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'Re-discovery' of the Cougar (*Puma concolor*) in East Texas

Daniel M. Brooks* and Jaime Gonzalez

**Houston Museum of Natural Science, Department of Vertebrate Zoology, One Hermann Circle Drive, Houston, Texas 77030-1799 - dbrooks@hmns.org
Katy Prairie Conservancy, 3015 Richmond Ave., Ste. 230, Houston, Texas 77098*

Top carnivores re-colonizing their historical ranges within the contiguous United States has been a repeated pattern within the past two decades. Some examples of such re-colonization events include jaguars (*Panthera onca*) returning to the American Southwest (Rabinowitz 1999), black bears (*Ursus americanus*) to West and East Texas (Hellgren 1993; Garner & Willis 1998), and grizzly bears (*U. horribilis*) and gray wolves (*Canis lupus*) to parts of the Northern Rockies (Berger et al. 2001), among other areas. Even in urban cities such as Houston, Texas, bobcats (*Lynx rufus*) and coyotes (*C. latrans*) have returned to within the city limits in large urban parks (M. Bersche and J. Gonzalez, pers. obs.). This manuscript reports evidence of cougar (*Puma concolor*) re-colonizing its former range in East Texas, ~50 km west of Houston, Texas.

JG photographed tracks of a cougar on 24 January 2007 (Fig. 1) at Nelson Farms Preserve (NFP) in Katy, Waller Co., Texas on property owned and managed by the Katy Prairie Conservancy. NFP contains freshwater wetlands, a heavily wooded riparian corridor along Cypress Creek, a small (~10 Ha), planted pine/oak forest, some coastal prairie remnants, and rice fields. Multiple track impressions were found on the bank of a small irrigation canal in the center of the property (29°54'34.29"N; 95°51'40.80"W) along with tracks of feral hogs (*Sus scrofa*) which perhaps the cougar was stalking. The cougar tracks all lacked claw marks, which would indicate a large dog (*C. familiaris*), despite being found in soft substrate that would easily have produced claw marks. The photograph of the track (Fig. 1) details the rounded to oval shaped toe pads without claw marks, characteristic of a cougar (Brooks 1993; Aranda 1994); the greatest height and width were 90 and 100 cm, respectively.

Sight confirmations of presumably the same cougar were made by various ranch staff who were unaware that we documented the tracks. For example, Texas Parks and Wildlife Department (TPWD) staff Mammalogist John Young reported a phone call in January 2008 he had received from a Katy rancher who saw a cougar on his land and wanted to know if it was legal to shoot it.

As far as we are able to determine, this represents the eastern-most contemporary record of the species in Texas, and perhaps in the United States, with the exception of the relict population endemic to the Florida Everglades (Fergus 1991). Dialogue with Irvin Barnhart (Member of Safari Club International's [SCI] Trophy Records Committee, pers.

comm., 2 October 2008) indicated that he searched SCI's records and found no evidence of East Texas cougars; the majority of SCI's records were from West Texas (Davis Mountains, Brewster and Jeff Davis Co.). The next closest *bona-fide* recent record is a road kill in San Antonio (Bexar Co.) along Interstate 10 around mid-May 2008 (J. Young pers. comm. 19 January 2008).

Cougars probably occurred throughout East Texas prior to settlement by Anglos (Baker 1949). Years of predator control programs eliminated the cougar throughout much of Texas beginning in the late 19th Century (Schmidly 1983; 2002). Such control programs began to diminish around 1970, permitting cougar populations to stabilize (Schmidly 2004), at least in the western portion of the state which has a lower human population density. Bailey (1905) noted that specimens were lacking from East Texas, and was only able to recount anecdotal evidence provided by others.

A search of MaNIS (2008) for *Puma concolor* from Texas, yielded 129 specimens, all collected between 1890-1989, with the majority spanning the mid 1930's to early 1940's. Of these 129 specimens, only a single specimen was from East Texas, as noted by Baker (1949), a skull in the University of Kansas Natural History Museum (KUM 24880).

A literature search, accounted for fewer than 15 records of East Texas cougars in the past 150 years (Table 1). Cougars were scarce in East Texas from the mid 1800's to the mid 1900's, and verified reports were absent until the presently reported case. In addition to our 2007 record from the NFP (Waller Co.), four anecdotal and specimen records (one from 1860, three from mid 1940's) were approximately 75-100 km from the site reported herein; the remaining reports are further away (Table 1).

The recent discovery of this important top predator within its historical range provides hope that more cougars will be located in East Texas in the near future. Potentially hampering the reestablishment of cougars in East Texas is legal hunting of this species throughout the state (Anon. 2009). While the population of cougars in west Texas is more abundant (Anon. 2008), the population in East Texas is clearly too low to sustain hunting pressure of any type. Hunting is the primary factor attributing to cougar mortality (c.f., McKinney et al. 2009). We therefore recommend the state manage annual hunting of East and West Texas cougars discretely, such that populations in the eastern portion of the state are able to increase, and hopefully stabilize with time.

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FIGURE 1--Track of a cougar (*Puma concolor*) from Katy, Harris Co., Texas (photo by J. Gonzalez).



TABLE 1--East Texas cougar records, mid 1800's – mid 1900's

LOCALITY/REGION	COUNTY	CHRONOLOGICAL DATE/NOTES	OBSERVER(S)	SOURCE
^a Tarkington Prairie (near Cleveland)	Liberty	noted a few as a boy in 1860 but none since	A.W. Carter	Bailey, 1905
Brazos Bottoms	McLennan	mid 1800's – mid 1920's, extremely rare by 1926		Strecker, 1926
NI	Tyler	prior to the 1900's	older residents	Baker, 1956
NI	San Augustine	prior to the 1900's	older residents	Baker, 1956
Jefferson (extreme NE Tx)	Marion	prior to 1905	resident	Bailey, 1905
7 Mi. NE Sour Lake (extreme SE Tx)	Hardin	tracks of one individual, winter 1903-04	D. Griffin	Bailey, 1905
Neches River	Angelina	1917 and 1927		Baker, 1956
NI	Jackson	prior to mid 1940's	Mr. Landon	Baker, 1949
NI	^c Wharton	prior to mid 1940's	Mr. Landon	Baker, 1949
NI	^d Brazoria	prior to mid 1940's	Mr. Landon	Baker, 1949
^b Phoenix Dairy pasture, 15 Mi. S Rock Island	Colorado	26 February 1948 (KUM 24880)	Emil Balusek	Baker, 1949
Oak-Hickory forest	Leon	persistent reports during 1950's		McCarley, 1959
Oak-Hickory forest	Brazos	persistent reports during 1950's		McCarley, 1959

NI = no information available

^a ~100 km NE of NFP, Waller Co.

^b ~80 km W of NFP, Waller Co.

^c ~75 km SW of NFP, Waller Co.

^d ~80 km SE of NFP, Waller Co.