

Clarification of Status of *Strumeta persignata* Hering (Diptera: Tephritidae)

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Strumeta persignata was described by Hering (1941) from Endeh, Flores (Nusa Tenggara, Indonesia) and has been assumed to belong to the *Dacus* subgenus *Bactrocera* Macquart (*Strumeta* Walker is a synonym) and was treated as such in the Catalog of the Diptera of the Oriental Region (Hardy, in Delfinado and Hardy, 1977:51). Through the kindness of Dr. Günter Morge (Akademie der Landwirtschaftswissenschaften der Deutschen Demokratischen Republik, Institut für Pflanzenschutzforschung, Eberswalde), I have recently had an opportunity to examine Hering's type female and three paratypes (one female, two males) and this can now be correctly placed. This is a *Zeugodacus* Hendel; its correct combination is *Dacus (Zeugodacus) persignatus* (Hering).

Fitting in the *Dacus* group of Subgenera by having the posterior lobe of the male surstylus elongate and the fifth sternum gently concave. Prescutellar and anterior supraalar bristles are present, and fitting the concept of *Zeugodacus*. This is one of the aberrant members of this subgenus which have only two scutellar bristles. By having a brown mark over the m crossvein, three postsutural yellow vittae on mesonotum, and other details, it fits very close to *cucurbitae* Coquillett, and it is obviously closely related to that notorious pest species. Based upon morphological characters this would be the closest known relative. It is very probable that this species breeds in cucurbitaceous and possible solanaceous plants, and it may attack vegetable crops. It is attracted to Cue Lure.

D. (Zeugodacus) persignatus is differentiated from *cucurbitae* by typically having prominent black markings on the mesonotum and the median yellow vitta large and broad, wider than the lateral vittae and extending from prescutellar bristles to beyond mesonotal suture; by having the facial spots in antennal furrows, consistently smaller, about half the size of *cucurbitae* and only two pairs of inferior fronto-orbital bristles, not three; also by having the abdomen almost entirely rufous except for a narrow basal brown to black line and a faint indication of a black vitta on middle of fifth tergum. lacking the prominent black median vitta over terga three-five which is typical of *cucurbitae*.

The following notes are based upon a re-examination of the type female. Front and face yellow except for small round facial spots near lower margin of each antennal furrow, the width of the spots is approximately equal to three-fourths the width of third antennal segment. Only two pairs inferior fronto-orbital bristles evenly spaced on lower half of front. Thorax mostly yellow to rufous with median portion of mesonotum pale colored, with a rather broad vitta extending entire length on each side from between dorsocentral and inner alar bristles to anterior margin just inside outer scapular bristles. Median vitta large, wedge-shaped, pointed anteriorly and

extending well beyond suture, at widest point much wider than lateral vittae. Just beyond suture a narrow arm of black extends laterad, this is interrupted before the anterior notopleural bristle. Mesopleuron with a black spot on upper margin just below anterior notopleural bristle, otherwise rufous, tinged faintly with brown on anterior portion. Sternopleuron mostly rufous with a prominent yellow mark on upper medium portion connecting with yellow marking extending over mesopleuron onto mesonotum at suture and continuous with lateral yellow markings of mesonotum. A dark brown to blackish mark present in median portion of each sternopleuron. Pteropleuron and hypopleuron rufous, tinged with brown. Metanotum black on sides, yellow to rufous down median portion. Scutellum pale yellow except for a narrow brown border at base. Legs entirely pale yellow. Wings similar to those of *cucurbitae* but the costal band is more gradually expanded at apex. The mark over m is a prominent brown wedge from posterior margin of wing extending into the lower medium portion of cell R_5 . The costal cells are hyaline. The r-m crossvein has a slight infuscation of brown along margin. Abdomen as noted above with a narrow band across base of third tergum and a thin rudiment of a vitta in middle of fifth tergum, otherwise rufous. As seen *in situ* the sixth tergum is about one-half as long as fifth and basal segment of ovipositor (seventh segment) is about equal in length to terga 4+5. The piercer has not been extruded for study.

Length: body 7.0 mm., wings 6.5 mm.

The paratype female is almost entirely rufous, colored like *cucurbitae* except for the abdomen being entirely pale except for the black band at base of third tergum, fifth tergum with only a faint indication of a median vitta. Thorax lacking black markings. Mesonotum tinged with brown in ground color in area between vittae. The two males are also predominantly rufous. One specimen has distinct markings in the area between the vittae and a dark brown marking extending to anterior margin inside each outer scapular bristles and just laterad of each humerus; the area between this mark and suture is tinged with brown but no distinct vitta connects with the black marking on hind portion of mesonotum. Also the sternopleuron has a dark brown to blackish spot in median portion. The other male is almost all rufous except for brownish mark inside each lateral vitta; colored more like the type female. The specimens do not appear to be teneral but obviously do not have their full coloring.

A series of about three dozen male specimens have been collected at Cue lure from several areas of central Sulawesi ranging from near sea level at Wotu, to 960 m. in the Lindu Valley. These compare favorably with the type but are typically prominently marked with black over the thorax. The pattern of the black markings is variable, but all specimens have the area between median vitta and each lateral yellow vitta entirely black to a level with suture and with these black markings narrowly connected immediately in front of scutellum. In some specimens a narrow continuous band of black extends to anterior margin of mesonotum just inside each outer scapular bristle and an arm of black extends laterally behind humerus continuous with a black transverse band extending over mesonotum connecting with the large black mark which covers most of sternopleuron. Also

pteropleuron largely black and metanotum black except for a narrow, vertical, rufous streak through middle. In some specimens the black markings on the mesonotum are not continuous past suture and the lateral markings are interrupted behind humerus, also in some they are interrupted on lower median part of mesopleuron (vertical band over mesopleuron not connecting with black mark on sternopleuron).

It was first thought that specimens from the island of Flores represented a distinct species from the Sulawesi population, characterized by being paler in color. It is obvious now that this is a variation and *persignatus* obviously is more widespread over Indonesia than has been previously realized. No host information or biological data is available and it is not known whether or not this may be of economic importance.

REFERENCES CITED

- Delfinado, M.D. and D.E. Hardy, 1977. A Catalog of the Diptera of the Oriental Region. Vol. III, Suborder Cyclorrhapha. Univ. Hawaii Press, 854 pp.
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