

NOTES ON THE MANTID GENUS *GONATISTA* SAUSS.

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Besides the doubtfully included *trifasciata* of Haan from Brazil the genus *Gonatista* is represented in our catalogues as containing a single species, *grisea* Fabr., with four names quoted in the synonymy under it. All these synonymic names are based on early diagnoses of a few broad terms, wholly inadequate for accurate determination. It is indeed doubtful if all the names do refer to the same species, as there are no less than four distinct species of the genus before me from North America and examination of the types of these various species now quoted as synonyms of *grisea* is necessary to settle without doubt their identity and to determine whether, or not, they are all one species. The size of Serville's *phryganoides* shows its distinctness from the larger forms and *eubensis* of Saussure is precluded by its size from being the large species described below as new under the name *major*. *Grisea* Fabr. was published without either measurements or locality and with characters almost equally applicable to any of the four species before me. I follow most authors in using this name for the common species found in the Southern United States. *Phryganoides* Serv. I use for a small finely maculate species from the West Indies. For a third species, also from the West Indies, I arbitrarily use the name *reticulata* of Thunberg and refer to the synonymy under it the *bifasciata* of Haan and the *eubensis* of Saussure. The fourth, and largest, species I describe as new. As stated above a future study of the types of the old authors may show the above nomenclature to be faulty but for the present no better arrangement seems possible.

The four species of the genus as here considered may be separated as follows, the characters based wholly on the male sex, females of several species being unknown to me.

1. Larger, length of elytra over 30 mm.; maculation of elytra consisting of small spots and larger splotches, the latter predominating. . . . . 2  
Smaller, length of elytra not over 30 mm.; maculation of elytra consisting mostly or almost wholly of small spots. . . . . *phryganooides* Serv.
2. Medium in size, the elytra from 32 to 40 mm. in length. . . . . 3  
Of large size, the elytra 45 mm. or more in length. . . . . *major* sp. nov.
3. Elytra less densely maculate, distinctly less than one half of the total surface infuscated. . . . . *grisea* Fabr.  
Elytra more densely maculate, about one half the total surface infuscated. . . . . *reticulata* Thunb.

#### *Gonatista grisea* Fabr.

This is the form found in the United States and I have material only from within our borders, though it also surely occurs in Mexico and West Indies. It is of medium size and the elytra are sparsely maculate with spots and splotches, the infuscation covering distinctly less than one half of the total area. The measurements are as follows: Length, pronotum, ♂, 9–10 mm., ♀ 9–11 mm.; elytra, ♂, 32–35 mm., ♀ 18–23 mm.

#### *Gonatista reticulata* Thunberg.

This species is represented in the collection of the National Museum by two males from Porto Rico. It is closest to *grisea* but the two specimens before me are lighter in color and the infuscation of the elytra is more profuse, covering about one half the total area. It is also a little larger. I place *bifasciata* Haan and *cubensis* Saussure as synonyms of this form. The measurements of the two males studied by me are as follows: Length, pronotum, 11–12 mm.; elytra, 36–40 mm.

#### *Gonatista major* sp. nov.

In general color this species is lighter than either of the preceding ones and is decidedly larger than either of them. The infuscation of the elytra is no more profuse than in *grisea* but is gathered in decidedly larger blotches, in this respect more like *reticulata*. The female is unknown to me. The measurements of the males are as follows:

Length, pronotum, 13.5–14.5 mm.; elytra, 45–48 mm.

Two males, type and paratype, from Dr. W. Zulesky, San Domingo, W. I. Type U. S. National Museum, Catalogue No. 15088.

*Gonatista phryganoides* Serville.

This is the smallest member of the genus and is represented in the collection of the U. S. National Museum by a series of six males from San Francisco Mts., San Domingo, W. I., taken in September, 1905, by August Busck. Besides being much smaller than any other known species of the genus this differs from all others in the maculation of the elytra, which is here composed almost or entirely of small dots, no large elongate splotches being present as in the larger forms. I have seen no females of this species. The measurements of the males studied are as follows:

Length, pronotum, 7.5-9 mm.; elytra, 26-28 mm.