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**GOMPHUS FRATERNUS (ODONATA: GOMPHIDAE)
A NEW MISSOURI STATE RECORD**

Jane C. Walker¹

ABSTRACT

A male *Gomphus fraternus* (Say) (Odonata: Gomphidae) was vouchered from the Meramec River at Castlewood State Park, St. Louis, County, Missouri on 7 June 2005. The collection of this specimen is a new state record for Missouri and represents a significant range extension south and westward for this species.

Gomphus fraternus (Say) (Odonata: Gomphidae) is a medium-sized gomphid in the subgenus *Gomphurus*. A male *G. fraternus* was collected on a gravel bar on the Meramec River where it flows through Castlewood State Park, 24 miles upstream of the confluence with the Mississippi River, on 7 June, 2005 (38.5434° N, 90.5390° W). It flew low at the edge of the water ahead of the author, landing frequently.

The Meramec River is a medium-sized, undammed Ozark river with a diverse odonate fauna, particularly rich in the family Gomphidae. We have collected or observed 16 species of gomphids on this 212 mile river, including: *Dromogomphus spinosus* Selys, *D. spoliatus* (Hagen), *Erpetogomphus designatus* Hagen, *Gomphus (Gomphurus) externus* Hagen, *G. graslinellus* Walsh, *G. (Gomphurus) lineatifrons* Calvert, *G. (Gomphurus) ozarkensis* Westfall, *G. quadricolor* Walsh, *G. (Gomphurus) vastus* Walsh, *G. (Gomphurus) ventricosus* Walsh, *Hagenius brevistylus* Selys, *Ophiogomphus westfalli* Cook & Daigle, *Progomphus obscurus* (Rambur), *Stylogomphus sigmastylus* Cook & Laudermilk, *Stylurus plagiatus* (Selys), and *Stylurus spiniceps* (Walsh). This lower section of the Meramec River is low gradient with occasional shallow riffles alternating with long deeper pools. Pool substrate consists of sand-silt with widely spaced cobble; riffles are gravel-sand. Water quality is generally good, although suspended sediment is usually present after rain. Anthropogenic disturbances within this portion of the watershed include sand and gravel dredging, a large landfill immediately downstream, and urban development.

The Missouri collection of *G. fraternus* represents a major range extension south and westward. Donnelly (2004) maps the range of this species from northern Iowa and Illinois north into Manitoba, east through Ontario and Quebec to Maine, south to North Carolina and westward to Tennessee. Based on the number of county records, it appears to be most abundant in northern Iowa, Minnesota, Wisconsin, Michigan, Indiana, Ohio, and Kentucky (Donnelly 2004). Legler, Legler and Westover 1998 (Wisconsin), Curry 2001 (Indiana), and Glotzhober and McShaffrey 2002 (Ohio), all list *G. fraternus* as common. One specimen of *G. fraternus* from Greene County and housed at the United States National Museum, was misidentified and has been redetermined as *G. ozarkensis* Westfall by Dr. Sidney W. Dunkle (in litt.). Review of earlier collections in Missouri (Williamson 1932; Needham and Westfall 1954) show no records of *G. fraternus*. Donnelly (2004) and Dunkle (2000) also do not list records of *G. fraternus*. Montgomery (1967) and Needham, Westfall, and May (2000) do list *G. fraternus* as occurring in Missouri, but give no further data.

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