RECORDS OF INDIANA DRAGONFLIES-V. 1930

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These records have been compiled from a collection of about 440 specimens of dragonflies, representing 49 species, collected in Indiana during 1930. The records from the northern half of the state, except those from Tippecanoe and Warren counties, were furnished by E. B. Williamson who was assisted in the field by Norman Shufelt, Eli Captain, Z. E. Malcolm and Fred Prough. Almost all of the other records are based on collections made by Esther Barrett Montgomery and the writer. Records taken from the Student Collection at Purdue University are indicated by the initials "P.U." A few earlier records are included, and these have the year indicated—all records without indication of the year are for the 1930 season. Only records of rare species, new county records and notes on habitats or associations have been selected for publication.

Esther Barrett Montgomery and the writer visited the water supply reservoir at Oakland City, which has been described in previous papers (Montgomery, 1929, 1930) on July 1. The number of individual dragonflies present was noticeably less than in 1928 or 1929, but about the same species were found. The following species were captured: *Enallagma civile*, *E. signatum*, *Ischnura verticalis*, *Epicordulia princeps*, *Tetragoneuria cynosura*, *Libellula luctuosa*, *Perithemis tenera*, *Erythemis simplicicollis*, *Pachydiplax longipennis*, and *Celithemis clisa*. The same collectors visited Foot's Lake (Montgomery, 1929) on July7. A species of mayfly was abundant, every tree and shrub near the lake provided a resting place for hundreds, but very few dragonflies were seen. Two females of a species of Gomphus were observed ovipositing; they hovered above the surface of the water, striking the abdomen against floating spatter dock stems. Specimens of *Argia apicalis*, *Enallagma signatum*, *Ischnura posita*, *I. verticalis* and *Pachydiplax longipennis* were captured.

Mr. Williamsov also found the season poor for dragonfly collecting. On May 5 he noted, "Only *Tramea lacerata, Pachydiplax longipennis, Anax junius, Ischnura posita* and *I. verticalis* seen at Doster's Ponds (Wells County). No large species at Dunwiddie's Pond or at Vanemon Swamp. Vanemon Swamp almost dead this year." The following notes were made at Monument City (Huntington County) June 14, "1930 is a poor year Calopteryx on creek in noticeably fewer numbers compared with 1929. Along river all odonate life comparatively rare. No Cordulegasters seen at bog in 1930."

The numbers of Williamson's Indiana list (1917) are followed in this paper.

3. Agrion maculatum Beauvois. Warren Co., "High Bridge," Sept. 19.

4. Hetaerina americana Fabricius. Johnson Co., Aug. 20, 1929 (P.U.); Warren Co., "High Bridge," Sept. 19, numerous.

9. Lestes forcipatus Rambur. Cass Co., marsh along Twelve Mile Creek, May 4; Miami Co., Ditzler's Pond, June 1; Owen Co., roadside, May 24.

15. Argia apicalis Say. Gibson Co., Foote's Lake, July 7, most common species present; Lawrence Co., White River, Aug. 14 (H. O. Deay, Collector).

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21. Enallagma antennatum Say. Monroe Co., roadside pool about five miles east of Bloomington, May 24, 25 males and 12 females taken.

22. Enallagma aspersum Hagen. Miami Co., Ditzler's Pond, June 1.

25. Enallagma civile Hagen. Tippecanoe Co., gravel pit, West Lafayette, May 23 (P.U.).

27. Enallagma divagans Selys. Wells Co., Flat Creek, July 6.

38. Amphiagrion saucium Burmeister. Tippecanoe Co., West Lafayette, May 4 (P.U.).

41. Ischnura posita Hagen. Monroe Co., pond near Bloomington, May 24.

43. Ischnura verticalis Say. Miami Co., Ditzler's Pond, June 1; Monroe Co., roadside pool about five miles east of Bloomington and pond near Bloomington, May 24; Parke Co., pond along U.S. Road 41, Sept. 21.

44. Anomalagrion hastatum Say. Owen Co., roadside, May 24; Tippecanoe Co., West Lafayette, May 3 (P.U.).

45. Tachopteryx thoreyi Hagen. Huntington Co., bog, Monument City, June 14, two females. One was resting on sycamore tree from which it flew out frequently, catching moths; the other flew out from an oak and took an Argynnis. Only two seen in 1930 in Indiana.

62. *Gomphus spiniceps* Walsh. Cass Co., Eel River, one female, hanging on weeds at edge of water; dark, cloudy day—no sun anytime.

70. Boyeria vinosa Say. Huntington Co., bog, Monument City, July 20, one female.

71. Basiaeschna janata Say. Fulton Co., Tippecanoe River, north of Rochester, June 1, three males.

72. Anaxjunius Drury. Fulton Co., Tippecanoe River, north of Rochester, June 1.

78. Aeshna umbrosa Walker. Huntington Co., bog, Monument City, two males and two females July 20 and three males July 27; Tippecanoe Co., in Agricultural Building, Purdue University, Sept. 16, a male.

80. Nasiaeschna pantacantha Rambur. Noble Co., Sand Lake, June 8, several seen, one male taken.

84. *Macromia pacifica* Hagen. Wells Co., Eli Captain saw this species flying along the Wabash River, east of Bluffton, April 13.

89. Tetragoneuria cynosura Say. Gibson Co., water supply reservoir, Oakland City, July 1, one male.

93. Somatochlora ensignera Martin. Wells Co., Flat Creek, July 6, 7 and 8, one female and 49 males. (Listed as *S. charadraea* Williamson in Williamson's list, but Walker, 1925, has shown this name to be a synonym of *ensigera* Martin.)

94. Somatochlora linearis Hagen. Clark Co., Purdue Forestry Camp, State Forest, Henryville, two males June 30, one male and two females undated (P.U.); Wells Co., Flat Creek, July 6, 7 and 8, two females and 17 males; Snyder Creek, July 10, one male.

95. Somatochlora tencbrosa Say. Huntington Co., bog, Monument City, July 20, one male and one female.

100. Libellula pulchella Drury. Clark Co., Purdue Forestry Camp, State Forest, Henryville, July 12 (P.U.); Monroe Co., pond near Bloomington, May 24; Tippecanoe Co., Lafayette, May 21, 1926 (P.U.).

104. Plathemis lydia Drury. Parke Co., pond along U.S. Road 41, Sept. 21.

105. Perithemis tenera Say. Clark Co., Purdue Forestry Camp, State Forest, Henryville, July 19 (P.U.); Parke Co., pond along U.S. Road 41, Sept. 21. 115. Pachydiplax longipennis Burmeister. Clark Co., Purdue Forestry Camp, State Forest, Henryville, July 6 and 13 (P.U.); Tippecanoe Co., gravel pit, West Lafayette, May 8, 21, 23 and 24 (P.U.).

121. Pantala flavescens Fabricius. Tippecanoe Co., Lafayette, Oct. 1, 1926 (P.U.).

Literature Cited

Montgomery, B. Elwood, 1929-1930, Proc. Ind. Acad. Sci., **38**:335-343; **39**:309-314.

Walker, E. M., 1925, The North American Dragonflies of the Genus Somatochlora. Uni. Toronto Studies, Biol. Ser. 202 pp. 35 pl.

Williamson, E. B., 1917, Uni. Mich., Mus. Zool. Misc. Publ. No. 2. 12 pp 1 map.