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**FIRST RECORD OF *OCHLEROTATUS JAPONICUS*
(DIPTERA: CULICIDAE) IN ST. JOSEPH COUNTY, INDIANA**Catherine L. E. Young¹, Jesse A. Beery, Robert E. Sheffer², Kelly M. Rand²**ABSTRACT**

A single female specimen of *Ochlerotatus japonicus* (Theobald) (formerly *Aedes japonicus*), the Asian bush mosquito, was captured in St. Joseph County, IN on 29 July 2004. This is the first report of that species in northern Indiana. Additional specimens were subsequently collected, indicating probable establishment throughout the county.

Ochlerotatus (Finlaya) japonicus japonicus (Theobald) (Diptera: Culicidae), formerly *Aedes (Finlaya) japonicus*, was first reported in the United States in New Jersey in 1998 (Peyton et al. 1999). The first confirmed report of the species in the state of Indiana cited specimens collected 4-10 July 2004 in Clark County on the state's southern border (Moberly et al. 2005).

Collections were part of the St. Joseph County public health surveillance program. One gravid trap (John W. Hock Co.) baited with an infusion of grass clippings and one dry ice-baited CDC-style light trap (American Biophysics Corp.) were set at each of ten sites two nights per week, from 11 May to 29 October 2004. Specimens were identified by morphological characters (Siverly 1972, Peyton et al. 1999, Darsie 2002).

On 29 July 2004, a female specimen collected in St. Joseph County, on the extreme northern border of Indiana, was identified as *Oc. japonicus*, indicating that the species is likely established throughout the state. Over the remainder of the 2004 trapping season, a total of 28 female and one male *Oc. japonicus* was collected from six sites throughout the county, with the first collection occurring on 29 July and the last on 8 October 2004.

Of the 29 specimens collected, 25 (86.2%) were collected in gravid traps. Fifteen specimens were sufficiently intact to determine gravid status, and of these, 12 (80.0%) were gravid and three (20.0%) were non-gravid. Three non-gravid females and one male were collected in CO₂-baited light traps. Collection numbers showed a slight peak in early September, with a maximum of three individuals occurring in a single trap on 16 September 2004, but were relatively constant throughout the trapping period.

The introduction of *Oc. japonicus* into the Great Lakes region may have a significant impact on public health as well as being an event of ecological interest. While field data to date are necessarily limited, experiments under laboratory conditions indicate that the species is a competent vector of West Nile (Turell et al. 2001), Eastern equine encephalitis (Sardelis et al. 2002), and St. Louis encephalitis viruses (Sardelis et al. 2003), three of the most significant arboviruses affecting our area.

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ADDENDUM

First-instar larvae of *Oc. japonicus* were collected on 4 April 2005 from abandoned tires located in a wooded area from which adult specimens of *O. japonicus* were collected in July-October 2004. Larvae were reared to adulthood in the laboratory and two adult females and one adult male were identified by morphological characters. This finding indicates that *Oc. japonicus* has successfully survived the winter in northern Indiana and should be considered a permanent addition to the mosquito fauna in this area.

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