Homoneura vs. Sciomyza in Hawaii (Diptera)

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Homoneura hawaiiensis (Grimshaw) nec Malloch, n. comb.

Sciomyza hawaiiensis Grimshaw, 1902, Fauna Hawaiensis 3 (2):84.


It has been doubted for some time that the dipterous family Sciomyzidae actually occurs in Hawaii although the family has been recorded frequently in the Hawaiian literature. At the suggestion of C. W. Sabrosky of the U. S. National Museum I have checked the so-called Sciomyza in the various collections here and all of the specimens I have seen appear to fit in the genus Homoneura, family Lauxaniidae.

Specimens have been sent to the National Museum and Mr. Sabrosky has reported that they are conspecific with Homoneura hawaiiensis Malloch. Specimens have also been sent to the British Museum and compared with the type of Sciomyza hawaiiensis Grimshaw by H. Oldroyd. He reported as follows: “I feel satisfied that this is indeed Sciomyza hawaiien-

sis G. and agrees well with the type.”

The confusion regarding the family to which our species should belong has no doubt arisen because of the character of the postocellar bristles. The most commonly used character for separating the Sciomyzidae from the Lauxaniidae is the slant or direction of the postocellar bristles. The Lauxaniidae usually have the postocellars convergent or crossing while in the Sciomyzidae these bristles are parallel or divergent. This is generally considered a reliable family character but our Hawaiian species is aberrant in this respect. Most specimens of Homoneura hawaiiensis (Grims.) have parallel postocellar bristles and on this character would fit in Sciomyzidae. Some specimens have been studied which have convergent post-

ocellars as is typical of Lauxaniidae.

The Hawaiian species in question is placed in its correct family by its conformance with the following characters of the Lauxaniidae:

Two sternopleural, and one mesopleural, bristles present.
Second antennal segment with a strong dorsal bristle.
Front femora with bristles on the undersides.
Anal vein short, extending only about one-fourth the distance to the wing margin.
No strong bristle present on the anterior surface of each middle femur.
Two pairs of strong frontal bristles and head rounded and not strongly produced (typical of most Lauxaniidae).