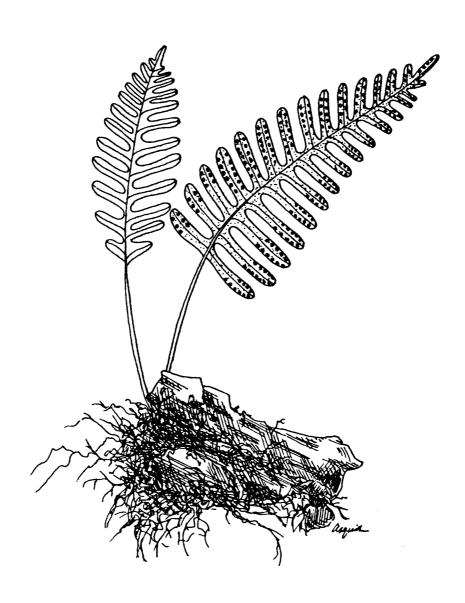
MISSISSIPPI NATIVE PLANT SOCIETY September

1985



Polypodium polypodioides (Resurrection fern)

Drawn by Anna Asquith

LYCOPODIUM IN MISSISSIPPT

Sidney McDaniel

Institute for Botanical Exploration and Dept. of Biological Sciences
Mississippi State University

The genus <u>Lycopodium</u> includes species which have been called running pine, ground cedar or clubmoss. Clubmosses are worldwide in distribution and in fact the genus may have the broadest distribution of any vascular plant. There are probably somewhere in excess of 250 species. The genus is quite common in the boreal forests of northern North America and Eurasia and extends northward almost to the limits of vegetation. In the tropics species may be found in cloud-forests, savannas or as epiphytes in rainforests. The more northern kinds often look more like miniature cedars or pines, while those of the savannas and bogs of the southern coastal plain look moss-like. We have in Mississippi representatives of three groups of <u>Lycopodium</u>: one species of the ground pine type, one essentially tropical species, and four bog dwelling moss-like species.

Reproduction in the clubmosses consists, as in other lower vascular plants, of an alternation of generation of two independent forms. The larger, much more conspicuous sporophyte (producing spores) is almost always all that is seen. In many species the spores may lie dormant for many years before producing a small gametophyte. This gametophyte is without chlorophyll, subterranean and dependent upon fungi for sustenance. Because gametophytes are hidden and so small they are known for only a few species. In most of our species the spore probably germinates comparatively rapidly producing a green gametophyte which in turn produces a new sporophyte. Hybrids are known between some of our more closely related species. The spore producing strobuli appear in our species in late summer and continue until a killing frost. Fertile plants of <u>L</u>. flabelliforme have not been observed in Mississippi.

Key to Mississippi species

- 1. Erect stems usually unbranched, each with 1 or rarely 2 strobuli.
 - 2. Sterile stems all prostrate, rooting essentially throughout.
 - 3. Erect fertile stems below the strobuli visible, not hidden by the sparse non-imbricate leaves. 1. \underline{L} . $\underline{carolinianum}$
 - 3. Erect fertile stems below the strobuli hidden by the numerous imbricate leaves.
 - 4. Creeping stems with leaves essentially in one plane, thus appearing flattened.

 2. L. prostratum
 - 4. Creeping stems with leaves in various planes, thus appearing round.
 - 3. L. appressum
 - 2. Sterile stems arching, rooting at tip, but not along aerial portion.
 - 4. L. alopecuroides

- 1. Erect stems highly branched, with usually 2 to many strobuli (sterile plants may lack strobuli).
 - 5. Plants usually 0.5 m or more tall, leaves spreading or reflexed, strobuli when present numerous, lateral, recurved.

 5. L. cernuum
 - 5. Plants less than 0.5 m tall, leaves appressed, strobuli when present, few, terminal, erect.6. L. flabelliforme
- 1. Lycopodium carolinianum L.

Carolina Clubmoss.

Southeastern U.S., West Indies, Central America, South America, and Old World. Bogs, savannas, and roadside ditches; coastal counties northward to Kemper Co.

- Lycopodium prostratum Harper Prostrate Foxtail Clubmoss.
 Gulf Southeast. Bogs, savannas, and seepage slopes; coastal counties north to Kemper Co.
- 3. Lycopodium appressum (Chapm.) Lloyd & Underwood Southern Bog Clubmoss.

 Coastal southeastern U. S. to New England. Bogs, savannas, and wet areas; coastal counties north sporadically to Itawamba and Oktibbeha counties.
- 4. <u>Lycopodium alopecuroides</u> L. Foxtail Clubmoss.

 Coastal southeastern U. S. to New England. Inland in Alabama. Bogs, savannas, and wet places; coastal counties north to Oktibbeha County.
- 5. <u>Lycopodium cernuum</u> L. Nodding Clubmoss.

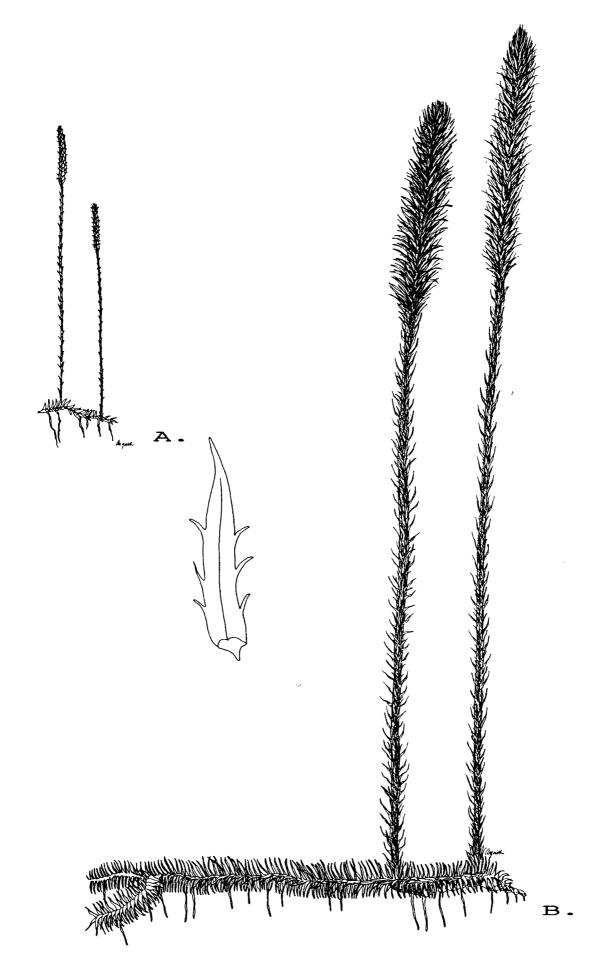
Gulf Southeast; abundant in tropical America. Roadsides and bogs; eastern coastal counties, perhaps not persisting in coldest winters, but sporadically reintroduced from the tropics.

6. <u>Lycopodium flabelliforme</u> (Fern.) Blanch. Running Pine.

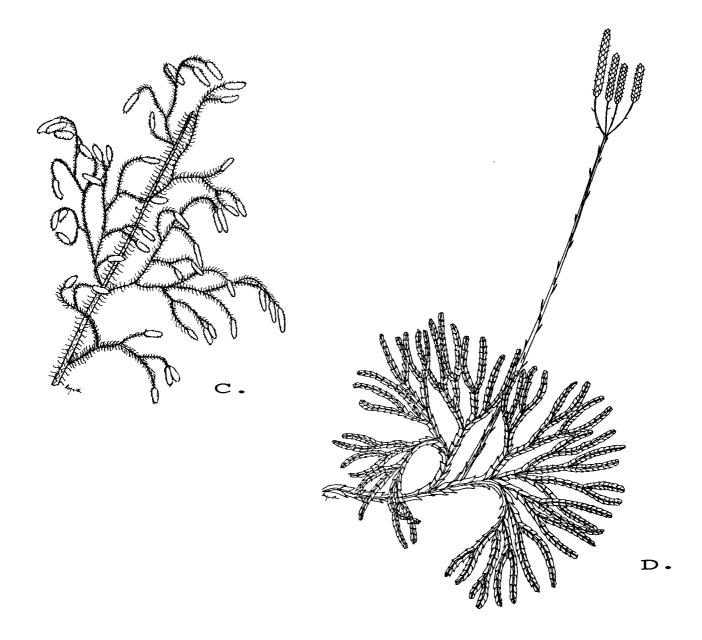
Canada south to South Carolina, Kentucky and locally to central Georgia and Mississippi. Previously unreported from Mississippi, but now known from four northern counties: Tippah, Pontotoc, Clay, and Oktibbeha.

FIELD TRIP SCHEDULE

The field trip for the Grenada area originally set for September has been rescheduled for October 5. We will meet at the McDonald's east of the intersection of US Highway 51 and MS Highway 8 in Grenada at 8:30 AM. This should be a good trip with visits to both the Delta and Hills. The field trip for Southwest Mississippi is postponed to March, 1986. Nothing is definite yet, but a visit to a virgin longleaf pine area in Wilkinson County is a good possibility.



A. Lycopodium carolinianum B. Lycopodium prostratum



B

C. Lycopodium cernuum
D. Lycopodium flabelliforme

Landscaping with Native Plants Conference

Chris Wells

I had the opportunity recently to represent The Crosby Arboretum at Cullowhee, NC. It turned out that Travis Salley and I (like Senators) were the two representatives present from Mississippi. Unlike Senators, we did not choose that office.

The presentations ran the spectrum from very valuable to somewhat interesting. Since I gave two formal presentations (and one impromptu performance--ask Travis about it), I will leave you to decide how well I represented you.

The subjects covered in the program varied from assessment of activities, by state, to technical discussions of propagation techniques. The informal subjects—as is often the case at meetings—proved the most interesting. One in particular, conservation, I wish to dwell upon in some detail. The below information applies directly to our organization and ourselves.

The East Coast is getting quite urbanized. It is an easy day's drive for Millions of people from a city or town to the country. This puts a heavy burden upon the public parks, wilderness areas, forests, and private lands. Many of these visitors want to have a piece of this woodland beauty in their yards back home. Many people, carrying shovels, try to transplant interesting species. Others purchase plants from nurseries with no regard for the plants' origin.

As many of us can attest, transplanting wild plants is difficult. Most plants succumb quickly, some slowly die over several seasons. It is easy to rationalize transplanting. The plant may be along a roadside and subject to mowers or herbicides. The plant may be in an area where they are particularly abundant. Or, we only want one or two, and surely that won't hurt anything...

Some of us, mindful of the time, effort, and poor success of our attempts at transplantation, may decide to purchase plants from a nursery. Usually a nursery has more plants in better shape than those frazzeled Azaleas of which we can never seem to get enough root for successful introduction.

Unfortunately, the result of our efforts is often a steady decrease in the wild population of the species that we enjoy seeing on our field trips. Thus, some species are in danger of extinction, not from bulldozers, but from love.

I listened to several people who knew of whole hillsides of Trillium, Ladies-slipper orchids, May-Apple, Mountain Laurel--and more--removed by commercial nurseryman for retail. The result is an awful lot of native species available in nurseries, and a terrible loss from the native flora. We in Mississippi have not yet reached the pinnacle of sophistication that the Northerners and Easterners have attained. Most of our neighbors still prefer ornamentals to the native beauty of our state. Our native plant species are the better for it.

I submit to you that we, the Mississippi Native Plant Society, must come to some sort of consensus about collecting plants. I think it would be admirable for us to guide others

in respecting and conserving our native plants. What do you say?

BOOKS

Two books are available from Ohio University Press that are useful in learning to identify plants. How to Identify Grasses and Grasslike Plants (Sedges and Rushes) by H.D. Harrington offers as much practical help as possible for those attempting to learn the rather specialized technique of identifying plants in this group. This book has many useful illustrations and terminology (with definitions). The cost for this 142 page book is \$8.95 (paper).

How to Identify Plants by H.D. Harrington and L.W. Durrell is a reference often used in beginning botany and taxonomy courses. Like the above book, it has many useful illustrations and terminology. The cost of this 203 page book is \$7.95.

Both books are small enough to carry in the field, yet contain—enough information to make them useful field books. The books are available from Ohio University Press, Scott Quadrangle 225, Athens, OH 45701.

Native Plant Societies

If anyone is interested in other state Native Plant Societies, please contact Steve L. Timme, P.O. Box EN, Mississippi State, MS 39762. Information and/or addresses for nearly all 50 states are available.

Native Plant Seed Sources

A number of seed companies have native seed available for purchase. If anyone is interested in obtaining information about these companies, contact Travis Salley, 202 North Andrews, Cleveland, MS or Steve L. Timme, P.O. Box EN, Mississippi State, MS 39762.

Plant Conservation Center Established

Established in 1984 the Boston-based Center for Plant Conservation is establishing regional sites where scientists will try to grow the 3,600 varieties of grasses and wild-flowers that might otherwise be doomed because of human interference. "...to lose these (rare and endangered wildflowers) at a time when genetic engineering is unlocking ways to use genes in agriculture--it's like burning a library without learning to read" says George McCully, planning and institutional development officer at the Center. Local Garden Clubs of America will begin a drive to raise \$5,000 per plant it will take to maintain the collection.

mississippi native plant society Steve L. Timme P. O. Box EN Mississippi State, MS 39762