

Notes on Fungi from North-east India XIV — A new Genus of Discellaceae from Assam.

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With 1 Textfig.

Several interesting fungi have been recorded in course of our studies on the succession of fungi colonizing the pruning cuts of tea in North-east India (Sarmah and Agnihothrudu, 1959 and Agnihothrudu 1962). The present paper describes a new genus of the *Sphaeropsidales*.

The fungus which is a typical member of the amerosporous *Discellaceae* produces the scutellate pycnidia on the cut, callused or uncallused surface of the wood. The pycnidia are somewhat gregarious, rarely separate, superficial minute and dark in colour with a ring of mycelial setae which are deep fuscous below and subhyaline apically measuring up to 230 μ long. When incubated, the pycnidia produce large spore masses which are whitish to begin with but later on assume a pale dirty, yellowish colour. The conidia are hyaline, continuous 4—5 \times 1,5—2,5 μ , produced terminally on obsolete conidiophores. The spores bear, membranous appendages at either extremity. These appendages are very clear in Dorner's Nigrosin negative mounts.

This fungus is different from *Dinemasporium* Lév. and *Polynema* Lév. (Saccardo 1884), the former of which has conidia that are 1-ciliate at either end while the latter has spores that are many ciliate at the apex.

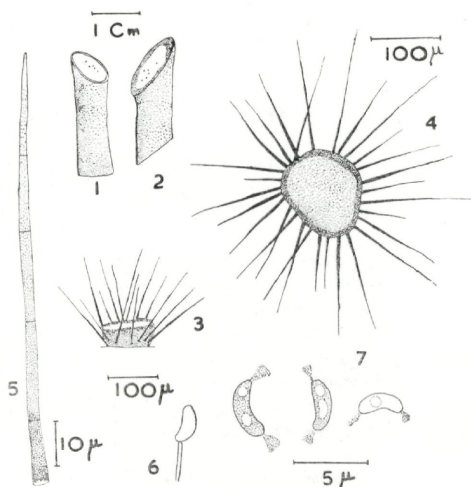
Several genera of *Fungi imperfecti* are known to have conidial appendage similar to the one under report. They are *Tiarospora* Sacc. and March., *Tiarosporella* Höhnelt, *Neottiospora* Desm., *Samukuta* Subramanian and Ramakrishnan, *Sakireeta* Subramanian and Ramakrishnan, *Starkeyomyces* Agnihothrudu, *Korchalomella* Chona, Munjal and Kapoor and *Lomachashaka* Subramanian; the first five belonging to the *Sphaeropsidales* and the rest to *Tuberculariaceae*. A brief characterization of the above different genera may not be out of place here.

Tiarospora westendorpii Sacc. and March (1892) has pycnidiospores that are hyalodidymous. *Tiarosporella* Höhnelt is found to be synonymous with *Neottiospora* Desm. *sensu* Subramanian and Ramakrishnan (1953, 1957) both of which are characterized by

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hyaline, continuous pycnidiospores. *Samukuta* Subramanian and Ramakrishnan (1957) is a phaeosporous member of the *Sphaeropsidales* with spore appendages similar to those of *Neottiospora caricina* (Desm.) Höhnelt. *Sakireeta madreeya* Subramanian and Ramakrishnan (1957) has pycnidia that are embedded in a dark stromatic tissue whereas *Neotsiospora* has simple, globose, pycnidia with parenchymatous walls.

The conidia of the fungus under report are somewhat similar to those of *Koorchaloma madreeya* Subramanian (1953), but the latter has sporodochia that are salmon to orange coloured, with rigid setae and the spores are $16 \times 3,2(8-19,2) \times 3,2-4,0 \mu$, with the apical appendage which is $4,8-9,6 \times 2,4-9,6 \mu$. *Starkeyomyces korchalomoides* Agnihothrudu (1956) described from rhizosphere differs from *Korchaloma* in having no setae in the sporodochia and in bearing conidia on irregularly ramose conidiophores. *Koorchalomella oryzae* Chona, Munjal and Kapoor (1958) has conidia that are longer than those of *Starkeyomyces korchalomoides* and the spores bear brush-like appendages on either end as in the fungus under report. *Lomachashaka kera* Subramanian (1956) is like *Koorchaloma* but has sporodochia that are beset with hyaline hairs. It is apparent from above that the fungus



Amphitiarospora neottiosporoides gen. et sp. nov.

Figs. 1 and 2: Uncalled and callused pruning cuts of tea showing the pycnidia of the fungus. — Figs. 3 and 4: Pycnidia. — Fig. 5: Marginal seta of the pycnidium. — Fig. 6: Conidiophore and conidium. — Fig. 8: Conidia showing the inverted cap-like appendages.

occurring on tea in Assam is typically a member of the *Discellaceae* and is easily recognized by the very small suballantoid conidia and the characteristic inverted cap-like appendages and hence a new genus is proposed to accommodate the fungus. The name *Amphitiarospora* is chosen to denote the characteristic appendages crowning either end of the spore.

***Amphitiarospora* gen nov.**

Sphaeropsidales, Discellaceae, Hyalosporae. Pycnidia superficialia, subgregaria, minuta, discoidea hygroskopica, setis rigidiusculis nec ramosis cincta, marginalibus fuscis, septatis conidia in conidiophoris indistinctis orta, ellipsoidea, suballantoidea, utrinque obtusa, continua, hyalina, levia utrinque appendicibus galeri instar ornata.

A. neottiosporoides spec. nov.

Pycnidia superficialia, minuta, subgregaria, raro dispersa, scutellata, nigra, in sicco clausa in humido patentia, 200–250 μ diam. setis marginalibus compluribus, simplicibus, rigidiusculis, ad basin obscure fuscis, apicem versus pallide brunneis, septatis, dilute brunneae. 180–220(–300) longis 5–6(–7) μ latis cincta. Conidia numerosissima hyalina, coacervata, pallide lutea in conidiophoris indistinctis aerogena iterum atque iterum orta. Sporae hyalinae, saepe suballantoideae, raro ellipsoideae, continuae, 1–2-guttulatae, leves. 4–5 \times 1,5–2 μ , utrinque appendicibus 1–2 μ longis galeri instar praedita.

In surculis *Camelliae sinensis* (L.) O. K. ad Toeklai Expt. Stat. leg. V. Agnihotrudu 10. XII. 1957. specimen in herbario mycologico eiusdem stationis sub numero: 160 depositum.

***Amphitiarospora* Gen. nov.:**

Sphaeropsidales, Discellaceae, Hyalosporae. Pycnidia superficial, sub-gregarious, minute, typically discellaceous, hygroscopic, beset with somewhat rigid, unbranched, marginal setae, dark fuscous, septate; conidia produced on obsolete conidiophores, suballantoid to elliptic with obtuse ends, continuous, hyaline, smooth-walled, with two inverted cap-like membranous appendages at the extremities.

Amphitiarospora neottiosporoides Sp. Nov.: *Pycnidia superficial, minute, subgregarious, rarely scattered, scutellate, black, closing when dry, expanding when moist, measuring 200–250 μ in diam. beset with numerous marginal setae which are simple, long, somewhat rigid, deep fuscous below, dilute brown apically, septate, measuring 180–220 μ (–300 μ) \times 5–6(–7) μ . Conidia produced abundantly in moist atmosphere; conidial mass whitish to pale yellow, conidiophores obsolete, producing conidia terminally and successively. Spores hyaline, mostly suballantoid, rarely elliptic, continuous, 1 to 2 guttulate, smooth and thin-walled, measuring 4–5 \times 1,5–2 μ , provided*

with an inverted cap-like, membranous appendage at either end measuring 1—2 μ in length.

Type on pruning cuts of tea (*Camellia sinensis* (L.) O. Kuntze), Tocklai Experimental Station, Coll: V. Agnihotrudu, 10—12—1957, deposited in the Mycological Herbarium, Tocklai exp. Sta., under No. 160.

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