2001 BOTANICAL REPORT FOR BALCONES CANYONLANDS PRESERVE





Travis County Parks and Natural Resources

Project Number 0905-01907

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INTRODUCTION

Plant species of concern under the Balcones Canyonlands Conservation Plan for Travis County Balcones Canyonland Preserve (BCP) properties include texabama croton (*Croton alabamensis var. texensis*) and canyon mock-orange *(Philadelphus ernestii).* Non-native and invasive plant species currently managed on BCP tracts include common fig *(Ficus carica),* johnsongrass *(Sorghum halpense),* chinaberry *(Melia azerdarach)* and heavenly bamboo *(Nandina domestica).* Control of non-native species has been and will be conducted at various Travis County BCP properties and parks. On properties where found, various control methods to eradicate non-native species will be used including manual, chemical, and prescribed burns. Many properties have a multitude of non-native species and all Travis County BCP lands will be searched for exotic species. When found they will be assessed for their degree of invasiveness and dealt with accordingly. These situations will be documented in the normal course of Tier III Land Management Plan.

SPECIES OF CONCERN

Texabama Croton

Previously mapped/surveyed colonies (Sep. 1996, Sep./Oct. 2000, **Figure 1**) were observed to be healthy, however no formal survey was conducted in 2001. In 2000, a survey was conducted to locate and map known colonies (**Table 1**). During this search, nine new colonies were discovered. Most previously mapped 1996 colonies were observed to be healthy. Overall, seven colonies had an increase in individuals and six others had a decrease in individuals. One colony was lost possibly due to the 1997 flood. Another colony had significantly fewer individuals than mapped in 1996, due to a prescribed burn in 1999 that resulted in reduction of individuals. An informal search was conducted in 2001 at Pace Bend Park in an area where no texabama croton were previously found. This area was in an elevation range from approximately 700 feet to 750 feet where known colonies tend to occur. However, no new species were located.

Protection of texabama croton is enhanced through park staff education and training. This includes familiarizing staff with colony locations and how best to protect them. In 2002,all colonies will be mapped using GPS and will continue to be monitored and surveyed.

Canyon mock-orange

In previous years (1996 and 1998, **Figure 2**), this species was mapped and surveyed at Hamilton Pool Preserve. In 2001, canyon mock-orange was monitored and observed throughout the year, but no survey was conducted.

Protection of species is achieved through enforcement of preserve rules, which require visitors to walk only on the designated hiking trail. The majority of individual plants are located off trail in protected areas. Hamilton Pool Preserve staff are also educated about species and how best they can help protect them. In 2002, all colonies will be mapped using GPS. Species will also continue to be monitored and surveyed.

NON-NATIVE SPECIES

In 2001, johnsongrass and common fig were both found at Hamilton Pool Preserve. There are four known colonies of johnsongrass, only one was hand cleared by the root system in 2001. There is one known colony of common fig. In 2001 and in previous years, this species was cut to ground level. Due to the proximity to sensitive areas, chemical controls have not been used. However chemical controls will be researched and possibly used in the future if found safe. In 2001, chinaberry was hand cut from the Jollyville Unit on the Bunten, Vireo Ridge, and Lake Perspectives tracts. In 2002, manual and chemical controls will continue to be used in all BCP properties where chinaberry is found. Heavenly bamboo was removed from Lake Perspectives tract through hand cutting. Heavenly bamboo is also found on many other Travis County BCP properties. Staff will begin to remove species through manual and/or chemical controls. The Bunten tract, purchased in January 2001, will be a priority in the upcoming year due to an abundance of invasive non-native species. The areas especially affected are adjacent to the two uninhabited residences and surrounding outbuildings, and occupy approximately two acres.

RECOMMENDATIONS

- Begin collecting baseline data on rare and non-native species on all presently owned and newly purchased properties. BCP properties will be prioritized for removal of exotics. Any unusual species found will be assessed for degree of rarity and protected as needed.

- The Bunten tract- The following will be targeted for removal: periwinkle *(Vinca major)*, common chaste-tree *(Vitex agnus-castus)*, common fig *(Ficus carica)*, chinaberry *(Melia azerdarach)*, and Lady Bank's rose *(Rosa banksiae)*. These exotics are invasive and thus will be targeted for eradication in 2001, although other non-natives do exist on this tract. Control methods that will be employed are both manual and chemical. There are special

concerns in using chemical applications due to the proximity of an intermittent creek, which contains populations of Jollyville Plateau salamanders *(Eurycea tonkawae)* a species of special concern. Any chemicals used will be first researched before application.

- On the Vireo Ridge and Lake Perspectives tracts, chinaberry will begin to be removed.

FIGURES



Figure 1. Pace Bend Texabama Croton colony locations, Pace Bend Park, Travis County, Texas, 2001.

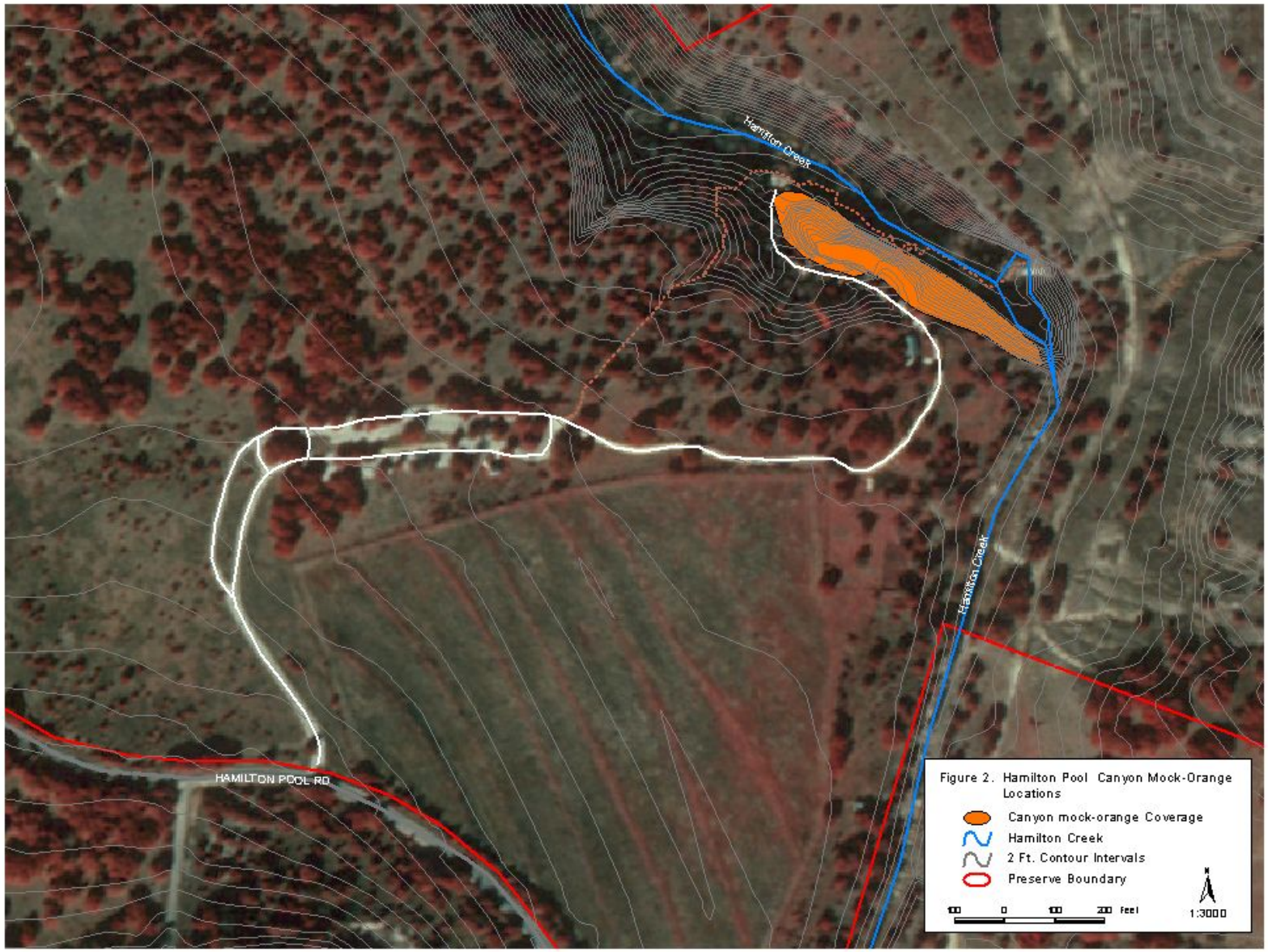


Figure 2. Hamilton Pool Canyon-mock orange locations, Hamilton Pool Preserve, Travis County, Texas, 2001.

TABLES

Table 1. Results of September 2000 general survey of Texabama croton (*Croton alabamensis var. texensis)* at Pace Bend Park

Colony	Previous Results*	2000 survey	Difference	Comments
1[1]	3 of 4/ 0 of 5	10	+10	This colony was not mapped after 1996. Five new plants were located in 2000.
2	3	13	+10	Carr's three individuals found and an additional 10 were located to the East. All plants showed substantial insect damage.
3	4	3	-1	These had been incorrectly mapped. One plant could not be located.
4	2	4-5	+2-3	These had been incorrectly mapped. Two or three new plants (<1' in height) discovered.
5	15	28+	+13(+)	Colonies 5,6 and 7 are essentially one entire colony stretching from the RV camping area to Bathroom 11
6	9	at least 9	n/a	See comment above
7	50	n/a	n/a	Due to the colony's size, exact numbers were not determined but rather the area covered was re-evaluated so that corrections could be made to original map.
8	3	3	0	Colony had been incorrectly mapped on the wrong side of Grisham Trail.
9	2	0	-2	Plants are no longer present. Possibly destroyed in the June 1997 flood. New colony located (see #23) at a higher elevation.
10	29	0	-29	Colony most likely destroyed in '97 flood
11	1	2	+1	Two plants in close proximity (may be one plant)
12	53	180-200 estimated	+130	This colony had more plants than described in '96. A rough estimate was made due to quantity. Additional plants located to the west across a dirt road. Additional colony (#26) located to the south.
13	2	2	0	These were mapped incorrectly.
14	1	0	-1	Possibly lost in the 1997 flood.
15	6	12	+6	Carr described five sub-colonies. Several new plants were located.
16	1	1	0	No change
17	1	1	0	No change
18	3	2	-1	Third plant not located. New colonies were discovered to the NE (#'s 27 & 28)
19	1	1	0	No change
20	new(57)	13	-44	Discovered in '98/'99 (K. Terpening) and allowed to burn during a 1999 prescribed burn.
21	new(25)	17+	n/a	Discovered in '98/'99; was protected from the prescribed fire. Dense understory hampered an accurate count.
22	New	6	n/a	Discovered previously by P. Fushille and T. Siegenthaler, but never mapped. General measurements: 2@ 2', 1@ 4.5' and 3@ 1'
23	New	2	n/a	Discovered during search for colony 9. Estimated measurements: 1' and 1.5'
24	New	1	n/a	~1.5' found NE of colony 22 and SW of colony 2

25	New	4-7	n/a	Found in Shady Grove camping area 45' east of Grisham Trail. Group A with three (or one with multiple shoots) ~2.5' plants and Group B with four plants (2.5' and 3, <1') 50' from Group A at 145°
26	New	9	n/a	SW of colony 12; Estimated measurements: 6', 2 @ 3', 2 @ 1.5' and 4, <1'
27	New	1	n/a	3.5' plant on east side of FM2322 across from Colony 26 and 40' west of powerline
28	New	12-14	n/a	180° and ~140' from #27 on east side of powerlines; Estimated measurements: 6.5', 3.5', 3', 1.5' and 8-10 <1'

***** Colonies 1-19 based on W.R. Carr's 1996 Texabama croton survey
Colonies 20 and 21 located by Kristin Terpening in 1999
Colonies 22-28 were located in September/October 2000 by Wes Bailey and Paul Fushille

[1] 9 plants in 2 groups (4 and 5 in quantity) were located in 1993 by DLS Associates or LCRA staff. Carr only found 3 of 4 of the first group in '96. All 4 of group 1 and 1 of 5 plants in group 2 were located in 2000. 5 additional plants were also located in 2000