

## RECORDS OF INDIANA COLEOPTERA. I. CICINDELIDAE

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During the past ten years the authors have collected a large number of beetles in various parts of the state. The records from these captures increase the known range of many species within the state and add some species to the state list.

As each of us now has a major interest in another group of insects and our collection of Coleoptera is being scattered we have attempted to list our captures before the records are lost. In this paper the family Cicindelidae is considered.

In several studies on Indiana insects the county has been used as a unit of recording distribution (Blatchley, 1910; Williamson, 1917). This practice is followed in this paper, but specific localities are also given if available. In addition to our own captures we have listed records from the collections at Purdue University, records sent to us by Mr. A. B. Wolcott and by Dr. V. E. Shelford, which are indicated by the initials "P.U.," "A.B.W." and "V.E.S." respectively. The specimens in the Purdue Collection (used for these records) were, with a few exceptions, collected by students in Entomology as a part of their class work; the label "Lafayette, Ind.," is prescribed for all specimens taken in Tippecanoe County and as a matter of fact, almost all are collected within a short distance from the Purdue University campus. A few specimens furnished by other collectors have been recorded and proper credit is given in each case; all other records are taken from captures by the authors. For the sake of completeness county records (without specific localities or dates) have been repeated from Blatchley, 1910, and Goldsmith, 1917; these are indicated by the initials "(B)" and "(G)," respectively.

Leng's (1920) numbers and nomenclature have been used; Blatchley's (1910) numbers are also listed, in parenthesis before the name of each species.

30 (1). *Tetracha virginica* Linn. **Crawford Co.**, (B); **Knox Co.**, (B); VII-31-1924 (B. A. Porter); **Posey Co.**, (B); VII-2-1922, two specimens VII-28-1923, VII-31-1923; **Tippecanoe Co.**, VII-3-1914, VIII-23-1929 (P.U.); **Vigo Co.**, (B). Our specimens were taken from beneath boards or piles of hay.

39b (7). *Cicindela formosa generosa* Dej. **Gibson Co.**, (G); V-4-1924, V-5-1921, V-8-1923, VI-8, 26-1923, VI-14-1925; **Knox Co.**, VI-8-1924 (B.A. Porter); **Lake Co.**, (B); Pine V-20-1895, V-28-1905, VI-3-1896 (A.B.W.); Gary VI-3-1896 (A.B.W.); Clarke Junction IX-9-1906 (A.B.W.), V-31-1906, VI-29—, VII-9— (V.E.S.); Miller VII-13-1907 (A.B.W.), V-11—, VIII-20-1906 (V.E.S.); Mineral Springs, IX-1, 2-1925; **Laporte Co.**, (B); **Perry Co.**, (B); **Porter Co.**, (B); **Posey Co.**, (B); IX-15-1923; **Tippecanoe Co.**, V-4, 26-1930, IX-21-1925, (P.U.); **Vigo Co.**, (B). We have taken this species in considerable numbers at various times in Gibson and Posey counties; it was found by the hundreds on sandy soil with sparse vegetation on the south and west slopes of a hill about three miles north of Poseyville.

42 (6). *Cicindela purpurea* Oliv. **Crawford Co.**, IX-8-1902 (A.B.W.); **Perry Co.**, (G); **Pike Co.**, (G); **Posey Co.**, New Harmony IV-16-1908 (A.B.W.); V-6-1923.

48 (9). *Cicindela ancocisconensis* Harr. **Dubois Co.**, (G); **Fountain Co.**, (G); **Fulton Co.**, (B); **Kosciusko Co.**, (G); **Lake Co.**, ("One of the Chicago collectors has taken a specimen at Hammond"—A. B. Wolcott, in litt., September 23, 1924); **Miami Co.**, (G); **Monroe Co.**, (G); **Newton Co.**, (G).

49 (11). *Cicindela duodecimguttata* Dej. **Cass Co.**, Mud Creek, near Hoover, V-4-1930; **Fulton Co.**, (B); **Gibson Co.**, V-29-1927; **Lake Co.**, (B); Pine, V-27-1906, VI-16-1907 (A.B.W.); Miller, V-30-1906 (A.B.W.); Mineral Springs, IX-2-1925; **Posey Co.**, (B); IV-3-1921, IV-29-1922, V-5-1924, VI-26-1923, VII-3-1923; **Starke Co.**, (B); **Tippecanoe Co.**, V-30-1926, VI-1-1926 (P.U.); X-12, 19-1924; **Vigo Co.**, (B). We have taken this species in several localities but have not found it as frequent nor as numerous as the related *C. repanda*.

50 (10). *Cicindela repanda* Dej. Blatchley lists this species as "Throughout the state; frequent," Goldsmith found it in 18 counties scattered over the state. Wolcott and Shelford have numerous records from **Lake County** and the latter a record from **Wells County**, VI-17-1902. The Purdue Collection contains numerous specimens collected in **Tippecanoe County** from April 5 to October 10. We have found it common in **Adams, Cass, Gibson, Lake, Tippecanoe and Posey Counties**.

51 (12). *Cicindela hirticollis* Say. **Lake Co.**, (B). Wolcott and Shelford have several records from this county also; Shelford has contributed these observations: VII-6-1906, "Larvae in first and last stages;" VII-23-1906, "after severe storm saw five larvae crawling on beach in 1/16 mile;" V-28-1907, "larvae found on top of dunes two days after heavy rain."

53 (8). *Cicindela tranquebarica* Hbst. Blatchley says, "Throughout the state; common," **Dubois Co.**, (G); **Gibson Co.**, (G); V-1-1922, V-4-1924, V-29-1927, VI-8-1925; **Knox Co.**, V-18, 27-1924; **Lake Co.**, Clarke, VI-4-1905 (A.B.W.); Clarke Junction, IX-9-1906, (A.B.W.); several records from Buffington, Pine and Clarke Junction from April 17 to September 23 (V.E.S.); **Monroe Co.**, (G); **Perry Co.**, (G); **Pike Co.**, (G); **Posey Co.**, New Harmony, VII-11-1908 (A.B.W.); two specimens, "roadside" III-20-1921, IV-30-1922, V-3-1923, V-6-1922, VI-6-1925, VI-22-1923; **Spencer Co.**, (G).

68a (3). *Cicindela scutellaris lecontei* Hald. **Gibson Co.**, IV-30-1922, V-4-1924; **Knox Co.**, Vincennes, VI-5-1924, VII-13-1924; Decker, VI-16-1924; **Lake Co.**, (B); Hessville, V-1-1904, IX-22-1907 (A.B.W.); Pine V-21-1905 (A.B.W.); Clarke Junction IX-9-1906 (A.B.W.); Gary VI-3-1906 (A.B.W.); numerous records from Miller, Clarke, Pine, Clarke Junction, East Chicago, Chesterton, Porter (V.E.S.); Mineral Springs, IX-1, 2, 4-1925; **Porter Co.**, (B); **Posey Co.**, VI-14-1925; **Tippecanoe Co.**, IX-15-1930. We have found this species associated with *C. formosa generosa* on the slope of the hill described in the discussion of that species above. The white markings are quite extensive in all our specimens from Mineral Springs, even a wide marginal white band in some specimens. The specimens from Gibson, Knox and Posey counties have the white markings much reduced, only a narrow apical lunule and a marginal dot being present in some specimens.

69 (4). *Cicindela sexguttata* Fab. "Throughout the state; frequent"—Blatchley. **Dubois Co.**, Huntingburg, V-9-1908 (A.B.W.); **Gibson Co.**, V-29-1927; **Knox Co.**, VI-1-1924; **Kosciusko Co.**, (G); Winona Lake (R. Voris); **Lake Co.**, Hessville V-30-1910 (A.B.W.); **Laporte Co.**, Otis (V.E.S.); **Lawrence Co.**, Bedford, VI-16-1927 (L. F. Steiner); **Monroe Co.**, (G); (R. Voris); V-24-1930; **Orange Co.**, (G); **Perry Co.**, (G); **Posey Co.**, "Grand Chain" IV-25-1905

(A.B.W.); many records from April 3 to May 13; **Porter Co.**, Suman, VI-15—, VIII-6—; Wheeler V-21-1908 (V.E.S.); **Spencer Co.**, (G); **Tippecanoe Co.**, many specimens in Purdue Collection, March 7 to May 30, one specimen XI-1-1925; **Wells Co.**, IV-28-1901, VI-1-1902 (V.E.S.).

70 (5). *Cicindela patruela* Dej. **Lake Co.**, (B); Hessville, V-30-1912 (A.B.W.); Mineral Springs IX-2, 4-1925; **Lawrence Co.**, (B); **Starke Co.**, North Judson V-24-1911 (A.B.W.); **Tippecanoe Co.**, IX-22-1923 (P.U.).

74 (13). *Cicindela punctulata* Oliv. "Throughout the state; one of the most common and widely distributed of tiger beetles,"—Blatchley. Goldsmith recorded it from 11 scattered counties. We have taken this species in **Gibson, Knox, Lake, Posey** and **Tippecanoe Counties**. The Purdue Collection contains numerous specimens from **Tippecanoe County**, July 4 to October 20, and one specimen from Bedford, **Lawrence County**, VIII-5-1927 (L. F. Steiner).

81 (6). *Cicindela rufiventris* Dej. **Crawford Co.**, (B); VI-26, 29-1902, VII-1-1902 (A.B.W.); **Tippecanoe Co.**, a specimen in Purdue Collection bears the label "Lafayette, Ind."

\*91 (—). *Cicindela celeripes* Lec. **Posey Co.**, Big Creek, about two miles from Wabash River, VI-29-1923, fifteen specimens; Black River creek, two and one half miles north of Poseyville, VII-31-1924, one specimen. This species new to the state, was found on moist, bare soil near the streams.

93 (2). *Cicindela unipunctata* Fab. "Southern half of state"—Blatchley. **Crawford Co.**, (B); VI-26-1902 (A.B.W.); **Gibson Co.**, ravine at Foote's Lake hills, VII-17-1925; **Posey Co.**, (B); **Putnam Co.**, (B); **Tippecanoe Co.**, IV-22-1923, V-7-1929, V-10-1930, V-19-1922, V-22-1930 (P.U.); **Vigo Co.**, (B).

108 (14). *Cicindela cuprescens* Lec. **Posey Co.**, VIII-12-1927; near Poseyville, attracted to lighted window at night, VII-3-1923; along Black River creek, VII-7-1923; **Putnam Co.**, (B); VII-5-1901 (A.B.W.).

108a (14). *Cicindela cuprescens macra* Lec. **Lake Co.**, (B); Pine, VII-23-1905 (A.B.W.); **Porter Co.**, (B).

110 (15). *Cicindela lepida* Dej. **Lake Co.**, (B); Pine, VIII-6-1905 (A.B.W.); Miller, VII-9—, X-20—, (V.E.S.); Clarke Junction, V-18—, V-29— (V.E.S.); **Porter Co.**, (B).

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