## CARNIVOROUS PLANT AND CONSERVATION ACTIVITIES AT THE FUQUA CONSERVATORY, ATLANTA, GEORGIA

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In September, 1993, I was among a group of people invited to the Atlanta Botanical Garden to discuss aspects of conserving sarracenias. While there, I spent some time visiting with Ron Determann who is supervisor of the Fuqua Conservatory at the Garden. This was my sixth visit there since the Conservatory construction was undertaken. In a very few years, I am very impressed with the rapid maturity of the Garden.

The CP display in the public portion of the Conservatory is in excellent condition. I believe this garden has surpassed Longwood in nepenthes. The terrarium displays in the cupola are rotated regularly and are in fine condition. Incidentally, several of these terraria are kept in reserve for Ron to carry them in a Garden van to schools for CP talks. Readers of several issues ago will recall the rather large bog adjacent to a pond out back of the Conservatory. it, too is growing well and looks for all the world very similar to native habitat. It will be burned over this autumn, just as in good management of a natural CP area.

Adjacent to the bog area are two large planters about 0.5 meter across in which are growing masses of *Dionaea and Drosera filiformis* specifically for children to touch—a touching garden to parallel the familiar petting zoo.

Ron took some of us into the propagation greenhouses adjacent to the main conservatory to discuss recent recovery and conservation activities at the Garden, largely guided by Ron and working with various state and other conservation officials. He has had phenomenal success with collecting a few seedpods from the field in sensitive areas and growing these to hundreds and even thousands of seedlings and nearly mature plants. He recently found locations for *Sarracenia rubra* in Taylor County, Georgia, and even purchased a parcel of land to protect one of the locations. The plants look most like ssp. *gulfensis* thus far. He has also relocated the same species at Fort Benning, a military reservation in extreme southwest Georgia. These, too, are growing by the traysful.

A recently acquired site (by the Nature Conservancy) of *S. rubra ssp.* jonesii in North Carolina was also visited by Ron and with permission of the conservators he collected a few seedpods and has these plants growing as well. The pitcher plant seedlings have extended out into raised beds just outside the rear door of the prop houses. While at the North Carolina site and also in northern Georgia, he collected seedpods of *S. purpurea*. These are maturing nicely and should go out into recovered boggy sites in northern Georgia this autumn. Ron needs the room.

All of this propagation being done so well, is directed toward recovery plans at the locations in which seeds were collected. In all honesty, the North Carolina jonesii location, one of the best remaining bogs with this ssp. remaining, has not fared well since just before preservation and has gone down at an alarming rate. If the problem is seen in time and the site recovered, then plants raised from seed from the site can be replaced. This is the basis for a fascinating but controversial whole new field of renovation or recovery of natural areas. Some very respected scientists take the conservative attitude that it would be the lesser of evils to let a plant go extinct than to maintain it in artificial circumstances or to even place it back into a recovered site which still amounts to artificial manipulation in their eyes. I can see their viewpoint and respect it since our knowledge of how wetlands operate is not yet complete and any manipulation takes on an artificial aspect. On the other hand, with conservative manipulation and a bit of luck on replacing important plants, especially those cultured from material originally from the site, can be very worthwhile. I think it is worth

trying.

Ron and his team along with US Fish and Wildlife and Georgia natural resources officials have had good luck so far in replenishing S. *purpurea* in a northern Georgia mountain bog. These will continue to be watched and managed accordingly.

The Atlanta Botanical Garden is reaching beyond what many perceive to be the rather passive activity of many gardens in collecting and growing plants for public view and amusement or taxonomic studies. While these aspects are important, Atlanta's outreach into actively participating in regional conservation and field experiments with recovery are indeed commendable.

The Garden is open daily and is easy to find if you follow road signs as you pass through the city on 1-75/I-85. Check a good Georgia state map and you will find Piedmont Park in the center of the city where the Garden is located. Hours from October through March are 9 AM - 6 PM (closed Mondays). The hours are longer after March (to 7 PM). There is a modest admission charge.

## <u>Sarracenia purpurea</u> ssp. <u>purpurea</u> f. <u>heterophylla</u> (Eaton) Fernald in Nova Scotia

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On 8/6/90 I had an opportunity to visit an historic location for <u>Sarracenia purpurea</u> ssp. <u>purpurea</u> f. <u>heterophylla</u> in Nova Scotia. I was vacationing in the area and had a little time to visit some pitcher plant bogs but was not able to do the kind of extensive bog searching I would have liked to have done due to time constraints. Nevertheless I made it a point to visit a lake mentioned by previous authors as containing this interesting form of <u>S. purpurea</u> ssp. <u>purpurea</u>. Unfortunately, for security reasons I can not be more specific on locality or bibliographic data, an unfortunate requirement these days.

The lake is probably of glacial origin and covers approximately five acres near the top of a ridge. The site is characterized by boggy, ericaceous, sphagnous borders typical of northern pitcher plant bogs. <u>Utricularia cornuta</u>, <u>Drosera intermedia</u> and <u>D. rotundifolia</u> were local in suitable exposed organic soils, shallow lake margins and rotting logs. <u>Sarracenia purpurea</u> ssp. <u>purpurea</u> was initially not evident but after working my way around the lake large numbers of this species, ranging in color from red to red veined, were found as well as numerous <u>Sarracenia purpurea</u> ssp. <u>purpurea</u> f. <u>heterophylla</u>. <u>S. purpurea</u> ssp. <u>purpurea</u> f <u>heterophylla</u> was immediately identified (Fig. 1) by the pure green leaves, sepals and growth point of plants found in the open sunshine.

Some clumps of <u>S. purpurea</u> ssp. <u>purpurea</u> f. <u>heterophylla</u> measured up to five feet across!. These large clumps appeared to be the result of both seed and vegetative reproduction. The pitchers were not as densely packed in the individual clumps as in some clones of <u>S. purpurea</u> ssp. <u>venosa</u> I have seen in the southeastern U.S. In cases where vegetative reproduction was suspected growth points were evenly spread out and there was room between pitchers to see the sphagnum moss. In cultivation I have seen <u>S. purpurea</u> ssp. <u>purpurea</u> f. <u>heterophylla</u> propagate vegetatively in this almost stoloniferous manner. As the original plant grows, divides and spreads horizontally space opens up between the different growth points. The original rootstock slowly dies off leaving plants separated from one another which may appear to have originated from seed reproduction.

Upon leaving the site and driving up the road toward the top of the hill I was