Education Corner: Carnivores in the Classroom update

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Kenny Coogan • ICPS Education Director & Community Relations • kenny@carnivorousplants.org

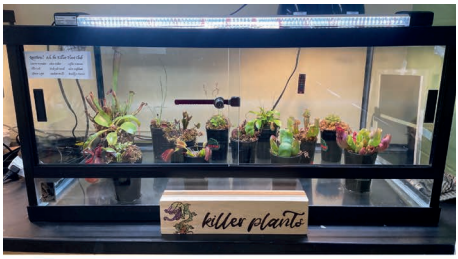
For the second year in a row the ICPS was proud to announce 24 $150 grants for K-12 teachers in public and private schools. These funds allowed teachers to add live carnivorous plants, as well as R/O systems, tanks, pots, substrate, lighting, and literature to classrooms around the world. These grants are funded by you, the members, in the form of donations. If you want to help us spread the joy of carnivorous plants and fund even more classrooms next year visit https://www.carnivorousplants.org/donate.

The application window is open yearly from August 1 - 31. Applicants were notified by mid-September. After five months after receiving the grant, the awardees agreed to provide a description and photos highlighting how they used the grant. Here are some abridged samples:

When we received the grant for the carnivorous plants, I had the students in my life science class apply to be a part of an after-school club. They called themselves the Killer Plant Club based on the name of the store where we purchased the plants. The students spent the next month researching the various type of plants available. They then created a slideshow with information about each of the plants and questions to ask regarding care of the plants.

In November we went on a field trip to the Killer Plant Company where they learned more about the plants, asked questions, and picked out 10 plants for our classroom.

I teach sixth, seventh, and eight grade science and all of the students have shown interest in the plants. They often stop by to look at them on the way to their seats. I have the name of the club members on the terrarium so that students can “ask the experts” which they do. I have not taught any lessons using the plants yet, but our unit on plants is coming up soon and I will use the plants to talk about their parts and how they reproduce. Thank you so much for your program. The plants are a big draw for the kids and also for prospective families touring our school.



Pamela A. Clark

When I applied for the grant, I had a few doubts in the back of my mind concerning the direct relationship between carnivorous plants and what I taught (physics and meteorology). After receiving the grant that added to my collection and doing the formal lesson, however, it is obvious to me that the largest benefit of this grant is the conversations and interest that having carnivorous plants in the classroom catalyzes.

To illustrate this: first, consider the lesson I did with my physics students one afternoon. As you can see in the attached pictures, *Pinguicula* 'Aphrodite' can look quite different, even amongst the same exact clones. I presented this puzzle to my students, gave them some general pathways (lighting, soil, water, nutrients, temperatures, etc.) and had them get to work seeking out an explanation for this difference in appearance. I had them all download a PAR/Lux meter onto their phone and gave them some other metrics to consider. As they went around my room to investigate/measure, you could see the engagement that was happening. Ultimately, this lesson ended with great conversations about lighting, placement, and care of carnivorous plants and the effects each of these potentially has on leaf color and size.

Next, consider all the interest and conversation this has generated. For example, I am known as "the teacher with the carnivorous plants" at my high school. Random students whom I did not know have asked to come into my classroom and look around. One of the counselors is amazed, and one of the Assistant Principals is setting up a terrarium for his office, in part motivated by my "experimental" classroom.

The amount of interest this experience has generated for science, and specifically, carnivorous plants, is disproportionate (in a good way) to the amount of money received by the grant. This has been a great investment - thank you so much for this opportunity!

Dave Long

My class was thrilled to receive the grant that allowed us to bring carnivorous plants into our classroom. I teach 7th grade life science and earth science. We have used the carnivorous plants in our classrooms as a recurring phenomenon for my students to explore. They were first introduced to the plants with our nature journaling activity. In this activity, the students had to draw the plants from three different perspectives; an above view, side view, and from sitting on the floor. After they drew their pictures, the students had to come up with a list of questions they had about the plants. They came up with some amazing questions which really sparked their curiosity. The students were able to answer some of those questions by making carnivorous plant books where they got to research and create informational booklets.

We also used the carnivorous plants as a way for students to get excited about what characterizes something as being alive. The students were able to witness plants reacting to stimuli by feeding them mealworms and flies! Being able to see the plants respond to stimulation really allowed my middle schoolers to grasp the concepts of characteristics of life. I am looking forward to bringing the plants back into focus when we talk about plant anatomy, adaptation, and evolution.

Thank you for choosing our classroom for this grant! It has brought such joy to our classroom. We got to witness our fly trap flowering!

Stephanie Kerr

I teach 8th grade science at a middle school where the majority of the students are on free and reduced lunches. They live in-town in a small city, and many have never been out of our state. They know about Venus flytraps, but they are not familiar with other types of carnivorous plants.

We are starting our unit on the Diversity of Life today, and the students will be comparing and contrasting humans to our carnivorous plants. I want them to realize that they have more in common with the plants than they would first think. We will be writing and then sharing some of our ideas with each other. When I introduce dichotomous keys, I will be leading them through an activity that includes a carnivorous plant dichotomous key. Students will first sort 12 carnivorous plants that I have pictures of, and then they will later identify each one to its genus and species names.

Jill Nagy

I teach both AP Environmental Science (APES) and AP Physics. I was very lucky to be selected for a grant from the International Carnivorous Plant Society this year and would love to share how these wonderful plants have enhanced my classroom. I wrote the grant with the intention of using them specifically in my APES class, but they've become a school sensation! I often have other staff and students come in to check on what's become colloquially known as the "chompy plant buddies."

I was originally planning on purchasing a terrarium, but in the end, I decided against that since we ended up with so many different species. I was able to purchase lights, and quite a variety of species. I was given a generous discount from Gem State Carnivores in Boise, Idaho (and road tripped to pick them up!) so I have fourteen different plants in total, ranging from *Nepenthes*, *Drosera*, *Pinguicula*, *Sarracenia*, *Cephalotus*, and even a few *Dionaea*. The students decided they wanted a variety, and I was able to purchase enough that each student will have a plant to take home at the end of the school year.

I incorporated these plants into our ecology unit – each student "adopted" a plant and learned it's classification, habitat, common prey, life expectancy, natural predators, and human impacts of each plant. Students presented their information to the rest of the class so that everyone gained knowledge about each plant. They're completely responsible for care – watering, feeding, light requirements, and soil requirements. Plants were taken home over winter break, and I'm thrilled that they all came back alive. We learned about dormancy patterns with the *Sarracenia* and *Dionaea* because they wanted to experiment with some skipping dormancy and some going into dormancy. They also have completed water and soil testing regularly to ensure optimal growth. In the way of teenagers, they've named each "chompy buddy" and decorated with rock and ceramic frogs. It's been an absolutely wonderful project throughout the year, and I'd love to make it a part of each year's learning!

Thank you so much for this opportunity – it's been incredible for myself and my students. I am now a lifelong *Nepenthes* fan, my kids have seen first-hand how a fly looks after deteriorating in a pitcher, and they will never forget what they've learned. You've made my first year teaching AP Environmental Science a joy!

Jessica Donnelly

As of January 2023, the carnivorous plants I purchased through this grant have been used for observation and background research. We will be doing experiments with the plants in the spring when the *Sarracenia* are no longer dormant. Students have done exploration about carnivorous plants in general and specifically on the varieties I have in my room. After some lessons about the classification, structure, and adaptations of the plant kingdom, students will have two major assignments related to the carnivorous plants: 1. "Design a carnivorous plant"—students will create their own version of a carnivorous plant, imagining other ways that plants could attract, trap, and digest insects; 2. Experimenting with the plants—we will use student-designed experiments to study the

plants. The students have already suggested ideas for experiments with the plants. Later, we will evaluate the ideas and refine the experiments that we will conduct in class. Already, the students have come up with quite a few questions that could be investigated. My students have been inspired to develop a wide variety of questions about our plants! Overall, this grant has been quite a boon to my students.

Eric Rude

Do you remember that teacher that went above and beyond? Do you remember that defining moment when you first realized that plants could capture, trap, and digest prey? If you want to help us spread the thrill of carnivorous plants and fund even more classrooms next year visit

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