



RUTGERS

New Jersey Agricultural
Experiment Station

Responsible Stewardship of New Jersey's Valuable Marine Resources

Science Saturdays Seminar Series
Long Beach Island Foundation of Arts and Sciences
January 20, 2024

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Marine Extension Agent for Ocean, Atlantic, and Monmouth Counties
Rutgers Cooperative Extension
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NJ Agricultural Experiment Station

The NJ Agricultural Experiment Station (NJAES) was established in 1880 to carry out the land grant mission focused on serving the needs of NJ's residents, communities, and businesses through research and education.

Commercial Agriculture



Environment and Natural Resources



Fisheries and Aquaculture



Food, Nutrition, and Health



Home, Lawn, and Garden



Youth and Community Development



<https://njaes.rutgers.edu/>

Rutgers Cooperative Extension

- Rutgers Cooperative Extension (RCE) was established in 1914 and brought Rutgers faculty members into all of NJ's 21 counties.
- Mission: "...help the diverse population of NJ adapt to a rapidly changing society and improve their lives and communities through an educational process that uses science based knowledge".




njaes.rutgers.edu/extension100years

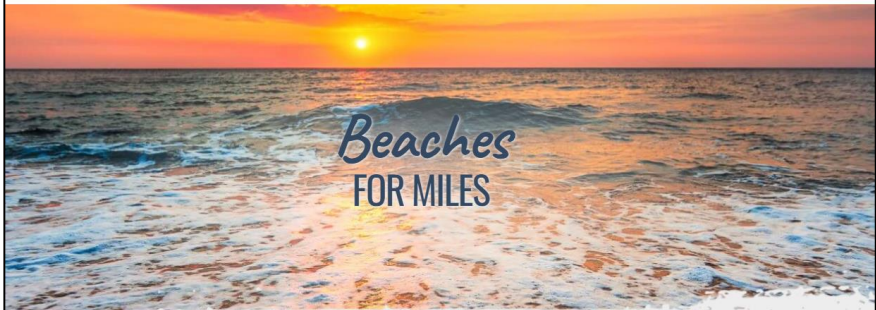


<https://njaes.rutgers.edu/extension/>





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[EVENTS](#)
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[REGIONS/CITIES](#)
[PLACES TO STAY](#)
[PLAN YOUR TRIP](#)
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Beaches FOR MILES

Get your dose of vitamin sea

From the top of Sandy Hook to the tip of Cape May Point, 130 miles of New Jersey beaches are summoning you to their shores. Soak up the sun on stretches of soft sand as far as the eye can see. Bask in the good times on natural barrier islands. And tackle adventures on land and water along glistening back bays. "Down the Shore" means something special to each of us and our NJ beaches are open to all the possibilities. Whether you seek the glitz of Atlantic City, the picturesque Victorian charm of Cape May, the family-friendly fun of Point Pleasant, the edgy vibe of Asbury Park, the Doo-Wop energy of The Wildwoods or the pure serenity of Stone Harbor, there is a beach just right for your mood and a perfect patch of sand for your favorite beach blanket.

<https://visitnj.org/nj/beaches>



NEW JERSEY BEACHES

REFINE YOUR SEARCH:

SORT BY: [ALPHABETICAL](#)

1 2 3 4 5 6 NEXT › LAST ›

Region


- ☐ Central Jersey Region
- ☐ Gateway Region
- ☐ Shore Region
- ☐ Greater Atlantic City Region
- ☐ Skylands Region
- ☐ Delaware River Region

+ SHOW MORE


City

- ☐ Absecon
- ☐ Absecon City
- ☐ Absecon Heights
- ☐ Absecon Highlands
- ☐ Academy
- ☐ Adelphia

+ SHOW MORE



ATLANTIC CITY
Boardwalk
Atlantic City, NJ 08401




AVALON
2989 Ocean Dr.
Avalon, NJ 8202




AVON-BY-THE-SEA
Ocean Ave.
Avon By The Sea, NJ 07717



BARNEGAT LIGHT
Bayview Ave.
Barnegat Light, NJ 08006



BELMAR
Ocean Ave.
Belmar, NJ 7719



BRIGANTINE BEACH
Ocean Ave.
Brigantine, NJ 8203



Boost Your Vibe in Ocean County

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Beaches & Boardwalks



<https://oceancountytourism.com/beaches-boardwalks/>

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BarNEGAT Bay & Nature



<https://oceancountytourism.com/barnegat-bay/>







STATE OF NEW JERSEY
DEPARTMENT OF AGRICULTURE
JERSEY SEAFOOD

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NJDA Home | Jersey Seafood Home

from the garden state...it's a shore thing



jersey seafood links

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program



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just for kids



Recipe of the Month

This month's Jersey Seafood highlighted recipe is [Barnegat Light Scallops with Creamless Creamed Corn](#) by Chef Bryan Gregg of Escape Montclair, his 2015 Jersey Seafood Challenge -winning dish.

[>>archived recipes](#)



Video Tips

Need help in preparing seafood and want to learn more about the seafood industry? [View our library of videos.](#)

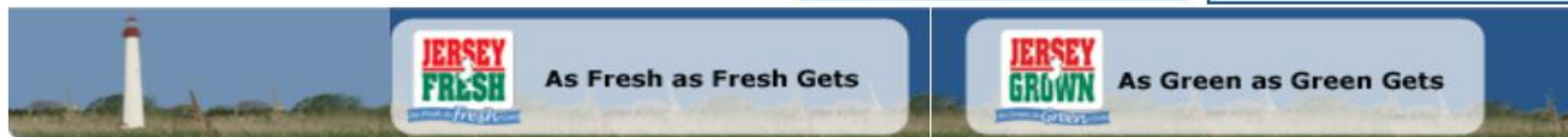
Ask for *Jersey Seafood* at your local supermarket or fish market.



2015 Jersey Seafood Challenge

Congratulations to Bryan Gregg, Chef/Owner of Escape Montclair, who won the 2015 Jersey Seafood Challenge with his Barnegat Light Scallops dish. [Read more...](#)

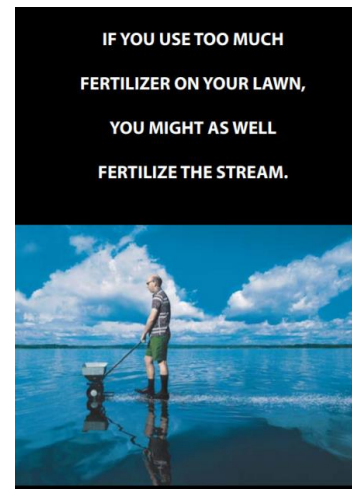
[>>archived headlines](#)



<https://www.jerseyseafood.nj.gov/>

Ecosystem Stressors

- Human Development
- Nutrient and Pollutant Runoff
- Climate Change
- Ocean Acidification
- Storms and Erosion
- Sea Level Rise
- Habitat Degradation
- Overexploitation of Resources



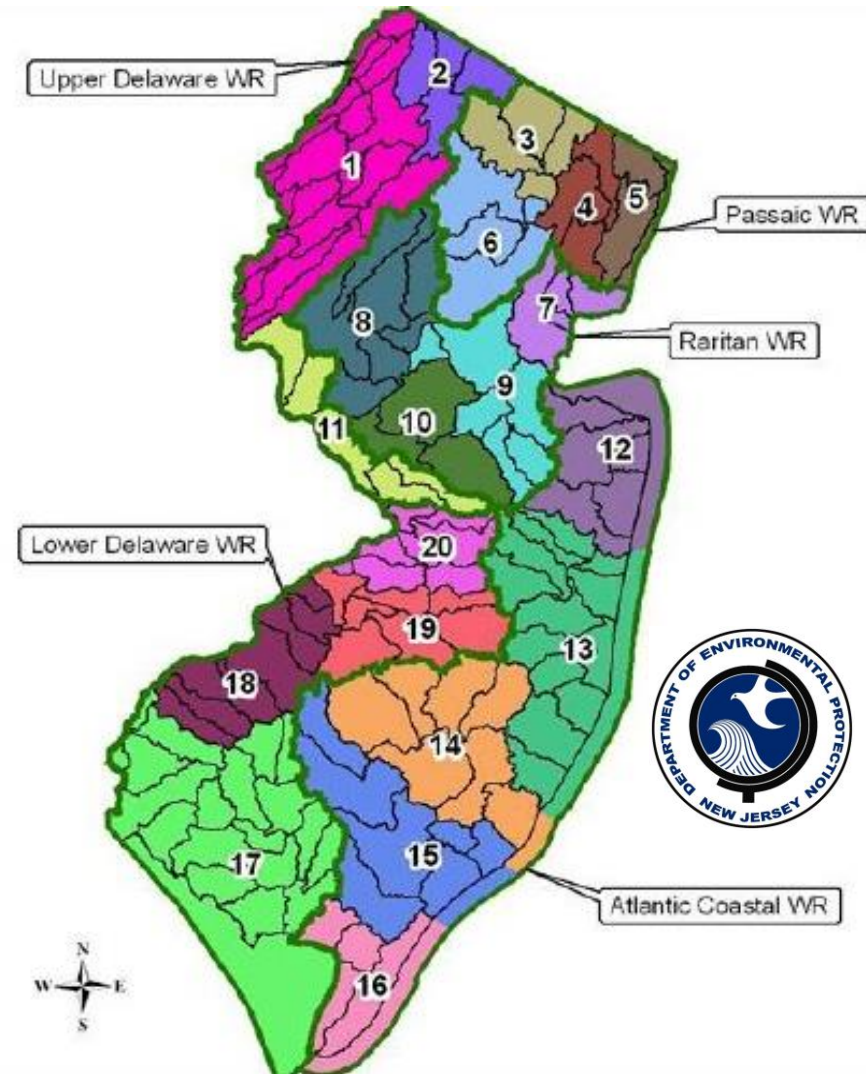
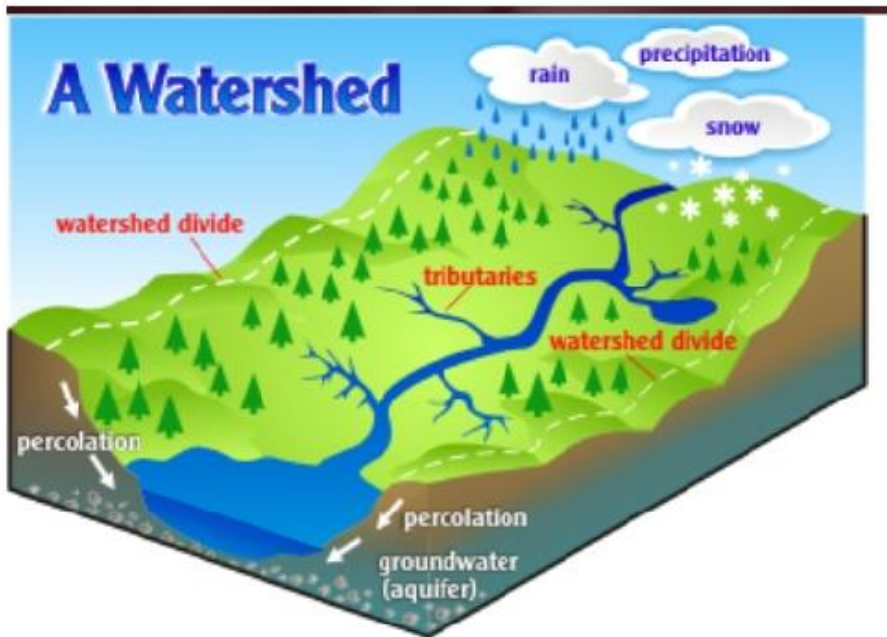
What Can You Do?

- There are things that everyone in New Jersey can do to be more responsible stewards of our marine resources.
- Science based education - gain knowledge to make progress on marine resources issues.
- Hands-on activities - actions in personal or business lives, volunteering, or citizen science.



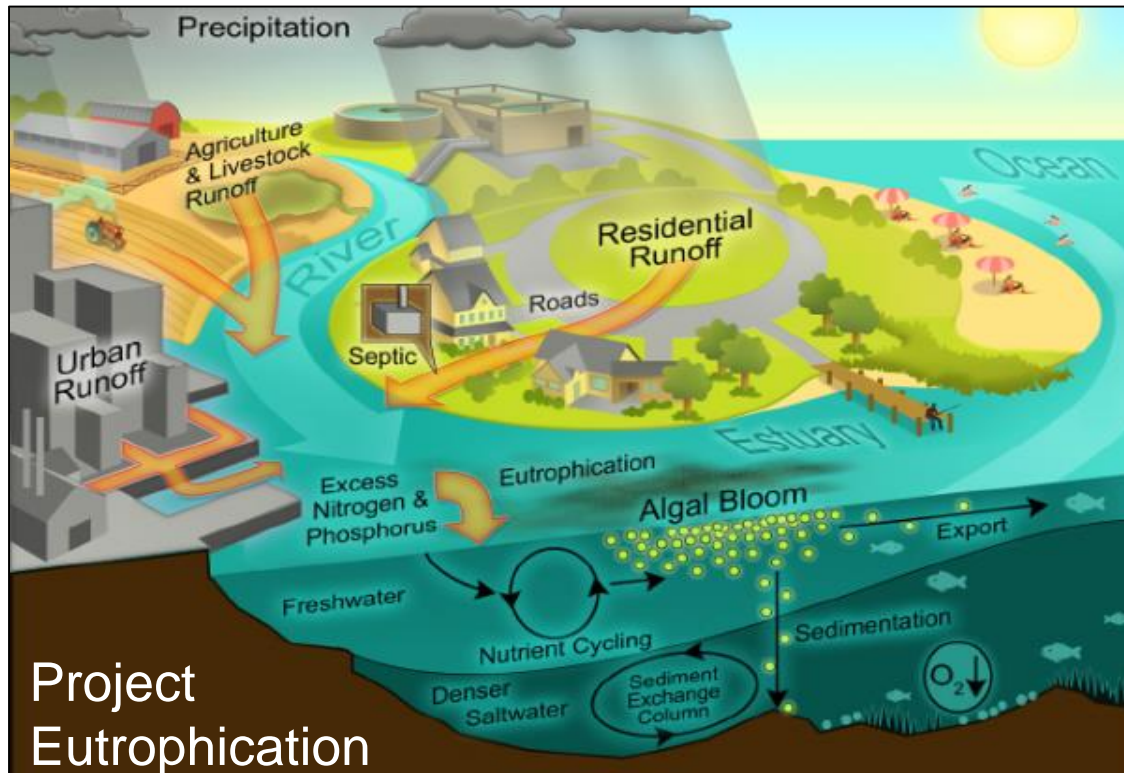
New Jersey's Watersheds

- **Watershed:** a land area that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean.

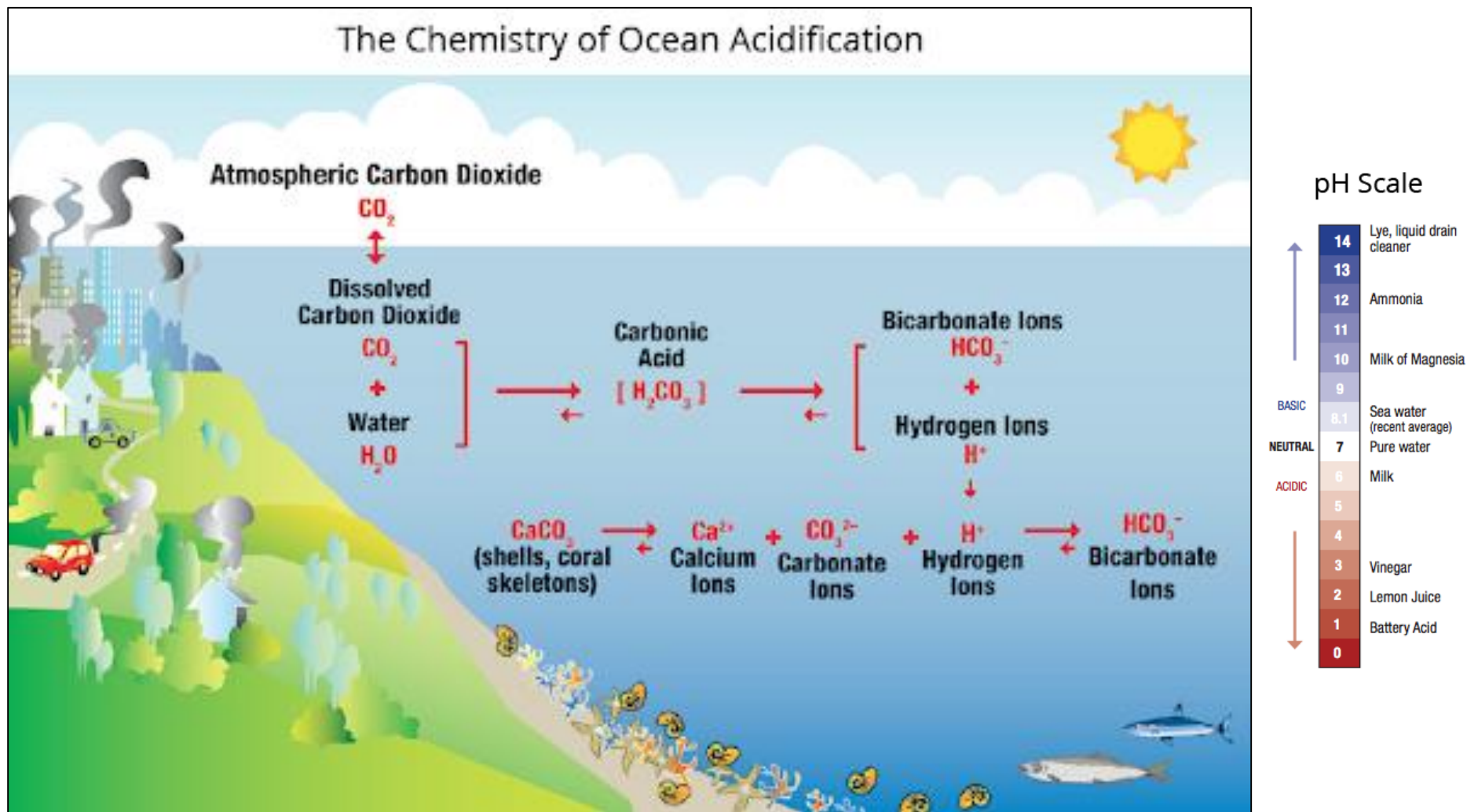


Eutrophication

- Eutrophication** is characterized by excessive plant and algal growth due to the increased availability of one or more limiting growth factors needed for photosynthesis, such as sunlight, carbon dioxide, and nutrient fertilizers.



Ocean and Coastal Acidification

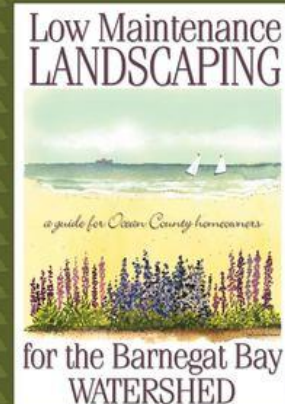


Northeast Coastal Acidification Network (NECAN): <http://www.necan.org/>

How Fertilizers Are Harming Our Bays, Rivers and Lakes



www.jerseyyards.org



The Ocean County Soil Conservation District
Rutgers NJAES Cooperative Extension of Ocean County
Barnegat Bay Partnership

2013

 > HOME, LAWN & GARDEN

Rutgers Master Gardener Program



Rutgers Master Gardeners are trained volunteers who assist Rutgers New Jersey Agricultural Experiment Station (NJAES) Cooperative Extension in its mission to deliver horticulture programs and information to the general public. Anyone with an interest in gardening and a commitment to volunteer service can become a Rutgers Master Gardener. No previous education or training in horticulture is required.

<https://njaes.rutgers.edu/master-gardeners/>

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New Jersey Agricultural Experiment Station

Cooperative Extension of Ocean County

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Rutgers Master Gardener Program

The Rutgers Master Gardeners are volunteers that are trained and certified through Rutgers Cooperative Extension of Ocean County. Certified Master Gardeners assist Rutgers Cooperative Extension of Ocean County personnel in providing horticulture information to the residents of Ocean County. If you are interested in becoming a Rutgers Master Gardener call 732-505-4563 for details or click on the application below to apply to our program:

Click on one of the ONLINE application links below:

- [Rutgers Master Gardener ONLINE application](#)
- [ONLINE application to transfer into the Ocean County Rutgers Master Gardener program](#) (for out of state/county Master Gardeners)

What Do the Rutgers Master Gardeners Do?

These volunteers learn about horticulture, and provide community and university services.

- [Rutgers Master Gardener brochure \(PDF\)](#)

Have a Lawn or Garden Question?

Call the Rutgers Master Gardeners of Ocean County Helpline:

732-349-1245

<https://ocean.njaes.rutgers.edu/master-gardeners/>



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New Jersey Agricultural Experiment Station

Environmental Stewards

<https://envirostewards.rutgers.edu/>

Home

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Earth Day Every Day ▾

Donate



2024 Class Registration is Open

The Rutgers Environmental Steward program trains volunteers on important environmental issues in New Jersey and how they can make a difference in their community. Stewards learn how to help advance sustainable climate change solutions, not just in their own lives, but in their communities.

Environmental Stewards is a certificate program offered through Cooperative Extension, a unit of Rutgers New Jersey Agricultural Experiment Station.

Make a difference in your community! Become a Rutgers Environmental Steward.

Thank you to our [program partners](#), and the [Atlantic County Utility Authority](#) for their continued support.



RUTGERS

New Jersey Agricultural Experiment Station
Environmental Stewards

<https://envirostewards.rutgers.edu/earth-day-every-day/>

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🏠 > EARTH DAY EVERY DAY

Earth Day Every Day



Webinar Archive

Some of the recorded webinars are provided via Playposit and will pause during play for a question to pop up. Click on the title to sign up and access the video.

Climate Change

Energy

Food

Insects & Pest Management

Native Plants

Nature Therapy

Plastics

Soil

Volunteering

Water

Wildlife

Yard Care

Volunteer Opportunities



<https://reclamthebay.org/>



<https://jcnerr.org/>



<https://www.littoralsociety.org/>



<https://www.barnegatbaypartnership.org/>



<https://www.savebarnegatbay.org/>



<http://cleanoceanaction.org/>



<https://www.savecoastalwildlife.org/>



<https://www.nynjbaykeeper.org/>



<https://www.state.nj.us/dep/fgw/wcchome.htm>

<https://www.nj.gov/dep/seeds/sect8.htm>

Volunteer Opportunities



<https://www.nature.org/en-us/about-us/where-we-work/united-states/new-jersey/>



<http://www.conservewildlifenj.org/>



<http://returnthefavornj.org/>



<https://www.delawareestuary.org/>



<http://www.livingocean.org/>

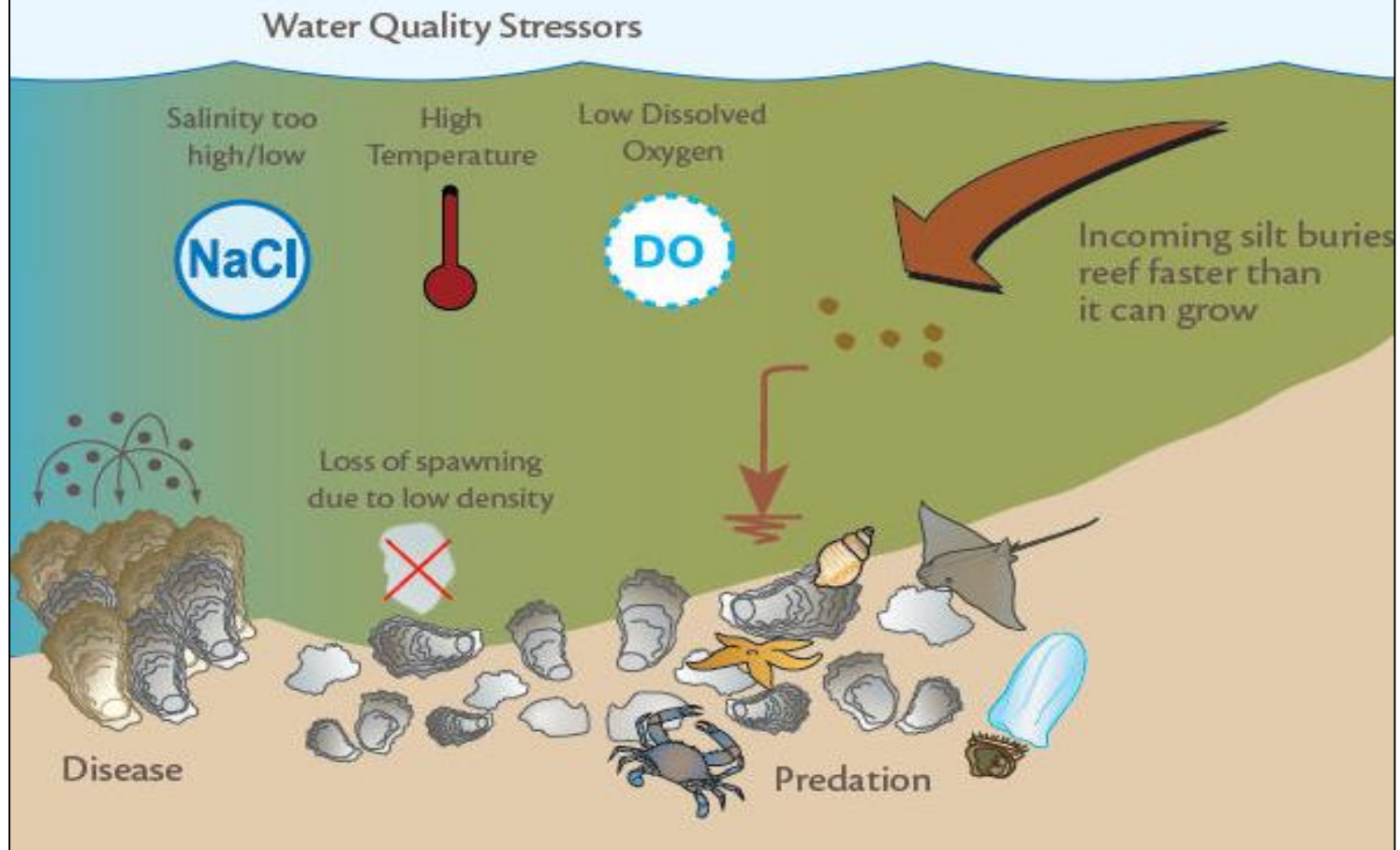


<https://wetlandsinstitute.org/>

Ecosystem benefits provided by Oysters



Ecosystem stressors to Oysters

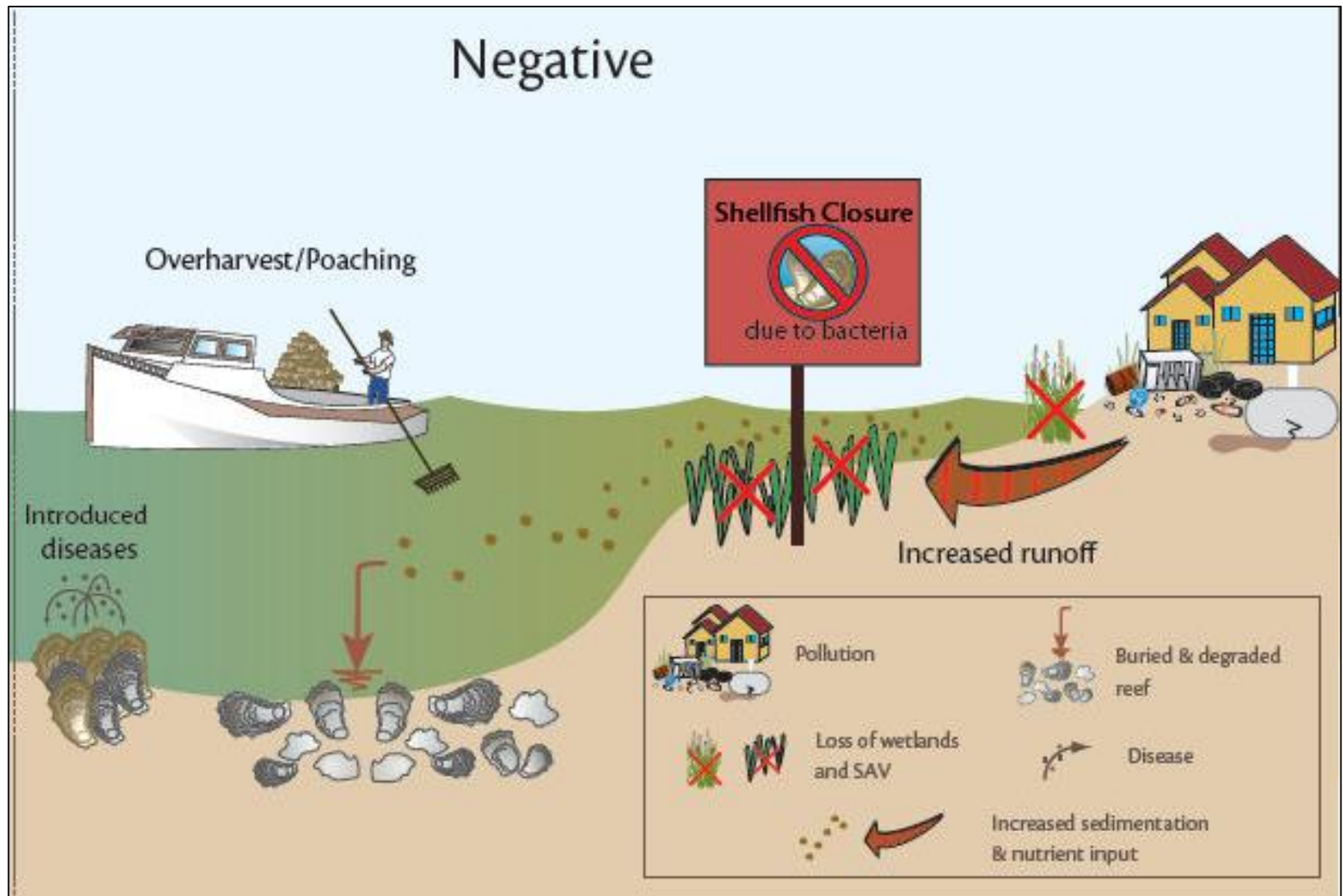


NOAA – Chesapeake Bay Office

<https://www.fisheries.noaa.gov/topic/chesapeake-bay#oyster-restoration>

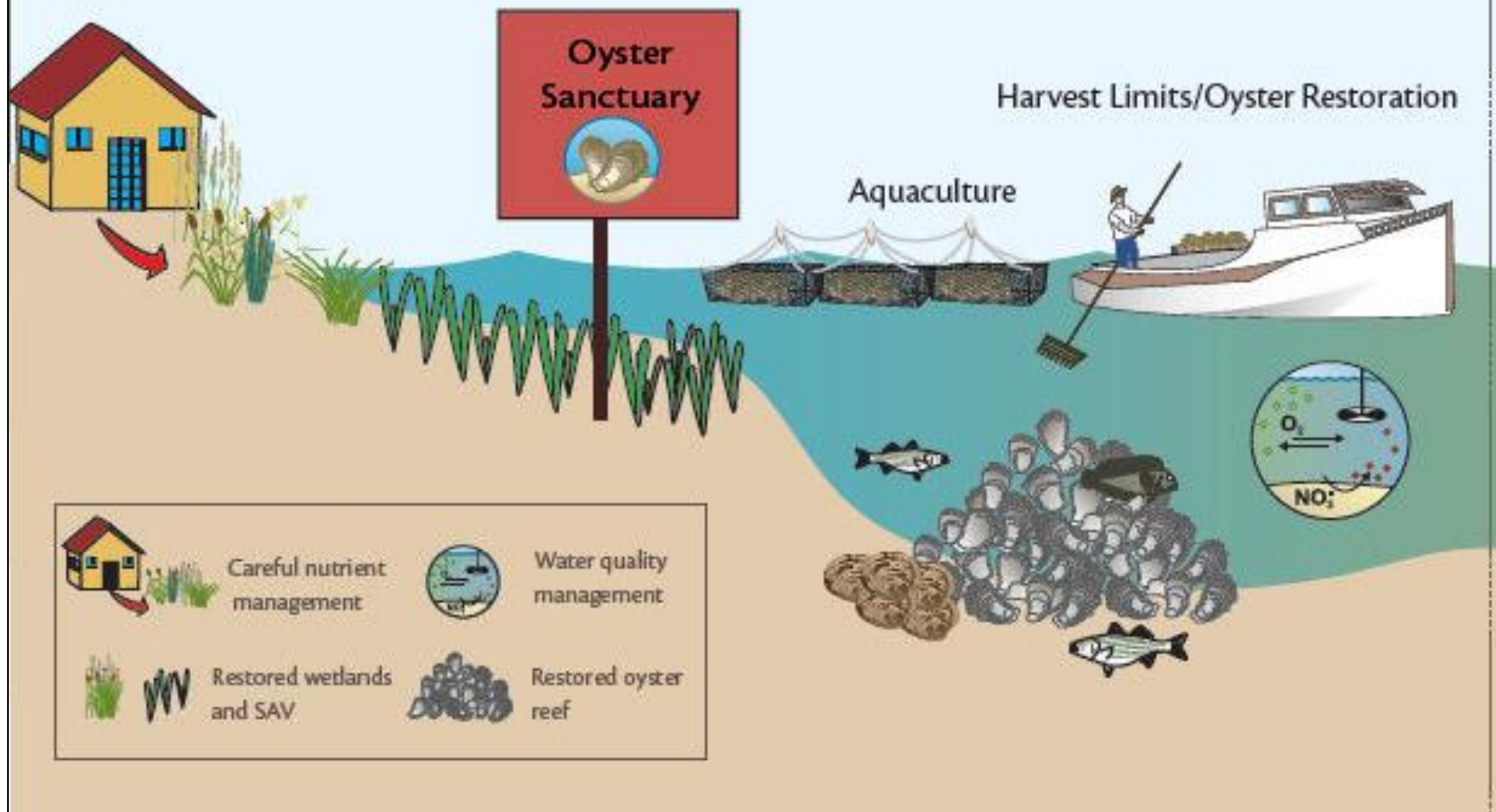
Direct Human Impacts on Oysters

Negative



Direct Human Impacts on Oysters

Positive



Coastal Stewardship Course

- The objective of the course is to educate stakeholders about the ecology of the Barnegat Bay ecosystem and promote responsible stewardship of our coastal marine resources while using shellfish biology, restoration, and aquaculture as the primary teaching tools.
- **Stewardship**: the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society.
 - Adopted from Worrell and Appleby (2000), Journal of Agricultural and Environmental Ethics, 12: 263-277.





Help Us Save Our Beautiful Bay

We grow and maintain millions of baby clams and oysters in the Barnegat Bay Watershed which includes Barnegat Bay, Manahawkin Bay and Little Egg Harbor bay. We want people to understand the services that shellfish provide. They filter water, provide habitat, stabilize shorelines, and TASTE GREAT. Help us give them a better home so they can give us a better home

<https://reclamthebay.org/>



The Clam Growing Cycle

Winter

Rest up for the
new year

Fall

Spring

June thru October



Put down
predator nets to
protect the
“babies”



Learn about shellfish
and prepare equipment



Grow seed clams
and oysters in
Upwellers

Fall

Fall



Plant this year's
“babies”



Harvest last year's clam
crop from leased sites

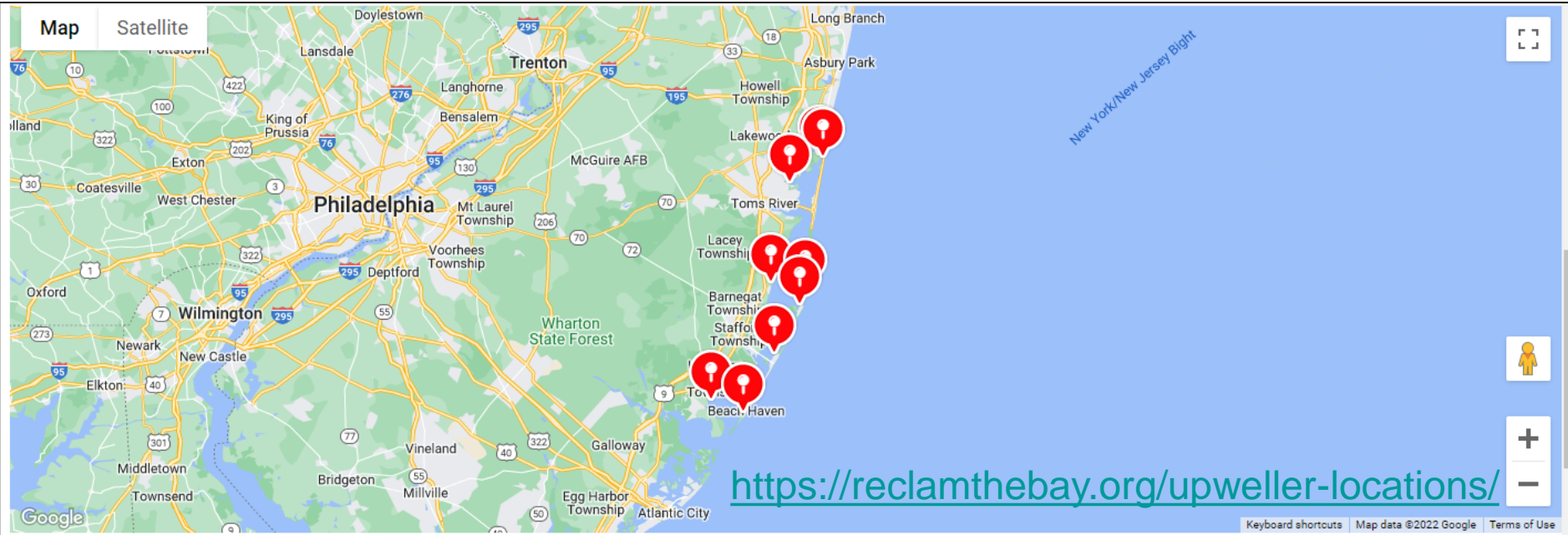
Upwellers



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Upweller Locations

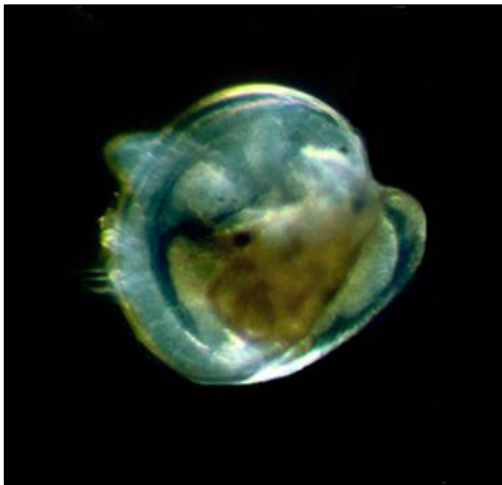
An upweller is a shellfish nursery. The public is invited to visit these locations, talk to our volunteers and learn how we care for thousands of baby shellfish. See the video below and reference the interactive map for specific locations and times to visit.



Living Shorelines



Oyster Spat on Shell



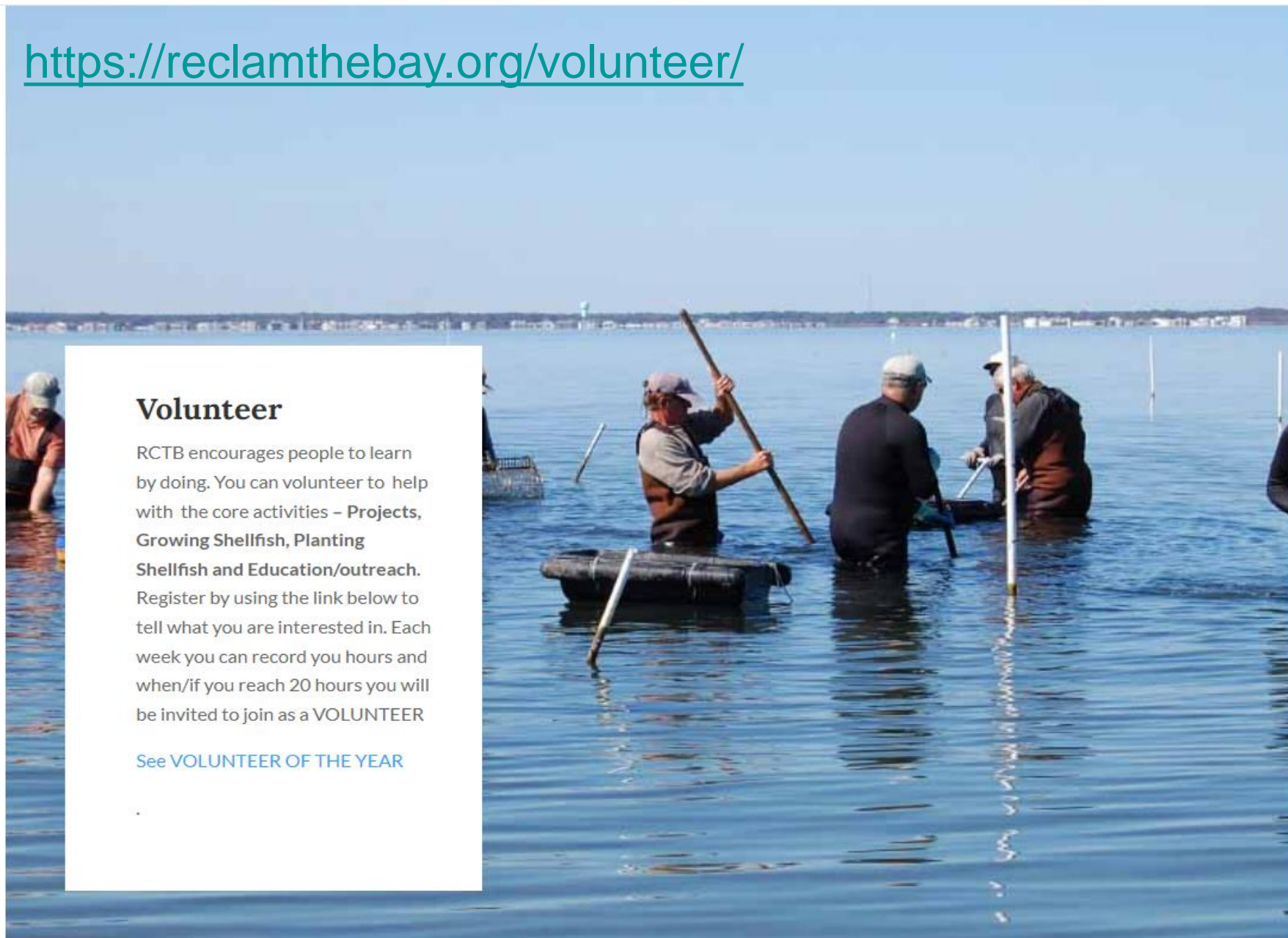
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<https://reclamthebay.org/volunteer/>

Volunteer

RCTB encourages people to learn by doing. You can volunteer to help with the core activities – **Projects, Growing Shellfish, Planting Shellfish and Education/outreach.** Register by using the link below to tell what you are interested in. Each week you can record you hours and when/if you reach 20 hours you will be invited to join as a VOLUNTEER

[See VOLUNTEER OF THE YEAR](#)





RUTGERS

New Jersey Agricultural
Experiment Station

Jacques Cousteau National Estuarine Research Reserve

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Jacques Cousteau Coastal
Center

130 Great Bay Blvd.
Tuckerton NJ 08087

Get Involved with the JC NERR



Stewardship Tips

These tips are provided so that you can become better stewards of the Mullica River-Great Bay watershed.



Building a Healthier New Jersey from the Ground Up!

With funding provided by the [New Jersey Department of Environmental Protection](#), the [Barnegat Bay Partnership](#) has developed and launched [Jersey-Friendly Yards](#), an online guide to beautiful, low-maintenance and eco-friendly landscaping in New Jersey.

INTERESTED IN DOING MORE?

- [Volunteer](#)
- [Internships](#)

Volunteer Coordinator

Christine Moran
Jacques Cousteau National Estuarine Research Reserve
130 Great Bay Blvd.
Tuckerton, NJ 08087
(609)-249-8831
christine.moran@marine.rutgers.edu



National Trails Day – June 2017.



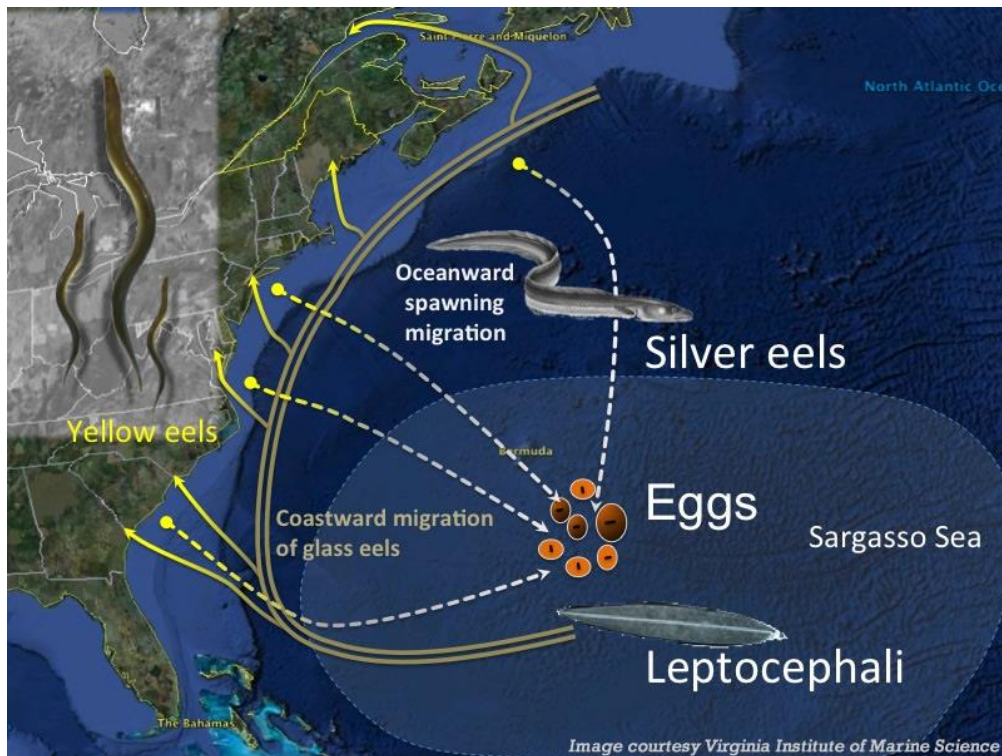
National Trails Day – June 2022.



Adopted from Dr. Ken Able (Rutgers University)



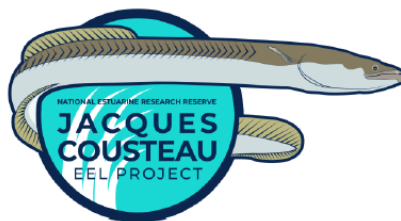
Adopted from Dr. Ken Able (Rutgers University)



JC NERR Eel Monitoring Volunteer Training Spring 2024 Season

When: Thursday, February 1st, 2024,
from 6pm-7pm

Where: The JC NERR Education
Center, 130 Great Bay Blvd. Tuckerton,
NJ 08087.



Within the last two years, the Jacques Cousteau National Estuarine Research Reserve has been piloting a new community science volunteer program which focuses on monitoring juvenile American eels (*Anguilla rostrata*) within waterways of the Great Bay-Mullica River estuary. All are welcome to learn about the project and how to participate in this unique opportunity. Refreshments will also be provided.

Education Coordinator

Kaitlin Gannon

Jacques Cousteau Coastal Education Center

130 Great Bay Blvd.

Tuckerton NJ 08087

(609)-249-8822

gannon@marine.rutgers.edu

What Can You Do?

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Questions?

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