

The Victorian Wardian Case

A tool for modern times

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One of the major frustrations to the CP enthusiast is the apartment he or she lives in. Apartments seem to be designed with the intention to make the environment as hostile to CP as possible. Natural light, the most important environmental factor, is usually at a minimum. Have you ever noticed that most apartment windows seem to face north?

I have found a method to overcome this limitation of light and also keep humidity and temperature fairly constant; it's a variation of the Victorian Wardian case. The Wardian case is a cross between a small greenhouse and a large terrarium. The Wardian cases were originally used by collectors and early naturalists to transport rare and exotic plants from all over the world to the great public and private gardens of Victorian England. Wardian cases were also displayed in the parlors and conservatories of many Victorian homes since they were attractive and required little care. My Wardian case is displayed next to our kitchen and supports 15 varieties of *Nepenthes* and 3 species of *Drosera*.

The case is 5 feet long by 3 feet high by 2 feet deep and is constructed of ¼ inch plywood. The seams are sealed with silicone and the inside is painted with several coats of white enamel to seal the wood and give maximum reflectance of light. The front of the case has two sheets of plastic which gives a good view of my jungle and easy access to the inside.

Lighting is provided by two sets of 4 foot fluorescent shop fixtures each with two 40 watt tubes. The fixtures are mounted inside the case and hang 3 inches from the top. Humidity is provided by a one gallon cool mist type humidifier inside the case. It maintains a relative humidity of 90% and 100% night and day. Lighting and humidity are controlled by electric timers.

The type of water used in the humidifier is important. Tap water will leave mineral deposits on the plant leaves and also clogs the humidifier. I had used distilled water which works well but does tend to cost. Recently I purchased a reverse osmosis, RO, water filter and the water produced is 90% mineral free. This leaves the *Nepenthes* leaves mineral free and healthy.

To conclude, my Wardian case is very successful in its purpose of providing a stable growing environment for my CP and displays them so they can be studied and enjoyed.

Q & A

Thomas Alt of Germany asks: I received a plant from Australia with name *S. leucophylla*—hairy form. The plant looks like normal *S. leucophylla* species but the pitchers have many hairs. I have other *S. leucophylla* plants with smooth walls. Is this plant a natural form or a hybrid?

Answer: Broadly speaking, your plant is likely a hybrid, but one that has gone through several more breeding stages than the simple hybrids. Your plant most likely represents a backcross or introgressive macorecombinant that arose as follows. In the area of the US where *S. leucophylla* normally grows, hybridization commonly occurs with other *Sarracenia* species. One such species is *S. purpurea* ssp. *venosa*, which happens to have a "hairy" surface. A simple hybrid between these two species is easy to identify, and the plant hairs of *S. purpurea* most often carry through to the hybrid. Now, if the hybrid, which is quite fertile, backcrosses with another *S. leucophylla*, once or even

twice, then the ensuing plants will more and more assume the character of *S. leucophylla*. However, through various genetic activities during meiosis and mitosis that we will not go into here, individual characters of the *other* parent (such as the "hairiness" of *S. purpurea* in that area) may persist in a plant that looks very much otherwise like *S. leucophylla*. Furthermore, such a plant may self and the seedling progeny—many or most—will possibly maintain the "hairy" characteristic, resulting even in a small stand of such plants. In situations such as this we enter the vague area of what constitutes a permanent genetic variant resulting in a new taxonomic *form* or *variety*, the choice often depending on the experience and judgment of the investigator and what evidence is available to study. In a genus

whose species and their hybrids interbreed so easily and prolifically, such judgments have to be made with caution. I believe a similar cause has resulted in the "stocky, hairy variant of *S. alata*" that we have read about (and which I have seen in the field). The residual "stockiness" and "hairiness," and side by side comparisons with "pure" *S. alata* strongly suggest residual genetic features of *S. purpurea* ssp. *venosa* also.

REMINDER

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THE CATALOGING OF CP STATIONS

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Due to the fact that carnivorous plants are facing a daily confrontation with man's follies, conservation will surely become a necessary fact of life for all of us (Campell 1983; Mohlenbrock 1983). The number of "regional experts" will have to increase and the collection and monitoring of data from known CP stations continue. Of all the information accumulated by CP enthusiasts, the cataloging of stations is the most essential type of preparation needed, and yet is the most frequently neglected.

I view cataloging (using the "Carnivorous Plant Station Survey and Record" format), as a multi-purpose tool that could serve the needs of the ICPS in building a foundation for a more positive future for CP and their habitats. As a result, to ensure the preservation of record sheets and the utilization of the catalog system to its maximum potential, a depository would be established. For example, one set of data sheets is retained

by the collector as a sort of accession file and a duplicate set of record sheets deposited with and becoming the property of the ICPS, a university with parallel interests or the Nature Conservancy. The data could then be available to the academic community upon request.

There are several types of cataloging systems: straight coding, serial, etc.; but for more practical purposes an intermediary cataloging system is preferable. This enables one to refer to specific stations in publications and discussions, while still preventing disclosure of the exact locations to individuals possessing questionable motives. To reduce the possibilities of exploitation, authors currently must resort to various degrees of vagueness when discussing CP locations resulting from field work (Schnell 1980, O'Neil 1983). With the catalog system, authors can freely discuss specific stations such as Thomas Can-On-27, and the reader