



Missouri Native Plant Society Hawthorn Chapter Newsletter

Volume 20, Number 8

August 2005

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The Hawthorn Chapter of the Missouri Native Plant Society Newsletter is published and mailed monthly.

To be included in future publications, please send your articles, art, calendar events, poems, photos and drawings to:

Newsletter Editor:

Judy Ward
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Activities Calendar

August 19: Katy Trail walk at 5:45 pm and 7:00 dinner at the Winery.

August 24: Newsletter items due.

August 25: Board Meeting, 11:30 am at the Uprise Bakery, 816 Broadway. All are invited.

September 12: Regular meeting 7:00 pm at the Unitarian Church, 2615 Shepard Blvd. Speaker to be announced.

September 16, 17, & 18: State Board Meeting – Prairie State Park.

Sept 17 & 18: Heritage Festival Please plan to help with our booth.

October 16: Fall foliage hike to Painted Rock State Forest and lunch in Westphalia.

October 29: MO Chestnut Roast at Franklin Farm. 10 am to 4 pm. Please plan to help with our booth.

December 3: State Board Meeting – Columbia.

December ?: Holiday party.

For more information contact Paula at 573-474-4225.

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August 19 – Katy Trail Walk and Dinner at the Winery

On Friday, August 19, the Hawthorn Chapter plans to meet for a short walk on the Katy Trail and dinner at Les Bourgeois Winery. Meet at 5:45 pm in the Winery parking lot for the walk, and at Les Bourgeois Winery and Bistro at 7:00 pm for dinner. There will be a full moon.....

We will need to make reservations by August 10, so please contact Paula at 474-4225 if you plan to go.

– Paula Peters

Thank you Sandra!

Sandra Kubal has served as newsletter editor over the past year and has done an excellent job. Thank you for all of your hard work!

* * * * *

Greetings Hawthorn Chapter!

Greetings! I am pleased to serve as the new editor for the Hawthorn Chapter Newsletter. On arriving in Columbia from the Desert Southwest in June, I was happy to discover the Missouri Native Plant Society had a chapter centered in Columbia. As you can imagine, the environment in Missouri represents a dramatic change for me. I look forward to learning more about the local flora and natural history, as well as, meeting new friends via the Hawthorn Chapter.

I moved to Columbia to join my husband, Frank La Sorte, who recently started a post-doc as an avian ecologist at University of Missouri in cooperation with the U.S. Forest Service. I am fortunate to have botanized in some of the most beautiful areas across the southwest while working in plant related fields. Most recently, I lived in southern New Mexico and worked as a Rangeland Research Technician after receiving my Master's degree in Natural Resource Science and Management from the University of Arizona. My thesis work involved developing a spatial model for the potential distribution of a non-native invasive plant in Saguaro National Park, a natural area located outside of Tucson, Arizona. My interest in non-native invasive plants grew out of observations of threats posed by aggressive exotics to native plants in natural areas while working and recreating in the Sonoran Desert, Great Basin Desert, Chihuahuan Desert, and their associated uplands. Currently, I am working on a remote sensing project evaluating the spatial pattern of vegetation changes in arid landscapes in Southern New Mexico.

Because I am new to the Chapter and the newsletter, I ask for input on what you would like to see in the newsletter. One idea already raised has been a piece each month featuring a new plant. This feature could include information on appearance, taxonomy, ecology, habitat, phenology, cultivation, and/or personal encounters depending on the author's expertise and interest. Check out the piece on ragged orchid (*Platanthera lacera* (Michx.) G. Don) in this issue and consider writing up a piece, it is a great way to learn even

more about one of your favorite plants. Another idea we can experiment with is the inclusion of photographs, so consider sending some of your best shots (with descriptions) my way. In addition, I looked over some newsletters from the past 3 years (Thanks Paula for supplying them). It looks like newsletter articles are diverse and include book and web-page reviews, gardening tips and adventures, reports on chapter activities, and descriptions of upcoming activities. I thought all of these items were fantastic and really illustrated the diversity and flavor of the Chapter's interests and members. I am looking forward to your feedback, ideas, input, and news items!

* * * * *

The orchid next door

Ragged orchid

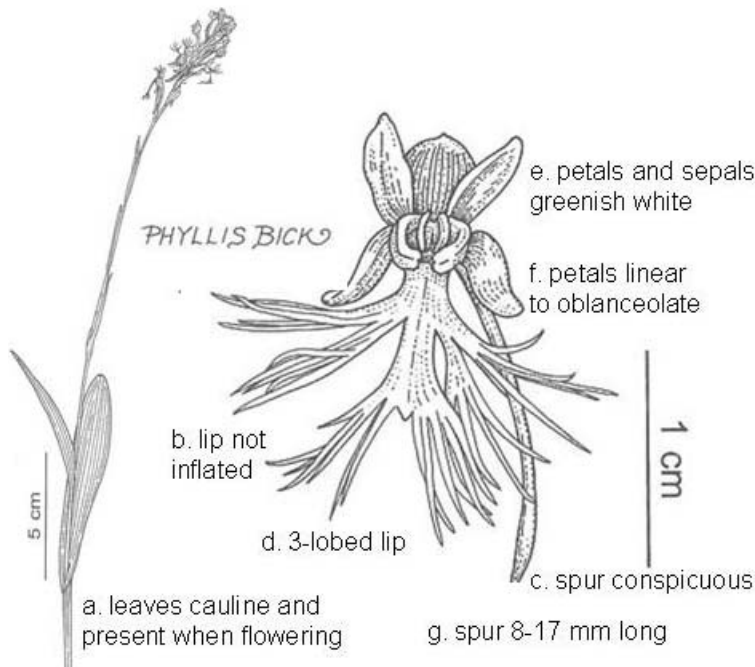
Platanthera lacera (Michx.) G. Don

Although the orchid family (Orchidaceae) is one of the most specious flowering plant families in the world, with approximately 600 genera and 15,000 species mostly occurring as epiphytes (growing on other plants) in the tropics¹, it is still a treat to observe their distinct beauty. And because of the inconspicuous nature of terrestrial orchids found in Missouri, it is a grand treat to encounter or find one in the field. Knowing this, I was pleased when Nadia Navarrete-Tindall extended an invitation to assist her with a demographic study of ragged orchid (*Platanthera lacera* (Michx.) G. Don) in her native plant regeneration study plots at Bradford Research Center.

In spring 2004, Nadia first observed ragged orchid, also referred to as ragged fringed-orchid or green fringed orchid, on these plots that had been previously been cultivated in tall fescue for over 40 years. With the help of NPS members Judy Turner and Jack Backett, she has counted over 100 individuals. She is keeping track of the population by marking their location and recording the reproductive status, length of the inflorescence and height of the plant. By revisiting the marked locations year after year, she will begin to develop an understanding of reproduction, persistence of known individuals, and recruitment of new individuals. But a full understanding won't be easy because of the "secretive" and inconspicuous nature of the species. I say "secretive" because there is so much important biology below ground which is hidden from view. Ragged orchid, fueled by reserves in its fleshy, thickened roots, appears above ground from spring to late summer, when it

replenishes root reserves, and in some years, flowers and produces fruit. Like with all terrestrial orchids, ragged orchid has a symbiotic relationship with soil fungi from which its roots receive nutrients, and even for orchids that are well studied this relationship is not well understood. However, this relationship is important because of its role in individual establishment and persistence and the apparent sensitivity of the fungi to changes in soil environment. In addition, terrestrial orchids are difficult to find and some have been known to remain underground or only appear vegetatively above ground for many years. Reproductive studies are also challenging. Tracking pollination should be relatively straight forward, pollen grains occur and disperse in masses called pollinia which attach and are later deposited on other flowers by insect visitors, however, some believe ragged orchid is pollinated primarily by the day-flying sphinx moths¹, others report the fragrance emitted at night attracts the Sphinx Moths for pollination², while others report pollination by noctuid moths and hawkmoths³. Finally, tracking the dispersal of the dust-like seeds makes finding a needle in a haystack sound easy.

Fortunately, ragged orchid is not as rare as other orchids in Missouri. It is the most common species in the *Platanthera* genus. Orchids are distinguished by their highly modified flower characterized by a specialized median petal forming a “lip” which can be “spurred” and the “column” formed by the male and female reproductive parts⁴. The *Platanthera* orchids are distinguished from the other 17 orchid genera in Missouri by the combination of three characteristics (see Figure 1): (a) having leaves along the stem and at least one leaf during flowering, (b) lip not inflated like a sac or pouch or boat shaped, (c) very conspicuous spur at least as long as the lip. Because it is the most common member of the genus, which includes the very rare Western and Eastern prairie fringed orchid, if you encounter a *Platanthera* sp. in the field, it is likely to be ragged orchid (*Platanthera lacera*), which is distinguished from the other orchids in the genus by the combination of four additional characteristics: (d) a 3-lobed lip with lobes deeply cut or fringed, (e) petals and sepals white to greenish white, (f) petals linear to oblanceolate rather than obovate to spatulate, and (g) spur 8-17 mm long rather than 20-55 mm long. But you don't want to look just anytime or anywhere. Ragged orchid is most likely found while flowering or fruiting, typically between May and August. George Yatskievych¹



reports that “it is most commonly encountered in prairies of the Unglaciated Plains Divisions, but can also be found in other parts of the state”.

Its distribution across the Eastern U.S. in prairies, open woods, and pastures² makes it possible to encounter ragged orchid outside of Missouri. However, I recommend starting next door at the Bradford Research Center.

—Judy Ward

Figure 1. Distinguishing characteristics of ragged orchid. Characteristics a-c distinguish it as a *Platanthera*. Characteristics d-g distinguish it as a *Platanthera lacera*.

Botanical illustrations and Missouri distribution map, modified to include Boone County, from “Steyermark’s Flora of Missouri” with permission from author.

¹ Yatskievych, George. 1999. Steyermark’s Flora of Missouri, Volume 1. The Missouri Department of Conservation in cooperation with The Missouri Botanical Garden Press.

² Missouriplants.com. Website visited July 27, 2005. http://www.missouriplants.com/Whitealt/Platanthera_lacera_page.html

³ Orchids of Wisconsin. Website visited July 27, 2005. <http://www.botany.wisc.edu/Orchids/lacera.html>.

⁴ Zomlefer, Wendy. 1994. Guide to Flowering Plant Families. The University of North Carolina Press.

Treasurer's Report

By Sandra Kubal

Balance June 1, 2005	3142.69
Deposit (dues)	164.00
Bradford Farm	425.00
Expenses	
State meeting	167.03
State dues	30.00
Newsletter	9.55
Bradford Farm cash	100.00
Ending balance	3425.11



Photo by Nadia Navarrete-Tindall. June 1, 2005.



MEMBERSHIP FORM Missouri Native Plant Society—Hawthorn Chapter

July 1 through June 30.

Name _____

Address _____

Phone: Evening

Day _____

Email: _____

Includes both Chapter and State dues.

Make check payable to Missouri Native Plant Society.

Send check and this form to:

Sandra Kubal
2426 Highway 124
Fayette, MO 65248

___ Student (\$11.00) ___ Regular (\$16.00)
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