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**ENALLAGMA BASIDENS (ODONATA: COENAGRIONIDAE)
EXPANDS ITS RANGE INTO MICHIGAN**

Mark F. O'Brien¹

ABSTRACT

Enallagma basidens Calvert, a small bluet damselfly, has been expanding its range across North America since the early part of this century. It is now recorded from two widely-separated localities in the lower peninsula of Michigan.

Enallagma basidens Calvert is a small bluet damselfly which has been documented as expanding its range into the Great Lakes region and into northeastern North America (Cannings 1989, Westfall and May 1996). It was not previously listed from Michigan, (Kormondy 1958, 1962; Montgomery 1967), and the following records represent the first known localities for this species in Michigan. All specimens listed below are deposited in the Univ. of Michigan Museum of Zoology.

LENAWEE CO.: [near Tecumseh, "Ives Road Fen"] Twp. 6S, Rge. 4E, Sec. 3, 10 & 15., 1 July 1993 (2♂, 1♀), [coll. by MI-TNC] (specimens bear the following Michigan Odonata Survey Catalog numbers: MOS#0006006, #0006187, #0006530); 9 Aug. 1993, 1♀ [MI-TNC] (MOS#0006944); 1 July 1997, 1♂, (MOS#0010953), 1♀ (MOS#0010755) (in tandem) Field no. MIFO970701-1, 2, Keith Summerville, coll.

TUSCOLA CO.: Caro, River Park, near small pond, Twp.12N, Rge. 9E, Sec. 10. 25 Aug. 1997, M. F. O'Brien coll., 1♂, (MOS#0025290).

This small (21–28 mm) *Enallagma* is quite distinctive, as the black humeral stripe on the thorax is divided for nearly the entire length, and this feature can be easily seen with a hand lens (Figure 1). Although this species is reputed to be a weak flier (Westfall and May 1996), it is apparently extending its range fairly rapidly (Cannings 1989). *Enallagma basidens* was recorded from southwestern Ohio as early as 1937, and has since spread throughout that state and is quite common (Glotzhober 1995). Its spread through Indiana since 1929 (Montgomery 1932) has been documented by the efforts of B.E. Montgomery (1932, 1934, 1935, 1937, 1941, 1950, 1953, 1955, 1966). Cannings (1989) provides a summary of the spread of *E. basidens* across North America. Its presence in Michigan may have gone undetected for several years, as the species was reported from southwestern Ontario (Pelee Is. and near Windsor) as early as 1985 (Cannings 1989). Populations could have spread into Michigan from the south-bordering states, as *E. basidens* was present in Lucas Co., OH since at least 1973 (Glotzhober 1995). It

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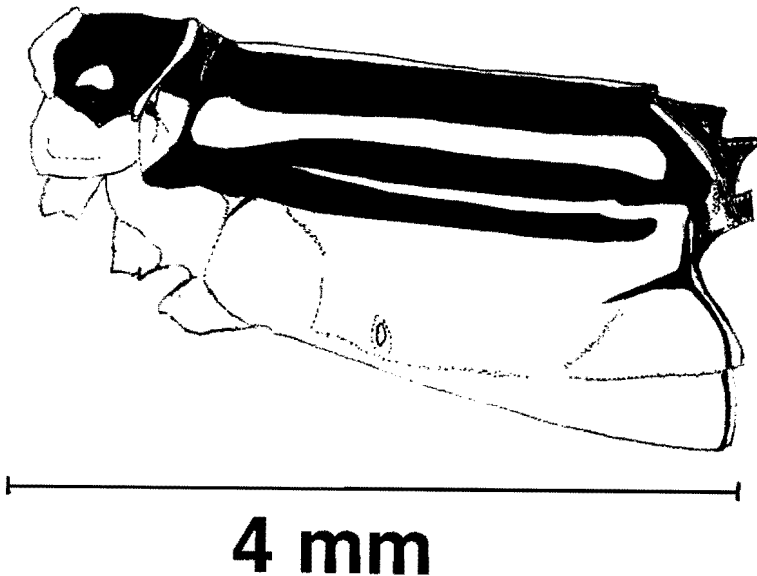


Fig. 1. Lateral view of a male *Enallagma basidens* thorax, showing the divided humeral stripe (anterior end is to the left).

reached New York as early as 1989 (Donnelly 1992) and is also now found in Connecticut (T. W. Donnelly, pers. comm.).

Enallagma basidens is found around ponds (permanent and semi-permanent), sheltered backwaters, artificial impoundments and slow stretches of streams (Cannings 1989, Westfall and May 1996). Although disturbed aquatic habitats seem to be favored, the initial New York locality was a rather pristine pond in a terminal moraine in central New York (Donnelly, pers. comm.). Fens and seeps are not listed as its habitat. Perhaps this versatility has enhanced its spread, since anthropogenic disturbances often result in small ponds and temporary pools. The pond at River Park in Caro, MI was a relatively shallow pond that was fed from a small drainage area which then drained into the Cass River. Associated Zygoptera were *Enallagma civile* (Hagen), *E. exsulans* (Hagen) (in the nearby Cass R.), *Ischnura verticalis* (Say), *Argia fumipennis violacea* (Hagen), *Argia apicalis* (Say) (also Cass R.) and *Calopteryx maculata* (Beauv.).

Further collecting efforts in disturbed areas such as quarry ponds, reservoirs, drainage ditches, and other artificial impoundments should turn up more records of *E. basidens* in the southern Lower Peninsula of Michigan.

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LITERATURE CITED

- Cannings, R. A. 1989. *Enallagma basidens* Calvert, a dragonfly new to Canada, with notes on the expansion of its range in North America (Zygoptera: Coenagrionidae). *Notulae Odonatologicae* 3(4):53-55.
- Donnelly, T. W. 1992. The Odonata of New York. *Bull. of Amer. Odonatology*, 1(1): 1-27.
- Glotzhober, R. C. 1995. The Odonata of Ohio—A preliminary report. *Bull. of Amer. Odonatology*, 3(1):1-30.
- Kormondy, E. J. 1958. A catalogue of the Odonata of Michigan. Misc. Publ. Museum of Zoology, Univ. of Michigan. 104:1-43.
- Kormondy, E. J. 1962. New records of Michigan Odonata. *Entomol. News* 73:191-194.
- Montgomery, B.E. 1932. Records of Indiana Dragonflies, VI, 1931. *Proc. Ind. Acad. Sci.* 41: 449-454.
- . 1934. Records of Indiana dragonflies—VII, 1932-1933. *Proc. Ind. Acad. Sci.* 43:211-217.
- . 1935. Records of Indiana dragonflies, VIII, 1934. *Proc. Ind. Acad. Sci.* 44:231-235.
- . 1937. Records of Indiana dragonflies, IX, 1935-1936. *Proc. Ind. Acad. Sci.* 46:203-210.
- . 1941. Records of Indiana dragonflies, X, 1937-1940. *Proc. Ind. Acad. Sci.* 50:231-235.
- . 1950. Notes and records of Indiana Odonata—1941-1950. *Proc. Ind. Acad. Sci.* 60:205-210.
- . 1953. Notes and records of Indiana Odonata—1951-1952. *Proc. Ind. Acad. Sci.* 62:200-202.
- . 1955. Notes and records of Indiana Odonata—1953-54. *Proc. Ind. Acad. Sci.* 64:131-135.
- . 1966. Distribution of Odonata. pp. 348-350. *In*: Chandler, L. The origin and composition of the insect fauna. Chapt. 20., Natural features of Indiana. Indiana Acad. Sci. Indianapolis.
- . 1967. The distribution of Odonata in the North Central States. *Proc. North Central Br. Entomol. Soc. America.* 22:121-129.
- Westfall, M. J., Jr. and M. L. May. 1996. Damselflies of North America. Scientific Publishers, Gainesville, FL, 650 pp.