ENDANGERED SPECIES SURVEY SUMMARY

FITZHUGH 83 ACRES, TRAVIS COUNTY, TEXAS

PROJECT NO. 171002

MAY 17, 2018

1.0 GENERAL INFORMATION

PROPERTY NAME:	Fitzhugh 83 Acres
SIZE OF PROPERTY:	Approximately 83 acres
COUNTY:	Travis County, Texas
LOCATION:	Located off of Fitzhugh Road, just north of the intersection of US 290 and Fitzhugh Road, in Travis County, Texas (**Figure 1**).
USGS 7.5' QUAD:	Signal Hill, Tex
CLIENT:	Brohn Homes Mr. Adam Boenig
ADDRESS:	6720 Vaught Ranch Rd. Suite 200 Austin, TX 78730
SUBJECT SPECIES:	Golden-cheeked warbler (GCW, *Setophaga chrysoparia*)
HABITAT AREA:	GCW – Approx. 65 acres of potential suitable habitat
SURVEY PERSONNEL:	Jennifer Blair, CWB and Tony Blair, CWB
SURVEY DATES:	Mach 15, 2018 through April 18, 2018 (Table 1)
TOTAL SURVEY TIME:	Approximately sixteen hours and 30 minutes 6 (Table 1)
NUMBER OF VISITS:	Visits made on 5 separate days with at least 5 days between each visit.

2.0 METHODS

This endangered species survey summary covers the approximately 83-acre Fitzhugh Site in southwest Travis County, Texas. Survey methods used spot-mapping techniques and were consistent with U.S. Fish and Wildlife Service (USFWS) protocol for GCW presence/absence surveys (January 13, 2010 version). The compiled track-logs from the GPS receivers are shown in **Figure 3**, and represent the routes walked by survey personnel during the 2017 survey visits.

As shown in **Table 1**, five visits were made to the survey area, with all visits at least 5 days apart. Survey hours exceeded the minimum requirement of one hour per survey visit for 25 acres of potential habitat required for a complete survey. Weather conditions were acceptable for completing field surveys. Survey visits began within 30 minutes of sunrise or within 7 hours after sunrise.

Field observations were recorded with Garmin GPS Map 76CSx receivers and / or Avenza Map Application for iPhones, both capable of 3-meter accuracy. Audio tapes were used after the completion of the 5th visit to confirm absence within the survey area and surrounding vicinity. Survey personnel are covered by USFWS permit TE-841353-1.

TABLE 1. SURVEY DATES, DURATION, PERSONNEL, & WEATHER CONDITIONS FOR THE 2018 FITZHUGH 83-AC GCW P/A SURVEY.

DATE	TIME			TEMP (°F)		WIND DIRECTION		WIND SPEED (MPH)		CLOUD COVER (PERCENT)		PERSONNEL / COMMENTS
	START	END	TOTAL HRS	START	END	START	END	START	END	START	END	
3/15/18	6:50	9:35	2:45	52	57	S	S	2-4	5-7	0	0	J. Blair
3/15/18	6:50	9:35	2:45	52	57	S	S	2-4	5-7	0	0	T. Blair
3/21/18	6:50	9:45	2:55	44	56	SE	SE	0-1	5-6	0	0	J. Blair
3/27/18	6:53	9:33	2:40	69	73	SE	SSE	0-5	0-7	85	50	T. Blair
4/5/18	8:05	10:45	2:40	60	70	SSE	E	0-2	2-8	100	95	T. Blair
4/18/18	6:30	9:00	2:45	66	68	S	WNW	5-7	5-7	100	100	J. Blair playbacks performed after completion of 5th survey
Total Survey Time:			**16:30**									

3.0 HABITAT ASSESSMENT

Juniper-oak woodlands were dominated by Ashe juniper (*Juniperus ashe*i, in a variety of age-classes) and plateau live oak (*Quercus fusiformis*). The average overstory canopy cover for woodland areas (based on a visual estimate from field visit) was approximately 30 to 70 percent. Understory woody vegetation was composed primarily of bushy Ashe juniper, Texas persimmon, agarito, and other shrubs. Within the Property, dense mature stands of Ashe juniper were limited to areas in which prior land management and clearing activities had not appeared to have been implemented as intensely as across other portions of the Property. Other tree canopy species observed in the dense woodlands included cedar elm, American elm, mesquite, hackberry, and huisache.

The canopy in these dense woodland areas was typically taller than 15 feet and in some areas exhibited canopy cover greater than 50 percent closure. Evidence of previous vegetation management was present throughout, and included the presence of burned and charred stumps, cut tree limbs, brush piles, and large areas of selective juniper removal. The general size and stature of most of the trees in the dense woodlands, combined with the multiple observations of cut or burned stumps and stems, suggest that these woodlands have been thinned, partially cleared, and/or extensively manipulated within the last 10 to 65 years. Additionally, the majority of Ashe juniper trees observed on the Property had diameters greater than 8 inches. The Ashe juniper woodlands within the Property included mature individuals with peeling bark. Some of this mature juniper was in a multi-stemmed, bushy form that suggested that some areas had been cleared in the past. Other areas included a higher proportion of larger juniper trees with taller, single trunks that may represent older-growth individuals.

Ashe juniper, Texas pricklypear, catclaw mimosa, persimmon, agarito, basketgrass, flameleaf sumac, and numerous grasses and forbs were present among the oaks motts. Average canopy cover in the op

Based on field observations and recent aerial images, the Property does contain characteristics of potential suitable habitat for the golden-cheeked warbler as described by Campbell (2003). Overall, the mature woodland areas across the Property contain the vegetative characteristics necessary to support the habitat requirements for the golden-cheeked warbler. Much of the Property contained patches of mature woody vegetation dominated by regrowth Ashe juniper with an average dbh of approximately 8 inches. In the wooded areas, Ashe juniper was often dominant, and contained peeling bark. The woodlands within the Property overall contained the tree species and canopy cover density necessary to support the golden-cheeked warbler. Therefore, it is possible that the vegetation types present within the Property may be used by the golden-cheeked warbler.

The topography on the Property is generally level with gentle to moderate slopes. With a few exceptions, such as along areas associated with hunting activities, potential GCW habitat occurs throughout the Property, although impacts from past large scale land clearing activities were observed throughout.

Approximately 60 to 75 acres of potentially suitable GCW habitat occurs within the approximately 83-acre Property and habitat characteristics observed throughout the Property during the field investigation was generally consistent with the descriptions of potential GCW habitat provided in Campbell (2003).

4.0 RESULTS

The results of the GCW presence/absence survey are shown in Figure 3 and Figure 4. No GCW were detected during the presence/absence surveys or during the playback visit within the Property. A total of 7 GCW detections were made during the surveys. All observations were of male GCWs and located outside of the Property. All observations were imprecisely located, recorded with GPS units in the field, and located on adjacent private property.

Based on the observations mapped in Figure 4, we estimate that these observations were associated with up to two males using the properties in the vicinity of the Property with no male GCW territories occurring within the Property. We were unable to determine the complete territories for the two individual males due to the lack of access to the adjacent private property and absence of observations within the Property, in addition to the low number of observations during the survey period.

Based on the lack of observations, absence of contiguous suitable habitat within the Property surrounding the GCW detections on the adjacent property, overall small patch size, previous manipulation and removal of vegetation, as well as adjacent land uses, no GCW territories would be expected within the Property. This is further supported from the occurrence of GCW within suitable habitat within the surrounding vicinity, and no occurrence or utilization of the Property by the GCW.

Other bird species observed during the 2018 GCW survey are listed in **Table 2**.

TABLE 2. BIRDS OBSERVED ON THE FITZHUGH-83 ACRE SITE (SPRING 2018).

COMMON NAME	SCIENTIFIC NAME
Ash-throated flycatcher	*Myiarchus cinerascens*
Bewick's wren	*Thryomanes bewickii*
Black vulture	*Coragyps atratus*
Black-and-white warbler	*Mniotilta varia*
Black-chinned hummingbird	*Archilochus alexandri*
Black-crested titmouse	*Baeolophus atricristatus*
Barn swallow	*Hirundo rustica*
Bell's vireo	*Vireo bellii pusillus*
Black-bellied whistling duck	*Dendrocygna autumnalis*
Blue jay	*Cyanocitta cristata*
Blue-gray gnatcatcher	*Polioptila caerulea*
Brown-headed cowbird	*Molothrus ater*
Canyon wren	*Catherpes mexicanus*
Carolina chickadee	*Poecile carolinensis*
Carolina wren	*Thryothorus ludovicianus*
Cedar waxwing	*Bombycilla cedrorum*
Chipping sparrow	*Spizella passerina*
Common raven	*Corvus corax*
Eastern bluebird	*Sialia sialis*
Eastern meadowlark	*Sturnella magna*

TABLE 2. BIRDS OBSERVED ON THE FITZHUGH-83 ACRE SITE (SPRING 2018).

COMMON NAME	SCIENTIFIC NAME
Eastern phoebe	*Sayornis phoebe*
Eastern towhee	*Pipilo erythrophthalmus*
Field sparrow	*Spizella pusilla*
Golden-cheeked warbler	*Setophaga chrysoparia*
Golden-fronted woodpecker	*Melanerpes aurifrons*
Grasshopper sparrow	*Ammodramus savannarum*
Great horned owl	*Bubo virginianus*
Greater roadrunner	*Geococcyx californianus*
Great-crested flycatcher	*Myiarchus crinitus*
Great-tailed grackle	*Quiscalus mexicanus*
Grey catbird	*Dumetella carolinensis*
Hermit thrush	*Catharus guttatus*
House finch	*Carpodacus mexicanus*
House sparrow	*Passer domesticus*
Ladder-backed woodpecker	*Picoides scalaris*
Lark sparrow	*Chondestes grammacus*
Lesser goldfinch	*Carduelis psaltria*
Lincoln sparrow	*Melospiza lincolnii*
Loggerheaded shrike	*Lanius ludovicianus*
Mourning dove	*Zenaida macroura*
Nashville warbler	*Leiothlypis ruficapilla*
Northern bobwhite	*Colinus virginianus*
Northern cardinal	*Cardinalis cardinalis*
Northern mockingbird	*Mimus polyglottos*
Orange-crowned warbler	*Vermivora celata*
Red-eyed vireo	*Vireo olivaceus*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
Rock dove	*Columba livia*
Rufous-crowned sparrow	*Aimophila ruficeps*
Savannah sparrow	*Passerculus sandwichensis*
Summer tanager	*Piranga rubra*
Turkey vulture	*Cathartes aura*
Western scrub-jay	*Aphelocoma californica*
White-eyed vireo	*Vireo griseus*

TABLE 2. BIRDS OBSERVED ON THE FITZHUGH-83 ACRE SITE (SPRING 2018).

COMMON NAME	SCIENTIFIC NAME
White-winged dove	*Zenaida asiatica*
Wild turkey	*Meleagris gallopavo*
Yellow warbler	*Setophaga petechia*
Yellow-billed cuckoo	*Coccyzus americanus*
Yellow-rumped warbler	*Setophaga coronata*

5.0 REFERENCES

Campbell, L. 2003. Endangered and threatened animals of Texas – Their life history and management. Texas Parks and Wildlife Department, Wildlife Division. Austin, Texas. 127 pp.

6.0 ATTACHMENTS

FIGURE 1.	Location of the Study Area
FIGURE 2.	2016 NAIP Aerial Image
FIGURE 3.	Routes walked during the 2017 GCW Survey
FIGURE 4.	Results of the 2018 GCW Survey (USGS Topographic Map)
FIGURE 5.	Results of the 2018 GCW Survey (2016 NAIP Aerial Imagery)

7.0 SIGNATURES

This report was prepared in conformance with the methods and limitations described herein by a certified wildlife biologist at Blair Wildlife Consulting, LLC. permitted through USFWS and TPWD to perform habitat assessments and surveys for federal and state listed endangered or threatened species. The findings of this assessment are completely and accurately documented in this report.

PREPARED AND APPROVED BY:



SIGNATURE

JENNIFER BLAIR, CWB
PRINCIPAL BIOLOGIST
PRINTED NAME

MAY 17, 2018
DATE

FIGURE 1

LOCATION OF THE PROPERTY

FITZHUGH 83 ACRES
2018 GCW PRESENCE/ ABSENCE SURVEY SUMMARY

0 500 1,000
FEET

FITZHUGH 83

UNNAMED STREAM

NAMED STREAM

OPEN WATER

BWC
BLAIR WILDLIFE CONSULTING

FIGURE 2

2016 NAIP AERIAL IMAGE

FITZHUGH 83 ACRES
2018 GCW PRESENCE/ ABSENCE SURVEY SUMMARY

0 150 300

FEET

FITZHUGH 83 ACRES

UNNAMED STREAM

NAMED STREAM

NHD WATERBODY

ROADS

TCAD PARCELS

2-FT CONTOURS

HILLSIDE

HILLSIDE

Grape Creek

TANGLE RIDGE

CIRCLE

FITZHUGH

BWC

BLAIR WILDLIFE CONSULTING

FIGURE 3

SURVEY ROUTES

FITZHUGH 83 ACRES
2018 GCW PRESENCE/ ABSENCE SURVEY SUMMARY

0 150 300

FEET

FITZHUGH 83 ACRES

2018 GCW P/A SURVEY ROUTES

UNNAMED STREAM

NAMED STREAM

NHD WATERBODY

ROADS

TCAD PARCELS

2-FT CONTOURS

HILLSIDE

HILLSIDE

Grape Creek

TANGLE RIDGE

CIRCLE

FITZHUGH

BWC

BLAIR WILDLIFE CONSULTING

FIGURE 4

SURVEY RESULTS

FITZHUGH 83 ACRES
2018 GCW PRESENCE/
ABSENCE SURVEY
SUMMARY

0 500 1,000
FEET

FITZHUGH 83 ACRES

2018 GCW
OBSERVATIONS

UNNAMED STREAM

NAMED STREAM

NHD WATERBODY

ROADS

TCAD PARCELS

2-FT CONTOURS

BWC
BLAIR WILDLIFE CONSULTING

FIGURE 5

SURVEY RESULTS

FITZHUGH 83 ACRES
2018 GCW PRESENCE/ ABSENCE SURVEY SUMMARY

0 200 400

FEET

FITZHUGH 83 ACRES

2018 P/A SURVEY OBSERVATIONS

SURVEY DATE / SEX

G MARCH 15, 2018; MALE GCW

G MARCH 21, 2018; MALE GCW

G MARCH 27, 2018; MALE GCW

G APRIL 5, 2018; MALE GCW

UNNAMED STREAM

NAMED STREAM

NHD WATERBODY

ROADS

TCAD PARCELS

2-FT CONTOURS

BWC
BLAIR WILDLIFE CONSULTING