

—Caudal process slightly away from the abdominal apex; anal cleft well developed, more than twice the length of anal opercula; orifice of dendritic ducts with 2–3 loculi (Figs. C and D); tubular ducts with inner ductule long, slightly shorter than outer ductule (Figs. H and I).....  
..... *C. ajmerensis* sp. nov.

*Cerostegia ajmerensis* sp. nov. (Figs. A–M)

*Adult female:*

Mounted specimens (A) elliptical in shape, more than one and a half times longer than wide (2.7 : 1.6 mm). Dorsum with membranous processes which devoid of setae and dendritic ducts; dorsal setae (B) small and few in number; orifice of the dendritic ducts with 2–3 loculi (C and D). Caudal process strongly sclerotized and away from abdominal apex. Anal opercula (E) longer than wide, each operculum with 2 subapical, 1 subdiscal setae; anal fold with 3 pairs of small and 1 pair of long setae. Anal cleft more than twice the length of anal opercula. Marginal setae simple and curved, and each side of anal cleft with 3 long setae. Stigmatic cleft much shallow;

stigmatic spines (F) small, sclerotized and conical in shape; lateral margins of thorax between stigmatic clefts with an interrupted row of stigmatic spines, 2–3 large thick and conical spines present on mid of each cleft on ventral side.

Venter with small and thin setae (G) arranged submarginally; a pair of long setae present near bases of each antennal socket; tubular ducts (H and I) with inner ductule as wide as and slightly shorter than outer ductule, arranged submarginally in a band; quinquelocular pores (J) set in band in between each stigmatic cleft and spiracle; multilocular pores (K) arranged in patches around genital opening and sparse in preceding abdominal segments. Eyes distinct, lateral in position. Antennae (L) 7-segmented, 0.25 mm in length; second segment slightly longer than wide; 3rd longest, slightly less than four times as long as wide and as long as 4–7 segments together. Rostrum monomerous. Spiracles small. Legs well developed, with out tibio-tarsal articulatory sclerosis; claw simple, claw digitule spatulate (M).

Holotype ♀; 6 ♀ paratypes, India, Rajasthan, Ajmer, Hathi Bhata, *Cassia fistula*, 3. ii. 1978 (R. K. Avasthi). Types deposited in Zoological Museum, Aligarh Muslim University, Aligarh, India.

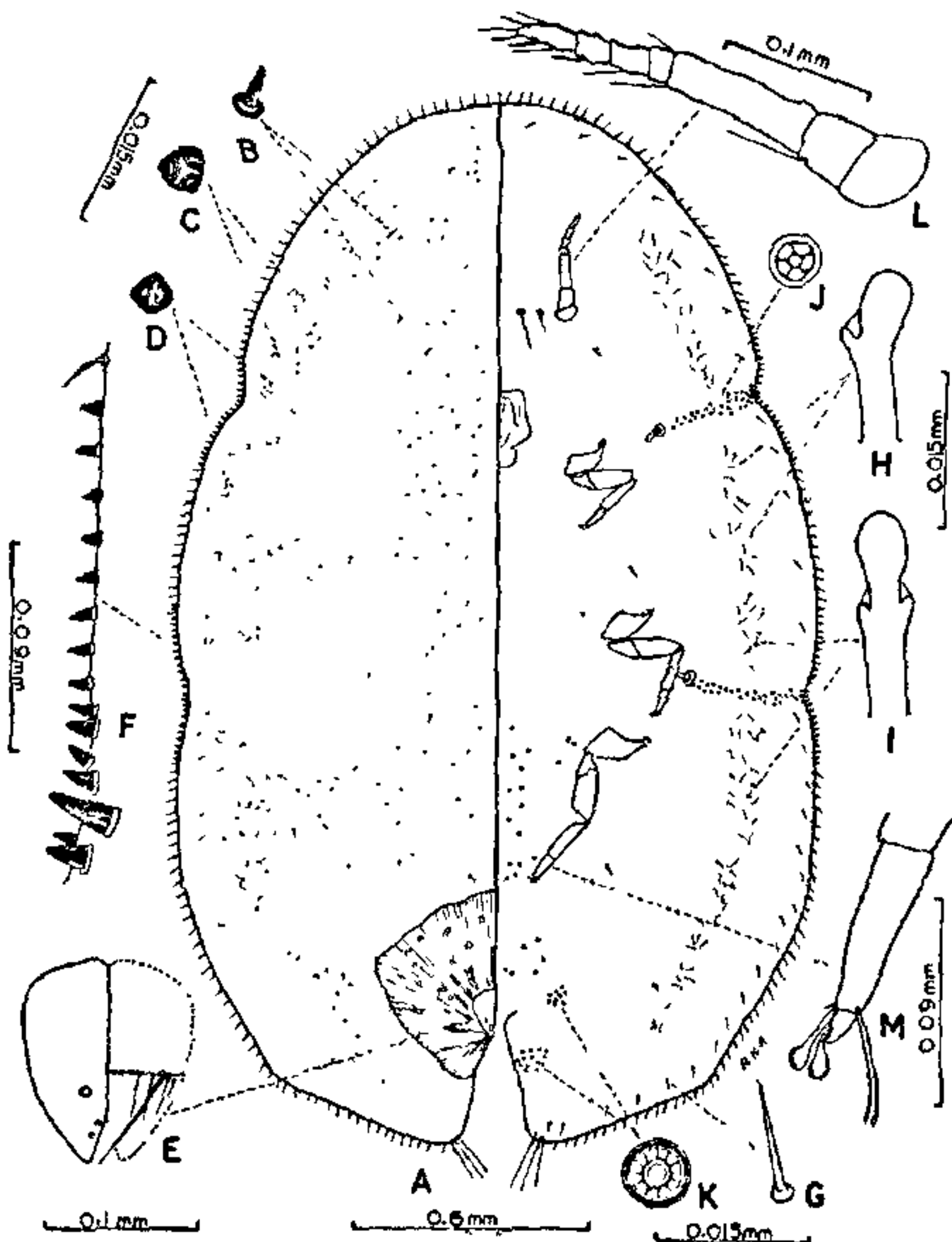
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1. De Lotto, G., "A new genus of wax scales (Homoptera : Coccidae)," *Boll. Lab. Ent. Agr. Portici*, 1969, 27, 210–218.

**LARVAL FEEDING BEHAVIOUR OF  
*SCIRPOPHAGA INCERTULAS* (WLK.)  
(*TRYPORYZA INCERTULAS*)**

WHILE studying preferential feeding of newly hatched larvae of yellow stem borer of rice, *Scirpophaga incertulas* (Wlk.) (*Tryporyza incertulas*) on different parts of rice plant in the laboratory, it was observed that the larvae also bored the young spikelets of rice. This led to the examination of the young panicles at CRRRI farm during 1978 (*rabi*). The borer incidence was heavy at heading stage during the season. Several panicles possessing partly healthy grains and some damaged chaffy lemma and palea without caryopsis were examined. Small entry holes with larval frass were noticed on the lemma. From one damaged spikelet upto 4 young larvae were recorded. The larvae



FIGS. A–M. *Cerostegia ajmerensis* sp.n. ♀: A. Body, dorsal and ventral view; B. Dorsal seta; C and D. Orifice of dendritic duct; E. Anal opercula, dorsal and ventral view; F. Stigmatic spines and marginal seta; G. Ventral seta; H and I. Tubular ducts; J. Quinquelocular pore; K. Multilocular pore; L. Antenna; M. Part of hind leg.



inside the spikelet fed stamen, ovary and even lemma and palea as whole (Fig. 1). In some cases larvae



FIG. 1. A portion of the panicles damaged by *Scirpophaga incertulas* (Wlk.) (*Tryporyza incertulas*). 1. Entry holes; 2. Larval frass.

fed the spikelet from outside and consumed the developing caryopsis below the leaf sheath. This type of feeding was observed in about 11% panicles of *Jaya* during the first week of May 1978. The larval feeding on spikelets also causes appreciable grain loss. In almost all the cases of this type of feeding, top few spikelets in a panicle were healthy while damage was restricted in the basal part.

Chin-Chyuan Tang<sup>1</sup> in Taiwan mentioned that larvae of *Scirpophaga incertulas* (Wlk.) (*Tryporyza incertulas*) "ate the flowers, making white panicles". However, the available published literature on the larval feeding behaviour of this pest in India indicates that the larvae feed on vegetative parts of the rice plant only. Hence the larval feeding on the panicle appears to be the first report from India.

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1. Chin-Chyuan Tang, *Plant Protection Bulletin*, 1961, 3 (4), 1-4.

### CYCLICAL CHANGES IN THE MUCUS SECRETING CELLS OF THE CERVICAL EPITHELIUM OF *PTEROPUS GIGANTEUS* *GIGANTEUS*

THE study of the cyclical changes in and the nature of the mucus secreted by the cervix uteri has acquired considerable importance in modern human and veterinary gynaecological practice. The cyclical changes in the cervical epithelium associated with oestrus and pregnancy are different in different mammals. While in the horse and cow<sup>1</sup> the epithelium becomes mucified, in rat<sup>1</sup> the epithelium of the lower segment undergoes cornification and desquamation as that of the vagina. However, the changes in the cervix uteri are slight in rabbit, guinea pig and rhesus monkey<sup>1</sup>, and doubtful in man<sup>2</sup>. In the bonnet monkey<sup>1</sup> the cervix is profusely mucified and shows cyclical changes.

The presence of two cell types—ciliated and non-ciliated mucus secreting—are reported in the North American bat<sup>3</sup>, bovines<sup>4-6</sup>, maccacus and rabbit<sup>7,8</sup>.

The present work has been undertaken not only to record the histological changes in the cervical epithelium but to find out the secretion of cervical mucus changes during different phases of the sex cycle of the Indian giant fruit bat, *Pteropus giganteus giganteus*.

Specimens of *Pteropus giganteus giganteus* were shot from their roosts on banyan trees in and around Nagpur. Collections were made every week starting from the first week of September, 1975 to the end of August, 1976. The genitalia were fixed in cold calcium acetate-formal, 10% neutral formalin and Rossman's fluid. After the usual procedure of dehydration the tissues were embedded in paraffin and cut at a thickness of 6-7  $\mu$ . Sections were stained by Ehrlich's haematoxylin and eosin for routine histological study. Alternate sections were stained by various histochemical techniques for the demonstration of different types of mucin<sup>9</sup>.

The two cervical canals of *Pteropus giganteus giganteus*<sup>10</sup> are enclosed in a common sheath. Anteriorly, the two canals are separate but they join posteriorly before opening into the vaginal lumen. Mucosal folds project into the cervical lumen. During anoestrus the mucosal folds are few and low in height and the cervical canal is lined by low columnar epithelium (Fig. 1) which is made up of two types of cells—ciliated and nonciliated. In transverse sections these two types of cells are noticed to alternate with each other in their position. With routine staining cytoplasm of ciliated cells appears eosinophilic while that of the nonciliated cells basophilic. The nuclei of both cell types are situated towards the basal region. When stained with PAS, the cytoplasm of the non-ciliated cells is positive while that of the ciliated