



BOTANIST'S CORNER

by Larry Mellichamp

Botanical History of CP V: John M. Macfarlane

Over the years, much information is accumulated about plants which have become popular or conspicuous for one reason or another. This information may be botanical or horticultural, as both are equally valid avenues of interest to pursue (or even to combine) as one grows attached to the plants he/she works with. Periodically, it becomes necessary to draw all the known data together into a grand synthesis so that a clear picture of the group in question emerges and the information is made readily available to those who need and desire it. One of the greatest syntheses of all times was Darwin's "Origin of Species" wherein he amassed much data and observations to support his theories of evolution and to show others the evidence. On a lesser scale, but of no less important efforts, has been an example closer to home, namely the magnificent volume on Carnivorous Plants published by Francis E. Lloyd (a Canadian) in 1942. In this interesting and innovative compendium, all of the botanical data from many scattered sources was consistently presented in one book. CP had been intensely studied for over half a century and this was the first real synthesis for the group. It also led the way for more efficient future research in the field.

In getting to the main subject of this article, I would like to call your attention to one of the truly great botanists and proponents of CP of the past hundred years. I am referring to John Muirhead Macfarlane, for his 60 and 70 year old compilations on the botanical and horticultural aspects of CP are well-known and often consulted even today. His two best known horticultural works are the

treatments of *Nepenthes* and *Sarracenia* in L. H. Bailey's Standard Cyclopedia of Horticulture in 1917. They are still very useful, although more species and hybrids are known and some names have changed, and serve as models for modern revisions which are sorely needed after so many years of progress in these two most important groups of CP. He is also to be remembered for his definitive botanical monographs on the Nepenthaceae and Sarraceniaceae. These lengthy articles crystallized our knowledge of these difficult families in the world renowned taxonomic series *Das Pflanzenreich* ("the plant world") of the German botanist Adolf Engler, whose goal it was to systematically treat all species of plants known in the world at that time.

It is reassuring to believe that the job of compiling and synthesizing all of the necessary information into usable reference works on these plants was successfully accomplished by such a capable man. It would be hard to follow in his footsteps today when so much more knowledge is available in even more widely scattered sources about such complex groups of plants. Nevertheless, we are making an attempt at synthesis and education through CPN by providing a forum for presenting information and sharing experiences. Perhaps someday a unified work will result from the data gathered here.

John M. Macfarlane (1855-1943) was born in Kircaldy, Scotland and received a Bachelor of Sciences degree (1880) and a Doctor of Science degree (1883) from the University of Edinburgh where he specialized in Botany. He spent the next ten years teaching and doing research

on living and fossil plants at the University of Edinburgh, where in 1887, the Committee of the Association for the University Education of Women appointed him lecturer for the year and his class was attended by 62 students. In 1891 he made some remarkable discoveries regarding the sensitive movements of the Venus Flytrap. Later that year, after delivering a speech on his insectivorous plants studies to the American Association for the Advancement of Science in Washington, DC, he was offered a professorship in biology at the University of Pennsylvania. He accepted and became a Professor of Botany in 1893, remaining until his retirement in 1920.

At the University of Pennsylvania he immediately put his untiring energies to work on improving the Botany Department. He became director of the botanic garden for 27 years where great advances and improvements were made; he greatly

enlarged the botanical library from 17 volumes in 1893 to over 5,000 volumes; greenhouses were erected and large collections of plants were amassed; laboratories were equipped with apparatus; and he attracted many students to the botany courses there. Not only was he concerned about the well-being of his students and colleagues, but he also felt that the general public should become involved in the University and botanical activity; so he founded the Botanical Society of Pennsylvania in 1897. He was a prolific writer and researcher, not only dealing specifically with CP, but other aspects of Botany, Zoology, and Evolution as well. The accuracy and usefulness of his work is reflected in its timeless recognition. He is commemorated by the name *Nepenthes macfarlanei*.

Macfarlane's writings can be followed by the references listed in Lloyd, F. E., *Carnivorous Plants*, 1942.



1. *Sarracenia lucophylla*
2. *S. alata*
3. *S. psittacina*

4. *S. flava*
5. *S. rubra*
6. *S. alata* x *S. psittacina*

Drawing by R. S. Bennett