



Phacelia purshii (Miami mist) | Sam A. Baker State Park, Wayne Co., Missouri. Photo by Ted C. MacRae.

noted at his Missouriplants.com website that the species is limited in Missouri to the extreme eastern portions of the state—the plant shown here was one of several I saw in rich, bottomland forest along Big Creek at Sam A. Baker State Park in Missouri’s southeastern Ozark Highlands.

This particular woods is one of the richest I’ve seen in the state, and in the past two years I’ve featured a number of interesting plants (*Phlox bifida* and *Tradescantia longipes*), invertebrates (*Drosophila* sp., *Magacicada* sp., *Calosoma scrutator*, *Pleurolooma flavipes*, *Graphisurus triangulifer*, *G. fasciatus*, *Arrhenodes minutus*, *Neoclytus scutellaris*, *Corydalus cornutus* and *Panorpus belena*) and even snakes (*Crotalus horridus* and *Agkistrodon contortrix phaeogaster*) from there. This year marks the third consecutive birthday that I’ve visited these woods, and since I’ve found something I’ve never seen before each time (hint: just wait till you see what I still have coming from there!), I have a feeling the trend will continue next year as well.



Tiger Beetles in Southeast Missouri

Ted C. MacRae³

Volume 43(3) of the journal *CICINDELA* was published a few weeks ago, and I can truly lay more claim to the issue than anybody else (except perhaps Managing Editor Ron Huber). In addition to having one of my photos (a face-on shot of

³ Originally posted February 17, 2012 at *Beetles in the Bush*: <http://beetlesinthebush.wordpress.com>.

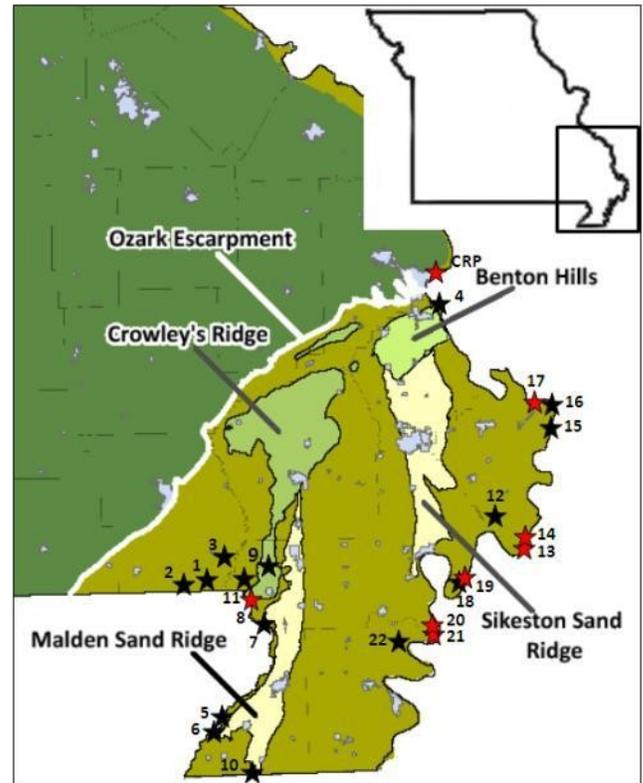


Figure 1. Sites surveyed in southeastern Missouri for *Cylindera cursitans* during 2007–2010. Site numbers are referenced in Table 1 (CRP = Cape Rock Park), with red stars indicating sites where *C. cursitans* was observed. Black box on inset map of Missouri denotes main map area (bordering states include AR to the south and TN, KY, and IL to the east).

Tetracha carolina) featured on the cover, I was coauthor on the first of two papers included in the issue and lead author on the second. (And to complete my stamp of ownership, I did the final assembly of the issue as the journal’s Layout Editor.) The two included papers each report the results of surveys conducted in the Mississippi Alluvial Plain of southeastern Missouri (also called the “bootheel” in reference to its shape—see Fig. 1) for tiger beetles whose occurrence in that part of the state was previously not well known. In the first, Fothergill et al. (2011) used a novel survey technique that involved searching beneath irrigation polypipe in agricultural fields to find *Tetracha carolina* (Carolina Metallic Tiger Beetle); while the second paper (MacRae et al. 2011) reports the results of a multi-year survey to characterize the distribution, habitat associations and conservation status of *Cylindera cursitans* (Antlike Tiger Beetle). Together with our three papers on *Habroscelimorpha circumpicta johnsonii* (Saline Spring Spring Tiger Beetle), *Dromochorus pruina* (Loamy Ground Tiger Beetle) and *Cylindera celeripes*



Figure 2. *Cylindera cursitans* in southeast Missouri: a) New Madrid Co., Girvin Memorial Conservation Area, 6.vii.2007; b-c) Mississippi Co., Dorena Ferry Landing, 6.vii.2008; d) Mississippi Co., Hwy 60 at Mississippi River bridge, 20.vi.2009. Photos by Christopher R. Brown (a) and Ted C. MacRae (b-d).

(Swift Tiger Beetle)—all published in the past year—these two papers officially complete the battery of publications that describe our survey efforts for the five tiger beetle species considered of potential conservation concern in Missouri when Chris Brown and I began our faunal studies of the group more than ten years ago.

The first three papers clearly painted a rather gloomy picture—*H. circumpecta johnsonii* is possibly extirpated from saline spring habitats in central Missouri, *D. pruinina* is limited to a 2.5 mile stretch of roadside habitat in western Missouri, and *C. celeripes* is restricted to a few patches of critically imperiled loess hill prairie habitat in extreme northwestern Missouri. Happily, prospects for *T. carolina* and *C. cursitans* in Missouri are much better. While both are limited in the state to the southeastern lowlands, our surveys indicated that populations are sufficiently robust and widespread in the area to alleviate any concerns about the potential for extirpation. *Tetracha carolina* in particular was found abundantly in agricultural habitats and appears to have adapted well to the extensive modifications caused by conversion of

the cypress-tupelo swamps that formerly covered the region. *Cylindera cursitans* (Fig. 2) hasn't shown nearly the same adaptive capability as *T. carolina*; however, it has nevertheless found suitable refuge in the ribbons of wet, bottomland forest that persist between the Mississippi River and the levee systems that protect the region's farmland. For a time it seemed that the same habitats along the St. Francois River that bound the western side of the region weren't suitable for the species, but after much searching (in often tough conditions!) Kent finally managed to locate a population on the Missouri side of the river opposite a [known population in Arkansas](#).

Both of these species illustrate how healthy populations of insects are able to hide right beneath our noses. Previous to our surveys, records of *T. carolina* and *C. cursitans* in southeastern Missouri were scarce (the latter consisting of a single specimen in the Enns Entomology Museum at the University of Missouri in Columbia, and with considerable searching required before the first field population was finally located). In both cases, perceived rarity was

a result not of actual rarity, but rather specific habitat requirement or unusual behavior. While I get great satisfaction out of finding populations of “rare” species and increasing our understanding of their habitat requirements, I also can’t help but wonder if they truly are rare and how many populations I might still have missed—populations that I would have found had I searched in a slightly different manner or at a slightly different time.

REFERENCES:

[Fothergill, K., C. B. Cross, K. V. Tindall, T. C. MacRae and C. R. Brown. 2011.](#) *Tetracha carolina* L. (Coleoptera: Cicindelidae) associated with polypipe irrigation systems in southeastern Missouri agricultural lands. *CICINDELA* 43(3):45–58.

[MacRae, T. C., C. R. Brown and K. Fothergill. 2011.](#) Distribution, seasonal occurrence and conservation status of *Cylindera* (s. str.) *curvitans* (LeConte) (Coleoptera: Cicindelidae) in Missouri. *CICINDELA* 43(3):59-74



Group Activity/Walk Schedules

BOTANY GROUP

Chair—George Van Brunt

- **Monday Botany Walks**, Leader—Fr. James Sullivan; now in his **45th year!** The WGNSS Botany Group visits many of the same locations as the Bird group: Busch Conservation Area, Shaw Nature Preserve, the Missouri Botanical Garden, Babler State Park and Cuivre River State Park. Learning plants will help you learn butterfly host plants. Sign up for WGNSS Botany Group emails from Jack Harris by contacting him at jahar@mac.com or (314) 368-0655 and receive an email no later than Sunday about the following Monday’s trip.

ENTOMOLOGY GROUP

Co-Chairs—Phil Koenig and Jane Walker

Monthly meetings are held September through May and normally occur on the third Monday of the month.

- **Saturday, May 19, 8:00 a.m.–3:00 p.m.** We will be taking a collecting trip to property owned by Jennifer Picker’s mother in southeastern Missouri. The property is

approximately 90 miles SOUTH of the Hwy 55 and Imperial Exit. Approximately 1 hour 45 minute drive:

- Take I-55 SOUTH into Jefferson Co.
- Just south of Festus take US 67 SOUTH.
- Continue on US 67 SOUTH ~70 miles.
- Pass Farmington, Fredericktown and Cherokee Pass exits.
- After Cherokee Pass (several miles) take Co. Rd N (on the right).
- Go ~8 miles to Co Rd 445 on the LEFT.
- On Co Rd 445 (gravel) go ~1 mile; on the left will be a gravel driveway with wagon wheels propped up against an OPEN gate, on Right will be a mail box with the name "Danny Miller."
- Take the wagon wheel drive on LEFT ~1 mile; go past a small house and barn on the right and continue forward. We will meet at the end of this NARROW gravel road.

LUNCH: Between Cherokee Pass and Hwy N is Scherer’s (sp?) General Store. This place makes AWESOME fresh sandwiches and provides probably the last ideal rest station before getting to our property.

- [\(314\) 954-0898](tel:3149540898) Jennifer Picker
- [\(314\) 825-2291](tel:3148252291) Gayle Picker
- Mobile coverage is sketchy this far out.

The property has a glade and a creek, and most of the terrain requires moderate hiking. The site is primitive as far as facilities are concerned: no shelter, no water, and no toilets. We will have maps and directions at the commuter lot. To let us know if you are coming or need more information, contact Jane Walker at (314) 965-6522 or pterisWalk9@gmail.com no later than Tuesday, May 15.

NATURE BOOK CLUB

Chair—Lisa Nansteel

The Nature Book Club is a group of naturalists who meet once a month to discuss a book chosen for its general interest from botany to zoology. The group meets at the Evangelical United Church of Christ in Webster Groves on the second Tuesday of the month from 1:30-3:00 p.m. For more information and directions contact Lisa Nansteel at (636) 391-4898. All are welcome—especially newcomers!! Upcoming books: