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Notes on the Genus Uranotaenia

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ABSTRACT. Postspiracular setae in the genus Uranotaenia are reported for the first time; a hitherto unnumbered pupal seta is added to the chaetotaxy; an anomolous female specimen with two spermathecae is reported.

While examining specimens from various parts of the world, a number of unusual or little known characters were observed. These will be briefly treated in a later paper on the Uranotaenia of Southeast Asia. However, the likelihood of such observations going unnoticed in a restricted regional treatment has prompted me to present a separate report on at least three of these.

I have observed postspiracular setae in the adults of three American and three Southeast Asian species of the subgenus Uranotaenia. Closer future observations will probably reveal additional species with psp setae. Presence of these setae does not suggest any particular supraspecific relationships, but the three American species (apicalis Theobald, socialis Theobald and sapphirina Osten Sacken) seem closely related, as do the three Southeast Asian species (micans Leicester, longirostris Leicester and undescribed species #28).

Although psp setae on Uranotaenia are not as conspicuous as those usually found in the genus Aedes, they are quite conspicuous in at least two species and can be detected in all six species with a stereoscopic microscope. The setae are usually few, opaque, rather delicate and often lying almost flat and recurved toward the dark pleural surface, which makes them very difficult to detect unless viewed from the proper angle. All are conspicuous on slide mounted specimens, with numbers ranging from 1 in sapphirina to 15 in Panamanian specimens of apicalis.

In at least one instance, the presence of psp setae could possibly assist in species recognition. Galindo, Blanton and Peyton (1954) resurrected socialis from synonymy with sapphirina, but reserved a decision on the identity of various unexamined populations scattered through most Middle American countries. Belkin, Heinemann and Page (1970) provisionally accepted the interpretation of Galindo et al. They pointed out, however, that typical socialis differed in detail from the socialis of Honduras and Panama described by Galindo et al. and from the specimens from British Honduras and Guyana. I have examined the type of socialis and a few topotypic and Panamanian specimens. These had from 6-10 rather prominent, scattered psp setae. In addition, I have examined all of the USNM specimens of sapphirina from numerous localities in the United States. Postspiracular setae in sapphirina ranged from 0-4, with only one Missouri specimen showing 4. The individual setae on

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sapphirina are much more delicate and inapparent than those of socialis and are easily missed. The additional evidence afforded by psp setal differences leaves little doubt that the original interpretation of Galindo et al. is correct. However, infraspecific variation in socialis requires further study. The full significance of psp setae in Uranotaenia is not yet apparent. The presence or absence of psp setae has been used as a primary character to distinguish some genera in the adult stage, but there are a few known exceptions in other genera, e.g. Aedes subgenera Ayurakitia Thurman and Kompia. Aitken and Culex (Neoculex) postspiraculosus Lee. The occurrence of these setae in the genus Uranotaenia does not interfere with present generic keys. It has often been observed that Uranotaenia exhibit characters in all stages suggestive of the genus Aedes. The presence of psp setae is another manifestation of this.

Another significant character noted is in the pupal chaetotaxy. Belkin (1953) called attention to the occasional presence of an extra seta on the metanotum of some specimens of U. (P.) quadrimaculata Theobald, but he did not give it a number designation. The majority of Uranotaenia species exhibit either a well developed seta, a distinct alveolus or a small raised, pigmented spur or spicule, slightly caudolaterad of seta 12-C of Belkin. I have observed this character on most pupae of Uranotaenia and I believe it to be a more general characteristic for the genus. Accordingly, I have decided to show its presence on the illustrations of all Southeast Asian species and without attempting to determine homologies I have designated it as 13-CT. A well developed seta 13-CT is present in a small number of species and usually in a very small percentage of specimens of each species. Most species exhibit an alveolus or spur in all specimens, and rarely all three conditions are seen in specimens of a single species.

The alveolus and basal insertion of the seta appear to be somewhat weaker than normal. It is quite possible they are easily lost through the mounting process. The number of specimens showing only a single seta on one side seems to support this possibility. In U. (P.) xanthomelaena Edwards, about 50 percent of specimens exhibit a seta at least on one side. A very well developed, long, single or double seta is also observed in about 33 percent of specimens of obscura Edwards. On the other hand, a seta is present in less than 5 percent in species like U. (P.) novobscura Barraud. In some species where an alveolus appears to be consistently present, there are often specimens on which it is less apparent. This is usually caused by poorly positioned slide preparations that leave the alveolus hidden. It is also very difficult to observe on species with a lightly pigmented metanotum.

Other than observing the presence or absence of seta 13-CT on pre-mounted Uranotaenia specimens, I have not made a special study of this character. Of the species in other genera I have examined, I have yet to find a comparable condition. It is quite possible it has been overlooked in some species of other genera.

Maj. John F. Reinert of SEAMP has called my attention to the presence of two well developed spermathecae in a female terminalia preparation of U. (P.) anhydor syntheta Dyar and Shannon. Female Uranotaenia typically have a single large spermatheca. Additional specimens of anhydor syntheta examined, revealed only one.

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