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Cultivating kids: A passion for carnivorous plants

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Father's point of view

Despite being decades ago, I still recall the Venus flytrap my mother purchased for me from the local grocery store when I was maybe eight years old. The youthful euphoria was fleeting, as I managed to kill the plant in a short time. In retrospect, it may have been the ham I fed it, the constant stimulation I did with my fingers to trigger the traps, or maybe the really hard water of my hometown tap. But the excitement was there… and six years ago I saw that same twinkle in my four-year-old son's eyes when we visited the late Richard Wuydts' World's Rare Plants carnivorous plant nursery in Halfmoon Bay, California. But would the outcome be the same? A short-lived one-time purchase? Or something more?

Fast forward 6 years and my now 10-year-old son still has that glimmer in his eyes and the wry smile when he talks about his Venus flytraps with his friends and teachers. The single plant now numbers well over 100 different flytrap cultivars with many unnamed seed grown crosses that he has created over the last several years, and 3 registered cultivars that he's had a hand in naming. Moreover, the "single plant" now occupies some serious real estate in our backyard, putting him at odds with the real head of the house.

We both had a similar thrilling experience with our first plant – one led to a serious passion for my son, but mine kind of fizzled out decades ago. Is it all child related? Are some children just more inclined to develop a passion for such things? Or is there something more to how my son's passion and focus developed. I am neither a developmental psychologist nor educator. I do have a background in science and bonsai trees, but that is the extent of the disclaimer you will read here. I honestly do not know if my approach was the right one, but this is how I approached my son's interest and how it seemingly has stuck.

I have always believed that kids are motivated by interest – not just their interests, but those of their parents as well. When adults show interest, it can be infectious for kids. I think my son's first introduction to carnivorous plants left a strong impression on him at the age of four years old – it was the late Richard Wuydts, owner of the local carnivorous plant nursery, who took him on a Willy Wonka-esque tour of his nursery. Richard spent maybe an hour, walking through his nursery, telling him stories about his plants – where they came from, their history, his travels, and how he was captivated by them as a child. It was like winning a Golden Wonka ticket, and afterward my son had many questions. Truthfully, that first impression was instrumental in sparking his interest. Afterward, I tried to show him I was interested. I found some children's books about carnivorous plants and we read them together.

I feel that it's important to let him explore his interests, but also support that interest. I often hear folks using plants and pets as a way to teach responsibility and while I agree to an extent, the age of the child and expectations need to be considered. There's really no faster buzzkill than to find your prized plants dried and dead. My son is very good at knowing when he needs to water his plants now, but when he was 4-5 years old, I would remind him or water them myself in the evening after work. I think him seeing me involved made it an opportunity for us to spend time together which is a win-win situation.

As he's gotten older and more mature, he's taken the initiative to read some higher-level books (Peter D'Amato's *The Savage Garden*), do some online video searches for more advanced cultivation techniques, and devise some experiments to test some of his ideas. Sometimes that involves reading together or discussing what certain passages mean. Eventually, his Venus flytrap project extended beyond growing plants. He wanted to try to create new plants with new characteristics. It's probably a bit early to teach Mendelian genetics (not sure that Venus flytraps are a good example of simple Men-

delian genetics) but we started with a simple discussion of genetic traits and how trait selection can be done. For the last four years, we have been hand-pollinating Venus flytraps (and isolating flowers) and growing the seeds. As our grow space has been limited, we decided to sell some seeds online. I helped him sell seeds online, and it was an opportunity for additional growth and learning. He was in charge of keeping orders organized, writing letters to the customers, and keeping track of the funds. We have now gone through four years of seed production and this past year; he did all the crosses himself and nearly all of the seed harvest. He has been meticulous about keeping track of the hand pollination. This year, he asked if we could donate our seed funds to others who have been affected by COVID. Seeing this social awareness during a really bizarre year of remote learning was a tremendous proud papa moment. That single carnivorous plant has transformed into a much larger project, but the key has been letting him explore and being there to support his interests and initiatives.

Also intrinsic to the growth of his passion has been his relationship with others in the hobby. The generosity and collaboration of folks like Craig Heath and the late Richard Wuydts have further stoked his love of these plants. I have seen him pass on this generosity to other children as he frequently gives his plants to friends, classmates, and other local hobbyists.

Ultimately, I believe the most important facets of building a passion are: allowing the child to explore, supporting their interest while showing your interest, not forcing unreasonable age-inappropriate responsibility, building fun collaborative relationships with other hobbyists, and eventually giving back to your community in some form. Give this guideline a try… hopefully that grocery store Venus flytrap I killed decades ago did not die in vain.

10-year-old son's point of view

I love Venus flytraps, and believe that they have had a huge impact on my life. There are innumerable interesting aspects. I enjoy Venus flytraps because of my history with them, the process of crossing them, and my latest cultivar, *Dionaea* 'EEC Purple People Eater'.

I have been interested in carnivorous plants for six years, since I was four years old. The first time I saw a carnivorous plant was at our local Junior Museum. After, my parents took my sister and me to a carnivorous plant nursery, World's Rare Plants run by the late Richard Wuydts, where I noticed that there was a myriad of interesting carnivorous plants, and I loved the insect eating part. Richard Wuydts helped me develop a curiosity for these plants. The first carnivorous plant I started growing was a *Sarracenia minor* plant from his store and a Cape sundew that was hiding in the pot. I put my pitcher plant outside in the backyard, and we took care of it by watering at the bottom of the tray. Also, I caught flies for them. Later, I purchased my first Venus flytrap, a *Dionaea* 'Jaws', from Richard, but I did not understand how Venus flytraps capture insects. I read a book called *The Savage Garden* by Peter D'Amato with my father's help. It taught me how to grow Venus flytraps. A couple years later, I learned how to hand pollinate Venus flytraps from the book *Savage Garden* because I wanted to create new plants and see if I could select traits. Traits I tried to select for included trap size, color, growth habit, and cilia shape and size, and petiole length. After four years, I have close to a hundred crosses. Every summer, I collect seeds after hand pollination and record the crosses. I have learned countless concepts on successfully cultivating Venus flytraps.

Crossing Venus flytraps is hard work. First, in the spring, I take an anther from one Venus flytrap flower using tweezers. Then, I touch the anther to a different Venus flytrap flower that has a fuzzy appearing stigma. It is paramount to label the crossed flower, so I can keep track of which crosses have been made. If I have a typical Venus flytrap or I don't want to be organized, labelling can be skipped. If I want to be accurate, it is critical to avoid pollinators, including bees and butterflies, touching

the flower until the pollen has faded because they can contaminate your crosses. After the flower has opened a second time showing glistening, black seeds, they can be harvested using tweezers. Because the seeds tend to shoot out, I put them in a miniature wax bag, so I do not lose them. In fact, my favorite part of the whole process is shooting the seeds out of the flower. After, I put the seeds on a sheet of white paper, and pull the dried flower parts out because they can cause mold when planting them. I plant my seeds in a peat-based soil as early as possible and grow them under lights for the first year. Finally, I plant them about three inches apart, and away from the corners of the pot. Each year, I have been selling my seed crosses online with the help of my father. This year, because COVID negatively impacted so many people, I decided to donate all proceeds from our sales to three charities that help those impacted by COVID. I donated over $700 this year and hope to donate more next year.

Dionaea 'EEC Purple People Eater' is my latest Venus flytrap cultivar. To make this cultivar, *D.* 'FTS Maroon Monster' was crossed with *D.* 'Jaws Smiley'. Out of about 80 seeds, there was one plant that was unique. My hope was to make a red Venus flytrap with curved, elongated traps. After it sprouted, we named the Venus flytrap *D.* 'EEC Purple People Eater' because of personal protective equipment (PPE) during COVID and the song "Purple People Eater." *Dionaea* 'EEC Purple People Eater' is mainly red, but has a bright, lime-yellow line before the cilia. The cilia have a dentate appearance.

As you can see, I love Venus fly traps because I have a history with them, enjoy making new crosses, and creating new cultivars, such as *Dionaea* 'CCCP Sea Scallop' found on page 78 of this issue. My future goal is to make another cultivar, and continually improve my plant care. I believe Venus flytraps will be an integral part of my life forever. I am currently doing some experiments on fertilizer and Venus flytraps and water germination of Venus flytrap seeds.

Evan Wang: A) Age 4, with one of his first Venus flytraps; B) Age 6, preparing cape sundews to give to his classmates; C) Age 10, tending to his Venus flytraps; D) Age 10, showing one of his giant Venus flytraps.