

ON A NEW SPECIES OF LEAF PIT-GALL FORMING ALEY-  
RODID AND *ALEUROTUBERCULATUS HEXCANTA*  
(SINGH) COMB. NOV, (ALEYRODIDAE : HOMOPTERA)

By

B. VASANTHARAJ DAVID\*

*Entomology Research Unit, Loyola College, Madras*

(With 2 Text-figures)

***Dialeurodes (Rhabdostigma) saklaspurensis* n. sp.**

(Text-fig. 1)

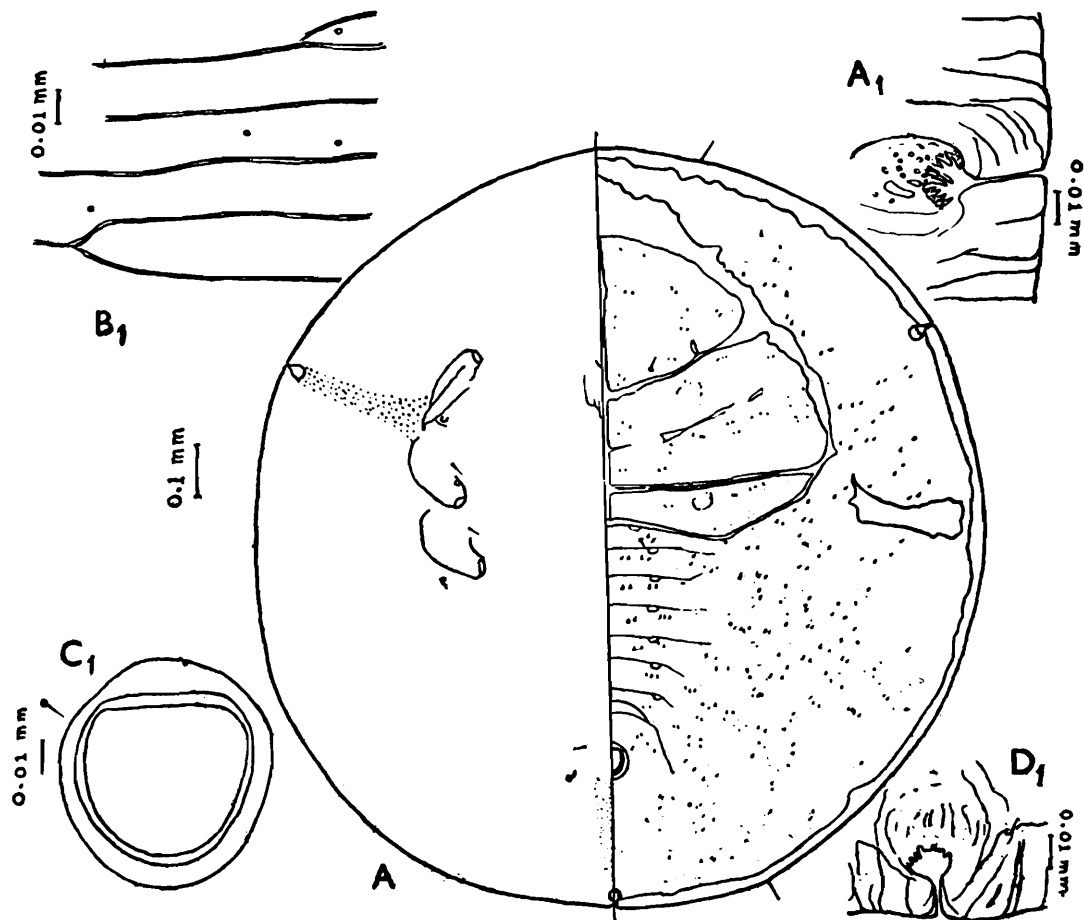
*Pupal case.*—Brown without any waxy secretion: found in pits on the undersurface of leaf in large numbers, sometimes occurs on the upper surface of leaf in stray numbers; more or less circular in shape, 1.41—1.43 mm long, 1.28—1.31 mm wide.

*Margin.*—Entire with a series of sutures extending mesad. Paired anterior and posterior marginal setae 39-49  $\mu$  long. Thoracic and caudal tracheal ends invaginated.

*Dorsal surface.*—Dorsum light brown, a narrow area mesad of margin all round transparent. The suture separating the thorax and the abdomen is transparent and distinct, sublaterally it bends to anterior joining the outer margin of the transparent suture between the meso- and metathorax and that between the cephalic region and prothorax and finally curves cephalad, slightly widened and meets the similar transparent area from the other half. The transparent suture between the pro- and mesothorax very narrow and broken; the longitudinal moulting suture is narrow and transparent. A distinct transparent more or less rectangular area opposite metathoracic segment on part of subdorsum and submargin quite characteristic. All the three pairs of dorsal setae evident—a pair on cephalic region 14  $\mu$  long, a pair on basal abdominal segment 17  $\mu$  long, and a pair laterad of base of vasiform orifice 10  $\mu$  long; depressed markings seen on metathorax and on the first seven abdominal segments; pockets distinct and contiguous. Dorsum all over with papillae, abdominal rhachis absent. Thoracic tracheal furrows not discernible but pores invaginated with series of fine longitudinal ridges.

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\* Present address : Entomologist, Voltas Limited, Chemicals Division, Bombay -400038.



Text-fig. 1. *Dialeurodes (Rhabdostigma) saklaspurensis* n. sp.

A. Pupal case showing ventral and dorsal surfaces; A<sub>1</sub> Thoracic tracheal pore; B<sub>1</sub> Tessellation and bases of papillae on dorsum; C<sub>1</sub> Vasiform orifice; D<sub>1</sub> Caudal tracheal pore.

Vasiform orifice more or less circular with thickened or chitinised rim, 56-59  $\mu$  long, 63  $\mu$  wide; operculum 43-46  $\mu$  long, 46-50  $\mu$  wide, subcordate, cephalic margin straight, almost covering the orifice with the setose lingula concealed or its tip slightly exposed; lingula included not extending beyond orifice. Caudal furrow and caudal setae not present, pore invaginated with fine ridges.

*Ventral surface.*—Ventral abdominal setae 37  $\mu$  long, 69  $\mu$  apart. All the spiracles evident. Antenna slender and long with a finger-like tip extending beyond base of fore leg. A seta at base of each of meso- and metathoracic legs and a pair at base of rostrum evident. Thoracic and caudal tracheal folds tuberculate.

*Material examined.*—Holotype—pupal case from an unidentified tree, Saklaspur (Karnataka), 28.3.1969, *B. V. David*. Paratypes—Two pupal cases on a slide in the collection of the Entomology Research Division, U.S.D.A., Washington, two pupal cases mounted in the collection of the Zoological Survey of India, Calcutta; ten pupal

cases mounted and numerous specimens on leaves in the collection of the author.

This species closely resembles *Dialeurodes (Rhabdostigma) radii-linealis* Q. & B. but differs distinctly in the distribution of the transparent pattern on dorsal disc and in the details of submarginal tessellation, distribution of papillae and structural details of thoracic and caudal tracheal pores.

***Aleurotuberculatus hexcantha* (Singh) Comb. nov.**

(Text-fig. 2)

1940. *Taiwanaleyrodes hexcantha* Singh, *Rec. Indian Mus.* 42 : 453-56.

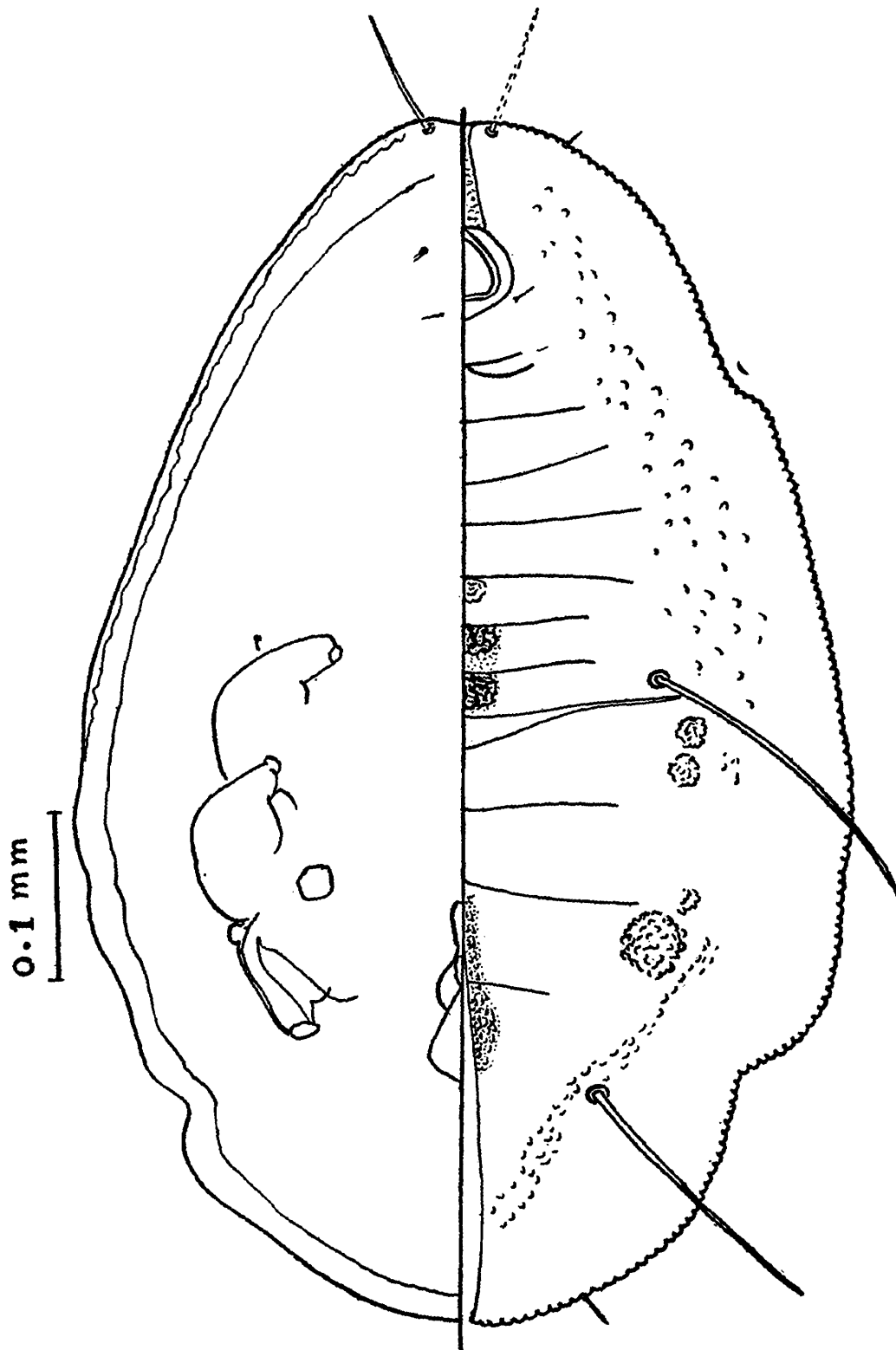
1958. *Taiwanaleyrodes hexcantha* : Rao, *Proc. 10th int. Congr. Ent.* 1956, 1 : 331-36.

*Pupal case*.—Colourless with a narrow fringe of white powdery wax and small brownish patches on the cephalic and prothoracic regions and on the first two abdominal segments; shape subelliptical, broader anteriorly and narrowing posteriorly ; 0.70 mm long, 0.46 mm wide.

*Margin*.—Finely crenulate, 26 crenulations in 0.1 mm ; slightly indented at caudal end, thoracic tracheal pore endings not indicated; paired anterior and posterior marginal setae evident, 13-17  $\mu$  long.

*Dorsal surface*.—Dorsum with distinct brownish tubercles along the longitudinal moulting suture on the proximal end of the cephalic region and prothorax and medially on the first two abdominal segments, also a rounded tubercle discernible medially on abdominal segment 3; sublaterally a pair of distinct rounded tubercles—one large and one small—present on prothorax and a pair of smaller rounded tubercles on metathorax ; in addition sparsely distributed tubercles evident on cephalothorax and abdominal region sublaterally. The longitudinal moulting suture reaches the margin, the transverse moulting suture extends upto the margin of dorsal disc. The thoracic and abdominal sutures distinctly evident ; pockets distinct but not contiguous. Paired cephalic and basal abdominal setae arise from rounded bases, long and pointed, 96  $\mu$  and 91  $\mu$  long respectively ; eighth abdominal setae short, 10  $\mu$  long on either side of base of vasiform orifice. Submarginal area not defined from dorsal disc by faint line. Thoracic tracheal furrows not discernible.

Vasiform orifice sub semicircular, 42  $\mu$  long, 33  $\mu$  wide with a thickened rim, caudal end not notched. Operculum almost fills the orifice concealing the lingula. Caudal furrow distinct, 63  $\mu$  long, wider at base (16  $\mu$ ) and narrowing towards caudal end (7  $\mu$ ), with irregular wavy transverse markings,



Text-fig. 2. *Aleurotuberculatus hexcantha* (Singh) — Dorsal and ventral surfaces of pupal case.

*Ventral surface.*—Ventral abdominal setae  $17\ \mu$  long,  $26\ \mu$  apart. Prothoracic and abdominal spiracles evident. Antenna short, does not extend beyond base of fore leg; setae at base of legs and rostrum wanting; adhesive sacs present; thoracic tracheal folds not evident;

caudal fold discernible, smooth. A distinct linear line running all round but broken in the region of caudal tracheal folds seen.

*Hosts.*—*Bauhinia* sp. (Singh 1940), *Ficus* sp. (Rao 1958).

*Distribution.*—Chanda, Nagpur (Singh 1940), Himayatnagar (Andhra Pradesh) (Rao 1958).

*Material.*—Holotype No. 5837/H7, one pupal case, *Bauhinia* sp., Chanda (Nagpur), December 1937, *Karam Singh*.

#### SUMMARY

In this paper a new aleyrodid *Dialeurodes* (*Rhabdostigma*) *saklaspurensis* n. sp. found in large numbers on the undersurface of leaves of an unidentified tree is described. The aleyrodid *Taiwanaleyrodes hexantha* Singh is assigned to the genus *Aleurotuberculatus* suggesting a new name combination based on a study of the holotype and a detailed revised description as also available information on the hosts and distribution are provided for the species.

#### ACKNOWLEDGEMENT

I wish to express my sincere thanks to Dr. A. P. Kapur, Director, Zoological Survey of India, Calcutta for permission to study the material and to Mr. K. S. Pradhan, Superintending Zoologist and Mr. Kuldip Rai of the Zoological Survey of India for the cooperation extended in examining the material. Thanks are due to Dr. T. N. Ananthakrishnan, Director, Entomology Research Unit, Loyola College, Madras for the facilities provided.