



# Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 2<sup>nd</sup> Quarter 2016

## Environmental News

### 2016 Pine Island Sound Scallop Survey

The 2016 Pine Island Sound Scallop Survey was held on Saturday, August 6<sup>th</sup>. This population study is held by the University of Florida's Institute of Food and Agricultural Science (UF/IFAS) under their Sea Grant marine extension service and partnered with the Sanibel Captiva Conservation Foundation (SCCF).

For the past seven years snorkelers have volunteered in this resource monitoring program to survey and document the health and status of bay scallop populations around Pine Island Sound.

This year about 110 volunteered to help with the survey. Boaters and kayakers alike received their materials and instructions before heading out and diving in to their assigned areas. This year's survey results recorded about 90 scallops, which is a slight increase over previous years. Bay scallops were once abundant throughout Southwest Florida's coastal waters, but declined over 30 years ago due to unstable environmental conditions, likely caused by urbanization of the coastline and nutrient enrichment of near shore habitats. Healthy sea grass beds are attributed to the steady increase in scallops from previous years.

(Photos on back page)

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#### Questions? Comments? Let us know!

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## Native Plant profile

### Lily *Hymenocallis* spp.

Lilies are often seen around mid-summer in natural wetlands, but they sometimes ornament a roadside ditch, or along the bank of a storm water pond.

Two species of *Hymenocallis* that are often seen are the spider lily (*H. latifolia*) and the alligator lily (*H. palmeri*). The Spider lily is the showier variety of the two native lilies, and less particular about its soil conditions. Which makes it ideal for the home landscape as an accent plant or addition to a wildflower area. Alligator lily is less flexible and prefers moist soil locations. Nevertheless, it would be a natural fit for a rain garden or damp area in a landscape.



Spider Lily above, alligator lily below  
Photos courtesy of Atlas of Florida Vascular Plants

## The Un-Tamed Wildlife of Cape Coral

The City of Cape Coral has many wildlife viewing opportunities that are unique to Southwest Florida. Including the state's largest population of Burrowing Owls, which has been declared as the City Bird. Additionally, the parks and natural areas around the city are host to over ninety species of migratory and non-migratory birds. The waterways contain many freshwater and saltwater fish as well manatees and other aquatic animals. Other urban wildlife includes raccoons, snakes, butterflies, gopher tortoises and countless others.

With as much wildlife within Cape Coral it is inevitable that humans and wildlife will cross paths. While it can be a tremendous opportunity to observe wildlife close-up, interactions can come as a surprise for many people. "The un-tamed wildlife of Cape Coral" is aptly titled; as it is wild. Therefore, some precautions are warranted.

Wildlife can sometimes be unpredictable. Often, wildlife are not people friendly and should not be regarded as a domestic animal. Likewise, care and caution should always be observed when viewing wildlife. View wildlife responsibly. If needed, modify behavior to avoid negative interactions with wildlife (i.e., disturbing feeding or nesting behavior).

Here are some tips on enjoying wildlife viewing and some tips that will prevent negative interactions with wildlife, such as coyotes, alligators and river otters:

- Never feed wildlife. This causes the animals to associate people with food.
- Many species of wildlife are attracted by garbage (or the rodents that are attracted by garbage.) Problems can be significantly reduced if residents secure trash. Secure pet food, clean up fallen fruit, and seeds beneath bird feeders. Secure garbage cans and compost in animal-proof containers.
- When filleting fish, dispose of fish scraps in garbage cans. Do not leave it on the dock or seawall. Although it is not intentionally feeding wildlife, the result can be the same.
- Never attempt to pet or approach wildlife and ensure children keep their distance. Wildlife can become defensive or aggressive toward people or pets, especially when defending their young or a food source.
- Some wildlife can potentially injure domestic cats and small dogs. Attacks can be preventable. To protect pets, never allow them to roam freely, keep them leashed. Attacks often occur at night or at dusk or dawn. During these circumstances, observe caution while walking pets near wooded areas or in heavily foliated areas where wildlife live.
- Keep cats indoors and never feed feral cats. Domestic cats allowed to wander freely, have an increased risk of injury by predators. Domestic cats also have the potential to spread disease or prey against native wildlife.
- Encourage butterflies and birds to visit home landscapes by planting Florida natives as a natural food and habitat source, this is beneficial to both the wildlife and the environment.
- Use binoculars to observe wildlife natural behavior so to avoid stressing the animals. This can be a wonderful opportunity and an educational experience to share with children.
- Though rare, one natural behavior that may be observed is predator, prey interactions. Sometimes gruesome, sometimes fascinating to look at, nevertheless be aware that this is natural feeding behavior and controls the prey populations.

The City of Cape Coral does not retain permits to trap or remove any wildlife other than the invasive Nile Monitor Lizards (for more information on that program please visit:

[www.capecoral.net/departments/public\\_works/nile\\_monitor\\_trapping.php#.V2GUJ7srLcs](http://www.capecoral.net/departments/public_works/nile_monitor_trapping.php#.V2GUJ7srLcs).)

The taking of nuisance alligators; deer; bears; bats, bobcats, most migratory birds, their nests or eggs; turkeys; bobwhite quail; or state-listed or federally listed species of special concern, threatened or endangered species is prohibited by law or may require additional permits. If a resident is experiencing nuisance wildlife problems, we encourage them to contact Florida Fish and Wildlife's Wildlife Alert hotline at 888-404-3922.

# Canalwatch Extra Field Data 2<sup>nd</sup> Quarter 2016

90A	Apr	May	Jun
DO	5.00	4.40	4.10
pH	7.7	8.0	8.0
Temp	23	29	28
Sal	-	13	18

	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.

74C	Apr	May	Jun
DO	6.90	7.80	8.30
pH	8.2	8.1	8.4
Temp	-	29	30
Sal	-	5	3

26D	Apr	May	Jun
DO	3.80	3.40	-
pH	7.6	7.8	-
Temp	24.5	28	-
Sal	-	1	-

72C	Apr	May	Jun
DO	3.40	4.00	-
pH	8.0	8.2	-
Temp	24	28	-
Sal	-	-	-

64C	Apr	May	Jun
DO	5.00	-	-
pH	8.6	-	-
Temp	24	-	-
Sal	-	-	-

64E	Apr	May	Jun
DO	6.10	-	5.10
pH	7.6	-	7.9
Temp	24.5	-	29.5
Sal	-	-	15

bd = below detection

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

	April						May						June						Avg TSI
	NO2	NO3	NH3	TKN	T-N	T-PO4	NO2	NO3	NH3	TKN	T-N	T-PO4	NO2	NO3	NH3	TKN	T-N	T-PO4	
	<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				
3F							bd	bd	0.1	0.6	0.6	0.08	bd	bd	0.2	0.8	0.8	0.09	47.53
5D	bd	bd	bd	0.4	0.4	2.72	bd	0.05	0.2	0.9	0.95	0.08	bd	bd	0.1	0.9	0.9	0.07	48.97
6F	bd	bd	bd	0.5	0.5	0.69	bd	0.05	bd	0.8	0.85	0.07	bd	bd	0.2	1.1	1.1	0.13	53.07
6G	bd	bd	bd	0.7	0.7	0.06	bd	bd	0.1	1.0	1.0	0.08	bd	bd	0.1	1.7	1.7	0.12	56.45
9F													bd	bd	0.1	1.7	1.7	0.12	68.58
11E	bd	bd	bd	0.8	0.8	0.14	bd	bd	bd	0.7	0.7	0.10	bd	bd	0.1	1.2	1.2	0.13	54.23
12H	bd	bd	bd	0.7	0.7	0.05	bd	bd	bd	0.7	0.7	0.07	bd	bd	0.3	1.0	1.0	0.11	49.32
15E	bd	bd	bd	0.5	0.5	0.03	bd	bd	0.1	0.6	0.6	0.14	bd	bd	1	0.9	0.9	0.06	51.90
16E	bd	bd	bd	0.4	0.4	0.10	bd	bd	bd	0.8	0.8	0.06	bd	bd	0.3	0.8	0.8	0.02	47.14
19D	bd	bd	bd	0.7	0.7	0.10	bd	bd	bd	0.8	0.8	0.09	bd	bd	0.3	1.2	1.2	0.15	63.61
19K	bd	bd	bd	0.7	0.7	0.07	bd	bd	bd	0.8	0.8	0.07	bd	bd	0.2	1.0	1.0	0.12	54.32
21D	bd	bd	bd	0.5	0.5	0.07	bd	bd	bd	1.0	1.0	0.09	bd	bd	0.1	1.0	1.0	0.12	52.98
21I	bd	bd	bd	0.7	0.7	0.06	bd	bd	bd	0.7	0.7	0.12							62.15
26D	bd	bd	bd	0.5	0.5	0.03	bd	bd	bd	0.8	0.8	0.19							49.02
28D	bd	bd	bd	0.3	0.3	0.03							bd	bd	0.1	1.1	1.1	0.03	45.35
38B	bd	bd	bd	0.6	0.6	0.02	bd	bd	bd	0.9	0.9	0.04	bd	bd	0.2	0.9	0.9	0.03	52.45
41A	bd	bd	bd	0.4	0.4	0.01	bd	bd	bd	0.6	0.6	0.06	bd	bd	0.2	0.7	0.7	0.12	41.73
41B	bd	bd	bd	0.2	0.2	0.02	bd	bd	bd	0.7	0.7	0.04	bd	bd	0.2	0.9	0.9	0.01	41.38
45D	bd	bd	bd	0.3	0.3	0.01	bd	bd	bd	0.6	0.6	0.04							49.32
45F							bd	bd	bd	1.0	1.0	0.13	bd	bd	0.1	0.7	0.7	0.05	56.90
48A	bd	bd	bd	0.2	0.2	0.02	bd	bd	bd	0.4	0.4	0.04							37.38
52B	bd	bd	bd	0.2	0.2	0.04	bd	bd	bd	0.7	0.7	0.07	bd	bd	0.3	0.7	0.7	0.02	45.39
58B	bd	bd	bd	0.2	0.2	0.04													39.41
58I	bd	bd	bd	0.4	0.4	0.04	bd	bd	0.3	0.7	0.7	0.06	bd	bd	0.4	1.0	1.0	0.99	46.32
58J	bd	bd	bd	0.8	0.8	0.06	bd	bd	0.3	1.3	1.3	0.06	bd	bd	0.2	2.5	2.5	0.04	53.01
59B	bd	bd	bd	0.5	0.5	0.09													42.28

59C	bd	bd	bd	0.4	0.4	0.05	bd	bd	0.2	0.6	0.6	0.05	bd	bd	0.2	1.0	1.0	0.10	48.92
59D	bd	bd	bd	0.4	0.4	0.06	bd	bd	0.4	0.9	0.9	0.06	bd	bd	0.5	0.9	0.9	0.03	46.18
64B	bd	bd	bd	0.4	0.4	0.07	bd	bd	0.4	0.5	0.5	0.07	bd	bd	0.3	0.7	0.7	0.07	41.96
64C	bd	bd	bd	0.3	0.3	0.05													38.79
64E	bd	bd	bd	0.3	0.3	0.05							bd	bd	0.3	0.8	0.8	0.07	44.13
65C	bd	bd	bd	0.4	0.4	0.08	bd	bd	0.4	0.5	0.5	0.09	bd	bd	0.5	1.3	1.3	0.06	46.54
69A	bd	bd	bd	0.8	0.8	0.06	bd	bd	bd	1.3	1.3	0.12							59.79
71B							bd	bd	bd	0.7	0.7	0.01	bd	bd	0.2	0.8	0.8	0.01	24.43
72C	bd	bd	bd	0.6	0.6	0.03	bd	bd	bd	0.8	0.8	0.07							56.40
74B													bd	bd	0.1	1.3	1.3	0.04	57.09
74C	bd	bd	bd	0.3	0.3	0.01	bd	bd	bd	0.4	0.4	0.08	bd	bd	0.6	1.0	1.0	0.04	42.96
82A	bd	bd	bd	0.4	0.4	0.01	bd	bd	0.2	0.5	0.5	0.04	bd	bd	0.4	0.9	0.9	0.02	48.05
83C	bd	bd	bd	0.4	0.4	0.13	bd	bd	0.2	0.8	0.8	0.01	bd	bd	0.3	0.8	0.8	0.01	40.35
89A	bd	bd	bd	0.5	0.5	0.12	bd	bd	bd	1.0	1.0	0.15	bd	bd	0.3	1.8	1.8	0.16	64.38
90A	bd	bd	bd	0.6	0.6	0.02	bd	0.06	0.2	0.7	0.76	0.03	bd	bd	0.7	1.8	1.80	0.01	42.73
<b>Median</b>	<b>bd</b>	<b>bd</b>	<b>0.40</b>	<b>0.40</b>	<b>0.05</b>		<b>bd</b>	<b>bd</b>	<b>0.70</b>	<b>0.73</b>	<b>0.07</b>		<b>bd</b>	<b>bd</b>	<b>1.00</b>	<b>1.00</b>	<b>0.07</b>	<b>48.92</b>	
<b>Max</b>	<b>0.00</b>	<b>0.00</b>	<b>0.80</b>	<b>0.80</b>	<b>2.72</b>		<b>0.06</b>	<b>0.40</b>	<b>1.30</b>	<b>1.30</b>	<b>0.19</b>		<b>0.00</b>	<b>1.00</b>	<b>2.50</b>	<b>2.50</b>	<b>0.99</b>	<b>68.58</b>	

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)	TP04 = Total Phosphate	

All nutrient concentrations shown in mg/L

TSI = Trophic State Index, a quick indicator of canal health. 40 sites this quarter scored as GOOD (<60). 4 sites scored FAIR (60-70), none scored POOR (>70).  
 The rainfall for this quarter has still been ample. Many of the water levels in the canals and lakes are well above what they typically are this time of year. Water clarity has still been an issue for some, as many of the waterways are thriving with microscopic and macro algae. This is due in part to elevated water temperatures, above average rainfall, and high volume water releases from up stream of the Caloosahatchee River (for those canals that are a connected to the Caloosahatchee).



Volunteers gathering for registration



Kayakers preparing for launch



Scallop information page



Contributing agencies and sponsors for the event

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