

**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 sphecsids 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.

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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

Pison agile (Smith). 3♀♀. Pennsylvania, Erie County, Presque Isle State Park; 25 July 1966; Erie; 19 July 1967, 24 July 1985; E.J. Kurczewski.

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.

Crabro hilaris Smith. 4♂♂. New York, Suffolk County, Fire Island State Park, Sailor's Haven; 10 August 1972; R.C.M. and C.J. Lane.

Crabro tenuis Fox. 3♀♀, 7♂♂. Pennsylvania, Erie County, Presque Isle State Park; 28 May 1971; E.J. Kurczewski. New York, Oswego County, Selkirk Shores State Park; 10-16 June 1971, 13-14 June 1972; Madison County, Chittenango; 6 June 1972; F.E.K. and R.C.M.

Subfamily NYSSONINAE

Alysson conicus Provancher [det. M. F. O'Brien 1979]. 1♀. Pennsylvania, Erie County, Erie; 16 July 1966; E.J. Kurczewski.

Lestiphorus cockerelli (Rohwer). 11♀♀. Pennsylvania, Erie County, Erie; 9 August-10 September 1966, 7 August-5 September 1971, 4 August 1972, 30 July 1973, 4-25 August 1979; Presque Isle State Park, 17 August 1971; E.J. Kurczewski.

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 Palearctic species, *L. bicinctus* (Rossi), provisions its nests with spittlebugs (Bernard 1934).

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