

What's Inside



Residents Get Results Through Partnerships, see page 3.



You can make an Impact, see page 4-5.



Volunteer and Board Spotlight, see page 7.

The Inland Bays Journal is a publication of the Delaware Center for the Inland Bays. The CIB is a nonprofit organization and a National Estuary Program. The purpose of the Inland Bays Journal is to educate and inform citizens and visitors to the Inland Bays watershed about this "estuary of national significance."

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Inland Bays Journal

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The Price you Pay for Oysters in the Bay

By Victoria Spice, Science and Restoration Project Manager

When Mike Rowe from CNN's show *Dirty Jobs* visited the Oyster Recovery Partnership and Horn Point Laboratory in Maryland in 2014, he described oysters as being like fortune cookies with snot in them.

Ask our very own dirty-jobber, Dave Ritondo, and he will agree. A native to Washington County, Maryland, Dave moved to Delmarva 11 years ago to retire from his tree farm business and be closer to family. And by retire, we mean volunteering 30 hours a week to seven local causes and working part time as the Center's Program Assistant. So much for slowing down, Dave...

He is the one you see driving around in the Center truck, covered in sweat, loading and unloading barrels of shucked oysters from restaurants participating in our shell recycling program, *Don't Chuck Your Shucks*. Most of the time, these oyster shells will have ripened in the heat over the weekend, making Tuesday's pick up just as pleasant as you'd expect.



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THE POWER of Partnerships

Partnerships make up the web of life that is the Center for the Inland Bays. Just as natural ecosystems with the most species tend to be the most resilient to disturbances, our mission to protect the Bays is lasting due to the myriad partnerships fostered to

implement it. Time after time, the Center's partnerships have resulted in a whole that is great than the sum of its parts. And this has been good for the Bays.

My first job with the Center was as research team leader serving a partnership between the Department of Natural Resources and Environmental Control, the Smithsonian Environmental Research Center, and the EPA. This partnership of funding and expertise applied a nationally-developed method of assessing wetland health to the unique canvas of a local watershed. Our team of local experts melded the knowledge of national wetland gurus (the Smithsonian brings the best of the best) to adapt the national method by developing indicators of wetland health specific to our watershed. We found that our saltmarshes and streamside wetlands were in particularly poor health, which led the Center to increase its advocacy for policies to better protect them. Through this project, I came to recognize the power of volunteers as force multipliers to get the research done, the unique nature of experts to guide study development, and the importance of federal investment to making science happen in the little state of Delaware. The Center continues to cultivate these values through many of its on-going partnerships; here are a few others that I am particularly proud of:

- Partnership with the University of Delaware Citizen Monitoring Program to develop a new database that will organize and make publicly-available volunteer collected water quality data
- Partnership with the Delaware Divisions of Fish & Wildlife and Parks and Recreation to restore forests on their lands that will provide clean water to the Bays, store carbon to mitigate climate change, and provide habitat for migratory birds.
- Partnership with the with Delaware Botanic Gardens to create a living shoreline demonstration project on Pepper Creek to educate visitors to the garden about natural methods to control erosion.

This edition of the Inland Bays Journal, check them out. And this giving season please partner with us, the Center for the Inland Bays, to help change this place and the planet, for the better.

Sincerely,

Chris Bason
Executive Director

CIB MISSION

To preserve, protect and restore Delaware's Inland Bays and their watershed.



Volunteers plant the wetlands

By Andrew McGowan, Environmental Scientist

The Town of South Bethany has been faced with chronic water quality issues for years. Due to the design of the canals themselves, the flow of water within is slow and towards their dead ends water can remain trapped for several months. This lack of flow prevents nutrients in fertilizers and runoff that enter the canals from being flushed away and diluted. The stagnant water also warms up as it sits in the shallow canals. Together, these conditions create the perfect environment for algal blooms.

Ask any resident of South Bethany what the water can look like during late spring and they'll tell you that in some years, the canals can be totally choked with floating algae, a green canal from end to end. These blooms create dramatic swings in dissolved oxygen, which make life difficult for fish, crabs, and shellfish trying to live in the canals. In addition to the poor water quality, natural habitat is in short supply. Almost entirely bulkheaded, the 'natural' shoreline that does exist is limited to derelict boat ramps which have been partly recolonized by salt marsh grasses.

In an effort to help clean up the water, and to provide more natural habitat, the Town of South Bethany and the Center for the Inland Bays partnered together to place 127 floating wetlands within the canals. The idea for this project resulted from a previous study conducted by the Center which tested the feasibility of floating wetlands, and oysters, for improving water quality in dead end canals. This project compliments the extensive work the Center, the Town, DelDOT, and surrounding communities have been performing for years to reduce pollution from stormwater runoff into the canals of South Bethany.

Thanks to tremendous support from the residents of South Bethany, using almost entirely volunteer labor, all 127 wetlands were installed and planted in approximately one week.

Roughly 10,000 plugs of saltmarsh cordgrass were hand planted into the wetlands, which will help filter the water, taking up nutrients as they grow, and will provide excellent habitat for fish, crabs, and countless other creatures. Initial growth of the wetlands has been great, and nutrient analyses are being performed that will detail how much nitrogen and phosphorus these plants have taken up. This project is important for the water quality of South Bethany's canals, and for the creatures that call those waters home, and demonstrates what can be accomplished when residents translate their desires into action.



A newly planted wetland gets ushered into the canal waters ready for deployment



A floating wetland after 100 days of growth



A new wetland installed along a dead end bulkhead





You can make an impact, too! Your financial contribution enables us to conduct research, restore habitats and shorelines, and educate our community. **DONATE TODAY TO HELP YOUR INLAND BAYS!**





















So why then take on this dirty job?

Talk to Dave for 30 seconds and you will understand; it's just like Mike Rowe said, it takes passion and purpose. No stranger to the Center's citizen science programs, Dave sees his role in the classic recycling triangle.

"People eat the oysters, the oyster shells get picked up, the shells go back into the Bays improving water quality, creating habitat, diverting waste, end of story, it's just the greatest thing."

This recycling process is a great way to help restore the bays, but this particular job isn't for everyone. The smell might turn the stomachs of some people, especially during pick-ups after a sweltering summer weekend, but not Dave. Given that Dave's been volunteering with the Center since 2008 and collecting oyster for the past four years, he's



learned a thing or two: stand up-wind of the barreled oysters and launder *Don't Chuck Your Shucks* clothes separately from the rest of the wash. But the interactions with people who ask what he's doing makes it worth it he says. "Once I tell them about the Program and the Center, they really appreciate what I do."

Isn't that what it's all about—creating dialogue, sharing stories and making partnerships? Since the start of the Don't Chuck Your Shucks program in 2014, we've collected over 11,000 bushels of oyster shells and partnered with over 30 local restaurants. Dave makes a regular "milk run" to collect the shells twice weekly in the summer and weekly during the off-season. The restaurants separate the shells from their waste stream and store them in barrels provided by the program. Dave picks up the shells, delivers them to a storage location, where they are cured for at least six months.



Dave standing with his barrels of oysters outside of a participating restaurant



From there, most of the shell will be placed into mesh bags for use as building-blocks of sorts; their three-dimensional shape provides structure and refugia for small crabs, fish, and other shellfish. The bags are used in the Center's Oyster Gardening program, as building materials in Living Shoreline projects, and in oyster reef projects. Three Living Shoreline projects and three pilot reefs are planned over the next year. They all require spent shell, and Dave's efforts bridge the gap from garbage to a truly living resource.

Jokes aside, our dirty-jobber Dave is one man, but he has made one big impact. So next time, when you're visiting one of our participating *Don't Chuck Your Shucks* restaurants, as your slurping down your chilled raw oyster, you can think of Dave. And be eternally grateful that there's someone out there dedicated to this recycling triangle, because as Mike Rowe would say, "somebody's gotta do it."

SPOTLIGHT

VOLUNTEER SPOTLIGHTMike and Maryanne Siegert



Mike and Maryanne Siegert initially became interested in helping at the Delaware Center for the Inland Bays after attending several of our annual Native Plant Sales. Everything came together, however, when they spotted an article in the Coastal Point about the Center's volunteer program. They had their official volunteer interview meeting in the winter of 2017/2018 and have been heavily involved ever since!

You may recognize Mike and Maryanne from Saturdays at the James Farm Ecological Preserve. There they volunteered as docents this spring, summer, and fall, chatting with visitors about the site and the work the Center does there. They also got hands-on with citizen science during the Horseshoe Crab Survey and Tagging project this spring — an opportunity to study a species whose unique blood plays a large role in our current medical industry.

But Mike and Maryanne's dedication doesn't stop there. "We've become increasingly aware of the importance of Delaware's Inland Bays in terms of not just personal recreation but also the local economy." It is this commitment that drives them to help improve Delaware's waterways.

They are involved in a current Living Shoreline project and have been big supporters of their community's decision to install a robust Living Shoreline. They have even helped the Center scoop and bag the recycled oyster shells that will play an integral role in its construction.

Mike and Maryanne feel more strongly than ever that local residents must be involved in protecting and restoring the Inland Bays. "We have met so many outstanding and inspirational volunteers," they said. The CIB gives volunteers the opportunity to do as little, or as much as they desire. Volunteers feel appreciated and we feel like we're making a difference in our hometown...and it's great fun!"

BOARD MEMBER SPOTLIGHT David Baird



David Baird may be most recognizable as the District Coordinator at Sussex Conservation District. But here at the Center, he also serves in the important role as member of the Board of Directors.

David's family has been visiting the Inland Bays and their surrounding watershed for generations and he hopes that they continue to do so "for generations to come." But David is keenly aware that our Bays must be protected. "To many, the Inland Bays not only serve as a recreational playground and habitat for numerous species but also as an economic driver for the region, State and County," he explains. "The Inland Bays are an essential part of who and what Sussex County is all about and deserve our attention."

He initially joined the Center's Board of Directors in 2013, as the Sussex Conservation District's representative and today serves as the Board's Treasurer. His role, however, grew from one of professional obligation to one of personal conviction: "I believe that we should be able to utilize the Inland Bays and all of our other natural resources to meet the needs and demands of today's world. However, that ability comes with a tremendous responsibility to understand the consequences of our actions and be good stewards of the land and water resources in our area."

David believes that the residents and visitors to the Inland Bays watershed are tasked with the responsibility to protect them for future generations. He encourages others to take the opportunity to get involved in any way possible: Help count horseshoe crabs, volunteer at the James Farm, make a donation, attend a workshop and, most importantly, learn about the Inland Bays and the positive impacts they have on the surrounding communities.





Return Service Requested



When you eat oysters or clams at a participating restaurant, your shell will be reused in projects that benefit Delaware's Inland Bays!

Get started at www.inlandbays.org/shucks

