tive nitrate reduction test, H$_2$S production, positive catalase test, utilization of carbohydrates such as xylose, glucose, fructose, sucrose, lactose and non-utilization of adonitol, dulcitol, irulin, salicin and inositol indicated that the bacterium causing the leaf spot of peppervine is Xanthomonas spp. (Dye, D. W.)

Fig. 1. Bacterial leaf spot on betelvine (A) and peppervine (B).

Fig. 2. Infected leaves. A. Peppervine; B. Betelvine.

Buchanan and Gibbons$^2$ have reported that the organism X. betlicola goes to the members of the family Piperaceae. Based on the pathogenicity of the organism to pepper leaves, positive results of cross-inoculation tests and the symptomatological characters, the bacterium is tentatively identified as X. betlicola Pat et _et al._$^3$. Detailed studies on the pathogen, disease and its control are in progress in this laboratory.

We are grateful to the Kerala Agricultural University for facilities given for these investigations.

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SPOROSCHISMA SACCARDOI MASON AND HUGHES STATE OF CHAETOCHISMA COELESTINA HOHNEL, AN ADDITION TO INDIAN MYCOFLORA

The genus Sporoschisma Berk. and Br. in India is represented by a single species, viz., S. nigroseptata Rao and Rao$^1$. During the survey on hyphomycetes of Warangal the authors collected another interesting species of Sporoschisma, i.e., S. saccardoi Mason and Hughes which is reported in this communication.

_Sporoschisma saccardoi_ Mason and Hughes

The fungus was collected growing saprophytically from Pakhel forest (A.P.) mixed with sporodochia of _Berkleasmium papillatum_ Rao and Rao. Colonies on the substratum scattered, dark-brown, spreading. Mycelium branched, creeping, immersed in the substratum, sometimes aggregated to form black, thick, pseudoparenchymatous stromata. Sporodochia black scattered or in groups from which conidiophores and sterile setae arise. Conidiophores simple, erect, tubular, single or in groups, dark-brown, 1-3 septate, 145-1-252.3 μm long swollen at the middle, 7.5-11.25 μm broad at the base, 12.6-13.8 μm at the apical fertile region (Fig. 1). The portion above the swollen region is much longer than the lower region. The swollen region measures 18.3-36.5 × 15.6-17.5 μm. Sterile setae simple, subhyaline to light-brown, 1-7 septate with terminal as well as intercalary capitate regions and measure 80-130 μm long, 4.3-6.2 μm broad and 7.5-16.25 μm at capitate regions. Conidia endogenous-phialospores produced from the apical fertile part of the phialide, dark-brown, cylindrical, 5-septate, catenate 32.3-36.6 × 8.2-10.1 μm. The end cells hyaline, thin walled, truncate and the penultimate cells longer (6.2-9.5 × 8.2-10.1 μm) than middle central cells (5.7-7.6 × 8.2-10.1 μm). Conidia at various stages of development are found to be enclosed in the conidiophore.

The material was collected by S. R. R. on dead culms of _Sorghum_ sp. from Pakhel (A.P.) forest on 6-9-1976. During our frequent visits to the same area it was observed that the same material developed some perithecia intermingled with sporodochia of _Sporoschisma_. The perithecial fungus was identified as _Chaetoachisima coelestina_ Hohnel.
Perithecia growing amongst stalked phialides and capitulate sterile hyphae superficially, scattered, solitary or in groups of 2-5, olive-green, sub-globose to subpyriform, glaucous, with cuticular papillae, up to 500 μm in diameter with numerous radiating sterile capitulate hyphae (Fig. 2). Sterile hyphae 51-2-62-5 μm long, 6-25-8-6 μm broad, 8-5-11-9 μm broad at the capitulate regions. Asci numerous, unitunicate, clavate to cylindrical, 8-spored, 200-360 μm long and 10-5-15-6 μm wide. Ascospores fusoid, curved, smooth, 5-septate, rarely 3-4 septate, 39-2-56-4 μm long and 5-8-9-6 μm wide (Fig. 3). Four central cells are bigger and deep in colour than the end cells.

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A CONTRIBUTION TO THE FLORAL ANATOMY AND MORPHOLOGY OF THE GYNOECIUM OF SERICOSTOMA PAUCIFLORUM STOCKS

Sericostoma pauciflorum belongs to the tribe Lithospermeae of the sub-family Boraginioideae of the Boraginaceae. Lawrence1 has studied the floral anatomy of certain members of this family for taxonomic considerations. Sharma2 and Pal3 have made a comparative study of some species of Heliotropium. Joshi4 has studied floral anatomy of Bothriosperrum tenellum. The present investigation has been undertaken to consider the importance of floral anatomy (Puri5).

Sericostoma pauciflorum are perennial straggling under-shrubs with woody bases. Their branches are clothed with appressed stiff hairs with bulbous bases. The flowers are white, arranged in racemes. Fruits are schizocarpic, with two mericarps or rarely with four nutlets. They flower twice a year, August-September and March-April and form common thickets on the vast sandy areas of western Rajasthan.

The pedicel shows a simple siphonostele, consisting of discrete collateral vascular bundles (Figs. 1, 2). At the base of the flower, five strong traces depart to the calyx whorl and the central stele first becomes circular in outline (Fig. 3) which later assumes a pentagonal shape (Fig. 4). The sepaline bundles remain undivided for sometime in the calyx tube (Figs. 5-9) but as they reach the sepal lobes, each sepal bundle splits tangentially to give rise a sepal dorsal and a pair of sepal laterals (Fig. 10).

The corolla whorl receives five strong traces slightly above and alternate with the sepaline traces (Fig. 5). The five stamen traces emerge from the central stele alternating with the petaline traces (Figs. 5, 6). These ten, petal and stamen traces enter into the corolla tube (Fig. 10). The petaline bundles also remain undivided in greater part of the corolla tube, but at its throat each petal bundle produces a petal dorsal and a pair of petal laterals (Figs. 18-20). In the petal lobes these lateral bundles branch profusely and form a network of veins (Figs. 21, 22).