

Notes on some Coccidae from Iceland.

By

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The following paper is based on material collected by Dr. CARL H. LINDROTH, of Stockholm, Sweden, in the summer of 1929.

The material was found to include four new species which are described below under the names of *Eriococcus granulatus*, *Phenacoccus venustus*, *Trionymus thulensis* and *Trionymus incertus*. Dr. LINDROTH sent, at the same time, some fine examples of *Orthezia cataphracta* Shaw, a species that appears to have been originally described from these northern regions. It is curious that Signoret, in his *Essai sur les Cochenilles*, should have confused this very distinct species with *urticae* of Linnaeus.

Eriococcus granulatus sp. nov. (Pl. I, fig. A, and text. fig. 1).
Ovisac greyish or ochreous; closely felted; ovate, rounded at both extremities; length 2.50 to 2.75 mm., breadth 1.25 mm.

Adult female (Pl. I, A) long-ovate, breadth across middle less than half the length; posterior extremity with short, stout paranal lobes; dimensions of type example 1.75 by 0.75 mm.; average size of nine examales 2.00 by 0.95 mm. Antenna (a) 6-jointed, robust; the 3rd joint as long as (or slightly longer than) the terminal three joints together, rarely with an incomplete division across the middle. Labium stout, bluntly pointed; obscurely dimerous, the two segments approximately equal in length. Rostral loop very short, approximately half the length of the labium. Legs (c) well developed; tarsus approximately equal to tibia; claw slender; unguis and tarsal digitules slender, slightly dilated at extremity; coxa of 3rd limb without conspicuous translucent pores. Spiracles normal; without grouped parastigmatic pores. Anal ring with 8 stout setae. Body with a complete marginal fringe of longish stout, bluntly pointed spines, disposed in groups of three on each abdominal segment (d), with some supplementary spines on the frons (a). There is also a submarginal series of much smaller, acute spines, and a few similar small spines in loose transverse series across the abdominal segments and sparsely distributed over the cephalo-thoracic area. Par-

anal lobes (e) weakly chitinized; each with 3 longish stout spines and a long caudal seta. The whole derm (of both dorsum and venter) is roughened with small pustules, producing a granulated appearance resembling shagreen, which — on the margin (d) — are produced into conical projections. The dorsum is devoid of pores of any kind; but there are many conspicuous poculiform pores (b) distributed over the venter. It should be noted that the granulose character of the derm is usually lost during the process of preparation for the microscope, but is retained under favourable conditions.

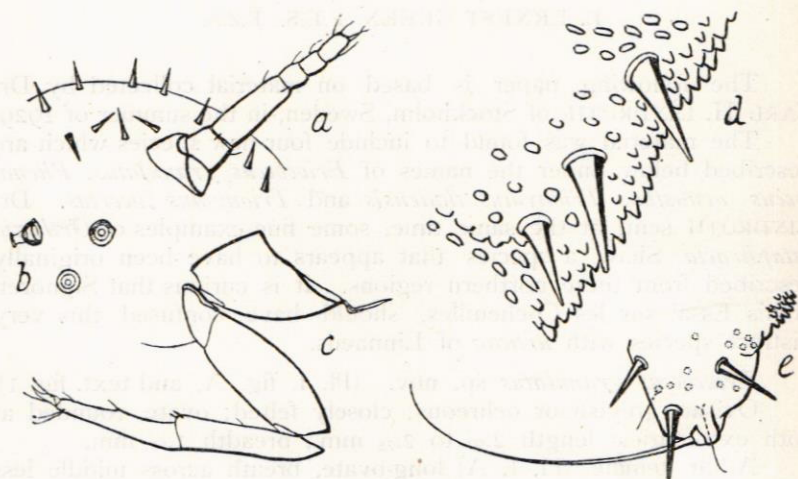


Fig. 1. *Eriococcus granulatus* n. sp.

a, antenna and frons, $\times 130$. b, cup-shaped pores, $\times 450$. c, 3rd leg, $\times 130$.
d, margin of a single abdominal segment, $\times 400$. e, paranal lobe, $\times 220$.

The female nymph differs from the adult in the smaller number of marginal spines, of which there are two only (instead of three) on each abdominal segment; in the absence of small supplementary spines and poculiform pores; in the relatively greater length of the tarsi, which are conspicuously longer than the tibiae; in the smoothness of the derm; and in the presence of only 6 (instead of 8) setae on the anal ring. Dimensions averaging 1.60 by 0.70 mm.

Adult male with well developed wings and, when living, with a pair of long white filaments. Head with 4 large ocelli (2 on the upper and 2 on the under surface), and a lateral pair of small simple eyes. Antenna setose, 10-jointed, 1st and 2nd short and stout, 3rd longest, the remainder successively decreasing in length, 10th shortest; each joint (from 3rd to 10th) with a pair of longer,

more slender, minutely capitate setae. Halteres terminating in a hooked bristle. Limbs normal.

Early male nymph distinguished from that of the female by the presence of only a single marginal spine on each abdominal segment.

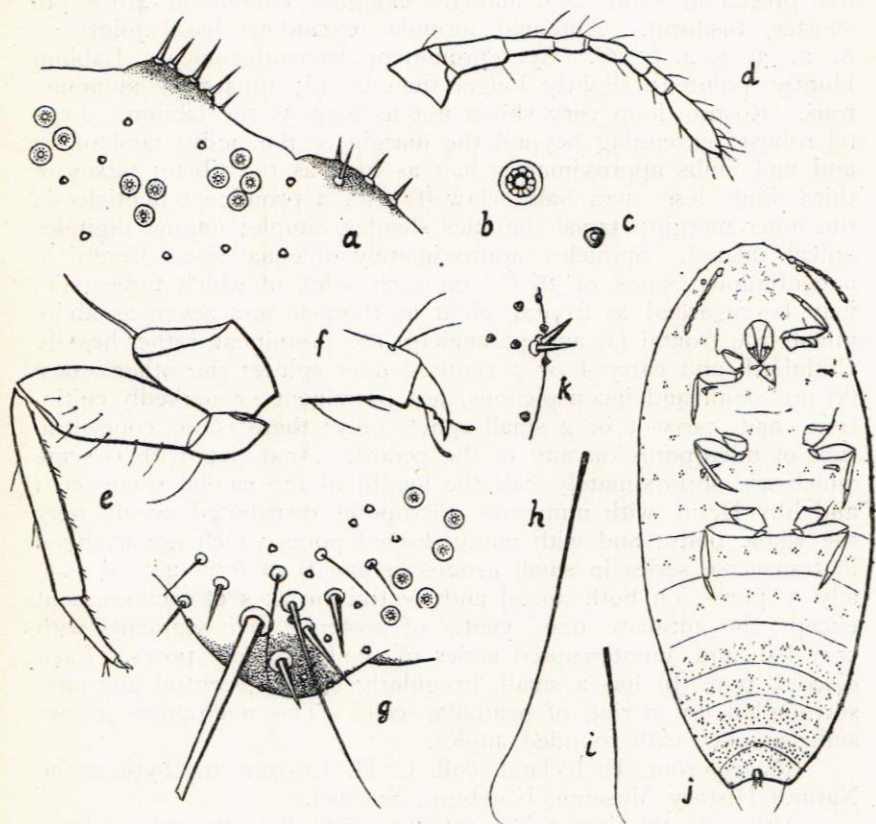


Fig. 2. *Phenacoccus venustus* n. sp.

a, frons, $\times 450$. b, disc pore, $\times 840$. c, micropore, $\times 840$. d, antenna, $\times 130$. e, 3rd leg, $\times 130$. f, foot, $\times 450$. g, paranal lobe, $\times 450$. h, caudal seta, $\times 220$. i, anal-ring seta, $\times 220$. j, adult female, $\times 30$. k, metathoracic cerarius, $\times 450$.

Haukstaðir, N. E. Iceland, coll. C. H. LINDROTH. Type in the Museum of Natural History, Göteborg, Sweden. — On *Festuca rubra*.

Phenacoccus venustus sp. nov. (Text fig. 2).

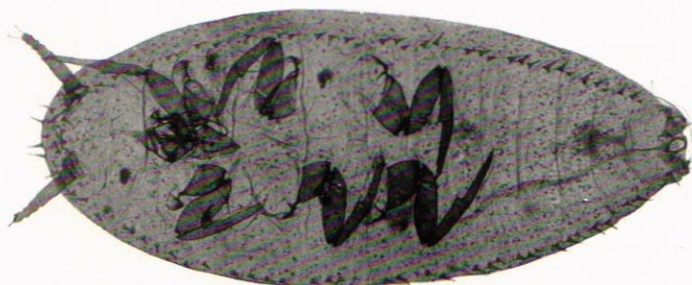
Female insect (in alcohol) creamy white. In life it is pro-

bably coated with white mealy powder, and may have a fringe of waxy tassels. Form (j) long ovate; paranal lobes (g) moderately pronounced; margins of abdominal segments not produced. Length 2.25 to 2.50 mm.; breadth 1 mm.

Antenna (d) 8-jointed; 8th longest, fusiform, broader than the five preceding joints; 2nd and 3rd elongate, cylindrical; 4th to 7th shorter, fusiform. Antennal formula (excluding basal joint) — 8, 2, 3, 5, 4, (7, 6). Eyes prominent, truncato-conical. Labium bluntly pointed; slightly longer than broad; apparently monomeurous. Rostral loop very short: not as long as the labium. Legs (e) robust; extending beyond the margin of the body; tarsi of 1st and 2nd limbs approximately half as long as the tibiae; tarsus of third limb less than half; claw (f) with a prominent denticle on the inner margin; tarsal digitules slender, simple; unguis digitules apical dilated. Spiracles approximately of equal size. Cerarii in a continuous series of 36 (18 on each side), of which three pairs may be regarded as frontal, eight as thoracic and seven as abdominal: the frontal (a) and paranal (g) are prominent, rather heavily chitinized, and carry 4 or 5 acute slender spines; the other cerarii (k) are small and inconspicuous, not prominent or markedly chitinized, and carry 1 or 2 small spines only; there is no concentration of micropores on any of the cerarii. Anal ring with 6 setae which are approximately half the length of the caudal setae (cf. i and h). Derm with numerous micropores distributed evenly over the whole body; and with many discoid pores which are arranged in transverse series in small groups (a and j) of from 2 to 4 (usually 3) pores, on both dorsal and ventral surfaces of each segment except the ultimate one; venter of posterior five segments with crowded and uninterrupted series of similar discoid pores. Each discoid pore (b) has a small, irregularly circular, central aperture, surrounded by a ring of bead-like cells. The micropores (c) are subtriangular, with rounded angles.

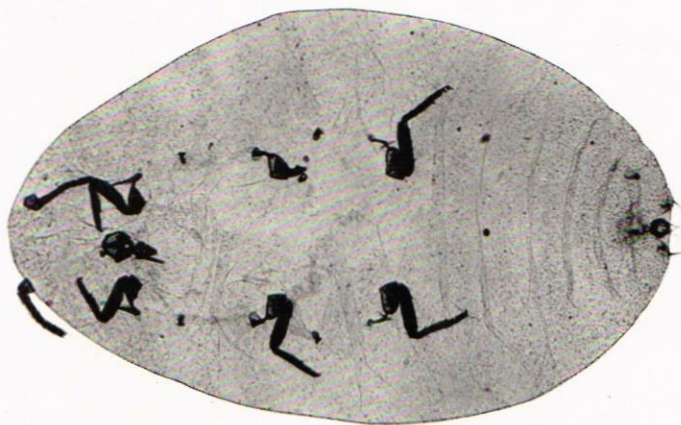
Seyðisfjörður, E. Iceland, coll. C. H. LINDROTH. Type in the Natural History Museum, Göteborg, Sweden.

Although this insect has antennae with 8 joints only, I have no hesitation in referring it to the genus *Phenacoccus*, the typical species of which have 9-jointed antennae. The presence of a distinct denticle on the claws, and the large number of cerarii are characters that associate it with *Phenacoccus* rather than with *Pseudococcus*. Moreover, it is so closely allied to *Phenacoccus balteatus* Green, from England, that there is little to distinguish it from that species, beyond the number of antennal joints. Other small differences are in the size of the limbs, which are relatively shorter and stouter in *venustus*. It is also nearly allied to *Pseudococcus cycliger* Leon. (which I would also refer to *Phenacoccus*), but differs



A

A, *Eriococcus granulatus* n. sp., $\times 50$.



B

B, *Trionymus thulensis* n. sp., $\times 27$.



C

C, *Trionymus incertus* n. sp., $\times 37$.

from that species in the absence of tuberculate processes on the lateral margins of the abdomen.

Trionymus thulensis sp. nov. (Plate I, fig. B, and text fig. 3).

Adult female (Pl. I, B) regularly ovate; slightly broader across the posterior half; paranal lobes rounded, scarcely prominent. Colour (in alcohol) ochreous white; probably dusted with white mealy powder and with a pair of short waxy tassels at the posterior extremity during life. Length ranging from 2.25 to 3 mm., with a breadth of from 1.25 to 2 mm.; average dimensions of eight examples 2.72 mm. by 1.56 mm.

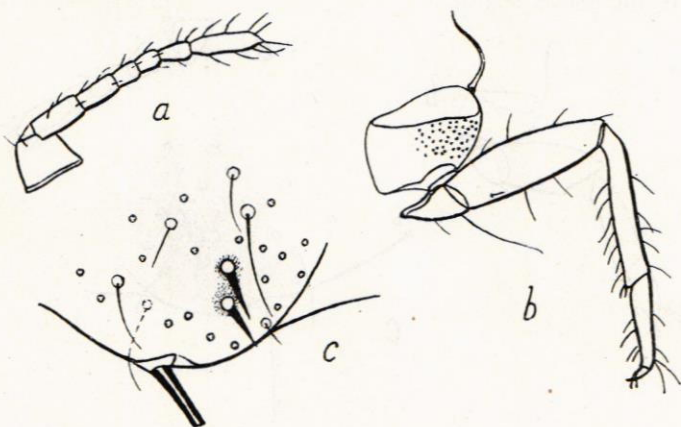


Fig. 3. *Trionymus thulensis* n. sp.

a, antenna, $\times 130$. b, 3rd leg, $\times 130$. c, paranal lobe and cerarius, $\times 450$.

Antenna (a) 7-jointed: 7th longest; 4th and 5th usually shortest: but, in some examples, the 4th equals (or slightly exceeds) the 3rd; all the joints with a few longish setae. Eyes rather small, but prominent. Labium obscurely dimerous; tapering from the base to the bluntly pointed apex; slightly longer than broad. Rostral loop short; less than twice the length of the labium. Legs well developed, but not extending beyond the margins of the body; tarsus more than half the length of the tibia; claw moderately stout, curved, acutely pointed; both unguis and tarsal digitules minutely capitate; coxa of 3rd leg (b) somewhat enlarged, the outer half with numerous very small pores; all the joints with longish setae, which are particularly pronounced on the tibia and tarsus. Anterior and posterior spiracles of approximately equal size. Dorsal ostioles obscure. A single small, but conspicuous, circular or oblate medioventral ostiole. Cerarii (c) restricted to the ultimate and penultimate segments, the former with two slender spines and 2

or 3 supplementary setae, and the latter with one spine and a single supplementary seta; without any marked concentration of pores; the area immediately surrounding the spines slightly chitinized. Anal ring broad and rather heavily chitinized; with six longish stout setae, which are of approximately the same size as the caudal pair. Body setae small and inconspicuous. Micropores circular, obscurely trilocular; distributed over both surfaces of the body, but more numerous on the posterior segments. Disc pores rather small; confined to the venter of the abdomen, where they are crowded on the posterior segments, gradually disappearing towards the basal segment.

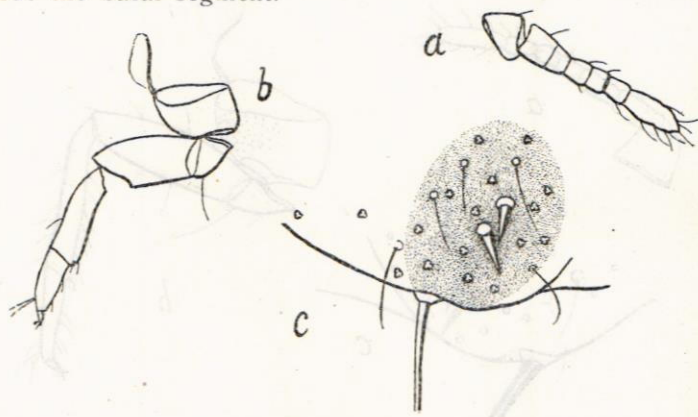


Fig. 4. *Trionymus incertus* n. sp.

a, antenna, $\times 130$. b, 3rd leg, $\times 130$. c, paranal lobe and cerarius, $\times 450$.

Varmahlíð, S. Iceland, coll. C. H. LINDROTH. Type in coll. E. E. GREEN; cotypes in the Natural History Museum, Göteborg, Sweden.

Trionymus incertus sp. nov. (Pl. I, fig. C, and text fig. 4).

Female (Pl. I, C) long ovate; paranal lobes rounded, not prominent. Colour (in alcohol) creamy white. Length 2 mm; breadth across middle 1 mm.

Antenna (a) 7-jointed; 7th longest; 1st and 2nd equal, stout; the remaining joints shorter, sub-equal. Eyes moderately prominent. Labium short and stout, triangular, approximately equilateral in outline; obscurely dimerous. Rostral loop moderately long; about three times the length of the labium. Legs (b) stout, extending beyond the margins of the body; tarsus slightly exceeding half the length of the tibia; claw moderately stout, falcate, and acutely pointed; unguis digitules narrowly dilated distally; tarsal digitules minutely capitate; coxa of 3rd leg without translucent pores; setae

of legs very short and sparse. Dorsal ostioles absent or obscure. A single, small, oblate medio-ventral ostiole. Cerarii restricted to the ultimate and penultimate segments; each with a pair of moderately stout, acute spines; without any marked concentration of micropores. There is a sharply defined chitinous area surrounding each of the paranal cerarii (c). Anal ring broad and moderately well chitinized; with six longish stout setae which are shorter than those of the caudal pair. Body setae rather sparse; longer and more numerous on the venter of the frons. Micropores numerous, definitely trilocular. Without disc pores.

Svínafell (Öræfi), S. E. Iceland, coll. C. H. LINDROTH. Type in the Museum of Natural History, Göteborg, Sweden.

Described from a single example which may, possibly, be not fully adult. The absence of disc pores is suggestive of immaturity; but the strongly chitinized areas on the paranal lobes are indicative of a mature condition.

Några Thysanoptera från Dalarna.

Under sommaren 1929 insamlade jag i Falu-trakten ett fåtal tripsar, av vilka ett par arter ej tidigare synas vara rapporterade från Dalarna. De ha godhetsfullt bestämts av Fil. kand. Olof Ahlberg, Experimentalfältet. Tidigare känd utbredning angives inom parentes.

Sericothrips staphylinus Halid. — Falun, Norslund, 1 ♀ ²¹/₄ 1929 vid hävning på gräs och skogsklöver i torr gammal tallskog. (Sm., Ög., Sdml., Upl., Häls.)

Taeniothrips picipes Zett. — Falun, Norslund, 1 ♀ samtidigt med föregående. (Sk.—Lpl.)

Acanthothrips corticis Serv. — Falun, Norslund, 1 ♀ ²⁷/₅ 1929, flygande i solsken i tall-björkskog. (Upl., Vstml.)

Megathrips lativentris Heeg. — Falun, Uggleviken, 2 ♀ ²⁹/₃ 1929 vid sållning i barrskog. — Norslund, 1 ♂ ¹²/₄ 1929 vid sållning av mossa i tallskog. (Vg., Södml., Upl., Dlr.)

Bo Tjeder.