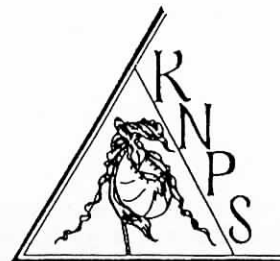


Kentucky Native Plant Society NEWSLETTER



Volume 5. Number 2.

May 1990

1990 Summer Field Trips

26 May (Saturday), 11 AM. Roaring Paunch Creek. Meet in Whitley City, in front of Whitley City Motel on north end of town, near jct of US 27 and KY 700. Led by Julian Campbell and Doug Stephens. This trip will involve a drive to the site and some moderate hiking along the creek. The goal of this hike will be to locate the rare Kentucky Lady's Slipper, Cypripedium kentuckiense and other unusual plants in this special habitat. (606-271-4392). Bring a lunch. Editor's note: in the previous newsletter the wrong date was given for this trip.

9 June (Saturday), 10 AM, EDT. Sturgeon Creek. Meet at Druthers Restaurant on RT 11 just outside of Beattyville, in Lee County. Led by Wilson Francis and Danny Barrett (606-666-8828). The trip will involve a 30 minute drive to the site near the Owsley-Lee County line, and a moderate hike to see the Kentucky Lady's Slipper, smooth azalea (Rhododendron arborescens), the Cumberland azalea (R. cumberlandense), and other interesting plants in the nice riparian zone. Bring a lunch.

30 June (Saturday), 10 AM, EDT. Rowan County Restored Wetland. Meet at Holiday Inn parking lot and jct I-64 and HW 32 in Morehead. Led by Hal Bryan (502-564-7250), who has been in charge of the restoration. The trip will involve a drive to the site and easy walking around the wetland, which has received much publicity as an example of how to restore a wetland. The types of

problems involved in restoring wetlands, as well as the types of plants used, will be discussed. Bring a lunch and shoes for wading if you so desire. If time permits a visit to nearby Clack Mountain to find some prairie plants will be included in this trip.

July 21 (Saturday), 9:30 AM, EDT. Boat Trip on Cumberland Lake, from Burnside (Pulaski County). Meet in the parking lot by Burnside Marina (go south of Somerset on US 27, cross Cumberland River, take first right to marina). We will rent 2-3 small boats to go up the South Fork, where we will see some remarkable sights--huge dry cliffs with prairies grasses (including the Great Plains Satin Grass, Muhlenbergii cuspidata), narrow points with red cedar and cliffgreen (Pachistima canbyi), a candidate for federal protection), extraordinary travertine formations (redeposited limestone under seeps and springs) with southern maiden-hair fern, and northern white-cedar, feral goats and much more. Bring about \$10.00 (for boat rental), lunch, binoculars, and a life-jacket. Expect to sign a liability release. In the afternoon, as time permits, some of us will explore downstream for more big cliffs and cliffgreen. This trip will be limited to 15 people. Call Julian Campbell at 606-271-4392 to reserve a place.

18 August (Saturday), 10 AM, CDT. Sunset Barrens and/or Devil's Side Saddle, Warren County. Meet at Jerry's Restaurant near Bowling Green just off I-65 via exit 28 on HW 31. Led by Marc Evans. This trip will involve a drive to the site and an easy hike around sandstone

glades/barrens which harbor many unique and showy wildflowers as well as numerous fern species. Bring a lunch.

1 September (Saturday), 10 AM to 3 PM, EDT. Workshop on Moss Identification at Morehead State University. Meet at Lappin Hall, Room 301, on the campus of Morehead State University. Alan Risk will direct a 4 hour workshop, with a 1 hour lunch break, on the morphology and identifying features of mosses, in preparation for the moss hike on 15 September in Mercer County. Specimens and microscopes will be provided, just bring an inquiring mind. If you always wanted to really learn something about these fascinating organisms, then this is your chance. Space is limited, so if you want to attend this workshop please call (before 7 pm--606-783-2322, after 7 pm--606-784-8896), and reserve your place.

15 September (Saturday), 9 AM, EDT. Moss and Wildflower Hike at Shawnee Run, Mercer County. Meet at parking lot of Ft. Harrods State Park, across from north wall of fort. Led by Alan Risk (see above). There will be some moderate to strenuous hiking down hillsides and cross country to view the picturesque limestone cliffs and cascading stream. The emphasis will be on moss identification. Be sure to bring a 10X handlens, as well as a lunch.

5-7 October (Friday thru Sunday). Fall Meeting: Symposium on the Use of Native Plants in Gardening and Landscaping, at Maywoods Environmental and Educational Laboratory, Garrard County.

Maywoods is a 1700 acre natural area managed by Eastern Kentucky University. It is located about 22 miles southwest of Richmond, in the Knobs section of the state. The setting is a hilly landscape covered by

second growth oak and pine forests. Maywoods Lodge is located on the edge of Edmiston Lake, and offers complete food services and lodging in semi-private rooms for up to 40 people. Interpretive nature trails have been constructed by the lake and in the forest for hiking and instruction. Fishing is allowed in the lake, but swimming and boating are prohibited. Maywoods is an ideal setting for a KNPS Fall Meeting--a place for group discussions, talks, organized and impromptu hikes, and should provide for a generally relaxing and informative weekend for all participants.

Tentative Schedule of Events:

Friday:

4 pm--General tour of Maywoods facilities and grounds.

6 pm--Dinner at the Maywoods Lodge.

8 pm--KNPS Executive Board meeting, open to all KNPS members. Discussion and planning session on future activities of KNPS.

Saturday:

7 am--Breakfast at Maywoods.

9 am - 12 pm. Paper presentations, slide shows, workshops, and hikes on various topics dealing with uses of native plants in gardening and landscaping. A complete listing of talks will be published in the August KNPS Newsletter. Some of the planned papers include talks on landscaping with wildflowers, with shrubs and trees, with grasses, with aquatic plants, how to germinate seeds, the value of roadside wildflowers, the ethics of digging native plants, basis for current interest in landscaping with native plants, etc. Speakers are still being sought--if you would like to participate, or can recommend someone, please indicate so on the enclosed reservation form.

12 pm to 1 pm. Lunch at Maywoods Lodge.

1 pm to 5 pm. Paper presentations, slide shows, hikes, and workshops on the uses of native plants in gardening and landscaping.

6 pm. Dinner at Maywoods Lodge.

8 pm. Evening Speaker.

Sunday:

7 am Breakfast at Maywoods Lodge.

8 am. Maywoods Hike--Identification of plants useful in gardening and landscaping.

Expenses: Total costs for the weekend, including registration fee, 5 meals, and lodging for 2 nights is \$24.50 per person. If you choose not to stay for the entire weekend, then your cost will be less. See enclosed reservation form for details.

A Plan of Action for KNPS

by Julian Campbell, New KNPS President

In the four years of its existence, the Kentucky Native Plant Society has established a steady membership of several hundred, which we have kept together with regular newsletters and field trips. During our current reorganization, with new officers being appointed and duties rotated, the big question is: what else should KNPS do?

The major challenge for KNPS is to bridge the gap between people with a professional interest in Kentucky botany and those interested members of the general public. This bridge should involve, at first, an educational effort in both directions. The professionals need to arrange educational materials in easy formats for the public to be attracted and learn, at least a little.

One of the most important things we can do is to make a set of posters and slide shows, with accompanying

texts, that introduce people to the different taxonomic groups of Kentucky plants, and to the different ecological regions. This set of materials would be available for special presentations by KNPS people, and, more importantly, for general use by schools, colleges, museums, botanical gardens and other institutions. Initially, we could make just one copy, to be housed by KNPS or rotated between selected institutions. Hopefully, this effort would generate enough interest and funding to make several copies.

The way to make this set of materials is...gradually. Each quarterly newsletter could feature two relevant popular articles, about a taxonomic group and an ecological region, with the authors carefully assigned by the editor and the board as part of this long-range plan. Many professionals, especially teachers, already have at their finger-tips materials that can be put into well-rounded popular accounts. The initial drafts could then be revised and standardized so that after a few years we would be in a position to plan a complete book on Kentucky plants. I believe there would be a significant market for such a book. It would not be a detailed field guide to all the species and a treatment of all the vegetation types (which is being planned independently), but a straightforward introduction to the families and orders of flowering plants illustrated in Kentucky, and a popular interpretation of the ecological variation in the state, including a discussion of conservation and other environmental problems.

Accompanying this set of texts, we could assemble the photographs needed for posters and slide shows. A huge, insufficiently used volume of photographs already exists in the backrooms and shoeboxes of several professional and amateur Kentucky botanists, some of whom are already KNPS members. We need to stimulate a cooperative exchange and pool of

photographs with the specific goals of posters and slide shows in mind. If people understand that their long evening hours of reviewing and sorting lead to a useful showy product, I think we will get the cooperation we need.

Now what about protecting our native plants? A better bridge between professional and public interests could create an intensified conservation effort in Kentucky. During the past 10-15 years, the nucleus of a biological conservation effort has been built around the Kentucky State Nature Preserves Commission and The Kentucky Nature Conservancy. These cooperating organizations are really our best hope to ensure that the most important botanical areas of Kentucky are preserved. KNPS should attempt to increase the public input to these groups, especially by membership and donations to The Nature Conservancy, by volunteering services of various kinds, and by providing information about sites of interest. In the latter context, there is currently a great impetus within these organizations to inventory the best "natural areas" left in Kentucky before they are destroyed. Many people can help by sending in information about what sites they consider to be important, with biological details, maps, photos, ownership information, etc., if possible. Once sites are agreed upon as truly worthy of conservation effort, then volunteers can help in other practical matters.

Especially valuable are people who have enough experience within their counties of residence to provide a considered opinion on what the best remaining sites in that county are, and who know some landowners. Much of this assessment is simply geared to finding the least disturbed forest areas, with the largest trees. With a little experience, the quickest way to look for these areas within a county is to examine aerial photographs at your local Agricultural

Soil-stabilization and Conservation Service office (ASCS, usually housed with the Soil Conservation Service office in each county seat) or Property Valuation Office. The more tricky part of the assessment is to look for natural rock outcrops, glades, prairies or barrens, and for natural wetlands of special biological interest.

I know there are KNPS members who could help with this effort, at least with a little guidance from the Nature Preserves Commission (407 Broadway, Frankfort KY 40602; 502/564-2886) or The Nature Conservancy (PO Box 1605, Frankfort KY 40602; 502/875-3529). If you think you can help please contact these offices. At some of our meetings and field trips, we need to focus more on exploration for good sites and rare species. Although larger groups should be guided in a relatively organized, educational fashion, smaller exploratory field trips could serve a useful purpose by searching for rare species. However, the different goals of exploratory trips need to be clearly stated in the newsletter, with any relevant warnings about strenuousness.

As the incoming president of KNPS, I have thus presented a brief personal view of what we can do. I would like the membership, and especially the board, to consider this plan carefully, modify it if necessary, and adopt something like this as a society policy. Individual members can generally offer no more than a few days of their time each year for KNPS activities, but, if organized carefully, I believe the sum total of our efforts can make a much greater contribution.

Noteworthy Records of Boletaceae from Kentucky

by Branley A. Branson, Dept. of Biology, ECU

ABSTRACT

An exceptional number of bolete mushroom species was discovered during mid-July of 1987 in Berea Woods, Madison County, Kentucky. Included were representatives of seven genera and 17 species, most of them not previously reported from the Commonwealth of Kentucky.

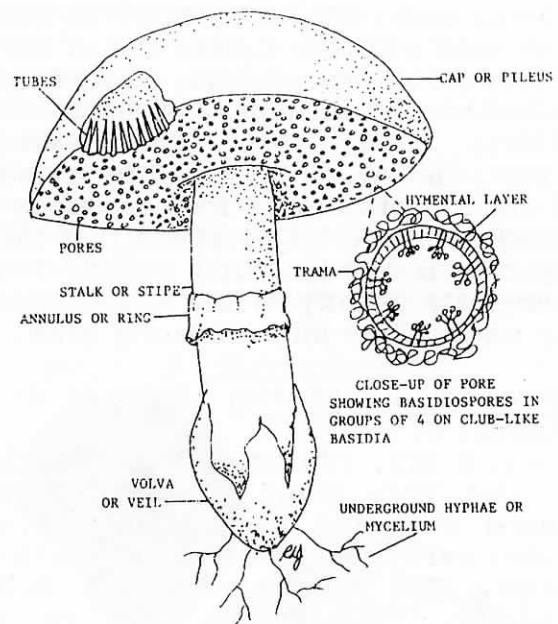
INTRODUCTION

The first half of July, 1987 was an unusually cool and wet one in eastern Kentucky. Consequently, the forests and urban woodlots produced enormous numbers of fungal fruiting bodies. One of those areas was the Berea Woods, a protected, heavily forested watershed near Berea, Madison County, Kentucky. The forest is a mixed one, being dominated in the lower sections by the pignut and other hickories, various oaks, tulip poplars, red and sugar maples, and scattered white, pitch and Virginia pines. Willow and sweetgum occur along the small meandering creeks. In the hill section, beech and tulip poplar predominate, with scattered stands of pine on dry outcrops. During a one-day field trip in that forest (15 July 1987), the author collected 131 fungal species, among which were numerous species of boletes, which are toadstool type mushrooms that have pores instead of gills under their caps. (see Figure 1 for illustration of a typical bolete). Two color photographs, upper and lower surfaces, were executed for each species reported. The photographs are in the possession of the author.

In general, the mycology of the Commonwealth of Kentucky has been

woefully neglected. There are very few published accounts of these interesting organisms for the state (Ronald H. Petersen, University of Tennessee, pers. comm.). The boletes are in particularly poorly known. Thus, the following information on seven genera and 17 species should be of interest to mycologists. With the exception of three species (noted below), all species were secured from the Berea Woods site on 15 July 1987.

Figure 1. Illustration of a typical bolete, by Ron Jones.



RESULTS

Suillus species.

This pale yellow, white-fleshed bolete was found growing beneath a stand of Virginia pine. It somewhat resembled the European Suillus bovinus (L.) Kunt., erroneously reported from North Carolina and West Virginia by Peck (1889). This species does not appear to be common, but that observation may be an artifact of inadequate collecting during mid- to late summer. Lack of careful observation may lead to an erroneous diagnosis of Suillus luteus (Fr.) S. F.

Gray, reported to be associated with white pines in western Kentucky (Sundberg and Richardson, 1980).

Suillus placidus (Bon.) Sing. Found abundantly under white pines, this white-capped species had pale yellow pores. It is a common species in Michigan (Smith and Thiers, 1971) and has been reported from North Carolina (Coker and Beers, 1943).

Suillus subaureus (Peck) Snell. Only a few well-developed specimens were found growing under oaks in the vicinity of pines. The caps were yellowish with small reddish spots but the ground color was yellow, as was the case with the tubes. Coker and Beers (1943) reported this bolete from mixed woods near pines but Smith and Thiers (1971), Smith and Weber (1980) and Arora (1986) all indicated a decided preference for hardwoods. Snell and Dick (1970) stated that the species is rarely found outside the immediate vicinity of the white pines or where white pines formerly grew.

Leccinum aurantiacum (Bull. et St. Amans) S. F. Gray.

Several dry, fibrillose, dull reddish boletes were found on the ground under white and Virginia pines. The tubes were pale olivaceous, as was the stipe. The spore print was dull reddish. This species may be a complex of subspecies (Snell and Dick, 1970).

Boletus auriporus Peck. Abundant specimens of this dull brownish-red bolete with lemon-yellow tubes were found around the bases of decaying pine stumps in mixed woods. This is principally a southern species, being relatively common in North Carolina (Coker and Beers, 1943) and southward.

Boletus bicolor Peck. Numerous specimens of this red-capped, yellow-pored bolete were found on the ground under mixed woods on 19 July

1987 on an estate near Eastern Kentucky University, Madison County, Kentucky. The species can be confused with B. sensibilis, which also occurs in the same general area (see below) (Smith and Thiers, 1971). It is common in North Carolina and Georgia (Coker and Beers, 1943).

Boletus edulis Bull. ex Fr. Three large (12.6-13.3 cm), biscuit-brown specimens appear to be examples of the subspecies B. e. reticulatus (Schaeff.) Konr. and Maubl. The hymenophoral trama appeared light-green when treated with Melzer's and the spore deposit was greenish-brown. (Figure 2).

Figure 2. Boletus edulis.



Boletus fraternus Peck. Scattered reddish-brown specimens were found in mixed woods. This southern species (Smith and Thiers, 1971) has a tendency to develop cracks on the margin of the cap, allowing the yellowish flesh to show.

Boletus frostii Russell in Frost.

Two large, blood-red specimens were found under oaks. The pores were red, as was the stipe, with yellowish flesh. Scratches turned dark blue. This is not a common species in Kentucky, although it has been reported from Land Between the Lakes (Sundberg and Richardson, 1980).

Boletus piedmontensis Grand and Sm.

Two specimens of this dirty white bolete with whitish stipes and orangish-red pores were collected from the ground in mixed woods. The flesh was whitish and the pores turned blue upon scratching. The species does not appear to be common but, again, that may be an artifact of poor collecting. One must exercise care not to confuse the species with B. pallidus Frost, which has yellow pores that have only a slight tendency to turn blue when scratched (Smith and Thiers, 1971); it occurs in other parts of Kentucky (Sundberg and Richardson, 1980).

Boletus pipertus Fr.

Seven well-formed specimens were found in mixed woods; all were yellowish brown above the reddish-yellow tubes and olive-brown stipes. The spore deposit was dull brownish, and the flesh was yellowish. A sample produced the characteristic sharp acrid taste. Scratching did not cause the production of a blue color.

Boletus sensibilis Peck. Numerous specimens were observed scattered on a hillside forest of beech and maple. The middle of the brick-red pileus was faintly reticulated, the pores were bright yellow, and the solid stipe was yellow. Both stipe and pores turned blue immediately upon being scratched. Care must be exercised not to confuse this species, which is mildly poisonous (Coker and Beers, 1943), with B. bicolor or B. miniato-olivaceus Frost. The latter species is an eastern one not known from Kentucky at present, although it is

apparently common in North Carolina (Coker and Beers, 1943).

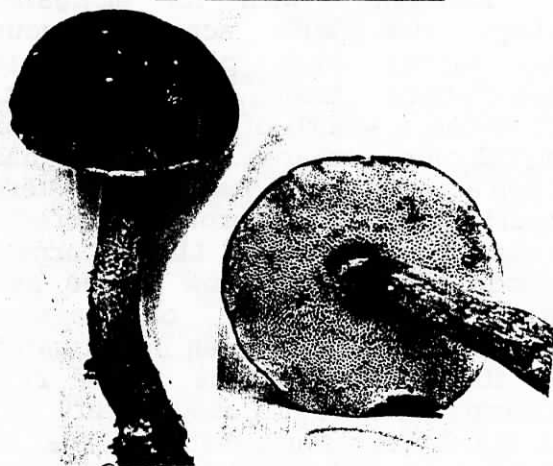
Phylloporus rhodoxanthus (Schw.) Bres.

Two sets of three individuals each were found in mixed woods. The cap turned blue when sprinkled with ammonia. Weber and Smith (1985) consider this to be a "collective" species, meaning that several taxonomic groupings are contained under this name.

Pulverboletus ravenelii (Berk. and Curt.) Murr.

Two specimens, one with the characteristic powdery veil nearly intact, one with remnants only, were found in mixed woods (pignut hickory, maples, oaks, Virginia pine). Smith and Thiers (1971) considered this to be a "collective" species. Coker's and Beers' (1943) North Carolina records were principally from coniferous or coniferous-rhododendron-beech sites.

Figure 3. B. chrysenderoides

Boletellus chrysenderoides (Sneil) Sing.

Several (scattered) specimens were taken from the much-decayed remains of oak logs. All of them were velvety to the touch and brownish in coloration. The pores were lemon yellow and bruised blue when scratched. The spore deposit was dark greenish-brown.

Boletellus russelli (Frost) Gil.

This species did not appear until 6 August 1987, when a few scattered specimens were found in open oak-hickory woods near piles of much-decayed limbs. The pileus (7.5 cm) was dry and yellowish-brown; the context was pale yellow and the pores were orangish-yellow. The stipe was lacerated and reddish in color.

Boletinellus merulioides (Schw.) Murr.

A large population of fruiting bodies was found beneath ash trees near the campus of Eastern Kentucky University during the week of 19-26 July 1987. All specimens were typical for the species, including the possession of dry, olive-brown caps, off-center stalks, and large, yellowish and radiating pores. The species was previously reported from western Kentucky (Sundberg and Richardson, 1980). Snell and Dick (1970) place this species in the genus Gyrodon.

CONCLUDING REMARKS

Kentucky, with its elongated shape that cuts across various ecological and physiographic associations from east to west, provides a wealth of possibilities for mycological research. Yet, little has been accomplished. Some areas, where nearly pristine and protected forests remain, such as the Lilley Cornett Woods and Tight Hollow in the Red River Gorge area of eastern Kentucky, have not been investigated at all, as is also true of the rich swampy habitats of Casey County and in the extreme southwestern corner of the state. The boletes form one interesting example, but there is a plethora of others.

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Squawroot: it toils not.

by George F. Buddell II and John W. Thieret, Northern Kentucky Univ.

Squawroot (Conopholis americana) is a flowering plant that lives in a non-traditional way, in a non-traditional place. It spends its life as a parasite on an oak root, taking all its food and drink from the tree but not appreciably harming it. To the oak, squawroot is but a minor annoyance.

The story of this eastern North American member of the broomrape family begins traditionally enough: with seeds. These, though reaching only 1/16 inch in length, are large

compared to the "dustlike" seeds of most other species of the family. Squawroot produces only (!) 400 to 600 seeds per capsule (we counted), while some other family members, in contrast, produce up to 70,000 (someone else counted).

When the seeds ripen, the capsules split to release them, but how the seeds are dispersed--whether by wind, rain, animals, or some other means--is quite unknown. There is another mystery: how do they get underground (which is a must) to where a root of an oak may be found? They will not even germinate--nor is there any reason to--unless they are almost or actually touching an oak root. They, like the seeds of other species of the family, germinate apparently in response to some chemical that diffuses from a young host root into the surrounding soil. The presence of this "germination stimulant" is a signal to a seed that a host is close by.

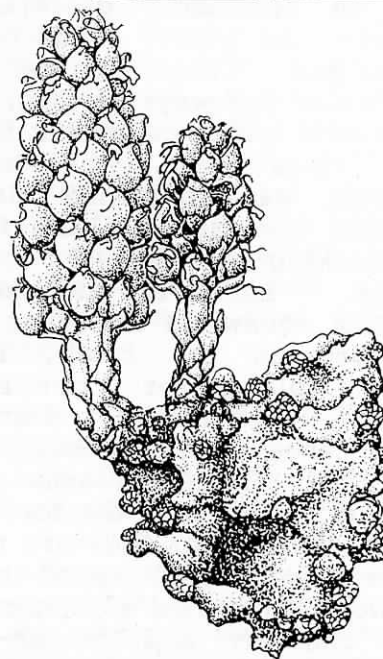
After germination, the developing seed grows toward the oak root and penetrates it. Such action initiates, on the root, the beginnings of a "gall," a swelling that increases in size yearly and ultimately strangles any part of the root extending beyond it. Ranging from 1/2 inch to as much as 10 inches in diameter, galls are irregular in shape and are covered with dark brown, rough bark. Some, especially the larger ones, may protrude from the ground, but usually it is only the flower stalks, which are produced after the fourth or fifth year, that reveal the presence of the parasite. (Figure 1)

A mature squawroot plant consists of one or more flower stalks, one or more buds from which additional stalks eventually develop, and a gall. The flower stalks are annual, living for only one season. Generally they persist over winter, brown and dead, being found next spring among the new ones.

Along the southern edge of its range--Florida, Georgia, and Alabama--

squawroot opens its cream-colored flowers as early as February. Moving northward with the spring, flowering starts later and later; in the latitude of Nova Scotia and Wisconsin--the northern edge of the range--the plant may bloom as late as July.

Figure 1. Conopholis americana.



wing courtesy of Arnold Arboretum, Harvard University

Flowering leads to yet another mystery in the life cycle: how are the flowers pollinated? in the more than 2 centuries that biologist have studied squawroot (we admit that they have not studied it much), only two visitors--both of them bumblebees--have been seen alighting on the flowers; whether the insects actually brought about pollination is anybody's guess. It has been suggested, too, that some self-pollination may occur. Though these items may be deemed interesting, they certainly are not enough to support any conclusions. If you know of the whereabouts of some squawroot plants and you have patience to sit and watch flowering specimens hour after hour, day after day, you may well be able to make significant observations on pollination of the plant. (Please let us hear about them.)

Squawroot does not, of course, live forever. Plants estimated to be 12 years of age--determined by the number of annual rings in the parasitized roots-- have been reported, but maximum life expectancy is conjectural. One factor affecting life span is that the oak does not placidly resign itself to supporting the parasite. In what seems an unfriendly gesture, the tree, over the years, sends tannins into the gall. These eventually clog the vascular pathways through which the parasite feeds, causing it to die.

In times past, the life of squawroot was shortened also by herbalists who, in field and forest, were seeking remedies for sundry diseases. Faith in the curative powers of squawroot led to its being prescribed--as the fresh, finely-ground plant--for gonorrhoea, syphilis, dysentery, diarrhea, various cancers, and probably other ills as well. Medicinal uses of this wonder drug (?) from the forest had no basis in science; they are now as dead as those who advocated them.

Two of squawroot's other common names--"clapwort" and "cancer-root"--recall its heyday as a healing herb. We have, however, been unable to find a convincing explanation of why the plant is called "squawroot." One discreet author recorded it was used by some Amerindians for "females disorders," but he also said that squawroot parasitizes hemlocks, so we can't trust him.

In someday, while hiking through woods, you think you see Conopholis americana, and you are somewhere east of the Mississippi River, you probably do--nothing else looks like it. (It does not even, in our opinion, resemble a pine cone although the name "Conopholis," meaning "scaly cone," was bestowed upon it by a botanist who thought it did.) However, if you are in the mountains between Arizona-New Mexico--western Texas and Panama, and you think you see this species, you don't. Instead,

you see its look-alike relative, Conopholis alpina, the western squawroot. And remember, when you are looking at a growing Conopholis plant anywhere, you must also be near an oak.

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News and Announcements

Dues Increase

The new KNPS Board of Directors voted on May 5 to increase the membership dues to \$5 for an individual, and \$7 for a family membership. We have resisted raising dues for as long as possible, and we hope that this small but necessary increase will not discourage anyone from continuing their membership in KNPS.

New Treasurer and Address for Sending Dues

All membership dues and other payments should now be sent to the following address:

Mr. Tom Bloom, KNPS Treasurer
900 Keenon Rd
Harrodsburg, KY 40330

New KNPS President and Address for Requesting KNPS Information

All requests for information on KNPS activities and projects should now be addressed to:

Julian Campbell, KNPS President
3468 Greentree Rd.
Lexington, KY 40502

Articles and Announcements needed for August Newsletter.

Anyone wishing to submit an article for the next newsletter, or with announcements, should send them in as soon as possible. Try to get them in before July 1.

Send to: KNPS Newsletter
Department of Biological Sciences
EKU
Richmond, KY 40475-3124

Landscaping with Native Plants Newsletter Available

If you would like to receive a quarterly newsletter that deals with landscaping with native plants, send \$10 to:

Native Notes
Rt 2, Box 550
Heiskell, TN 37754

Additional Seeds Available through KNPS Member

One of our members has informed us that she can provide seeds from the following species, and would like to exchange seeds with other members: butter-and-eggs, ramps, celandine poppies, false dragonhead, rose mallow, spiderwort, ringlerosen (an old-fashioned dark-orange, Calendula), larkspur, bloodwort, rose gentian, sweet rocket, american lotus, yellow verper iris (likes the water), wild edible strawberries, stinging nettles (if cooked are delicious), giant evening primrose (large, fragrant flowers open all at once), beard-tongues, a cinquefoil with a red center, two types of wild asters.

Send requests to:

Greta Fields
Box 217
Jenkins, KY 41537

New T-Shirt Problem

We commissioned a new T-Shirt for the Wildflower Weekend at Natural Bridge. It turned out looking very good, with a silhouette of a columbine. Unfortunately, we have had some complaints about colors fading and obscuring the image after washing (only in some, for in others the colors are retained). If you purchased one of the T-Shirts at the Wildflower Weekend, and have noted this fading, just send it back and we will replace it with a good one. We are very sorry about this inconvenience.

Return the T-Shirts to:

Wilson Francis, Park Naturalist
Natural Bridge State Park
Slade, KY 40376

We have a great many T-Shirts remaining, but are going to try and have them repaired, before offering them for sale to our membership.

KNPS and Earth Day

The KNPS attracted a lot of attention at Earth Festivities in Frankfort and Lexington, April 21 and 22. The society's display consisted of a huge hand-colored enlargement of our new membership brochure, and two additional panels utilizing beautiful 11 X 14 prints of Julian Campbell's orchid slides. Thanks to Ed Hartowicz, Bill Carroll, and Marge Keller for lending a hand in dispersing brochures and packets of seeds. Maybe the seeds that we planted on Earth Day will sprout to bring on a new crop of KNPS supporters.

Wildflower Program of Transportation Department Renewed

Thanks to all that wrote letters about the destruction of wildflower plots along KY highways. After receiving many letters, and even receiving an undeserved award for their program, Sec. Milo Bryant has reversed his earlier decision. Sometimes the letter writing does work!

Wildflower Weekend a Great Success

The Weekend at Natural Bridge on May 5-7 was attended by over 100 people. We greatly thank Tom Patrick and Robert Mohlenbrock for giving excellent presentations and participating in the field trips. We also thank also those field trip leaders who gave of their time and money to help make the Weekend a success. This weekend has become one of our best KNPS activities, and we appreciate the opportunity of working with Wilson Francis and Natural Bridge State Resort Park in organizing the Wildflower Weekend.

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Department of Biological Sciences
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