

A NEW SPECIES OF EULECANIUM (COCCIDÆ)

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ONE PLATE AND ONE TEXTFIGURE

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Eulecanium Kuwanai n. sp.

Adult female.—Form usually spheroid; about 3.5 mm to 6 mm long, about 3.5 mm to 6.5 mm broad, about 3 mm to 4 mm high. Pale yellow in colour, only the margin of body and the anal cleft fringed with reddish purple; early adult female often with a few transverse bands of purple. Dorsal surface more or less shining and smooth, but is slightly dented in places. Anal cleft rather deep, often with a little white wax. The body and the dermis soft; on escaping from host, the dermis is occasionally punctured or smashed. After death the insect becomes either dusky yellow or pale brown, with many irregular wrinkles; sometimes the body narrowed suddenly with particular wrinkles a little behind the middle to the extremity, with the anal cleft prominent. Antenna small and reduced, usually six-jointed; third segment the longest, first the shortest, second the next shortest, but sometimes first and second subequal in length. In some examples third segment of antenna is about twice as long as the fourth, which is the next longest; fourth, fifth and sixth subequal. The lengths of antennal segments in microns are as follows:

I	II	III	IV	V	VI	Total
22	24	98	27	26	28	225
18	19	83	30	24	36	210
20	24	88	32	31	33	228
22	22	85	30	29	31	219

The mouth-parts are rather large and well formed; the mentum consists of two segments, the second of which being very short and apex rounded. Two pairs of thoracic spiracles are present, the first

pair of which is situated just behind the first pair of legs, and the second placed behind and outside of the second pair of legs. Three pairs of legs similar, small, but robust; coxa short but broad; boundary of trochanter and femur obscure; femur and trochanter together shorter than tibia and tarsus put together; tarsus longer than half the length of tibia, with two long digitules on the outside near the extremity; claw comparatively large, slightly curved, bluntly pointed; ungual digitules present but obscure. Lengths of different parts of the hind leg in microns are:

Coxa	Trochanter-Femur	Tibia	Tarsus	Claw
46	114	96	69	28
50	127	98	78	30

The margin of the dorsal dermis (after treatment with potash) chitinized with indistinct reticulations, with rather short but stout marginal setæ and fine, radiant, reticular speckles are also observed on the circumference of the anal cleft. Anal plates small, triangular, with some spines near the caudal end. Anal opening bears eight long setæ, of subequal length, slightly longer than antenna.

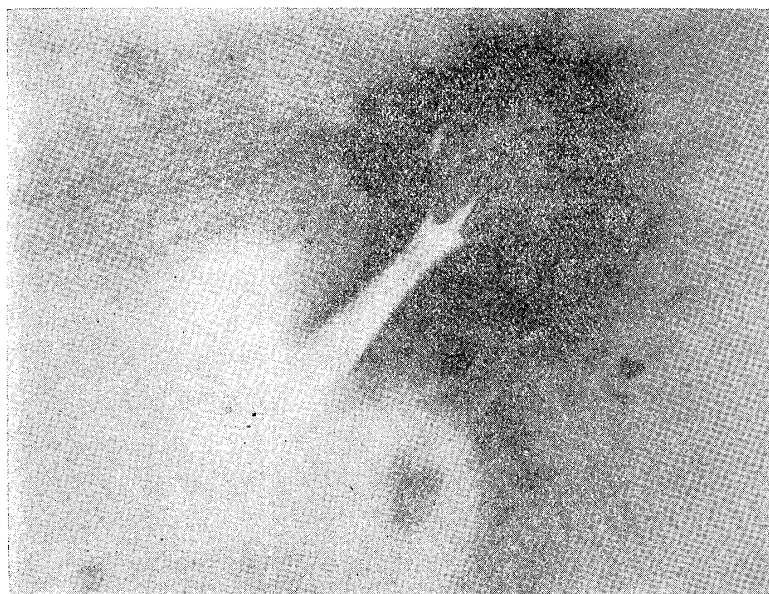


Fig. 1.—Anal plates and reticular speckles of *Eulecanium Kuwanai* n. sp. ♀

Adult male.—A delicate two-winged insect, the general colour of which is reddish purple. The antennæ are long and feathery. The measurements of the body are approximately as follows: from tip of

head to end of abdomen at base of penis-sheath 2.1 mm, penis-sheath 0.65 mm, waxy caudal filament 2.2 mm, antenna 0.8 mm, wing 1.9 mm, wing expanse 4.5 mm, thorax at widest part 0.7 mm. Colour of head dark brown; prothorax pinkish-red with black; abdomen reddish brown; wings pale gray, with pale rose-coloured costæ; legs brown. Head wider than long, apex rounded; compound eyes dark purple and placed at the outer apices of the head; three pairs of ocelli black and conspicuous. The antennæ are composed of nine segments; third segment the longest, fourth and fifth subequal and the next longest, first the shortest, ninth usually the next shortest; but occasionally composed of eight segments from fusion of eighth and ninth. Measurements of typical antennæ are as follows:

I	II	III	IV	V	VI	VII	VIII	IX	Total
50	85	200	160	150	105	80	75	75	980
45	90	195	165	155	110	75	70	65	970
45	85	205	160	155	110	75	75	60	970
55	80	200	150	150	115	75	70	65	970

There are two pairs of thoracic spiracles on the thorax; the first pair is situated just behind the anterior legs, and the second pair just behind the mid legs.

Wings are 1.9 mm long and 0.95 mm wide, pale gray, with pale rose-coloured costæ, which are covered with very fine hairs and ciliary processes, producing rough surfaces; the costa separated one subcostal vein. There is a small pocket near the base of the wing, at the lower edge. The halteres pale brown, bearing two slender hooks. Legs long, three pairs alike, furnished with many hairs. The lengths of different parts of legs in microns are as follows:

Coxa	Trochanter	Femur	Tibia	Tarsus	Claw
130	135	295	545	150	30
130	135	290	550	145	30

The abdominal segments are distinct, with two pairs of waxy caudal filaments and penis-sheath on the posterior segments.

Nom. Japon.—Kuwana-kata-kaigaramushi.

Host.—*Hedera helix* L. (Kizuta). *Viburnum dilatatum* Thunb. (Gamazumi).

Locality.—Karuizawa, Yokohama, Japan.

Holotype.—Female; Karuizawa, Yokohama; April 20, 1925. Collected and owned by the writer; on *Hedera helix* L.

Allotopotype.—Male; ditto.

Paratopotype.—Two females; ditto.

Notes.—This new scale-insect was collected by the writer about ten years ago on the branch of *Hedera helix* L., later it was also found on *Viburnum dilatatum* Thunb.

It resembles *Eulecanium capreae* L. in the shape of female, but it is easy to distinguish from the latter by colour of dorsal surface and radiant reticulations on circumference of anal cleft.

PLATE

PLATE 19

Eulecanium Kuwanai n. sp.

Adult females and pupa of males on the branches of *Hedera helix* L.

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PLATE 19

