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NOTE ON *HYPERASPIDIUS FLAVOCEPHALUS* BLATCHLEY, WITH DESCRIPTION OF THE FEMALE (COLEOPTERA, COCCINELLIDAE)

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In 1924 Dr. Blatchley described this species (Canad. Ent., 56:167) from a unique male specimen collected near Dunedin, Fla., on March 27, 1918. Up to the present time, the female of the species has remained undescribed and, so far as I have been able to ascertain, no additional specimens of the species have been discovered.

For the past several years there has been in my cabinet a set of four specimens, two males and two females, of a species of *Hyperaspidius*, which were examined by the late H. C. Fall in 1937 and labelled by him "sp. nov". These were collected by Mr. C. A. Frost, at Berlin, Mass., on July 1, 1937. Since the males of this set appeared to correspond fairly well to Blatchley's description of *flavocephalus* and the females equally well to his short description of *Hyperaspis nigropennis*, which he collected at the same place and described on the same page, the specimens were referred to Mr. J. J. Davis, of Purdue University, for comparison with Blatchley's types, bearing in mind that several species of *Hyperaspidius* were originally described as *Hyperaspis*. Mr. Davis very kindly sent me the two unique types for study and Mr. Fall generously furnished me the balance of his material in the species, which consisted of 20 specimens, 6 males and 14 females, all taken in the same general locality, by "sweeping". Comparison with the type of *flavocephalus* shows that the Massachusetts specimens are undoubtedly that species; but comparison of the females with the type of *H. nigropennis* shows that the latter is a very different thing, a true *Hyperaspis*.

In addition to describing the female, I wish to record the extent of specific variation in the male and to make some slight corrections in Dr. Blatchley's description.

Description of female: Oblong oval, moderately convex, apices of elytra obtusely truncate. Elytra black, moderately shining, the head and thorax blackish piceus, slightly alutaceous, the labrum piceotestaceous. Front angles and narrow lateral margins of pronotum, narrow humeral margins of elytra, prothoracic and elytral epipleura, mesosternal epimera, antennae, palpi, tibiae and tarsi testaceous. Remainder of under surface blackish piceus, the femora and abdomen paler than the sterna. Head and thorax very finely and moderately densely punctured, the elytral punctures equally dense but much coarser. Entire upper surface, except the labrum, glabrous, the latter with numerous erect hairs. Under surface finely punctured, the metasternum more coarsely so, and sparsely pubescent with yellow hairs, the pubescence longer and sericeous on the abdomen. Length 2.6 mm. Width 1.8 mm.

Allotype, female, Berlin, Mass., VI-20-40, in collection of author. Paratypes in collection of Mr. C. A. Frost and the Blatchley collection at Purdue University. Parallotypes collected at Berlin, Mass., VI-27-37, VII-1-37, VI-20-40 and VII-6-40; Wayland, Mass., VI-29-30; and Natick, Mass., VI-19-32 and VI-22-41.

Variation in the female: The length varies from 2.0 to 2.7 mm. The pale thoracic margin in the allotype and in the majority of the other females is narrow and not sharply defined from the disc. In some specimens it is wider and approaches a clear yellow in color, as in the male, and is sharply defined on its inner border. In some it is reduced to a small yellowish spot at the anterior thoracic angles, but in no specimen is it completely absent. The pale humeral spot in the allotype occupies about one-sixth of the elytral margin. In other specimens it extends backward for a variable distance, as an ill-defined piceotestaceous margin to the elytron, which in a few cases attains the suture at the elytral apex. In some specimens the humeral spot is very poorly defined and in some it is entirely wanting. No particular variation is noted on the under surface, except that the parts which are noted as testaceous in the allotype become more or less tinged with piceus in most of the specimens. The tips of the maxillary palpi are piceus in a few instances.

Variation in the male: Length from 1.8 to 2.5 mm. The chief variation noted in the males is in the extent of the piceus coloration of the prothoracic disc. In the unique type from Florida the central four-fifths or so of the basal margin is piceus, this area extending forward on the midline about one-fourth the distance to the apical thoracic margin, with the anterior border of the piceus area broadly emarginate. In the two original males from Massachusetts, this area extends at least three-quarters of the distance to the apical margin and the anterior border is narrowly and angularly emarginate. I was at first tempted to describe the Massachusetts specimens as a new subspecies; but the series of eight males now available shows that this is merely intraspecific variation. In some specimens the entire disc, with the exception of a very narrow anterior margin and broader lateral margins, is piceus and in these the occiput also becomes piceus. At the other end of the series is a specimen which is almost identical with the Floridan type. As the anterior border of the piceus area recedes in a caudal direction, two small, obliquely placed oval dots are uncovered, one each side of the centre of the disc, their posterior ends practically touching in the midline. It is these spots that produced the angular emargination mentioned above. On close examination of the type, these spots, which are not mentioned in the original description, are clearly discernable, though faint and afford strong evidence that the Floridan type and the Massachusetts specimens are one and the same species. The humeral spot or stripe varies to about the same extent as in the female, but is never entirely absent and is always of a clearer yellow than in that sex.

Comments on the original description. The basal margin of the thorax, in the type, is piceus and not "shining black", as stated in the description and the front and middle legs are testaceous, rather than "clear yellow" and are only slightly paler than the hind legs. The mesosternal epimeron is a clear yellow, which is not mentioned in the original description and forms a sharp contrast with the piceus black of the adjacent sternites. This, as well as the thoracic spots mentioned above, would not be noticed in the type unless specifically searched for, as this portion of the type specimen is somewhat obscured by glue. The parts described as clear yellow are definitely orange in color at the present time, which is probably due to the age of the specimen.

The species is evidently not rare locally, for a period of about two weeks, toward the end of June and will probably be found to inhabit the entire Atlantic seaboard, from New England to Florida. Further collecting in the Florida area may show that its separation into a northern and a southern subspecies would be justified.

I wish to express my thanks to both Mr. C. A. Frost and Mr. J. J. Davis for their kind assistance.