

Severn River Association Minutes

Board of Directors Meeting Tuesday, May 15, 2012

The meeting was called to order at 7:10 p.m. by President John Wright 7/17/2012 7:08:44 PM

Presentation: Movie “SHELLSHOCKED: *Saving Oysters to Save Ourselves*” with comments by Chris Judy of DNR.

The movie lasted about 40 minutes and is available on DVD (for about \$30) from the Director, Emily Driscoll via www.shellshockedmovie.com/. It features interviews with Kyle Bennett, Meredith Comi, Fabien Cousteau, Sylvia D'Alessandro, Mara Haseltine, Mark Kurlansky, James Lodge, Pete Malinowski, Yvonne Taylor and Chester Zarnoch.

In the early days of colonial America, New York had about half of the world's oysters (see comment below), with 350 sq mi of oyster reefs in NY harbor. They were harvested and shipped all over the world. Shells (which are mostly Calcium Carbonate) were used for mortar. In the early 19th century, NY started exhausting its supply of native oysters, so they imported oysters from the Chesapeake Bay. Most oystermen were free blacks. Maryland passed restrictive laws, so they moved to Staten Island. Oyster harvesting was stopped in 1916 because of typhoid fever pollution. New York's untreated sewage caused frequent outbreaks of typhoid and Cholera. Raritan bay's oyster reef was closed in 1907. By 1960, oysters couldn't live in the Bay. The Hudson River is now much cleaner but still not good habitat.

85% of oyster habitat worldwide has been destroyed in that time period, and wild oysters are now functionally extinct.

One adult oyster filters 50 gallons of salt or brackish water per day. They primarily eat plankton. Oysters helped with the cleanup of the Deepwater Horizon oil spill and were still safe to eat. Louisiana fishermen felt that oil drilling was killing oysters, so the oil companies sponsored research which showed that test oysters subjected to crude oil, drilling mud, and even dynamite showed no ill effects, and continued to reproduce well.

The Hudson River Foundation has been studying oyster recovery for several years, and is now building new reefs. The Harbor School on Governor's Island is their home base, and they have a test bed at Bay Ridge Flats. Fabian Cousteau, a grandson of Jacques Cousteau, is on the Board of the Harbor School, and also founded an ecological charity called Plant a Fish. The NY-NJ Baykeeper is also working to restore oysters on the NJ side of the bay. The New School is growing oysters in its laboratory, using all natural materials for an artificial reef of artificial oyster shells. Oysters attach themselves to reefs with an organic glue which is so effective it may replace staples in human surgery.

NY still generates 80 million gallons per year of raw sewage during major rain events because its sewer system is a combined system handling both stormwater and sewage. Treatment plants handle normal flows, but all flow is diverted to the Bay during major storms. Jamaica Bay receives over 80,000 tons of nitrogen per year.

Baruch College, part of The City University of New York (www.baruch.cuny.edu/) is studying using bacteria to turn nitrates into gaseous N₂. These studies help to select the best locations for oyster reefs. Electrified steel (negative charge) attracts lime, making an excellent substrate for oyster spat. Typical readings for the double-helix coils used on pilings are 11 volts at 7amps.

The State of New Jersey recently banned shellfish research in polluted waters because of poaching concerns. When the research oyster reef was dismantled, all the fish who were living with the research oysters died or left, so the water which the oysters were gradually cleaning remains polluted.

Comments by Chris Judy, DNR Oyster Recovery Program Coordinator:

There are several similarities between the New York oyster program and MD DNR's oyster recovery project. For one, people care and believe that Oysters are important, and individual actions are important – it is good to get wet and muddy – and we also believe that partnerships needed to make any progress – we have 24 organizations in our oyster recovery partnership vs 28 in the NY coalition. We have also used

Reef Balls as oyster substrate. We also recognize the important connection between water quality and land use.

There are also important differences – *no bags(?)* – we use historic oyster beds, not artificial reefs.

MD had 552 (*445?*) sq mi of reefs in colonial times, more than NY. In the 1800s, seed oysters were transported from the Chesapeake Bay to NY Harbor. 15 million bushels were harvested from the Chesapeake Bay in 1885. By the 1970s this had dropped to 3 million bushels, but the 1885 count of 15 million included seed oysters, and also included empty shells & small oysters. The 1885 count probably included only 8 million bushels that would be legal by modern standards.

We have many natural beds remaining while all the New York reefs are gone. Oysters are not functionally extinct here, just impaired. For this reason, we are doing larger scale projects than NY, with more field work and less laboratory work.

Audience Questions:

Question – Are New York oysters the same genus (*Crassostrea virginica*) as Chesapeake Bay oysters?
Answer – yes, commercial oysters from Canada to the Gulf of Mexico are all the same genus.

Q – Is poaching a of restoration reefs a problem here? A – Not as bad as NY for several reasons. Most of our sanctuaries are full or half rivers, and are not polluted enough to make the oysters inedible. Our Security network – radar, etc – can be used to catch poachers; if a boat stops in a sanctuary, DNR police are alerted. We still need volunteer spotters to report unauthorized oystering to DNR. Public health is not an issue for adult oysters, but cages are polluted – DO NOT EAT FROM CAGES. To prevent such illness, DNR uses extensive education and labeling, and collect them after 9 months while they are still too small to be tempting. Reportable oyster-related illnesses could kill the restoration program.

Q – Are Chesapeake Oyster bars intertidal? A – No. Winters here are cold enough that the oysters would freeze when the tide is low enough to expose them to the cold air. They must stay in the water all winter. Heat is not a problem as they can withstand normal Maryland summer air.

Black color of shells indicates a lack of Dissolved Oxygen.

The cage design used by DNR was developed by the Chesapeake Bay Foundation, but DNR uses different proportions – our cages are shallower & squarer while theirs are taller and longer.

Q – Can polluted oysters be salvaged? A – Yes. Oysters concentrate bacteria present in the water when it is filtered through them. If you put a polluted oyster in good water, it will purge in about 3 days. Dick Spencer advised that Texas requires a 30 day purge in good water before oysters from polluted water can be legally sold.

Q – What areas of the Severn are considered too polluted to eat oysters from? A – The Route 50 bridge area is not approved but most other Severn sanctuaries are considered approved for human consumption of oysters. MDE has a website (Google Maryland shellfish) that shows closed and open areas. Just because an area is swimmable doesn't mean it is approved for shellfish harvesting.

Last year had a lot of rain resulting in relatively low salinity; this year is the opposite, with 11-12 ppt (parts per thousand) salt. This year was good for oysters, but an extended drought of 3 or more years increases disease and mortality.

The Maryland Grows Oysters program started in 2008 in 1 river, and is now in 24 rivers with 6 new rivers this year.

Closing remarks by Bob Whitcomb, SRA Oyster program coordinator:

The Oyster Recovery Partnership is leading their annual "Pearls of Wisdom Tour" of oyster operations on July 31 from 11 a.m. to 2 p.m.

The SRA is the biggest grower organization in the Maryland Grows Oysters program. Earlier this summer a certified diver organized an inspection of our oyster reef, bringing up a sample of oysters from each of our 3 rows to monitor growth of our 3 years of spat placement. The divers were impressed with the clarity of water. Oyster growth appears normal. All oysters sampled were alive, with no mortality which was completely unexpected – they appear to be thriving in their new home and are happily cleaning the water.

Business Meeting:

Minutes of the May Board Meeting and the June Membership Meeting were Approved .

Treasurer's Report – Treasurer Lynne Rockenbauch reported: \$28,438.58 in the Checking account, \$45,036.43 in the Savings account, total \$74, 732.19. All income and expenses to date are within our budget. Community memberships are up from last year, but individual memberships at the Benefactor level are down, so our net income is about the same.

Old Business:

- Richard Klein of CEDS reported there will be a meeting on July 19 at Starbucks at 7pm to look at construction sites. 5 volunteers have signed up for permanent inspection rounds so far.
- The SRA Mission Statement drafted by the Board at the May meeting has been refined by the Executive Committee and was distributed for review. Bob Whitcomb moved to adopt the revised mission statement. Motion passed.
- The SRA Strategic Plan discussed at the May meeting has also been refined by the Executive Committee and was distributed for review. Motion to approve it passed.
- Community News – The Schedule of informational meetings for the next session of the Watershed Stewards Academy has been published on the WSA website – we should add a link to WSA to the SRA website.
- **Ferry Farms?? Belvoir Farms?** plans to install a new rain garden. They are working now with AACo. Motion made to rename SRA's Stormwater Action Fund to the Marshall Dowling SAF to honor Marshall's legacy. Motion passed with minimal discussion.

New Business:

- Election of SRA Executive Committee – John Wright nominated all 6 officers Plus Duane Wilding, Dick Spencer and Lee Meadows. This slate was Elected unanimously. (Note – SRA Constitution Article IX-A states “There shall be an Executive Committee made up of the President and six other members of the Board, elected by the Board at its first meeting after the annual membership meeting for a term of one year....”)
- Dick Spencer proposed that the SRA organize an annual Riverfest – similar to the Corsica River Riverfest. Discussion – perhaps we should organize an AACo Riverfest jointly with the Magothy River Association, South River Federation and the West and Rhode Riverkeeper. This is part of Goal No. 1 listed in the 5/15 Board meeting minutes.
- Don Carren asked if we can move the monthly SRA meetings to the Maritime Museum instead of Arlington Echo since this is a much more central location and has a strong connection to the River. Bob vom Saal noted that parking may be an issue. Bob Whitcomb(??) noted that Horn Point Marina is available for overflow parking.

Meeting Adjourned at 8:55 PM.

Next Meeting: will be on Tuesday, August 21, 2012 at 6:30pm at Arlington Echo. The topic will be an update of new Rules by MD Department of Natural Resources.

Respectfully submitted,

Bob vom Saal