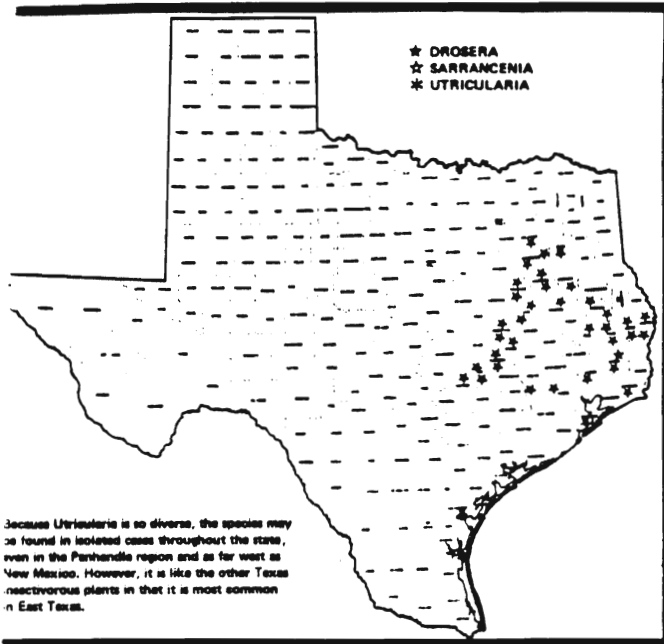


CARNIVOROUS PLANTS OF TEXAS
by Grady Lucas

Texas there are fifteen species of carnivorous plants representing four genera in three families. These genera are Sarracenia, Drosera, Utricularia, and Pinguicula, the latter and throughout the state. The greatest concentrations of CP species in the state are and in the east and southeast portions where the rainfall is greater and the soil more commonly retains water in such forms as bogs, seepages and savannahs. This generalization as habitat does not necessarily include Utricularia which are found in fresh water throughout the state. However, Utricularia are more common in the eastern part of the state.



All Texas varieties of CP seem to be fairly hardy. In some areas CP have increased in population because of man-caused habitat changes. An example of such changes is an area where power lines are constructed and the digging near the seepages makes the soil "boggy". Sarracenia and Pinguicula are frequently found in these boggy areas.

The largest of the Texas CP is Sarracenia alata. This is the only species of Sarracenia native to Texas, and in the wild ranges from six to twenty-eight inches in height. In Texas Sarracenia alata blooms from April through May.

Next in the Texas delegation of CP is Drosera. The only species native to Texas is Drosera brevifolia. These plants are either perennial or biennial, and the flowers bloom from early February to late August. In late autumn and early winter the leaves turn deep red and are easy to spot against the dying vegetation.

Utricularia are probably the most common CP in the world. Of the 170 species in four genera, Texas has ten species occurring

throughout the state. One of the largest known concentrations of Utricularia in the state is on Caddo Lake with five or six acres inhabited. Recent studies suggest that Utricularia occasionally trap duckweeds which would make them herbivorous as well as carnivorous.

Utricularia vary greatly in size and distribution over the state. Water conditions for one species in the eastern portion of the state probably would not sustain another variety from central Texas. In other words, specific habitat requirements such as oxygen content and minerals in the water must be met for the plant to survive. This is why soft acidic water in east Texas harbors different species than the relatively hard alkaline waters found in central Texas.

Of the thirty-five known species of Pinguicula, Texas has only one, Pinguicula pumila, which may be found in southeast Texas.

PRELIMINARY EXPERIMENTS ON THE EFFECTS OF PLANT HORMONES
IN GERMINATION OF BYBLIS GIGANTEA SEEDS

by Donald Schnell

Regular readers of CPN are familiar with the difficulties involved in germinating seed of Byblis gigantea, and those who have tried it are often frustrated by irregular results. There is far less problem with the mainly annual B. liniflora. The difficulties with B. gigantea have been attributed to a short half-life viability after seedset, an unusually resistant seed coat, and exacting environmental requirements in its native habitat which have been insufficiently studied and therefore are not at all understood. Many novel techniques have been devised to prod recalcitrant seed into germination, most of these revolving around some sort of heat treatment and a great deal of patience as germination proceeds over a period of several months to a year or more. The rationale behind heat treatment has been that the moist and then drying sandy soil in Byblis areas heats up to rather high temperatures during certain seasons and this may play a key role in the plant's phenologic activities.

In an attempt to further study the process of seed germination in this species, we thought of substituting trial by hormone for trial by fire. The following experiments were carried out.