



ENVIRONMENTAL STEWARDS



ANNUAL REPORT

2023



RUTGERS

New Jersey Agricultural
Experiment Station

COOPERATIVE EXTENSION
ENVIRONMENTAL STEWARDS PROGRAM

envirostewards.rutgers.edu



COMMUNITY ENGAGEMENT EXTENDING OUR REACH

Established in 2005, the **Rutgers Environmental Stewards program** teaches volunteers from across the state about the impacts of climate change and the important environmental issues affecting New Jersey enabling them to help solve local, community problems. The program includes a 16-week class and a 60-hour volunteer project. Stewards get real-world experience working on local issues from reducing solid waste to invasive species management.



SUMMARY

Since the first class in 2005, the program has trained 1,202 volunteers across all 21 New Jersey counties. In 2023, 41 participants earned their certification and 87 new volunteers joined the program.





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Environmental Stewards Program Impact

5,531



IMPACT HOURS

Stewards donated 3,722 volunteer hours and recruited 614 volunteers who donated 1,809 hours in their communities.

48



ACRES OF HABITAT

Stewards restored or improved 48 acres of land by removing invasive species, planting native plants and providing wildlife habitat. That's 36 football fields!

5,637



NATIVE PLANTS

Stewards planted 5,637 native plants improving degraded habitat and replacing mowed lawn.

41



CERTIFICATIONS

Forty-one participants across 15 counties earned their certification by completing an environmental project in their community.

48



ORGANIZATIONS

Stewards partnered with 48 community organizations collaborating on projects, providing services and securing resources.

3,835



PEOPLE EDUCATED

Stewards educated 2,243 adults and 1,592 youth on pressing issues including climate change, habitat protection, water quality, and environmental awareness .

\$200,000



CONSERVATION VALUE

Stewards contributed \$200,000 in conservation value and impact to partnership projects



Our commitment to building strong, resilient communities includes:

Citizen Science
 Climate Change
 Energy Conservation
 Environmental Education
 Land Restoration/Habitat Conservation
 Pollinator Habitat
 Waste Reduction
 Water
 Wildlife



Kelly and Cesar kickstarted a land restoration plan, combining their talent and dedication to a newly incorporated nonprofit, Boreal Wildlife Preserve Conservancy in Montclair.



Carol Ann saw a need to improve accessibility to birding and nature in Ocean and Monmouth counties so she combined her experience in disability rehabilitation research and love of birding to drive change.



Smadar educated 35 community members in Monroe on the ecological importance of native plants and how to collect, store and sow local native seeds to use in their home gardens.



Solving Challenges In The State



ESSEX COUNTY- CONSCIOUS CONSUMPTION - FOOD WASTE REDUCTION

Bridgette Byrd launched Conscious Consumption Challenge, a program that engages students in learning about sustainable practices and promotes positive behaviors in the cafeteria environment. The program supports 6 classes ranging from 120-150 students promoting a safe, inclusive, and welcoming dining experience while reducing food waste. The strategies included taping clear trash bags to the end of assigned tables for discarded food. Bags were tagged and weighed by team captains. All data was collected and uploaded at the end of the day and food waste was transported to the compost bin. Over 5 weeks a 65% reduction of waste was documented and students felt inspired, connected and empowered.

Planta este Pasto	No ese Pasto
<p>Pasto Yarella Switchgrass <i>Panicum virgatum</i></p> <p>NATIVA</p> <ul style="list-style-type: none">• Su familia de colas purpuras.• Su color de verde es amarillo pálido.• Persiste durante todo el invierno. <ul style="list-style-type: none">• 1.18 metros• Requiere de luz: sol, sombra parcial.• Uso de agua: medio <p>¿Por qué?</p> <ul style="list-style-type: none">• Proporciona material de cobertura y anidación para muchos pájaros cantores y aves de raza.• Atrae mariposas y pájaros, es muy resistente a los ciervos.	<p>El pasto plateado chino <i>Miscanthus sinensis</i></p> <p>INVASIVA</p> <ul style="list-style-type: none">• Es una hierba corta y densa con puntas plateadas y flores rosadas.• Origenes del sudeste asiático. <ul style="list-style-type: none">• 0.30 - 0.80 metros• Requiere de luz: prefiere pleno sol• Requiere del suelo: crece en una variedad de suelos, incluidos los suelos con buen drenaje y pobres en nutrientes. <p>¿Por qué?</p> <ul style="list-style-type: none">• Desplaza a muchas especies nativas y forma grandes parches densos a su capacidad para crecer en áreas que no son aptas para la agricultura.

UNION COUNTY- PLANTAR ESTO, NO ESO

Carla Rodrigo Herrera provided information to the Latino community regarding the importance of native habitat. She started with translating Union County's "Plant This Not That" brochure written by Natalie Salinardo into Spanish. Carla also prepared a Spanish presentation and spoke at "Latino Conservation Week", organized by PEACE NJ in Warren County. Her final step was to hold an education program via Zoom. Attendees reported that they were unaware of the problem of invasive plants and were happy to have the educational material in Spanish.



Protecting and Sustaining Resources



MORRIS/HUNTERDON COUNTIES- PRE-DAM REMOVAL MONITORING AT NUNN'S MILL AND COLE'S MILL

Henry Bayard and Wendy Utberg volunteered with the Raritan Headwaters Association to collect baseline data to inform feasibility studies for the removal of dams in the South Branch Raritan River. The data collected includes temperature, chemical, macrobenthic, and bacterial sampling. The goal is to improve water quality and fish passage for the benefit of New Jersey residents both ecologically and recreationally.



TALL PINES PLANT MAP

Learn about the plants and habitats of Tall Pines during your walk through the preserve!



Use the QR code to the left to access the plant map on your phone!

HOW TO USE THE MAP ON YOUR PHONE

1. Using your phone, scan the QR code on this flyer. The map will appear on your screen after going to the link. If you have an iPhone, your camera can scan the QR code.
2. Click the GREEN DOT under the text "Tall Pines State Preserve" on the map.
3. The text "Tall Pine State Preserve" will appear at



GLOUCESTER COUNTY- GIS MAPPING OF THE HABITATS AND PLANTS OF TALL PINES STATE PRESERVE

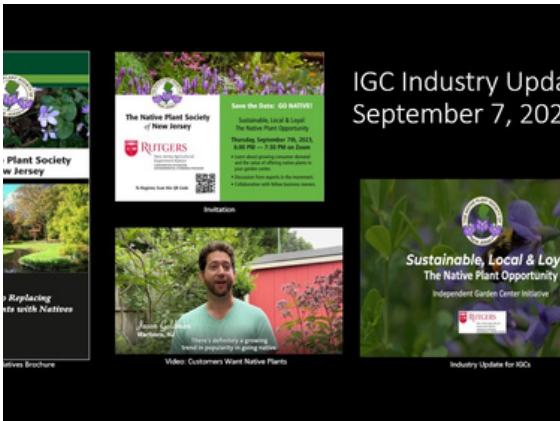
Nicole Lloyd spent more than 30 hours identifying plant species and habitats at the preserve. Once done, she created an interactive GIS map of the preserve showing the location and boundaries of these habitats with native and invasive plant species lists as pop-ups, emphasizing the ecological impact of invasive plants. She also included a list of local New Jersey organizations helping to manage invasive species with links to their websites, the history of Tall Pines State Preserve and how the habitats evolved. Nicole designed an educational flyer that is displayed in the Preserve's kiosk making the map accessible to the public. The map is available at go.rutgers.edu/TallPinesMap

Expanding Community Reach Through Education



STATE WIDE-HELPING INDEPENDENT GARDEN CENTERS JOIN THE NATIVE PLANT MOVEMENT

Bobbie Herbs and Kim Rowe led a committee of seven people from the Native Plant Society of New Jersey in developing a business case for retail native plant sales by Independent Garden Centers. They presented their findings, which included a survey of 620 NJ residents' native plant purchasing habits, to garden centers at an online event in September 2023. Garden centers reported low consumer demand and availability/selection from wholesale nurseries as challenges. 80% of attendees found the presentation extremely valuable, and 100% were interested in additional educational presentations, brochures, and industry updates.



MIDDLESEX/MONMOUTH COUNTIES- EDUCATION, OUTREACH & RECYCLING OF NON-MANDATED MATERIALS

Sudha Radhakrishnan collected 1,343 pounds of plastic film, bags and wraps using NexTrex bins, which were repurposed into garden benches, railings, fencing, and deck boards. Additionally, she collected 362 tennis balls for recycling and 50 plastic toys, which were cleaned and donated to Acelero Learning Center. Sudha also educated 110 adults and 450 youth on recycling non-mandated plastic items. Her efforts increased the community's understanding of recyclable items, kept plastic waste out of landfills and helped local kids in need.

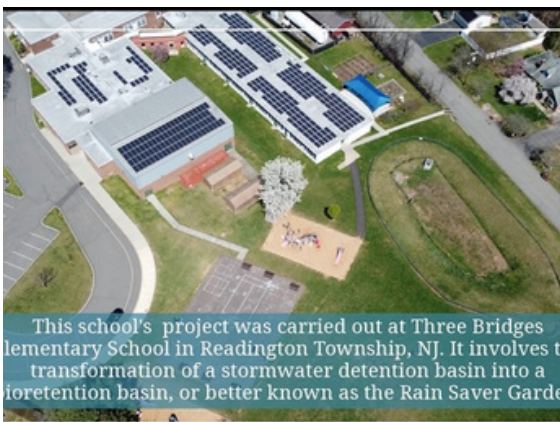
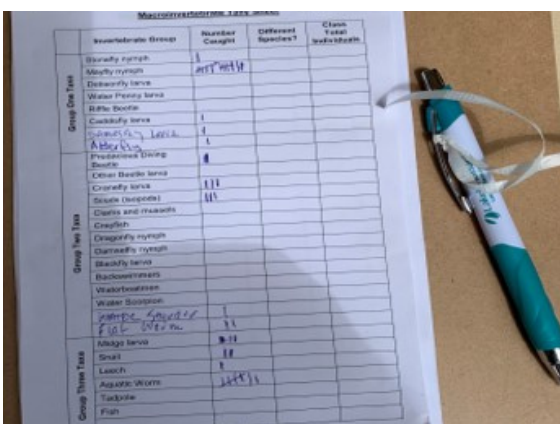


Advancing Sustainable Climate Change Solutions



PASSAIC COUNTY- SMALL-SCALE SOLUTIONS TO EROSION CONTROL

Ken Pokrowski focused his project at the Laurelwood Arboretum in Wayne collaborating with 5 volunteers to assess water quality in the Haycock Brook tributary. He collected water quality samples and researched species of native plants to reduce erosion along stream banks. Ken prepared a report focusing on cost-efficient solutions to improve water quality, which the arboretum will use to develop a plan to reduce erosion issues caused by increased storm events. Ken's report is available as a resource to other local entities.



HUNTERDON COUNTY- THREE BRIDGES SCHOOL DETENTION BASIN RETROFIT

David Livingston's project involved working with the school administration, green team, and Rutgers Water Resources Program to create a meadow in a 4,000 sq. ft. basin at the school using \$22,500 of grant funding. They cleared the area of invasive plants, installed native plant plugs and grass seed, and planted additional native plants with the help of 180 students and teachers. The meadow slows down the runoff entering the basin and saves and cleans rainwater runoff. The project provides teachers with additional curricular activities and objectives related to the "Water Saver Garden", and students can learn about the meadow's wildlife and its role in the ecosystem.



Cultivating Strong Civic Partnerships



UNION COUNTY- RECYCLING GUIDELINES

Ellen Chase saw a need in the Union County parks to update and improve the recycling system. After surveying each park and logging the type, size and availability of recycling bins, she launched a pilot program with the UC Division of Park Maintenance and the Bureau of Recycling and Planning to upgrade the recycling infrastructure, improve community awareness and provide clear direction to park users. The park is replacing the current receptacles and improving their ability to collect both trash and recycling based on Ellen's proposal. Ellen also designed an educational brochure in English and Spanish, guiding community members on what can and cannot be recycled.



ESSEX COUNTY- POLLINATOR PATHWAY- GLEN RIDGE

Amanda McCabe improved a neglected 761 sq. ft. area in her Glen Ridge Borough community by clearing it and planting 70 native plants with the help of volunteers and her town's public works department. The project was supported by neighbors who provided stones and water. The garden has been registered with Pollinator Pathway and has inspired additional gardens in the area. Amanda also educated adults and youth about the importance of growing native flowers to support pollinators. The 'Clay Field Pollinator Garden' was included in the Sustainable Jersey application for Silver status.



Steward Alumni

Long-term Engagement



Susan and John Landau and the Friends of Foote's Pond Wood (<https://www.fofpw.org/>) have been restoring the 24-acre Foote's Pond Wood Park in Morristown for several years. Susan and John became Rutgers Environmental Stewards in 2021 to network with others and expand and improve the park restoration program. Volunteers have manually cleared thousands of invasive plants and replanted with diverse native species. Environmental Steward training helped John and Susan to engage a large and diverse group of volunteers that contributed almost 1000 hours of outdoor work across 2023. Volunteers from ages four to eighty contribute to making Foote's Pond Wood a healthy ecosystem and an increasingly popular spot for visitors, including elementary and preschool classes, photographers, families, runners, bikers, walkers, birders, and gardeners.



"THE RES PROGRAM WAS ONE OF MY BEST LIFE EXPERIENCES - WE COULDN'T HAVE DONE THIS WITH OUT THAT TOOL KIT PUT IN PLACE"

Tony Kono (class of 2017) worked with a group of volunteers to save 33 acres of undeveloped woods in Brick Township, the last large piece of undeveloped woods in town. A property developer wanted to build 56 homes on the land, but with the help of community efforts, fundraising, and partners like Save Barnegat Bay and Ocean County Land Trust, they were able to raise over \$8 million to buy and preserve the property as preserved open space. Tony's experience with the Environmental Steward program and as Brick Twp. Environmental Commission Chair helped him organize the community and raise funds to buy and preserve the property from the original owners.



Ila Vassallo has remained committed to sustainability and environmental issues after graduating from the Environmental Steward program in 2014. She led her township of Evesham in Sustainable Jersey certification in 2016, 2019, and 2022. As chair of the Evesham Environmental Commission, she worked with commission members and the township to ensure the adoption of a stormwater control ordinance that is more stringent than state standards. In 2023, Ila became a trained member of the Climate Reality Leadership Corps and has been providing presentations at libraries on the Inflation Reduction Act and how homeowners and renters can electrify their homes through tax credits and rebates, saving money and reducing carbon emissions.

Steward Testimonials

This was a great class. I'd previously never realized how many ways human behavior was having negative effects on our environment, and how many ways we have the capability to address them, large or small.

- 2023 participant

Not only did the program change me, it's ended up changing our town.

- Steffen, Certified 2022

Thank you all for offering this course and helping people learn how to make a difference!

-2023 participant

I gained not only knowledge but also confidence in my ability to speak up and impact local policy and local environmental efforts.

-2023 participant



2023 RES Program Staff

Michele Bakacs

County Agent/Associate Professor, RCE of Middlesex and Union Counties
Statewide Coordinator
Region 2 Coordinator

Jennifer Sawyer Caraballo

Agriculture & Natural Resources Program Associate for Commercial Agriculture, Cape May County
Region 5 Coordinator

Claudia Gil Arroyo

County Agent, RCE of Cape May County Region 5 Coordinator

Jean Epiphan

County Agent, RCE of Morris County Region 1 Coordinator

Justine Gray

Home Horticulture Program Associate I, RCE Mercer County
Region 3 Coordinator

Michael Jacob

Co-leader Southwest Chapter of the Native Plant Society of New Jersey
Region 4 Coordinator

Rebecca Magron

Horticultural Consultant and Research Associate, RCE of Hunterdon County
Region 3 Coordinator

Amy Menzel

Communications Manager, Atlantic County Utilities Authority
Region 5 Coordinator

Amy Rowe

County Agent/Associate Professor, RCE of Essex and Passaic Counties
Region 1 Coordinator

Lynn Waclawski

Home Horticulture Program Assistant, RCE of Warren County
Region 3 Coordinator

Trish Maguire

Unit Administrator

The Rutgers University logo, featuring the word "RUTGERS" in a large, red, serif font with a stylized red arc above the letters.

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