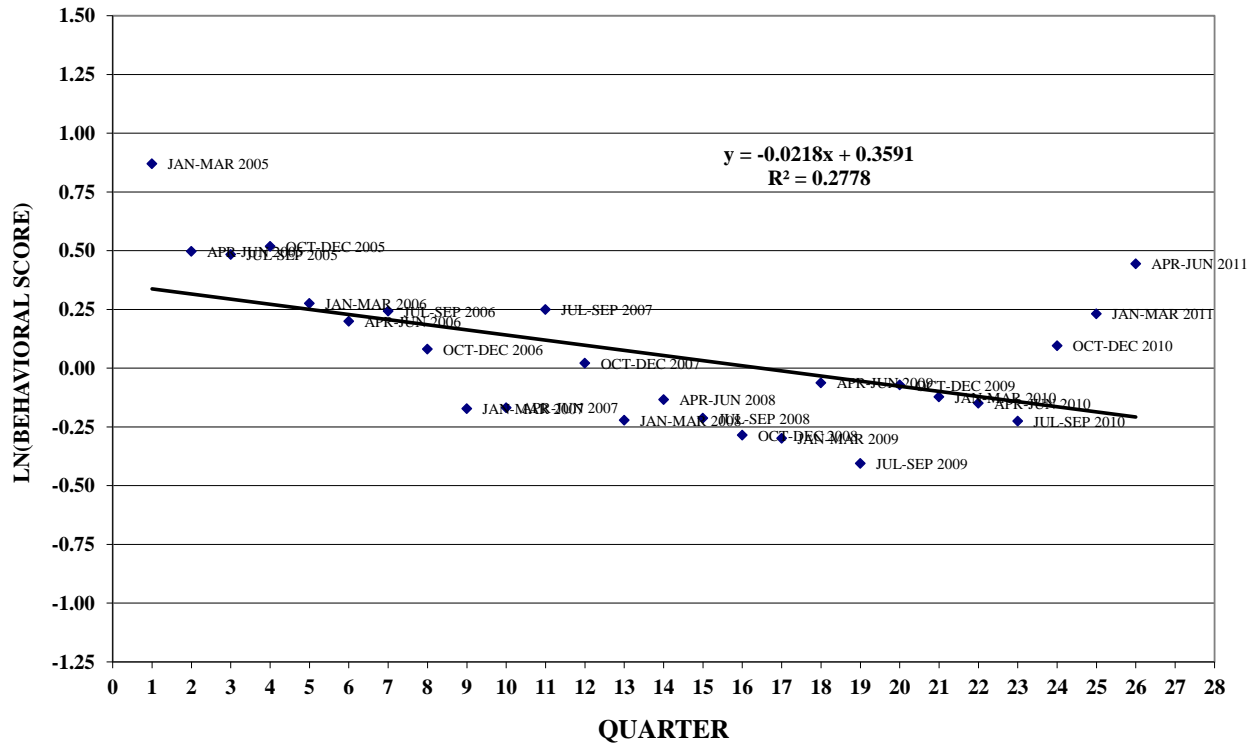


Figure 6

ANNUAL TREND OF INDEX OF COYOTE BOLD AND AGRESSIVE BEHAVIOR AS REPORTED IN THE CITY OF AUSTIN AND TRAVIS COUNTY, TEXAS DECEMBER 2004 - JUNE 2011

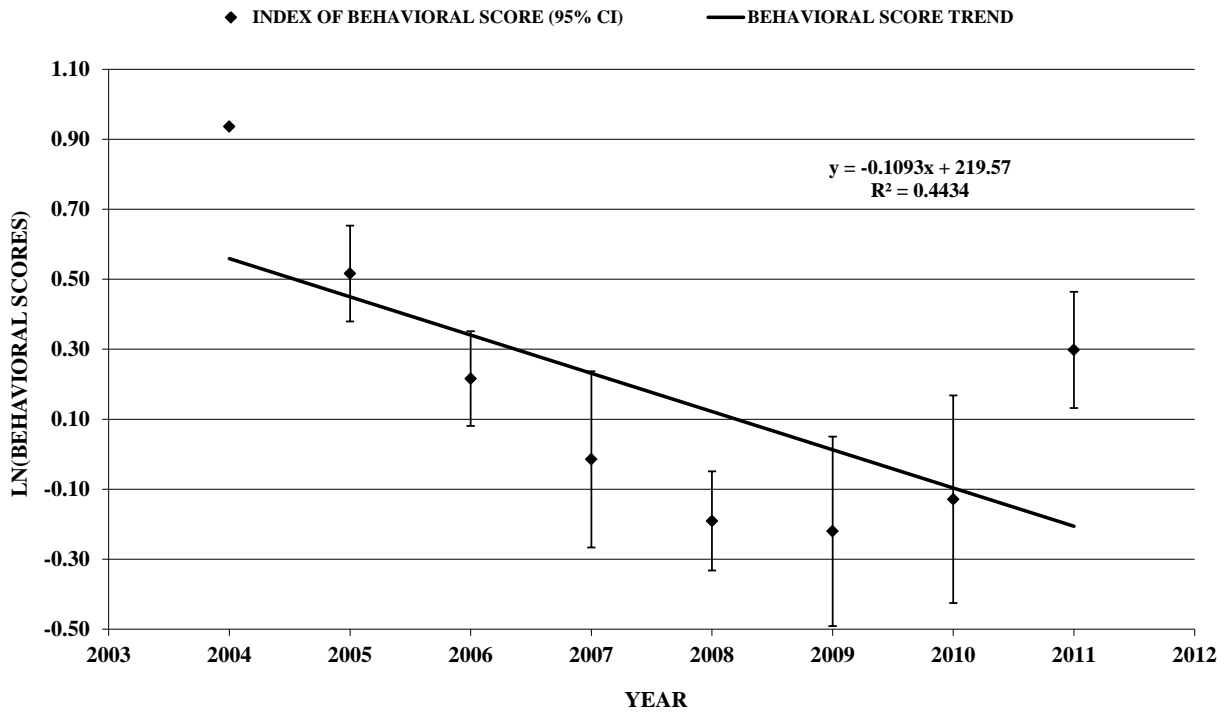
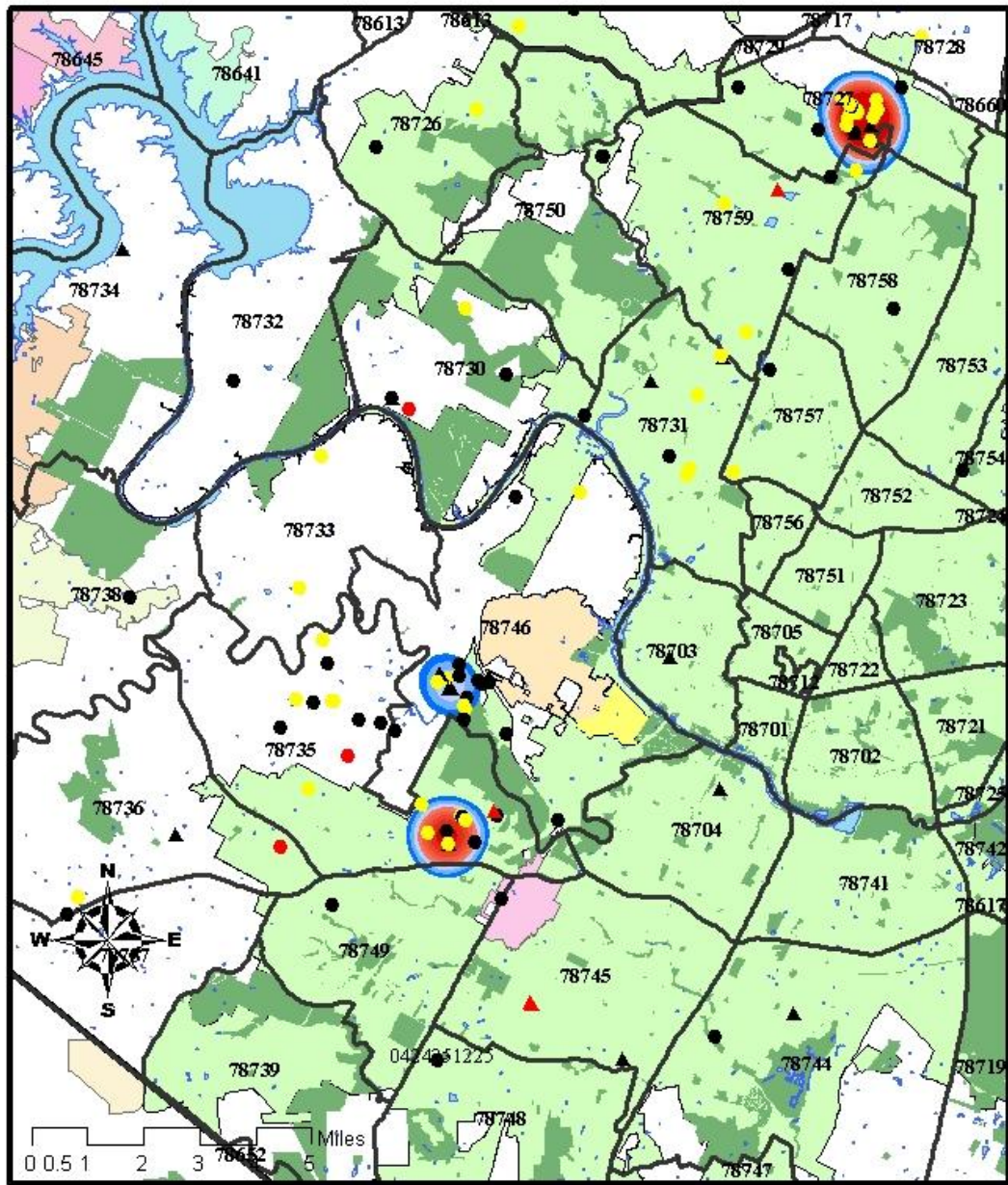


Figure 7

COYOTE 311 CALL INCIDENTS & BEHAVIORAL SCORES AUSTIN, TRAVIS COUNTY, TEXAS: APR - JUN 2011



TEXAS AGRILIFE EXTENSION SERVICE - WILDLIFE SERVICES

BEHAVIORAL SCORE CODE

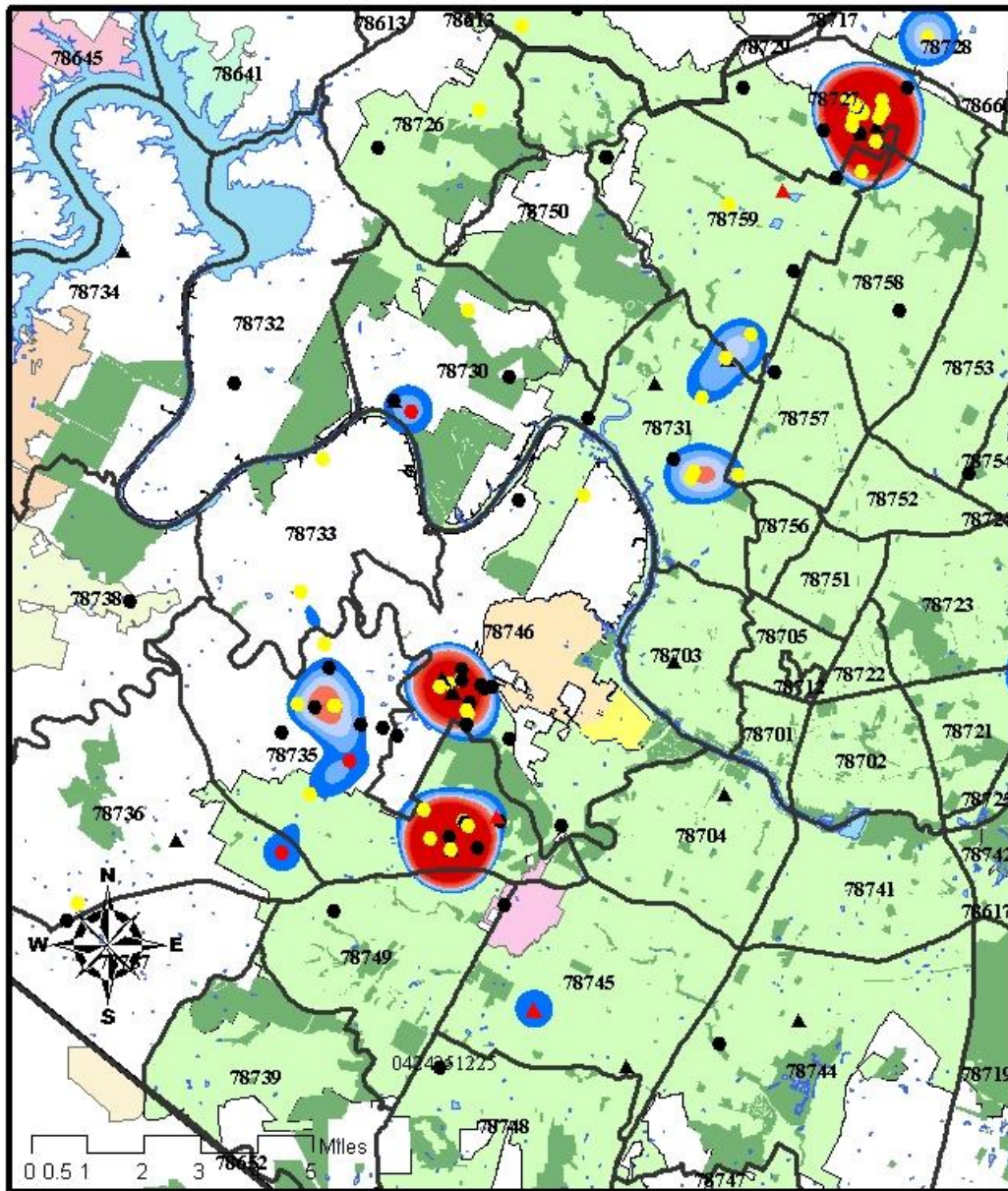
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0 1 2 3 4 5 6 7

RELATIVE BEHAVIOR DENSITY



Figure 8

COYOTE 311 CALL INCIDENTS & BEHAVIORAL SCORES AUSTIN, TRAVIS COUNTY, TEXAS: APR - JUN 2011



TEXAS AGRILIFE EXTENSION SERVICE - WILDLIFE SERVICES

BEHAVIORAL SCORE CODE



CUMULATIVE BEHAVIOR DENSITY



Figure 9

Observed changes in coyote behavior indicating an increasing risk to human safety¹:

Behavioral Score Codes

- 0) Normal or typical coyote behaviors that indicates coyotes may be avoiding humans.
- 1) An increase in observing coyotes on streets and in yards at night
- 2) An increase in observing coyotes approaching adults and/or taking pets at night in yards or in the presence of humans.
- 3) Early morning and late afternoon daylight observance of coyotes on streets and in parks and yards
- 4) Daylight observance of coyotes chasing or taking pets from residential streets or yards.
- 5) Coyotes attacking and taking pets on leash or in close proximity to their owners; coyotes chasing joggers, bicyclists, and other adults
- 6) Coyotes seen in and around children's play areas, school grounds, and parks in mid-day
- 7) Coyotes acting aggressively toward adults during mid-day.

¹ TIMM, R.M., R.O. BAKER, J.R. BENNETT, AND C.C. COOLAHAN. 2004. Coyote attacks: An increasing suburban problem. Transactions North American Wildlife and Natural Resources Conference 69:67-88.