PSILOSPORA GEN. NOV., A NEW FOSSIL POLLEN GENUS FROM THE MESOZOIC ROCKS OF KUTCH, W. INDIA

The present paper describes Psilospora gen. nov., a new pollen genus recovered from the Katorl (Upper Jurassic) and the Bhuj (Lower Cretaceous) sediments of Kutch. The material consisted of buff to grey-coloured shales which were macerated following the method described by us in an earlier paper.¹

GENUS Psilospora GEN. NOV.
Type Species—Psilospora lata Sp. Nov.
Generic Diagnosis.—Pollen oval-elliptical in shape. Exine thick, lævigate, furrows present along longer axis.

Description.—Mostly oval in shape with broad lateral ends, elliptical forms are also encountered in studied material. Size range 65-150 × 40-80 μ. Exine 2-6 μ, lævigate, sometimes weakly infrastructured. Furrows variable, in some specimens only one distinct furrow is present while in others up to 4 have been observed. Among over hundred specimens studied none shows splitting along equatorial axis.

Comparison.—Schizosporis Cookson & Dettmann (1959)² is mostly circular-subcircular in shape, splits into two halves along the equator and is ornamented. Among the four species included under this genus by Cookson and Dettmann,³ S. reticulatus and S. rugulatus show distinct exoexinal ornamentation while two species, i.e., S. spriggi and S. parvus do not show any exoexinal ornamentation; hence it is here proposed to restrict Schizosporis to ornamented forms. S. spriggi as compared to the specimens recovered from Indian sediments is distinctly circular with a furrow or an aperture running along the equator (cf. Zoneaperturate) splitting the pollen into two almost equal halves. S. parvus is ovoid and is thus comparable to the Indian fossils but shows a distinct equatorial furrow. The specimens described here as Psilospora lata are larger in size with a thick exine showing one or more furrows running along the longitudinal axis of the pollen, no split forms have been encountered. Ovocites Potonié (1951)⁴ resembles the present genus in shape but is distinguished by its rugose-reticulate ornamentation.⁵

Psilospora lata Sp. Nov.

Holotype.—Fig. 1, Figs. 1-5

Figs. 1-5. Psilospora lata Gen. et sp. nov. Fig. 1. Holotype. ca. X 600.

Type Locality.—Trambau, near Bhuj, Bhuj Series (Lower Cretaceous), Kutch, India.
Specific Diagnosis.—Pollen oval, 100-140 × 58-80 μ. Exine 3-6 μ thick, lævigate, Furrows present extending along longer axis.

Description.—Pollen mostly oval with equally broad lateral ends. Exine in most specimens
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TWO NEW RECORDS OF PESTALOTIA FROM BANGALORE

In the course of investigations on soil mycoflora of Bangalore, two species of Pestalotia (sensu) Guba were isolated, one from termit hill soil and the other from the rhizosphere of Pismum sativum L. The species were isolated by the Warcup's soil plate method. Recently, Rao has reported an unidentified species of Pestalotia from soils at Tirupati.


Conidia 5-celled, fusiform, tapering towards the extremities, straight, slightly constricted at the septa, 18-26 × 4.5-8 μ; intermediate cells pale brown, somewhat olivaceous, concolorous 12-15 μ, apical cell hyaline conic or slightly cylindrical bearing two to three, rarely one or four widely divergent setulae, mostly unequal in length, 4-13 μ, pedicel upto 8 μ long (Figs. 1-4).

Pestalotia heterocornis was originally described on leaves of Anacardium occidentale L. The isolate under report, obtained from the termit hill soil, differs from the type in having slightly shorter setulae.


Conidia 5-celled, fusiform, straight, rarely bent, tapering towards the extremities, 24-33 × 7-9 μ, hardly constricted at the septa, basal cell fairly long, acute, upper two cells umbocoloured, the lower olivaceous 13-18 μ; setulae 2-3, mostly three, rarely four, diverging at right angles to the conidia 15-33 μ long and pedicel 4-8 μ long (Figs. 5-8).

Pestalotia ardisiae was originally described on leaves of Ardisia grandis Seem from Botanic Gardens, São Paulo, Brazil. The local isolate from the rhizosphere soil of Pismum sativum L., agrees closely with the above species but differs in having slightly longer and narrower conidia.