

THE HALTERES OF *ANOPHELES WALKERI* THEOBALD

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A recent training aid manual (Anonymous, 1946) has emphasized the color of the halteres as a means of identifying *Anopheles walkeri* Theobald. The film strip picture points out the "golden halter," the accompanying text refers to the "golden color of the halteres" and the pictorial key says, "halter knob golden yellow." For most of the country this is an excellent character, but when one attempts to determine specimens from states bordering Canada, or from Canada itself, some difficulty is encountered. Specimens recently received from the northern New England states brought this to my attention and led to an examination of more than 300 specimens in the collection of the U. S. National Museum.

The specimens examined were from Arkansas, Delaware, Florida, Georgia, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, Ontario, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Vermont, and Wisconsin. All had the concentration of dark scales into more or less distinct spots on the wings, the distinct white bands on the palpi, and the pale knee spots characteristic of *walkeri*. Most of them had entirely yellow halteres with pale yellow scales on the knobs. A few had the knobs brownish and the scales distinctly darkened. Data for these latter specimens, with additional comments, are as follows:

MINNESOTA. Wabasha 1.VIII.40 (Pratt), 2; Detroit Lakes 9.IX.40 (Hoffmann), 1. Specimens collected at Wabasha in late June and early July had yellow halteres, as did specimens from Kellogg, Sept. 25, Winona, Sept. 18, and Weaver, June 28. All of these localities are in the southeastern part of the state in Wabasha and

Winona Counties. Detroit Lakes is west-central.

WISCONSIN. Sawyer Co. 12.VIII.41, 1; Vilas Co. 4.VIII.41, 1; Washburn Co., 22.VIII.41, 1. Specimens with yellow halteres came from Grant Co., 9.IX.4, Sheboygan Co., 19.VII.41, and Waubesa Co., 11.VII.41. The specimens with dark halteres all came from the northern part of the state, those with yellow halteres from the southern part.

MICHIGAN. Camp Custer, Battle Creek, 5; Fenton, 12.VII.47 (Obrecht), 2; Gwinn, 26.VIII.33, 1. There were no others from Michigan.

ONTARIO. Kenora, 2.VII.18 (Dyar), 1; Ottawa, 16-23.VIII.00, 3; Trenton, 26.VI.11, 1. The scales are rather pale brown, but all of the specimens have faded considerably due to age. There are no other Ontario specimens.

NEW YORK. Route 22 to Willsboro, 18.VI.52 (Coher), 1; Ray Brook, 31.VIII.22 (Shannon & Sibley), 1; Barnum Pond, 31.VIII.33, 1; Bolton Landing, 27.VIII.33, 1; North Fairhaven, 4.VII.20 (Shannon), 5; Ithaca, 4.VII.22 (Matheson), 2, and 1.VIII.22, 2. Specimens with the scales yellow are from North Fairhaven (same series as above), 2, and Ithaca, 20.IX.32, 12. The darker North Fairhaven specimens are still rather pale, which may be due to fading, but two specimens are distinctly yellower than the other five.

VERMONT. Williamstown, 16.VI.52, 4; 8 miles north of Williamstown, 16.VI.52, 9; Downer State Forest 21.VII.52, 1 (All Coher). No other specimens from Vermont have been seen.

NEW HAMPSHIRE. Center Harbor, 25.VII. and 4.IX. (Dyar), 2. No other specimens from New Hampshire have been seen.

MAINE. Sebago Lake State Park

(Kuschke), 2; Rangeley, 29.VIII.33, 1; Augusta, 2.IX.51, 1. Two others from the first locality, and presumably collected at the same time by J. C. Kuschke have the halteres yellow, with yellow scales.

It should be noted that the type locality of *walkeri* is Lake Simcoe, Ontario, Canada and that the original description (Theobald 1901, p. 199) states, "Halteres with ochraceous stem and a large globular dusky knob." Howard, Dyar and Knab (1917, p. 1034), in redescribing the species say, "Halteres brownish." If there is any significance to this difference in the color of the halteres and to the northern distribution of specimens with the darker halteres, it would appear that the typical form is

not the one widespread in the United States. This note is presented to stimulate further collecting of the species in the north and careful examination and comparison of eggs, larvae, and pupae to determine what significance there may be in this color variation.

#### Literature Cited

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## *Aedes (O) sollicitans* (Walker) and *Culiseta (C) morsitans* (Theobald) in Kentucky

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Quinby *et al.* (1944) reviewed mosquito distribution records of the forty-two species which had been reported from Kentucky. Kitzmiller (1945) described the collection of an additional species *Orthopodomyia alba* Baker. Carpenter (1952) published collection records of twenty-four species taken during 1944 and 1945 at six military installations located in Kentucky.

This paper includes collection records of two additional species which were taken in Kentucky during 1952.

One female *Aedes (O) sollicitans* (Walker) collected June 6, and one female *Culiseta (C) morsitans* (Theobald)<sup>3</sup> col-

lected September 30 were taken in light traps at Fort Knox, Kentucky, during the course of routine surveys conducted at that installation. The proximity to Godman Airfield of the location in which the specimen of *A. sollicitans* was collected suggests the possibility of importation by aircraft. However, local breeding in salt water collections from wells or other sources cannot be excluded from attempting to account for the existence of this species in that inland area.

#### Literature Cited

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