

A NEW RHIZOECUS SPECIES

by

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(Malang).

By the courtesy of the head of the "Instituut voor Plantenziekten" at Buitenzorg I received for identification a mealy bug on the tubers of *Amorphophallus variabilis*. As it is obviously a new species, it is described here.

Rhizoecus amorphophalli nov. spec.

Adult female. Small coccids, body long oval. Wax cover and colour unknown.

Taxonomic characters. Antennae rather short with 6 segments, the apical segment with three thick curved bristles, also the penultimate segments with such a bristle. Legs rather short, length of femur III 79 - 80 %, average 77.2 %, of that of tibia III; length of tibia III 66 - 74 %, average 70.5 %, of that of tarsus III; length of femur II 63 - 70 %, average 65.4 %, of that of tibia II; length of tibia II 83 - 88 %, average 85.7 %, of that of tarsus II; length of femur I 64 - 73 %, average 69.1 %, of tibia I; length of tibia 83 - 85 %, average 83.9 %, of tarsus I.

Claws long and slender without denticle: Digituli distinct, knobbed at the end; tarsal digituli not observed. Tibiae at the inner sides ending by two strong spurshaped spines. Legs without pores. Mentum normal, one? segmented. Spiracles small, not abnormal. Oral and anal osteoli present without distinct lips. Anal ring present, with six strong setae, the latter almost as long as the longest seta on the anal lob. No pores on the ring as in *Pseudococcus*, but a rather uneven areolation with large areoles. Cerari not developed. Anal lobes not very distinct, each with three long well developed setae. Body setae slender and thin rather scattered, not very long. Cerores of different size and shape. Scattered on the derm are small somewhat triangular, ? trilocular pores. Tubular pores mostly absent, very rarely some on the apical segments. Genacerores present on three sternites near the vulva. Large trilocular cerores on the derm as indicated in the figure. They exist of three tubular ducts, which are spirally twisted round each other. The entrances of these ducts are rising above the derm. The middle of two sternites of the abdomen possesses a conical structure bearing at the end some areolation. No ventrolabia.

Types in the collection of the Institute for Plantdiseases at Buitenzorg and in the collection of the Research Station "Midden- and Oost-Java" at Malang.

Distribution and foodplant: Found on tubers of *Amorphophallus variabilis* in "s Lands Plantentuin" at Buitenzorg.

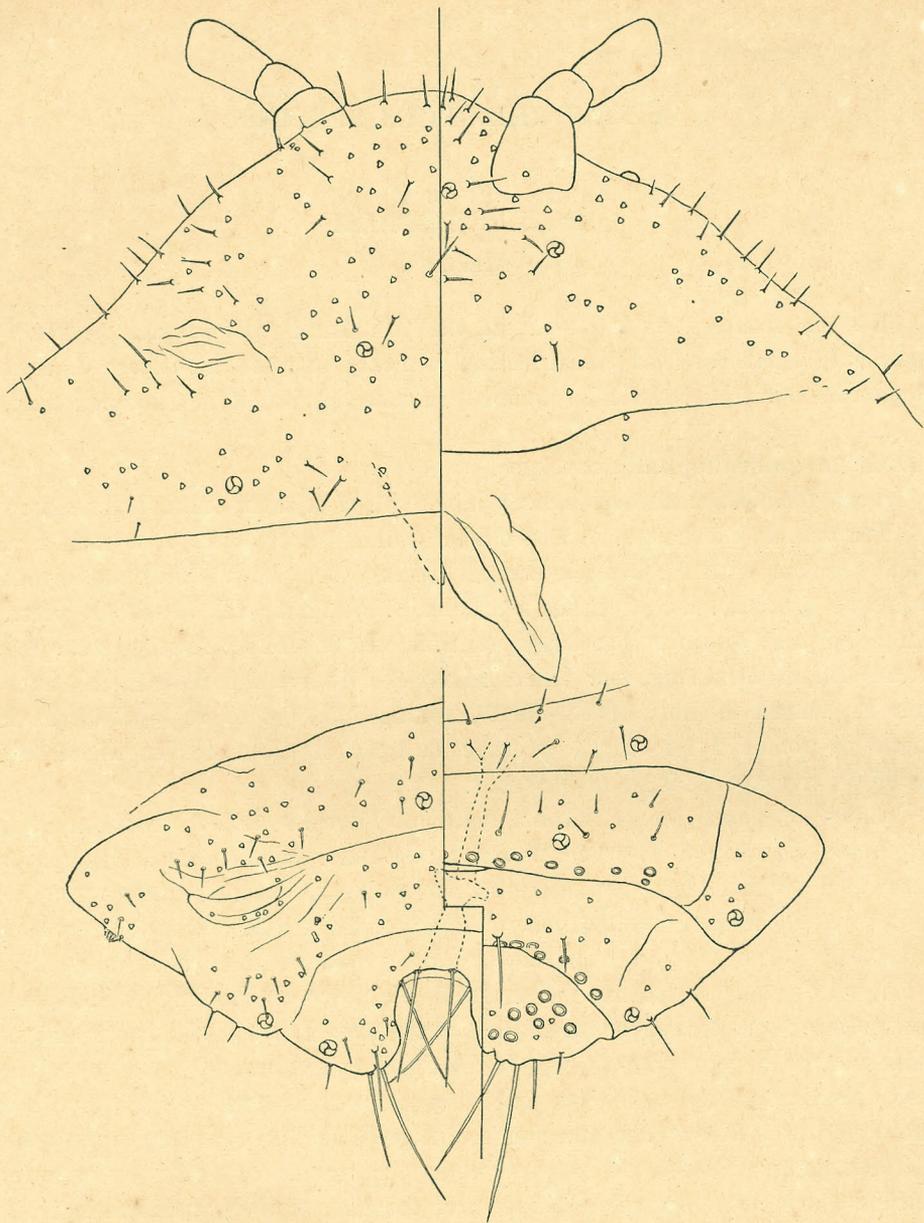


Fig. 1. Anterior and posterior end of the body, ventrally and dorsally.

In my "Key to the Genera of the Dactylopiinae of S.E. Asia" (Arch. v/d Koffiecultuur, XI, pag. 20 and 96) the new species runs to *Ripersia* SIGN. 1875. This genus is very badly defined.

In the year 1926 MORRISON mentioned the following: "The genus *Ripersia*, as now accepted, does not contain a well defined, homogeneous group of species, but instead is little more than a dumping ground for species of mealybugs

having 6-segmented antennae and living on Gramineae, or on the roots of other plants" (Jrl. Agr. Res. XXXIII).

Since then our knowledge about this genus has not much increased, because the genotype (typus generis) has not been found again since its description in the year 1857.

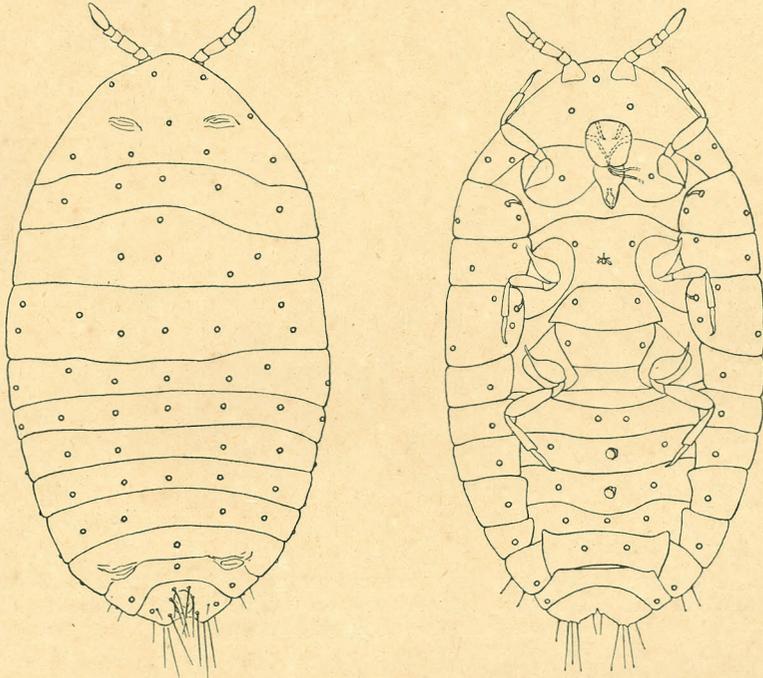


Fig. 2. Habitus; the places of the large tritubular cerata are indicated by circles; also the ventral protuberances on two of the sternites.

Some descriptions, however, of new genera or redescrptions of insufficiently described related genera show a way out to separate some groups of species from the old genus *Ripersia*.

The related genera about which I am informed are: *Rhizoecus* KUNCKEL 1878 (LEONARDI Mon. Coccin. Ital. p. 424, 1920); *Mizococcus* TAKAHASHI (Phil. Jr. Sc. XXXVI, p. 336); *Antoninella* KIRITSHENKO 1938 (Konowia XVI, p. 233); *Cryptoripersia* CKLL 1899 (FERRIS: Calif. spec. mealy bugs, p. 73, 1918; FERRIS: Coccidae of S.W. Un. St., p. 33, 1920); *Ripersiella* TINSLEY 1899 (MORRISON: Pr. Un. St. Nat. Mus. n. 2407, v. 60, art. 12, p. 54 - 55, 1922).

The genera *Mizococcus* and *Antoninella* have no falciform, thick bristles on the antennae; thus, our species cannot belong to these genera.

According to the more recent interpretations of *Ripersia* this genus has a compact not cellular anal ring (see FERRIS: 1920, l.c. p. 33, LAING: Ann. Mag. Nat. Hist. (10) 4, p. 470, 1929).

The informations concerning *Cryptoripersia* are very scarce. However, the characters given indicate that it is improbable that our new species should belong to this genus.

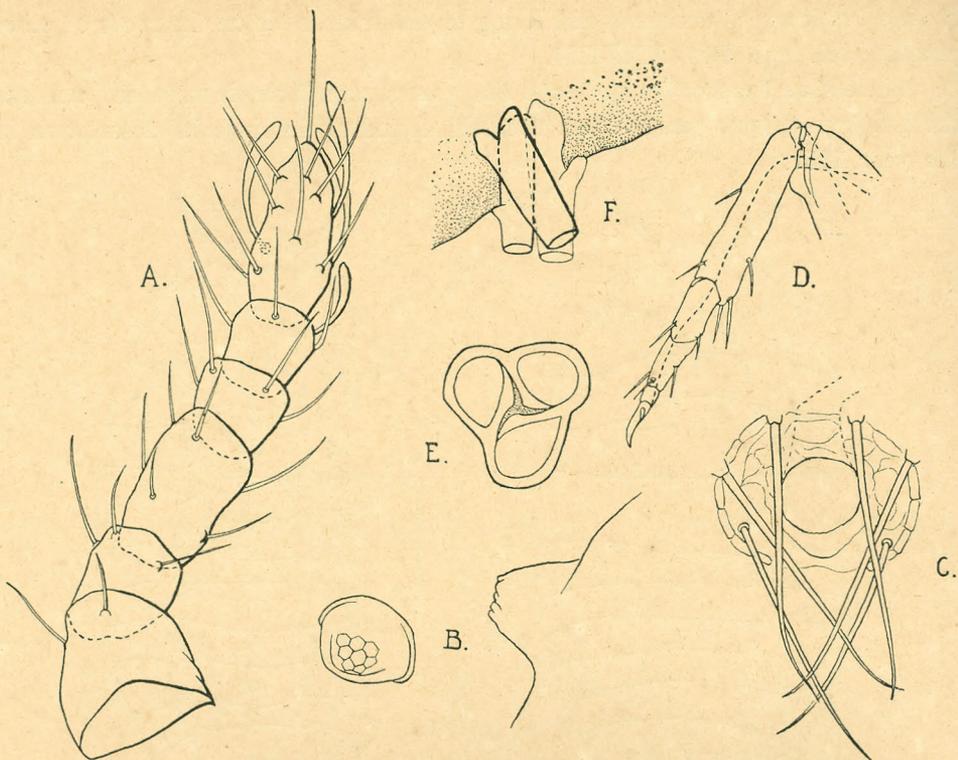


Fig. 3. A. Antenna; B. Ventral protuberances on two of the sternites; C. Anal ring; D. Tibia and tarsus; E. Apical view of one of the tritubular cerores; F. Lateral view of one of these cerores.

The characters of *Ripersiella* and of *Rhizoecus* are in accordance with those of our new species. *Ripersiella*, however, possesses no cerores with three tubular ducts, whereas *Rhizoecus* possesses these remarkable ducts, but has antennae with 5 segments instead of 6 segments. The number of segments of the antennae has no value as a genus character on account of its variation. Moreover, already many descriptions of species of *Rhizoecus* with 6 segmented antennae are published by LAING and JAMES. So there seems no serious obstacle to include the new species in the genus *Rhizoecus*.