

UNSEASONAL BLOOMING IN *SARRACENIA* IN WESTERN FLORIDA

by Landon T. Ross
(1012 Ridge Road, Tallahassee, FL 32304)

The phenomenon of unseasonal blooming in *Sarracenia* is briefly noted by McDaniel (1971), but otherwise seems to have gone unmentioned by most students of the genus. It is not uncommon in cultivated specimens which are often subject to rapid environmental changes and the concomitant physiological shock, although examples among wild populations seem to be a good deal less frequent.

During the interval between the spring blooming seasons of 1975 and 1977, about fifteen field trips were made through western Florida. One goal was to record unseasonal blooming. Five separate instances were observed, and these are listed in the accompanying table. All plants were large, mature specimens, and there was no evidence of any particular damage or recent habitat modification which might have been expected to have triggered flowering. It seems notable that only single flowers were produced by each of the plants, except for the *S. purpurea venosa* which had two. The size of the plants was such that considerably more flowers would have been expected under normal circumstances. Also, the flowers which were produced were not always of normal dimensions. Those of the *S. purpurea venosa* were about 25% smaller than usual, and in both cases the *S. leucophylla* flowers were approximately 50% of the typical size and were borne on abnormally short scapes.

<u>Species</u>	<u>Date and day length when observed blooming</u>	<u>Expected approximate date and day length during normal blooming cycle</u>
<i>Sarracenia leucophylla</i>	4 Sept. 1976 12 hr. 40 min.	10 April 12 hr. 45 min.
<i>S. leucophylla</i>	17 Sept. 1976 12 hr. 18 min.	10 April 12 hr. 45 min.
<i>S. minor</i>	19 Oct. 1975 11 hr. 21 min.	30 April 13 hr. 20 min.
<i>S. purpurea venosa</i>	1 Sept. 1975 12 hr. 48 min.	25 March 12 hr. 15 min.
<i>S. rubra</i> *	18 Sept. 1975 12 hr. 17 min.	19 April 13 hr. 0 min.

Observations of unseasonal blooming in *Sarracenia*

To facilitate further observations, the plants of *Sarracenia minor*, *S. purpurea venosa*, and *S. rubra* were moved to an artificial bog. These plants bloomed normally during the spring of 1976, and failed to produce any further unseasonal blooms. The specimen of *S. minor* did, however, continue to bloom through 6 June, 1976, considerably later than is usual for the species.

It might be expected that unseasonal blooming bears some relationship to length of day. For this reason, day lengths for the subject area for the observed blooming dates are included in the table. Also listed are approximate dates and day lengths for the midpoints of the normal blooming periods for the same general area. These are somewhat modified, based on recent observations in western Florida, from blooming periods given by Bell (1952). The data in the table lead one to suspect that this relationship does actually exist to some degree, particularly since no unseasonable blooms were observed during periods of very long or very short day length (excepting the continuation of blooming under cultivation of the *S. minor*). Further records are needed, however, for any type of accurate analysis to be made.

It may be of interest to note that unseasonal blooms were not observed in either *Sarracenia psittacina* or *S. flava*. Since populations of *S. psittacina* are not likely to be particularly dense, and since the plants themselves tend to be concealed by other vegetation, particularly during the later part of the year, the lack of observations for that species is not surprising. In the case of *S. flava*, however, more individual plants were probably examined than in all other species combined, without a single instance of unseasonal blooming being noted.

Literature Cited

- Bell, C. R. 1952. Natural hybrids in the genus *Sarracenia*. I. History, distribution and taxonomy. *J. Elisha Mitchell Sci. Soc.* 68:55-79.
McDaniel, S. 1971. The genus *Sarracenia* (*Sarraceniaceae*). *Bull. Tall Timbers Research Station.* 9:1-36

*Shows slight signs of introgressive influence from *S. leucophylla*