3. Schubotzia, Bouleng., 1914.

Scales ctenoid. A close-set series of enlarged teeth, with strongly incurved, flattened, rounded crowns, followed by 2 series of minute tricuspid teeth.

Lake Albert Edward.

Schubotzia eduardiana, Bouleng., 1914.

Schubotzia eduardiana, Bouleng. Cat. Afr. Fish. iii. p. 500, fig. 347.

Near *Haplochromis schubotzi*, differing especially in the dentition.

Total length 95 mm.

LXIX.—*On a new Genus of* Coccidæ *from the Indian Region.*

By E. E. Green, F.Z.S., F.E.S.

Cribrolecanium, gen. nov. (subfamily *Lecaniinæ*).

Adult female with rudimentary limbs and antennæ. Spiracles communicating with the surface by means of a broad enclosed channel, the sides of which are studded with short glandular ducts. Dorsum with numerous, densely chitinous, perforated plates, arranged in more or less symmetrical series. Anal operculum surrounded by a densely chitinous area. Anal ring with ten or more setæ.

Nymph similar to adult, but with the limbs and antennæ still more rudimentary. Anal operculum not surrounded by a densely chitinous area.

Larva with fully developed limbs and antennæ. Dorsum with series of clustered pores in place of the cribriform plates.

Male not observed in any stage.

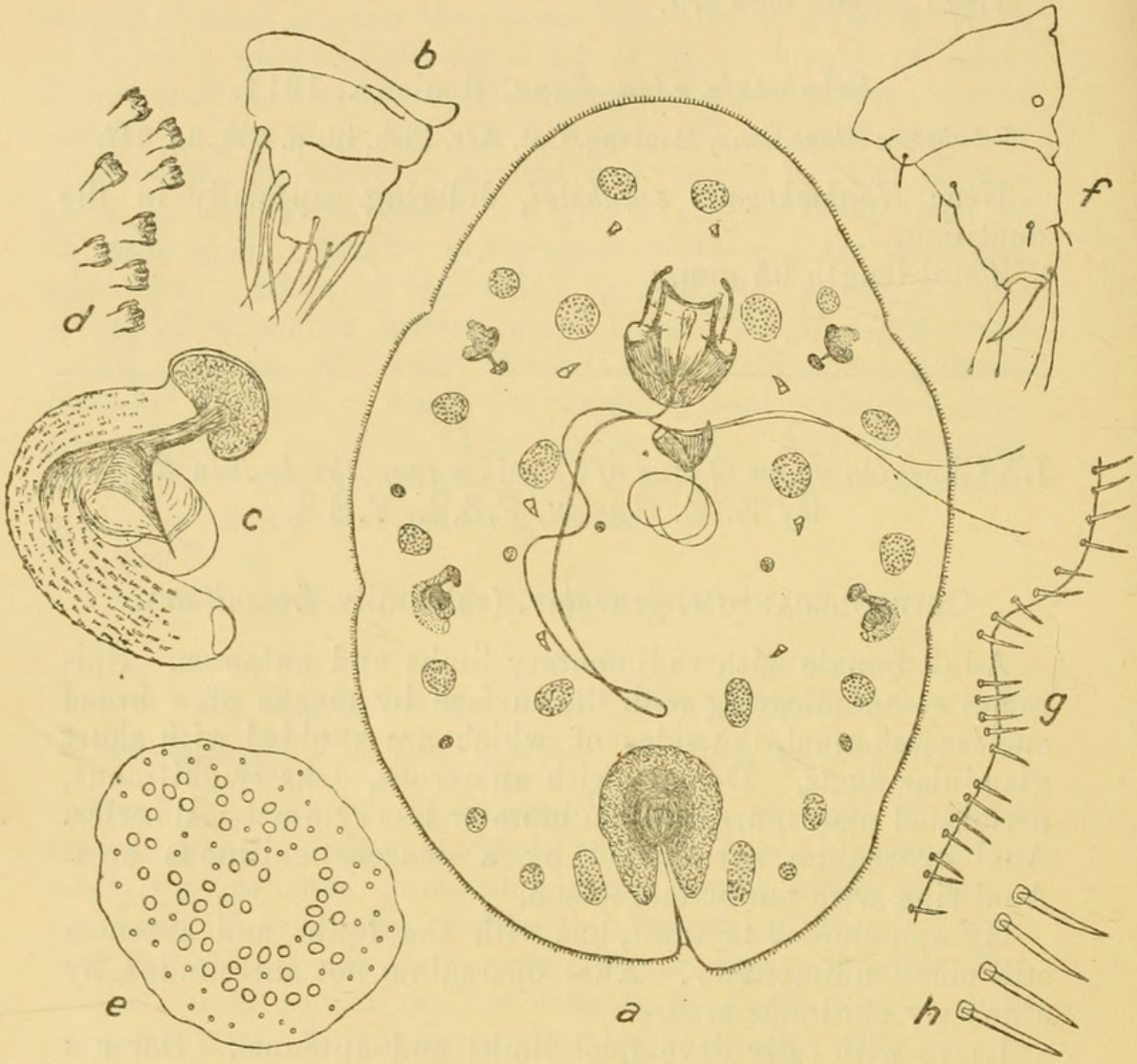
Type, *formicarum*.

Cribrolecanium formicarum, sp. n. (Figs. 1 & 2.)

Fully matured adult female dark castaneous; subcircular, strongly convex, almost hemispherical; densely chitinous. At this stage of development the structural characters are obscured by the heavy chitinization, but the dorsum is seen to be studded with small translucent pores, interspersed with definite denser areas upon which the pores are more closely crowded. Other characters can be observed more clearly by

an examination of the early adult insect. Diameter of fully developed insect 4 to 5 mm.

Fig. 1.



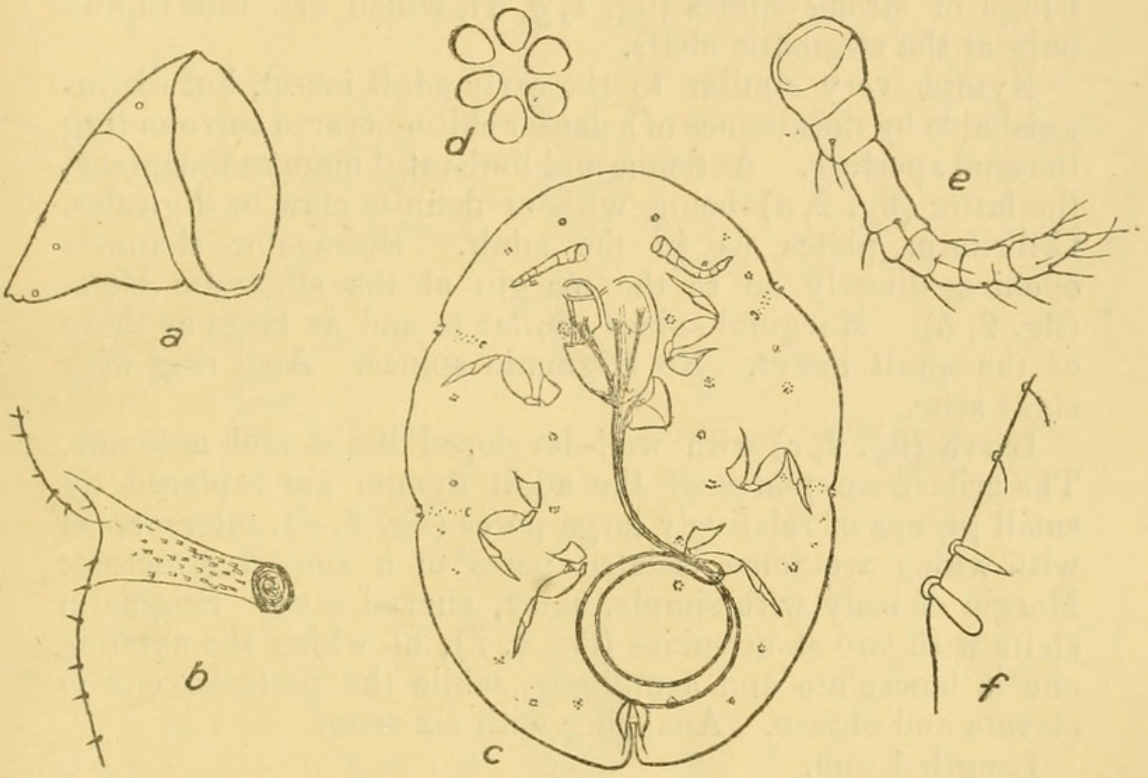
Cribrolecanium formicarum, sp. n.

a. Early adult female: opt. sect. × 30.
b. Antenna. × 450.
c. Posterior spiracle. × 130.
d. Pores surrounding spiracle. × 450.
e. Cribriform plate. × 220.
f. Anterior limb. × 450.
g. Part of margin. × 220.
h. Marginal spines. × 450.

Early adult female (fig. 1, *a*) pale purplish brown; broadly ovate, narrower in front. Derm (after treatment with boiling

potash) soft and colourless, except on well-defined circumscribed areas. Antenna (fig. 1, *b*) rudimentary, without definite segmentation; some longish stout setæ on the apex and sides. Legs (fig. 1, *f*) minute and rudimentary, consisting of a broad basal segment, representing the combined coxa and femur, and a narrower tibio-tarsal segment surmounted by a well-developed claw; both ungual and tarsal

Fig. 2.



Cribrolecanium formicarum, sp. n.

a. Anterior leg of nymph. × 450.
b. Posterior stigmatic area of nymph. × 130.
c. Larva: opt. sect. × 50.
d. Larva: group of pores. × 450.
e. Larva: antenna. × 220.
f. Larva: stigmatic spines and marginal setæ. × 450.

digitules are present, the former slightly expanded at their distal extremities. Buccal apparatus large and conspicuous. Spiracular channels closely studded with tubular ducts of the form shown in fig. 1, *d*; the channel usually curved and opening on the venter at a considerable distance within the margin of the body. Dorsum with a subdorsal and sublateral

series of densely chitinous, rounded, perforated plates (fig. 1, *e*), varying in size and form. Derm closely studded with minute pores, and with scattered, larger, thick-rimmed pores; also with scattered spiniform setæ. Valves of anal operculum together forming an oval, the base and outer edge of each valve describing an uninterrupted curve; the whole surrounded by a broad, densely chitinous zone, which is irregularly perforate around its inner margin. Anal ring with at least ten stout setæ. Stigmatic clefts shallow, without specialized stigmatic spines. Margin of body with a close fringe of strong spines (fig. 1, *g*, *h*), which are interrupted only at the stigmatic clefts.

Nymph very similar to the early adult insect, but distinguishable by the absence of a denser chitinous area surrounding the anal aperture. Antennæ and limbs still more rudimentary, the latter (fig. 2, *a*) being without definite claw or digitules. Cribriform plates as in the adult. Spiracular channels opening directly on to the margin at the stigmatic clefts (fig. 2, *b*). Marginal spines similar to and as large as those of the adult insect. No stigmatic spines. Anal ring with eight setæ.

Larva (fig. 2, *c*) with well-developed limbs and antennæ. The cribriform plates of the adult nymph are replaced by small groups of relatively large pores (fig. 2, *d*), interspersed with which are some isolated pores of a similar structure. Margin of body with simple, short, curved setæ. Stigmatic clefts with two stout spines (fig. 2, *f*), of which the anterior one is lanceolate and acuminate, while the posterior one is clavate and obtuse. Anal ring with six setæ.

Length 1 mm.

Peradeniya, Ceylon.

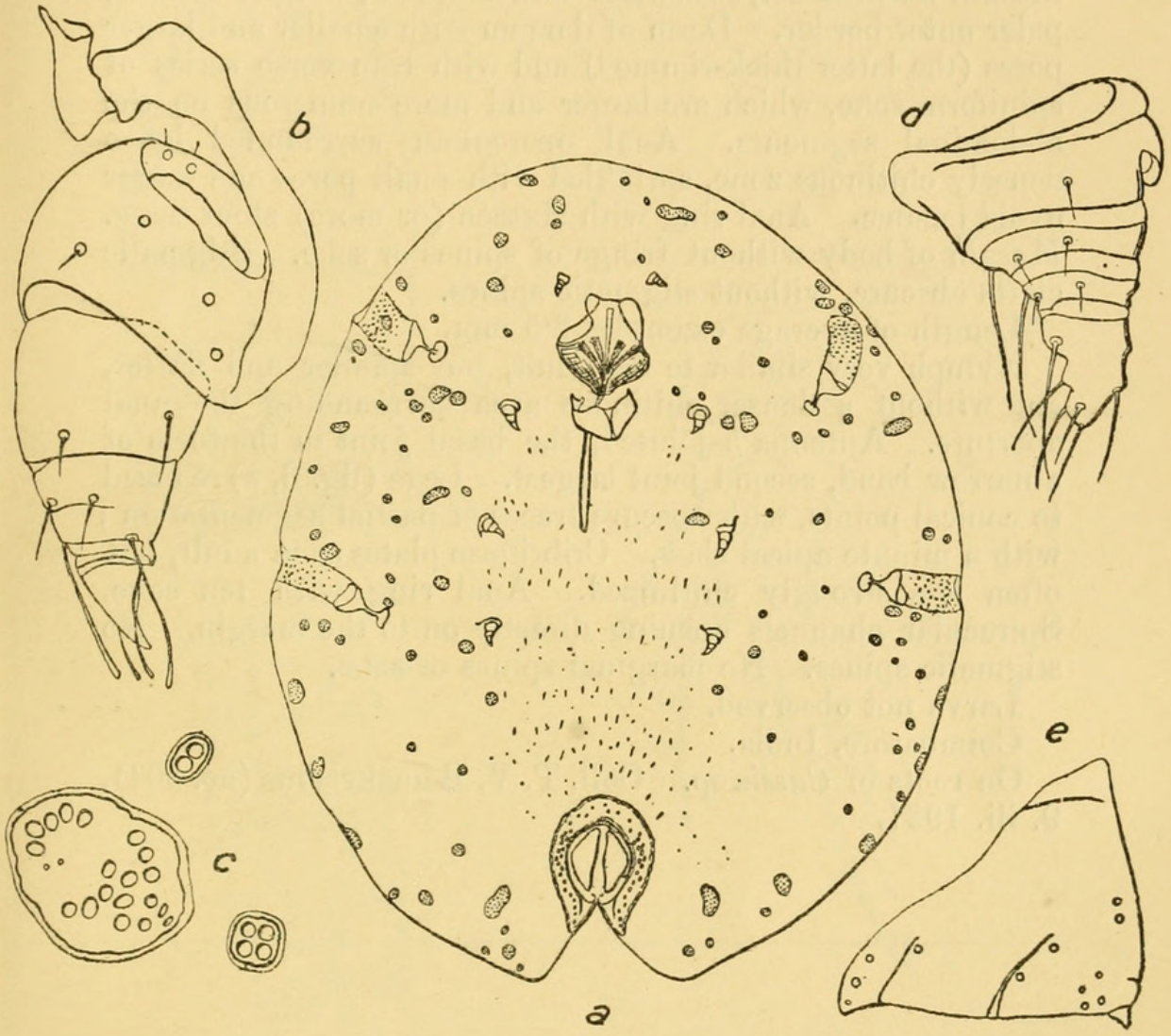
In hollow branches of *Stereospermum chelonioides*; associated with ants (*Cremastogaster* sp.). The branches had originally been tunnelled by some boring larva (probably of a Longicorn beetle), and had subsequently been occupied by the colony of ants.

Cribrolecanium radicicola, sp. n. (Fig. 3.)

Fully mature adult female, pale fulvous (dried examples); rather broadly ovoid (fig. 3, *a*), moderately convex, the medio-dorsal area raised sharply into a broad rounded carina; derm soft and wrinkled, not densely chitinous. Antenna (fig. 3, *d*) small and rudimentary, but distinctly 4- or 5-jointed, the joints separated from each other by broad bands of softer

tissue, the narrow basal joint often incomplete. Legs (fig. 3, *b*) small and rudimentary, but relatively stout; coxa represented by an irregular narrow band, which is often

Fig. 3.



Cribrolecanium radicicola, sp. n.

a. Adult female. × 30.
b. Adult female: anterior leg. × 450.
c. Adult female: cribriform plates. × 220.
d. Adult female: antenna. × 450.
e. Nymph: anterior leg. × 450.

incomplete; femur, tibia, and tarsus all distinct, as broad as or broader than long; claw strongly developed, approximately equal in length to the tarsus; ungual and tarsal digitules slender, gradually dilated towards the extremity.

Spiracular channels broad, opening directly on to or close to the margin, closely studded with tubular ducts. Dorsum with irregularly disposed series of small, densely chitinous, cribriform plates (fig. 3, *c*) varying in size, form, and number of pores, but always much smaller and less conspicuous than those of *formicarum*, each plate with a narrow, sharply defined, paler outer border. Derm of dorsum with smaller and larger pores (the latter thick-rimmed) and with transverse series of spiniform setæ, which are larger and more numerous on the abdominal segments. Anal operculum surrounded by a densely chitinous zone, sprinkled with small pores and larger ovoid lacunæ. Anal ring with sixteen (or more) stout setæ. Margin of body without fringe of spines or setæ. Stigmatic clefts obscure, without stigmatic spines.

Length of average examples 2·5 mm.

Nymph very similar to the adult, but smaller and flatter, and without a denser chitinous area surrounding the anal aperture. Antenna 5-jointed, the basal joint in the form of a narrow band, second joint largest. Legs (fig. 3, *e*) reduced to conical points, with obscure traces of partial segmentation ; with a minute apical claw. Cribriform plates as in adult, but often less strongly chitinized. Anal ring with ten setæ. Spiracular channels opening directly on to the margin. No stigmatic spines. No marginal spines or setæ.

Larva not observed.

Coimbatore, India.

On roots of *Cassia* sp. Coll. T. V. Ramakrishna (no. 204), 9. iii. 1921.

LXX.—*Some new or rare British Crustacea.*

By Robert Gurney, M.A.

1. *Canthocamptus echinatus*, Mrazek.

In July 1919 a few specimens of a species of *Canthocamptus* resembling *C. echinatus* were taken at Flordon Common near Norwich, but I was unable at the time, with the scanty material available, to determine its identity with certainty, and I was unable to find the species again on a second visit to the spot. In 1920 the same form was found in considerable