Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 1st Quarter 2013

Environmental News

Earth Day 2013

Earth Day is on Monday April 22nd. Please consider these events to help show your support for our planet. Remember though – everyday should be Earth Day!

Cape Coral Parks and Recreation will hold its annual Spring Native Plant Sale on Saturday April 20th from 9 am to 2 pm at Rotary Park Environmental Center. For more information please call, (239) 549-4606.

Lee County Parks and Recreation will offer a guided tour of Caloosahatchee Regional Park as part of their Earth Day Walk on April 20th from 9 am to 11 am. For more information, please contact Kelly Flaherty at (239)822-5212

Florida State Parks is holding its 12th Annual Earth Day Festival at Koreshan State Historic Site in Estero on April 20th. Events start at 9:00 am and include live music, local artists displaying their work, and great food! For more information please contact (239) 992-0311.

Inside This Issue:

Questions? Comments? Let us know!

(239)574-0785
Harry: hphillips@capecoral.net
Katie: kmcbride@capecoral.net

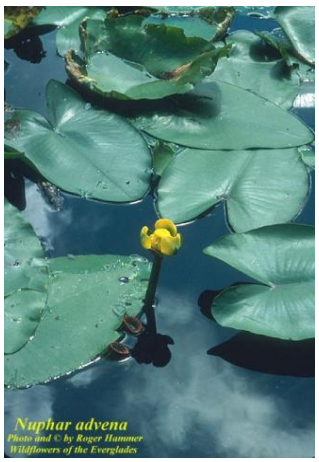
Native Plant profile

Yellow Pond Lily
Nuphar advena

Sometimes referred to as spatterdock, the yellow pond lily is native to the eastern United States and parts of eastern Canada. The yellow pond lily is found in many freshwater habitats throughout the state of Florida and is a common water plant in Cape Coral's freshwater canals.

The stem of this water lily can reach several feet, with the leaves appearing heart shaped or terminating in a small "bud" like yellow flower. The seed pod can provide food for aquatic birds and the leaves can provide pads for frogs or small turtles and provide cover for fish.

Propagation can occur through seeds or rhizome division and can be added to a koi pond or water garden by securing them with a rock or brick until they become established. Flowers will bloom in spring through until late summer.



Yellow pond lily blooming
Photo courtesy of Atlas of Florida Vascular Plants

Florida Manatees

Florida Manatees (*Trichechus manatus latirostris*) are a subspecies of the West Indian manatee and are found in Florida's coastal and fresh waters. They are massive (up to 3,500 lbs), long living herbivores which feed on aquatic vegetation. Like all mammals, manatees have hair, give birth to live young, and breathe air. Manatees breathe through their nose; special flaps which cover their nostrils close when diving. When using a great deal of energy, they may surface to breathe every 30 seconds; but they can submerge up to 20 minutes when resting. Manatees have a low reproductive rate. They begin to reproduce between the ages of 3 and 5, with 1 calf born every 2-5 years. Mothers nurse their calves for over a year.

The biggest threats to the manatee population are loss of warm-water refuges, collisions with watercraft, and ingestion of fishhooks and monofilament line. Cold weather and red tides such as the recent one here in Lee County can also kill and debilitate manatees in very large numbers. Low genetic diversity is also now a concern.

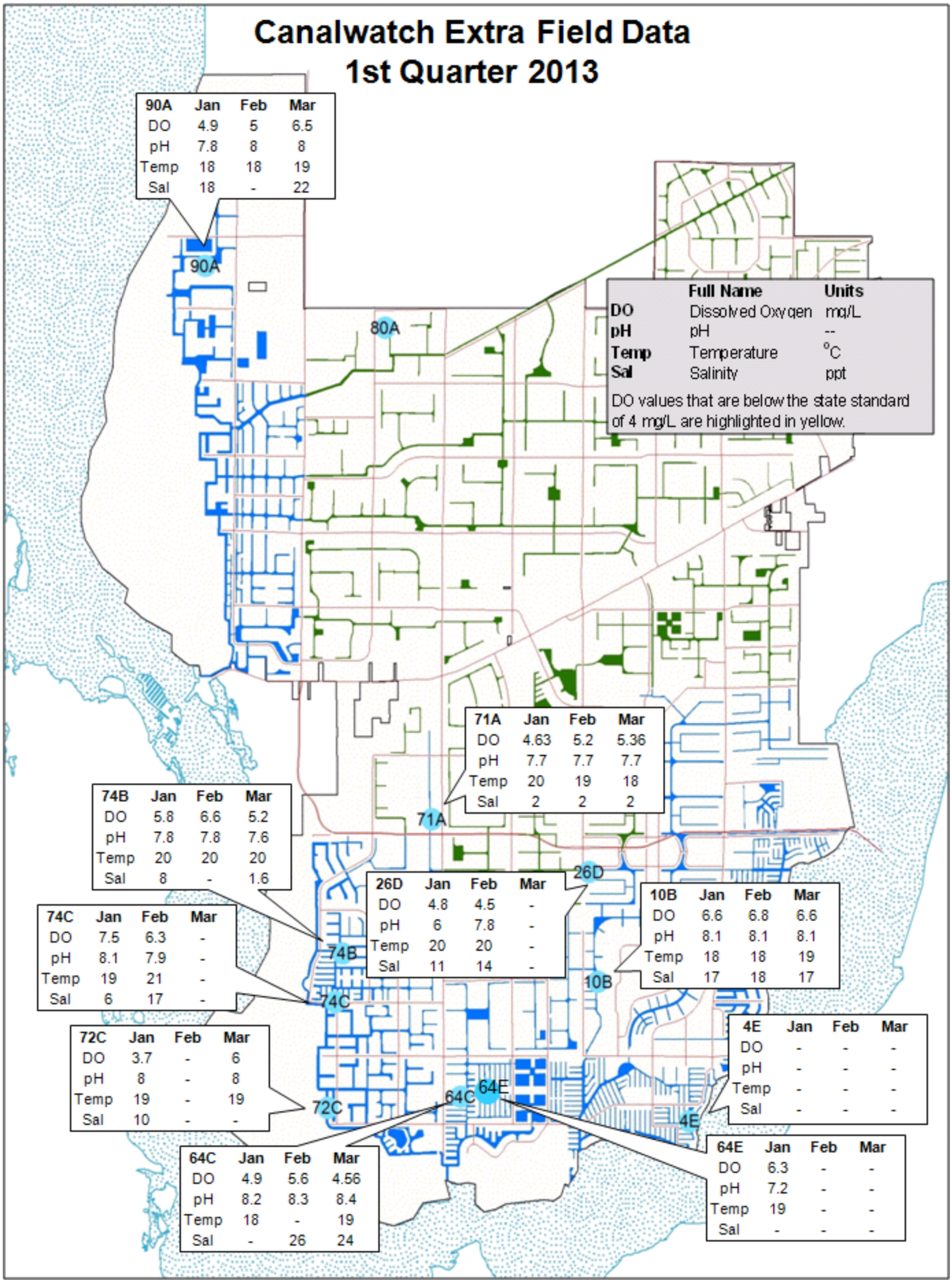
Manatees are protected by the Marine Mammal Protection Act (MMPA) as well as the Endangered Species Act. The MMPA prohibits the "take" (meaning harassment, hunting, capture, or killing, or the attempted harassment, hunting, capture, or killing) of marine mammals in U.S. waters and by U.S. citizens on the high seas. It also prohibits the importation of marine mammals and marine mammal products into the U.S. The Endangered Species Act provides programs for the conservation of threatened and endangered plants and animals and their habitats.

To help protect Florida manatees you can:

- Support habitat conservation and restoration programs such as Save the Manatee at www.savethemanatee.org
- Help with local coastal cleanups
- Be a cautious boater - slow down in marked manatee zones
- Pick up any derelict fishing line you may see and don't leave fishing gear lying around, so that manatees and other aquatic species don't become entangled or swallow foreign objects.

Sensitive to low temperatures, manatees seek warmer water during the colder winter months. They can be seen locally at Sirenia Vista Park, Manatee Park, and even some of the canals in Cape Coral. Please remember that feeding or touching manatees is considered harassment and is prohibited by law. If you see an injured manatee or someone harassing one, please call 1-888-804-FWCC to report it.

Canalwatch Extra Field Data
1st Quarter 2013



90A	Jan	Feb	Mar
DO	4.9	5	6.5
pH	7.8	8	8
Temp	18	18	19
Sal	18	-	22

	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.

71A	Jan	Feb	Mar
DO	4.63	5.2	5.36
pH	7.7	7.7	7.7
Temp	20	19	18
Sal	2	2	2

74B	Jan	Feb	Mar
DO	5.8	6.6	5.2
pH	7.8	7.8	7.6
Temp	20	20	20
Sal	8	-	1.6

74C	Jan	Feb	Mar
DO	7.5	6.3	-
pH	8.1	7.9	-
Temp	19	21	-
Sal	6	17	-

26D	Jan	Feb	Mar
DO	4.8	4.5	-
pH	6	7.8	-
Temp	20	20	-
Sal	11	14	-

10B	Jan	Feb	Mar
DO	6.6	6.8	6.6
pH	8.1	8.1	8.1
Temp	18	18	19
Sal	17	18	17

72C	Jan	Feb	Mar
DO	3.7	-	6
pH	8	-	8
Temp	19	-	19
Sal	10	-	-

4E	Jan	Feb	Mar
DO	-	-	-
pH	-	-	-
Temp	-	-	-
Sal	-	-	-

64C	Jan	Feb	Mar
DO	4.9	5.6	4.56
pH	8.2	8.3	8.4
Temp	18	-	19
Sal	-	26	24

64E	Jan	Feb	Mar
DO	6.3	-	-
pH	7.2	-	-
Temp	19	-	-
Sal	-	-	-

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

	January 2013						February 2013						March 2013						
	NO2 <1.0	NO3 <1.0	NH3 none set	TKN	T-N <2.0	T-PO4 <0.46	NO2 <1.0	NO3 <1.0	NH3 none set	TKN	T-N <2.0	T-PO4 <0.46	NO2 <1.0	NO3 <1.0	NH3 none set	TKN	T-N <2.0	T-PO4 <0.46	Avg TSI
3F													bd	bd	bd	0.6	0.6	0.04	48.05
4E													bd	bd	bd	0.7	0.7	0.05	51.65
6F	bd	bd	bd	0.8	0.8	0.05	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.8	0.8	0.05	50.94
7C	bd	bd	bd	0.9	0.9	0.05	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.7	0.7	0.05	51.33
7D	bd	bd	bd	0.9	0.9	0.04	bd	bd	bd	0.7	0.7	0.04							50.82
9E	bd	bd	bd	0.7	0.7	0.05	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.7	0.7	0.03	48.59
10B	bd	bd	bd	0.6	0.65	0.04	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.6	0.6	0.04	47.93
11E	bd	bd	bd	0.9	0.9	0.05	bd	bd	bd	0.6	0.6	0.04	bd	bd	bd	0.8	0.8	0.06	51.05
15D	bd	bd	bd	0.8	0.8	0.04	bd	bd	bd	0.7	0.7	0.02	bd	bd	bd	0.7	0.7	0.04	50.61
15E	bd	bd	bd	0.7	0.7	0.04	bd	bd	bd	0.7	0.7	0.04	bd	bd	bd	0.5	0.5	0.03	47.57
16E	bd	bd	bd	1.0	1.0	0.03	bd	bd	bd	1.0	1.0	0.03	bd	bd	bd	0.7	0.7	0.00	56.38
19D	bd	bd	bd	0.9	0.9	0.05	bd	bd	bd	0.8	0.8	0.05	bd	bd	bd	0.8	0.8	0.06	53.92
19K	bd	bd	bd	0.9	0.9	0.05	bd	bd	bd	0.8	0.8	0.05	bd	bd	bd	0.8	0.8	0.06	53.61
21D	bd	bd	bd	0.9	0.9	0.05	bd	bd	bd	0.9	0.9	0.03	bd	bd	bd	0.8	0.8	0.05	50.65
26D	bd	bd	bd	1.2	1.2	0.03	bd	bd	bd	0.8	0.8	0.02	bd	bd	bd	0.8	0.8	0.04	49.05
26F	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.6	0.6	0.02							48.84
28D	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.8	0.8	0.02	bd	bd	bd	0.6	0.6	0.03	53.48
30C							bd	bd	bd	0.6	0.6	0.03	bd	bd	bd	0.7	0.7	0.01	45.37
35A	bd	bd	bd	0.6	0.6	0.01							bd	bd	bd	0.5	0.5	0.01	38.03
41A	bd	bd	bd	0.5	0.5	0.01	bd	bd	bd	0.5	0.5	0.00	bd	bd	bd	0.7	0.7	0.03	32.35
45D	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.7	0.7	0.02	51.53
48A							bd	bd	bd	0.7	0.7	0.01	bd	bd	bd	0.5	0.5	0.02	44.83
52B	bd	bd	bd	0.5	0.5	0.04	bd	bd	bd	0.6	0.6	0.01	bd	bd	bd	0.6	0.6	0.04	36.82
55B	bd	bd	bd	0.9	0.9	0.04	bd	bd	bd	0.8	0.8	0.02	bd	bd	bd	0.6	0.6	0.04	45.81
58B	bd	bd	bd	0.7	0.7	0.04	bd	bd	bd	0.6	0.6	0.03	bd	bd	bd	0.7	0.7	0.05	60.06
58F	bd	bd	bd	1.2	1.2	0.08													60.92
58G	bd	bd	bd	0.8	0.8	0.04	bd	bd	bd	0.6	0.6	0.03	bd	bd	bd	0.6	0.6	0.03	51.86
58I	bd	bd	bd	0.6	0.6	0.03	bd	bd	bd	0.5	0.5	0.03							43.29
59B	bd	0.06	bd	0.7	0.76	0.06	bd	bd	bd	0.5	0.5	0.01	bd	bd	bd	0.5	0.5	0.04	38.19

64B	bd	bd	bd	0.5	0.55	0.05	bd	bd	bd	0.4	0.4	0.03	bd	bd	bd	0.5	0.5	0.04	45.62
64C	bd	bd	bd	0.6	0.65	0.05	bd	bd	bd	0.4	0.4	0.04							47.06
64E	bd	0.06	bd	0.5	0.56	0.05							bd	bd	bd	0.5	0.5	0.04	49.44
65C	bd	bd	bd	0.6	0.65	0.05	bd	bd	bd	0.6	0.6	0.04							48.40
66A	bd	bd	bd	0.6	0.6	0.01	bd	bd	bd	0.6	0.6	0.01	bd	bd	bd	0.9	0.9	0.08	36.88
69A	bd	bd	bd	0.9	0.9	0.05	bd	bd	bd	1.0	1.05	0.08	bd	bd	bd	0.8	0.8	0.06	56.92
70F	bd	bd	bd	0.8	0.8	0.04	bd	bd	bd	0.7	0.7	0.04	bd	bd	bd	0.6	0.6	0.03	57.71
70G							bd	bd	bd	0.7	0.7	0.04	bd	bd	bd	0.5	0.5	0.02	47.47
71A							bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.6	0.6	0.06	44.01
72A	bd	bd	bd	0.7	0.7	0.05	bd	bd	bd	0.6	0.6	0.04	bd	bd	bd	0.9	0.9	0.03	49.02
72C	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.9	0.9	0.05	47.04
74B	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.8	0.8	0.03							50.19
74C	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.7	0.7	0.03							45.34
74F	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.6	0.6	0.04	46.26
81B							bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.8	0.8	0.02	47.47
82A	bd	bd	bd	0.8	0.8	0.02	bd	bd	bd	0.7	0.7	0.02	bd	bd	bd	0.8	0.8	0.03	45.47
83A	bd	bd	bd	0.7	0.7	0.03	bd	bd	bd	0.8	0.8	0.03	bd	bd	bd	0.8	0.8	0.07	49.93
89A	bd	bd	bd	0.8	0.8	0.06	bd	bd	bd	0.9	0.9	0.06	bd	bd	bd	1.4	1.4	0.03	56.66
90A	bd	bd	bd	1.5	1.5	0.03	bd	bd	bd	1.3	1.3	0.04	bd	bd	bd	0.5	0.5	0.01	48.27
91A	bd	0.07	bd	0.6	0.67	0.01													24.43
93B	bd	bd	bd	0.7	0.7	0.03							bd	bd	bd	0.5	0.5	0.01	47.77
97A	bd	bd	bd	0.6	0.6	0.03													34.90
Median		**0.06**	**bd**	**0.77**	**0.78**	**0.04**		**bd**	**bd**	**0.70**	**0.70**	**0.03**		**bd**	**bd**	**0.70**	**0.70**	**0.04**	**48.40**
Max		**0.07**	**0.00**	**1.50**	**1.50**	**0.08**		**0.00**	**0.00**	**1.30**	**1.30**	**0.08**		**0.00**	**0.00**	**1.40**	**1.40**	**0.08**	**60.92**

NO2 = Nitrite (inorganic)	TKN = Total Kjeldahl Nitrogen (organic + NH4)
NO3 = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)
NH3 = Ammonia (inorganic)	TPO4 = Total Phosphate

All nutrient concentrations shown in mg/L

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.

TSI = Trophic State Index, a quick indicator of canal health. 50 sites this quarter scored as GOOD (<60). 3 sites scored FAIR (60-70), one scored POOR (>70) and one had insufficient data to report.

The rainfall for this quarter has been "just enough". Some of you are seeing this with low water levels in the canals and lakes. Water clarity has improved some, but some of the waterways are still thriving with microscopic algea. Probably due to our mild winter this year. As the rainy season begins and microscopic algea populate our waterbodies in greater numbers, those secchi measurements should decrease.

April

3rd Canalwatch

6th Nature of the Cape
Bus Tour 8am – noon
Info: 549-4606

9th Friends of Wildlife
Meeting at Rotary Park
7-9pm. info: 980-2593

12th Florida Yards and
Neighborhoods
Yard Design Class
1pm-4pm
Info: 549-4606

20th Native Plant Sale from
9am-2pm at Rotary Park
Info: 549-4606

22nd Earth Day!

May

1st Canalwatch

4th Nature of the Cape
Bus Tour 8am – noon
Info: 549-4606

11th Gardening for Butterflies
10:30am – 12:30pm
Rotary Park
Info: 549-4606

27th Memorial Day

June

5th Canalwatch

15th Kids All American
Fishing Derby
8am – 11am
Yacht Club Pier
Registration/info:
574-0806

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