



# Virginia Cooperative Extension

Virginia Tech • Virginia State University

## 4-H Schoolyard Habitats Outreach, York County & Poquoson

### RE-CONNECTING YOUTH WITH NATURE

4-H Schoolyard Habitats Outreach, a program of Virginia Cooperative Extension-York/Poquoson, seeks to empower and equip local K-12 teachers to engage students in authentic wildlife conservation, field investigations, and citizen science. With a long-term vision, we provide school communities with resources and onsite assistance with outdoor learning.

**Primary Program Partners:** Virginia Department of Game and Inland Fisheries (VDGIF), York County's Beautification Committee, the York County School Division (YCSD), and Poquoson City Public Schools (PCPS).



### SCHOOLYARD HABITATS FOR MONARCHS, BIRDS, & MORE

Our initial endeavors supported monarch butterfly conservation by guiding twelve school communities through construction of monarch habitat. Students planted native milkweed and native nectar plants. Each fall, students search the milkweed for monarch eggs and caterpillars. Those discovered are brought into classrooms

where students monitor and observe the monarch's life cycle. Students tag and release monarch butterflies as part of the international Monarch Watch citizen science project.

During the 2015-2016 school year, we began incorporating a companion focus on wild bird conservation and education.

### MATERIALS, RESOURCES PROVIDED TO SCHOOLS

In 2016, bird-friendly amenities (birdhouses, birdfeeders, insect hotels) and related resources (bird identification guides, plant markers, binders, posters) were allocated to eighteen schools.

In 2012/2013, eleven pilot schools received the following:

- Habitat materials** (soil amendments, native plants)
- Hallway displays** (posters, charts, bulletin board décor)
- Curriculum** (*Monarchs & More Guides* and other resources)
- Field guides** (caterpillars, insects, native trees, invasive plants)
- Two backpack field kits** (investigative tools, bug boxes, magnifying viewers, measuring tapes, sweep net)
- Garden tools** (class set of youth work gloves, 5-gallon bucket)
- Raising/tagging monarchs** (enclosures, faunariums, tags)
- Classroom aids and tools** (maps, flashcards, magnets)
- Companion resources** (multi-age storybooks, references)

### PROFESSIONAL DEVELOPMENT

We facilitate and/or host hands-on workshops for educators.

- Aug. 2016, PD modules for YCSD
- Aug. 2015, Wonder of Wetlands Workshop for PES
- Aug. 2015, Monarch Teacher Network Workshop
- Apr. 2014, Flying WILD workshop
- Aug. 2013, "Monarchs & More!"
- Jan. 2013, "The Monarch Initiative"



### PROGRAM OUTCOMES

Twelve public schoolyards in York County and Poquoson boast wildlife habitats certified as VDGIF Habitat Partners®, and each qualifies as a Monarch Waystation. Although successful habitat installation requires research, planning, and labor, it is the easiest aspect of the program to accomplish. Our ongoing mission is to empower teachers to use their biodiverse outdoor learning laboratories for lessons across the curriculum and throughout the school year while also engaging the entire school community in year-round habitat stewardship activities.

A core component of this program is the involvement of a designated **outreach partner** at each active school. Outreach partners are Master Gardeners or Virginia Master Naturalists who receive advanced training. We meet monthly as a group to share experiences and resources. By partnering with local outreach partners, teachers have access to free consultations related to their schoolyard habitat and nature-based education.

Each of our eleven pilot schools received similar materials from us, yet each developed a unique habitat, program perspective, and relationship with the designated outreach partners. Our outreach is expanding to eighteen schools.

Since Fall 2012, students from thirteen of the schools affiliated with this program have raised, tagged, and released over 1100 monarch butterflies in conjunction with Monarch Watch.

In early 2015, we debuted a quarterly newsletter, dubbed *4-H Schoolyard Nature Notes*, to share progress and news with all twenty-three schools in the two public school divisions.

In addition to supporting our native flora and fauna, long-term benefits of installing and maintaining wildlife habitat on school grounds include:

- raised awareness of native wildlife, our local natural environment, and the Bay watershed
- student-driven interest in environmental literacy
- empowerment of individuals of all ages to take responsible actions that provide a healthier, nurturing environment for people *and* wildlife





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## PROGRAM AWARDS AND RECOGNITION

This program and its volunteers have received special recognitions:

- Multiple outreach partners have been individually commended by the York County Board of Supervisors or the York or Poquoson School Boards for their volunteer work with this program.
- Hampton Roads Alliance for Environmental Education (HRAEE) presented us with their annual "Doing Big Things" Award (2014)
- An article about this program in its early days was published in the September/October 2014 issue of *Virginia Wildlife* magazine. The article, "P is for Pollinators," was written by Gail Brown.

## FUNDING & SUPPORT

Since its inception in April 2012, this program has benefited from funding, in-kind goods, and services from various organizations.

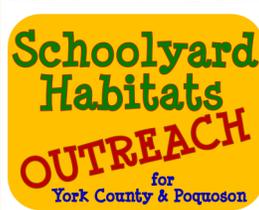
<b>2015</b>	\$27,593	Est. value volunteer hours, Outreach Partners <sup>1</sup>
	\$ 1,188	VDGIF scholarships for Monarch Workshop
	\$ 1,000	askHRGreen.org grant
	\$ 1,000	Project Learning Tree GreenWorks! Grant
<b>2014</b>	\$31,472	Est. value volunteer hours, Outreach Partners <sup>1</sup>
<b>2013</b>	\$52,230	Est. value volunteer hours, Outreach Partners <sup>1</sup>
	\$ 8,000	Est. value VDGIF goods & services <sup>2</sup>
	\$ 800	York Foundation for Public Education, Inc.
<b>2012</b>	\$ 7,000	Est. value volunteer hours, Coordinators <sup>1</sup>
	\$ 6,000	Virginia Environmental Endowment grant
	\$ 2,000	Est. value professional consultation, VDGIF <sup>2</sup>
	\$ 750	Keep Virginia Beautiful grant
	\$ 590	Master Gardener program donations
	\$ 500	askHRGreen.org grant

<sup>1</sup> Program Coordinators and Outreach Partners logged over 2300 volunteer hours in 2013, over 1300 in 2014, and over 1100 in 2015. Dollar amounts listed above are based on the Independent Sector's estimated value of volunteer time for the year the hours were logged.  
<sup>2</sup> VDGIF supports our informal educators and schoolyard habitats with materials, workshops, and professional consultation services. Since April 2012, the value of VDGIF's in-kind contributions has exceeded \$11,000.

### Additional Program Contributions of Note:

- Value of the regular use of copier, laminator, and office supplies provided by the York/Poquoson Extension Office
- Value of donated native plant plugs and seeds from Ernst Seeds; bulbs from Brent & Becky's Bulbs; and assorted seed packets from Chas C. Hart Seed Company, Renee's Garden, and Select Seeds
- Funding for individual schoolyard habitats from various sources including school activity funds, PTA's, PTSA's, PTO's, student councils, other student groups, local businesses, civic organizations, parents and guardians, and school-specific grants
- Value of volunteer hours from parents and guardians, military organizations, Boy Scouts, Girl Scouts, and faith communities

## EDUCATIONAL DISPLAYS & PRESENTATIONS



Virginia Association of Science Teachers' (VAST) Professional Development Institute, Peninsula GO Green Expo, Virginia Master Naturalists' Statewide Conference, York County's Horticultural Extravaganza, Yorktown Riverwalk Markets, Tabb Library lobby showcases

**VIRGINIA COOPERATIVE EXTENSION.** Building local relationships and collaborative partnerships, we help people put scientific knowledge to work through learning experiences that improve economic, environmental, and social well-being.

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## VCE-YORK/POQUOSON STAFF

Sally Brooks, Unit Coordinator, 4-H Agent  
 Megan Tierney, ANR Extension Agent  
 Yvonne Hurst, Unit Administrative Assistant



## CURRENT OUTREACH PARTNER VOLUNTEERS

### York/Poquoson Master Gardeners:

Pam Camblin, Barbara Dunbar, Patty Ellison, Libbo Hall, Bobbie Halvorsen, Diane Herbert, Jill Schuff, Nancy Talcott, Noel Talcott, Cathy Thacker, Jody Turner, Patsy Wells, Kris Wessler



### Virginia Master Naturalists, Historic Rivers Chapter:

Pam Camblin, Barbara Dunbar, Patty Maloney, Stephanie Schmuck

### Virginia Master Naturalists, Peninsula Chapter:

Caroline Herath, Susan Walton

## VA DEPARTMENT OF GAME AND INLAND FISHERIES

Carol Heiser, Education Section Manager  
 and Habitat Education Coordinator



## SCHOOL COMMUNITIES

**High Schools:** York, Poquoson

**Middle Schools:** Yorktown, Tabb, Queens Lake, Grafton

**Elementary Schools:** Yorktown, Waller Mill, Tabb, Seaford, Poquoson, Mt. Vernon, Magruder,

Grafton Bethel, Dare, Coventry, Bethel Manor

**Primary Schools (K-2):** Poquoson PS



## MEETING AND STORAGE SPACE

York County Parks, Recreation, and Tourism  
 York County Public Libraries

## COMMUNITY CONTRIBUTORS

Master Gardeners of York County and Poquoson  
 Virginia Master Naturalists: Historic Rivers and Peninsula Chapters  
 New Horizons Regional Education Center, Tim Extine and Students  
 Virginia Native Plant Society: John Clayton Chapter  
 Williamsburg Native Plant Rescue  
 York County Waste Services, Laurie Halperin  
 York County Beautification Committee  
 Poquoson City Public Works  
 Butterfly Society of Virginia



## COMMUNITY DONORS OF MATERIALS

Brent & Becky's Bulbs, Forest Lane Botanicals, Ken Matthews Garden Center, Sassafras Farm Native Wildflowers, Wild Birds Unlimited of Yorktown, Yorktown Materials

## "FRIENDS OF SCHOOLYARD HABITATS"

Includes parents and guardians, afterschool environmental clubs, Girl Scouts, Boy Scouts, military members, civic organizations, faith communities



### 4-H Schoolyard Habitats Outreach

a program of VCE-York/Poquoson  
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