Missouri Native Plant Society Hawthorn Chapter Newsletter

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Hawthorn Chapter Officers:

President
Vanessa Melton
573-864-3905
vanndawn@gmail.com

Vice President
Nancy Langworthy
nancylangworthy@hotmail.com
573-874-2463

Secretary
Ann Wakeman
5798 Windy Meadows Lane
Fulton, MO 65251
573-642-6927
mike-ann@socket.net

Treasurer
John George
573-234-1784
John.George@mdc.mo.gov

Membership
Paula Peters
2216 Grace Ellen Dr
Columbia, MO 65202
573-474-4225
pieridae1@gmail.com

Chapter Representative
John [Rusty] White
573-886-8698
rstywhit@yahoo.com

Web Master
Doug Miller
thedesign@bigthe.com

Web site:
http://columbianativeplants.org/
Webmaster: Doug Miller

The Hawthorn Chapter of the Missouri Native Plant Society Newsletter is published monthly. Send submissions by the 26th to:

Communications Editor
Becky Erickson
573-657-2314
beckyerick@socket.net

Future Activities

Watch email for notices of impromptu hikes. **Please offer suggestions of your favorite walking destinations** to Paula or Becky; we will get them posted as soon as weather permits. PLEASE call or email Becky 657-2314 or Paula 474-4225 as soon as you know you will attend an activity. We don't want to leave anyone behind if weather or plans change. Leave your name and PHONE # if you leave a message. If you do not communicate by email and have a suggested destination or want notice of a walk, call Paula 474-4225 to get on the phone list. Carpool meeting place, MDC Research Center, is on College just north of Stadium.

If weather remains mild and you want some company for a walk at a local wild area, call Becky and she will send an announcement by email.

February

16 **Thursday: Lunch with Native Plant Enthusiasts** 11:30 am RagTag, 10 Hitt St. Just south of Broadway.

March

12 Membership Meeting 6 pm Eaglebluffs, 6700 W. Route K, Vic Bogosian [MDC biologist] will give a program on turtles. See article inside
15 Thursday: Lunch with Native Plant Enthusiasts 11:30 am RagTag, 10 Hitt St. Just south of Broadway.
24 Saturday Mosey at Whitley's Thicket Leave MDC at 11am for lunch at Heuer's, OR meet us at Heuer's at 1pm for the hike after lunch to see wild leeks and snow trillium. Difficult climb on one hill; wear knee boots for stream crossing.
29 Thursday Tentative Baskett Area Ashland: Serviceberry and other spring flowers , leave MDC in Columbia at 1 pm. Easy/Moderate.
31 Saturday Possible alternate date for Baskett, Ashland, or Pinnacles Park, North Boone Co: Serviceberry and other spring flowers. Leave Columbia MDC at 1 pm. Easy/Moderate.

April

5 Thursday Possible alternate date for Baskett, Ashland, or Pinnacles Park, North Boone Co: Serviceberry and other spring flowers. Leave Columbia MDC at 1 pm. Easy/Moderate
[8 Easter]
14 Saturday 10 am – 2pm: Plant Sale at Bradford Farm. 9 am Booth set up.
April 13-15, 2012 – State Branson area/Bull Shoals Reservoir, etc.
[16 April – 6 May = Turkey Season: can go in woods only after 1 pm; State Parks = OK any time]
19 Thursday: Lunch with Native Plant Enthusiasts 11:30 am RagTag, 10 Hitt St. Just south of Broadway.
22 Sunday Earth Day Columbia, Noon to 6pm Booth set up and plant sale.
28 Pershing State Park [LaClede] Easy boardwalks thru wetlands, wet forests and other habitats. Leave MDC in Columbia at 8 am. All-day outing; bring sun hat, bug spray, water, snacks. We will find someplace to eat.

Call Vanessa or Paula for more information

Thanks to John White, Vanessa M-Silvey, Nadia N-Tindall, Randy Tindall for their contributions to the newsletter. Editor would like to hear from you, too.

Announcements:

Program for 12 March Meeting

Vic Bogosian Wildlife Biologist at Eagle Bluffs Conservation Area, 6700 W. Route K will give the program for the membership meeting Monday 12 March about turtles. He has a large snapper and alligator snapper which are too difficult to transport, but well worth seeing and learning about. So the whole meeting will be at the Eagle Bluffs Office at 6 pm.

From Providence and Stadium – go south on Providence past Rock Bridge High School, at the next light you come to on your right is Apple School preschool, to the left Providence/163 will go to Rock Bridge State Park – STAY GOING STRAIGHT AT THIS LIGHT – the road changes to become Route K as you progress down it toward the community of McBaine (about 4.5 miles to McBaine). Office will be on the left as they enter the MO River Bottoms, big white building about 30 yards off the road with an MDC sign out front. Parking will be very obvious, large gravel lot.

If you cross over Perche Creek and the Katy Trail you went too far. Turn around and drive about 300 yards back to the Eagle Bluffs Office on the south side of the road.

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Program for the 14 May meeting will be given by David S. Kubiak, BSNursing, MHA with an earlier background in Biology and Ecology is an avid Orchid fancier and grower. He will speak to us at the Unitarian Church about native orchids. Because of longer daylight hours, the May meeting starts at 7 pm.

Prairie fringed and Yellow lady slipper *BE photos*

Spring Calendar Cont. . . .

May

3Thursday Maybe 26 April or 10 May impromptu mid-week: Shooting stars at 3-Creeks CA. contact Becky for reservations. Easy walk.

4-6 Camping weekend at Hawn SP: Friday evening thru Sunday noon. Must make reservations with Paula 573-474-4225 before 10 February to camp with group. See article inside.

12 Earthquake Hollow [Callaway Co]: ladyslipper orchids and other woodland spring flowers. Leave MDC in Columbia 9 am. Difficult.

13 Mothers' Day

14 Membership Meeting 7pm Unitarian Church, 2615 Sheppard Blvd. Program will be given by David S. Kubiak, [BSNursing, MHA with an earlier background in Biology and Ecology] who is an avid Orchid fancier and grower. He will speak to us about native orchids.

17 Thursday: Lunch with Native Plant Enthusiasts 11:30 am RagTag, 10 Hitt St. Just south of Broadway.

19 Clifty Creek NA [Maries Co]: A little off the beaten path. Difficulty is easy on established trails, but a little long. All-day outing; bring sun hat, bug spray, water, snacks. We will possibly eat at Native Stone Winery on the way home.

June

2 June 1-3, 2012 – State Camdenton area/Ozark Caverns/Rocky Top Glade, etc.

9 Warren Taylor: Private property in Callaway County putty root orchid, goldenseal, glade plants, and others. Leave MDC in Columbia at 9 am. All-day outing; bring sun hat, bug spray, water, snacks, wear rubber boots if wet. Moderate. We will eat late at Beck's in Fulton.

21 Thursday: Lunch with Native Plant Enthusiasts 11:30 am RagTag, 10 Hitt St. Just south of Broadway.

MONPS Board Meeting Schedule for 2012

Spring – April 13-15, 2012 – Branson area/Bull Shoals Reservoir, etc.

Summer – June 1-3, 2012 – Camdenton area/Ozark Caverns/Rocky Top Glade, and other places.

Fall – Sep. 28-30, 2012 – Cuivre River State Park and vicinity.

Winter – Sat. Dec. 1, 2012 – UMO Herbarium, Columbia, MO.

Hawthorn Camping Weekend 4-6 May

Paula will be organizing our chapter camping trip to Hawn State Park May 4-6. We chose the first weekend in May because it is our best chance to see azaleas and orchids in bloom. It is also the best time for migratory birds and good for insect emergence.

The Park superintendent has recommended that we get our reservations in as soon as possible, since some people reserve six months in advance. We would like to camp as a group. There are 17 tent campsites with room for two tents and up to six people per site. So campsite costs will be split between the two tents occupying each site. Paula has called Hawn and discovered some sites have already been reserved. **She would like to make the reservation on 10 February** which is only 12 weeks before our arrival date.

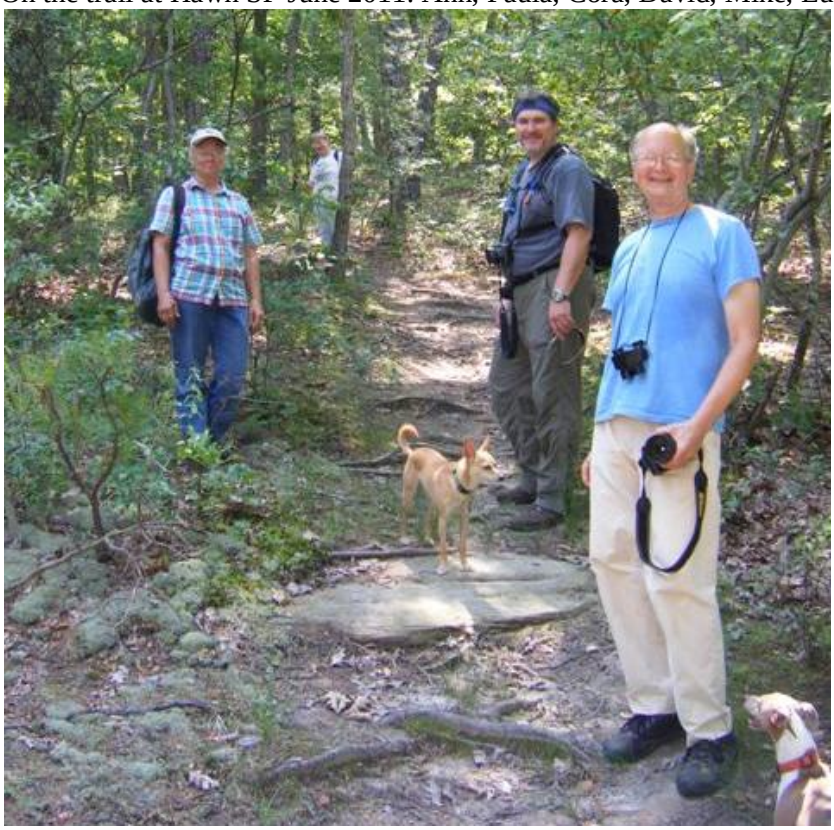
If you don't want Paula to coordinate your campsite, you may go on your own, find a campsite or motel, and meet us for hikes. No one is excluded from this outing; please come and bring friends. Just because you don't camp doesn't mean you can't come and have a good time.

Trails out of the campground and to the wildflower areas are of easy to moderate difficulty. The campground has a modern bath house, tables, and fire pits [buy firewood there; DO NOT bring firewood to the park]. Tent sites are mostly shaded.

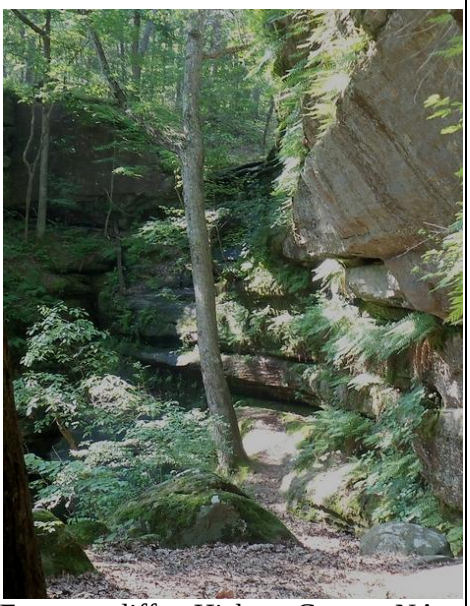
Last year we had a GREAT time in spite of the heat in early June. There were plenty of unusual plants, insects, and other animals around the streams. Bird watching was good. We combined the food we brought and ate well.

We will finalize our plans as it gets closer to the date, and we see how many people are going, and what activities the group is interested in. **Right now we need commitment by Feb 10. Thank you for your cooperation.**

On the trail at Hawn SP June 2011: Ann, Paula, Cora, David, Mike, Lucky



VM-S photo



Ferns on cliff at Hickory Canyon NA
BE Photo

Rare Partridge Berry flower at Hickory CanyonNA *BE Photo*

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Winged sumac fruit illustrating article on next page. *RT Photo*

When Life Hands You Sumac . . .

Submitted by Nadia Navarrete-Tindall, Native Plant Extension Specialist at Lincoln University
Edited by Randy Tindall. Free-lance writer and photographer

People have mixed feelings about sumacs. Some admire their vibrant autumn colors, while others resent their invasion of pastures and fencerows. Still others might be a little uneasy of them altogether, because they conjure up the phrase "poison sumac", even though that particular sumac has not been recorded in Missouri, and you would probably need waders or a boat to get to it anyway. However you feel about sumacs, they are here to stay, so let's make the best of them. And, actually, the best of them can be pretty good.

First, let's talk a little bit about the plants themselves. Sumacs belong to the Anacardiaceae family. There are about 250 species of sumacs around the world. Three species are native to Missouri: smooth, winged and aromatic sumacs (*Rhus glabra*, *R. copallina*, and *R. aromatica*). Other members of this family are tropical mangoes (*Mangifera indica*) and cashews (*Anacardium occidentale*), the American smoke tree (*Cotinus* obovatus) and poison ivy (*Toxicodendron radicans*). Being from the tropics, I like comparing vegetation from my native El Salvador with related flora of the north. For example, the flower panicles of sumacs resemble those of the naturalized mangoes in my country. Like mangoes, the fruits are drupes, but those of the sumacs are smaller, form compact clusters and mature in the fall. Mangoes mature during the dry season in El Salvador, which is like the summer for us.

I have been fascinated with sumacs since the first time I saw their bright red berries and gorgeous crimson leaves in fall of 1986, when I first arrived here. In fact, the word "sumac" originally meant "red" and came to us from Aramaic, Hebrew and Arabic.

Little did I know then about their importance, not only for wildlife (birds eat the berries and spiders hide in the flowers or fruit clusters), but also for humans as food and for conservation practices. Sumacs grow well in disturbed soils, including roadsides and other marginal areas, but do not do well under shade. Aromatic sumac, especially, prefers sunny and dry ground, while the other two like a little more moisture.

It's true that sumacs, if they are given the opportunity and no control, may be aggressive, especially smooth sumac. In prairies, grasslands, woodland borders and other natural areas, prescribed burning, mowing, hand-pruning and even spraying may be necessary to stop them from spreading too much. A new ecological control may be the use of goats that nibble on the bark and eat the new shoots. Sumacs spread easily from underground stems forming thickets providing cover and food for birds and small mammals. This characteristic may not be too desirable in small gardens; however, they can provide privacy in urban areas and be effective as living fences in rural areas.

For use as food or a beverage, collect the berries in the fall immediately after they turn red and store them in cool conditions. Also, you can break the clusters in small pieces and store them in freezer bags. When you are ready to use them, place the berries in a bowl and cover them with water (warm water works better), and let them soak for a few hours or overnight. Strain the resulting liquid using cheese cloth in a strainer to avoid seeds and stems in your preparations. The liquid will be tart so you may need to add more water to reduce the acidity, or you can store it as a concentrate and dilute it later. For 'sumacade', just add sugar to taste, and drink it cold or warm as a tea. Some of my personal experiments include making jelly, pancake syrup, and a spice. In these processes, I ran the seeds gently thru a blender to release more of the red fleshy part of the fruit from the seeds. Sumac spice is available as a powder for Mediterranean or Middle Eastern cuisine, such as hummus; however, it is usually imported.

There are many other uses of these versatile shrubs: branches can be used in basketry, green leaves can produce tannins for curing animal hides, and the leaves, especially in the fall, can also be used to make decorative greeting cards. The berry panicles make attractive floral arrangements, especially in combination with other autumn natives. Other traditional uses can be found in American Indian narratives.

Sumas are here and they are abundant! Let's appreciate them! For more recipes and details, see Randy's blog, Nadia's Backyard at. http://nadiasyard.com

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Botanical Notes: Bladderworts

Submitted by John R. White

How many people know that Missouri has native carnivorous plants? Growing up with a farm background in a small western Missouri town I then thought of them as tropical plants found in the South American jungles and in movies about man eating plants. It has been written that Charles Darwin was fascinated with carnivorous plants, particularly the Venus flytrap.

Carnivorous plants have a diversity of trapping anatomy suitable for a particular ecosystem and prey, along with the ability to survive in nutrient poor, slightly acidic water. Most have at least a few photosynthetic leaves, bracts or shoots which keeps them alive if prey becomes scarce. Many reproduce both sexually and asexually. They are indeed remarkable and intriguing plants.

Bladderworts are Missouri's only carnivorous plants. The Flora of Missouri catalog (George Yatskievych, June, 2011) lists only three species in MO: The Small or Cone-spur Bladderwort (*Utricularia gibba*), Common Bladderwort (*Utricularia macrorhiza* syn. *vulgaris*), aquatics, and the terrestrial Zigzag Bladderwort (*Utricularia subulata*), found in water-saturated soil, and documented in only three counties. *Utricularia gibba* is the only carnivorous plant documented in Boone County.

Bladderworts are strange plants, all carnivorous, and eat small aquatic animals, or if terrestrial, protozoa and rotifers swimming in water-saturated soil. The main part of a bladderwort plant lies beneath the surface of its substrate. Some terrestrial species may produce photosynthetic leaf shoots which lie flat against the surface of the soil. In all species only the flowering stems rise above the substrate and are more easily observed during flowering. These plants have no roots and the stems (stolens) may be six feet long with finely divided, feathery leaves about an inch long, and can form large floating mats. Scattered on the leaves are the tiny bladders used to trap small aquatic insects. The "leaves" are actually small photosynthetic branches and the bladders are modified leaves.

Bladderwort plant structure and flower *Barry Rice Photo*

In summer both common and small bladderworts bear many yellow snapdragon-like flowers above the water on upright 4-6 inch stems and are insect pollinated. They flower from May to September. Reproduction occurs by winged seeds on upright stems and asexually by turions (winter buds) formed at the tips of upright stems.

The unusual aspect of these plants are the little bladder traps, less than a quarter-inch long, shaped like flattened pears. On the end of the bladder is a transparent trap door surrounded by a funnel of long, branched trigger hairs. The door is hinged on the top edge and is made watertight when closed by a double lock and sticky mucilage. Star-shaped glands on the inner walls pump water out forming a vacuum inside the bladder. The trap is now set. Sugar is secreted as bait. The slightest touch of a hair by any aquatic animal will cause the seal to be broken, the trap door opens, and the vacuum pulls water and the prey inside. This action happens in 1/460 of a second; faster than a Venus flytrap. The door closes, water is again pumped out, and the little animal is assimilated by digestive juices. If there is no capture the door resets in 20 minutes. This mechanism is purely a mechanical process. These plants catch tiny crustaceans, aquatic insects and worms, algae, duckweeds, mosquito larvae, newly hatched tadpoles and fish fry.

Utricularia gibba has been identified as a specialist invasive species in countries where it has been introduced, such as northern New Zealand, where it threatens to compete with native bladderworts and sundews.

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Please Step Forward For Service

Please contact one of the officers ready to volunteer a little time to a very good environmental and educational service. We need people to serve as officers, to grow plants for fundraising and we need people to man our information booth at events such as Earth Day and Bradford Plant Sale. If you get this only by mail, please consider requesting email delivery; it saves us money.

___Regular ($16.00)*

___Student ($11.00)

___Contributing ($26.00)* designate chapter or state

___State Lifetime ($200)

___Chapter Lifetime ($120 – you must also be a member of the state organization to utilize this option)

___Chapter only ($6.00 – this is for members who already belong to State and another chapter)

*Includes both Chapter ($6) and State ($10) dues.
Make check payable to: **Missouri Native Plant Society.**
Send check and this form to: Paula Peters**,** 2216 Grace Ellen Dr**.,** Columbia, MO 65202

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Hawthorn Chapter Missouri Native Plant Society
Newsletter editor, Becky Erickson
PO Box 496
Ashland MO 65010-0496