

4 Hadidi, N. A. M., In *Flora Iranica*, (ed) K. H. Rechinger 1972 No. 98, 8

A NEW EPIPHYLLOPHYTIC TERRESTRIAL HABITAT FOR *COLEOCHAETE SCUTATA*

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COLEOCHAETE occurs as epiphyte on hydrophytes¹. There is no record of this taxon to occur on terrestrial epiphyllorphic habitat. During the course of extensive study of the members of the Asclepiadaceae, we came across *Coleochaete scutata* Berb., on the foliar epidermis of *Hoya retusa* Dalz.

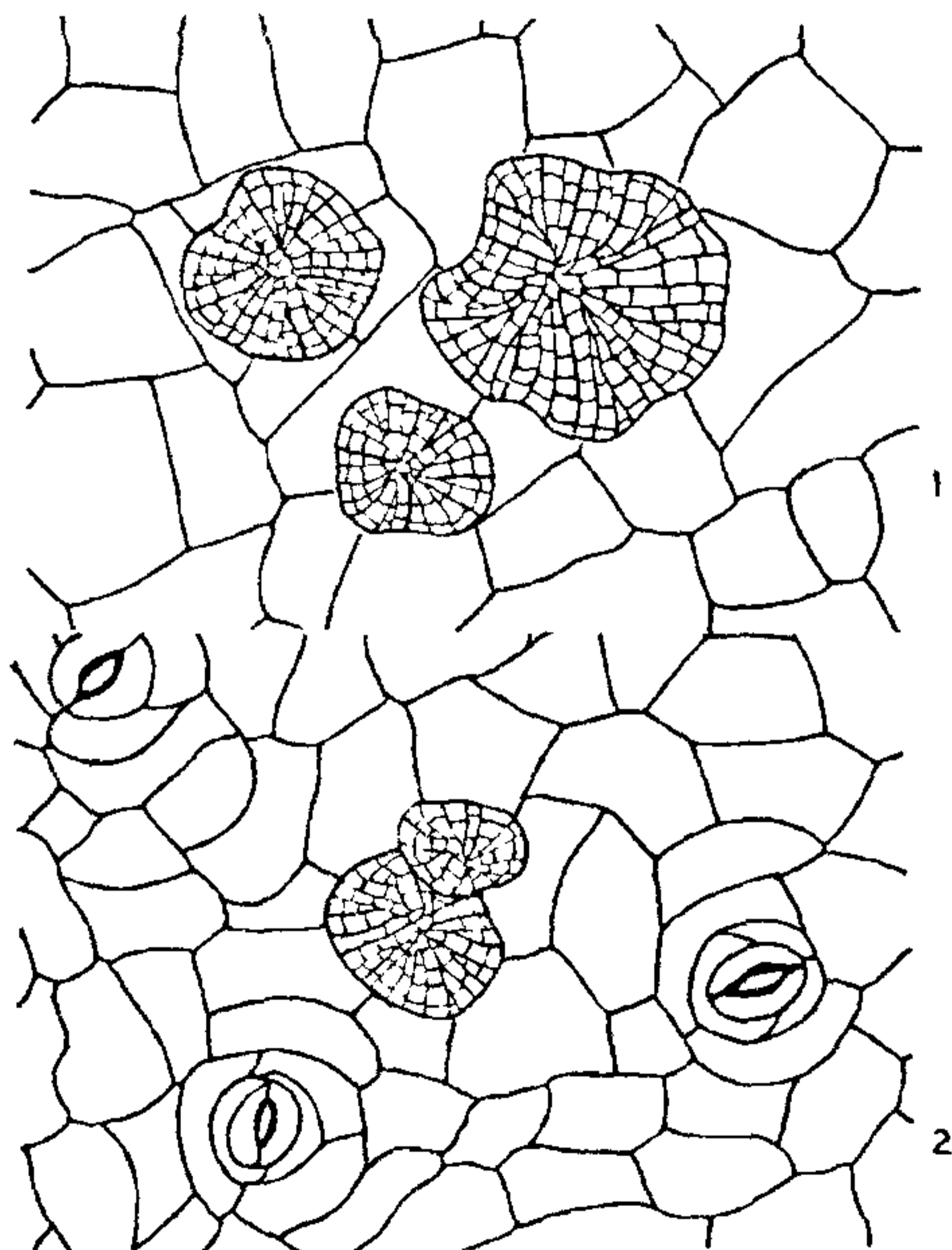
Coleochaete is present on the upper as well as lower epidermis (figures 1 & 2) but is more frequent on the upper epidermis.

Hoya retusa grows as an epiphyte on *Artocarpus* sp. and *Ficus* sp. and is confined to *semievergreen* or evergreen forests. The special circumstances under which *Coleochaete* appears to have become epiphyllorphic were due to the growth of *Hoya* down to the level of water during the rainy season. Under these changed conditions *Coleochaete* could have thrived well on the epidermis. Further, there is high humidity and heavy rainfall in such rain forests. The large number of individuals on the upper epidermis can be attributed to the channelled (midrib groove) leaves which provide ideal hydrophytic conditions. Thus *Coleochaete* is able to thrive as an epiphyte on *Hoya* since the latter provides hydrophytic conditions.

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1. Fritsch, F. E., *The structure and reproduction of algae*, Vol. I, University Press, Cambridge, 1956, p. 281.



Figures 1 & 2. 1. Upper epidermis of *Hoya retusa*, 2. Lower epidermis of *Hoya retusa* showing *Coleochaete*.

A CASE OF DIPLOSPORY IN *LUFFA CYLINDRICA* LINN.

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THE members belonging to the Cucurbitaceae are of great economic importance as they yield edible fruits. The embryological literature on the taxon has been reviewed by Davis¹, Barber², Karlzer³. Singh⁴ studied the seed structure in *Luffa cylindrica*. The present authors working on histochemical aspects during different stages of seed development came across apomictic development of embryo sac in *L. cylindrica*, commonly known as vegetable sponge. It is a trailing herb cultivated throughout the country.

The flowers and fruits of various sizes fixed in FAA and processed in ethanol-xylene series were embedded in paraffin. Sections cut at 8 to 10 μ m were stained with Delafield Hematoxylin. The features in the development of megasporogenesis and megagametogenesis