

PLATYCYSTIDIA eisenackii

(Mehrotra & Sarjeant) Backhouse 1988

Platycystidia eisenackii (Mehrotra and Sarjeant)
comb. nov.

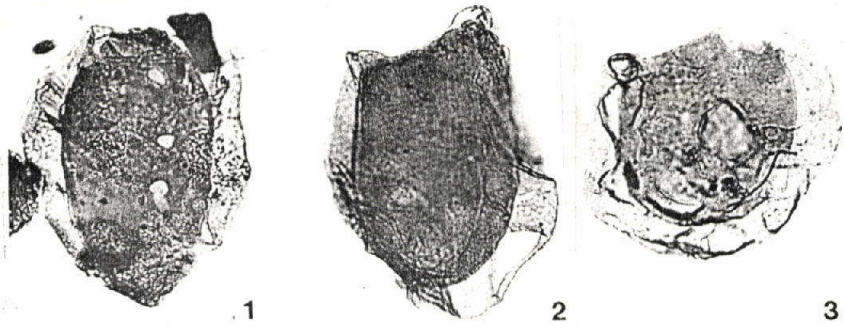
Pl. 46, figs 1-3

1984 *Polygonifera eisenackii* Mehrotra and Sarjeant, p. 46. Pl. 1, figs 1-7. Pl. 2, figs 1-7.

Description: Lenticular palynomorph, oval in outline. Wall two-layered, finely granular inner wall forming an elongate ovoidal inner body. Outer wall thin and punctate; separated from inner body by 5 to 15 μm , although appressed in one plane, possibly due to compaction; two wall layers closer together near pylome. Small transverse folds sometimes developed across centre of outer wall. A simple slanted pylome always present at one end, pylome suture lacking evidence of paratabulation.

Dimensions: Range of inner body length (12 specimens) 42(56)68 μm , width 32(37)42 μm .

Remarks: Mehrotra and Sarjeant (1984) assigned the species to *Polygonifera* Habib 1972. However, the genotype of *Polygonifera* (Habib, 1972, Pl. 5, fig. 1) displays unmistakable dinoflagellate characteristics including an apical archeopyle. I see no evidence in Mehrotra and Sarjeant's illustrations and line drawings to support their contention that



the opening is an archeopyle, nor that the transverse structure is necessarily a cingulum. Some acritarch genera (e.g. *Fromea* Cookson and Eisenack) display pseudo-cingular structures. Therefore, until the dinoflagellate affinity of this species is more convincingly demonstrated I prefer to retain it as an acritarch. The same palynomorph is figured as *Platycystidia* sp. A by Stover and Helby (1987) from Houtman 1 well in the Perth Basin. The assignment to *Platycystidia* appears to be appropriate given the morphological similarity to *P. diptera*.

Khawaja-Ateeguzzaman & Jain 1992 (pl. 4, fig 6) : Hauterivian / Barremian S India

Backhouse 2003 : Early Cretaceous (Balmeropsis limbata Zone),
southern Carnarvon Basin, Western Australia