RANGE EXTENSIONS FOR SPECIES OF SPHECIDAE (HYMENOPTERA) IN THE NORTHEASTERN UNITED STATES

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ABSTRACT

The ranges of 10 Nearctic species of Sphecidae, Spilomena pusilla, Tachytes parvus, Solierella plenoculoides, Pison agile, Entomognathus lenapeorum, Rhopalum clavipes, Crabro hilaris, C. tenuis, Alysson conicus and Lestiphorus cockerelli, are extended in the northeastern U.S. based upon collections made in Pennsylvania and New York. The first prey record for a North American species of Lestiphorus, cockerelli, is included.

The family Sphecidae contains a vast array of genera and species that, collectively, are exceedingly diverse morphologically, ecologically and behaviorally (Evans 1963, 1966, Krombein 1979). The majority of the species nest in soil but certain taxa inhabit living or dead plant material. A few genera, such as Sceliphron, are mud-daubers. Species of Sphecidae prey upon a tremendous variety of terrestrial insects and spiders, with host specificity ranging from absolute species-specificity to capturing several orders of insects. Some sphecids are large, showy and highly noticeable, even to a layman’s eye, while others are small, obscure and rarely seen. It is the latter group of digger wasps to which we address this paper.

Krombein (1979) has given the known distributions for all of the described species of Sphecidae in the United States north of Mexico. Despite these extensive records, gaps still remain in the distribution maps of some of the species. These gaps are related to the lack of intensive collecting in certain parts of the U.S. The collecting and host records which we present herein extend the species’ distributions in the northeastern U.S. and fill in gaps in the knowledge of the biology of the Nearctic Sphecidae, respectively.

The species of Sphecidae are listed in phylogenetic order following Krombein (1979); however, his families are relegated to subfamilial status except for Trypoxyloninae. The sexes, number of specimens, locality and date(s) of collection and collector(s) are given for each species. The authors of the paper are abbreviated F.E.K. and R.C.M., respectively, where they represent the collector(s). All specimens were identified by the authors, unless indicated otherwise.

Subfamily PEMPHREDONINAE

Spilomena pusilla (Say). 1♀. New York, Cayuga County, Auburn; 23 July 1969; F.E.K. and R.C.M.
Subfamily LARRINAE

Tachytes parvus Fox. 2♀♂. New York, Albany County, Pinebush; 10 June-14 July 1983; J.C. Allen, T. McCabe.

Solierella plenoculoides (Fox). 1♀. New York, Cayuga County, Auburn; 9 August 1968; F.E.K.

Subfamily TRYPOXYLONINAE


Recently, Menke (1989) reported a considerable range extension for P. agile—southwest to Austin, Texas.

Subfamily CRABRONINAE

Entomognathus lenapeorum Viereck. 1♂. Pennsylvania, Erie County, Erie; 9 September 1966; E.J. Kurczewski.

Rhopalum clavipes (Linnaeus). 1♂. New York, Madison County, Chittenango; 8 June 1974; R.C.M.


Subfamily NYSSONINAE


These collection dates suggest that this species flies only during mid—to late summer and is probably univoltine in the northeastern U.S.

One female is pinned with an adult Acanalonia bivittata (Say) (Homoptera: Acanaloniidae) (det. A. Wheeler 1980). This is the first host record for this genus in North America. One Palaearctic species, L. bicinctus (Rossi), provisions its nests with spittlebugs (Bernard 1934).

LITERATURE CITED


