however, this requires to be identified more clearly. Studies in this direction and on the biology of the new eriophyid mite are in progress.

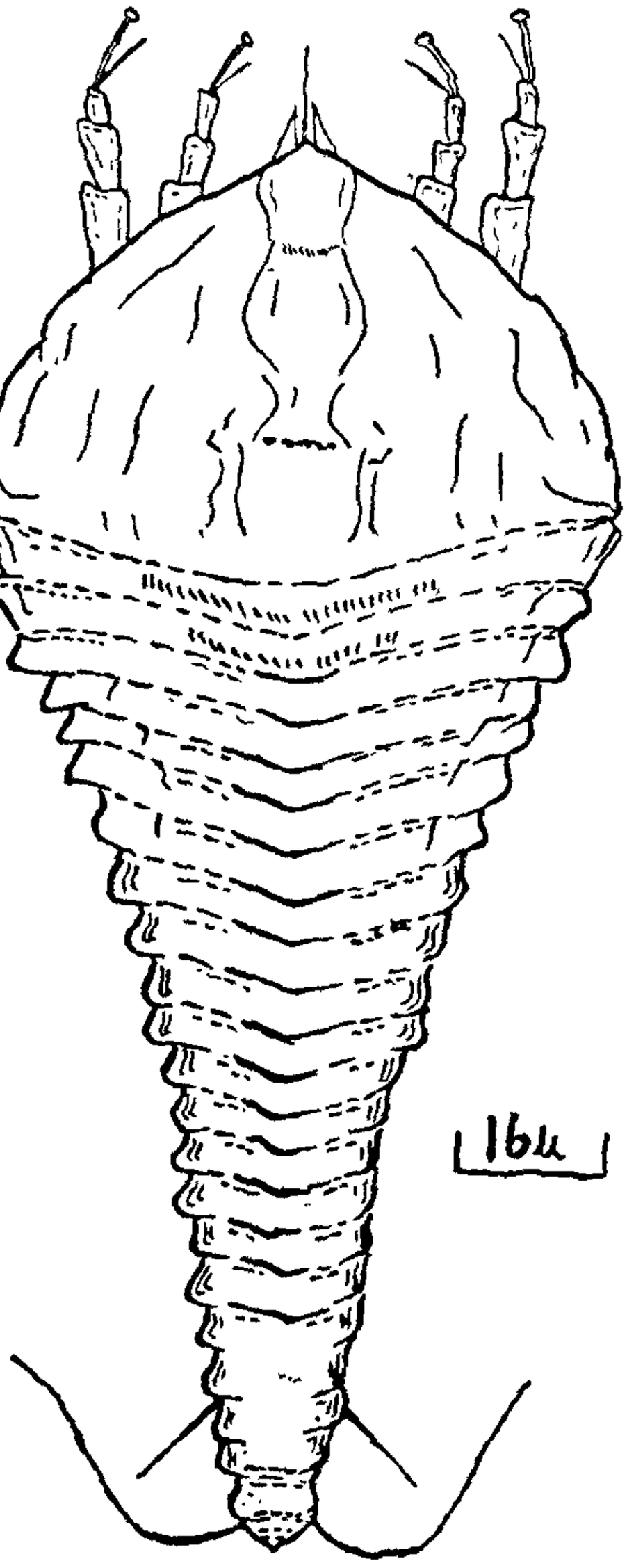

FIG. 1. Pale mite of tea *Acaphyllisa parindiae* (After Keifer, 1978).

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FOSSIL COPROLITES FROM INDIAN ROCK FORMATIONS

RECENTLY we came across a note by Gowda and Nagaraj[1] reporting occurrence of minute coprolites in abundance and to the exclusion of any other types of fossils, in a friable sandstone near the base of Palaeocene beds in Pondicherry area with the sandstone passing laterally into glouconite bearing marl. By reference to a similarly situated coprolite bearing conglomerate bed in the Palaeocene of Denmark and Sweden, Gowda and Nagaraj have indicated its stratigraphic importance in Pondicherry area.

That theirs is the first find of fossil coprolites in Indian rock formations is, however, not tenable. Hislop[2] discovered fossil coprolites in ploughed fields near Maleri. Oldham[3] on the basis of information from Hislop had reported this occurrence in 1859. In 1864 Hislop[4] gave another note on fossil coprolites. These coprolites are known to have come from the Upper Triassic Maleri Beds and the Upper Cretaceous Lameta (or perhaps Inter-Trappean) Beds. Hughes[5] Blanford[6], King[7], Matley[8] (in Huene and Matley 1933) and Aiyengar[9] also have collected coprolites from Hislop's localities.

Among these specimens, 600 and odd, available to him, Matley[10] recognised five broad structural groups. Maleri coprolites composed of thin laminae of uniformly fine grained mineralised faecal matter being without any inclusions of fragmentary hard skeletal parts led Matley to interpret them as excreta of herbivores; and with the laminae wound spirally into fusiform he considered them to be of Elasmobranch fishes which have spiral valve; *Ceratodus* an ellasmobranch, is recorded from these beds. On average 50 mm–55 mm long and half that in width, some of the larger specimens are 75 mm–80 mm long. In the absence of any shrinkage cracks they are considered to have been laid in water. Of the Pisdura coprolites, those of discoid to sub-cylindrical shape with

longitudinal ribbing on their surface were interpreted as excreta of Chelonia which have longitudinal rugae on the inner surface of their lower intestine. The larger ones without ribbing were considered to be excreta of large Titanosuarian dinosauras, the smaller ones being of smaller reptiles. Among the unribbed coprolites Matley had indicated presence of cornosaurian excreta even though this group of reptiles was not known to occur at Pisdura when he studied this material. Smaller Pisdura coprolites are about 20 mm–25 mm long, the medium ones about 50 mm–55 mm, and some of the larger ones as much as 160 mm–170 mm long. Some of the coprolites with shirnkage cracks and one side flattish, were considered to have been laid on dry land.

Some of the Maleri coprolites studied by Sohn and Chatterjee[11] are reported to have contained some freshwater ostracodes, *e.g.*, *Darwinula*, which those reptiles, probably rhynchosaurids, must have swallowed along with their herbaceous food from the marsh.

Chatterjee[12] has reported from Maleri–Chinnur area in Godavari valley two broad groups of coprolites, the one from the Middle Triassic Yerrapalli formation easily distinguishable by their general shape and size from those from the Upper Triassic Maleri formation, probably implying that they belonged to different groups of animals.

Among the coprolites till now recorded from marine environment, Patwardhan and Ahluwalia[13] have reported micro-coprolites associated with phosphorite from the Triassic Krol–Tal transition sequence near Mussooree. Chiplonkar and Badve[14] and Haentzschel[15] have noticed faecal discoid flakes in the burrow *Discotomaculum* in the oyster bed in Nimar Sandstone (Bagh Beds) at Mongra in Narmada valley. Chiplonkar and Tapaswi[16] have mentioned faecal pellets approximately 2 mm long, more or less transversely disposed in the tunnels of *Chondrites* from the Gray Shales horizon of Dalmiapuram. In the Shiala formation of the Tethyan sediments in Malla Johar area Kumar *et al.*[17] have found faecal pellets in the burrow *Tomaculum*. Minute coprolites 0·5 mm to 1·00 mm long fill the burrow *Tubicotomaculum* described by Chiplonkar and Ghare[18] from the matrix of a cymatonautiloid shell from the Utatur beds at Utatur.

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IN VITRO INACTIVATION OF RICE TUNGRO VIRUS BY PLANT GROWTH REGULATORS

In recent years, several plant growth regulators have been reported to possess virus inhibitory activity. Some of these reduce the virus concentration of infected plants[1,2], while others are shown to be potent inhibitors of viral infectivity[3,4]. However, till now, no report seems to be available on the inhibitory effect of plant growth regulators on rice tungro virus.

During a recent search for antiviral compounds against rice tungro virus (RTV), the authors have attempted to study the effect of gibberellic acid (GA) and indole-3-acetic acid (IAA) on the infectivity of the virus. Leaves collected from tungro infected rice plants were cut into 8 cm long strips and kept immersed in solutions of GA and IAA at 100, 200, 300 and 400 ppm concentrations for 24 hrs. Similarly, infected leaf strips treated with water served as the control. After the treatment, infectivity was assessed by transmission tests with green leafhoppers (*Nephotettix virescens* Distant). Twentyfive non-viruliferous green leafhoppers were allowed to feed on each of the treated samples for 24 hrs for virus acquisition and then they were transferred to 15 day old healthy seedlings