A FASCINATING REALM

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I am a junior in high school (2018-19 school year), and I currently grow about 19 varieties of carnivorous plants, which include 7 different genera. My first experience with insect-eating plants was in Kindergarten, when I saw a Venus flytrap in Walmart. I asked my mom for one. To my delight, we left the store that day with a carnivorous plant in our bag. Back at home, I put it by the windowsill and fed it flies that had died after getting trapped between the window pane and the mosquito netting. My family and I were fascinated by the moving plant, but I had no idea how to actually grow it. Unsurprisingly, the flytrap died. Nonetheless, this encounter with the flytrap was the closest I had gotten to the mysterious realm of carnivorous plants. Looking back, I can see that the experience foreshadowed the start of a long-term hobby.

I've had an interest in nature for a pretty long time. My childhood was filled with various attempts at growing or raising different animals and plants. I grew eggplants (*Solanum melongena*), four o'clock (*Mirabilis jalapa*) flowers, and tried my hand at tulips among other plants. I kept water snails and *Triops* and went out to a nearby park with my sister to catch fireflies. At one point I was obsessed with earthworms and even ordered live worms through the mail and kept them for a time. Raising brine shrimp from their dried eggs was another interest for a while. These creatures from the creative mind of nature were enchanting. Plants that ate bugs, likewise, caught my eye. Even now, I think it's riveting that these plants, while technically producers, can also be included with consumers.

My second experience with carnivorous plants came in the form of the Dunecraft kit Carnivorous Creations right before I started 3rd grade. I followed the directions, and an eternity later, something sprouted. It was around that time that my family moved to southern Georgia. Without a better place I could think of, I put the newly germinated plants, with dome on, outside on a deck that gets direct sun all day. Unfortunately, they died. Now that I know more about growing plants, I think they may have gotten a bit too hot in the stagnant air of their plastic greenhouse placed in unforgiving full-day summer sun. Even with this failure, I became more interested in learning about these wondrous plants and headed to the public library. I devoured all the books in the children's section and was left wondering if there was something else. I decided to check out Peter D'Amato's *The Savage Garden*. I had already seen *The Savage Garden* in the catalog, but I had initially stayed away from it because I didn't know it was a book about growing carnivorous plants (my elementary school self didn't know what "cultivating" meant!). It was through the informative pages of *The Savage Garden* that I was properly introduced to the wonderful world of carnivorous plants.

I wanted to grow plants that were native to the southeastern U.S. as I didn't – and still don't – have a greenhouse or any other fancy equipment. I figured that native plants would grow best for me. After pouring through the different genera in Part III of *The Savage Garden*, I selected *Sarracenia leucophylla*, *Dionaea muscipula*, and *Drosera capensis* as my first plants (I know *D. capensis* is not native to the U.S. but it was said to be a great beginner's plant...). These plants were my 10th birthday gift. I ordered, of course, from California Carnivores, as that was the only specialty nursery I knew about then (from *The Savage Garden*). A few days later, I saw my first sundew and pitcher plant in person. Although I knew that *Sarracenia* and *Dionaea* are native to the southeastern U.S., I couldn't imagine what plant would enjoy the seemingly harsh conditions I observed outside. As a result of my caution, I didn't put my new plants outdoors. It's kind of funny now to think that I originally put the plants near a translucent bathroom window that only gets some sun in the morning. Of course, my sun-loving plants' conditions declined, and I put them outside as a last-ditch effort

to save them. I was surprised then to find how well carnivorous plants grew in the blinding sun and melting heat of my family's south-facing deck. After I figured out how to get these three plants to grow, I expanded into other species. Largely through various Christmases and birthdays, my collection grew. I originally only got more plants that were native to the southeast, such as other *Sarracenia*. However, I soon became adventurous and begin to diversify my collection in terms of the geographic origin of my plants. I got my first *Nepenthes, Nepenthes ventricosa*, in 2014. The plant really didn't do too well...until I thought to put it outside as well. Nowadays, I put all my *Nepenthes, N. ventricosa, N. boschiana*, and *N. sanguinea*, outside when night temperatures stay above about 10°C. In 2018, I expanded to try *Pinguicula, Cephalotus*, and tuberous *Drosera*.

Through the Internet, I found a new wealth of information outside of the library. Barry Rice's FAQ page, the ICPS website, and other sources on the Internet helped me to gain more information about carnivorous plants and how to grow them. I also found more books in the library catalog, such as Barry Rice's *Growing Carnivorous Plants* and Donald Schnell's *Carnivorous Plants of the United States and Canada* to supplement what I found online. I've also learned through experience. I remember the first time I transplanted *Sarracenia*, I was meticulous in getting the ratio of peat moss to sand exactly as stated in *The Savage Garden*. Now I just estimate how much sand or peat I need. At least for *Sarracenia*, I think anyone could grow them if they only follow three simple rules: blast them with as much sun as possible, give them low-mineral water and low nutrient soil,

and allow them to be dormant in the winter. While many are easy to grow, I admit that some plants are tricky. My one attempt at growing *Drosophyllum* didn't work out...I think the humidity of southern Georgia doesn't suit *Drosophyllum* well.

Other than the initial amazement at the rather odd nature of carnivorous plants, I've come to realize that these plants have much more to offer than just being insect-eating plants. As I have gotten older, I've also become fascinated by how exquisitely designed and beautiful these plants are. From the perfectly circular mouths of *Sarracenia flava* pitchers and beautifully blushed interiors of typical *Dionaea* plants, to the gem-like mucilage drops on *Drosera*, and the curious bristly traps of *Cephalotus*, the domain of carnivorous plants is one filled with thoughtful, sublime design. Carnivorous plants increase my appreciation of nature and make me wonder what else lies undiscovered in our cosmos.

Meat-eating plants even allowed me to introduce another interest to my grandmother when she visited this past summer. She already enjoyed plants to begin with, but was fascinated anew by carnivorous plants. I made sure to check out all the good carnivorous plant books from the library system I could find so she could look through them. I even cut open a *Sarracenia* pitcher to show her the waxy interior and the tiny downward pointing hairs (Fig. 1).



Figure 1: My grandmother studying a *Sarracenia* leaf.

Learning about carnivorous plants increased my knowledge about the world, if only a little. Other than gaining knowledge about the plants themselves, I learned a bit about world geography and climates. For example, I wouldn't know where the islands of Sumatra or Borneo are located if it weren't for the *Nepenthes* that lived there. I wouldn't know about the dry summer, wet winter climate of Western Australia if it weren't for the tuberous and pygmy *Drosera* that called that climate home.

I believe the world of carnivorous plants is one that anyone can appreciate and enjoy. Certainly, for me, these strange plants have become a constant presence in my life.

