### 2017 in Review Nature is Our Classroom





**Expanded** aquaponics programs from 4 to 17 schools with 1,900 students participating in hands-on, STEM-based curriculum.

locations

region















### Volunteers make all the difference at Riverbend's **Spring Mill Preserve**

From Comcast Cares to PECO to the Baldwin School, Riverbend's corporate and school volunteers work hard to beautify and improve our

Thank you 2017 corporate individual volunteers!

Krystel Abel Michelle Barcus Mike Barcus Gwen Bianchi Karnit Biran Fred Bissinger Cole Collier Elsie Collier George Collier Sarah Collier Amy Copeland Lisa Elizondo

Kate Forester

Lauren Pennington Nick Pennington Alison Pottage Ryan Schloer Mark Shaw Sarina Smith Suga Smith Samantha Soldan Jeffrey Spann Brian Struck Dan Sullivan Maggie Taylor Lisa Thomas Kristin Hayden Torris

Alex Worden

Gerrard Atkinson Joseph Chalissery Ruth Davis Lauren Johns Alycia Kaufman Carl Nelson-Potee Daniel Palmei Niall Peques

Sasha Burton Naveen Gooneratne

Shane Revnold

Melissa Murdock Ben Ynocencio Carrie Zamonsk Days of Service:

Annie Guiseppe

Iill Koren

Iason Krain

Kimberly Kupka

Amanda Masucc

Tim Matthews

Kira McDonnell

Rachel McNutt Karen Meehan

Sean Michaud

Melissa Neilson lason Newman

Maren McDonne

MOMs Organic Market

Connie Atkinson Estelle Atkinson Gerrard Atkinson Daniel Brown Sasha Brown

Christian Guarino Anney Guisenne lesse Haines Aidan Hamiltor Melissa Murdock



1950 Spring Mill Road Gladwyne, PA 19035

### Nature













### Mark Your Calendar for Upcoming Riverbend Fun!

Father's Day Camp Out, June 16th-17th

Summer Solstice, June 20th

S'mores & More, August 11th

Our Table, Our Planet Supper Series #2, August 17th

Family Camp Out, September 22-23

Birding & Bagels, October 13th



Shiverfest, October 20th

Visit https://riverbendeec.org/events for registration, times, and information.

## Did you know 71% of Riverbend programs take place off-site?



Students from Paul V. Fly Elementary School in Norristown engage in a watershed lesson brought to their school by expert Riverbend educator Deb Stone, featured on newsletter cover.

# Spring/Summer 2018 Nature



### Creating A More Sustainable Future For Us All

"Everyone must understand and experience that they can be part of the solutions. This is the goal of environmental literacy. NEEF National Environmental Education Foundation

Riverbend's purpose is to motivate and educate the next generation to care for our natural world. Children who understand and appreciate our Earth's systems will ensure a healthier, more livable planet for future generations.

As we consider the significant environmental problems all of us face, the importance of K-12 STEM (science, technology, engineering, and math) education and a deeper understanding of nature's essential benefits, Riverbend's role grows in importance. To guide our work going forward, we invested significant time to consider where Riverbend can add the most value to achieve maximum impact and contribute to effective solutions.

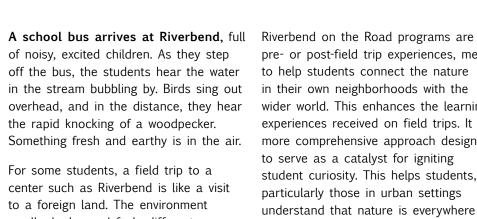
In December 2017, Riverbend's Board of Directors approved an updated strategic plan to ensure advancement of our mission and our vision to be the region's leading partner in nature-based immersive experiences. We are focused on three strategic priorities:

- 1. Expand services and increase mission impact of formal school-based programs. To help prepare today's students to become 21st century stewards of the environment and achieve science literacy goals, Riverbend will expand and deepen our nature-based STEM programs in partnership with schools and school districts. The K-12 science education landscape is progressing in a direction that offers an opportunity to marry formal school-based education with non-formal science-based education.
- 2. Establish a strong public identity. To gain regional recognition as the best resource for environmental education, Riverbend will invest in an integrated marketing and communications strategy to communicate our value and accomplishments and build engagement with a community of current and new supporters.
- . Increase foundational resources to achieve sustainable mission impact. In order to become a sustaining organization over time Riverbend will identify financial goals and strategies to achieve increased resources needed for future mission impact.

The need for and significance of the work we do to protect and maintain sustainability for human life grows. Thank you for supporting Riverbend's rich array of education programs and contributing to the critical need for an environmentally literate citizenry.

**Board Chair** 

**Executive Director** 



Riverbend is on

the Road, in the

Neighborhood

and in the Classroom

Rosie Arnold packs up for off-site programs with Chris Manda and Peter Sturtevant.

smells, looks, and feels different than spaces they are used to. In the best situations, this seems like a fun adventure. In the worst, it feels like they are in a place they don't belong. Riverbend wants every child visiting our preserve to experience the former and not the latter.

71% of Riverbend's educational programs take place in the schools and community centers where our students spend most of their time. The majority of these

pre- or post-field trip experiences, meant to help students connect the nature in their own neighborhoods with the wider world. This enhances the learning experiences received on field trips. It is a more comprehensive approach designed to serve as a catalyst for igniting student curiosity. This helps students, particularly those in urban settings understand that nature is everywhere and is there for them.

Riverbend on the Road programs extend our reach beyond the single trip. Sustained relationships with schools give us the ability to help students feel a stronger connection to the natural world and believe that the natural world is there for them to explore and care for.

-- Rosie Arnold, Riverbend Manager of **Education Programs** 

#### Do You Really **Know What STEM Is?**

Chances are you have heard of

STEM (science, technology, engineering and math) but what does this acronym actually mean? Core to the definition of STEM is breaking down silos. STEM is not about each of these individual subjects but how they work together in real world examples. Educators are rallying around the concept of STEM as it provides opportunities for students to learn through projects and content relevant to them as individuals and members of a community. STEM forces students to learn critical skills in each of these content areas in order to solve problems or understand larger concepts such as climate change. It encourages students and teachers to look at issues from multiple perspectives and apply learning in meaningful ways. Great STEM programs go far beyond science, technology, engineering and math to incorporate social sciences, art and civic engagement.



"Riverbend recognizes the value of educating through the nature that is all around us. Regardless of your zip code, vou have a connection to the environment. Nature provides a compelling platform to teach STEM at all arade levels."

-- Erin McCool, Riverbend Director of Education Programs and Strategic Initiatives

### **Healthy Habitats for Wildlife and Learning**

A healthy and diverse habitat is one that is home to many different species of plants, trees, insects, birds, and animals. Riverbend aims to achieve this through our long-term habitat restoration projects. This involves working hard to remove non-native invasive plants and vines with little food value for wildlife and replacing them with a great variety of native trees, shrubs, perennials and grasses. Whether it is a class of school children, a scout troop, or corporate adult work team coming out to Riverbend, we want all visitors to be able to enjoy and learn from a healthy environment.

A decade ago much of Riverbend's preserve was covered with invasive vines, the most persistent being a vine commonly known as five-leaf akebia. This nonnative vine forms a thick carpet under which nothing else can grow. It may also grow into a dense canopy, capable of smothering mature trees. These types of invasive plants, if left unchecked, create what is known as a plant mono-culture -- the opposite of the type of diverse habitat we want to see at Riverbend!

The native birds, worms, turtles, frogs and beneficial insects at Riverbend thrive best on the diverse plants they evolved to depend on.

We are grateful to thousands of volunteers for donating substantial time over many years improving

the preserve. Tree planting grants from the TreeVitalize Watersheds Grants program managed by Pennsylvania Horticultural Society have been invaluable to these efforts.

The issues and threats we **Know your invasives** combat at Riverbend are the same ones faced by people managing our local parks and woodlands. Through education and action, we can all work to preserve our native landscapes and plants, creating natural corridors that support wildlife.



such as five-leaf akebia!

-- Lorna Atkinson, Habitat Management Coordinator

#### **Jess Goes Far Beyond the Basics**

When recreation management major Jess Burd came to Riverbend from Lock Haven University for a semester-long internship, she didn't quite know what to expect. She wanted to blend her love of the outdoors with previous academic work in early childhood education. Her idea of an environmental education center was a place where people go to visit nature. What she experienced was total immersion in the field of environmental education.

"Riverbend gave me the opportunity to step outside my comfort

zone and do something I've never done before. Thanks to the educator training, I learned about inquiry-based science and also ages and stages (what a child should be learning and at what age). Now I feel I have the proper knowledge and tools to organize my own lessons and present them to children of any age. After having my training and doing research to create lesson plan kits, I learned that there are specific standards set by PA for each age group stating what students should be learning and when. I will always go back to that information and use it as a tool when creating programs or activities."

What was Jess's favorite part of her internship? "I really loved taking care of all the animals.

### Kudos to the Brownstein Group for sharing extensive

talent in the creation of a valuable brand strategy report delivered to Riverbend this spring. Riverbend's Strategic Initiatives Committee, chaired by Board Director Simon Herriott, commissioned the report to address a key goal: To establish a strong public identity. The brand strategy report will be an incredibly useful tool over the next couple of years as we craft and carry out a communications plan using the marketing tools and messages best suited to communicating Riverbend's mission and program strengths.



Founded at the height of the Creative Revolution, Brownstein Group is the longest-running independent brand communications agency in Philadelphia.



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