

## BRIEF NOTE

# Odonata Records for Northwest Ohio<sup>1</sup>

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**ABSTRACT.** *Ischnura kellicotti*, the lilypad forktail damselfly, was found on 3 July 1992 at the Mud Lake Bog Nature Preserve, Williams County, OH. This is the first recorded collection/identification for this species in Ohio. Additionally, eight dragonfly species collected in four counties and seven damselfly species collected in four counties comprise 18 Odonata county records for northwest Ohio.

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## INTRODUCTION

The *Ohio Odonata Survey*, coordinated by Robert C. Glotzhober, Assistant Curator of Natural History at the Ohio Historical Society, is an effort to report the current distribution of Odonata in Ohio. From distribution data, recommendations will be made to the Ohio Department of Natural Resources regarding species that should be considered endangered or threatened and the identification of critical Odonata habitat. The aquatic larval stage, characteristic of the order Odonata, inherently ties dragonflies and damselflies to wetlands. Therefore, Odonata that merit inclusion on an endangered species list will ultimately protect the wetlands they inhabit. Because Odonata are predators of mosquitoes, midges, gnats, and other smaller insects, they are important as biological controls. Dragonflies in particular are important in the biological control of mosquitoes (Needham and Westfall 1955), and have even earned protection under a conservation act which prohibits collecting in Germany (Bechly 1992). Long range goals of the *Ohio Odonata Survey* are, therefore, the conservation of Odonata and their habitat.

Seven Odonatologists have been involved in organizing the *Ohio Odonata Survey*, including the study of dragonfly and damselfly distribution in 10 counties of northwest Ohio. The state record and county records that follow are a result of that research in northwest Ohio.

## MATERIALS AND METHODS

The single specimen later determined to be a state record for *Ischnura kellicotti* was collected with an insect net on 3 July 1992 at about 12:45 PM. It was a breezy, cool summer day, low 70s (+-23° C) with periods of mist and sprinkles. There was very little Odonata activity on Mud Lake with only two dragonfly species and one other species of damselfly noted. The field assistant for this study, L'nette Moody, had rowed into the middle of a large section of Common White Water Lilies. The scarcity of Odonata flying this day made the appearance of the damselfly noticeable as it darted and abruptly lit on lily pads. After collection, the specimen was taken to Robert C. Glotzhober, coordinator of the *Ohio Odonata Survey*, for identification assistance. Glotzhober assisted in determining the specimen to be *Ischnura kellicotti* and sent it to Thomas

W. Donnelly for identification confirmation.

The county records were all adults taken with an insect net during the summers of 1991 and 1992. Identification of the Anisoptera (dragonfly) specimens was completed with Needham and Westfall (1955). Zygoptera (damselfly) specimens were identified with Johnson and Westfall (1970), Needham and Heywood (1929), and Walker (1953). Verification and identification of some species was done by Robert C. Glotzhober.

## RESULTS

The state record was a specimen collected 3 July 1992 from Mud Lake, later confirmed to be *Ischnura kellicotti*, the lilypad forktail damselfly. The specimens constituting 12 of the county records were found in only one county each while three species were found in two counties each, for a total of 18 county records. The state record and 18 county records were entered in the *Ohio Odonata Survey* database and the 15 species comprising these records are stored in The University of Findlay Odonata collection.

## THE NEW COUNTY RECORDS OF ODONATA FROM NORTHWEST OHIO

### Anisoptera

*Gomphus villosipes* Selys; **Hancock**  
*Epitheca princeps* (Hagen); **Allen, Hancock**  
*Epitheca cynosura* (Say); **Hancock**  
*Celithemis elisa* (Hagen); **Hancock**  
*Libellula lydia* Drury; **Seneca**  
*Sympetrum vicinum* (Hagen); **Hancock**  
*Pachydiplax longipennis* (Burmeister); **Wood**  
*Pantala hymena* (Say); **Hancock** (Collected by Kathryn Noblet.)

### Zygoptera

*Lestes forcipatus* Rambur; **Hancock**  
*Lestes disjuncta australis* Walker; **Williams, Wyandot**  
(Identified by R. C. Glotzhober)  
*Argia moesta* (Hagen); **Hancock** (Identified by R. C. Glotzhober)  
*Enallagma signatum* (Hagen); **Hancock**  
*Enallagma antennatum* (Say); **Hancock**  
*Enallagma traviatum westfalli* Donnelly; **Defiance, Williams** (Identified by R. C. Glotzhober)  
*Ischnura kellicotti* Williamson; **Williams**

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## DISCUSSION

### State Record

*Ischnura kellicotti* is found throughout the Florida peninsula and north along the coast to Maine. It has also been recorded as far west as Oklahoma and Texas and is even considered an adventive species in Michigan. While *I. kellicotti*'s national distribution may be uncertain, its local habitat is usually definite; observed near flotillas of Yellow or White Water Lilies (Dunkle 1989).

*I. kellicotti* is an attractive damselfly with some unusual color characteristics. The newly emerged (teneral) males have yellow wings; in fact, the specimen described in this paper has opaque yellow wings. Furthermore, it is the only North American damselfly with a totally blue stigma on the upper wing surface. The thorax is bright blue with wide black stripes on the rear shoulder, the abdomen is spotted with bright blue on segments one-two and eight-nine and the head displays a pair of large blue dorsal spots. Blue markings in adults are purple on the tenerals, and cool temperatures cause the blue to fade to gray or brown for both adult sexes. Moreover, adult females have two color forms—blue and red. This damselfly ranges in length from 24 to 31 mm (Dunkle 1989).

The most extraordinary characteristic of the lilypad forktail is its speculated association with water lilies. Females insert their eggs into a lily stem and, upon hatching, the nymphs remain clinging to the submerged lily surfaces. *I. kellicotti* is one of very few Odonata known to form an obligatory association with a plant in temperate North America (Johnson and Westfall 1970).

The state record specimen was collected on Mud Lake Bog, among *Nymphaea odorata*, the Common White Water Lily. Mud Lake Bog is a Nature Preserve in Williams County, Northwest Township, located 3.25 km from Indiana and 5.25 km from Michigan. Mud Lake is actually a glacial kettle bog no more than 100 m in diameter with thickly silted littoral and benthic zones. The east shore is a fen and the west shore a bog. The north

shore where this specimen was taken consists of sedges and grasses to the water's edge with a few stands of broad-leaf cattail. Furthermore, the northern shoreline is fairly dense with *N. odorata* extending out into the lake approximately 20 m in some places.

Williams County was an area heavily collected in the 1940s and 1950s, however, very little Odonata work has been done since that time. It is possible, therefore, that *I. kellicotti* has been frequenting northwestern Ohio but not collected previous to the present work in 1992. Furthermore, the subspecies for *Enallagma traviatum westfalli* was named by Donnelly (1964) after the most intense Odonata work of the 1940s-1950s and before the *Ohio Odonata Survey* began in 1990. Very little Odonata work has ever been done in Allen, Hancock, Seneca, Wood, and Wyandot counties. Thus, the county records reported in this paper may be the first published collections and identifications for those species rather than the discovery of recent immigrants.

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