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SOME MEALYBUGS FROM THE OGASAWARA (BONIN) ISLANDS (HOMOPTERA: PSEUDOCOCCIDAE)

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The scale insects or Coccoidea of the Ogasawara Is. have been studied by several authors, and nine species of mealybugs have been recorded. In the course of my study on the coccid-fauna of the Ogasawara Is., some additional species belonging to the family Pseudococcidae have been found. In the present paper are described and figured seven species, of which six are new to science and the other is new to the Islands, and a new genus is proposed. Another new species presumably referable to *Allotrionymus* as here understood, a dominant genus of pseudococcids in the Islands, is at hand, but the species is not described here, since the material is not adequate.¹⁾

Genus *Allotrionymus* Takahashi

Type-species. *Allotrionymus elongatus* Takahashi.

Remarks. This genus is so close to *Atrococcus* Goux that it is open to question whether the two are really distinct. I will, however, tentatively distinguish the two, because as far as their type-species are concerned the former differs from the latter by the following characters: a narrower body; more or less condensed antennae, the antennal segment III is short, and wider than long; and shorter beak, of which the distal segment is distinctly broader than long. Three new species referred here to this genus all well agree in the mentioned as well as other characters. This genus is possibly associated exclusively with gramineous grasses.

Allotrionymus boninensis n. sp.

Diagnosis. Adult female as mounted on slide elongate, the examined specimen *ca.* 3.4 mm long. Antennae 8-segmented; segment VII with 1 and VIII with 3 sensory setae. Eyes present, a small cone *ca.* 25 μ in diameter. Legs rather small, slender; hind coxae each with a few translucent pores; tibiae twice, or a little less than twice, as long as the tarsus; claw without denticle or tooth. Beak short and broad. Both pairs of dorsal ostioles present, little sclerotized on inner edges of lips. One circulus present between abd. IV and V, very small, and circular. Anal ring with cellular structure well developed. Anal lobes indistinct. Cerarii numbering 2 pairs only; anal-lobe cerarii each with 2 short, slender, conical setae, 2 or 3 slender auxiliary setae, and with a slight concentration of trilocular pores, without sclerotization; penultimate cerarii each with 2 much longer, but more slender flagellate cerarian setae, which are a little more apart from each other than in the posterior cerarii and stouter than the dorsal setae, no auxiliary setae, trilocular pores scarcely concentrated. Body setae few and very small, *ca.* 10-25 μ long on the dorsum, and 20-50 μ long on the venter. Trilocular pores numerous over the body. Minute simple circular pores almost as large as the smaller duct in diameter, scattered over the body. Multilocular disc pores absent on the dorsum; present on the venter in small

1) This species is characterized by much reduced antennae and legs, and the absence of circulus; a single specimen was collected on *Paspalum conjugatum* in Chichi-jima.

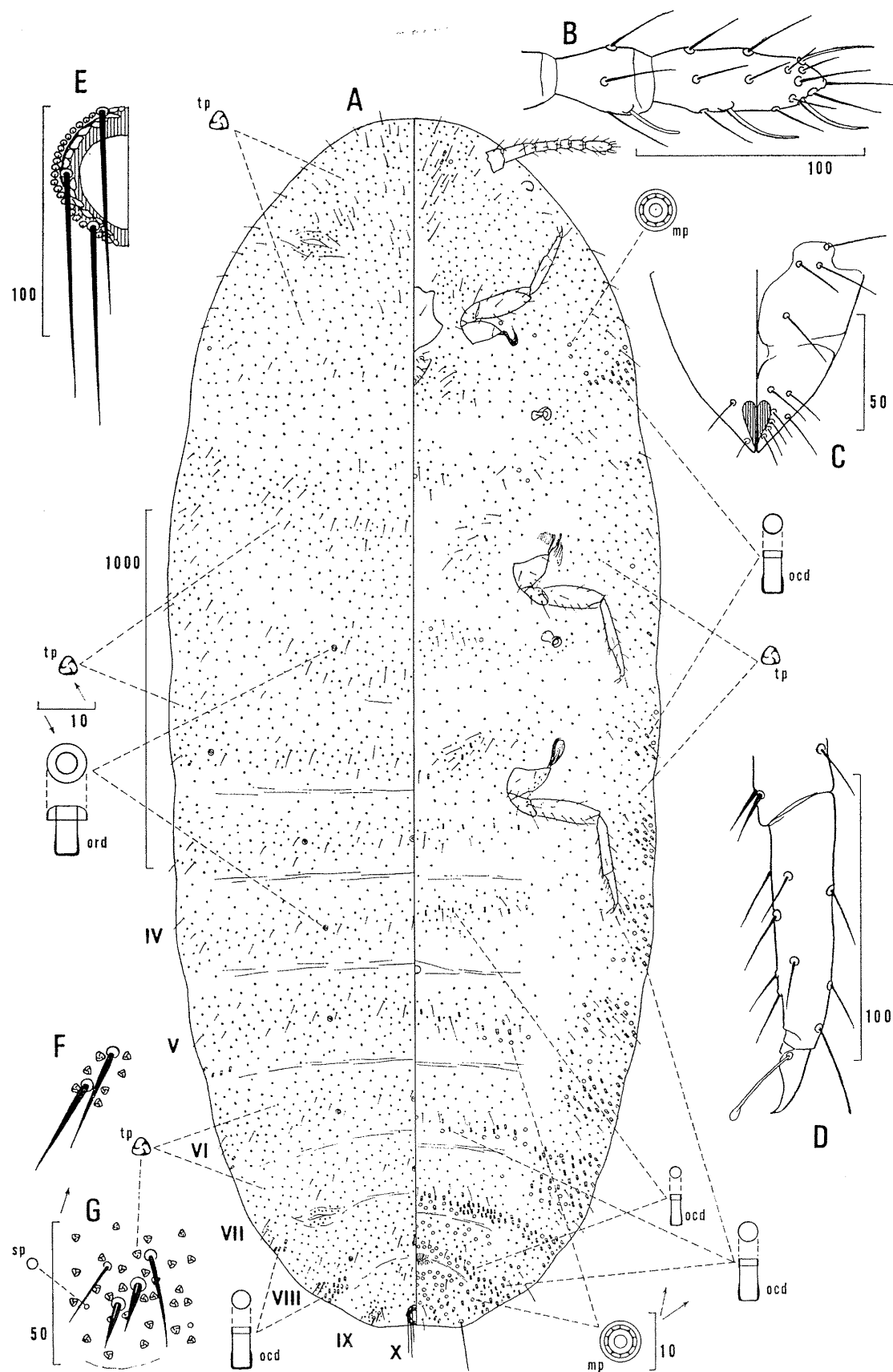


Fig. 1. *Allotrionymus boninensis* n. sp., adult female. A, body (IV-X, 4th-10th abdominal segments); B, 7th and 8th antennal segments; C, beak; D, hind leg; E, anal ring; F, penultimate cerarius; G, anal-lobe cerarius; tp, trilocular pore; mp, multilocular disc pore; sp, simple circular pore; ord, oral-rim tubular duct; ocd, oral-collar tubular duct. Scales in micra.

numbers around the margins of abd. II and succeeding segments, and a total of *ca.* 115 in transverse rows on abd. V and succeeding segments; a few also present on the thorax and head. Another group of *ca.* 7 pores present laterally to anterior coxae, these accompanied by a group of *ca.* 12 oral-collar tubular ducts. Oral-rim tubular ducts few, present across the dorsum as follows: metathorax, 2; abd. II, 1 (submarginal in position, found only on one side in the specimen); III, 3; IV, 2; V, 2; VI, 3; VII, 1; VIII, 3; none on the venter. Oral-collar tubular ducts in 2 sizes; larger ducts in ventral transverse rows or groups and rather large lateral groups on abd. V and succeeding segments, the lateral groups of abd. V–VIII extending to the dorsal side; ventral marginal or submarginal groups also present as far forward as head. Smaller ducts present mainly on abdomen, across the middle of the segments, much fewer than the larger ducts.

Measurements of the holotype in micra: beak (2 segments united), *length* 95, *width* 90; antennae, *l* 340, 350; hind trochanter+femur, *l* 255, 250, *w* 56, 62; hind tibia+tarsus, *l* 253, 258, *w* 27, 27; hind claws, *l* 12, 12; anal ring setae, *l* 80–90.

Specimens examined: 1 adult female (holotype), Chichi-jima, under the leaf sheath of *Miscanthus* sp. (25–XII–1969). Other material none. Deposited in the collection of the Entomological Institute, Hokkaidô University.

Remarks. This species comes close to *Trionymus rostellum* Hoke, a graminivorous species, which was transferred to *Chorizococcus* by McKenzie (1960), but differs from the latter in lacking oral-rim tubular ducts anteriorly to the mesothoracic region, and in the arrangement of oral-collar tubular ducts.

***Allotrionymus chichijimensis* n. sp.**

Diagnosis. Adult female as mounted on slide elongate, sides subparallel, the examined specimen *ca.* 2 mm long. Antennae rather condensed, 7-segmented; segment VI with 1 and terminal segment with 3 sensory setae. Eyes present, a small cone *ca.* 25 μ in diameter. Legs somewhat reduced in size, hind coxa with 35–40 translucent pores; hind tibiae distinctly less than twice as long as the tarsus; claw without denticle. Beak short and broad. Both pairs of dorsal ostioles present, little sclerotized on inner edges of lips. One circulus present between abd. IV and V, small, and circular. Anal ring with cellular structure well developed. Anal lobes indistinct. Cerarii confined to the anal lobes, these with 2 small conical setae, wanting auxiliary setae, with trilocular pores scarcely concentrated. Body setae few and very small, *ca.* 10–20 μ long on the dorsum, and *ca.* 20–40 μ long on the venter. Trilocular pores numerous over the body. Minute simple circular pores scattered over the body. Multilocular disc pores confined to the venter, a total of *ca.* 130 on the abdominal segments behind circulus; a few scattered on the anterior abdominal and thoracic segments, particularly near mouth-parts. Oral-rim tubular ducts present on the dorsum in single, widely spaced, transverse rows on head back to abd. IX, and 1 or 2 on marginal ventral area of most of mesothorax to abd. VIII; approximate numbers as follows: head, 6; prothorax, 4; mesothorax, 15; metathorax, 7; abd. II, 8; III, 6; IV, 7; V, 5; VI, 11; VII, 7; VIII, 10; IX, 5. Oral-collar tubular ducts present mainly on abd. IV and succeeding segments of the venter, arranged in transverse, segmental rows, merged into small lateral groups on abd. V–X, 1–2 ducts extending to dorsal marginal area on each segment; a few ducts also present on the thorax particularly around anterior coxa and near mouth-parts.

Measurements of the holotype in micra: beak (2 segments united), *length* 80, *width* 80; antennae, *l* 225, 238; hind trochanter+femur, *l* 175, 175, *w* 50, 52; hind tibia+tarsus, *l* 195, 193, *w* 28, 28; hind claws, *l* 22, 20; anal ring setae, *l* 75–78; anal lobe setae, *l* 74, 84.

Specimens examined: 1 adult female (holotype), Chichi-jima, under the leaf sheath of

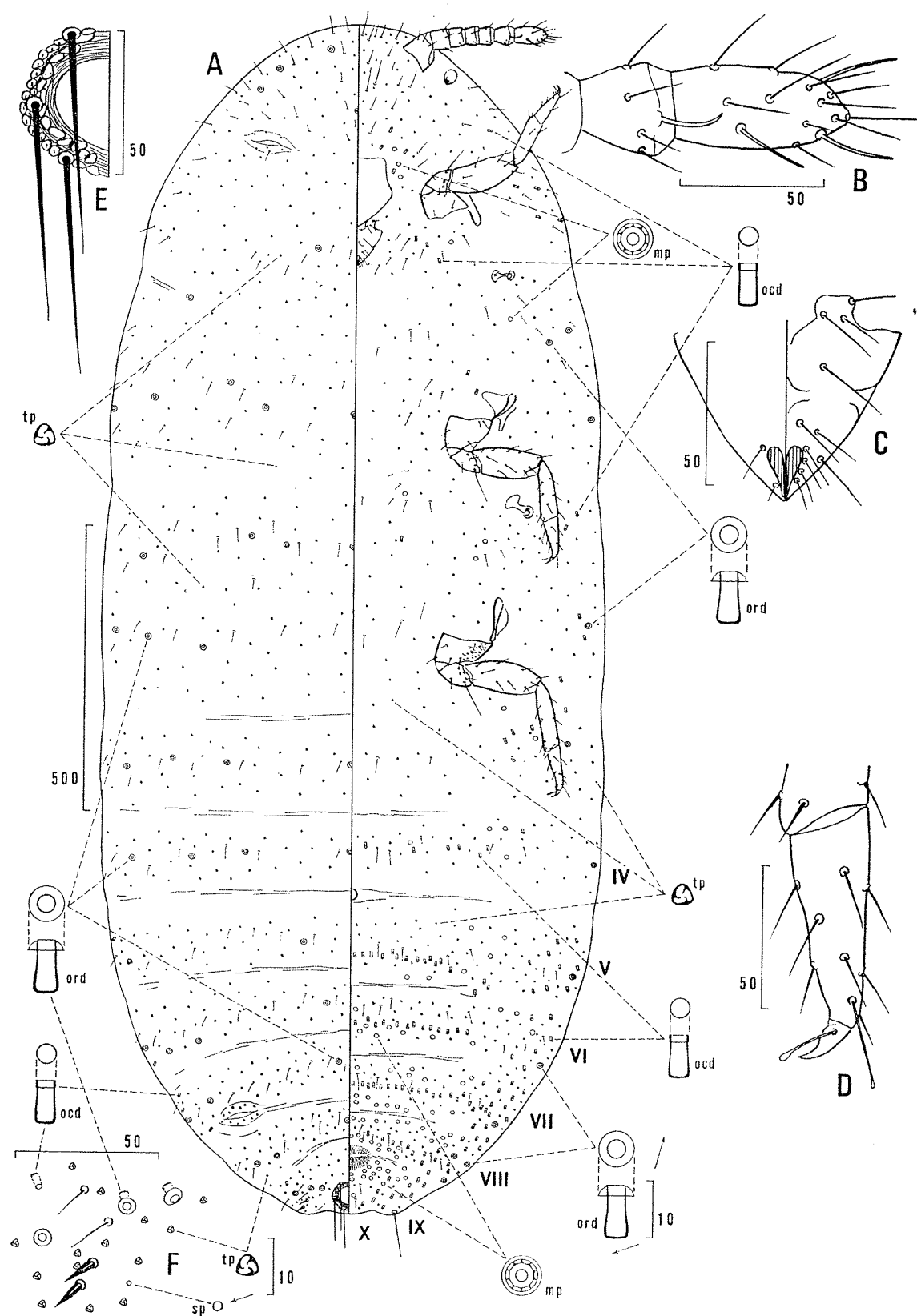


Fig. 2. *Allotrionymus chichijimensis* n. sp., adult female. A, body (IV-X, 4th-10th abdominal segments); B, 6th and 7th antennal segments; C, beak; D, hind leg; E, anal ring; F, anal-lobe cerarius; tp, trilocular pore; mp, multilocular disc pore; sp, simple circular pore; ord, oral-rim tubular duct; ocd, oral-collar tubular duct. Scales in micra.

Dactyloctenium aegyptium (31-XII-1969). Other material none. Deposited in the collection of the Entomological Institute, Hokkaidô University.

Remarks. This species is characterized by having 7-segmented antennae, and some oral-rim tubular ducts on the ninth abdominal segment.

***Allotrionymus multipori* n. sp.**

Diagnosis. Adult female as mounted on slide elongate, narrow, sides subparallel, the examined specimens *ca.* 1.6–3.2 mm in length. Antennae 8-segmented, with sensory setae 1 on the segment VII, and 3 on VIII. Eyes present, a small cone *ca.* 26 μ in diameter. Legs rather small; hind coxa with numerous translucent pores; hind femora almost as long as the tibia, hind tibiae twice as long as the tarsus; claw without denticle. Beak short and broad. Both pairs of dorsal ostioles present, very weakly sclerotized on inner edges of lips. One circulus present between abd. IV and V, oval and moderate in size. Anal ring with cellular structure well developed. Anal lobes moderately developed without sclerotized area. Cerarii confined to anal lobes, these with 2 small conical setae and 2 or 3 slender auxiliary setae somewhat removed from bases of conical setae, with little or no evidence of concentration of trilocular pores. Setae abundant over the body, those on abdomen *ca.* 15–25 μ long on the dorsum and *ca.* 20–60 μ long on the venter. Trilocular pores abundant, largely following the setae in distribution. Minute simple circular pores scattered over the body. Multilocular disc pores numerous on abd. IV and succeeding segments, a few also present behind anterior coxae, occasionally irregularly scattered on thorax. Oral-rim tubular ducts on dorsum forming sparse segmental rows across body; on venter situated in lateral area of meso- and metathorax and also on abdomen as caudad as segment VI. Approximate numbers of oral-rim tubular ducts of both surfaces as follows: head, 5; prothorax, 4; mesothorax, 10; metathorax, 7; abd. II, 10; III, 12; IV, 10; V, 12; VI, 16; VII, 5; VIII, 7; IX, 2. Oral-collar tubular ducts present mainly on abd. IV and succeeding segments, arranged in transverse rows just cephalad of the bands of multilocular disc pores in a broad middle region, mingled with lateral groups of multilocular pores on abdomen, and a few present laterally to each anterior coxa.

Measurements of one specimen in micra: beak (2 segments united), *length* 82, *width* 88; antennae, *l* 320, 325; hind trochanter+femur, *l* 236, 230, *w* 58, 58; hind tibia+tarsus, *l* 255, 257, *w* 32, 31; hind claws, *l* 20, 22; anal ring setae, *l* 75–85; anal lobe setae, *l* 115, 112.

Specimens examined (syntypes): some adult females, Chichi-jima, under the leaf sheath of *Chloris radiata* and an undetermined gramineous grass (20-XII-1969), and Otôto-jima, on *Pennisetum sordidum* (1-XII-1970). Deposited in the collection of the Entomological Institute, Hokkaidô University, and that of the Tôkyô Agricultural Experiment Station.

Remarks. This species resembles *A. elongatus* Takahashi described from Wakayama, Japan, on wild grass, but differs from the latter in having only a single pair of cerarii, and more numerous multilocular disc pores and dorsal oral-rim ducts.

Genus ***Boninococcus*** n. g.

Type-species. *Boninococcus miscanthi* n. sp.

Diagnosis. Adult female: Body oval, membraneous; anal lobes indistinct, without sclerosis. Two pairs of dorsal ostioles present. Circuli present, circular, 2–3 in the type-species and moderate in size. Cerarii present only on a few posterior segments (2–4 pairs in the type-species), without auxiliary setae. Spiracles normal. Anal ring at posterior apex of dorsum, broad, cellular, with 6 long setae. Antennae rather condensed, 7-seg-

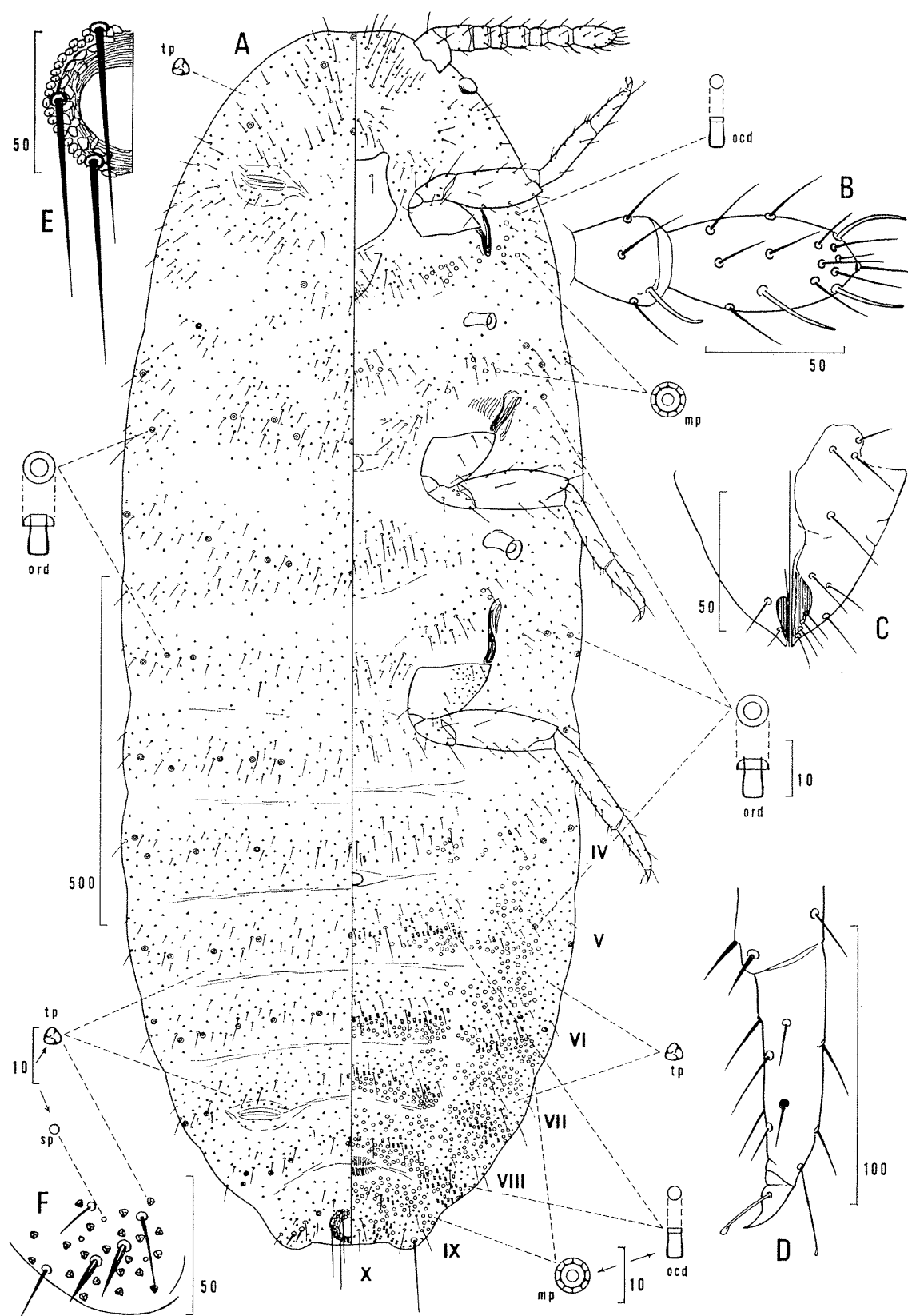


Fig. 3. *Allotrionymus multipori* n. sp., adult female. A, body (IV-X, 4th-10th abdominal segments); B, 7th and 8th antennal segments; C, beak; D, hind leg; E, anal ring; F, anal-lobe cerarius; tp, trilocular pore; mp, multilocular disc pore; sp, simple circular pore; ord, oral-rim tubular duct; ocd, oral-collar tubular duct. Scales in micra.

mented. Eyes present. Beak short, the distal segment wider than long. Legs reduced in size, hind coxae enlarged, with a cluster of numerous small duct-like invaginations; claws without denticle, tarsal and ungual digitules thin, capitate. Trilocular pores present both dorsally and ventrally, numerous. Multilocular disc pores confined to the venter. Quinelocular disc pores and tubular ducts absent. Body setae sparse, minute and slender.

Remarks. The distinctive characters of this genus which is defined by the single species are the complete absence of tubular ducts on the body, reduced legs and enlarged hind coxae bearing many small duct-like invaginations. The unusual condition of the hind coxae occurs in several other genera, such as *Kiritshenkella* Borchsenius, *Neoripersia* Kanda, *Pseudantonina* Green, etc. These genera, however, have no similarity to *Boninococcus* in other respects. It is hoped that the eventual discovery of additional species allied to the type of this genus will throw light on its relationship to other genera.

***Boninococcus miscanthi* n. sp.**

Diagnosis. Adult female as mounted on slide oval, abdominal segments scarcely lobed laterally. Antennae short, 7-segmented; the segment III much shorter than II, wider than long, subequal in length to IV and V each. Beak short, broad, pointed apically. Eyes small, a small cone *ca.* 18 μ in diameter. Legs small; hind coxae enlarged, with proximal margins not well defined, fused with the venter of body, the fusion forming an irregular sclerotized patch, beset with numerous small duct-like invaginations on the sclerotized patch and a few in adjacent unsclerotized derm; hind tibiae as long as, or slightly longer than, the tarsus. Ostioles unsclerotized on inner edges of lips. Circuli 2–3 in number, circular, *ca.* 50 μ in diameter at maximum, sclerotized around the margin, situated between abd. III and IV, IV and V, V and VI, the posteriormost usually smaller than the others or, at times, absent. Anal ring with cellular structure well developed. Anal lobes not appreciably protuberant, without sclerosis on the venter. With 2–4 pairs of cerarii; anal-lobe cerarii each with 2 conical setae and a few rather widely scattered slender setae; the surrounding derm not sclerotized. Penultimate cerarii each with 1 or 2 more slender conical cerarian setae; antipenultimate cerarii represented by a single slender conical seta. Body setae fine, sparse, mostly 10–20 μ long; somewhat longer setae, up to *ca.* 50 μ in length, present around vulva and the venter of head anteriorly to mouth-parts. Trilocular pores moderately densely scattered on the dorsum and venter. Multilocular disc pores present on abd. VII and succeeding segments, 60–100 in total. Simple circular pores, smaller than trilocular pores, scattered, not numerous. Any kind of tubular ducts completely absent.

Measurements of one specimen in micra: beak (2 segments united), *length* 82, *width* 100; antennae, *l* 200, 200; hind trochanter+femur, *l* 125, 120, *w* 40, 40; hind tibia+tarsus, *l* 98, 100, *w* 24, 23; hind claws, *l* 20, 20; anal ring setae, *l* 88–110; anal lobe setae, *l* 100, 95.

Specimens examined (syntypes): some adult females, Chichi-jima, under the leaf sheath of *Miscanthus boninensis* (26–XII–1969). Deposited in the collection of the Entomological Institute, Hokkaidô University, and that of the Tôkyô Agricultural Experiment Station.

Remarks. So far as my knowledge is concerned, this species appears to be quite distinct from any other previously described pseudococcid.

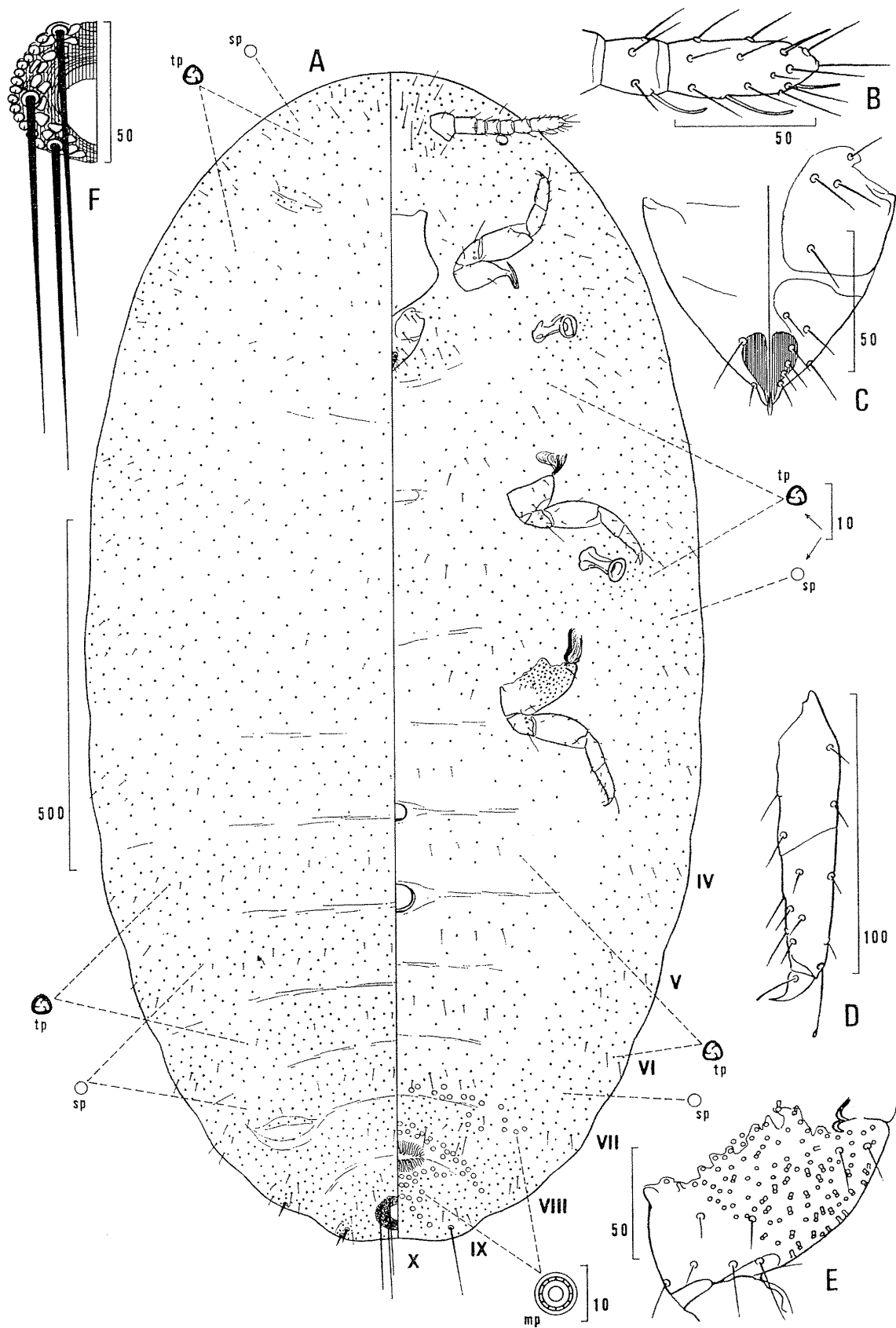


Fig. 4. *Boninococcus miscanthi* n. sp., adult female. A, body (IV-X, 4th-10th abdominal segments); B, 6th and 7th antennal segments; C, beak; D, distal part of hind leg; E, hind coxa; F, anal ring; tp, trilocular pore; mp, multilocular disc pore; sp, simple circular pore. Scales in micra.

Genus *Chorizococcus* McKenzie

Type-species. *Chorizococcus wilkeyi* McKenzie.

Remarks. As stated by Williams (1962), this genus is quite close to *Spilococcus* Ferris, differing mainly in possessing fewer cerarii (0–4 pairs in *Chorizococcus*, whereas 6–17 pairs in *Spilococcus*), and is almost identical with *Atrococcus* Goux except for the absence of black body contents (pale coloured in *Chorizococcus*, whereas black in *Atrococcus* especially after death). This genus is also very close to *Allotrionymus* Takahashi, and they can not sharply be distinguished on the basis of the known taxonomic characters. So far as the type-species are concerned, however, *Chorizococcus* may be distinguishable from *Allotrionymus* by a stouter body, and well developed legs, of which the hind tibia is more than twice as long as the tarsus. It is the opinion here adopted that the genus should tentatively be regarded as distinct.

Chorizococcus ilu Williams

Chorizococcus ilu Williams, 1970; 124.

Specimens examined: some adult females, Chichi-jima, under the leaf sheath of *Dactyloctenium aegyptium* (31–XII–1969). Deposited in the collection of the Entomological Institute, Hokkaidō University, and that of the Tôkyô Agricultural Experiment Station.

Remarks. This species was originally described from specimens collected in Guadalcanal, Solomon Is. on *Oryza sativa*. So far as I am aware, there has been made no further record. The present specimens from Ogasawara Is. slightly differ from the original description by the multilocular disc pores much fewer and almost lacking in the midregion of the thoracic venter. In other characters the specimens at hand agree well with the original description.

Genus *Helicococcus* Sulc

Type-species. *Helicococcus bohemicus* Sulc.

Helicococcus myopori n. sp.

Diagnosis. Adult female as mounted on slide oval; anal lobes well developed, prominent, dorsally weakly sclerotized, with a small, elongate sclerotized area on the venter extending anteriorly from base of anal lobe seta. Antennae slender, 9-segmented. Eyes prominent, ca. 70 μ in diameter. Legs long, well developed; femora almost as long as the tibia; tibiae over twice as long as the tarsus; claw with a distinct denticle. Both pairs of dorsal ostioles present, with ca. 20 trilocular pores and 3–4 very small, lanceolate setae on each lip. Circulus quite large, short and broad, anterior margin usually slightly produced laterally, situated on the intersegmental fold between abd. IV and V. Anal ring distinctive for the genus, bearing 6 setae smaller than anal lobe seta. Cerarii numbering 18 pairs; anal-lobe cerarii each with 2 rather small, conical, slightly lanceolate setae, without noticeable concentration of trilocular pores, and without auxiliary setae; other cerarii each with lanceolate, paired setae smaller than those of anal lobes, and 2–3 or more associated trilocular pores, all normally borne upon a faint membranous elevation. Dorsal body setae all extremely small, lanceolate, sparse, mostly 10–12 μ long; ventral setae slender, generally much longer than those on the dorsum, ca. 100 μ in maximum length; longer setae on the venter of head anteriorly to mouth-parts, ca. 160 μ in maximum length. Trilocular pores generally scattered over the dorsum, and also distributed on the venter along the body margin but lacking in a broad middle region. Multilocular disc pores present in small numbers immediately around the vulva, ca. 20–30 in total, with 1–2 occa-

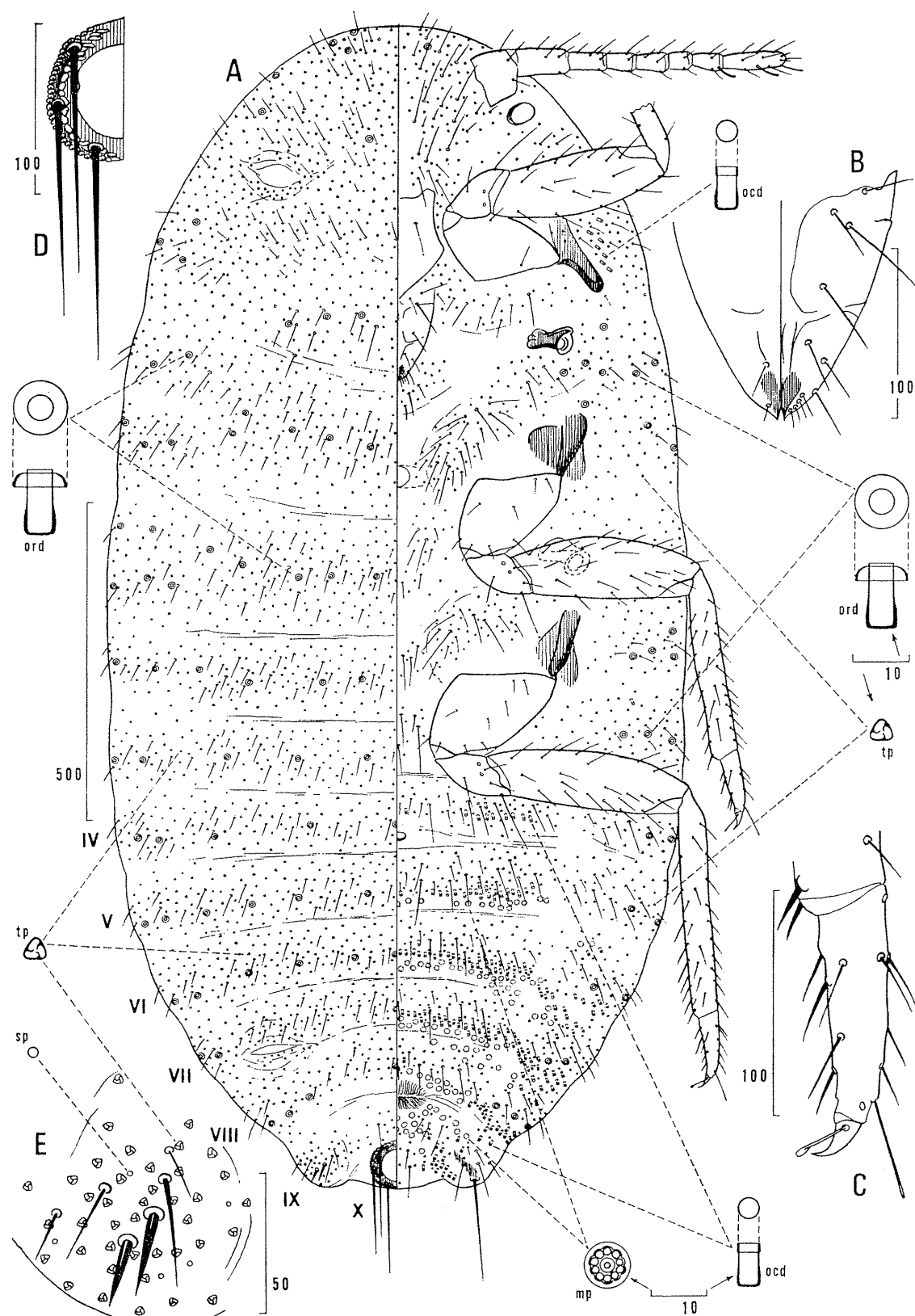


Fig. 5. *Chorizococcus ilu* Williams, adult female. A, body (IV-X, 4th-10th abdominal segments); B, beak; C, hind leg; D, anal ring; E, anal-lobe cerarius; tp, trilocular pore; mp, multilocular disc pore; sp, simple circular pore; ord, oral-rim tubular duct; ocd, oral-collar tubular duct. Scales in micra.

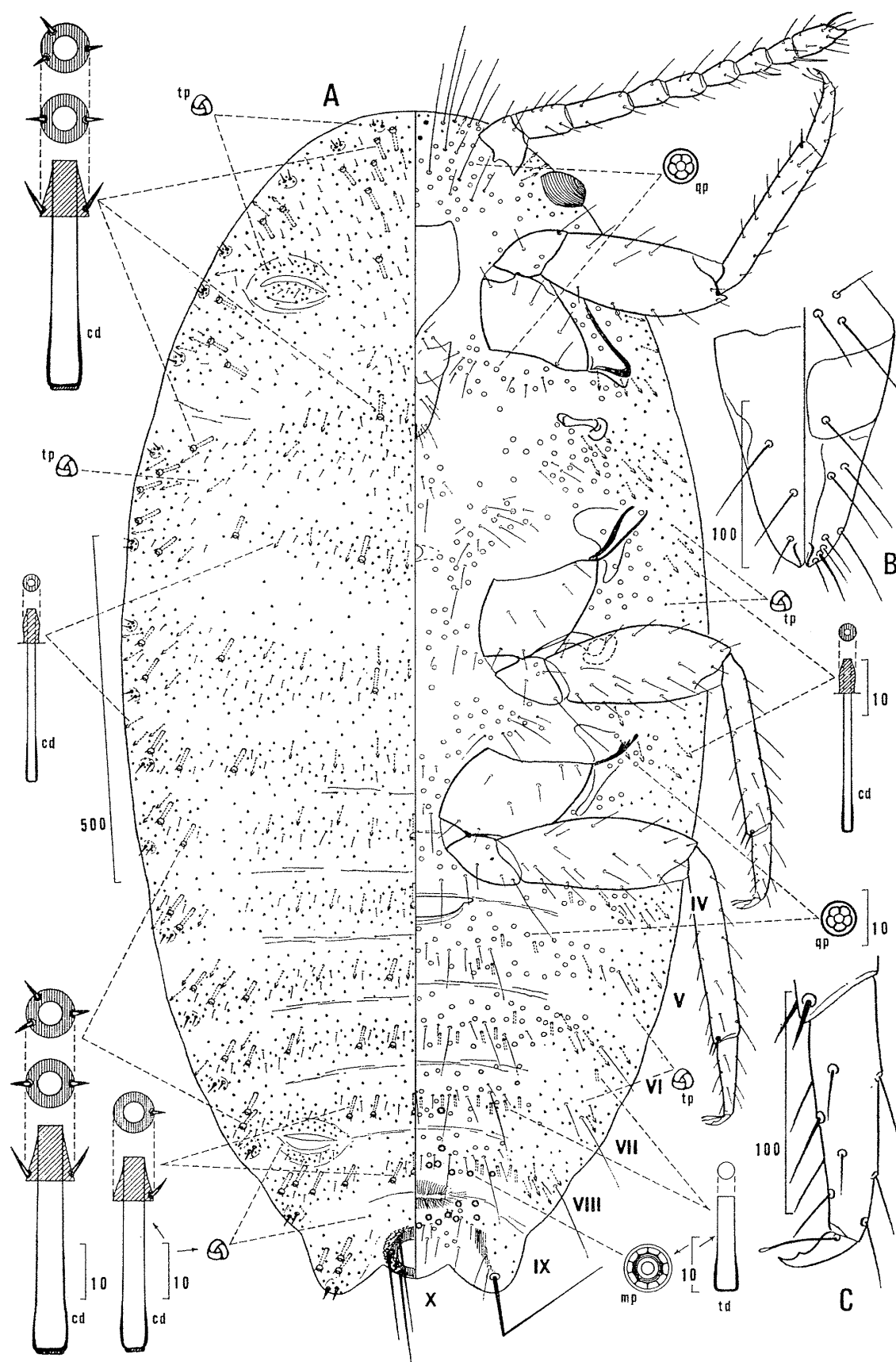


Fig. 6. *Heliococcus myopori* n. sp., adult female. A, body (IV-X, 4th-10th abdominal segments); B, beak; C, hind leg; tp, trilocular pore; mp, multilocular disc pore; qp, quinquelocular disc pore; cd, crateriform duct; td, tubular duct. Scales in micra.

sional pores on abd. VII. Quinquelocular disc pores confined to and distributed over the venter, abundant. Crateriform ducts in 2 distinct sizes, but the larger type rather variable in size. Larger ducts each with 1–3, usually 2, minute setae attached to the base of the duct prominence, arranged along the whole body margin, and in irregular series across thoracic and abdominal segments; their approximate numbers as follows: head, 10; prothorax, 14; mesothorax, 14; metathorax, 12; abd. II, 4; III, 4; IV, 4; V, 4–6; VI, 6–8; VII, 10; VIII, 10; IX, 6. Smaller ducts each with an excessively narrow, tuberculate duct prominence, without setae but occasionally with a single seta in close association with the base of the duct prominence; dorsally, they occur in segmental rows on most abdominal and thoracic segments, scattered irregularly over the head and in some numbers in the lateral areas of all the segments; ventrally, they are present in some numbers in the marginal areas along the entire body. Oral-collar tubular ducts present ventrally in the midregion of abd. IV–VIII, situated mostly in a single transverse row on each segment.

Measurements of one specimen in micra: beak (2 segments united), *length* 170, *width* 125; antennae, *l* 550, 520; hind trochanter+femur, *l* 375, 370, *w* 105, 108; hind tibia+tarsus, *l* 420, 415, *w* 48, 48; hind claws, *l* 35, 35; anal ring setae, *l* 170–180; anal lobe setae, *l* 275, 260.

Specimens examined (syntypes): 4 adult females. Minami-jima, on *Myoporum boninense* (9–IV–1969, K. Umesawa *leg.*). Deposited in the collection of the Entomological Institute, Hokkaidô University.

Remarks. This species is related to *H. osborni* (Sanders), which occurs in the eastern half of North America. It is distinguishable from the latter mainly by the crateriform ducts of the larger type evidently more numerous and present on the head. In the arrangement of the crateriform ducts of the larger type the new species is also similar to *H. stachyos* (Ehrhorn), an American species, but differs in possessing oral-collar tubular ducts on the abdominal segments of venter, and more numerous crateriform ducts of the smaller type on both dorsum and venter.

Genus *Pseudococcus* Westwood

Type-species. *Dactylopius longispinus* Targioni=*Coccus adonidum* auctorum (*nec* Linnaeus).

Pseudococcus ogasawarensis n. sp.

Diagnosis. Adult female as mounted on slide oval; anal lobes moderately protuberant. Antennae slender, 8-segmented. Beak with distal segment longer than the basal. Eyes present, a weakly developed cone; paraocular discoidal pores absent. Legs long, well developed; coxae wider than long; femora as long as the tibia; hind legs with translucent micropores numerous on the coxa, *ca.* 10–15 on the femur, *ca.* 20–30 on upper surface of the tibia, absent on the trochanters and tarsi. Ostioles distinct, with *ca.* 20 trilocular pores and 3–4 fine, short setae on each lip. Circulus large, extending across intersegmental fold between abd. IV and V. Anal ring normal, cellular, with 6 very long setae subequal in length. With 17 pairs of marginal cerarii; anal-lobe cerarii each with 2 large conical setae *ca.* 30 μ long plus 6–10 slender auxiliary setae *ca.* 60 μ in maximum length, surrounded by a heavily concentrated cluster of numerous trilocular pores, all borne on a well-defined sclerotized area. Penultimate cerarii each with 2 conical setae *ca.* 20 μ long plus 4–8 slender auxiliary setae *ca.* 45 μ in maximum length, surrounded by a concentration of fairly numerous trilocular pores, and with a suggestion of sclerotization. Antipenultimate cerarii each with 2 conical setae smaller, accompanied with 4–5 slender setae, a concentration of trilocular pores, and slight sclerotization. Anterior cerarii mostly with 2 conical

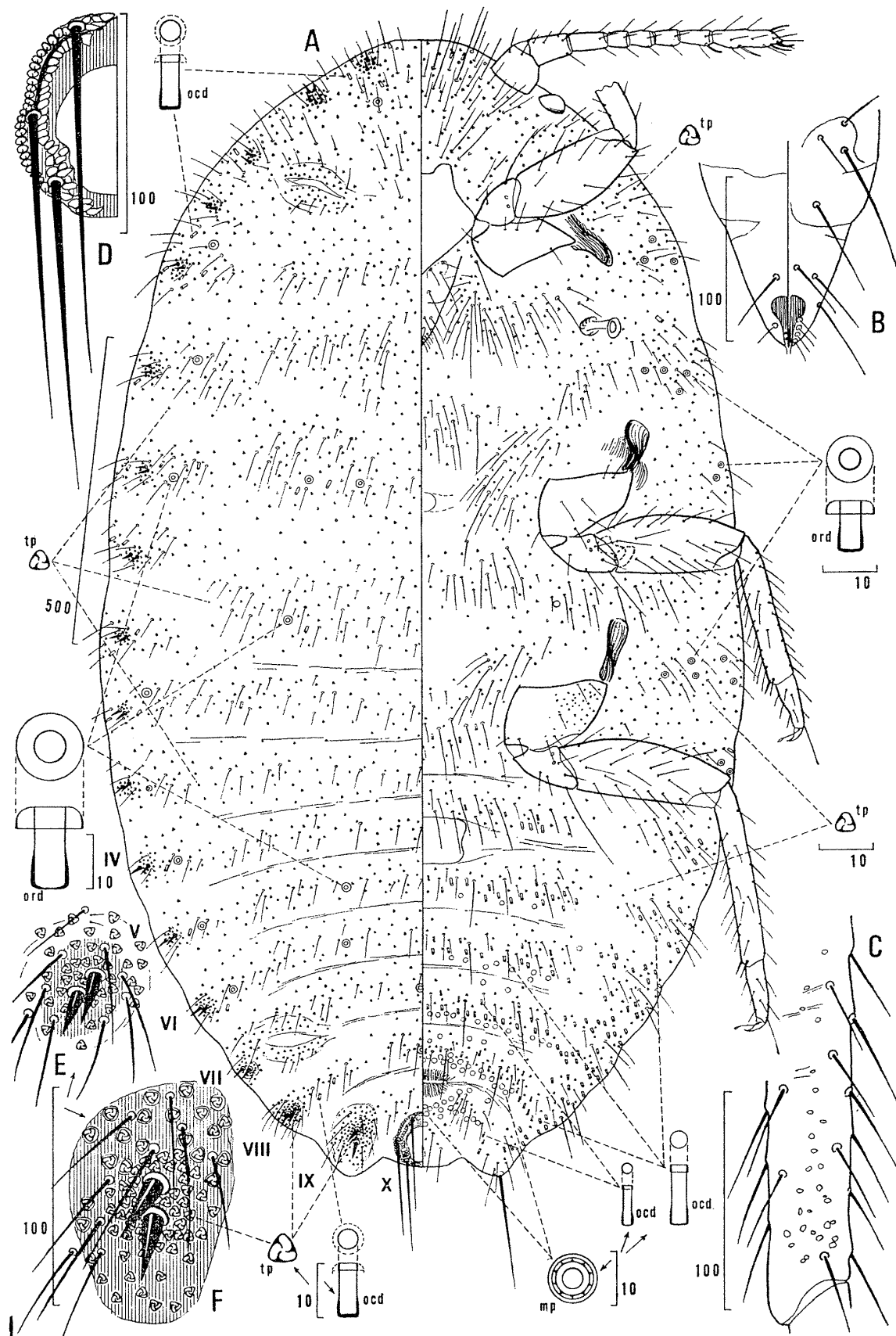


Fig. 7. *Pseudococcus ogasawarensis* n. sp., adult female. A, body (IV-X, 4th-10th abdominal segments); B, beak; C, distal part of hind tibia (upper surface); D, anal ring; E, penultimate cerarius; F, anal-lobe cerarius; tp, trilocular pore; mp, multilocular disc pore; ord, oral-rim tubular duct; ocd, oral-collar tubular duct. Scales in micra.

setae, except those of head and anterior part of thorax frequently with 3–5 cerarian setae, plus 2–5 slender auxiliary setae and a small concentration of trilocular pores. Dorsal body setae comparatively few, fine, mostly 20–40 μ long; ventral body setae variable in size, for the most part longer than those on the dorsum. Trilocular pores distributed rather evenly on the dorsum and venter. Multilocular disc pores confined to the venter, abd. V and succeeding segments, 95–130 in total, in addition a few occasionally present on anterior abdominal and thoracic segments. Oral-rim tubular ducts in 2 sizes; larger ducts fairly numerous, ca. 28–32 in total on the dorsum, their distribution is as follows: 1 near most of thoracic and abdominal cerarii as far caudad as abd. VI; 1 just behind each interantennal cerarius; and 1–3 occurring mid-dorsally on each of meso- and metathoracic segments and abd. V–VIII; smaller ducts present ventrally along margin, 2–5 on each of thoracic and anterior abdominal segments. Ventral oral-collar tubular ducts in 2 sizes; smaller ducts sparse on abdomen and larger ducts in transverse rows and marginal groups on the abdominal segments, a few in marginal areas of thorax and head. Dorsal “oral-collar” tubular ducts, slightly larger than those of ventral larger ducts, with a loose rim usually discernible around the opening, sparingly distributed mainly near each of cerarii, and a few in the midregion of thorax.

Measurements of one specimen in micra: beak (2 segments united), *length* 140, *width* 110; antennae, *l* 480, 470; hind trochanter+femur, *l* 350, 355, *w* 95, 95; hind tibia+tarsus, *l* 410, 405, *w* 43, 45; hind claws, *l* 30, 30; anal ring setae, *l* 150–160; anal lobe setae, *l* 180, 190.

Specimens examined (syntypes): some adult females; Chichi-jima, on *Celtis boninensis* (26–XII–1969), *Trema argentea* (20–XII–1969) and *Ligustrum micranthum* (26–XII–1969); Haha-jima, on *Bischofia javanica* (6–III–1969, K. Umesawa leg.). Collected on the twigs and leaves of the host plants. Deposited in the collection of the Entomological Institute, Hokkaidô University, and that of the Tôkyô Agricultural Experiment Station.

Remarks. This species is extremely close to *P. gilbertensis* Beardsley and was previously identified with that species by Kawai *et al.* (1971). It differs, however, from *gilbertensis* chiefly by the greater number of ventral oral-rim and oral-collar tubular ducts and also multilocular disc pores, and by the more numerous and heavily concentrated trilocular pores on each cerarius especially on posterior segments.

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