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ENTOMOLOGICAL NEWS

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Variant Elytral Markings of Epilachna varivestis Muls. (Coleoptera: Coccinellidae).

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Unlike the elytral spots in many species of predacious coccinellids, these spots in *Epilachna varivestis* Muls. are relatively constant in number and size. Each elytron normally has eight spots or dots of varying size arranged in three rows as follows: Three small sub-basal spots in a broken row, the median spot less basal than the other two; three in a transverse subparallel row just before the middle, usually larger than the sub-basal; and two near the apex (Chittenden, '20) (fig. A).

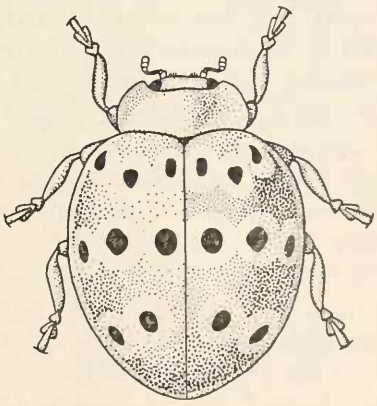


Figure A. — Adult of *Epilachna varivestis* Muls., showing normal number and size of spots.

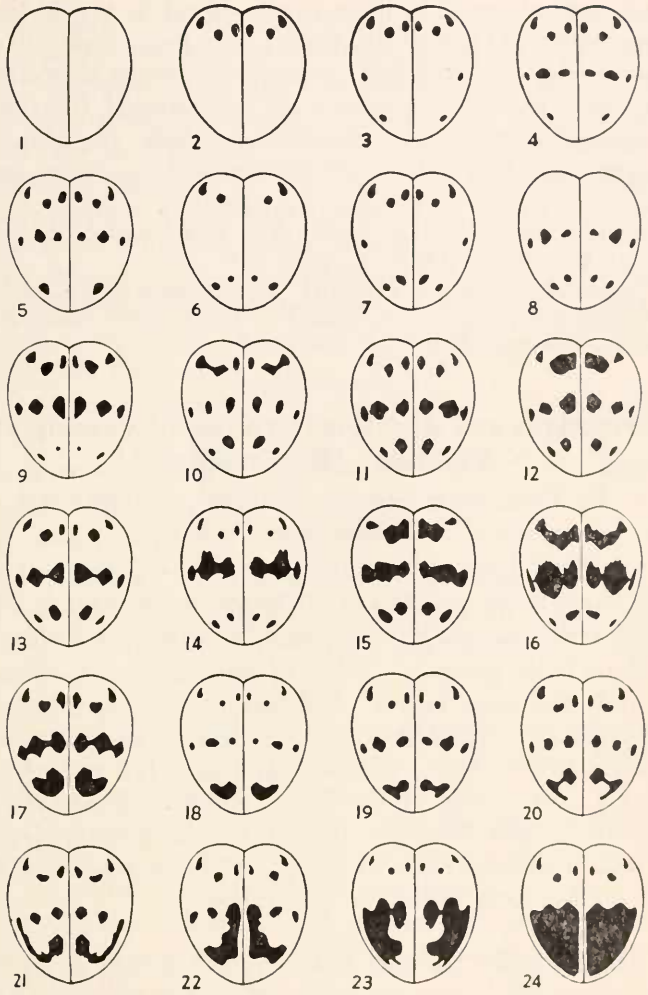
Among several thousands of beetles handled in hibernation and life-history studies in Ohio and the Federal District of Mexico, the authors occasionally found beetles with odd markings. Beetles having variant markings occurring on each

elytron were saved and the several types are here figured and discussed briefly. To clarify the discussion, each of the eight elytral spots has been given a number, beginning with the outside spot on the sub-basal row and proceeding to the elytral suture, and continuing in the same direction, from outside to inside, for the intermediate row and then the apical row of spots (Johnson, '10).

Certain differences were noted between the variant beetles from Mexico and Ohio. In the Mexican beetles there was a tendency for the normal spotting to be altered by the dropping of spots, whereas in Ohio beetles the abnormalities were caused entirely by the confluence of spots. One mature albino beetle (fig. 1) was found at Columbus, Ohio, in which the eyes, elytra, and other body parts were concolorous with the normal ground color.

In the beetles from Mexico spot 8 was lost most commonly (figs. 2 to 5), although the entire intermediate row also (spots 4, 5, and 6) was absent in two individuals (figs. 2 and 6). In one beetle spots 1, 2, and 3 (fig. 8), and in another spots 4, 5, 6, 7, and 8 (fig. 2), were lacking. The confluence of spots 7 and 8 was common (figs. 18 and 19), and in one individual spots 4, 5, 6, 7, and 8 were confluent (fig. 23). Two beetles with spotting identical with that shown in Figure 23 were found in a small field of beans near Mexico City on the same day. The confluence of spots 4, 5, and 6 (figs. 14 and 17) was not common.

In the beetles from Ohio spots 5 and 6 coalesced most commonly (fig. 13), and several individuals having this type of confluence occur in samples of 1,000 to 2,000 beetles. In one beetle spots 4, 5, and 6 coalesced (fig. 15), and this type of confluence was observed also in a beetle from Birmingham, Ala. In the Birmingham beetle spots 1, 2, and 3 also coalesced (fig. 16). Confluence of spots 2 and 3 is more common among Ohio beetles (figs. 12 and 15) than confluence of spots 1 and 2 (fig. 10). Fusion of spots 7 and 8 occurred in four beetles (figs. 20, 21, 22, and 24) but did not form an arcuate fascia as in Mexican beetles. Interesting types of confluence are illustrated



Figures 1 to 24, inclusive, showing deviation from the normal elytral spotting in adults of *Epilachna varivestis* Muls. Figures 2, 3, 4, 5, 6, 7, 8, 14, 17, 18, 19, and 23 represent beetles from the Federal District of Mexico; Figures 1, 9, 10, 11, 12, 13, 15, 20, 21, 22, and 24, from Columbus, Ohio, and Figure 16, from Birmingham, Alabama.

in Figure 21, where spots 4, 7, and 8 fuse, and in Figure 22, where spots 6, 7, and 8 coalesce. The greatest confluence of

spots was observed in three beetles found in a collection of approximately 5,000 beetles from Letart Falls, Ohio. In these beetles spots 4, 5, 6, 7, and 8 coalesced to form a large triangular fascia (fig. 24). An egg mass was obtained from one of these beetles, and of two individuals reaching the adult stage one had the same elytral spot confluence as the parent female.

Literature Cited.

Chittenden, F. H. 1920. The Bean Ladybird. U. S. Dept. Agr. Bull. 843, 24 p., illus.

Johnson, Roswell, H. 1910. Determinate evolution in the color-pattern of the Lady-Beetles. Pub. 122, Carnegie Inst. Wash., 104 pp., illus.

Corrections and Additions to a recent Catalog of the Tiphiidae, (Hymenoptera).[1]

By Karl V. Krombein, 22 Meadow View Place, Buffalo, New York

Since the publication of Dalla Torre's Catalogus Hymenopterorum in the last decade of the nineteenth century a large number of new species and genera have been described particularly in the groups which are of importance in the biological control of noxious insects. Consequently the appearance of a new catalog of the Hymenoptera should be most welcome to workers in this order. Inasmuch as I have just recently compiled a card catalog of the family which comprises the first part of this new Catalogus I feel it necessary to call attention to certain omissions and corrections which may serve to make the catalog more useful to systematists.

Omissions.

Unquestionably the most serious fault has been in not citing the species which were originally described as species of *Tiphia* and later transferred to other genera outside the family as understood by Hedicke. Such omissions, if continued in the other parts of this new catalog, will lead to the eventual creation of a number of homonyms since the dilettante systematist,

[1] Hedicke, H. Hymenopterorum Catalogus, Pars I, Tiphiidae, 32 pp. 1936. (publ. W. Junk).