

A new species of *Lacellina* on Sugar-Cane.

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With one Fig. in the text.

Several hills of sugar-canes growing at the Sugar-Factory "Harigav" and round about (in Maharashtra-State, India) revealed the presence of black crust-like raised pustules arranged in almost parallel rows, on their leaves. The infection was found on matured and dry leaves showing that the fungus was only a weak-parasite. The infection was entirely foliicular, heavy and appeared only on the upper surface of the leaves limited by veinlets. (Fig. 1).

On careful examination the fungus, which at first sight appeared to be in the nature of a *Cladosporium*, was identified as a species of *Lacellina* Sacc. This genus is of rare occurrence and was established by Saccardo (1931) for a hyphomycetous fungus collected on the dry leaves and stems of a grass host from Tripolitania with *L. libyca* Sacc. as type. Since then only two other species have been described in literature, one from Brazil — *Lacellina sacchari* Batista collected by Batista (1949) on the leaves of *Saccharum spontaneum* var. *kessoer* and the other, *Lacellina graminicola* Subra. collected from Madras (India) by Subramanian (1952) on dead stems of Bamboo. *Lacellina graminicola* Subra. is thus the only species of this genus reported till now from India. Hence a careful comparison was made between the new Indian collection of *Lacellina* and the three species previously reported in literature, the results of which showed that the „Harigav“ collection is distinct from *L. libyca* Sacc. and *L. graminicola* Subra. described earlier. The present species of *Lacellina* has, however, some resemblance to *L. sacchari* Batista in several respects besides being collected on a hitherto unreported host. It is distinct from *L. sacchari* in respect of conidiophore characters, habit and dimensions of setae which are shorter and much thinner. The conidiophores are much branched and erect unlike in *L. sacchari*, where they are simple and decumbent.

The „Harigav“ fungus, therefore, merits accomodation as a new species on the basis of habit and significant differences in dimensions of setae, conidiophore characters and also in host-relationship.

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Table — 1.

Comparison between species of
Lacellina affecting grass-hosts.

| Species. | Nature of infection spot. | Setae. | Conidiophores. | Conidia. |
|--------------------|--|---|---|-------------------------|
| <i>L. sacchari</i> | Amphigenous, 2—4 mm long | 1400 × 10—12.5 μ (very long & broad.) | 60—212 × 2—3 μ decumbent, thin and simple. | 7.5—8 μ diam. |
| <i>L. indica</i> | Epiphyllous, 0.5—3.5 × 0.5—2 mm. | 442—1040 × 4.02—8.05 μ (of medium length and thin.) | 172—297.5 × 4.3— 5.30 μ erect, broad and branched. | 6.45— 8.6 μ diam. |

The fungus is, therefore, presented as new to Science with Latin Diagnosis:

Caespituli sine maculis laxè dispersi, plerumque secus nervos seriatim dispositi, aterriti, velutini, ambitu elliptici, raro fere orbiculares, $0,5-3,5 \times 0,5-2$ mm; setae numerosae, conidiophoris intermixtae, simplices, laeves, septatae, plus minusve curvulae, paulatim attenuatae ($4,025 \mu$), antice obtusae, postice incrassatae ($8,05 \mu$), supra purpureae, ad basin nigrescentes, $4,025-8,05 \times 442-1040 \mu$; conidiophora simplicia, curvula vel rectiuscula, olivacea vel pallide brunnea, minutissime echinulata, cellulis sporigenis, in apice saepe cumulatis praedita, $172-279,5 \times 4,3-5,3 \mu$; cellulae sporigenae pallide brunneae vel flavidae, ellipsoideae, ovoideae vel piriformes, manifeste echinulatae, concatenatae vel annuliformiter ortae; conidia globosa, continua, obscure brunnea, $6,45-8,6 \mu$.

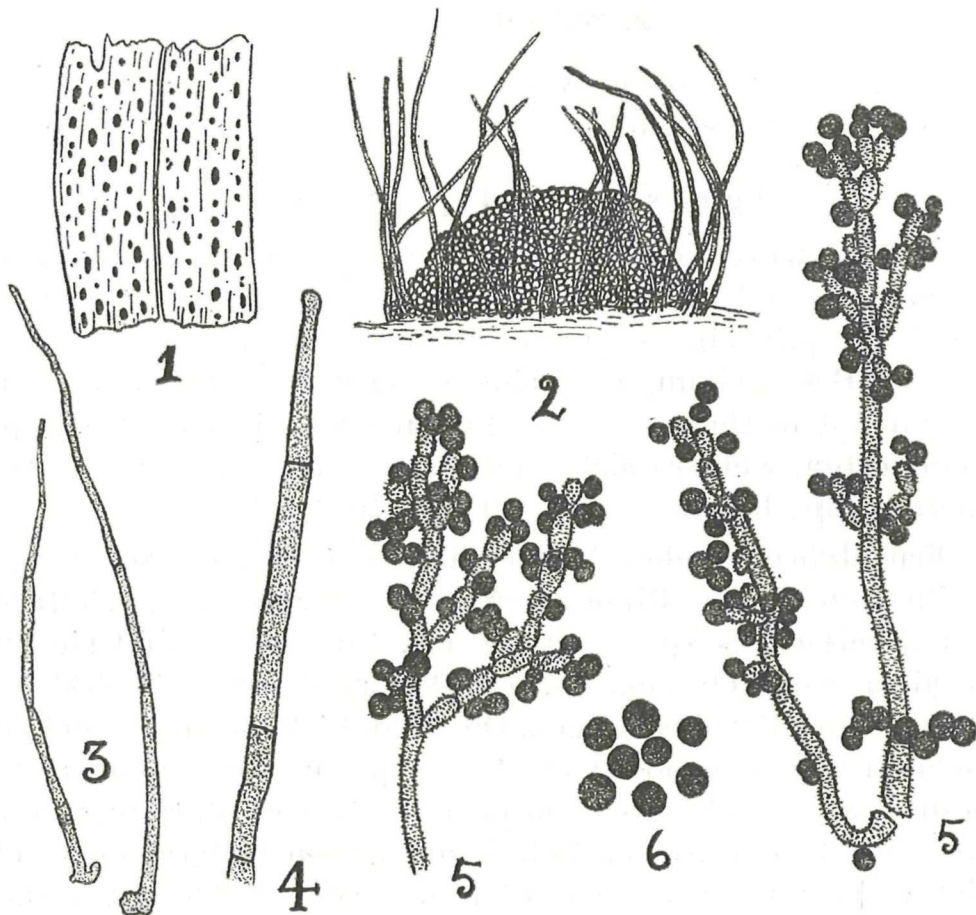
Lacellina indica Ananthanarayanan. sp. nov.

Infection spots exclusively epiphyllous, black, arranged in rows between veinlets, velvety, separate, raised, ovoid, $0.5-3.5 \times 0.5-2$ mm. Setae numerous, intermingled with conidiophores, simple, smooth-walled, deep purple to black, septate, flexuous, tapering towards the apex (4.025μ) and ending bluntly, bulged and broad at the base (8.05μ), purple in colour above and black at the basal part, $4.025-8.05 \times 442-1040 \mu$. Conidiophores intermingled with setae, simple, flexuous to erect, olive to pale brown prominently muricate (echinulate) bearing branch-like sporogenous cells often in clusters at the apex in the form of a ring of phialides, $172-279.5 \times 4.3-5.3 \mu$. Sporogenous cells light brown to yellow, ovoid to pear-shaped, prominently echinulate or muricate, produced either in chains of 2—7 or in a ring at the apex of conidiophores. Conidia one-celled, globular, deep brown, produced on sporogenous cells in acropetal succession, $6.45-8.6 \mu$.

On the matured and dry leaves of *Saccharum officinarum* L. collected by S. Ananthanarayanan, at "Harigav" (Maharashtra State, India) in Nov.-Dec. 1963. M. A. C. S. Herb. Nr. 205 (Type).

The fungus is a new addition to the Bombay-Fungi and a second record from India.

The type is being deposited in the Herbarium Orientale, New-Delhi, India and Herbarium, C. M. I., Kew, England.



1. Habit \times Nat. 2. Infection spot with conidiophores and setae \times 60. 3. Setae \times 100. 4. The apical part of setum enlarged \times 440. 5. Conidiophores with sporogenous cells and conidia \times 440. 6. Conidia \times 440.

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