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**OCCURRENCES OF *EUMORPHA FASCIATA*, *HYLES GALLII*,
SPHINX FRANCKII AND *S. VASHTI* (LEPIDOPTERA:
SPHINGIDAE) IN ILLINOIS**

Everett D. Cashatt¹, George L. Godfrey², and James R. Wiker³

ABSTRACT

A recent survey of private and institutional collections in Illinois and surrounding states has provided specific information on the occurrences of four species of sphingids within Illinois: *Eumorpha fasciata*, *Hyles gallii*, *Sphinx franckii*, and *S. vashti*. Geographical and phenological data for these species are provided.

Four species of sphingids, *Eumorpha fasciata* (Sulzer), *Hyles gallii* (Rottemburg), *Sphinx franckii* Neumoegen, and *S. vashti* Strecker, previously unreported for Illinois, were found in several collections as they were examined for records to be entered in The Database of Illinois Lepidoptera, a joint effort of the Illinois Natural History Survey and the Illinois State Museum. This paper documents their occurrences in Illinois.

Hodges (1971) reported that *Eumorpha fasciata* ranges from northern Argentina to Nova Scotia, that it is a resident in the U.S.A. on the east coast as far north as South Carolina (perhaps North Carolina), and that it occurs in the Gulf Coast states and in southern Arizona and southern California. He also noted that *E. fasciata* "is moderately common in central Arkansas from the middle of July through mid-October and has often been taken at flowers. Curiously, considering the rather extensive collecting done in Missouri, no specimens have been taken there." *Hyles gallii*, a Holarctic species, occurs in North America across the northern U.S.A. and several provinces in Canada (see Hodges 1971 and Covell 1984). *Sphinx franckii* was described from Kansas City (presumably Missouri) (Neumoegen 1893). Discussions by Forbes (1948) and Hodges (1971) indicate that it is widely distributed throughout portions of the eastern U.S.A., although Hodges observed that *S. franckii* "is probably one of our rarest resident species . . . [and] many of the states within [its projected distribution] have no records of the species." In his Ohio-based, identification key to the sphingids of the eastern U.S.A., Selman (1975) did not specifically mention if *Eumorpha fasciata* and *Sphinx franckii* occur in Ohio. Metzler (pers. comm. to GLG) recently said that *S. franckii* has been collected from Ohio. *Sphinx vashti* has been considered a western species with records as far east as northern Missouri, but it has not been reported from Iowa or Minnesota (Hodges 1971). However, according to L. A. Ferge (per. comm. to GLG) and records at the Milwaukee Public Museum, *S. vashti* occurs in Wisconsin.

Data for the records reported below were obtained from the following institutional and private sources in Illinois: Chicago Academy of Sciences (CAS); Spooner-

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Riegel Insect Collection, Eastern Illinois University (EIU), Charleston; Field Museum of Natural History (FMNH), Chicago; Fruendt-Young Lepidoptera Collection (FYLC), Monticello; Harrison Lepidoptera Collection (HLC), Charleston; Illinois Natural History Survey (INHS), Champaign; Wiker Lepidoptera Collection (WLC), Athens; Southern Illinois University at Carbondale (SIUC); and Western Illinois University (WIU), Macomb. On each of the dates listed below a single specimen was collected unless indicated otherwise. When the collecting locale for a specimen simply was given as "Chicago", the designation T39N, R14E, 3P has been supplied. Where possible collecting locales have been pinpointed to the sectional level.

Eumorpha fasciata (Sulzer)

This species has been collected from four counties in Illinois, all in the southern half of the state. The frequency of adults collected in Union County and the larva found in Massac County indicate that the species occasionally breeds in Illinois.

Specimens examined: COLES CO.: Charleston (T12N, R09E, Sect. 11, 3P), 28-VIII-1987, T. Harrison (HLC). MACON CO.: 10-X-1981, I. Hughes (EIU). MASSAC CO.: 1 mi. So. of Hillerman (T15S, R03E, Sect.16, 3P), photograph of larva, 6-X-1988, Kevin Cummings (INHS). UNION CO.: Bald Knob, Alto Pass (T11S, R02W, Sect.20, 3P); 8-VIII-1988, J. Wiker (WLC); 18-VIII-1987, A. Holtman (SIUC); 26-VIII-1989, J. Wiker (WLC); 28-VIII-1987, R. Lampley (SIUC); 9-IX-1989, J. Wiker (WLC).

Hyles gallii (Rottemburg)

The only known Illinois records are from Cook County.

Specimens examined: COOK CO.: Chicago (T39N, R14E, 3P), 23-VII-1898 (two specimens), A. Troschel (FMNH). (Note: The University of Michigan Museum of Zoology contains a specimen from "Chicago, Ill. D8/G. A. Akerlind" taken prior to 1920, pers. comm. to EDC from M. F. O'Brien.) .

Sphinx franckii Neumoegen

This species in Illinois is known from only four specimens taken in three counties.

Specimens examined: CLARK CO.: Rocky Branch (T12N, R12W, Sect.30, 2P), 3-VII-1988, M. Goodrich & C. Springer (EIU). JOHNSON CO.: 2.2km. NE of Goreville (T11S, R02E, Sect.2, 3P), 2-VII-1983, T. Young & M. Fruendt (FYLC). UNION CO.: Bald Knob, Alto Pass (T11S, R02W, Sect.20, 3P), 11-VII-1988, 25-VIII-1989, J. Wiker (WLC).

Sphinx vashti Strecker

The following records represent the first known report of this species east of the Mississippi River. Its known distribution in Illinois is west of the Illinois River and in Cook County.

Specimens examined: ADAMS CO: Quincy (T2S, R9W, Sect.2, 4 P), 3-V-1943, 22-V-1944, unknown coll.(INHS); 28-V-1948, J. P. Nielson (INHS); 11-VI-1943, unknown coll.(INHS). COOK CO.: Arlington Heights (T42N, R11E, Sect. 30, 3P),

6-V-1940, A. L. McElhose (FMNH); Chicago (T39N, R14E, 3P), 27-V-1952, D. H. Kistner (FMNH); Lincolnwood (T41N, R13E, Sect. 34, 3P), 6-VI-1950, L. Banks (CAS). HANCOCK CO.: A. L. Kibbe Life Science Station (Western Ill. Univ.) (T2N, R9W, Sect. 3, 4 P), 20-VI-1978, Y. Sedman (WIU); 27-VI-1978, unknown coll. (WIU).

The records of *S. franckii* given above clearly lie within its projected distribution as discussed by Forbes (1948) and Hodges (1971); and the Cook County records of *H. gallii* fall within the southern limits of its projected distribution. The new data for *E. fasciata* and *S. vashti* extend the known northernmost distribution of *E. fasciata* into Illinois and the easternmost distribution of *S. vashti* into Illinois and Wisconsin.

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