



Short note – Kurzmitteilung  
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**First record of *Toxorhynchites rutilus rutilus* (COQUILLET)  
 (Diptera: Culicidae) from the Florida Keys, USA**

[Erstnachweis von *Toxorhynchites rutilus rutilus* (COQUILLET)  
 (Diptera: Culicidae) für die Florida Keys, USA]

by

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Key Largo (USA)      Marathon (USA)

The large predatory mosquito *Toxorhynchites rutilus rutilus* (COQUILLET, 1894) occurs in peninsular Florida and the panhandle, with records as far south as Ft. Lauderdale in Broward County (JENKINS 1949). HOWARD et al. (1917) first reported this species from Georgiana, Florida, in Brevard County. DYAR (1922) repeated this record. Eventually this species was reported from 26 counties (DARSIE & MORRIS 2000). Many of the earliest records were reported by JENKINS & CARPENTER (1946) and BASHAM et al. (1947). Other reports of county records include KING et al. (1944), SEABROOK & DUFFY (1946), OLINGER (1957), REINERT (1970), and O'MEARA et al. (2003). Interestingly, no records were known from the Florida Keys (DEMAY & HRIBAR 2008).

On 21 June 2013, six larvae of *Tox. rutilus rutilus* were collected from an artificial container at a residence in Key Largo, Florida. Three days later, on 24 June, three more larvae were found at the same location. The container was made of plastic and the water contained within overlaid a layer of detritus. Larvae were taken into the laboratory in hope of rearing adult specimens. Although seven pupated, no adults emerged. Examination of the larvae via microscopy revealed that the chaetotaxy was consistent with that of *Tox. rutilus rutilus*; mesothoracic seta 4 (4-M) was thin and branched, and metathoracic seta 5 (5-T) was spinulate-aciculate (VARGAS 1953a, 1953b). DODGE (1964) cautioned that larvae of both subspecies, *Tox. rutilus rutilus* and *Tox. rutilus septentrionalis* (DYAR & KNAB, 1906), are very similar and some characters appear to be variable. However, *Tox. rutilus septentrionalis* is found in northern Florida and as far north as Connecticut, Massachusetts, and New York (JENKINS 1949, MAIN et al. 1976, DENNEHY & LIVDAHL 1999, KOKAS & LEE 2004). These specimens represent a new county record for Florida and a southward range extension for the nominate subspecies.

Numerous authors have reported larval habitats for this mosquito. Most commonly they are found in tree holes and artificial containers, although rock holes and bromeliads (*Tillandsia utrichulata* LINNAEUS) also serve as larval habitats (HOWARD et al. 1917, MATHESON 1929, SEABROOK & DUFFY 1946, KING et al. 1960). BASHAM et al. (1947) characterized the artificial container habitats of *Tox. rutilus rutilus* as being those located under trees, containing decomposing vegetation, and exposed to brief sunlight. The tree species they reported were water oak (*Quercus nigra* L.), scrub oak (*Quercus inopina* ASHE), live oak (*Quercus virginiana* MILLER), orange (*Citrus* hybrid), pecan (*Carya illinoensis* (WANGENHEIM) K. KOCH), and pine trees (*Pinus* spec.).