STUDIES ON IDIOCERINE LEAFHOPPERS: VI, NEW SPECIES OF BALOCHA FROM THE PAPUAN SUBREGION (Homoptera: Cicadellidae)

By J. Maldonado Capriles

Abstract: Three new species—Balocha maculifrons, B. pseudomaculifrons, and B. unilineata—are described from the Papuan Subregion.

The material herein described belongs to the B. P. Bishop Museum, Honolulu, Hawaii, and was kindly loaned to me for study by Dr. J. L. Gressitt.

The species of Balocha are characterized by usually being orange-colored, having a blackish forked apical cell, and typical genitalia as in fig. 14 to 17.

The holotypes and allotypes are deposited in the collection of the Bishop Museum (Bishop) and paratypes in my collection. In the measurements that follow 10 micrometer units are equivalent to 0.38 mm.

Balocha maculifrons Maldonado Capriles, new species

♂. Overall color dirty orange-yellow. Vertex dirty pale-orange, the 2 vitreous areas well defined in some specimens; face with a broad brown band from eye to eye and from below ocelli to below anterior margin of vertex (fig. 1); below brown band narrowly dirty pale-orange; rest of face, to lower margin of head, yellowish white. Pronotum and scutellum dirty pale-orange. Forewings hyaline; clavus uniformly pale greenish yellow; corium hyaline pale brownish to middle longitudinal vein (M); from middle vein to costal margin pale greenish yellow; costa slightly deeper greenish-yellow. Claval suture and next 2 veins on clavus brown, the middle vein (M) broadly blackened throughout; veins of apical cells all visible, brownish. Forked apical cell totally blackish as in fig. 7. Thorax ventrally and laterally, legs, and abdominal sternum yellowish.

Vertex finely striated, about 1/3 as long as pronotum (5 : 13); pronotum about 1/3 as long as wide (13 : 30), hind margin of pronotum straight. Scutellum 3/4 as long as wide (15 : 22). Face slightly wider across eyes than long (35 : 33); lateral margin of frons (or postclypeus) rounded, laterofrontal suture reaching to slightly below and mediad of ocellus of same side. Clypeus expanded apically, bell-shaped, as long as wide apically (7 : 7). Forked cell with a very short peduncle (1 : 9). Length 3.52 mm.

Genitalia typical of the genus, as in fig. 3 to 6.

♀. Coloration much as in ♂, with the following differences: clavus greenish yellow; face uniformly dirty orange from posterior margin of vertex to level of antennae, from here dark

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2. University of Puerto Rico, Department of Biology, Mayagüez Campus, and Department of Entomology, Agricultural Experiment Station, Rio Piedras, Puerto Rico.
Balocha maculifrons n. sp.: 1, face, ♂; 2, tip of forewing, ♀; 3, style, lateral; 4, aedeagus, lateral; 5, pygofer and plate, lateral; 6, valve, ventral; 7, tip of forewing, ♂. Fig. 8-9. Balocha unilineata n. sp.: 8, style, ventral; 9, style lateral.
Fig. 10-13. *Balocha unilineata* n. sp.: 10, habitus, dorsal, ♂; 11, pygofer and plate, lateral; 12, aedeagus, lateral; 13, last sternum, ♀. Fig. 14-19. *Balocha pseudomaculifrons* n. sp.: 14, valve, ventral; 15, aedeagus, lateral; 16, aedeagus, caudal; 17, pygofer and plate, lateral; 18, style, lateral; 19, tip of forewing, ♂.
brown to lower margin of frons. Clypeus, lorae, genae, and underside of body yellowish as in ♂. Forked cell black on apical 1/2. Hind tarsi with a greenish tinge. Length 3.72 mm.

Pronotum slightly broader than in ♂ (13 : 32), hind margin shallowly and broadly concave. Scutellum very slightly larger than in ♂ (16 : 25). Face nearly as wide across eyes as long (35 : 34). Lateral frontal suture short, obsolete, pointing to above ocellus of other side. Forked cell with pedicel as long as cell (5 : 5), as in fig. 2. Last abdominal sternum rectangular, with hind margin straight.

Holotype ♂ (BISHOP 9180), NW New Guinea, Waris, S of Hollandia, 450-500 m, 1-17. VIII.1959, T. C. Maa, by sweeping. Allotype ♀ (BISHOP), same data.

This species is close to the next 2 new species and to *B. melichari* (Baker) as all have a blackened median vein. See under *B. unilineata* n. sp. as to how to separate them.

**Balocha pseudomaculifrons** Maldonado Capriles, new species

Description of color as for *B. maculifrons* n. sp.; vertex relatively long, about 1/3 as long as pronotum (4 : 11); pronotum 2.5 X as wide as long (28 : 11), posterior margin straight. Scutellum 1.5 X as wide as long (22 : 15). Pedicel of forked cell slightly longer than cell (7 : 6) and the cell totally dark, as in fig. 19. Genitalia as in fig. 14-18. Length 3.5 mm.


Externally this species looks very much like the ♀ of *B. maculifrons* n. sp. as both have similarly shaped forked apical cell. The different genitalia and forked cell of the males separates them. See additional discussion under *B. unilineata* n. sp.

**Balocha unilineata** Maldonado Capriles, new species

♂. Fig. 10; above and below pale ochraceous or pale golden-brown. Forewing with median vein broadly blackened throughout to before peduncle of forked cell; forked cell black, black extending to apex of outer apical cell; corium more transparent on both sides of blackened median vein. Clavus with inner 1/2 very slightly orange-tinted, outer 1/2 colored as corium.

Vertex relatively short, less than 1/4 as long as pronotum (3.5 : 16); pronotum nearly 2.5 X as broad as long (37 : 16), posterior margin broadly and shallowly concave. Scutellum broader than long (26 : 22). Face about as long as wide across eyes (41 : 41.5). Lateral margin of frons angled; lateral frontal sutures short, obsolete, pointing well above ocellus of other side. Clypeus bell-shaped, slightly longer than wide at apex (9 : 8). Length 4.6 mm.

Genitalia typical of genus, as in fig. 8, 9, 11, 12.

♀. Overall color pale ochraceous, all specimens slightly lighter than the ♂♂ at hand. Clavus with inner longitudinal 1/2 with a slight orange tinge slightly contrasting with paler outer 1/2. Median vein of corium (slightly narrower than in ♂♂) blackened throughout to base of forked vein; on inner side of median vein colored as inner 1/2 of clavus, on outer side of median vein paler, as outer 1/2 of clavus, thus, the forewing looks faintly banded. Forked cell blackened, black color extending to outer apical cell. Ovipositor light brown. Length 4.86 mm.

Frons nearly 1/4 as long as pronotum (5 : 18); pronotum over 2 X as wide as long (41 : 18), hind margin shallowly and broadly concave. Scutellum nearly 2/3 as long as wide (22 : 30).
Face as wide across eyes as long (45 : 45). Lateral margins of frons and lateral frontal suture as in ♂. Clypeus slightly longer than wide apically (8.5 : 8), bell-shaped. Forked cell with peduncle about 1/2 as long as cell (6 : 10).

Genitalia: last abdominal sternum with posterior margin slightly produced and shortly notched medianly (fig. 13).

Holotype ♂ (BISHOP 9182), allotype ♀ (BISHOP), New Britain, Gazelle Peninsula, Gaulim, 28.X.1962, J. & M. Sedlacek. Four paratypes: 1 ♂, 1 ♀, same data as holotype (BISHOP); 1 ♀, New Britain Gazelle Peninsula, Upper Warangoi, Illugi, 220 m, 15.XII. 1962, from a Malaise trap (JMC coll.); 1 ♂, New Britain, Gazelle Peninsula, Rabaul, at 5m, 18.X.1962 (JMC coll.). I have labeled as Balocha sp., 1 ♀ specimen, from Papua (SE New Guinea), W. District, Oriomo Govt. Station, 26-28.X.1960, J. L. Gressitt (BISHOP) as its last abdominal segment is slightly elongate and it may or may not be this species.

Balocha maculifrons, n. sp., B. pseudomaculifrons n. sp., and B. unilineata n. sp. belong in a group with B. melichari (Baker) as all have the median longitudinal vein blackened and the fine striations of the vertex come lower on the face, characters that separate them from the other species in the genus. B. melichari and B. unilineata do not have the face dark; the scutellum is whitish and the clavus opaque golden-brown in the first, while unilineata has a pale golden-brown scutellum and the clavus banded as described. B. maculifrons and B. pseudomaculifrons differ from all other species in the genus by their dark face; the ♂♂ differ by the genitalia and the shape and coloration of the forked cell as in fig. 7 and 19.

Verified species of Balocha and their geographic distribution

<table>
<thead>
<tr>
<th>Species</th>
<th>Geographic Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>astuta</td>
<td>Nilgiri Hills, S. India</td>
</tr>
<tr>
<td>bicolor</td>
<td>Sarawak, Borneo</td>
</tr>
<tr>
<td>lucida</td>
<td>Sarawak, Borneo</td>
</tr>
<tr>
<td>maculifrons</td>
<td>Northcentral New Guinea</td>
</tr>
<tr>
<td>melichari</td>
<td>Luzon, Philippine Islands</td>
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<tr>
<td>nacreatus</td>
<td>Luzon, Philippine Islands</td>
</tr>
<tr>
<td>pallida</td>
<td>Lahore, West Pakistan</td>
</tr>
<tr>
<td>pseudomaculifrons</td>
<td>Northern NW New Guinea</td>
</tr>
<tr>
<td>tricolor</td>
<td>Tenasserim, India</td>
</tr>
<tr>
<td>unilineata</td>
<td>New Britain</td>
</tr>
</tbody>
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REFERENCES


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