

CP Without A Greenhouse

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The common concept of insectivorous plants is of delicate organisms that must be grown in a hot, humid greenhouse environment.

When I first started with CP's, I also felt this was the case, however as my collection was rapidly out-growing my limited amount of enclosed space, and my limited budget would not stand the expense of building a greenhouse, I decided that the plants would have to grow on MY terms.

So, now that this understanding had been reached I began to set my plants up outdoors, exposed to all that Mother Nature had to offer. For some people living in an area that is already well stocked with native CP's, this concept is not too strange. However I live in an area that although not totally devoid of life, is altogether devoid of native CP. NO, I don't live in the Sahara, although I do technically live in a desert.

Many people don't realize it but the Los Angeles basin without water would quickly revert to a chaparral community desert. This is where I have been growing CP for the last five years. Our local climate is classified as Mediterranean: this climate condition is characterized by warm days and cooler, moister nights influenced by an onshore breeze. Winters tend to be mild but somewhat variable. The days can get up into the mid 80's(°F), nights commonly in the 30's to 40's. Frosts are quite rare, but when they occur they can be pretty nasty. Recently, when we had a two week period with lows into the 20's, my outside pots were frozen the entire time. Summer temperatures commonly hit the 100°F mark and if we are having Santa Ana winds, my humidity may get down into the teens.

In view of these temperature extremes not all CP's will be suitable for culture outdoors, but with lots of trial and some error, I've found that most species will do well under my conditions.

I have most of my plants on a patio on the north side of my house. This lets me provide a more diverse growing environment as I can grow some plants in the sun and others in the shade.

The most important thing to realize when growing outdoors is that your H₂O consumption will be higher than green house growing. I water my plants using the tray method. Each morning I have to make sure there is enough water in the trays to last the day this is especially important during the summer. The amount of water each tray gets depends on how much sun each tray gets throughout the day. On the average, I have found that 1/4 to 1/2 an inch of water will assure that the plants have enough water to get through the day. During the winter my water usage is less, but it's still vital to check each day, unless of course we are in an all too rare rainy period.

As already mentioned, my growing area is divided into a shade and sun area. I make no attempt to shade the sun section, but there is a tree which provides some shade until about noon, but from then until about 5 pm the area is in full sun. I have found that as long as there is plenty of water in the trays my plants will do quite well in temperatures up to about 110°F(43°C-ed.). Above this I have seen some damage occur. The north wall of my house provides an area of all day shading. It is along this wall that I place all those species that will not tolerate the full sun. Growing here will be found *Darlingtonia*, all tuberous *Drosera*, all terrestrial *Utricularia* species, *Pinguicula*, and *Nepenthes*.

To my mind the benefits of growing my plants outdoors are great. First, and most important to one with a limited budget, the light is free. No buying light fixtures and trying to figure out where you are going to hang them. Second, the plants are able to

feed themselves, in fact they do it so well that I have to plug the pitchers of my *Sarracenias* to prevent them from getting dead spots caused by an over-abundance of prey. Third, the plants develop better color, flower more and generally set more seed.

There are of course same problems associated with growing outdoors. I've already mentioned increased water consumption, but the rental or purchase of an R.O. unit will greatly reduce the cost.

The other potentially serious problem is contact with insect pests. I will occasionally get attacks of aphids or mealy bugs, but a light spray with a dilute Diazinon® solution will generally clear the problem right up. This treatment must be used carefully since not all plants will tolerate the dose of chemicals. An ideal alternate solution is the use of biological controls. The best predator I found is the larvae of the green lacewing. The eggs may be purchased from most large nurseries or seed mail order companies. Upon hatching, the larvae set out to devour every small insect they can find. They will clear up an aphid infestation in no time flat. The other pest I frequently encounter is moth larvae. These usually stay hidden by day, but by night they appear like magic to consume your most prized specimens. Fortunately they are easily controlled with any one of a number of preparations containing *Bacillus thurgiensis*, a bacteria that will quickly kill the caterpillar without harming the plant.

During suitable times of the year, such as once nights stay above 50°F/10°C, I place all my *Nepenthes* and tropical *Utricularia* outdoors. They stay out until fall and then I move the *Utrics.* and lowland *Nepenthes* back in. The highland species stay out year round since they like the cool winter temperatures better. In addition to moving the above species, I move any other plants likely to be damaged if a very heavy or frost of long duration is predicted. I nightly bring the trays in and return them outdoors each morning.

After growing CP's out doors for several years, I have found very little difference between my plants and greenhouse plants, except my plants are more tolerant over a wider range of growing conditions. While on the subject of greenhouse plants, keep in mind that greenhouse plants should never be placed outdoors without a suitable period of hardening off. If not given this time to adapt you may lose your plants.

One of these days I hope to be able to set up a greenhouse, although when I do I am sure I will have more trouble adapting than my plants do. But for now I think I will just sit back and enjoy my plants.

A Weekend At The Bruce Peninsula

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The Bruce Peninsula is that long Peninsula of the Canadian Province of Ontario that lies between Lake Huron and the Georgian Bay. This area offers different outdoor activities for all kinds of outdoorsmen, and one of these of course is botany. The primary CP habitat here is the alkaline marl fen.

Gary Thieme and I were bogging this area for a weekend and found two locations of *Pinguicula vulgaris* and three locations of *Drosera linearis*. None of these locations were mentioned in a Brochure by the Federation of Ontario Naturalists that monitors two other locations. In one fen we found four species of CP growing together on a marl flat-*P. vulgaris*, *D. rotundifolia*, *D. linearis*, *S. purpurea*. Unfortunately, it would not have made a good photograph. One fen had a colony of hundreds of *P. vulgaris* plants, along with a neighboring colony of *D. linearis*.