

Notes and Records of Indiana Odonata, 1951-1952

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Records of 834 specimens of Odonata taken in Indiana during 1951 and 1952, or collected earlier but not studied until this time, have been tabulated. These records furnish a considerable addition to our knowledge of the dragonfly fauna of the state. Sixty-eight species, two of which were previously unknown from Indiana, are represented in the collections. These two additions bring the state list of Odonata to 146 species.

Records of rare species, new or interesting observations of other species and counties in which a species was found for the first time are included in the following list. The numbers of Williamson's 1917 list (3) and later interpolations in the author's "Records of Indiana Dragonflies" (1) and more recent "Notes" (2) are used. The species new to the state list are starred (*).

3. *Calopteryx maculatum* (Beauvais). Clinton, Howard.

4. *Hetaerina americana* (Fabricius). Clark.

5. *H. titia* (Drury). Elkhart.

5a. *Archilestes grandis* (Rambur). This species was first found east of the Mississippi River at Oxford, Ohio, in 1927, by the late E. B. Williamson (4). It has since been taken in several central and eastern states, until its range is known to extend, at least, to Pennsylvania and North Carolina. The only previous record for Indiana is based on a single specimen taken along Hannah Creek, near Liberty, in Union County, October 6, 1940. Extensive search at this locality on September 13, 1952, yielded no evidence of this species and few other dragonflies (a male of *C. maculatum*, and one female each of *Argia violacea* and *Enallagma civile*) along the creek, although individuals of *Anax junius* were rather abundant in the tall vegetation bordering the wooded creek banks. There was no flow of water in the creek at that time, but there were occasional pools in the creek bed which is rock-bottomed, and from 10 to 40 feet wide. However, a colony of *A. grandis* was discovered along a tributary of the creek. This streamlet has a rock bottom, is two to four feet wide and there was a flow of water of slight depth. A total of 19 males and two females, including one mating pair, were taken along the small stream within 100 yards of its confluence with Hannah Creek.

11. *Lestes rectangularis* Say. Clinton, Fulton.

15. *Argia apicalis* (Say). Howard.

20. *A. violacea* (Hagen). Scott.

21. *Enallagma antennatum* (Say). Scott.

22a. *E. basidens* Calvert. Tippecanoe.

24. *E. carunculatum* Morse. Fulton.

25. *E. civile* (Hagen). Fulton, Union.

33. *E. vesperum* Calvert. Starke.

43. *Ischnura verticalis* (Say). Scott.

52a. *Gomphus amnicola* Walsh. Tippecanoe: Wabash River, near Lafayette, August 3, 1952, 1 ♀; Tippecanoe River, near Hog Point bridge,

July 6, 1952, 8♂6♀, July 20, 16♂9♀, August 3, 7♂3♀, August 4, 2♂3♀, none were found September 7. Most of these specimens were taken in the strip of vegetation, two to five feet high, and a few feet wide on the river bank and forming the margin along a corn field. A few were taken in similar vegetation on the slope of the bank, some 8 to 15 feet high, rising from near water level two to five rods from the river proper. The margin within this bank is rather level and is open and bare of low vegetation but shaded by trees and bushes. Four other species of Gomphidae were also taken, all in July—*G. plagiatus*, *G. vastus*, *G. ventricosus* and *Dromogomphus spinosus*. Other common Odonata, including *Calopteryx maculatum*, three species each of *Argia* and *Enallagma*, *Ischnura verticalis*, *Plathemis lydia*, and *Erythemis simplicicollis* were present in July and August; *Sympetrum rubicundulum* was common July 6, but was not found later. On September 7 only one specimen each of *Argia sedula*, *Enallagma basidens* and *Macromia illinoiensis* were taken although additional individuals of *Macromia* were seen.

58. *G. graslinellus* Walsh. Scott.

70. *Boyeria vinosa* (Say). Clinton.

93a. **Somatochlora hineana* Williamson. A male of this species, collected at Gary, June 22, 1945, was presented to me by the collector, William Kowlek. This species has been known previously only from the type series of seven specimens (3♂4♀), all collected along the North Fork of Little Miami River, near Indian Lake, Logan County, Ohio, in June, 1929, and July, 1930 (5).

95. *S. tenebrosa* (Say). Tippecanoe, near Wabash River: July 12, 1952, 1♀, flying over a lawn at dusk, and September 5, 1952, 1♂, "hawking" over swampy area in meadow, about 12 and 3 miles, respectively, west of West Lafayette.

*96a. **Ladona deplanata* (Rambur). Clark: Schlamm Lake, June 6, 1952, 4♂2♀; Francke Lake, June 7, 1952, 2♀. This is a southeastern species, previously known as an Atlantic Coastal form, ranging from New Jersey to Florida. Records in the literature are somewhat confused because of a question of the exact systematic relationship or distinctness of the three described species—*deplanata*, *exusta* (Say) and *julia* (Uhler). Numerous individuals were present at both lakes, fluttering over bare areas along the shore, and alighting on the bare ground in a manner reminiscent of *Plathemis lydia*, although less active than the latter species, and not inclined to race along the lake margin.

103. *Holotania vibrans* (Fabricius). Clark: stream course in State Forest, June 7, 1952, 2♂. Five additional specimens were taken in the Forest and presented to me by students at the Purdue University Summer Forestry Camp—July 21, 1♂; July 27, 1♂; July 29, 1♂1♀; August 1, 1♂.

107. *Erythemis simplicicollis* (Say). Starke.

110. *Sympetrum internum* Montgomery. Fulton: Lake Manitou, September 11, 1952, 1♂. The great abundance of this, previously extremely rare, species at Hadley's Lake in Tippecanoe County in 1943 and 1944 has been recorded (2). Few individuals of the genus and none of *internum* have been found at this locality since 1944 until 1952. With the discovery of the genus in fair numbers in 1952 a series of observations

and collections were made at the lake to determine the relative abundance of the different species. The results are given in the following table.

	July 20	Sept. 7	Sept. 21	Sept. 28	Oct. 12	Oct. 19
<i>ambiguum</i>		4 ♂ 1 ♀				
<i>internum</i>			16 ♂ 4 ♀	46 ♂ 1 ♀	1 ♂	
<i>obtrusum</i>			1 ♂	7 ♂	4 ♂	1 ♀
<i>rubicundulum</i>	2 ♂	2 ♂ 2 ♀	2 ♂	5 ♂		
<i>vicinum</i>			7 ♂		1 ♀	

No Odonata were seen on October 5, when the weather was very unfavorable—strong wind and low temperature. Other Odonata were not common at the lake, with the exception of *Ischnura verticalis*, *Perithemis tenera* and *Plathemis lydia* during July and September; *Enallagma civile* was abundant in September and *Aeshna constricta* was present on September 21 and 28. On October 12 the Odonata seen in addition to the six specimens of *Sympetrum* were a male each of *A. constricta* and *Lestes congener*. The specimen of *obtrusum* taken was the only dragonfly seen October 19. One male of *S. internum* was taken on the campus of Purdue University, September 30. Species of *Sympetrum* were also studied at a swampy area in a meadow near West Lafayette and about five miles distant from Hadley's Lake. On September 5, collections consisted of 2 ♂ of *rubicundulum* and 9 ♂ 1 ♀ of *semicinctorum*, on September 30, 15 ♂ of *obtrusum* and 2 ♂ of *rubicundulum*.

112. *S. rubicundulum* (Say). Clinton, Fulton, Starke.

114. *S. vicinum* (Hagen). Fulton.

119. *Celithemis eponina* (Drury). Fulton.

121. *Pantala flavescens* (Fabricius). Clinton.

124. *Tramea lacerata* Hagen. Fulton.

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