



Growing oysters for a cleaner Bay.....www.oystergardener.org

FALL

NEWSLETTER

2014

Annual Oyster Float Building Workshop
September 13th, 2014 -- 10 AM to 2 PM
Aquaculture Center, VIMS in Gloucester Point

For oyster gardeners, this is a great opportunity to get more oyster seed / spat, more floats, new devices, bags and new crab pot cord. MOGs will be available to discuss with you the latest ideas in raising oysters to help clean the Chesapeake Bay / tributary rivers and for scrumptious eating. If your floats have been damaged from years of use, TOGA will have a float repair station with MOGs to help repair your floats.

No experience is necessary! For people who wish to get started raising their own oysters, this will be the best opportunity this year to get the information, materials, supplies and baby oysters (spat / seed) to start their oyster gardening. **No experience is necessary!** Get hands-on experience building different types of oyster floats with Master Oyster Gardeners (MOGs) supervision. At the TOGA education tent you can talk with MOGs about oyster growing techniques, float types, and get your questions answered.

For folks who do not have time to build floats, the TOGA Pre-Built Floats and Devices are available at this workshop. Pictures and descriptions of these products are on our website, <http://www.oystergardener.org/#!devices-and-designs/c2ir>. Please use the Registration Form to order these Pre-Built Floats and Devices so the products can be available for you to pick-up at this workshop. The VIMS Fellowship receives all proceeds from the Pre-Built Floats and Devices. TOGA volunteers provide all labor and transportation to make this possible.

Multiple oyster seed (spat) vendors will be on-hand to deliver seed. Fertile (diploid) and spawnless (triploid) oyster seed will be available. Please bring small coolers to store the seed while you enjoy the rest of the event. Vendors will have their supplies and equipment available for sale. We will also have information and tickets for the upcoming TOGA 5th Annual Oyster Tasting Event in November. TOGA will also have applications for the Virginia Chesapeake Bay License Plates; revenue from these License Plates funds the Chesapeake Bay Restoration Fund grants, of which TOGA is one of many recipients.

For at-home float builders, we will have limited supplies of accessories at nominal prices. Some folks have indicated these items are hard to find. These include pig ring tools, stainless pig rings, wire cutters, bungee cord, plastic hooks, and synthetic crab-pot line.

The Registration Form for this event is enclosed at the end of this newsletter and is also available on our website www.oystergardener.org. TOGA would like to receive the registration forms **by September 5th**,

2014 to insure that enough materials are on hand for float building and the Pre-Built Floats and Devices can be delivered at this Oyster Float Building Workshop. Additional information about oyster float types and raising oysters can also be found on our website.

Hands-on float building takes some time, so arriving at this event during the mid-day may reduce your wait times. The TOGA education tent and additional event vendors are planned to help wait times go by quickly.

Charles Yarbrough, MOG

Enjoy Fall at Stratford Hall!



TOGA is once again partnering with Stratford Hall for its popular Wine & Oyster Festival, scheduled for September 20-21, 2014. The event will feature wine tasting from Virginia wineries, tasting of Chesapeake Bay and Tidewater oysters, as well as specialty foods, arts and crafts vendors, children's arcade, and antique car show on Sunday, and much more. Last year's event was attended by 5000 people, and supported by 32 enthusiastic TOGA volunteers.

TOGA is actively engaged in the planning of the event, working closely with participating oyster growers and coordinating speakers and demonstrations for an Education Tent. We will also have our TOGA booth, promoting our mission and supporting oyster gardening. Participating oyster growers include: Ward Oyster Company, Chapel Creek Oyster Company, Rappahannock River Oysters, Dragon Creek Oysters, MiFarm Oysters Inc., and Chessie Seafood.

The event takes place on the Oval, a four acre tree-lined lawn that is directly in front of the historic circa 1738 Great House. All activities are included in the admission price. Discounted tickets are available on-line. For more information visit www.StratfordHall.org or call Jon Bachman at 804-493-1972, or by email jbachman@stratfordhall.org. You may also contact Mike Todd, the TOGA coordinator for this event at 919-606-2159, or by email mtodd.nc@gmail.com

Mike Todd, MOG

Fifth Annual Virginia Half Shell Oyster Tasting – November 1 – Kelsick Gardens, Gloucester

Tidewater Oyster Gardeners Association will present its Fifth Annual Virginia Half-Shell Oyster Tasting from 1PM to 4pm on Saturday November 1, in the parking lot outside Kelsick Specialty Market, 6632 Main Street, in Gloucester.



As in previous years, there will be six local Middle Peninsula Oyster Growers providing fresh oysters from the varying waters of this area. People who attended this event in the past were surprised and pleased to find that they could identify different tastes in oysters from different waters. It is not just the saltiness that differs, but other tastes deriving from the water in which the oysters grew.

TOGA members planning this event are very dependent on volunteers to shuck oysters but also to do setup and clean up, as in every successful happening. Last year, a training session with Deborah Pratt and Clementine Boyd Macon prepared a number of members with expertise in oyster shucking.

If you have not taken part in one of these Tastings, now is the time. A relatively small event, there is time to talk with Growers and other gardeners, and even pick up a few hints on oyster growing from Master Oyster Gardeners who will be in attendance. Deborah Pratt, many times National Champion Oyster Shucker, again will be there to help you brush up on your shucking technique.

Oyster Aquaculture in Virginia has been a resounding success, with each year's harvest showing a huge increase in oysters sold over the last year. It is believed that Oyster Aquaculture will continue to revitalize the industry in Virginia, to the good of the Chesapeake Bay as well as the economy of the region. Most of all, it provides a wonderful experience for oyster lovers all over the region.

Tickets for the Oyster Tasting may be purchased at Kelsick Specialty Market in Gloucester, or by mail to TOGA PO BOX 2463 Gloucester VA 23061 and by going online to the TOGA web site www.oystergardener.org and purchasing tickets via PayPal. Beer, wine and other beverages, and food will be available separate from the ticket purchase price.

There will be a limited number of tickets available at \$30 a person. Last year's event was sold out, so don't delay.

Brian Wood, MOG, TOGA President

100 Attend MP Oyster Fair at Gwynn's Island

We had a great turnout on May 10, 2014 for the Middle Peninsula Spring Oyster Fair. About 100 attended and we packed the Gwynn's Island Civic Center. Welcome aboard to the 19 new members who joined at the event. Vendors did a brisk business on spat and equipment.

Mike Congrove of Oyster Seed Holdings gave a great educational talk on the science and practice of large-scale production of oyster larvae and seed for the aquaculture industry. He and OSH employees then led tours of their facility on Gwynn's Island. For more on OSH, please visit www.oysterseedholdings.com.



In the left photo, new and experienced oyster gardeners register for the event at the Gwynn's Island Civic Center. Ar right, Mike Congrove of Oyster Seed Holdings explains the life cycle of an oyster and how OSH uses that knowledge in large-scale production of oyster larvae and seed. *Vic Spain, MOG*

Northern Neck Oyster Fair

Our Northern Neck Oyster Fair was held in Lottsburg on June 7, 2014. The program included a keynote presentation by Dr. Jim Wesson, Department Head of Conservation and Replenishment at VMRC. Dr. Wesson provided an update on the oyster industry in Virginia, and discussed some recent challenges facing the hatcheries and growers. Dr. Lynton Land shared results of TOGA's Growth and Longevity Study, and Vic Spain gave a tutorial on how to get started with oyster gardening.

We had another great turnout, and welcomed 22 new members to TOGA. Vendors were on hand to provide oyster seed and equipment to our membership. *Mike Todd, MOG*

TOGA at RivahFest 2014

One of TOGA's favorite festivals is the heavily attended RivahFest (every 3rd Saturday in June) on the banks of the Rappahannock River in the old town of Tappahannock, VA. This special day provided a wonderful venue for many local businesses, churches, non-profits, US Marines, government agencies, Environmental groups, Civil War History exhibit on wheels, artists, crafts, jewelry and many different food vendors. Fun activities included RivahFest Idol singing contest, with the winner bringing home a \$1000 first prize. Also, the crowd enjoyed crab races, dunk tank, cornhole tournament, car show and new boat show. For musical entertainment the event started out with an uplifting Christian band and later was followed by a great country band.

Our TOGA tent volunteers stayed quite busy answering questions about oyster gardening and showing off Big Bertha (our live 10+ inch oyster mascot) as she did a marvelous job filtering the aquarium's murky Bay water; demonstrating oysters' amazing cleansing capabilities. She is a crowd pleaser; and the

kids just love to watch all the other tank critters (small fish, crabs, shrimp; and this time, an eel). Our tent was so well received, and spectators showed such an interest in the oysters and cage displays that about two hours before the event ended we were running out of literature / pamphlets. We will bring much more next year!

We also had a visit by a huge supporter of Oyster gardening /aquaculture and a champion of environmental issues on the Bay: Virginia's Congressman Rob Wittman. Rob spent some quality time with us discussing the evolving oyster industry and its challenges, along with all the positives for our state and Bay.

Big thanks go to my wife Ann, daughter Katie, good friends Bob and Sue Morgan, and Master Oyster Gardeners (MOGs) Jim & Jennifer Palazzo for volunteering and making this a wonderfully fun and valuable public TOGA day!

Brian Wood, MOG, TOGA President



Congressman Rob Wittman discussing oyster gardening with Brian Wood and other TOGA members at RivahFest 2014.

TOGA's Master Oyster Gardeners (MOGs) interacting with Students

For the first part of this year a number of TOGA's MOGs have been working area events, teaching students about oyster related subjects such as: oyster history on the Chesapeake Bay, the troubling effects of disease and overharvesting, methods of harvesting with hands on demonstrations of tonging for oysters from a skiff, salinity testing with a refractometer, oyster life cycle and anatomy and finally the dynamics of oyster gardening / aquaculture.

Two events were held at Belle Isle State Park in Lancaster, VA. One was the "Northern Neck History and Culture Day" (in cooperation with Reedville Fishermen's Museum) attended by the local area home-schooled students and parents (almost 200 participated). The other had a theme of "Thinking Outside the Sink;" put on by the Northern Neck Soil and Water Conservation, accommodating Richmond County middle-school students.

A new event this year was held at the Reedville Fishermen's Museum's Oyster exhibit, hosting Mennonite students from St. Mary's County, Maryland. These children were enthusiastic and a joy to work with. Our next generation of oyster lovers!

Another ongoing youth program is with the Boys and Girls Club of Kilmarnock where the students are learning the above mentioned oyster related subjects, plus building cages, gardening and maintaining their own oysters (including documenting growth and mortality). TOGA volunteers meet with these students once a month to see the oysters' progress when weather allows.

In July one more opportunity was presented to work with youths from all over the state in a six week program at the Boy's Camp in Kilmarnock; where we explained oyster gardening, anatomy, history and what the oyster means to the Bay. We also hoisted up TOGA donated oyster cages we had in place since October 2013 and let the students see firsthand how many varieties of critters live in and around the oyster garden. It's amazing to watch these students, that don't live in the area of the Bay and its tributaries, experience the discovery of all the different species of fish, crustaceans like crabs, shrimp, amphipods, also different algae, mollusks, and sponges. A real day of discovery!

In 2014, TOGA has two more remaining events for students: Education Day at Urbanna's Oyster Festival on November 6th (working with many of the local private schools). And another Belle Isle fall event is scheduled on October 9th with middle-school students.

If anyone enjoys working with these youths and would like to volunteer for such activities as teaching about oyster gardening / aquaculture and Bay awareness, please contact me directly at email: awood45858@aol.com . Your time and efforts will be much appreciated.

Brian Wood, MOG, TOGA President

Master Oyster Gardener Refresher Course Recap

This year's MOG refresher course was held at VIMS on May 31st. Although it's named the "MOG" refresher, it's not just for the master oyster gardeners – it's a great opportunity for all members of TOGA to learn and exchange ideas. The educational program is focused on the most current oyster research and related ecosystem topics. It's held in even years, opposite of the 2-day MOG course. The next refresher course will be in 2016 so consider joining in the fellowship, learning and feasting (there is always lots of great food!)

The morning session covered general interest oyster topics. We learned from the economics presentation that although oyster production is strong in Virginia, hard clam culture contributes more than double the farm gate value of our cultured oysters. Overall, commercial shellfish culture has an economic impact of \$81 million to Virginia. The morning session also included a tale of intrigue -- how using long term datasets from molluscan ecology surveys uncovered a shift in the spawning timing of Bay oyster populations. Could this be an impact from dermo disease? Global warming? Stay tuned as this mystery unfolds.

And last, but not least, we learned how to better navigate and use interactive mapping tools for shellfish applications. Tricks of the trade include checking the metadata to determine the information presented is current.

We were fortunate to have Karen Duhring from VIMS' Center for Coastal Resources Management (CCRM) prepare the afternoon session focusing on living shorelines for erosion protection and how oysters fit in. Among the speakers were two esteemed TOGA members (Vic Spain and Julian Cox) who shared their vast experiences with living shorelines. It's important to remember all living shoreline projects are not the same; considerations need to be made for the particular site conditions. We also learned these projects take maintenance and time but when successful will attract a host of flora and fauna.

Karen Hudson, VIMS

TOGA Microscope

TOGA recently purchased a trinocular compound microscope to use at outreach events. It has adjustable binocular eyepieces and an additional (third) vertical port where a video camera is attached. The video camera output is fed directly into our 60 inch flat-screen TV so the images can be projected in real time for all to see. We plan to use the microscope/TV at outreach events to look at things like oyster tissue and the tiny algae and animals (zooplankton) contained in drops of water. With three objective lenses and built-in LED illumination, magnifications between 20 and 400X can be examined. A fine-focus control and a sturdy mechanical stage are useful at the higher magnifications. We hope to obtain permanently mounted slides of oyster larvae in various stages of development as well as organisms commonly used by oysters as food to be used when "live" samples are not available.

We are also in the process of obtaining useful videos to display on the TV at outreach events. If you have any favorites, please let us know. We plan to produce a short "how to" video loop in hopes of attracting attention and more gardeners

Dr. Lynton Land

An Oyster Tray Design Using Bread Trays

Since I was interested in saving time and money while trying to raise oysters, I have been considering different ways to fabricate oyster cages. I feel that the design that I have been working on has merit. Therefore, I wanted to publish it with TOGA so that members may try it.

Rather than buy commercial metal cages or fabricate all-metal cages from vinyl coated wire, I decided to use plastic bread trays. The brand I picked for my trials is an off-the-shelf model from Orbis, an American company located in Wisconsin. There are several advantages to using these plastic bread trays: (1) They are American-made from recyclable plastics, (2) They do not corrode, (3) They are stackable, which helps for carrying trays of oysters on a boat or on the dock, (4) They are conveniently sized for carrying by a single person without being too heavy, (5) They have side openings that can be used to attach them to hoists, (6) They are easy to clean and durable, (7) They are less expensive than other options I have found, (8) They are easy to assemble and use, and (9) If someone were to use these trays in quantity for commercial purposes, Orbis also sells a wheeled dolly that can be used to move stacks of trays around.

Since I live on the Lynnhaven River, which has a mucky bottom in most of the river, I decided to stack one bread tray on top of another in order to raise the oysters off the bottom. The bottom tray keeps the

oysters on the top tray off the bottom and improves water circulation around them. The plastic mesh of the bottom tray provides enough surface area to keep the top tray from sinking into the mud. The trays can be easily joined together using nylon zip ties and can be attached to a rope or pole to keep it in place.

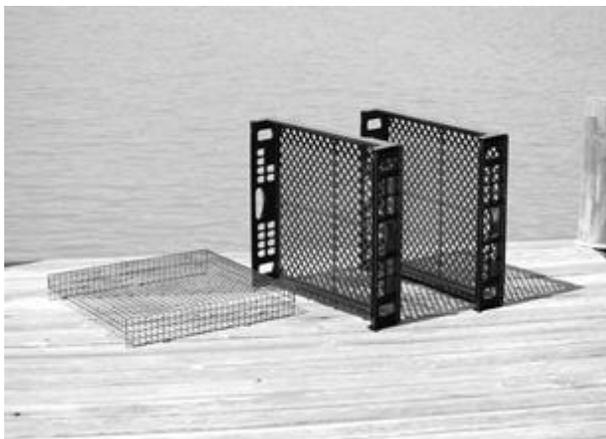
Initially, spat or juvenile oysters can be kept in the bread tray using the typical plastic mesh bags. After the oysters are large enough, they can be put directly onto the plastic bread tray. The one disadvantage of using these bread trays for oyster trays is that the trays float. Therefore, until the oysters get large enough, you would probably need something like a brick to weigh them down. A simple top cover made out of vinyl coated 1" spaced wire mesh can then be used to cover the top bread tray and protect the oysters from predators such as cow-nosed rays. A single bread tray can hold up to 500 larger oysters.

Picture 1 that is provided with this text shows the bottom and top bread trays before assembly. Picture 2 shows the bread trays joined together using zip ties and covered with the vinyl-coated metal-mesh protective cover. Picture 3 shows bread trays with oysters but without the protective cover at my dock on the Lynnhaven. Picture 4 shows a tray with oysters and the protective cover.

I hope that other oyster growers in Virginia will appreciate the benefits of using these bread trays and will consider trying this design out. I think that the time and labor saving makes this approach very attractive. Perhaps you can also come up with design refinements that will make it even better. To help things along, I have listed below the manufacturer and model of the bread tray that I used.

Bill Fleming, wwfleming@hotmail.com

Bread Trays: Model NPL660B-10Q& Blk; Orbis Corporation, 1055 Corporate Center Drive, Oconomowoc, WI 53066-0389; www.orbiscorporation.com



Picture 1



Picture 2



Picture 3



Picture 4

Hayes Oyster Company Visits Loch Fyne Oysters LTD.

TOGA Member John Boehmer (Hayes Oyster Company) combined a pleasure trip to Scotland with an education on how oyster culture is done in Scotland. In the left photo, Andre Hughes (R) of Loch Fyne Oysters explains their operations to John (M) and Alan Watson (L), Boehmer family member and Edinburgh native.



On the right photo, these sturdy baskets are suspended from long runs of metal frames and are allowed to ‘swing’ in response to tidal flow, producing better circulation and produce a ‘rumbling’ action, which breaks off excess shell growth, or shell ‘shoot’. This helps to produce a well-shaped oyster which stimulates meat growth. The rumbling effort used to be accomplished by hand, so these baskets save many man-hours of labor. Hayes Oyster Company has since purchased several of these baskets, and they may be the path forward. Please see the full article at www.oystergardener.org/ under the **NEWS** button on the menu bar. John goes into greater details about the Pacific oysters grown in Scotland, the aquaculture methods and the food. Thanks to John for sharing his trip report.

Oyster Float Building Workshop Registration Form

The Hatchery at VIMS in Gloucester Point

10AM to 2PM, Saturday, September 13, 2014

Please mail this Registration Form to TOGA, P.O. Box 2463, Gloucester, VA 23061

Or email a detailed request to vicspain@rocketmail.com or casper@verizon.net

Name: _____ Email: _____

Telephone: _____ Mailing Address: _____

This Registration Form MUST BE RECEIVED BY SEPTEMBER 5, 2014 for TOGA to have sufficient materials available for you to build your float(s) or for TOGA to produce your pre-built float(s) and devices!

Pre-Built Floats and Devices

Please see our website <http://www.oystergardener.org/#!/devices-and-desgns/c2ir> for information about the various types of Pre-Built Floats and Devices.

| Qty | Cost Each | Description | Qty | Cost Each | Description |
|-------|-----------|-----------------------|-------|-----------|----------------------|
| _____ | \$95 | Taylor Float | _____ | \$15 | Top for Taylor Float |
| _____ | \$110 | Taylor with Top Float | _____ | \$60 | Flip Float Lifter |
| _____ | \$65 | Flip Float | _____ | \$45 | Bender 42 inch |
| _____ | \$50 | Bottom Cage | _____ | \$50 | Bender 50 inch |
| _____ | \$45 | Downunder | | | |

Accessories

| Qty | Cost Each | Description | Qty | Cost Each | Description |
|-------|-----------|---------------|-------|------------|---------------------|
| _____ | \$15 | Pig Ring Tool | _____ | \$12/lb. | Stainless Pig Rings |
| _____ | \$6 | Wire Cutter | _____ | \$0.15/ft. | Bungee Cord |
| _____ | \$0.40 | Plastic Hook | _____ | \$0.06/ft. | Crab-pot line |

Build Your Own Floats

I plan to build _____ (quantity) Taylor Float with Top at \$100 per float.

I plan to build _____ (quantity) Taylor floats at \$85 per float.

I plan to build _____ (quantity) Large Flip Floats at \$55 per float.

Float building instructors will assist you with building your floats.

Payment for floats, devices will be collected at the check-in table at the Oyster Float Building Workshop.

For more about this workshop please visit our website <http://www.oystergardener.org>
Or contact Charles Yarbrough at casper@verizon.net OR Vic Spain at vicspain@rocketmail.com

UPCOMING TOGA EVENTS

TOGA Float Workshop

Event Coordinator: Charles Yarbrough, caspery@verizon.net

Location: VIMS. Date: Saturday, September 13, 2014. Times: 8:00 a.m. – 3:00 p.m.

Stratford Hall Wine and Oyster Festival

Event Coordinator: Mike Todd, mtodd.nc@gmail.com

Location: Stratford Hall Dates: September 20-21, 2014. Times: 9:00 – 6:30 on Saturday and 9:00 – 5:30 on Sunday.

Urbanna Oyster Festival

Event Coordinator: Lou Castagnola, clouis710@cox.net

Location: Urbanna, VA Dates: November 6, 7 and 8, 2014. Times: Thursday – 8:00 a.m. – 2:00 p.m.; Friday – 8:00 a.m. – 5:00 p.m.; Saturday – 8:00 a.m. – 7:00 p.m.

Half Shell Oyster Tasting

Event Coordinator - Brian Wood, awood45858@aol.com

Location: Kelsick Market, Gloucester, VA. Date: November 1, 2014. Times – 9:00 a.m. – 4:00 p.m.

WOULD YOU LIKE TO VOLUNTEER??? *If you would like to volunteer to help at any of these events, please contact the Event Coordinator listed above.*



Our newsletter was paid for by funds generated from the sale of Chesapeake Bay license plates. These funds also help pay for the Spring Fairs and the MOG course.
See <http://dmv.virginia.gov/exec/vehicle/splates/info.asp?idnm=CB>

***The best source of TOGA information is at
www.oystergardener.org***



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