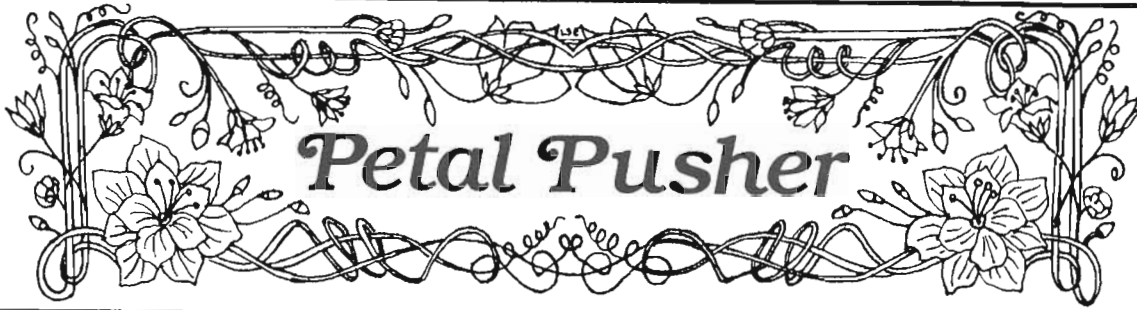


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# Missouri Native Plant Society

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## CONSERVATION DEPT. NEWS

### BUTTERFLIES AND MOTHS OF MISSOURI

by Richard and Joan Heitzman is hot off the press. It sells for \$12.50 plus tax and can be ordered from the Department or bookstores. It is good, and belongs in the library of everyone interested in the natural history of Missouri. In fact, I believe it will become a definitive regional reference and field guide.

The Heitzmans, from Independence, are the state's leading authorities on Lepidoptera. Their superb collection was used to provide most of the 833 color photographs in the book. All told, 324 species are described which includes all of the butterflies and the showy, more conspicuous moths, plus some of economic importance. Photos include those of males and females and dorsal and ventral views when these are necessary for identification. Many of the larva are also shown and sometimes these rival the adults for color and interest. Some pupae are also illustrated.

Food plants are listed for each species and habitats are described. Richard also provides a list of wild and domestic plants that can be planted to attract butterflies.

When you birdwatchers have learned how to identify all those little brown shore birds, and you botanists have learned the asters, you can start on the skippers. They will drive you to drink too, but Richard's book will help.

John E. Wylie  
Natural History  
Officer.

## PURPLE LOOSESTRIFE

by  
Ginny Wallace

Several years ago I published an article in *Missouriensis* about the exotic purple loosestrife and my concerns about its potential spread into wetland habitat in Missouri. Since then, my concerns have only grown stronger. I'd like to bring you up-to-date on the situation, and enlist your help.

Purple loosestrife (*Lythrum salicaria*) is a perennial wetland herb, native to Eurasia, that has been aggressively expanding into wetland habitats throughout northeast and north central North America since the early 1930s. Once established, it forms dense stands excluding most desirable native wetland vegetation. It reproduces prolifically by seed, which is borne by wind and water, as well as by cuttings. Once seed producing plants become established in a watershed or basin colonization is assured.

Our neighbors to the northeast in Illinois have noticed a significant increase in loosestrife populations in the past three or four years. A 1985 aerial survey of 66 wetlands revealed 29 serious infestations, eight of which were judged beyond reclamation. One of the latter was a bog natural area purchased for \$374,000.

Steiermark reported two populations of *Lythrum salicaria* in the *Flora of Missouri in Franklin and Newton counties*. In 1985, after publishing an article in the *Conservationist*, we received over 300 reports. Many of these turned out to be misidentifications and/or duplicate reports. However we have identified over 40 populations in nineteen counties, mostly in the northeast quarter of the state. Most of the populations are still fairly small (less than 1/2 acre). However a few

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## PURPLE LOOSESTRIFF

are several acres in size and pose serious threats to wetland areas in northeast Missouri.

So what can we do now? According to Dr. Harold Kerr, professor of weed science at UMC, loosestrife in Missouri is at a stage where it can be effectively controlled, and perhaps eliminated in some areas. But no amount of control will be effective unless future introductions are halted. Several states are considering or have adopted legislation banning the sale of purple loosestrife. That seems to be our logical next step. (Several loosestrife hybrids are considered "safe" and exempt from the Ohio law).

Many nurserymen are becoming sensitive to the loosestrife issue and are voluntarily deciding not to sell loosestrife. Park Seed Company, for example, will not sell loosestrife after this year. Several nurseries in the Jefferson City area have discontinued loosestrife since Merv talked to them about our concerns.

You can help by talking to your local nurseryman about purple loosestrife, and urge him or her to discontinue its sale. You can also help by beginning to enlist support for legislation to ban the sale of loosestrife (which we hope to have introduced next session). If you live in northeast Missouri, you might also keep an eye open for loosestrife populations in July and August when the plants are in bloom. If you find some, let me know. (We may have color identification posters ready by then).

Thanks for your help. This is a problem we must address if we are truly concerned about our native flora.

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## WILD ROADSIDES

Missouri has some 32,000 miles of primary and secondary highways. When all the acres of rights-of-way along those highways are added together the figure is impressive; it comes to nearly 260,000 acres! What does that have to do with conservation? Well, that's a lot of potential wildlife habitat, and thanks to a new mowing policy recently adopted by the Missouri Highway and Transportation Commission, many of those acres will be just that.

The new policy was developed by an interdisciplinary team within the Highway Department (MHTD) with input from the Department of Conservation. We made recommendations on mowing practices that would enhance and increase wildlife habitat and benefit native plants. Many

of our recommendations were incorporated into the new policy.

Basically, the new policy raises the height of mower decks from four to eight inches, delays the beginning and ending dates of final mowing, and eliminates or reduces the amount of mowing in some areas.

Raising the minimum mowing height from four to eight inches will provide nesting cover for some wildlife, and provide winter cover in moderate winters. In many rural areas, any mowing done beyond the safety section (30 feet from the edge of the pavement) will be at a height of 12 inches, providing good winter cover and nesting habitat for additional wildlife species.

Mowing will not be done on slopes of 3:1 or steeper in developed as well as undeveloped areas. This will include almost all interchange interiors, even those within cities. Also, medians 80 feet or wider will no longer be mowed past the ditch lines. These areas in particular offer opportunities to establish low-maintenance wildflower displays.

The final mowing will be delayed until after September 15 and completed by December 1. Some of our showiest prairie wildflowers bloom in the late summer. This delay of almost a month from the previous policy will allow many of these wildflowers to complete flowering and to set seed.

The key to the success of the new policy is flexibility. If rural landowners prefer a closely cropped roadside adjacent to their property, they will be able to mow it. The new policy also allows farmers to hay rights-of-way without giving a share to the Highway Department. This "good neighbor" aspect of the policy works both ways; particularly showy stretches of roadside can be left unmowed or even enhanced if the adjacent landowner wishes.

In addition to the new mowing policy, other changes are in the works. Native warm season grass seed will be incorporated in some seed mixes for reseeding after new construction or major repair. Some wildflower areas are being established to test the success of different species of native wildflowers under various roadside conditions.

All of these changes will benefit our two Departments as well as the state's wildlife and wildflowers. The higher mowing height will increase mower safety, and the reduced mowing and repair costs will result in a substantial savings to MHTD.

In order to make the new policy successful, the Highway Department needs our help. We need to explain to landowners the benefits of the reduced mowing to wildlife species such as

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## WILD ROADSIDES

pheasants, quail and rabbits. We need to point out to farmers that the Highway Department will continue to control noxious weeds, and in fact may do so more effectively, since reduced mowing will allow crews more time to target specific problem areas.

With a little cooperation, we can all benefit. This is only the beginning of what we hope will be a long and fruitful relationship between our Departments.

(Reprinted with permission from Conservation Currents, April 1987.)

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### CONEFLOWER ALERT

by

Ginny Wallace

I would like to alert you to a situation that is becoming a problem for one of our wildflower resources: the harvesting of coneflowers, Echinacea species (also called Kansas snakeroot).

Coneflower plants and roots have been harvested from roadsides, glades and prairies (many private and some public) in fairly large quantities for the past several years. The impact of harvesting has been significant in some areas where literally truckloads of roots have been removed. For instance, one person observed harvest of semi-trailer truckloads of coneflower in Douglas and Ozark counties last year. This year, DNR officials have already reported the theft of nearly 7,000 yellow coneflowers from a glade at Ha Ha Tonka State Park (in December or January). Some diggers come from as far as Texas to harvest Missouri coneflowers.

Coneflowers are collected because they are an important herb on health markets in the United States, and pharmaceutical markets in Europe. In West Germany the plant is used in the manufacture of over 140 pharmaceuticals.

I am concerned about increasing harvesting of populations because of some recent developments in the coneflower herb market. Apparently, much of what has been sold as Echinacea in recent years (as much as 85-95%) has actually been Parthenium integrifolium (wild quinine or feverfew) which is sold as "Missouri snakeroot." This plant apparently has some medicinal value, and has been passed off as coneflower because the roots are similar in appearance and weigh up to ten times more. It boils down to more money for the diggers with less work.

The American Herbal Products Association is implementing a major effort to remove parthenium as an adulterant from Echinacea supplies. The resulting short supplies and high demand may increase the price of coneflower roots to \$30.00 per pound from \$5.00 per pound only a year ago. It is likely to go even higher.

With these higher prices, coneflower digging will be an attractive means of income for many, not only in the Ozarks, but throughout the state. Echinacea pallida, the pale purple coneflower, is not rare or even uncommon in Missouri, and can probably withstand a great deal of collecting, at least in the short term. However two species are known only from the Ozarks in Missouri and Arkansas: Echinacea paradoxa (yellow coneflower) and E. simulata (a new species described since the Flora of Missouri was published). Diggers do not discriminate between species, collecting all Echinaceas. Although the latter two species are locally abundant, intense collecting pressure for even a single season, could conceivably reduce their populations to rare or endangered levels.

The Departments of Conservation and Natural Resources will not allow coneflower harvesting on their properties, and will prosecute offenders. In addition, the Highway Department also does not allow digging of plants along state rights-of-way. Unfortunately, oftentimes we only see the aftermath of the digging and are unable to catch the offenders in the act.

In order to get a handle on the extent of the problem, I'd welcome reports of digging you observe. You can send those to Ginny Wallace, P.O. Box 180, Jefferson City, MO 65102. If you come across diggers, let them know what they are doing is illegal if they don't have the landowner's permission. You might also let them know that coneflowers can be easily and reliably grown from seed.



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### SPRINGFIELD CHAPTER NEWS

The Springfield Chapter of the Missouri Native Plant Society met Feb. 26 1987, and officially formed the chapter. Officers were elected as follows:

President: Carl Hauser  
4461 S. Meadowlark  
Springfield, Mo. 65807

Vice President: Carol Fuller  
P. O. Box 194  
Bolivar, Mo. 65613

Secretary: Louise Wienckowski  
1317 E. Harrison  
Springfield, Mo. 65804

Treasurer: Rob Lamar  
603 N. College Ave.  
Republic, Mo. 65738

Committees were formed to prepare by-laws, with Wally Weber as Chairman. A Field Trip Committee, Marilyn Groves Chairman, and Program Committee, Diane Tucker, Chairman, were also formed.

At the March 26th, 1987 meeting, the membership adopted a Chapter Bylaws, and hereby apply for recognition as a Chapter of the Missouri Native Plant Society.

Carl E. Hauser  
President

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### KANSAS CITY CHAPTER NEWS

The Royal Catchfly Chapter has been at work salvaging a housing development site in Parkville, Mo. The first week in April, Linda Ellis met with some of the personal from Burr Oak Woods State Park and acquired bloodroot, wild ginger, golden bell flower, Adam and Eve orchids and other woodland plants for placement in the natural area at Burr Oak. Alexandra and Owen Janssen, Dick Vaeth, Patrice Dunn and Colleen Campbell met April 26th for a second salvage effort transferring plants to Martha Lafite Thompson Nature Sanctuary in Liberty Mo. The operation was successful as most everything lived and the orchids bloomed on schedule in May.

Our May 12th meeting completed plans for the Chapter's booth at Prairie Day scheduled for June 6th at Paintbrush Prairie near Sedalia. The emphasis will be on increasing the general membership of MONPS.

### St. Louis Chapter News

The St. Louis Chapter continues to have excellent attendance at meetings with members filling the room at McMillan Hall at Washington University nearly to capacity each month. The April meeting had John Nesbit, St. Louis Co. Park Ranger, as speaker on "Natural Areas Within the St. Louis County Park System". The follow-up field trip was a visit on May 16th to the new Champ Ecological Study Area, a reservation only site used by the County for study and observation, and is not normally open to the public. The pattern for St. Louis meetings remains a program followed by a related field trip.

Dottie Epstein will have charge of a "mystery program" on May 28th entitled "An American Native: Nutritious, Delicious and a World Traveler". May 30th finds the St. Louis Chapter invited to Mervin and Ginny Wallace's Missouri Wildflowers Nursery near Jefferson City. At the January meeting Merv Wallace had spoken on "Propagation of Native Wildflower Species". Another field trip occurs June 6th at Husman Fen, Reynolds County, the only site in the state for the Snakemouth Orchid (*Pogonia ophioglossoides*). Bill Summers is in charge of this outing. (843-2399)

The final meeting before the summer interim will feature David Bradford, Naturalist at Babler State Park, speaking on "Natural Wonders of Missouri State Parks: A Historical Perspective and 1980s Update". That meeting will be followed, June 27th, by a walk through Babler Park starting at the Nature Center.

Karen Haller has asked for volunteers from the St. Louis Chapter membership to help locate and identify wildflowers growing in the new local nature site acquired by the Missouri Dept. of Conservation for an urban nature center. Information on special scenic features to be interpreted or featured on prospective trails has also been requested. Nature-interested people in the Metropolitan area are excited about this new site which has officially been named "Powder Valley Natural History Area"

Please remember our activities are open to all MONPS members.

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### WELCOME TO NEW MEMBERS

Sarah Walton Schwartz, Warrensburg  
Tracy Wohl, Springfield  
Thomas Gambill, Springfield  
Clarence Benson, Jefferson City  
Doug & Mary Brockman, Springfield  
John Ruprecht, Ellisville  
Peggy Smith, Pleasant Hope  
Mrs. John G. Brenner, Maryland Heights  
Kathleen Cook, St. Louis  
Michael Imhoff, Jefferson City  
Gerald Tynan, St. Louis



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### JEFFERSON CITY CHAPTER NEWS

We have been enjoying spring in the mid-Missouri area, getting out twice a month in April and May to watch the progression of spring things. April field trips were to Three Creeks State Forest near Columbia and Earthquake Hollow, a privately owned area in Callaway County. May's first trip was to Little Lost Creek State Forest in Warren County, where we saw leatherwood and many other spring flowers. May 16 will be a float trip on the Gasconade River.

Our programs have been varied and interesting. In April we heard about the Missouri Natural Heritage Program from coordinator Mike Sweet. One of our own members, Barb Schuette presented an excellent program in May on honey bees. In June we will hear from a Missouri Prairie Foundation Board member about Missouri Prairies, followed by a field trip to Prairie Day.

Other chapters may be interested in our recent fundraising effort. We participated in a weekend at the Capitol Mall in Jeff City, for non-profit organizations. The mall donated space and advertised the event. Non-profit groups set up their tables and could sell items to raise money. Our Chapter sold wildflowers (from Missouri Wildflowers Nursery), as well as baked goods and hand crafted items donated by our members. We also had educational materials displayed and extra copies of our newsletters and meeting schedule. In addition we rented a VCR and showed the Conservation Department's new spring wildflower film "Blooming Secrets." We took in about \$198.00 and cleared \$118.00 after expenses. Not bad for two days work.

### STONE CO. FIELD TRIP

On Friday, May 8th, I followed Linda Ellis' excellent directions and arrived at Cedar Hollow Resort on Table-rock Lake just after dark. I received a lovely cabin unit complete with 2 bedrooms and kitchen. I met Linda and Jeff Cocayne, a biologist, as they came up from the lake where they had been fishing.

Before breakfast the next morning, I found myself wading through wild hyacinth (*Camassia scilloides*), Blue-eyed grass (*Sisyrinchium campestra*), golden star grass (*Hypoxis hirsuta*), shooting star (*Dodecatheon meadea*), adder tongue fern (*Ophioglossum Englemanni*), rose verbena (*Verbena canadensis*) and green trillium (*Trillium viride*) and lots of other things while listening to blue birds and Parula Warblers - and I was still in the resort yard. After breakfast, the three of us set out in a boat. We climbed a steep bluff on Stallion Mt. from the water's edge and found several yellow wood trees (*Cladrastis lutea*) and other plants of interest. Then back to the boat for another area.

Here we walked on a beach rich in fossils and drift wood and started up an old road to the location of the Stallion Mt. school house used before the lake was put in in 1956. We found *Delphinium Treleasii* Sandwort (*Arenaria patula* var. *robusta*) Rattlesnake master (*Eringium yuccafolia*) and Purple Cudweed (*Gnaphalium purpureum*).

Soon we left the old road cut behind and walked parallel with the lake through woods interspersed with rocky shelves and small wet glades. Here we found several sedges, widow's cross (*Sedum pulchellum*) and large areas of adder's tongue fern and purple cliffbrake (*Asplenium platyneuron*).

Jeff was busy finding lizards, snakes salamanders and anything else that hides under rocks. One interesting find was a worm snake with it's blue-gray back and bubble gum pink underside. Jeff also found a Slimy Salamander. No, really! That's it's name.

We wound up in a small creek just above where it dropped into the lake in a waterfall. We rested and found strange looking liverworts, walking ferns, Fee's lip fern, *Delphinium tricorne*, and foliage for Michigan Lily.

We returned to the boat by a route higher on the hillside which ran through a long cedar glade with rock outcroppings where we found compass plant (*Sil-*

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 Linda Ellis, Kansas City  
 Karen Haller, St. Louis  
 Jim Key, Springfield  
 Doug Ladd, St. Louis  
 Wally Weber, Springfield

COMMITTEES

Field Trip: Ken McCarty

Grants: Ginny Wallace  
 Paul Nelson

Awards: Ginny Wallace  
 Paul Nelson

Missouri Flora Atlas: Wally Weber  
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Membership: Ginny Wallace

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phium lacinata) supplejack (Berchemia scandens) Blue False Indigo (Baptisia australis var minor) Liatris foliage and a lot of coneflowers just forming buds. Linda said the area had lots of Ladies Tresses orchids (Spiranthes cernua) in the fall. Part of this area is now being bulldozed for homes and someone had been planting a number of fruit trees.

When we got back to the boat, one person was persuaded to leave part of the driftwood and a few rocks by the lake and content herself with gathering verbena seed.

Early Sunday Linda and I drove along several roads around the area and saw a glade covered with Coriopsis (lanceolata) Delphinium carolinianum interspersed with both Oenothera lacinata and Oenothera surrulata. One north-facing road side was covered with the saxifrage Heuchera americana var. interior.

At noon we parted and I drove to Oregon Co looking at roadside plants along the way. Near Theodosia Bridge on Highway 160, I saw Penstemon Cobaea for the first time. It was in full bloom, large purple flowers growing through pink wild roses and yellow Missouri primrose. I almost wrecked my car.

You all missed one of the best field trips I've been on. Accomodations were very nice and the weekend was well organized in a rich area. Linda had planned very well.

Sue Hollis