

DOING THE WORK

LAND, COMMUNITY, AND LEARNING

STORY BY ALISON FRYE • AERIAL PHOTOS BY MAX RANDALL '25

Nestled in the hidden corners of the Putney campus are spaces with stories. A student project dreamed up and carried out, possibly maintained, possibly neglected and reclaimed by Mother Nature. If you open your eyes and ears, these spaces whisper their stories and echo the eager visions of generations: a natural dye garden, a forgotten perch in a tree, a sculpture in the woods.

Putney is made of moments of quiet attention and care, of the landscape and of the students. Sometimes a story, like this one, is simply a happy one. Sure, there is an adversary (nature and her invasive species), but at its heart, this is a story of learning at its best: vision, collaboration, care, persistence, dreaming, and hard work. Decades upon decades of Putney alumni can tell a story that is a gripping combination of those assets.

For Cam Cox '24, her just-over-two-years time at Putney offered a chance to dive deep into her passions. In return for the trust the school put in her educational vision, Cam took responsibility for reclaiming a beloved space and for the species that call it home.

YOU ARE INVITED INTO ENVIRONMENTAL EDUCATION .

The area around the puddle at Putney offers abundant opportunities for hands-on teaching and learning. Fish. Plants. Amphibians. Birds. Flowers. Trees. Wildlife. But habitats

can change in just a few years. “Invasive species can take over and cause extinctions of native plants and animals. Native species have to out-compete something they’ve never seen,” says Cam, whose work transformed the Puddle (specifically, its surrounding area) from an impassable tangle 15-feet thick with invasives into a hub of student-led learning, relaxation, and reflection.

Science teacher Dawn Zweig frequently walks the campus with students, pointing out invasives, the native species struggling to survive in their presence, and their potential and actual harm to biodiversity. Year after year, her students tackle tasks that are, by every definition, tough. The work is muddy, thorny, messy, buggy, smelly, and scientifically sound. “This is real science,” says Dawn.

Upland

Deeper water

Wetland boundary



Clockwise from top, an aerial view of the Puddle and its wetland boundary, Cam and the construction of a teaching/observation platform, teacher Dawn Zweig clambered over trees and roots in mapping out transects, zoom view of forest measuring using a Cruz-All tool



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That changed in 12th grade with Cam’s senior exhibition. Cam and Dawn crawled through the thick growth of buckthorn, multiflora rose, privet, winged euonymus, periwinkle, and dandelion. They hacked the invasives, flagged for chainsawing those too large to cut by hand, and hauled them all out. Cam guided a conservation crew that burned them before the seeds could transfer. Cam organized additional work days and engaged even more students in her work. She honed her leadership skills and brought the community into her project. Slowly, over the course of more than a year, and with

plenty of sweat and a good bit of fire, the space started to open.
Cam and Dawn then mapped out transects and created quadrats, an essential piece of ecological study. Cam studied how native species regenerate once invasives are removed by observing activity in the quadrats and recording her findings.
Spring ephemerals are fast to grow, and returned quickly once the invasives were removed. “A multiflora rose grows like an umbrella. They don’t take up all of the ground, but they cover everything from the sun so nothing can grow underneath them.

Eat Our Invasives!

An email from Cam Cox to the Putney community April 2024

Garlic Mustard Pesto

(Makes about 1 cup)

- 4 cups garlic mustard greens
- ½ cup toasted walnuts (some recipes use pine nuts)
- ½ cup finely grated Parmesan cheese
- 1 tablespoon lemon juice
- Fine sea salt and freshly ground black pepper
- ½ cup extra-virgin olive oil

Pulse the garlic mustard greens in a food processor with the walnuts, cheese, lemon juice, and ½ teaspoon each salt and pepper. Then, with the motor running, slowly pour the oil through the spout. Toss the pesto with pasta and a 1/4 cup of pasta-cooking water, or spread, as is, on crusty bread. You can also add the leaves directly to salads to add a mild garlic flavor.

In an area 30'x10' was that was *completely* multiflora rose, we got it all out, and so many flowers grew there, jack-in-the-pulpit, trout lily, and dogwood sprouts. It was really beautiful.”
Cam established the structure to collect long-term data about canopy trees, as well as the broader world of conservation ecology and amphibians. She performed soil tests and went canopy cruising, identifying and measuring large hickory, sugar maple, red oak, bigtooth aspen, staghorn sumac, regenerating white ash, and medium sized basswood. She planted aspen, silky dogwood, and witch hazel. Cam set up camera traps and pitfall traps to measure wildlife and amphibian activity.
Dawn lit up when asked about Cam’s work. “We watched a place transform. You quite literally could not walk around the side of the puddle. It wasn’t like that ten years ago.” The project also had a potent unique-to-Putney element that involved collaboration of many different hubs, all pushed forward with Cam’s bright persistence: Dawn’s afternoon conservation crew, work days, and an academic challenge that deepened as it progressed, with many layers that led from a class, to independent work, to project weeks, to a senior



exhibition, and back around to a final project week. And, importantly, the project exhibits Dawn’s trust in Cam—and Putney’s trust in students—to pull it all together.
A VISION EXPANDED
It turns out that the puddle is a class two wetland. This came as a surprise to Cam, and she discovered this fact during her senior exhibition. The puddle and its surrounding area meet the qualifications of a class two wetland because it contains dense non-woody and woody vegetation, is adjacent to an open body of water, is more than 2,500 square feet, is a breeding habitat, and is the headwater for Mill Brook Stream. The water in the wetland rises and falls drastically when it rains.
Cam had been planning for a whole different ecosystem when she started her exhibition. With this knowledge, she shifted her study to be relevant to that specific site, and collaborated with Putney-area conversationalists to learn about wetlands and invasives.
Cam’s work aligned with other students’, specifically Finn Stephenson Ryan ’25, who

was studying fish populations in the puddle*, and Phoebe Bates ’24, who was studying bird populations in the area. An idea was born. “This site is so cool and has so much biodiversity. It would be great to have it be an area for teachers to bring students, learn how to do data collection, and see a habitat. It’s a cool space, central to campus, and easy to get to in a class block.”
After Cam’s work re-opened the space, people flocked to it. A hammock appeared. Cam re-discovered a meditation space on the far side of the puddle built by Flannery McDonnell ’14 as a senior exhibition (“Oh my god! What is this?!” said Cam when she discovered it). People were using the space. Cam was delighted, and wondered how to get more people to the puddle.
“Dawn and I came up with the idea of a boardwalk.” After more than a year working on this space, Cam wanted to spend her final Putney Project Week building something useful and beautiful. But was it feasible? Cam talked to a few key adults (“Yes, possible. Figure out what kind of boardwalk to build.”). With the help of people who knew

how to build things**, and with fellow student Ben Orlinsky ’25, they finalized a design and started to dig. “We wanted it big enough for a class to do observational data, but not so big that it covered the whole wetland.” Levels and plumb and rocks and mud were their work, the sludge filling in the post holes as they dug, of course. And after a project week of dirty work, they finished, a day early, with a completed 8'x8' platform and a 3'x12' boardwalk. After which, in true Putney fashion, “Dawn and [her husband] Nathan drove us to get maple creemees.”
LASTING IMPACT
“What do you want to see in 10 years when you come back?” I asked her. “I want people to use the space and continue to care for it. It’s peaceful to listen to the frogs and the birds. I have enjoyed spending the last two years in that area. I could sit on that boardwalk for so long, looking in the water, watching the salamanders and frogs. It makes me happy. Students built a raft for the puddle last spring. People see it as a space with potential.” Dawn and the student conservation crew will carry on Cam’s work next year.
But it’s more than that. Cam sees the world around her and wants to do something about the things that worry her. A California native, she has been scuba-certified since age ten, has completed a program on coral reef restoration, and is heading to college to study environmental science. She feels a pull toward marine biology and the ocean. “I’ve always been interested in the ocean. It needs a lot of help right now.”
In a world filled with stories of indifferent disregard for other people, a world in which you might see someone throw a takeout food bag out of their car window on the highway, Cam Cox, at age 18, has already seen a problem, worked hard to make it better, and is thirsty for more. May we all emulate her open eyes, sense of responsibility for our surroundings, and optimistic understanding of our ability to make a difference.
Watch this space. We will hear from her again.■

**A cautionary tale: our best guess is that about five years ago, a student put a couple of goldfish in the puddle at the end of the school year. The puddle’s goldfish population is now around 450.*

***Special thanks to Chris Olsen, Nathan Zweig, and Bryce Jewel*