



Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 1st Quarter 2017

Environmental News

Florida Burrowing Owls have been up listed to Threatened

On January 11th 2017 the Florida burrowing owl has been reclassified as threatened in the state of Florida by the Florida Fish and Wildlife Conservation Commission. While not much has changed regarding the law (taking, possessing, or selling burrowing owls, their nests (burrows), or eggs is prohibited without a permit (68A-27 F.A.C.)). Harassing the owls and causing harm to them are also still prohibited. There have been some amendments to their protection. Most notably, the increased buffer zone around burrow sites. Up from a formerly recognized 10 foot radius to a 33 foot radius. In addition to that, a mitigation element is now required in the permitting process. Mitigation can be either on site mitigation (such as a starter burrow) or monetary donations to help conserve the owls and their habitat. Other mitigation approaches are possibilities and are determined during the permitting process.

Burrowing owls, eggs and young are also protected by the Federal Migratory Bird Treaty Act. For more information, please visit myfwc.com and look under species profiles.

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Questions? Comments? Let us know!

(239)574-0785

Harry: hphillips@capecoral.net

Katie: kmcbride@capecoral.net

Native Plant profile

Tampa Verbena *Verbena tamensis*

Tampa Verbena, *Verbena tamensis*, sometimes referred to as *Glandularia tamensis*, is a low growing (1-2 feet) herb that does well in full sun. Tampa verbena will do well in a variety of soil types, including the sandy well drained soils of Southwest Florida.

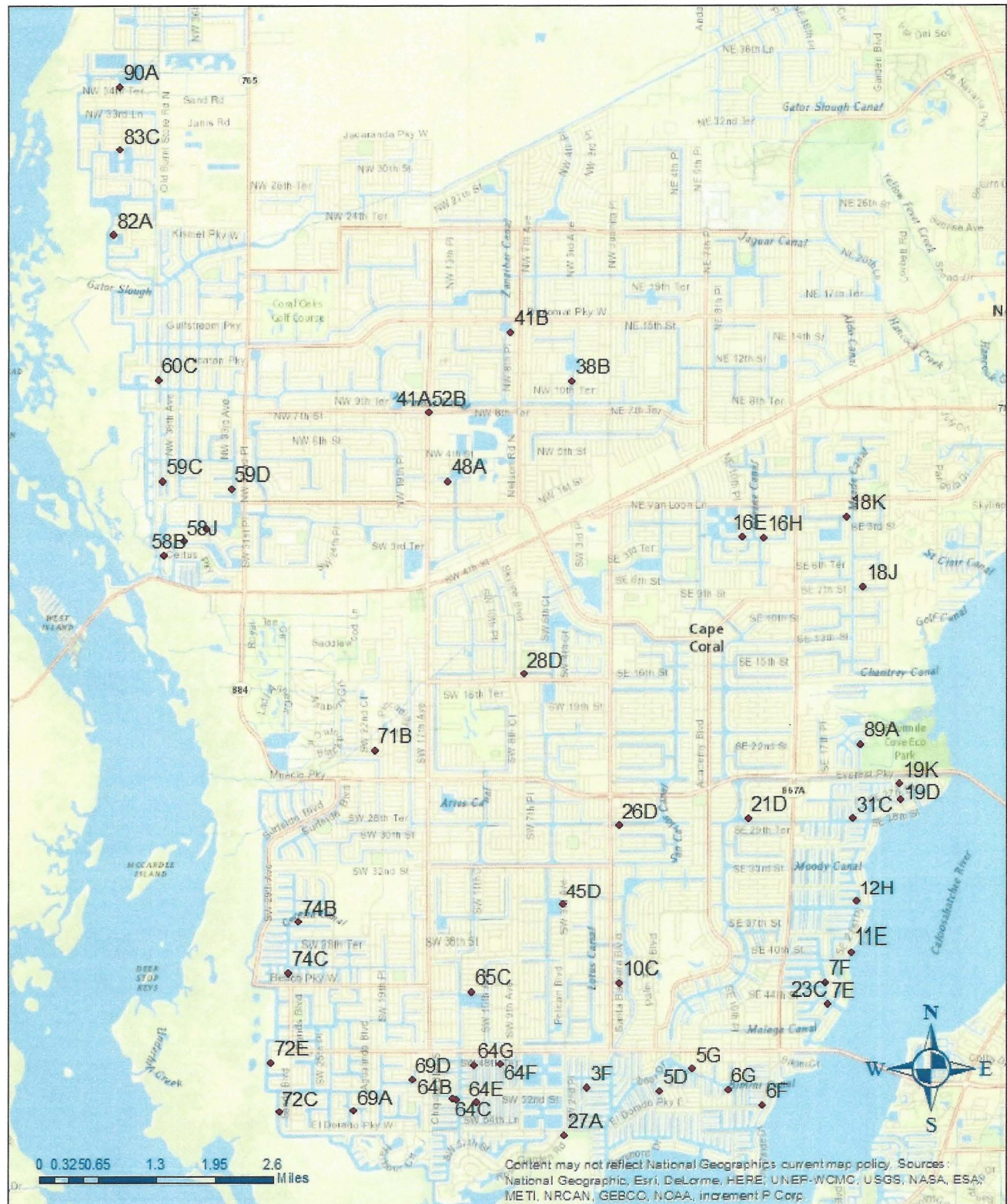
Tampa verbena is endemic to Florida and has become threatened or endangered in many counties throughout Florida where it once flourished. Most likely due to habitat loss and land use changes in many of Florida's coastal communities. Some hybridization has also occurred with this species because of introduced varieties for landscape use, which has also contributed to its loss.

This native variety may not be as eye-catching as the nonnative varieties found in nurseries. Nevertheless, the home gardener can be at ease knowing they have a real Florida native in their landscape if they choose the Tampa verbena.



Tampa verbena (Photo courtesy of Florida Atlas of Vascular Plants)

Current Canalwatch Stations



Canalwatch Extra Field Data 1st Quarter 2017

90A	Jan	Feb	Mar
DO	5.2	5.2	4.6
pH	8.0	7.9	8.0
Temp	23	17	24
Sal	20	25	-

59D	Jan	Feb	Mar
DO	4.6	-	5.3
pH	7.8	-	8.0
Temp	24	-	24
Sal	23	-	-

59C	Jan	Feb	Mar
DO	-	8.8	7.7
pH	-	7.8	7.8
Temp	-	19.9	24.2
Sal	-	28	30

64E	Jan	Feb	Mar
DO	6.1	5.9	-
pH	8.0	7.9	-
Temp	23	20	-
Sal	26	26	-

74B	Jan	Feb	Mar
DO	6.4	7.6	-
pH	8.0	8.0	-
Temp	23	20	-
Sal	5	8	-

74C	Jan	Feb	Mar
DO	7.8	6.4	-
pH	8.2	8.6	-
Temp	24	23	-
Sal	6	18	-

72C	Jan	Feb	Mar
DO	3.4	4.3	3.5
pH	8.2	8.0	8.0
Temp	23	17	24
Sal	10	10	10

69A	Jan	Feb	Mar
DO	5.05	6.05	5.10
pH	8.0	7.8	7.8
Temp	24	19	24
Sal	-	-	10

26D	Jan	Feb	Mar
DO	4.2	-	-
pH	7.8	-	-
Temp	23.5	-	-
Sal	14	-	-

	Full Name	Units
DO	Dissolved Oxygen	mg/L
pH	pH	-
Temp	Temperature	°C
Sal	Salinity	ppt

DO values that are below the state standard of 4 mg/L are highlighted in yellow.

bd = below detection

benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.

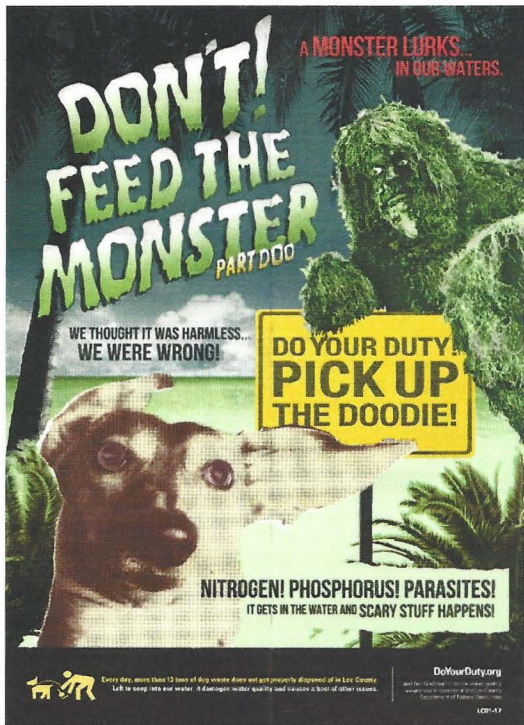
	January 2017						February 2017						March 2017						
	NO2	NO3	NH3	TKN	T-N	T-PO4	NO2	NO3	NH3	TKN	T-N	T-PO4	NO2	NO3	NH3	TKN	T-N	T-PO4	Avg
	<1.0	<1.0	none set	<2.0	<0.46		<1.0	<1.0	none set	<2.0	<0.46		<1.0	<1.0	none set	<2.0	<0.46		TSI
5D	bd	bd	0.05	0.05	0.1	0.04	bd	bd	0.05	0.05	0.1	0.04	bd	bd	0.1	0.1	0.1	0.02	29.65
5G													bd	bd	0.1	0.2	0.2	0.02	46.96
6F	bd	bd	0.3	0.4	0.4	0.05	bd	bd	0.05	0.5	0.5	0.08	bd	bd	0.1	0.1	0.1	0.04	38.18
6G													bd	bd	0.05	0.05	0.05	0.04	46.96
7E	bd	bd	0.3	0.3	0.3	0.04	bd	bd	0.05	0.1	0.1	0.06	bd	bd	0.1	0.1	0.1	0.03	17.66
7F	bd	0.06	0.2	0.2	0.2	0.05													38.21
10C	bd	bd	0.2	0.2	0.2	0.04	bd	bd	0.05	0.05	0.1	0.04	bd	bd	0.05	0.1	0.1	0.01	24.13
11E	bd	bd	0.3	0.3	0.3	0.06	bd	bd	0.05	0.1	0.1	0.06	bd	bd	0.05	0.1	0.1	0.04	21.28
12H							bd	bd	0.05	0.1	0.1	0.06	bd	bd	0.05	0.1	0.1	0.04	21.29
16E	bd	bd	0.2	0.2	0.2	0.03	bd	bd	0.05	0.1	0.1	0.02	bd	bd	0.3	0.4	0.4	0.05	24.13
16H	bd	bd	0.3	0.3	0.3	0.03	bd	bd	0.05	0.2	0.2	0.02	bd	bd	0.05	0.3	0.3	0.01	32.51
18J	bd	bd	0.3	0.3	0.3	0.03	bd	bd	0.05	0.1	0.1	0.02	bd	bd	0.1	0.2	0.2	0.05	36.79
18K													bd	bd	0.05	0.3	0.3	0.01	45.49
19D	bd	bd	0.05	0.1	0.1	0.06	bd	bd	0.05	0.1	0.1	0.07	bd	bd	0.05	0.1	0.1	0.04	16.18
19K	bd	bd	0.4	0.7	0.7	0.10	bd	bd	0.05	0.1	0.1	0.07	bd	bd	0.2	0.2	0.2	0.05	28.28
21D	bd	bd	0.4	0.8	0.8	0.05	bd	bd	0.05	0.1	0.1	0.04	bd	bd	0.2	0.2	0.2	0.03	38.55
23C							bd	bd	0.05	0.1	0.1	0.02	bd	bd	0.05	0.05	0.05	0.05	10.41
26D	bd	0.06	0.2	0.2	0.2	0.04													42.75
27A							bd	bd	0.05	0.9	0.9	0.03							46.96
27B							bd	bd	1.7	2.6	2.6	0.10							27.47
27C							bd	0.06	0.1	1.7	1.7	0.08							32.70
28D	bd	0.05	0.05	0.05	0.1	0.03	bd	bd	0.05	0.2	0.2	0.02	bd	bd	0.1	0.4	0.4	0.01	27.58
31C	bd	0.12	0.3	0.3	0.3	0.02							bd	bd	0.05	0.1	0.1	0.05	22.57
38B	bd	bd	0.3	0.3	0.3	0.06	bd	bd	0.05	0.3	0.3	0.04	bd	bd	0.05	0.2	0.2	0.01	46.98
41A							bd	bd	0.05	0.1	0.1	0.02	bd	bd	0.05	0.4	0.4	0.01	17.42
41B	bd	0.05	0.2	0.2	0.2	0.02	bd	bd	0.05	0.1	0.1	0.01	bd	bd	0.05	0.3	0.3	0.01	29.51
45D							bd	bd	0.05	0.1	0.1	0.03	bd	bd	0.05	0.5	0.5	0.01	24.43
48A	bd	0.44	0.1	0.1	0.1	0.02	bd	bd	0.05	0.5	0.5	0.01	bd	bd	0.05	0.1	0.1	0.05	28.06
52B							bd	bd	0.05	0.3	0.3	0.06	bd	bd	0.05	0.3	0.3	0.05	32.16
58B							bd	bd	0.05	0.1	0.1	0.04	bd	bd	0.05	0.1	0.1	0.02	22.49
58I	bd	bd	0.2	0.2	0.2	0.04	bd	bd	0.05	0.1	0.1	0.03	bd	bd	0.1	0.3	0.3	0.01	30.54

58J							bd	bd	0.05	0.1	0.1	0.05	bd	bd	0.1	0.4	0.4	0.01	31.47
59C	bd	bd	0.4	0.4	0.4	0.03	bd	bd	0.05	0.1	0.1	0.03	bd	bd	0.05	0.1	0.1	0.01	30.26
59D	bd	bd	0.6	0.8	0.8	0.03	bd	bd	0.05	0.1	0.1	0.04	bd	bd	0.05	0.2	0.2	0.02	39.47
64B	bd	0.05	0.05	0.1	0.1	0.05	bd	bd	0.05	0.1	0.1	0.05	bd	bd	0.05	0.1	0.1	0.02	39.56
64E	bd	0.06	0.05	0.1	0.1	0.06	bd	bd	0.05	0.1	0.1	0.04							39.81
64F	bd	bd	0.1	0.1	0.1	0.06	bd	bd	0.05	0.1	0.1	0.05	bd	bd	0.05	0.1	0.1	0.02	10.41
64G	bd	0.07	0.05	0.1	0.1	0.05													39.56
65C	bd	bd	0.1	0.1	0.1	0.06							bd	bd	0.1	0.3	0.3	0.02	22.57
69A	bd	bd	0.8	0.9	0.9	0.05	bd	bd	0.05	0.4	0.4	0.07	bd	bd	0.05	0.1	0.1	0.06	34.13
69D	bd	bd	0.4	0.4	0.4	0.05	bd	bd	0.05	0.2	0.2	0.09	bd	bd	0.05	0.4	0.4	0.08	45.09
71B	bd	0.13	0.05	0.1	0.1	0.08	bd	0.06	0.05	0.2	0.2	0.01	bd	bd	0.05	0.3	0.3	0.05	40.26
72C	bd	0.05	0.05	0.2	0.2	0.11	bd	bd	0.05	0.4	0.4	0.05	bd	bd	0.05	0.3	0.3	0.04	42.11
72E	bd	0.06	0.3	0.3	0.3	0.01	bd	bd	0.05	0.3	0.3	0.05	bd	bd	0.1	0.4	0.4	0.05	38.83
74B	bd	bd	0.6	0.6	0.6	0.05	bd	bd	0.05	0.4	0.4	0.06							49.14
74C	bd	bd	0.3	0.3	0.3	0.05	bd	bd	0.05	0.1	0.1	0.06							34.64
82A	bd	bd	0.05	0.1	0.1	0.07	bd	bd	0.05	0.4	0.4	0.03	bd	bd	0.05	0.4	0.4	0.05	40.60
83C	bd	bd	0.4	0.4	0.4	0.02	bd	bd	0.05	0.1	0.1	0.03	bd	bd	0.05	0.1	0.1	0.05	25.49
89A							bd	bd	0.05	0.3	0.3	0.07	bd	bd	0.05	0.2	0.2	0.06	45.66
90A	bd	bd	0.3	0.3	0.3	0.02	bd	bd	0.05	0.5	0.5	0.03	bd	bd	0.1	0.7	0.7	0.01	37.87
Median	0.06 0.25 0.25 0.25 0.05						bd 0.05 0.10 0.10 0.04						bd 0.05 0.20 0.20 0.03						32.61
Max	0.44 0.80 0.90 0.90 0.11						0.06 1.70 2.60 2.60 0.10						0.00 0.30 0.70 0.70 0.08						49.14

NO2 = Nitrite (inorganic)	TKN = Total Kjeldahl Nitrogen (organic + NH4)	High levels of nutrients in our canals can indicate the presence of fertilizer runoff or effluent from wastewater or septic systems. Excessive nutrients can lead to nuisance plant growth and algal blooms.
NO3 = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)	
NH3 = Ammonia (inorganic)	TPO4 = Total Phosphate	

All nutrient concentrations shown in mg/L

TSI = Trophic State Index, a quick indicator of canal health. 50 sites this quarter scored as GOOD (<60), zero sites scored FAIR (60-70), and zero scored POOR (>70). First quarter 2017 water quality continued to improve with the lack of stormwater influence. However many canals became drastically low in the freshwater basin areas resulting in some emergency measures to pump water from a reserve reservoir. The consistent rains associated with the rainy season began in early June. Fortunately, this also began the fertilizer black out period.



HOW TO START DOING YOUR DUTY:

Regularly collect your pet's waste in your yard

Don't let it sit for more than a couple days. Your lawn will thank you, too, as pet waste often will kill the grass where it was located.

Monitor your dog's waste in public places

Don't simply allow your pet to go 'do its business' in public without picking it up.

Gently remind other dog owners of why they need to collect their pet waste

Dare we say, be an informal 'Poolice' force and spread the word.

For more information

Please visit <http://fertilizesmart.com/pet-waste-info/>

City of Cape Coral
Environmental Resources
P.O. BOX 150027
Cape Coral, FL 33915-0027