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TWO NEW APHIDS FROM THE PHILIPPINES (HOMOPTERA: APHIDIDAE)[1]

Venus J. Calilung[2]

1. MATSUMURAJA CALORAI Calilung, *new species* (Fig. 1)

APTEROUS VIVIPAROUS FEMALE: Color in life, brownish yellow. Head, antennal segments I, II, apex of III, bases and apices of IV and V, VI, coxae, femora, bases and apices of tibiae, siphunculi, cauda and anal plate, dark in macerated specimens.

Body pear-shaped, small, only about 1.11-1.25 mm long. Capitate hairs which are about 0.0054-0.0108 mm long present on the front, sides of pronotum, antennae, and abdominal tergites I-VIII; all other dorsal hairs minute, pointed placed on distinct sockets. Antennal tubercles well developed, slightly rugose, diverging and bearing 2 capitate hairs each on innerside. Antennae 6-segmented, 0.92-1.28 times as long as body, the first two segments and base of segment III, smooth, rest of antennae distinctly imbricated. Thumb-like projection of antennal segment I equal to or twice as long as that segment and bearing 6-capitate hairs. Processesus terminalis, 2.80-4.12 times as long as base VI. Rostrum reaching siphunculus, tapering, the ultimate rostral segment, 2.28-2.66 times as long as hind tarsus 2 and bearing 2 subsidiary hairs. Siphunculi, 0.23-0.33 times as long as body, slightly imbricated on basal 0.75, smooth towards apical 0.25, which is weakly clavate, base broad, flange prominent. Cauda less than or half as long as siphunculi, spinulose and bearing 6 setae or hairs.

HOLOTYPE: Apterous viviparous female, from *Ficus ribes* Reinw. ex Bl. var *cuneata* (Miq.) Corner; Mt. Polis, Parang, Banawe, Ifugao; 24 March 1969 (B.S. Calilung). PARATYPES: apterous viviparous females with the same collecting data. Holotype in the collection of the Department of Entomology, U.P. College of Agriculture, Laguna. Paratypes in the collections of the Department of Entomology, U.P. College of Agriculture, Laguna, British Museum (Natural History), London and Dr. D. Hille Ris Lambers, Bennekom, Netherlands.

Notes. Takahashi (1959, 1965) and Miyazaki (1971) have given detailed descriptions of Japanese species of *Matsumuraja*; Tao (1963) of Formosan and continental Chinese species and Hille Ris Lambers (1965, 1966) described one Japanese species and one from West Pakistan, and gives a key for all the then known species of *Matsumuraja*.

The present species like *M. nuditerga* Hille Ris Lambers, can be recognized easily from all known species of this genus by having minute (about 0.0054-0.0108 mm) capitate hairs on the front, antennae, pronotum, and abdominal tergites I to VIII and exceedingly short pointed hairs on the rest of the dorsum. It differs, however from *M. nuditerga* which has the ultimate rostral segment 1.1 times as long as hind tarsus 2 as against 2.28-2.66 in *calorai*; antennae pigmented on segments I, II, apex of III, bases and apices of IV and V, and VI in contrast to the pale or faintly pigmented 3rd-5th antennal segments of *nuditerga*; antennae in *M. calorai*, 0.92-1.28 times as long as body as against 0.70 in *M. nuditerga*. Thumb-like projection in *M. nuditerga*

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[2] Assistant Professor, Department of Entomology, University of the Philippines: College, Laguna.

TABLE 1. Actual measurements of apterous viviparous females of Matsumuraja calorai sp. n.

Morph	length of body	Total Length of antenna	Antennal Segments III	IV	V	VI	Secondary rhinaria on III	Siphunculus	Cauda	Ultimate rostral segment	Hind 2 tarsus
1	1.95	—	0.39	0.19	0.16	—	3	0.43	0.17	0.12	0.10
		—	0.39	0.20	0.15	—	2	0.42			—
2	1.88	—	0.39	0.21	0.18	—	2	0.43	0.18	0.12	—
		—	—	—	—	—	—	0.45			—
3	1.75	1.19	0.31	0.15	0.13	0.09 + 0.34	3	0.39	0.16	0.11	0.08
		—	—	—	—	—	—	0.39			0.10
Alate											
1	1.88	1.32	0.36	0.18	0.15	0.11 + 0.41	11	0.32	0.18	0.10	0.10
		1.33	0.34	0.18	0.15	0.11 + 0.41	16	0.32			0.09
2	2.05	1.45	0.38	0.22	0.18	0.12 + 0.40	10	0.34	0.16	0.11	0.07
		1.48	0.40	0.22	0.18	0.11 + 0.42	13	0.34			—
3	1.95	—	0.40	0.18	0.16	—	10	0.35	0.16	0.11	0.09
		1.40	0.40	0.18	0.15	0.11 + 0.42	10	0.35			—

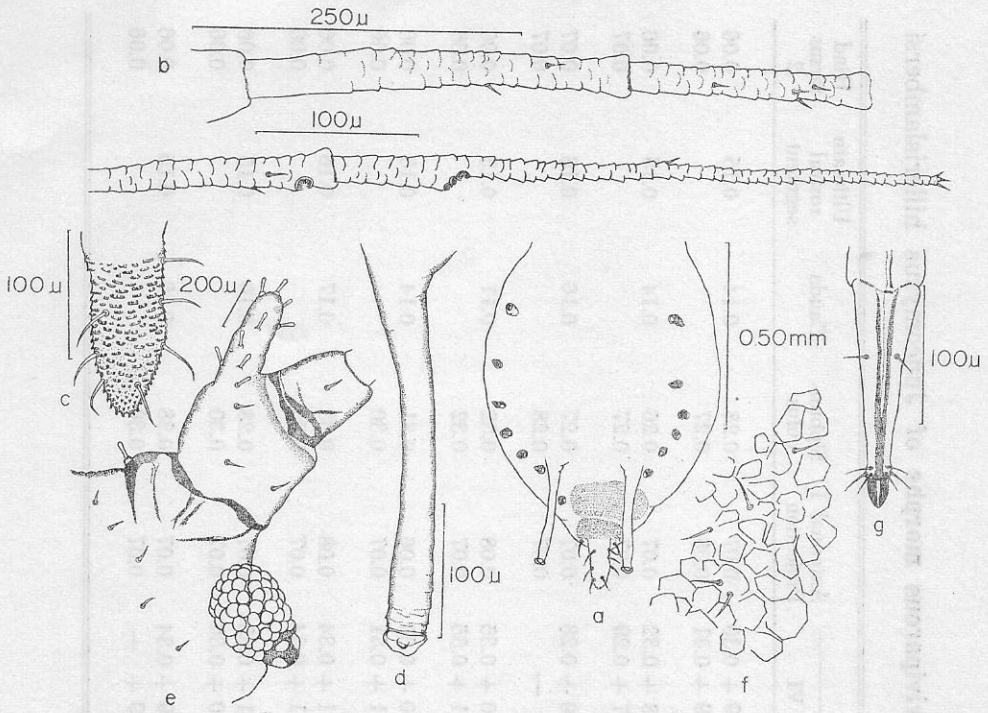

Fig. 1. *Matsumuraja calorai* n. sp. Apterous viviparous female. a. body; b. antenna; c. cauda; d. siphunculus; e. portion of head showing tubercle of antennal segment I; f. sculpturing of body; g. ultimate rostral segment.

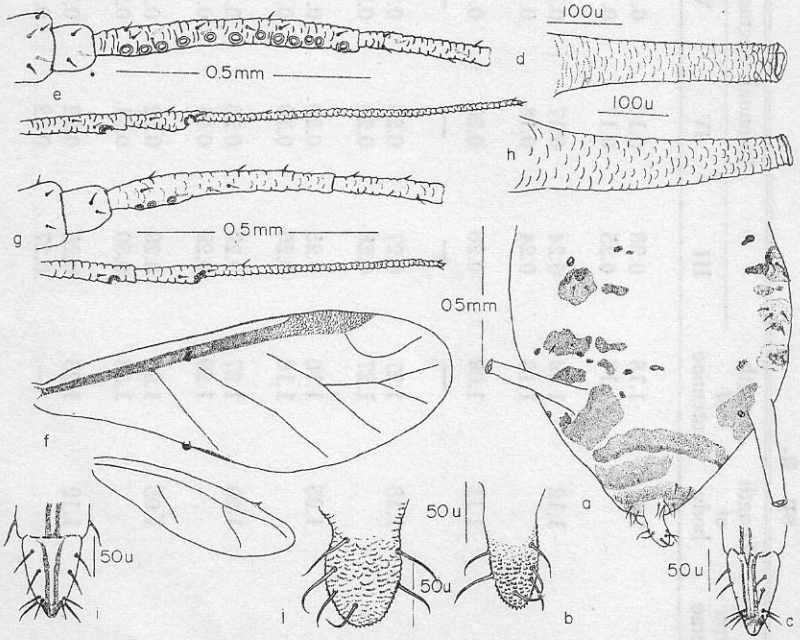

Fig. 2. *Junconmyzus hillerislambersi* n. sp. Alate viviparous female. a. body; b. cauda; c. ultimate rostral segment; d. siphunculus; e. antenna; f. fore and hind wings. Apterous viviparous female. g. antenna; h. siphunculus; i. ultimate rostral segment; j. cauda

TABLE 2. **Actual measurements of apterous and alate viviparous morphs of** Juncomyzus hillerislambersi **sp. n.**

Morph apterae	Length of body	Length of Antennae	Antennal Segments III	IV	V	VI	Antennal I Projection	Siphunculus	Cauda	Ultimate rostral segment	Hind tarsus 2
1	1.11	1.18	0.26	0.16	0.18	0.09 + 0.30	0.07	0.28	0.14	0.15	0.06
		1.17	0.25	0.17	0.15	0.09 + 0.31	0.06	0.27			0.06
2	1.12	1.19	0.24	0.17	0.18	0.08 + 0.32	0.07	0.26	0.14	0.15	0.06
		1.13	0.24	0.18	0.17	0.07 + 0.29	0.07	0.27			0.07
3	1.11	1.09	0.26	0.20	0.18	0.10 + 0.28	0.07	0.27	0.16	0.16	0.07
		—	—	—	—	—	0.07	0.28			0.07
4	1.13	1.27	0.27	0.23	0.20	0.10 + 0.35	0.08	0.32	0.17	0.15	0.06
		1.27	0.28	0.24	0.24	0.11 + 0.35	0.07	0.32			0.06
5	1.25	1.16	0.25	0.20	0.18	0.10 + 0.30	0.06	0.31	0.14	0.15	0.06
		1.16	0.26	0.19	0.17	0.11 + 0.31	0.07	0.30			0.06
6	1.20	1.27	0.29	0.23	0.20	0.11 + 0.34	0.08	0.33	0.17	0.16	0.06
		1.29	0.29	0.21	0.19	0.11 + 0.34	0.07	0.33			0.06
7	1.05	1.30	0.29	0.22	0.20	0.11 + 0.35	0.07	0.28	0.16	0.15	0.06
		1.33	0.30	0.21	0.20	0.10 + 0.36	0.07	0.30			0.06
8	1.12	1.25	0.25	0.22	0.19	0.09 + 0.34	0.07	0.28	0.16	0.15	0.06
		—	0.27	0.22	0.19	0.09 + —	0.07	0.30			0.06

small and bearing only 3 capitate setae while in *M. calorai* it is equal to or twice as long as antennal I, bearing 6-8 capitate setae. Siphunculi in *M. nuditerga* are 4 times as long as cauda while in *M. calorai* they are twice as long or less.

This species is named for Dr. Feliciano B. Calora on whose suggestion and encouragement I took to study aphids.

2. JUNCOMYZUS HILLERISLAMBERSI CALILUNG, *new species* (Fig. 2)

APTEROUS VIVIPAROUS FEMALE: Greenish black or black aphids in life. Immature morphs green. Head and antennal segments I, II, IV, and VI distal 0.90 of femora, bases and apices of tibiae, tarsi and siphunculi, dark in cleared specimens.

Body, broad oval, 1.75-1.95 mm long. Front straight, slightly scabrous. Frontal tubercles low, diverging, scabrous, innerside rounded, bearing short blunt seta each. Antennae, about 0.70 times as long as body, imbricated, bearing 2.4 rhinaria on a swollen portion of segment III close to its base, hairs very few and acute. Processus terminalis about 3.75 times base VI. Ultimate rostral segment, blunt, almost reaching hind coxae, about 1.10-1.33 times as long as hind tarsus 2, bearing 4 secondary hairs. Femora scabrous, distal 0.90 dark, bearing pseudorhinaria; tibiae smooth, hairs very few, short. First tarsal segment bearing 1 long median hair and two short lateral hairs. Siphunculi, black, 0.20-0.25 times as long as body, gradually tapering, dorsally smooth or indistinctly imbricated, laterally, imbrications very distinct, flange well developed, with a row of indistinct reticulation just above flange. Cauda, pale, elongate, bearing 4 hairs, imbrications coarsely denticulate, 0.40 times as long as siphunculi. thorax and abdominal tergites VII-VIII, membranous. Eighth abdominal tergite bearing 4 hairs, about 0.028-0.032 long, longer than other dorsal hairs which are short (about 0.0036-0.0216 mm), scarce and inconspicuous.

ALATE VIVIPAROUS FEMALE: Color as in apterae. Head, antennae, thorax, legs and siphunculi dark; cauda, pale, in cleared specimens.

Body, oval, 1.88-2.05 mm long. Front and frontal tubercles as in apterae. Antennae less than 0.75 times as long as body; segment I and II scabrous, rest of segments imbricated, bearing few blunt hairs. Antennal segment III with 10-16 slightly protruding rhinaria arranged more or less in a row. Processus terminalis, very slender, 3.33-3.90 times base VI. Ultimate rostral segment equal to or 1.50 times as long as hind tarsus 2. Siphunculi, 0.17-0.20 times as long as body, base enlarged, imbrications before small flange forming 1-3 rows of reticulation. Cauda, shorter than in apterae, apex rounded but more acute, bearing 4-6 hairs.

Abdominal dorsum reticulated throughout with pleural, marginal, spinal and postsiphuncular sclerites. Wing venation normal, veins thick, narrowly and faintly bordered.

HOLOTYPE: Alate viviparous female from *Scleria scrobiculata* Nees, Bulusan, Sorsogon, 18 April 1969 (V.J. Calilung). PARATYPES: 3 apterae and 2 alatae viviparae with the same collecting data. All types in the collection of the Department of Entomology Museum, U.P. College of Agriculture, Laguna.

Notes. Miyazaki (1971) has discussed and given a key to the Japanese species of *Juncomyzus*. The present species is related to *Juncomyzus obscurus* Hille Ris Lambers, the type species of the genus (Hille Ris Lambers, 1965) but differs from it in the following characters: apterae of *Juncomyzus hillerislambersi* with shorter antennae; rhinaria, 2-4, placed on a thickened part of segment III close to base while *obscurus* the thickened portion bears 1-5 secondary rhinaria, more or less, on the middle part of the segment; siphunculi, shorter in *hillerislambersi*, only 0.20-0.25 times as long as body, smooth or indistinctly imbricated, flange well developed, imbrications just before

it forming 1 or 2 rows of indistinct reticulation; dorsal sclerotization more extensive. In alatae, dorsum reticulated throughout while in *J. obscurus* only the postsiphuncular sclerite is reticulated (Hille Ris Lambers 1965); antennal segment III with 10-16 protruding rhinaria more or less in a row, wanting on segment IV while in *J. obscurus* segment III with 6-12 and IV with 1,3 rhinaria, siphunculi without subapical reticulation.

Like *obscurus*, this species lives on the stems of the host plant but it is attended by black ants.

This species is named for Dr. D. Hille Ris Lambers for confirming that it is new to science and for his kindness and ever generous help during the author's brief stay in Bennekom, Netherlands.

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Apterae