

As I poked about other potential CP sites, I made mental note of the kinds of disturbances that were going on, and tried to guess their effects over twenty or thirty years. Through some economic scenario that escapes me, mobile home parks are sprouting like weeds in the middle of nowhere. Medium-sized tracts of magnificent savannah are being destroyed with no apparent long-range planning in mind.

One afternoon I was lucky enough to accompany an employee of the Duke Marine Lab on a trip to the Open Grounds. This 45,000 acre tract of longleaf pine and pocosin is now slashed by V-shaped drainage ditches approximately two meters deep, sometimes deeper, cut through the wilderness to lower the water table in preparation for using the land as pasture. After the ground has oozed for nearly a year, bulldozers push the dying vegetation into long piles, and the ground is burned and limed. The scale of this transformation is beyond belief; in the words of one ranger at Croatan, the activities at the Open Grounds "look like somebody's garden" compared to two other tracts of land, larger by an order of magnitude, where the unique heathlands of North Carolina are also going to make more cows.

North of the Open Grounds is a tract owned by a paper company. A brief foray along the edge of their property revealed an abundance of *Drosera*, including some of the largest *D. intermedia* I have ever seen. I would guess that the central regions of the paper company's land will retain a high enough water table for CP's as long as the land is under present ownership . . . but it was a gnawing question during the whole trip: I simply didn't know the fate of the land, and my stomach turned at the thought of such a vast, unspoiled wilderness being transformed into farmland without a careful evaluation of the relative merits of agriculture versus a kind of wilderness that is not duplicated anywhere else in the world. The night before I left to return to Baltimore, I was browsing through the county library in Beaufort when I came across a book written in 1932 by B. W. Wells, *The Natural Gardens of North Carolina* (University of North Carolina Press, Chapel Hill). Here was a photograph of the Open Grounds at least forty five years earlier, pictures of flowering pocosin and savannah in all seasons, and a small complex of buildings representing an experimental agricultural station. I was struck by a sense of collapsed time, and the clear impression that Croatan is all that will remain of the coastal plain ecosystems unless there is a quick reappraisal of priorities.

Meanwhile, thousands of acres of bogland with scattered patches of *Sarracenia* are being "reborn" in another world. Perhaps we should obtain permission to explore these areas, and collect those plants which are valuable for scientific study and esthetic appreciation . . . we should at least get a grip on the doomed.

#### Literature Cited

- Patricia R. Roberts and J. H. Oosting, 1958. Responses of Venus Fly Trap (*Dionaea muscipula*) to factors involved in its endemism. *Ecol. Mongr.* 28(2): 193-218.
- B. W. Wells, 1932. *The Natural Gardens of North Carolina*. University of North Carolina Press, Chapel Hill (1967).

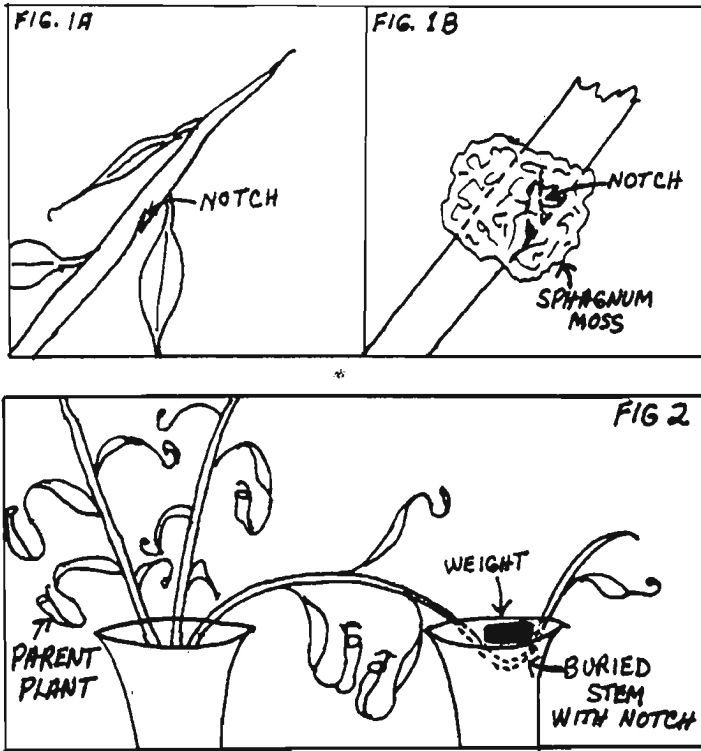
#### PROPAGATION OF NEPENTHES BY LAYERING

by Terry Brokenbro

Through personal correspondence, I have noticed that some CPNers (including myself at times) have trouble propagating *Nepenthes* from cuttings. During hot, sunny weather, plants (cuttings) and compost will often dry out far too quickly while at the other extreme, the compost stays too wet for too long and so the dreaded rot sets in. Therefore, for those "heavy handed" CPNers who have problems, the following two propagation methods may be of some help. Soil layering is probably the more successful method although the air method is best for those with less room available.

#### AIR LAYERING:

First, a mature branch (without formed pitchers) is selected for propagation. A section of leaves are removed and the stem is bruised by twisting and/or cutting a notch in it. This will then reduce the sap flow and promote the formation of roots. Rooting hormone powder is then applied to the area and sphagnum moss wrapped around the wound and a plastic bag applied. (See Fig. 1a and 1b) In one or two months fine roots should then be seen through the plastic bag which can then be removed and the top plant section potted. This method is often used by professional nurserymen for the propagation of rubber plants (*Ficus elastica*) on a large scale.



SOIL LAYERING:

This propagation method is similar to the above method except that it is usually more successful because not only is the stem bruised but also propagated at an angle thus making rooting much more likely. A suitable, supple branch is selected which can be bent into an adjacent pot containing normal growing medium and without detaching from the growing plant. (See Fig. 2) A weighted object is then placed above the bent stem to hold it in place and removed in approximately one to two months. Test the new plant by gently lifting it with a pencil and when roots are visible on the damaged portion of the stem allow the plant to re-establish itself by growing on for two to three weeks, when it can be detached from the parent plant and grown on by itself in the normal way.

ON THE FORAGING STRATEGIES OF CARNIVOROUS PLANTS:

I. EVIDENCE FOR AN ADAPTIVE RESPONSE TO LOW PREY AVAILABILITY IN THE VENUS' FLY TRAP, *DIONAEA MUSCIPULA*.

by Les Kaufman and Mary Schwarzbeck

Abstract

Young Venus' Fly Traps which were protein-starved produced significantly greater numbers of traps, and held a greater proportion in operating condition, than plants which were fed on hamburger. In nature, such a response might increase the probability of capturing prey when prey are scarce.

Introduction

Animals, by virtue of their mobility and behavioral capabilities, can correct deficiencies in energy or protein by looking for an appropriate source. Humming-birds, for example, can balance nectar against insects; bees, nectar against pollen; humans, potatoes and gravy against beef. Carnivorous plants must also face periodic variation in the availability of protein in the form of insect carcasses, and one would expect selection for plants with some way of maintaining a balanced diet. (By "balanced diet" we mean an optimal rate of acquisition of potential energy/protein for a given set of circumstances). On the habitat scale experienced by the tiny plants of the genus *Dionaea*, prey availability is likely to vary considerably from place to place and week to week throughout the growing season. Presumably, such a plant might better its chances of obtaining sufficient