

vastness of time, represented today by these humble, diminutive forms – extant members of an ancient group hiding in the nooks and crannies of the modern flora. I don't know whether the recent appearance of *L. digitatum* in the Ozark Highlands is a result of the anthropogenic changes brought upon the area in recent years, but given its ancient, relictual qualities, it is one change in the flora of Missouri that I do not mind.

#### REFERENCES:

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## Ozark Witch Hazel along the Ozark Trail<sup>1</sup>

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By Ted C. MacRae



Spring is beginning its “march” across the nation, and in typical fashion the month started out with the promise of pleasant weather but is throwing a few tantrums before giving way to April. For most folks in the lower Midwest, spring began a week or so ago when daffodils began popping up from nowhere and dotting the suburban and semirural

landscapes with their yellow smiles. Forsythia are also set to burst forth, their appearance temporarily put on hold by this latest cold/wet snap, but when they do most people here will be satisfied that spring has finally come. For me, spring comes much earlier, and it's not planted ornamentals that mark its beginning, but native trees. Silver maples (*Acer saccharinum*) and American elms (*Ulmus americana*) are first, bursting open in the very first warm days of early March. These are followed by the sugar maples (*A. saccharum*) and red maples (*A. rubrum*) that are in full bloom now, which will themselves give way to the redbuds (*Cercis canadensis*) and serviceberrys (*Amelanchier arborea*) that will close out the month before flowering dogwood (*Cornus florida*) dominates the area's understories in April.

There is one tree in this part of the country, however, that shows its amazing blooms in January and February while winter's grip is still strong. Ozark witch hazel (*Hamamelis vernalis*) is restricted to the Ozark Highlands of Missouri and Arkansas, where it grows along the rocky creeks and streams that dissect this ancient landscape. I have long wanted to see its striking blooms, but despite my many wintertime hikes throughout the Ozarks, I have never found myself in the right place at the right time – until a few weeks ago when I hiked the Mina Sauk Trail at [Taum Sauk Mountain State Park](#). I found these plants growing below Mina Sauk Falls and along Taum Sauk Creek below, and even though it was the first weekend of March (and the very first warm day of the season), many of the plants had already passed their peak bloom. Fortunately, I was able to find these several plants with flowers still in good shape.



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<sup>1</sup> Reprinted from an article posted March 26, 2010 on the author's website: <http://beetlesinthebush.wordpress.com>. All photos by the author.

There is only one other species in the genus – eastern witch hazel (*Hamamelis virginiana*). Although distributed widely across eastern North America, it is restricted in Missouri to these same St. Francois Mountains where I saw *H. vernalis*. The two species are very similar by the characteristics of their foliage but can be easily distinguished by floral characters. *Hamamelis virginiana* blooms in fall rather than winter, and its flowers, while nearly twice the size, rarely show the amount of red on the inner calyx that is seen in this species. *Hamamelis vernalis* flowers are also quite fragrant; having what has been described as a “vanilla” scent. The photographs here show the rather unusual color range of the flowers of this species, which can vary from orange to deep red to deep yellow. I suspect that flower color also changes with age, in that petals are initially deep red and later fade to yellow, as in the photo below. It’s difficult to explain why *H. vernalis* is restricted to the Ozark Highlands while *H. virginiana* occurs so broadly, but the Ozarks are a well-known refugium for a number of other plants and animals, especially Ice Age relicts.



Sitting on a rhyolite ledge overlooking Taum Sauk Creek as I ate lunch, I wondered about the pollination biology of a plant that flowers during winter. It was a warm day - certainly an unusual occurrence during the period in which this plant flowers – and even still it was too early in the season for a lot of insect activity. I watched one of the nearby plants as I ate to see what insects came to the flowers, and for a time all I saw were a couple of European honey bees. Clearly, the plant did not evolve in association with this now ubiquitous insect. I continued watching, and at last I saw a native insect visiting the flowers – a large species of hover fly (family Syrphidae),

perhaps something in the genus *Helophilus*. After taking a few more photographs (unfortunately, none of the fly), another of the same species visited the plant. Flies in general are famous for appearing during warm days in winter, and I wonder if the unusually extended bloom period of this species is intended to take advantage of those few, unpredictable days during winter when temperatures are sufficient for flies to become active.




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## Catch the buzz on bees and other pollinators.

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By *Jim Jordan*<sup>1</sup>

### **BEE PART OF POLLINATOR WEEK**

**June 21 – 27, 2010.**

Pollinators make one out of every three bites of food you eat. Buzz by the Monsanto Insectarium during National Pollinator Week to celebrate the many reasons we should be thankful for pollinators!

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### **THE POLLINATOR DINNER**

**Tuesday, June 22, 2010 6 – 9 p.m.**

Join us for a special dinner where you can sample the many foods pollinators help provide. Before dinner, sip mead and enjoy a honey tasting as you peruse tables and displays about bees and other pollinators. After dinner, enjoy a presentation on pollinators and what you can do to help them bee.

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