

Notes on *Graptostethus* in Hawaii

(Hemiptera: Lygaeidae)

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(Presented by Dr. Swezey at the meeting of April 8, 1946)

Graptostethus bugs are the most spectacular of recent hemipterous immigrants to the Hawaiian Islands. They were first recorded from Oahu in 1943 (Proc. Haw. Ent. Soc., 11: 284). By 1945 they had become firmly established on Oahu and Kauai and had been investigated in some detail by Dr. O. H. Swezey. In Swezey's excellent paper (Proc. Haw. Ent. Soc., 12: 335-340, 1945) the distribution of the bugs was summarized, *Ipomoea tuberosa* was found to be a preferred host, and two very distinct color variations were described and figured.

Specimens of Hawaiian *Graptostethus* tentatively identified as *Graptostethus servus* (Fabr.) were referred to me some time ago with the request that I determine what name or names should be used for the forms occurring in the Hawaiian Islands. I have now had an opportunity while visiting the U. S. National Museum to compare the Hawaiian forms with specimens from elsewhere in the Pacific and Orient. The results as given below require a change in name from *Graptostethus servus* (Fabr.) to *Graptostethus manillensis* (Stål).

DISCUSSION

W. E. China (Insects of Samoa, 2, fasc. 3, pp. 115-116, 1930) studied Pacific island *Graptostethus* and concluded that Samoan and Fijian specimens were referable to Stål's *nigriceps* which was originally described from Guam and was considered by Stål as a variety of *servus*. Mr. China raised Stål's variety to a full species and pointed out several constant characters in which it differs from typical *servus*.

It now becomes necessary to raise Stål's other variety (Stål, Enum. Hemipt., 4: 117, 1874), *manillensis*, which was originally described from the Philippines (Stål, Freg. Eugenies Resa, Ins. Hem., p. 240, 1859) to a full species. This action is necessary because true *servus* from China differs from the long series of *manillensis* before me in several important characters as follows: the head of typical *servus* is distinctly marked with black at the base and this black continues forward along the clypeus. The abdomen

is black over the entire venter except narrowly along the lateral margins, and the body is clothed with white, relatively long hairs. *Manillensis*, on the other hand, varies in color as illustrated by Swezey but has the head reddish with black only at the tip of the clypeus or sometimes throughout the clypeus and with black around or just behind the ocelli. The abdominal venter is reddish throughout and the pubescence is extremely short, without conspicuous pale hairs projecting from the pronotal margins and elsewhere.

I know *manillensis* only from Hawaii and from Negros, Leyte, and most typically and in greatest abundance, from Luzon. Both color varieties occur in the series of several hundred specimens from both Oahu and Luzon, and occasional specimens are seen in which the clavus and corium are entirely but only faintly infuscate. The exact nature of these variations is not known and can only be determined by experimental crossing of the various types.

I have seen typical *servus* from China, Formosa, Java, Singapore, and Mindanao. Hoffman (Lingnan Science Jour., 13:171-176, 7 figs., 1934) has studied the life history of this species and records it from *Ipomoea cairica* (L.) Sweet.