

ReClam the Bay / Bay Notes

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RCTB's impact on the Barnegat Bay Watershed region in 2023 has been remarkable. Contracted for two additional spat-on-shell projects (one of which, at Parkertown Beach, is already completed), this group is now anticipating more new spat-on-shell projects in 2024, along with new upweller locations and equipment around the bay. The array of educational events reached over 800 students and 250 adult-learners, and new "Shellfish in the Classroom" programs are already scheduled for January.

In addition to all of this, our finance ledger is very healthy, which will allow the organization to sustain all of these programs, along with the expansion of oyster spat growing capabilities, support of emergency stabilization needs at Clam Cove, initiation of an R&D subject study group to promote new research, with funding for internships and scholarships, and a RCTB "kick-off picnic" on May 18th to get the 2024 growing season underway!

On December 9th, ReClam the Bay held its final membership meeting of the year at **Jenkinson's Aquarium in Point Pleasant**, and was treated to a behind-the-scenes tour of their labs, to see all of the systems for daily support of this small but respected member of North America's AZA (Association of Zoos and Aquariums). Besides the Jenkinson's staff's appreciation for RCTB's volunteer support of our shellfish aquarium and upweller display, our members also heard of the critical work they do to operate a "safe haven" for certain endangered species, such as corals, penguins and other birds. The aquarium protects the viability of these at-risk marine animals, expanding understanding of their requisite living and breeding conditions, and ensuring the existence of their species. The dedication of this staff kept the building fully operational and animals safe during Superstorm Sandy in 2012. It is a remarkable facility that always educates and entertains!



Record year for clams, oysters

2023's growing season began with over 500,000 baby clams, & set a record yield (2.2 million!) for oyster spat raised

"Behind the scene" at Jenkinson's Aquarium

December Members meeting at Aquarium included new RCTB tank display/location, with tour of laboratories and support systems



Mineral Content Study for RCTB

Nick Guerriero, RCTB's R&D intern has been researching CaCO_3 levels in bay water at our upwellers this year, with informative results

Analysis of Calcium Carbonate Concentration in Comparison to Hard Clam Growth

Following on his fine 2022 study of phytoplankton levels and hard clam (*Mercenaria mercenaria*) growth, Nick Guerriero (of the MATES school, and now Stockton University) is completing a study



undertaken this growing season of calcium carbonate mineral content in bay water at RCTB upwellers around Barnegat Bay. At a forum at the Island Beach State Park's Interpretive Center in August, Nick presented his in-process study results which already indicated the connection between mineral levels as a function of alkalinity and more robust shellfish growth rates. The completed study is expected in the coming weeks, and will be available to review on the RCTB web site.

A gratifying result of ReClam the Bay's growing reputation throughout coastal NJ for education and renewal of Barnegat Bay region's many resources, has been the attention this organization is receiving from charitable foundations and corporate trusts. Grants and donations, large and small, have increased to represent a substantial portion of our annual budget, allowing our outreach efforts, marine research and shellfish repopulation initiatives the financial support to grow. Significant bequests from the **Davis & Smith Family Foundation**, the **Bill & Ginger Winder Family Foundation**, and the **Essex Avenue Foundation** augment the generous donations (often with corporate matches) from our members and partners in the community. Coupled with project grants from the state and local towns, and the remarkable expansion of our RCTB merchandise sales under Fran Sanchez and Heather Butera, this nonprofit organization is no longer looking between the sofa cushions for change.

RCTB's Record Shellfish Volumes & Yields in 2023

Our upweller clam and oyster growing season started in high gear this spring, when warmer than normal water temperatures in our bay "woke up" the 130,000 small clams being overwintered in the Beach Haven FLUPSY (floating upweller)! These clams had been intended as a starting stock for our upwellers, ahead of our normal clam seed supply arriving in July. By May, NJ DEP notified RCTB that they wanted to supply us with an *immediate* 500,000 one-year-old hard clams – which required all upwellers to scramble to find room.

In addition to the smaller cohorts of diploid oysters and surf clams also raised at our bay sites, this year saw management of heavy shellfish populations with impressive results. Oyster spat-on-shell yields exceeded 20% (21.2%) for the first time ever, resulting in 2.2 million oysters added to the Bay's living shoreline projects at Mordecia Island and Parkertown! And despite the loss of our Waretown planting site, we returned over 500,000 clams to Barnegat Bay, and 20,000 oysters to growers.



Additional RCTB News . . .

- Although a severe September windstorm canceled RCTB's first-ever annual picnic, a pair of successful events highlighted the year's end. On October 17, RCTB hosted a "Soup, Sandwiches & Science" event at the Rutgers Extension office, with **Dr. Mike Acquafredda** of the Haskin Shellfish Research Lab at RU, who led a wide-ranging talk on his research into surf clams, with even wider-ranging questions from the audience. Then, on November 9, the **RCTB Potluck** banquet brought our membership back to the Ocean Gate Yacht Club for a pre-holiday celebration of a splendid year. VP Max Lopp served as the evening's MC, with Wes Dalzell highlighting RCTB's many 2023 successes in his well-received recap presentation... and on to 2024!
- Up north in Mystic, CT, the excellent **Old Mystic Seaport Village** is a time capsule. A working village port complete with shipbuilding, fishing, commercial stores and businesses replicating life in the 19th and early 20th century, it also has a superb art gallery attached with exhibits that connect life on the New England seacoast to both the arts and science. Among other current paintings on display is one called "Transient Passage" by Alexis Rockman, brilliantly demonstrating the adaptability of coastal sea creatures to colonizing floating plastic pollution. This artfully captures unlikely protagonists at home in a soup of plastic debris, and the new field of "neopelagic ecology". RCTB will be increasing focus on pollution impact and microplastic remediation in research presentations this next year.

