

STUDIES OF THE COCCOIDEA

9. NEW SPECIES OF APIOMORPHA FROM QUEENSLAND

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SUMMARY.

New species described in the genus *Apiomorpha* are *A. amarooensis* and *A. longiloba*; both are from Queensland.

Apiomorpha amarooensis n.sp.

(Figs. 1 and 2.)

Locality and host.—Queensland: "Amaroo," Millmerran, on *Eucalyptus pilligaensis* Maiden, Apr. 1955 (J. Macqueen).

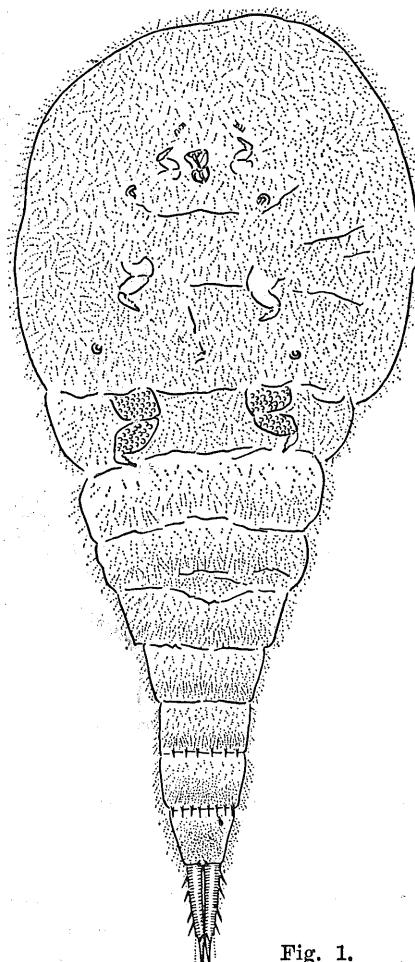


Fig. 1.

Apiomorpha amarooensis. Adult Female. ($\times 15$.)

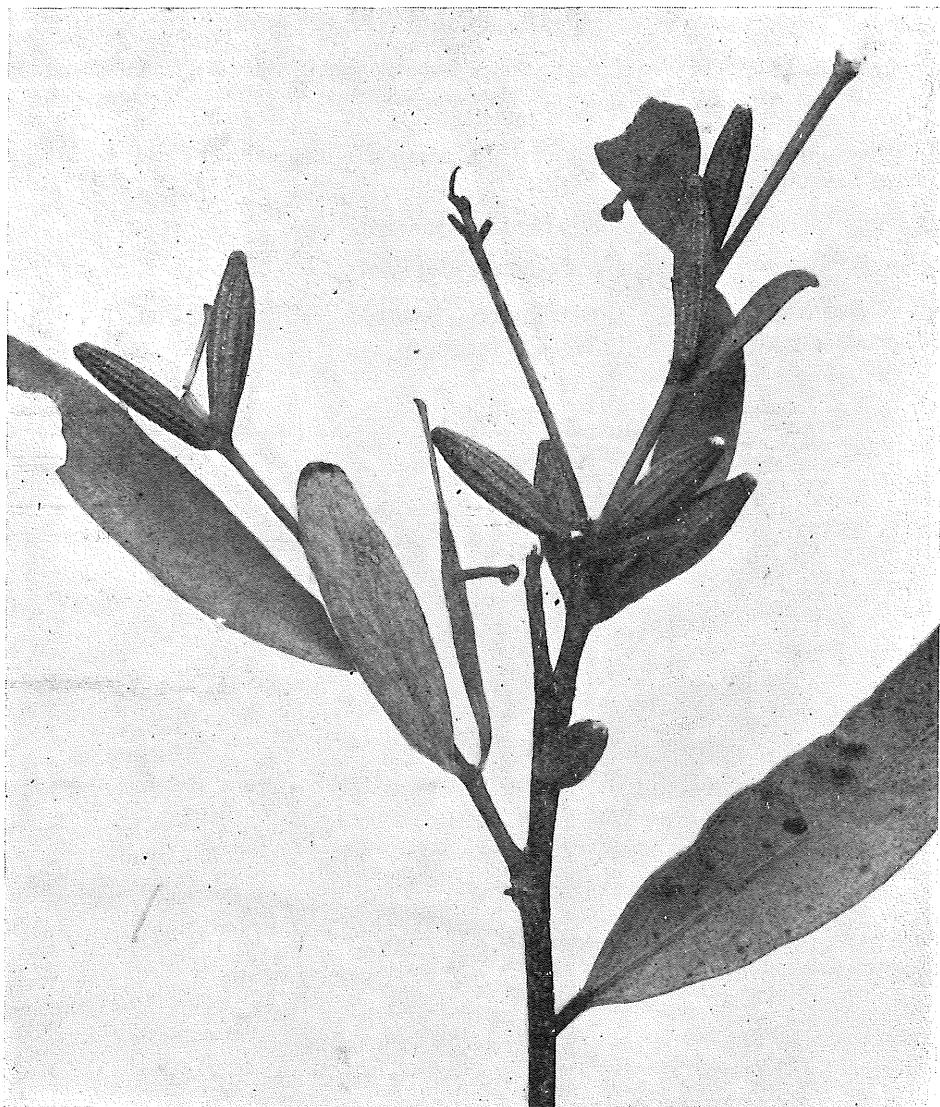


Fig. 2.
Apiomorpha amarooensis. Female and Male Galls.

Habit.—Female galls on twigs, single or in clusters varying in number up to eight, semi-erect, green, sessile, cylindrically elongate-oval, uniformly longitudinally fluted, apical opening circular, length 10·0 to 15·0 mm., diameter 3·0 to 4·0 mm. Young galls similar but cylindrical.

Male galls on leaves, single or in groups, erect, green to reddish brown, mostly slightly curved, apically trumpet-shaped, length 4·0 to 5·0 mm., diameter 0·75 to 1·0 mm., apex 2·5 mm. in diameter.

Recognition characters.—Adult female narrowly turbinate, thoracic region widest, length of slide specimen 7·0 to 9·0 mm., width 3·0 to 3·5 mm., length of anterior portion subequal to total length of abdomen. Anterior portion membranous, clothed with fine hairs. Antennae short, four segmented, first segment widest, second a ring-segment, third and fourth segments of comparable length and width, fourth surmounted by a cluster of stout setae almost as long as the segment. Legs of similar shape, fore-legs half the size of the mid-legs and these half the size of the hind-legs, lightly to moderately sclerotized, coxa wider than long, femur longer than wide and as long as the coxa, tibia as long as the width of femur, coxa and femur of hind-legs with a noticeable mottled sclerotization. Abdomen much narrower than the anterior portion of the body, tapering posteriorly, segments 2 to 7 equal or subequal in length, moderately heavily clothed with acicular setae, more numerous and somewhat lanceolate in the posterior dorsal region on all segments and similarly ventrally on segments 6 and 7, setae longest on segment 6. Segment 5 with a transverse dorsal posterior row of six dagger-like spines, segment 6 with eight similar spines. Faint sclerotization on segments 1 and 2, more dense on segments 3 and 4 and heavy on segments 5 to 7. Terminal appendages on lobes twice or almost twice the length of segment 7, very heavily sclerotized, lanceolate, sharply pointed, slightly divergent apically, armed with dagger-like spines on the submedian region, two to five showing on lateral margin in slide specimen, one showing on internal margin one-quarter of distance from the tip of the appendage, a long hair-like seta placed similarly on lateral margin and reaching almost to the tip of the appendage.

Notes.—Antennal segments vary in size and proportional size. Some specimens have a mottled appearance on the mid-legs and a faint similar appearance on the fore-legs.

The circular apical opening, general shape and attachment of the gall show that this species has relationships with *A. attenuata* (Froggatt), *A. conica* (Froggatt) and *A. pedunculata* (Fuller), but the longitudinal fluting is distinctive. The large and lanceolate terminal lobes of the adult female are also distinctive characters.

Type Reg. No. T.5744 and paratype Nos. T.5745 to T.5747 in the Queensland Museum.

Apiomorpha longiloba n.sp.

(Figs. 3 and 4.)

Locality and host.—Queensland: Barakula, on *Eucalyptus crebra* F. Muell., Aug., 1939.

Habit.—Female gall single on a twig, green, semi-erect, sessile, body of gall narrowest basally, gradually enlarging apically, quadrate in cross-section, each angle flanged, the four flanges uniting above the apex of the gall body and continuing as a four-flanged extension which is as long as the body of the gall but gradually becoming smaller; apex of the gall body depressed and within the depression a central large nipple bearing the round apical orifice. Length of the body of the gall one-and-a-quarter inches, total length with flanged extension two-and-a-half inches.

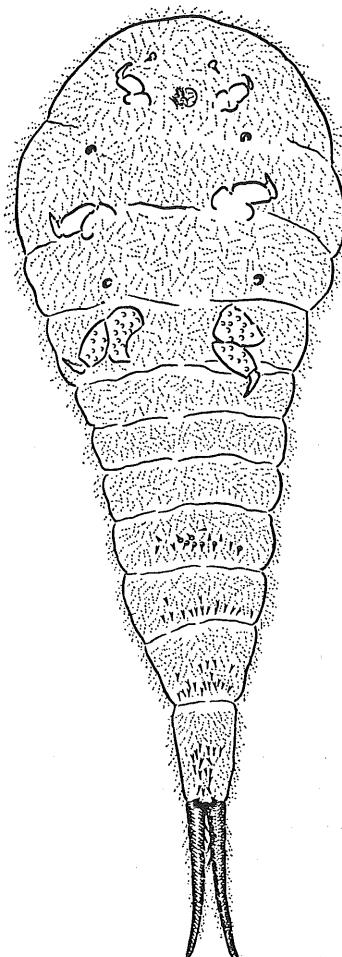


Fig. 3.

Apiomorpha longiloba. Adult Female. ($\times 12$.)

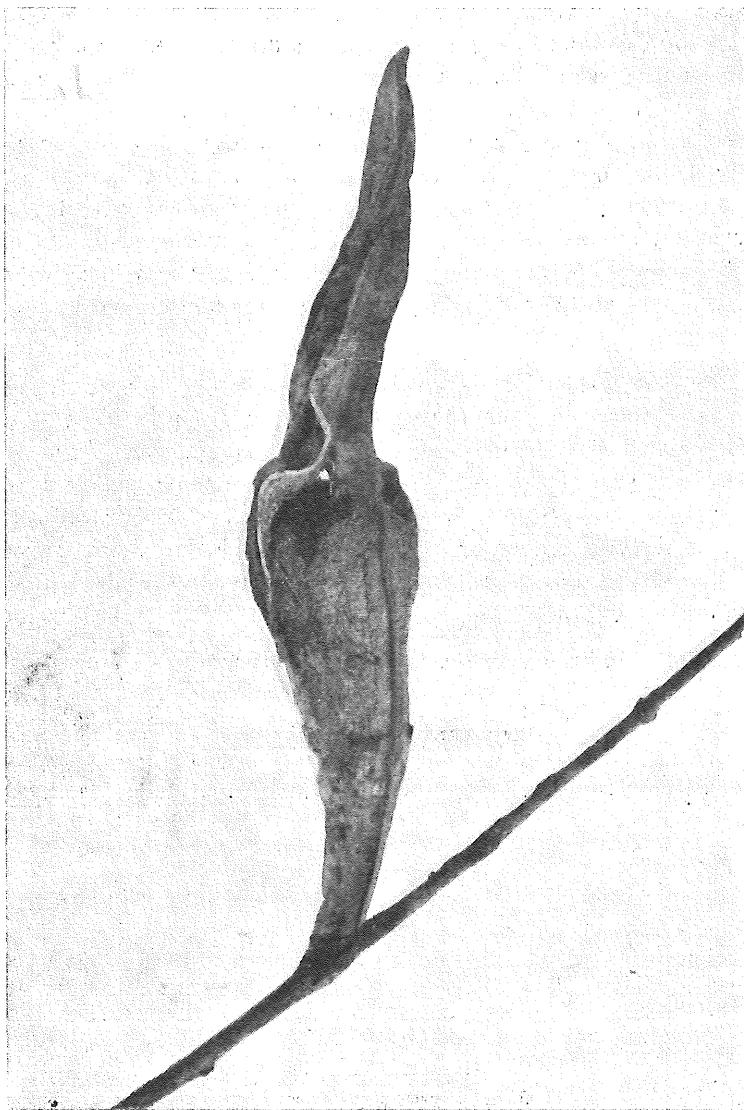


Fig. 4.
Apiomorpha longiloba. Female Gall.

Recognition characters.—Adult female narrowly turbinate; thoracic region widest; length of slide specimen 10·0 mm., width 3·5 mm. Body membranous, with numerous fine hairs. Antennae short, basal segment widest, segmentation indistinct, apical portion narrowly conical, apex rounded with four long and two short apical setae. Legs of similar shape; fore-legs half the size of the hind-legs, mid-legs of intermediate size; moderately sclerotized; coxa wide, wider than long; femur twice as long as wide; tibia small and narrow, half as long as femur; sclerotization of coxa and femur of hind-leg

mottled. Abdomen narrowing posteriorly, clothed with numerous fine hairs; segments 1 to 3 of comparable length, shortest; segments 4 and 5 barely longer, subequal in length; segment 6 longer still, segment 7 longest, longer than wide; segments 4 to 7 with bands of spines, transverse on segments 4 to 6, about 15 spines on segment 4 in one row; 15 spines on segment 5 in one row except five slightly displaced anterior to the row; 18 on segment 6, eight irregularly displaced anteriorly; 16 on segment 7 in an irregular central longitudinal band. Terminal appendages or lobes lanceolate, one-and-a-half times as long as segment 7, clothed with numerous fine hairs, inner margins finely serrate; divergently curved, apically pointed. Anal opening surrounded by a sclerotized ridge.

Notes.—The lanceolate abdominal lobes resemble those of *A. amarooensis* and *A. urnalis* (Tepper) but the species differs from both of these in the number, shape and position of the spines on the abdominal segments and in the proportionate size of the legs. The gall of *A. urnalis* has an apical nipple but neither this species nor *A. amarooensis* has a quadrate cross-section. The gall of *A. helmsii* Fuller has a gall body shape and apical nipple resembling this species but differs in having five to seven lateral ribs and no flanged extension beyond the apex.

Type Reg. No. T.5748 in the Queensland Museum.

ACKNOWLEDGEMENT.

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