Terminology
The exine constitution of the tribe Vernonieae is highly complex and the special terms proposed by Wodehouse (1928, 1935) are generally employed in pollen description of Vernonieae. The following terms are mostly from Wodehouse (1928, 1935) and a few are of Dimon, 1971; El-Ghazaly, 1979; Lewis, 1965; Vasanthy, 1976, 1978 and others. The authorship of the terms is indicated by the first letter of each author (for ex. W - Wodehouse, D - Dimon; E - EL-Ghazaly; L - Lewis and V - Vasanthy).

Abporal lacuna : a lacuna meridionally opposite to a germ pore (W).

Aboral lacuna : a lacuna meridionally opposite to an os (E).

Cavus (pl. caveae) : the space formed as a result of separation of the columellae from nexine. While discussing about caveate vs non-caveate exines, Skvarla et al. (1978) write "Many exines have columellae joined to the foot layer only at the periphery or margins of the apertures. In regions between the apertures, columellae are physically separated from the footlayer and the resultant opening or space is known as a cavus (Skvarla & Larson, 1965). Since these apertures are typical of Compositae pollen, three cavus areas are present and they impart the familiar bladdered appearance commonly
observed by light microscopy. These pollen grains are designated as caveate exines."

Caverniform separation (L. caverne - hollow; adj. cavernulous - full of little cavities Gk. formis - resembling) : denoting the discontinuous separation (unlike continuous cavus formation between apertures) of adnated or fused columellar bases from nexine between the vertices of lacunae (ex. Adenoon, Lamprachaenium, Centratherum spp. and Vernonia spp.)

Circumpolar lacunae : these lacunae, generally six in each hemisphere, surrounding the polar lacuna (W).

Circumpororal lacunae : lacunae surrounding pororus, are generally six. but deviations are 5, 7 and 8 depending on the angularity of pororal lacunae (ex. Lamprachaenium, Centratherum, Vernonia peninsularis, V.roxburghii etc.)

Composite columellae : Columellae with distal "offshoots" (V).

Compound Os : The colpororus or the composite aperture of Hedyotis (L) has two oral thinnings : Os A (affecting foot layer) and Os B (lacking nexine). Os A is synonymous with "aperture moyenne" (D), "mesoaperture" (V) and Os I (E).

Echinate : provided with long or conspicuous and generally sharp pointed spines (W).

Echinolophate : lophate with ridges bearing spines on their crests (W).
**Equatorial lacuna**: a lacuna situated on the equator between two germ pores and as much in one polar hemisphere as the other (W).

**Interlacunar ridge**: one separating lacunae from each other in lophate grains (W).

**Interporal lacunae**: a lacuna situated between and bounded on one or two sides by abporal lacunae and wholly within one polar hemisphere in lophate grains (W).

**Lacuna**: a large pit or depressed space in the exine of lophate or reticulate grains. Lacunae are never germ pores or furrows but may be occupied by one or other of them (W).

**Lophate**: with the outer surface thrown into ridges, anastomosing or free.

**Microreticuloid** (adj. Gk. mikros, small; L. reticulum, net; oid in Gk. comp. resembling): with a delicate network consisting of minute muri which encompass lumina less than 1 μm width. The breadth of muri is equal to, or narrower than the width of lumina (Praglowski & Punt, 1973).

**Oral lacuna**: lacuna is occupied by the oral part of the aperture (E).

**Parapor(or)al lacuna**: a lacuna adjoining on one side a por(or)al lacuna and wholly within one hemisphere (W).

**Polar lacuna(e)**: one or more lacunae at the pole or at the centre of
symmetry in lophate grains in which the pattern is radiosymmetrical or nearly so. When there are more than one at each pole, they are polar lacunae, unless, by definition; they are interporal or abporal (interapertural or abcolporal) lacunae (W).

Por(or)al lacuna: a lacuna enclosing a porus or pororus (W).

Subechinate: provided with short and sometimes rounded spines (W).

Sublophate: with the surface thrown into ridges which are imperfectly defined.

Sublacuna: Sublophate partitions generally enclose (sub)lacunae of variable size, shape and angularity. The microreticuloid net covers the sublophos and sublacunae in echinosublophate grain leaving alone the (3) colpororal areas (W).

Tectal complex (syn. tectum composé of Cerceau-Larrival, 1959; tectum structuré of Van Campo & Lugardon, 1973). Tectum is not a simple layer but with intricate elements or interconnected components fusing with the intruding "offshoots" (cf. Rowley & Dahl, 1977: Text fig. 2) of composite columellae showing various degrees of bilateral descension.