

A Checklist of the Mosquitoes of Indiana with a Record of the Occurrence of *Aedes infirmatus* D&K

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The first record of a mosquito from Indiana was published in 1827 when Thomas Say (8) described *Culex musicus* [= *Psorophora ferox* Humb.]. There were apparently no further writings listing mosquitoes for 95 years. Dyar's 1922 publication, *The Mosquitoes of the United States*, (4) listed another four species.

In 1942 the author prepared a manuscript entitled "Preliminary Studies of the Mosquitoes of Indiana" in partial fulfillment of the requirements for a degree at Purdue University. In July and August of the same year, the author worked in Indiana in the Malaria Control in War Areas (MCWA) Program of the U. S. Public Health Service. Mosquito records gained as a result of both of these studies were reported in a preliminary list of Indiana mosquitoes (5). This 1944 paper noted 24 species known to occur in the state.

Christensen and Harmston also published a preliminary list of the mosquitoes of Indiana in 1944 (3). They reported species collected in the 1941 and 1942 MCWA studies and included five not in the author's list. Carpenter reporting on collection of mosquitoes at military installations in Indiana during 1944 and 1945 added two to the list (2), and Brooks reported another in 1947 (1).

The next 13 records were added by Siverly (9 thru 16), Newhouse and Siverly (7), and Siverly and Burhardt (17). Two additional mosquito findings were reported in 1968, one by Truman and Craig (18), and one by the author (6).

This paper reports *Aedes infirmatus* Dyar and Knab not previously known from the state. The Purdue University collection contains an excellent female specimen taken as part of the 1958 studies at Hovey Lake in Posey County. Collection date was August 20.

Forty-eight species of mosquitos have been taken in Indiana.

- Anopheles barberi* Coq.—Christensen and Harmston (3)
- A. crucians crucians* Wied.—Christensen and Harmston (3)
- A. punctipennis* (Say)—Hart (5)
- A. quadrimaculatus* Say—Dyar (4) Collected by E. B. Williamson
- A. walkeri* Theo.—Christensen and Harmston (3)
- Toxorhynchites rutilus septentrionalis* (D&K)—Hart (6)
- Wyeomyia smithii* (Coq.)—Siverly (13)
- Uranotaenia sapphirina* (O. S.)—Hart (5)
- Culiseta inornata* (Will.)—Hart (5)
- C. silvestris minnesotae* Barr—Siverly (15)
- C. morsitans* (Theo.)—Christensen and Harmston (3)
- C. melanura* (Coq.)—Siverly (9)
- Orthopodomyia alba* Baker—Brooks (1)

- O. signifera* (Coq.)—Hart (5)
Mansonia perturbans (Walk.)—Dyar (4) Collected by E. B. Williamson
Psorophora ciliata (Fab.)—Dyar (4) Collected by E. B. Williamson
P. howardii Coq.—Hart (5)
P. cyanescens (Coq.)—Hart (5)
P. ferox (Humb.)—Say (8)
P. horrida (D&K)—Hart (5)
P. varipes (Coq.)—Hart (5)
P. confinnis (L.A.)—Hart (5)
P. discolor (Coq.)—Siverly and Burkhardt (17)
Aedes abserratus (F&Y)—Siverly (16)
A. aurifer (Coq.)—Siverly (10)
A. canadensis canadensis (Theo.)—Hart (5)
A. excrucians (Walk.)—Siverly (12)
A. fitchii (F&Y)—Siverly (14)
A. flavescens (Müll)—Siverly (14)
A. grossbecki D&K—Siverly (10)
A. infirmatus D&K—Hart—Purdue University Collection
A. sollicitans (Walk.)—Christensen and Harmston (3)
A. sticticus (Meig.)—Hart (5)
A. stimulans (Walk.)—Siverly (14)
A. thibaulti D&K—Siverly (11)
A. trivittatus (Coq.)—Dyar (4) Collected by J. J. Davis
A. hendersoni Cock.—Truman and Craig (18)
A. triseriatus (Say)—Hart (5)
A. aegypt (L.)—Hart (5)
A. vexans (Meig.)—Hart (5)
A. cinereus Meig.—Carpenter (2)
Culex pipiens pipiens L.—Hart (5)
C. pipiens quinquefasciatus Say—Newhouse and Siverly (7)
C. restuans Theo.—Hart (5)
C. salinarius Coq.—Carpenter (2)
C. tarsalis Coq.—Hart (5)
C. erraticus (D&K)—Hart (5)
C. territans Walk.—Hart (5)

Orthopodomyia signifera (Coq.) and *O. alba* Baker are indistinguishable in the adult stages. Records of *signifera* prior to Brooks (1) were based on adult females. Though they were probably correctly called *signifera*, a positive identification can not be claimed. The author studied the larval material collected by Brooks and concurred in the identification of both species.

The occurrence of *alba* in Indiana is to be expected. It is found in reliable lists of the mosquitoes of both Ohio and Illinois.

Literature Cited

1. BROOKS, I. C. 1947. Tree-hole mosquitoes in Tippecanoe County, Indiana. *Proc. Indiana Acad. Sci.* **56**:154-156.
2. CARPENTER, S. J. 1952. Notes on mosquitoes in North America: II, Collections at military installations in Indiana during 1944 and 1945. *Mosquito News*, **12**(4):252-253.
3. CHRISTENSEN, G. R., and F. C. HARMSTON. 1944. A preliminary list of the mosquitoes of Indiana. *J. Econ. Ent.* **37**(1):110-111.
4. DYAR, H. G. 1922. The mosquitoes of the United States. *Proc. U. S. Nat. Mus.* **62**:1-119.
5. HART, J. W. 1944. A preliminary list of the mosquitoes of Indiana. *Amer. Mid. Natur.* **31**(2):414-416.
6. ————. 1968. Occurrence of *Toxorhynchites rutilus septentrionalis* (Dyar and Knab) in Indiana. *Mosquito News*, **28**(1):118.
7. NEWHOUSE, V. F., and R. E. SIVERLY. 1965. The *Culex pipiens* complex in southern Indiana. *Mosquito News*, **25**(4):489-490.
8. SAY, THOMAS. 1827. (described *Culex musicus*=*Psorophora ferox* from Indiana) *J. Acad. Nat. Sci. Phila.* **6**:149.
9. SIVERLY, R. E. 1958. Occurrence of *Culiseta melanura* (Coquillett) in Indiana. *Proc. Indiana Acad. Sci.* **67**:137.
10. ————. 1959. Occurrence of *Aedes grossbecki* Dyar and Knab and *Aedes aurifer* (Coquillett) in Indiana. *Proc. Indiana Acad. Sci.* **68**:149.
11. ————. 1961. Occurrence of *Aedes thibaulti* Dyar and Knab in Indiana. *Proc. Indiana Acad. Sci.* **70**:137.
12. ————. 1963. Occurrence of *Aedes excrucians* (Walker) in Indiana. *Proc. Indiana Acad. Sci.* **72**:140.
13. ————. 1964. Occurrence of *Wyomyia smithii* in Indiana. *Proc. Indiana Acad. Sci.* **73**:144-145.
14. ————. 1966. Mosquitoes of Delaware County, Indiana. *Mosquito News*, **26**(2):221-229.
15. ————. 1966. Occurrence of *Culiseta minnesotae* Barr in Indiana. *Proc. Indiana Acad. Sci.* **75**:108.
16. ————. 1967. Occurrence of *Aedes abserratus* (Felt and Young) and *Culiseta morsitans* (Theobald) in Indiana. *Mosquito News*, **27**(1):116.
17. SIVERLY, R. E., and R. W. BURKHARDT, JR. 1965. Occurrence of *Psorophora discolor* (Coquillett) in Indiana. *Proc. Indiana Acad. Sci.* **74**:195.
18. TRUMAN, J. W., and G. B. CRAIG, JR. 1968. Hybridization between *Aedes hendersoni* and *Aedes triseriatus*. *An. Ent. Soc. Amer.* **61**(4):1020-1025.