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A NEW SPECIES OF *NOTIPHILA* (*NOTIPHILA*) (DIPTERA: EPHYRIDAE) FROM OHIO

ALEXANDER D. HURYN

Department of Entomology, University of Georgia, Athens, Georgia 30602.

Abstract.—***Notiphila* (*Notiphila*) kentensis** n. sp. is described from a freshwater marsh near Kent, Ohio. *Notiphila kentensis* is a member of the *adjusta* species group and is most closely related to *Notiphila mathisi.*

While examining a series of *Notiphila* spp. collected from a marsh near Kent State University, Portage County, Ohio (Todd, 1985), I encountered an undescribed species of the subgenus *Notiphila, Notiphila* (*N.*) *kentensis* n. sp. Specimens were collected using detergent pan traps placed in an area dominated by the emergent macrophyte, *Nuphar luteum* (L.) Sibthorp & Smith (Todd, 1985). Other members of *Notiphila,* e.g. *Notiphila* (*N.*) *bella* Loew, *Notiphila* (*N.*) *mathisi* Huryn, and *Notiphila* (*N.*) *theonae* Huryn, have also been collected almost exclusively in association with foliage and flowers of *Nuphar* (personal observation; Huryn, 1984; Todd, 1985). Although use of *Nuphar* for oviposition and resting sites has been reported in the literature, association of the larvae of *Notiphila* with the roots of these plants has not been reported (cf. Mathis, 1979; Van Der Velde and Brock, 1980). At the type locality of *N. kentensis,* larvae of the subgenus *Notiphila* were collected in association with the root systems of *Nuphar* (B. A. Foote, personal communication). Although specific identification is not possible at present, the association of the immature stages of *Notiphila* (*Notiphila*) with the yellow pond-lily deserves further study.

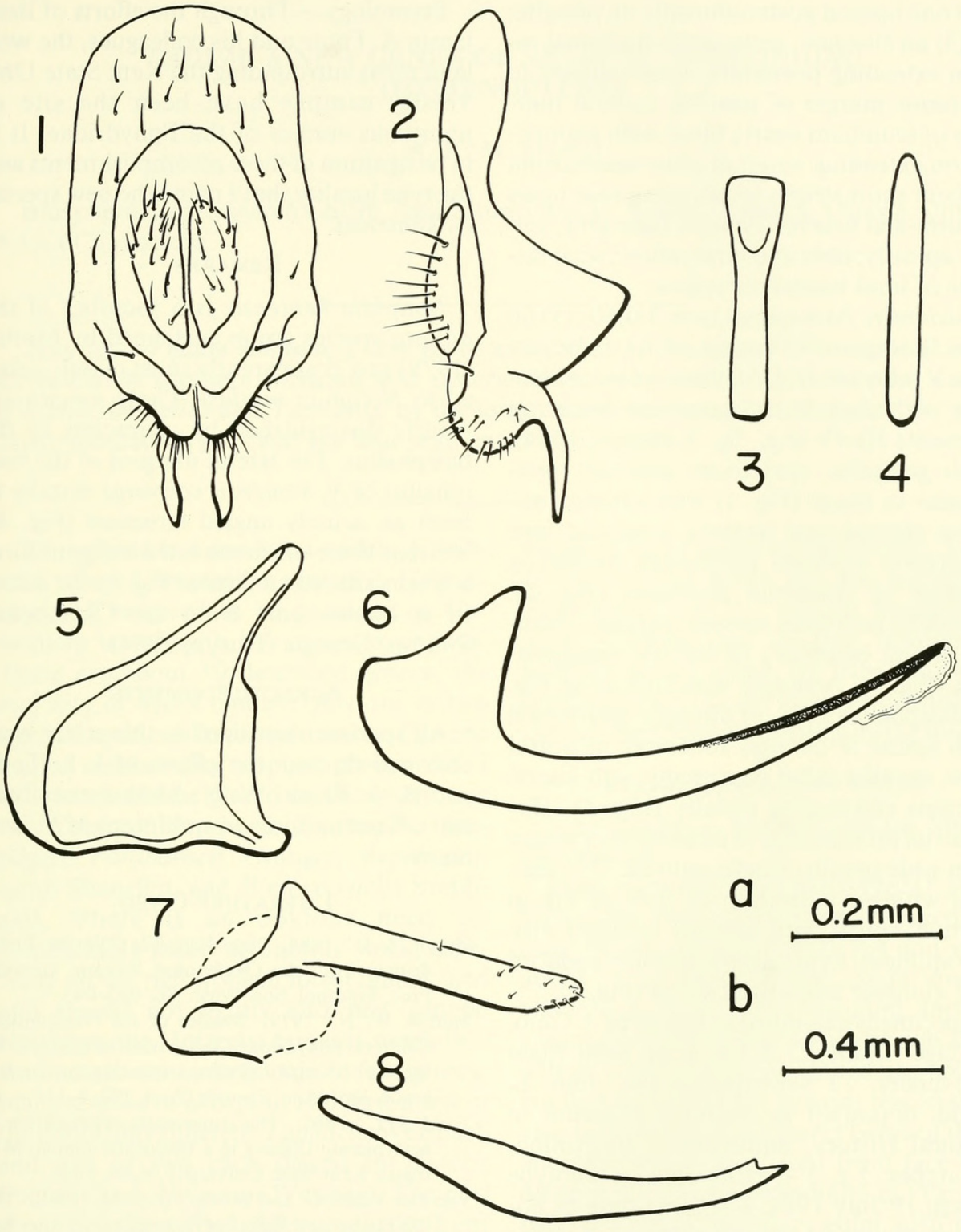
In the description below, numerical characters follow Mathis (1979) and are based on male specimens. Unless otherwise designated, other character states utilized are based upon examination of both male and female specimens.

Notiphila (*Notiphila*) *kentensis* Huryn, NEW SPECIES

Description.—Shore flies of medium size [males 3.5–4,0 mm (n = 6); females 4.6–4.9 mm (n = 3)]. Ground color blue-grey; extreme dorsolateral margins of mesonotum bordered by pair of distinct dark-brown stripes.

Head: Eye ratio 1:0.71–1:0.78 (n = 6); eye to cheek ratio 1:0.15–1:0.22; postfrons ratio 1:1.25–1:1.43; prefrons ratio 1:0.62–1:0.75. Frons generally concolorous throughout, blue-grey. Paravertical bristles medium in size, noticeably more robust than postocellar setae. Single fine proclinate fronto orbital seta present. First and second antennal segments brown, third segment variable, either: (1) light brown proximally becoming darker distally, or (2) entirely dark brown; arista with 10–12 dorsal branches, usually 11. Face microtomentose, variable: (1) generally yellow near antennal bases becoming silver toward oral margin, or (2) yellow throughout. Facial setae fine; gena blue-grey; genal bristle similar in dimensions to paraverticle bristle; maxillary palps orange.

Thorax: Mesonotum and pleural regions concolorous, blue-grey; lateral margins with



Figs. 1–8. 1, 2, 4–8, *Notiphila kentensis*. 3, *Notiphila mathisi*. 1, Epandrium, ventral. 2, Epandrium, lateral. 3, Basiphallus, dorsal. 4, Same. 5, Aedeagal apodeme, lateral. 6, Basiphallus, lateral. 7, Hypandrial process, lateral. 8, Hypandrial receptacle, lateral. a, Scale for Figs. 5–8. b, Scale for Figs. 1–4.

distinctive brown stripes extending posteriad from area anterior of presutural bristle, across the extreme dorsal region of notopleuron, terminating near base of supra-alar bristle. Anepisternum with variable dark brown region consisting of either: (1) darkened region about prothoracic spiracle, (2) two darkened regions, one about spiracle

and one located posterodorsally on pleurite, or (3) an elongate, rectangular darkened region extending posteriorly from spiracle to posterior margin of pleurite. Lateral margins of scutellum nearly black with pigmentation extending anteriad onto mesonotum to form short stripes terminating near bases of intra-alar bristles. Femora light-grey, yellow apically; tibia and tarsi yellow; setal fascicle of hind basitarsus yellow.

Abdomen: Abdominal ratio 1:0.60–1:0.66 (n = 5); tergum V/IV ratio 1:0.64–0.79; tergum V ratio 1:0.41–0.66. Ground color blue-grey with dark-brown geminate fascia on segments III–IV (e.g., fig. 2, Huryn, 1984). Male genitalia: epandrium generally rectangular in shape (Fig. 1) with extreme anterior tapered and bilobed, produced into anteriorly directed projection extending ventrad of epandrial processes (Fig. 2); epandrial processes narrow, parallel, forming lateral boundary of narrow emargination (Fig. 1). Aedeagal apodeme as in Fig. 3. Basiphallus (Fig. 6) strongly sclerotized with apical ⅘ strongly recurved; in dorsal view, parallel sided proximally with lateral margins converging distally (Fig. 8). Hypandrial process (Fig. 4) considerably longer than wide (width : length ratio ca. 1:7), parallel with no indication of club on apical portion; apical third sparsely invested with fine spinules; hypandrial receptacle reduced to 2 elongate sclerotized strips (Fig. 5).

Specimens examined.—Holotype ♂. Ohio, Portage County, 1.3 km E of Kent State University. 13 September 1984. Julie L. Todd, deposited in National Museum of Natural History, Smithsonian Institution. Paratypes: 5 ♂, 3 ♀, same data as holotype except 19 July 1984; 9 ♂, same data as holotype except 31 August 1984; 1 ♂, same data as holotype. Deposited in USNM (5 ♂, 1 ♀), KSU (5 ♂, 1 ♀), and University of Georgia (5 ♂, 1 ♀).

Etymology.—Through the efforts of Benjamin A. Foote and his colleagues, the wetland areas surrounding the Kent State University campus have been the site of numerous studies of the Ephydridae. It is in recognition of these accomplishments and the type locality that I name the new species *N. kentensis.*

Remarks

Notiphila kentensis is a member of the *adjusta* species group as defined by Mathis (1979) and is apparently most closely related to *Notiphila mathisi.* These species are readily distinguished by characters of the basiphallus. The lateral margins of the basiphallus of *N. kentensis* converge distally to form an acutely angled structure (Fig. 4), whereas those of *N. mathisi* diverge to form a spoon-shaped structure (Fig. 3). *N. mathisi* is known only from the Okefenokee Swamp, Georgia (Huryn, 1984).

Acknowledgments

All specimens utilized in this study were obtained through the efforts of J. L. Todd and B. A. Foote. W. N. Mathis examined and offered opinion on specimens of *N. kentensis.*

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