

Potter Wasps of Florida, *Eumenes* spp. (Insecta: Hymenoptera: Vespidae: Eumeninae)¹

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Introduction

Currently there are eight species and 10 subspecies of *Eumenes* known in America north of Mexico. Only *E. fraternus* Say and the nominate subspecies of *E. smithii* Saussure occur in Florida. These wasps make the familiar jug-like mud nests found on buildings, window sills, screens, and shrubs around the home. Members of the subfamily Eumenidae may be identified to genus with the aid of a key in Parker (1966). The only key for identifying North American species of *Eumenes* is that of Isley (1917) which is somewhat out of date.

Distribution

E. fraternus occurs from about the 100 meridian eastward in the United States and Canada. The nominate subspecies of *E. smithii* is found in the southern states from Mississippi eastward and North Carolina southward. The subspecies *E. smithii* *belfragei* Cresson occurs from Mexico northward through eastern Texas, Oklahoma, Kansas, and eastward to Missouri and Arkansas.



Figure 1. Adult potter wasp, *Eumenes fraternus* Say.
 Credits: Lyle J. Buss, University of Florida

Identification

Nests: While a number of wasps make mud nests, one is not likely to confuse the jug-like pots of *Eumenes* with those of other species. Nests of this type, found around the home, are almost certainly made by *Eumenes*. According to Isley (1917), the

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nest of *E. smithii* may be distinguished from that of *E. fraternus* by the more granular and roughened surface due to small lumps of earth. This observation was based on one nest, however, and is probably not a consistent difference.

Adults: *Eumenes* have a characteristic appearance. Adults are 13 to 17 mm in length (Arnett 2000). The first abdominal segments are rather elongate (i.e., petiolate), increasing gradually in width posteriorly from point of attachment at the thorax. One other genus of eumenid wasp (*Zethus*) could easily be confused with *Eumenes*, but it has the second abdominal segment more petiolate and the posterior margin of the second submarginal cell truncate whereas *Eumenes* has the cell acute.

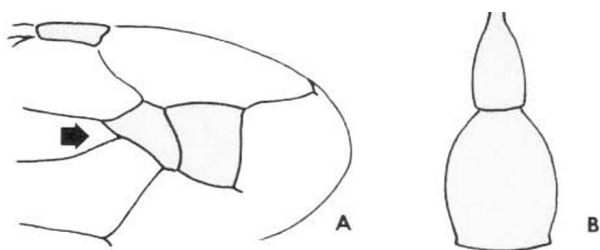


Figure 2. *Eumenes* wing (A) and abdomen (B). Credits: Division of Plant Industry

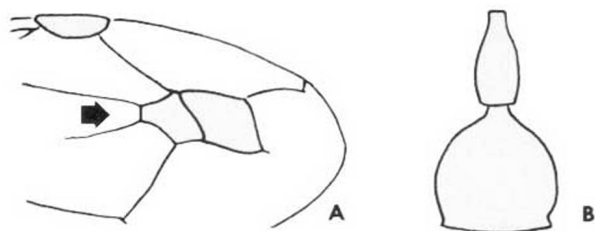


Figure 3. *Zethus* wing (A) and abdomen (B). Credits: Division of Plant Industry

Biology

Little detailed information is available on the biology of any North American species of *Eumenes*. The habits of *E. smithii* are essentially unknown, whereas *E. fraternus* has had only fragmentary consideration. Say (1824) noted that an adult *E. fraternus* emerged through the side of its clay pot in July. Isley (1914) reported and illustrated two nests of *E. fraternus* from a dogwood limb in Kansas. The nests were found in March and adult wasps emerged in May. The two earth pots were attached to each other so that one lateral wall served for both. Isley (1917) listed some of the fragmentary references to

this species. Arnett (2000) states that the adults fly from June to October to visit flowers to gather moth and beetle larvae, and that the female's eggs are suspended from slender threads attached to the top of sides of the pot.

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Economic Importance

As with many wasps, destruction of insects that attack cultivated and ornamental plants far outweighs the few mud pots one might find on one's home or in one's garden. The occasional nests which are found may be scraped off with any blade-like object. No wasp will buzz out to sting the destructor.

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