

snakefly specimen. Snakeflies are members of the Order *Neuroptera*, known for their wings with net-like patterns. Other members of this Order include Lacewings, Antlions, Owlflies, and Dobsonflies. Snakeflies are in the suborder *Raphidioptera* get their name from their elongated prothorax which appears like a long, snaky neck. Both the larva adult are predaceous on other insects and invertebrates. Snakeflies are western insects and not found in Missouri.

Finally, Laura Chisholm, our hostess from the Butterfly House, introduced a project in the planning stages at the Butterfly House. The Butterfly House is interested in initiating a 'Citizen Scientist' project which will monitor insects in some to be determined format. At this time the project is in the brainstorming stage, but may take the form of layed out trails at determined sites, where citizen scientists can visit and identify, enumerate, and or photograph insects. So far it may take the form of a butterfly or a pollinator count. The plan is to do these counts in urban settings. Laura was asking the WGNSS Entomology Group if they would be interested in acting as insect identifiers for the project, and also if they would be interested in joining any public education events as 'experts'. Our group agreed to help and gave Laura many suggestions of places for the 'trails' as well as questions to be answered in planning the project.



Beetle Botanists

*Ted C. MacRae*¹

While *Dicerca pugionata* (family Buprestidae) is, for me, the most exciting beetle species that I've found in Missouri associated with ninebark (*Physocarpus opulifolius*). it is not the only one. The beetles in these photographs represent *Calligrapha spiraeae*, the ninebark leaf beetle (family Chrysomelidae). Unlike *D. pugionata*, however, I almost never fail to find *C. spiraeae* on ninebark, no matter when or where I look, and whereas *D. pugionata* has been recorded in the literature

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Calligrapha spiraeae on *Physocarpus opulifolius*. Jefferson Co., Missouri.

associated with a few other host plants like alder (*Alnus* spp.) and witch-hazel (*Hamamelis virginiana*), *C. spiraeae* is not known to utilize any other plant besides ninebark as its host.

Beetles in the genus *Calligrapha* are among the most host-specific of all phytophagous beetles, with most of the 38 species in this largely northeastern North American genus relying upon a single plant genus as hosts (Gómez-Zurita 2005). The genus as a whole is fairly recognizable by its dome-like shape and black and white or red coloration, with the black markings on the elytra varying from coalesced to completely broken into small spots. The species, however, are another matter, with several groups of species that are quite difficult to distinguish morphologically. Fortunately most of them can be easily distinguished by their host plant (although such information is rarely recorded on labels attached to museum specimens). *Calligrapha spiraeae*, for example, with its reddish coloration and small black spots, looks very much like two other species in the genus—*C. rhoda* and *C. rowena*. Those latter species, however, are restricted to hazel (*Corylus*

spp.) and dogwood (*Cornus* spp.); as long as the host is known, the species can be readily identified in the field.

At this point you may be wondering why the species name refers to the plant genus *Spiraea* rather than *Physocarpus*. In fact, ninebark was already known as the host plant when Say (1826) described the species, but the name *spiraeae* was given because at the time ninebark was included in the genus *Spiraea* (Wheeler & Hoebeke 1979).

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A Classic Fall 'Bycid

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In eastern North America, autumn is the beginning of the end for most insect groups. Preparations for winter are either complete or well underway—eggs have been laid, nests have been provisioned, and larvae (hopefully) have eaten well enough to endure the long, cold months that lie ahead. But for a few insects, fall is just a beginning. Triggered by cooler temperatures, shortened daylength, and invigorating rains, adults of these insects burst forth under crisp, blue skies to feed amongst a plethora of fall flowers or prey upon other late season insects before the advancing cold, finally, forces a close to the season. As a beetle man, my favorite fall insects must be the “fall tigers” (i.e., tiger beetles) that come out in force and [zip across barren sand dunes](#) or bask on [exposed rocks of dolomite glades](#). My fall insect

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Megacyllene decora (amorpha borer). Mississippi Co., Missouri.

collecting focuses almost exclusively on these insects, since my other favorite groups (jewel beetles and longhorned beetles) are, for the most part, restricted in their adult activity to the spring and summer months and long gone by the time fall rolls around. There are, however, a few longhorned beetles that buck the normal spring/summer rule for the family, namely species in the genus *Megacyllene*. The most commonly encountered of these is *Megacyllene robiniae* (locust borer), and anyone who has examined goldenrod (genus *Solidago*) and its profuse blooms during the fall has likely encountered this familiar beetle with its narrow, alternating, zig-zag bands of black and yellow.³ I have seen this species many times and in many places; however, I still always enjoy seeing it anew in the field each fall—perhaps as some sort of confirmation that the fall season truly has arrived.

Another species in the genus that is far less commonly encountered, however, is *Megacyllene decora* (amorpha borer). I have encountered this stunningly beautiful species in only a handful of locations in Missouri (MacRae 1994)—all where stands of its larval host plant, *Amorpha fruticosa* (false indigo), grow in association with goldenrod and snakeroot (genus *Eupatorium*). These sites are primarily in the big river valleys of the state (Missouri and Mississippi Rivers), although I have found at least one site in the prairies of west central Missouri. Earlier this summer while traveling through the southeastern lowlands of

³ If you see a “locust borer” in the spring, it is actually the closely related *Megacyllene caryae* (hickory borer), while further west in the Great Plains during fall you might find *Megacyllene comanchei*.