

OCCURRENCE OF *TERMINALIA* IN THE LOWER SIWALIK BEDS NEAR KOILABASA, NEPAL.

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THERE are exposure of lower siwalik beds near Koilabasa (Nepal), about 5 Km north of Jarwa ($27^{\circ} 37'N: 82^{\circ} 31'E$), District Gonda, Uttar Pradesh. This locality is situated about 52 km northeast of the town of Balrampur ($27^{\circ} 26'N: 82^{\circ} 11'E$) in the same district. A large number of leaf impressions have been collected by the authors from this locality. They are borne mostly on fine grained sandstone and sometimes also on shale.

One of the leaf impressions (Figure 1) is fairly well preserved. It is a simple leaf with symmetrical lamina, preserved length 7.4 cm, width 3.5 cm, appearing to be elliptic in shape; apex not preserved; base acute; margin entire, texture (?) chartaceous; petiole not preserved; venation pinnate, eucamptodromous; primary vein single, massive (8.5%), straight, angle of divergence of secondaries about 70° , relative thickness moderate, uniformly curved and unbranched, tertiary veins fine, percurrent, mostly simple, a few forked,



Figure 1. *Terminalia*, sp. leaf impression ($\times 2$).

obliquely arranged, joining opposite secondaries as well as the primary also; veins of the finer order not well preserved.

In general appearance and preserved structural details, this leaf compares favourably with leaves of various modern species of *Terminalia*, showing close resemblance with the leaves of *Terminalia arjuna* of the family Combretaceae. However, the leaf impression is incomplete, without the apical part and it is difficult to be certain about its size, shape and form of the apex. It is hoped that with more and better specimens of this type, it may be possible to identify it more definitely. For the present it can be reported that a species of *Terminalia* grew at Koilabasa during the Lower Siwalik times.

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GELASINOSPORA BRASILIENSIS RAM,—A NEW RECORD FROM INDIA.

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DURING the systematic study of distribution of soil inhabiting fungi in different forest soil types of Pachmarhi hills (M.P.), the soil samples were collected during October 1980, from five forest types, i.e. moist deciduous forest, Tendu forest, *Terminalia* forest, Sal forest and Scrub forest. *Gelasinospora brasiliensis* Ram, a perithecial ascomycete belonging to family Sordariaceae, which showed characteristic pitted spores, was isolated on streptomycin rose bengal medium¹ following soil plate method² from the soils of moist deciduous forest which was dominated by tree ferns (colour of the soil dark brown (Hue 10 YR) 3/3, pH 4.9 and moisture 21.42%)³

Characteristics of the fungus

Colonies on the potato sucrose agar medium spreading rapidly, colourless later becoming greyish brown due to the appearance of gregarious half sunken perithecia. Perithecia subglobose to pyriform with short beak, 280–450 μ , with a sparse hyphal cover. Asci 8-spored, 100–140 \times 20–24 μ , stipitate,

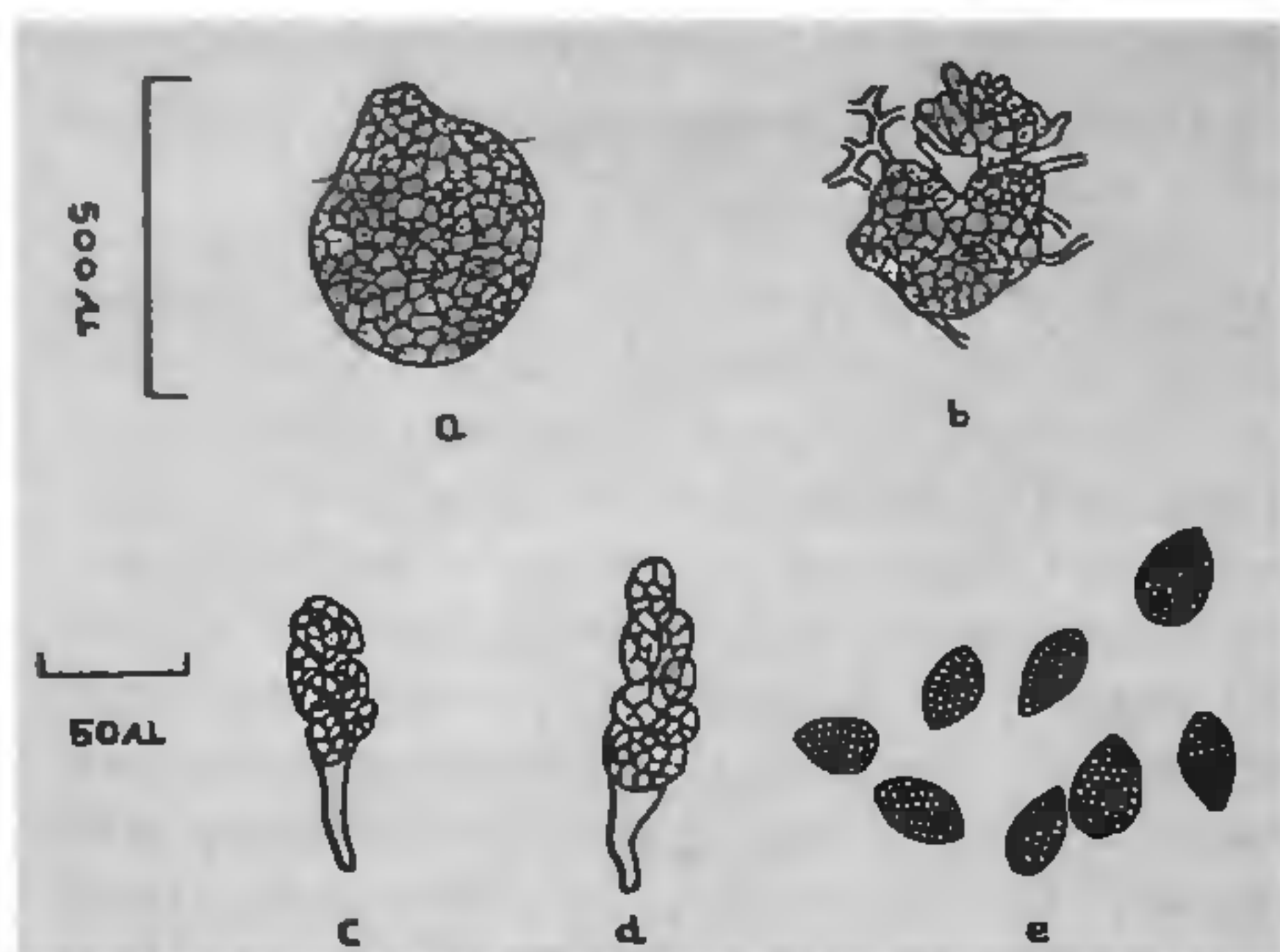


Figure 1. *G. brasiliensis*. (a) Perithegium; (b) Ruptured perithegium; (c) Young ascus; (d) Mature ascus; (e) Ascospores

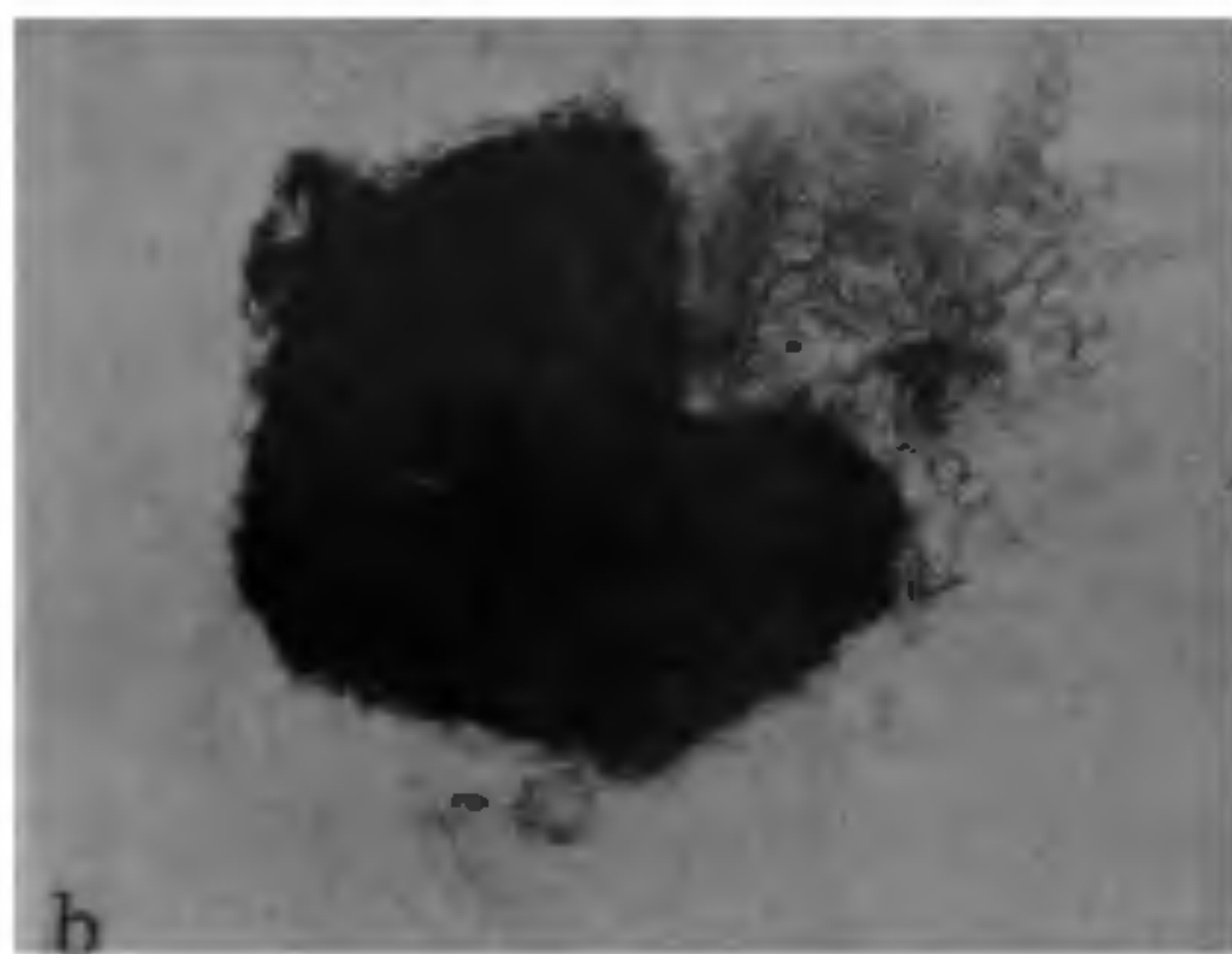
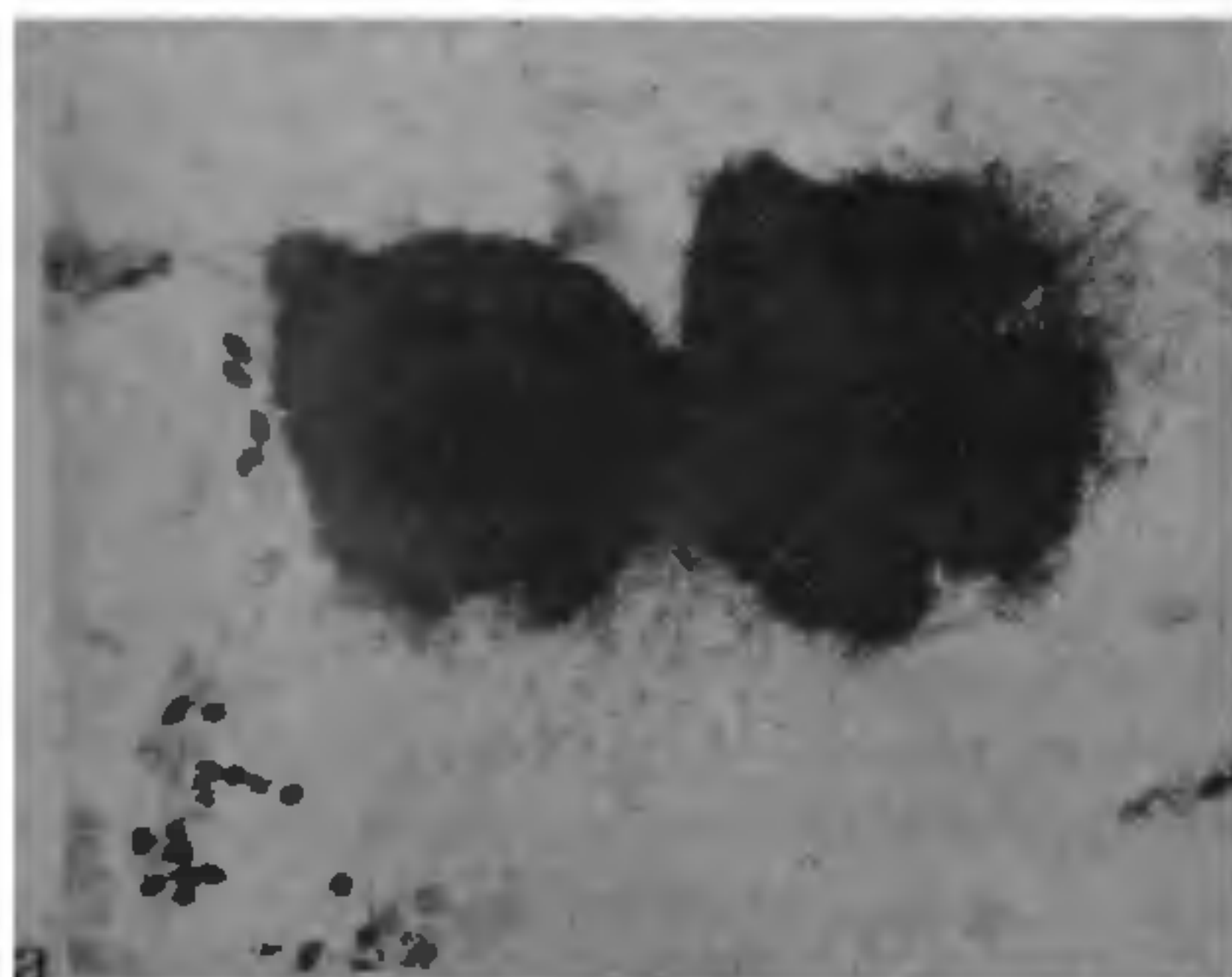


Figure 2. *G. brasiliensis* (a) Mature perithegium (×100) (b) Ruptured perithegium (×200).

cylindrical. Ascospores elliptical to subglobose, apiculate at one end, at first hyaline becoming black, surface pitted, irregularly arranged, $20-42 \times 12-28 \mu$ (Figures 1 and 2).

G. brasiliensis hitherto unrecorded from India¹, has been isolated from the forest soil of Pachmarhi hills for the first time. Hence, the present report constitute its new inclusion in Indian soil mycoflora. The culture of the isolate, deposited at Commonwealth Mycological Institute, Kew, England—IMI 257836.

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LEERSIA HEXANDRA AS AN ALTERNATE HOST OF RICE GALL MIDGE IN INDIA

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THE rice gall midge, *Orseolia oryzae* (Wood-Mason), is a dreaded pest of rice in several parts of India. It has been reported to multiply on different grasses which serve as potential alternate hosts¹⁻⁵. Panda and Mohanty⁴ reported successful gall development on *Cynodon dactylon*, *Echinochloa colona* and *Paspalum scrobiculatum* by cross infestation study using rice gall midge. Rice gall midge was also reared on *Mnervithia laevis*², *Panicum* sp.⁶, and *P. scrobiculatum*⁷. Many of these reports are perhaps based on observing merely the presence of galls on the grasses or cross-infestation studies carried out by adult midges collected at light which may contain adults from several host sources and the details of the studies are poorly documented.