# Canal Current

**A wave of information for Cape Coral's Canalwatch volunteers**

Newsletter: 2nd Quarter 2014

## Environmental News

### Gardening for Butterflies

Ever wonder or marvel at the life cycle of a butterfly. From egg to caterpillar to the beautiful mosaics of the adults, butterflies have intriguing developmental stages. Many butterflies require a host plant in order for the caterpillar larvae to feed and grow before forming a chrysalis.

Attracting butterflies to ones yard is surprisingly easy with the right selection of plants. Generally speaking, a basic selection of both nectar and host plants will yield a few butterfly species to your garden. Adding new species of host plants will increase those beautiful mosaics of the insect world flitting around your landscape.

For more information regarding gardening for butterflies or tours for the Tom Allen Memorial Butterfly House, please contact Rotary Park Environmental Center at 549-4606. Or visit their link at capeparks.com

Tours of the butterfly house are free on Monday, Friday and Saturday at 10:30 a.m.

## Native Plant profile

### Passion Flower: Maypop
***Passiflora incarnata***

Maypop is one of 400 plus species of Passiflora; the passion flower vines. These climbing vines often have stunning flowers in red, blue and purple hues.

While Mayop, with its bluish, purple flower is attractive to look at, it also attracts butterflies. The flower provides nectar for adult butterflies as well as other pollinators, but is also a host plant for the Gulf Fritillary butterfly *Agraulis vanilla* caterpillar and the Zebra Longwing butterfly *Heliconius charitonius* caterpillar.

Maypop is a beautiful addition to a butterfly garden in home landscapes. Having this alluring vine climb up a trellis will bring height to some of the low growing plants often associated with butterfly gardening, in addition to alluring some striking native butterflies Southwest Florida has to offer.


Maypop
Photo courtesy of Atlas of Florida Vascular Plants

## Inside This Issue:



**Questions? Comments? Let us know!**


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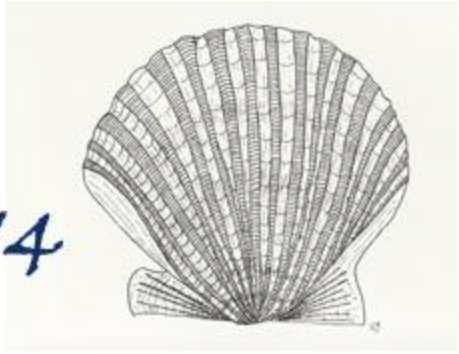
# the Great Bay Scallop Search 2014

Pine Island Sound



**Saturday, August 23, 2014**
**8:30 am-2 pm**

Calling Volunteer Boaters and Snorkelers!

Approximately 40 boats and up to 150 snorkelers are needed!

Join us in a resource monitoring program to document the health and status of bay scallop populations by snorkeling and looking for scallops in select areas.

**This is a **No Harvest** event**.

We are recruiting:

- Volunteers with shallow draft boats. Canoes and kayaks are also welcome. Please let us know if you can take additional snorkelers on your boat. And please bring a dive flag if you have one.
- Snorkelers without boats are welcome; however, boat spaces are limited.

Volunteers need to bring sunscreen, a mask, snorkel and gloves, and be able to snorkel/swim 50 meters (about 150 feet). Fins/weight belt are optional.

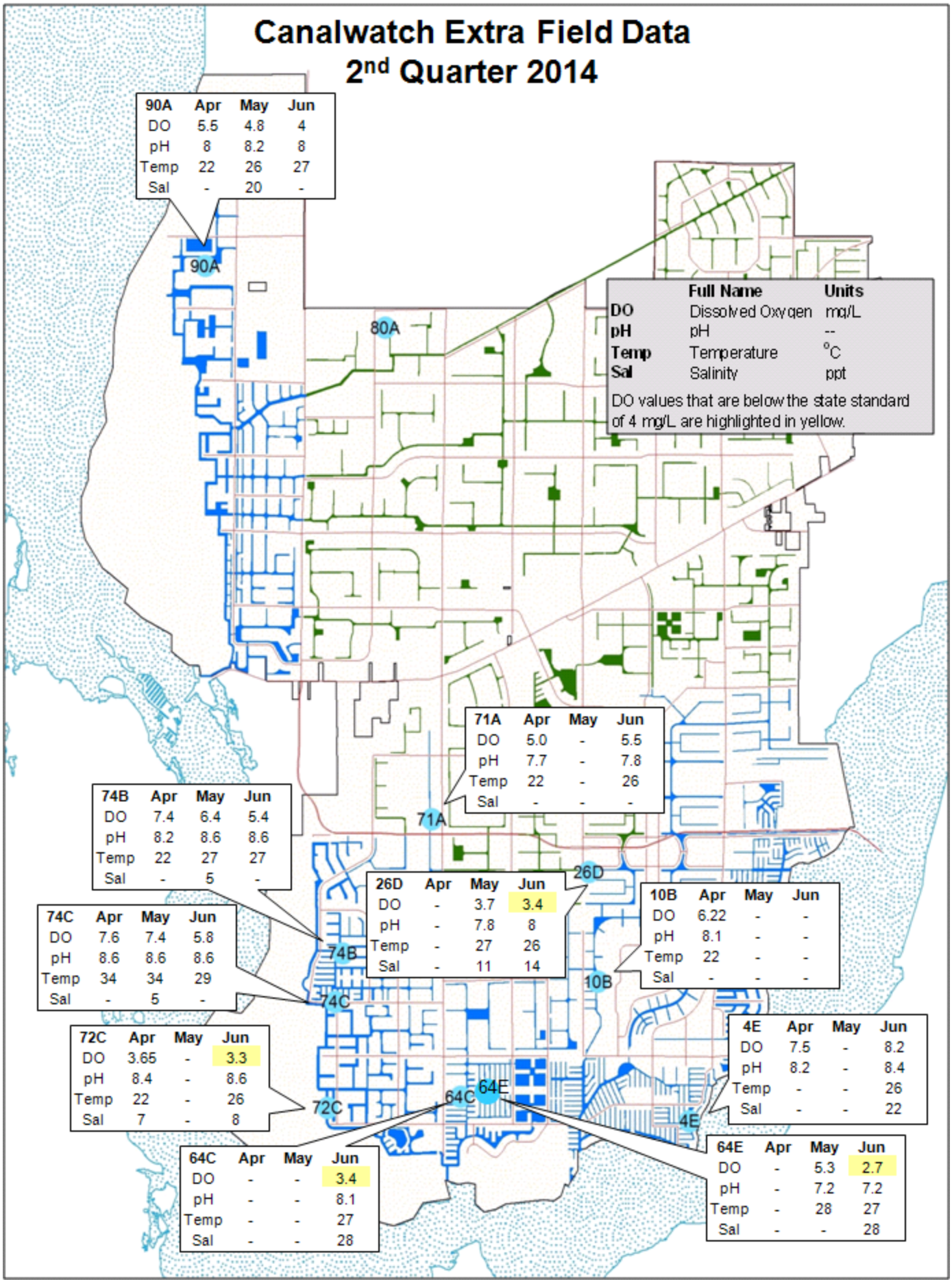
Scallop searchers will meet at Pineland Marina to receive survey equipment and instructions for the monitoring event. Lunch will be provided once you return to shore.

Reservations are required to participate in the event and space is limited so reserve your spot today!

**Contact the Organizer | hazellje@leegov.com 239-707-1267 |**
**Florida Sea Grant/Lee Co. Extension**

Informational flyer by Joy Hazell and used with permission.

# Canalwatch Extra Field Data
# 2nd Quarter 2014



bd = below detection

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

| | April 2014 | | | | | | May 2014 | | | | | | June 2014 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.05 | | | | | | | 52.52 |
| 4E | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.05 | | | | | | | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.06 | 56.38 |
| 5D | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.05 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.07 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.08 | 58.55 |
| 5F | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.06 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.08 | 57.16 |
| 6F | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.07 | | | | | | | 34.13 |
| 7D | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.06 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.07 | | | | | | | 51.08 |
| 9E | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.04 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.06 | 0.03 | 0.03 | 0.05 | 1.3 | 1.3 | 0.08 | 54.95 |
| 9F | | | | | | | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.07 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.09 | 61.28 |
| 10B | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.04 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.06 | | | | | | | 52.46 |
| 11E | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.07 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.08 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.09 | 58.38 |
| 12H | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.07 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.09 | 52.95 |
| 15D | 0.03 | 0.09 | 0.05 | 0.7 | 0.79 | 0.04 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.07 | | | | | | | 56.36 |
| 15E | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.05 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.08 | 0.03 | 0.03 | 0.05 | 1.3 | 1.3 | 0.12 | 59.34 |
| 15F | | | | | | | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.07 | | | | | | | 59.02 |
| 16E | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.03 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.04 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.03 | 51.92 |
| 19D | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.07 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.08 | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.09 | 58.99 |
| 19K | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.07 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.08 | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.10 | 59.83 |
| 21D | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.09 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.10 | 59.68 |
| 21I | | | | | | | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.08 | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.10 | 62.47 |
| 26D | | | | | | | 0.03 | 0.03 | 0.05 | 1.7 | 1.7 | 0.05 | 0.03 | 0.03 | 0.05 | 1.8 | 1.8 | 0.07 | 61.92 |
| 26F | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.03 | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | | | | | | | 50.40 |
| 28D | 0.03 | 0.03 | 0.05 | 0.6 | 0.6 | 0.09 | 0.03 | 0.03 | 0.1 | 1 | 1.0 | 0.24 | 0.03 | 0.03 | 0.05 | 0.5 | 0.5 | 0.05 | 51.32 |
| 30C | 0.03 | 0.03 | 0.05 | 0.7 | 0.7 | 0.03 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.05 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.07 | 53.78 |
| 41A | 0.03 | 0.03 | 0.05 | 0.4 | 0.4 | 0.01 | | | | | | | 0.03 | 0.03 | 0.05 | 0.3 | 0.3 | 0.01 | 26.36 |
| 45D | 0.03 | 0.03 | 0.05 | 0.5 | 0.5 | 0.02 | 0.03 | 0.03 | 0.05 | 0.5 | 0.5 | 0.02 | | | | | | | 51.25 |
| 48A | 0.03 | 0.03 | 0.05 | 0.6 | 0.6 | 0.02 | 0.03 | 0.03 | 0.05 | 0.5 | 0.5 | 0.04 | | | | | | | 40.03 |
| 50A | 0.03 | 0.03 | 0.05 | 0.5 | 0.5 | 0.01 | 0.03 | 0.03 | 0.05 | 0.5 | 0.5 | 0.02 | 0.03 | 0.03 | 0.05 | 0.6 | 0.6 | 0.02 | 35.28 |
| 52B | 0.03 | 0.03 | 0.05 | 0.4 | 0.4 | 0.01 | | | | | | | 0.03 | 0.03 | 0.05 | 0.3 | 0.3 | 0.01 | 26.36 |
| 58B | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.01 | | | | | | | | | | | | | 35.65 |
| 58F | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.02 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.03 | 0.03 | 0.03 | 0.05 | 1.8 | 1.8 | 0.05 | 50.17 |
| 58G | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.04 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.03 | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.03 | 47.26 |
| 58I | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.02 | 0.03 | 0.03 | 0.05 | 1 | 1.0 | 0.03 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.04 | 44.91 |
| 58J | | | | | | | | | | | | | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.04 | 54.91 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59B | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.02 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.03 | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.03 | 43.11 |
| 59C | | | | | | | | | | | | | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.03 | 44.86 |
| 60C | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.02 | 0.03 | 0.03 | 0.05 | 0.7 | 0.7 | 0.02 | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.01 | 34.13 |
| 64B | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | 0.03 | 0.03 | 0.05 | 0.7 | 0.7 | 0.05 | 0.03 | 0.03 | 0.05 | 0.7 | 0.7 | 0.05 | 46.26 |
| 64C | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | | | | | | | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.06 | 48.92 |
| 64E | | | | | | | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.05 | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.07 | 54.89 |
| 65C | | | | | | | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.05 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.06 | 54.64 |
| 66A | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.08 | | | | | | | | | | | | | 58.51 |
| 69A | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.05 | 0.03 | 0.03 | 0.05 | 1.4 | 1.4 | 0.07 | | | | | | | 57.30 |
| 70G | | | | | | | | | | | | | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.07 | 58.19 |
| 71A | 0.03 | 0.09 | 0.05 | 0.5 | 0.59 | 0.03 | 0.03 | 0.06 | 0.05 | 0.5 | 0.56 | 0.02 | 0.03 | 0.03 | 0.05 | 0.6 | 0.6 | 0.03 | 47.63 |
| 72A | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.05 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | 53.97 |
| 72C | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | | | | | | | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.04 | 56.47 |
| 72D | | | | | | | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | | | | | | | 55.83 |
| 74B | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.07 | 0.03 | 0.03 | 0.05 | 1.3 | 1.3 | 0.06 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.04 | 61.17 |
| 74C | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.07 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.07 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.06 | 60.64 |
| 82A | 0.03 | 0.03 | 0.05 | 0.8 | 0.8 | 0.01 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.04 | 0.03 | 0.03 | 0.05 | 1.4 | 1.4 | 0.04 | 50.76 |
| 83A | 0.03 | 0.07 | 0.05 | 0.9 | 0.97 | 0.01 | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.02 | | | | | | | 40.17 |
| 83C | 0.03 | 0.03 | 0.05 | 1.0 | 1.0 | 0.01 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.02 | 0.03 | 0.03 | 0.05 | 1.3 | 1.3 | 0.04 | 39.13 |
| 89A | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.06 | 0.03 | 0.03 | 0.05 | 1.3 | 1.3 | 0.10 | 0.03 | 0.03 | 0.05 | 1.2 | 1.2 | 0.10 | 63.76 |
| 89C | | | | | | | 0.03 | 0.03 | 0.05 | 1.1 | 1.1 | 0.09 | 0.03 | 0.03 | 0.05 | 1.4 | 1.4 | 0.10 | 64.07 |
| 90A | 0.03 | 0.06 | 0.05 | 1.9 | 1.96 | 0.03 | 0.03 | 0.03 | 0.05 | 1.5 | 1.5 | 0.04 | 0.03 | 0.03 | 0.05 | 1.7 | 1.7 | 0.04 | 50.91 |
| 93C | 0.03 | 0.07 | 0.05 | 0.8 | 0.87 | 0.05 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.05 | 0.03 | 0.03 | 0.05 | 0.9 | 0.9 | 0.04 | 55.64 |
| **Median** | | **0.03** | **0.05** | **0.90** | **0.90** | **0.04** | | **bd** | **0.05** | **1.00** | **1.00** | **0.06** | | **bd** | **0.05** | **1.00** | **1.00** | **0.06** | **53.88** |
| **Max** | | **0.09** | **0.05** | **1.90** | **1.96** | **0.09** | | **0.06** | **0.10** | **1.70** | **1.70** | **0.24** | | **0.03** | **0.05** | **1.80** | **1.80** | **0.12** | **64.07** |

| | |
|---|---|
| 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. 49 sites this quarter scored as GOOD (<60) and 7 sites scored as fair (>60). The canal waterways are most likely experiencing some excess nutrients from the increased amount of rainfall during this time of year. This trend is notable in the increase in trophic level for several of the sites. The influence of stormwater will continue until these summer rain patterns decrease.

## August

6th Canalwatch

13th Gardening for Birds
Design Class 1pm
Rotary Park
Info: 549-4606

20th Container Gardening
11am
Rotary Park
Info: 549-4606

27th Gardening for Butterflies
1pm
Rotary Park
Info: 549-4606

## September

2nd Labor Day

3rd Canalwatch

## October

1st Canalwatch

13th Columbus Day

31st Halloween

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City of Cape Coral
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