SPRING 1986 vol. 4 No. 1

The LOUISIANA NATIVE PLANT SOCIETY

A LETTER FROM OUR TREASURER ON DUES

Bill Gebelein, our new Treasurer writes: "I feel some information from the Membership and Dues Section of our By-Laws is in order. 'The fee shall be paid on or before January 1 of each year. The Treasurer shall send dues statements to delinquent members. Those whose dues are not paid in two months, after receiving final notice, shall be dropped from the roster.' This clearly implies there is a beginning and an end to the dues paying process. Some clarification is needed for new members who pay their dues prior to January 1. Arbitrarily, the last treasurer and I have both considered all persons paying dues after October 1 of the preceeding year as being paid for the coming year. For example, if a new member joined on October 4, 1985, his/her dues are considered paid for 1986. I plan on sending out a final dues notice 1/1/87, those in arears two months later, 3/1/86 will be dropped from the roster. I would also suggest that membership cards be issued upon payment of dues to act as an acknowledgement, a receipt and certification of membership."

Anyone wishing to pay their dues, which are still only $5 per year, should send them to Bill at the following address:

Bill Gebelein
11128 Woodmere Drive
Shreveport, Louisiana 71115

Editor's Note: with this issue, you will notice a number somewhere on your address label: (85) or (86). This indicates the last year your dues are paid for. If an (85) appears on your label, there should also be a dues notice attached to the front of the envelope. Any members who have not paid their dues by the deadline for the next newsletter, May 25, 1986, will no longer receive the newsletter.

NORTHWEST CHAPTER PLANS FIELD TRIP

The Northwest Chapter of the Louisiana Native Plant Society is planning a field trip into the Quachita Mountains of Arkansas for May 10th and 11th. For more information contact tour coordinator and leader: Richard L. Johnson, Rt. 1, Box 195, Saline, Louisiana 71071. Phone: 1-318-576-3379. Some members plan on camping out, while others plan on staying in nearby Mena or Mt. Ida, Arkansas.

DEADLINE FOR SUMMER '86 NEWSLETTER

The deadline for submitting articles, chapter information, plant requests, etc., for the Summer 1986 Newsletter is May 25, 1986. Please mail your correspondence in as early as possible, at least several days prior to the deadline so it will arrive in time to be included to:

David Heikamp
717 Giuffrias
Metairie, Louisiana 70001

SUMMER '86 MEETING OF LNPS SET FOR JUNE

The summer meeting of the LNPS has been tentatively set for the first or second weekend in June. The meeting will be held somewhere in southeastern Louisiana. Plans are for a field trip to be led by Julia Sanders - noted wildflower photographer and wildflower coordinator for the Louisiana Nature Center in New Orleans. Julia is a member of the LNPS, and has given several seminars on native plants in the New Orleans area, including one at the Louisiana Nature Center and one at the New Orleans Botanical Garden.

OFFICERS FOR 1986

The following is a list of the officers of the Louisiana Native Plant Society for 1986:

President:	Dianne L. Bullard Rt. 3, Box 87 Arnaudville, La. 70512
Vice-President:	Dr. Ed. Leuck 333 Albany Shreveport, La. 71105
Secretary:	Beth Erwin 520 Fairview Bastrop, La. 71220
Treasurer:	C.F. Wm. Gebelein 11128 Woodmere Dr. Shreveport, La. 71115
Ex-Officio President:	Dr. Ben Martin Rt. 2, Box 25 Alexandria, La. 71302

Members-at-large:

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309 Watson Dr.
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Barbara Nelson
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Broussard, La.
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ALABAMA LEATHER FLOWER PROPOSED AS ENDANGERED

by Cary Norquist, Botanist, U.S. Fish and Wildlife Service, Jackson, Miss.

One of Alabama's rarest plants, Alabama leather flower, Clematis socialis , has been proposed for listing as endangered by the U.S. Fish and Wildlife Service. This unique species is only known from Alabama and is restricted to two small sites in St. Clair and Cherokee Counties.

The Alabama leather flower was first collected by Dr. Robert Kral from a roadside right-of-way in St. Clair County in the spring of 1980. Although it superficially resembles the more common Clematis crispa , it differs in that it forms dense clones of erect stems from rhizomes, has no tendrils, and produces solitary flowers. These distinguishing characteristics prompted Dr. Kral to describe it as a new species in 1982.

This species was brought to the attention of the Jackson Endangered Species Office (U.S. Fish and Wildlife Service) in the summer of 1984. At this time, the Alabama leather flower was only known from six colonies on this raodside right-of-way and these few plants and their habitat had been detrimentally affected by herbicides and mechanical clearing associated with the right-of-way maintenance. The Alabama Highway Department was contacted about this rare species and our office made recommendations for preserving the plants on the right-of-way. The Highway Department was very cooperative and agreed not to use herbicides in this vicinity and avoid any mechanical scraping which could uproot the plants. A visit to the site later that fall revealed that these plants had been further damaged from haevy vehicular traffic associated with selective timber clearing on the private land. The landowner was contacted and he met me at the site that day. He had plans to further clear the area later that week but agreed to delay his clearing plans in light of this rare plant on his property.

The next spring, I again visited the site and to my surprise found several dozen more clones on the private land. Either these plants had been previously overlooked or the small amount of clearing had opened-up the canopy, allowing more sunlight, which benefited the plants. However, it was difficult to determine its specific habitat requirements since the only known site had been severely altered. Then, in June, while searching for another of Alabama's rare plants, Marshallia mohrii , Dr. Whetstone and I discovered the second population of Alabama leather flower on a roadside right-of-way in Cherokee County. This population only consisted of a few clones. Attempts to locate other populations in northern Alabama have been unsuccessful.

Its apparent rarity, in addition to a multitude of threats, prompted the Fish and Wildlife Service to propose the Alabama leather flower for listing under the Endangered Species Act of 1973. A species is added to the List of Endangered and Threatened Wildlife and Plants when the best available scientific data determines that its continued existence is threatened. A species can be listed as "Endangered" or "Threatened" depending upon its biological status and the degree of threat posed to it. An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one which is likely to become endangered in the foreseeable future. When a species is proposed for listing, a "proposed rulemaking" is published in the Federal Register and interested parties are encouraged to comment. After these comments are analyzed, the Service determines whether listing is still justified and may revise the proposal to incorporate any new information. Upon publication of the final rule in the Federal Register , the species is entitled to protection under the Endangered Species Act. Once a plant is listed, several prohibitions are enacted: Federal agencies are required to ensure that activities they authorize, fund, or perform are not likely to jeopardize the continued existence of the species; commercial trade of a listed species is prohibited as is the removal of a listed plant from Federal lands.

The ultimate goal of listing is to restore the species to where they are no longer in danger of extinction. This process begins with the development of a recovery plan which may call for research, land acquisition, and land management. In the case of the Alabama leather flower, one of the first tasks will involve a more intensive search for additional populations.

So on your field trips this spring, be on the look out for the Alabama leather flower. It blooms from April to May and has bell-shaped flowers which are blue-violet in color. If you find any Clematis that is not a climbing vine, you may have discovered another population of the Alabama leather flower! Please report any such locations to our office (Jackson Endangered Species Office, 300 Woodrow Wilson Avenue, Suite 316, Jackson, Mississippi 39213; Phone: 1-601-965-4900). Collecting the plant is not necessary and is discouraged.

HOW TO INCREASE YOUR PLANTS OF ERYTHRINA HERBACEA

by Carl Amason

The northern range of Mamou, Cherokee Bean, or Coral Bean, is in the sandy hills of the extreme southern part of Arkansas. In Union County it is fairly common, but like so many other native plants, it is not valued for landscaping. Unfortunately, the few people who do see it, attack the plant in full bloom in an attempt to transplant it to their yards. The Mamou is very deep rooted, and the root is persistant, making a successfull transplant highly unlikely.

Seeds are showy, red, and beautiful, but slow to germinate, slow to grow, and even slower to bloom - often taking 5 years to bloom! For some reason, my seed-grown plants, which are approaching 20 years of age and are in full sun, are shy bloomers and even shyer seeders.

This summer, in late July, my prettiest plant was vigorously growing, with arching stems over 3 feet long - making a bush well over 4 feet across. However, it had very few blooms this past spring. Anyway, I took 6 or 7 cuttings, 4 to 6 inches long, stripped off all but the terminal leaves, dipped the cuttings in Rootone, and then stuck the cuttings in "Redi-earth" (a commercial soilless growing medium). The cuttings were watered well, and after draining, the entire pot and cuttings were enclosed in a plastic bag and

sealed with a piece of coated wire, much like a "Twist-em".

In two weeks' time, the cuttings were rooted, and in three weeks they were well rooted, at which time they were planted into separate 6 inch pots for further growing. They all spent the winter in my small greenhouse and have grown to over 12 inches tall. I'm sure they would have survived planted in the ground, but I doubt if they would have survived outisde in a pot sitting above ground.

I'm extremely pleased to find a better way of increasing my Mamou plants, a proven alternative to the slow processing to growing them from seed!

An added Note: in reference to Neil Bertinot's artice in the last LNPS Newsletter Carl says: "Neil told of many sophisticated uses the French settlers used Mamou for, but I know of no use the English-speaking settlers found for it. The books I've read warn of the very poisonous principles contained in the seed - I'd be afraid to use it for any medicinal or food purposes. However, the seeds are so lovely, I can appreciate one of the uses the American Indians found for the seeds - making strings of beads for personal decoration. It is one of my favorite native plants - one of only a handfull with true spectrum red flowers, it is a beauty!
(Editor's Note: A little trick to speed up seed germination of Mamou as well as many of the other members of the Pea Family: open the seed pods just before the seeds coats harden. This will take practice to get the timing right. For Mamou, this is just before the seeds attain their brilliant red coloration. Plant at once. Seed of Mamou will germinate in a week or two using this treatment, but they are still slow to bloom.)

Botany and Conservation

by Caroline Dorman

Ed. Note: reprinted from Proceedings of the Louisiana Academy of Sciences, Vol. IV, No. 1, November 15, 1938, pages 434-438.

Fellow members of the Academy, and guests: The subject assigned me is Botany and Conservation. If this brief talk has a theme, it may be summed up in one word, cooperation. We may more quickly reach definite conclusions in any science by close cooperation between all branches of that science.

As we add to the sum of our knowledge concerning our primitive Americans by the close over-lapping of archaeology, ethnology, and history, so do we find the answers to many problems by tying in paleo-botany, botany, ecology, and, finally, conservation. The mention of paleo-botany recalls an interesting example of cooperation. Our beloved Louisiana naturalist, the late George Williamson, was deeply interested in petrified palm wood, and made a fine collection. Among other pieces, he had an entire stump of a rather large tree, found in Natchitoches Parish.

On one of his trips to Louisiana, Dr. J.K. Small discovered and named Sabal deeringiana , the living tree. When I told him of Mr. Williamson's collection, he was eager to see it. He was very much gratified when he identified the petrified stump as Sabal deeringiana .

Much of horticulture rests on a foundation of botanical research. The same is true of silviculture. The botanist discovers native species, the horticulturist and silviculturist further study and develop them.

In equal measure, botany holds an important place in conservation. In fact, botany may be said to point the way. If botany teaches us that a certain plant reseeds sparingly, that a certain tree grows very slowly, then we know that these species, if they possess any value, must be protected. Long before we had any organized efforts at conservation, the naturalist, Thoreau, was writing of the succession of forest trees. By close scientific

observation, he had learned certain principles which play an important part in conservation of our forests.

Conservation of plant life has two very definite phases: the economic handling of species which have commercial value, and the preservation of those which are valuable from an aesthetic standpoint. Of course time will not permit a general discussion of so broad a subject so I shall confine myself largely to the accomplishments and the needs of Louisiana.

As you probably know, at one time Louisiana possessed very wonderful forests. European explorers who came to our shores were astonished at their extent and the size of the trees. For miles there were pure stands of that peculiarly beautiful and valuable tree, Pinus palustrus (commonly known as longleaf pine). When the lumbermen arrived, Louisiana led in production of this timber. But some of the very qualities which made these forests valuable to the lumbermen led to their destruction. Because of their uniform size, almost no seed trees were left. But there were other factors. Scientists added warnings. Because they bloom very early - in February - they have a full crop of seed only about every third year. The seeds are heavier than those of other pines, and are not carried by the wind. Also, the seed mature in late summer, and rains and heat often cause them to germinate in the cone, and thus become lost. Others who were not scientists contributed. Hard-headed observers, such as the late Henry Hardtner, saw that special steps must be taken to insure reforestation of longleaf pine. Under existing conditions, this fine tree was being replaced by other species, and virgin forests were rapidly going, never to be seen again upon the earth. Specialists in the U.S. Forest Service have made extended studies of the subject in the last few years, and much is being accomplished in Louisiana's National Forests.

Louisiana led in the production of cypress lumber, until this great natural resource was almost exhausted. Fortunately, reforestation of this species does not present so great a problem. It reseeds abundantly, and usually grows where fire, the great destroyer, does not come. Our other conifers, particularly shortleaf and loblolly pine, reseed freely and grow very rapidly, so that leaving seed trees amd protecting from fire constitute conservation in their case.

The hardwood forests of the state equal the conifers in extent, variety, and size of individuals. We have very fine oaks in many species, giant sweetgum (redgum to the lumberman), white ash, and hickories. Though it is little known, we have sugar maples. We hear of the fine tulip trees of the eastern states, but, oddly enough, no mention is made of those of Louisiana. But I saw a specimen of this beautiful tree in West Feliciana Parish which measured six feet in diameter at the height of a man's head. It towered 150 feet in height. The late R.S. Cocks, of Tulane University, believed Louisiana could lay claim to the largest beech and magnolia trees to be found in the United States. The list of hardwood species is a long one - probably almost 150 in number. Most of these reforest rapidly, and need only protection from fire. However, insects are becoming a factor worthy of consideration. As the trees are cut out, the insect hordes concentrate on the few remaining, sometimes with devastating results. We should have a law requiring the piling and safe burning of slash remaining after cutting of timber. Thus, breeding places for the bug army would be largely destroyed.

So much for the conservation of commercially valuable trees. Because of their economic value, practical business men have cooperated with scientists in devising ways and means, and these species are receiving a fair amount of protection. Alas, we cannot present so rosy a picture when we come to our purely ornamental trees. These have been given no regard whatever. Why? Probably because botanists are not agressive people. The botansist have repeatedly sounded their warning....they go unheeded. For years, Dr. Edgar T.

Wherry, who organized the Wild Flower Preservation Society, has urged protection of our native flora. We can accomplish it in one way, only - by convincing business men that conserving natural beauty has a cash value. That it has is undisputable. Many states are waking up to this fact, and acting accordingly. Since half the world is on wheels half the time, undoubtedly highways must be made attractive. And if we expect these travelers to come to our part of the world, we must give them something not to be found elsewhere. How can we accomplish this so easily as by preserving the distinctive beauty of our native trees and flowers.

This sounds like a far cry from science, but it is not. No matter how eager an individual may be to carry on research, it cannot be done without finances. And scientists are not usually burdened with this world's goods! We need to beautify our roads and public grounds with native species, but to do this successfully, we need natural areas for study. We must learn more about soils, about regulation of moisture, and other requirements of plants. We also need natural areas for study in determining many matters relating to reforestation of commercially valuable trees. Thus the circle is complete.

A virgin longleaf pine forest is a plant community, with a flora, and even fauna, peculiarly its own. When destroyed, conditions must be exactly right for it to reproduce in kind; and even then it would probably be several hundred years before it would be restored in its entirety. Unfortunately, scientists are not granted special dispensation in the length of the life-span, so it can be seen that we must preserve at least one area of longleaf pine for ecological study. The Federal Forest Service has adopted a policy of setting aside natural areas, but not one of the longleaf pine has been preserved, so far as I know. And in Louisiana may be found typical stands as perfect as any that grow.

Interest in planting native species for ornaments is growing, but some cannot bear transplanting, and should be protected in their native habitat. Our well known magnolia grandiflora grows happily in cultivation, but other members of the family are more temperamental. Magnolia macrophylla, with leaves two feet long, startling in its beauty, holds fast the secret of what it requires in the matter of soil, etc. It is seldom transplanted successfully. This is equally true of our beautiful stuartia, member of the camellia family, which refuses to grow in gardens. Here again we call on scientists, to analyze the soils, and tell us what these plants want. The botanists and horticulturists have taught us that orchids require from five to ten years to produce flowers from seed, so reason tells us that these must be protected from picking or they will soon be lost. All of our Louisiana species, save one, are terrestrial, but many of them are beautiful, and tempt the flower-picker. Some plants, such as the figworts, are semi-parasitic on the roots of other plants, and therefore cannot be transplanted. This knowledge should be more widely disseminated, for both the yellow and rose gerardias are quite showy, and are often destroyed by flower diggers. The exquisite Indian pipe is going fast. A saprophyte, it must have decaying vegetable matter on which to grow, and disappears with the natural pine forest. It cannot be transplanted, so digging merely hastens its end.

Because of its clinate and varied topography, because it is the depository of a mighty river, Louisiana has a wonderful flora. What have we done with it? Little, I must admit. Had California possessed Louisiana's native trees and flowers, the world would have heard of them long ago!

When Dr. J.K. Small discovered our vast iris fields, with several new species, scores of new varieties, he could not understand why Louisiana had never become excited over these lovely flowers. In our usual way, we had taken them as a matter of course - Louisiana has so many things which are different from those of any other states. Some of us had grown them in our

gardens - some of us knew they were not to be found in any botany. We let it rest at that. But why, oh why, do we not have them growing along every bayou in the state, lining every ditch bank - instead of permitting them to be hauled away by the truckload, to be sold by northern florists?

Louisiana is at least becoming native-flower-conscious. Native trees are being planted along our highways. A great new Charity Hospital is to have the grounds ornamented with Louisiana trees and flowers. And what more fitting - our first botanists were herbalists, searching for plants with healing qualities. May this idea grow and flower - literally. And yet there is more than this to be done. The public must be educated. Our charming beech and exquisite wild azaleas are not highway or garden plants, because of their peculiar requirements - acid soil, good drainage, but constant moisture. These, and others, must be spared, and protected where we find them.

The botanists tell us what and why, the layman must learn how.

PROFILE OF A RARE PLANT: THE LOUISIANA QUILL-WORT

by Annette Parker

A tiny, inconspicuous, semi-aquatic relative of the ferns is of great intereset to the Louisiana Natural Heritage Program. Although the plant, on first glance, looks like a small tufted grass, spore cases are found just beneath the soil surface. The Louisiana Quill-wort Isoetes louisianenesis is our most highly endangered plant. Its total known world population occurs in and along a shallow, clear-flowing, gravel-bottomed stream in Washington Parish. It is rare at this site and should not be disturbed or collected. Although several other streams in this vicinity have been searched, no additional populations have been found. Gravel mining has disturbed many streams in this area, while other water bodies are slow-moving, muddy sloughs - inappropriate habitat for Isoetes.

Some scientists have been skeptical of this plant's distinctness as a species and have considered it to be of hybrid origin. However, current, on-going research by Dr. Neil Luebke in Milwaukee has shown that this plant is different from all other quill-worts. Hopefully, Isoetes louisianensis occurs elsewhere and will be found during future fieldwork. The U.S. Fish and Wildlife Service is interested in listing this plant as federally endangered.

PLANTSEARCH

LNPS member Eileen Chehardy would like to obtain a small Mayhaw, Crataegus opaca . Anyone that can be of help should write Eilleen at:

Eileen Chehardy
3528 Metairie Heights Ave.
Metairie, Louisiana 70002