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New parasitic fungi from Indian mangrove

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Two new species, *Pestalotiopsis agallochae* sp. nov. and *Cladosporium marinum* sp. nov. were isolated from excised infected leaves of *Excoecaria agallocha* L. and *Avicennia marina* (Forssk.) Veih. The fungi were described with illustrations.

Key words : Mangrove, Foliar fungi, *Cladosporium marinum*, *Pestalotiopsis agallochae*

Most of the mangrove plants of Sundarban (West Bengal) India are economically important. It appears from the field survey that the leaves of many plants are infected with different types of pathogens. Since no attempt has so far been made to isolate and identify the foliar fungi or to separate the parasitic and epiphytic ones, it was considered worthwhile to undertake a survey of foliar fungi of Sundarban mangroves. This communication however, deals with two new parasitic fungi isolated from *Avicennia marina* (Forssk.) Veih. and *Excoecaria agallocha* L.

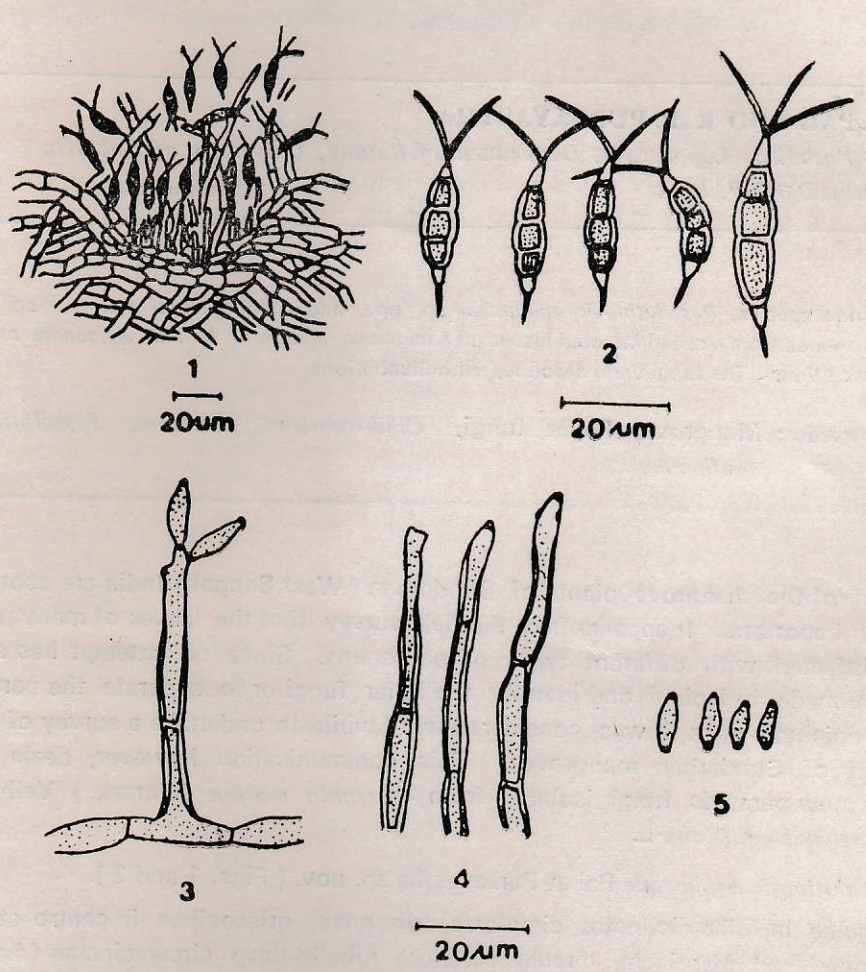
Pestalotiopsis agallochae Pal et Purkayastha sp. nov. (Figs. 1 and 2).

Maculae in foliis distinctae, circulares, discretae, griseoalbae in centro et atro-brunneae ad marginem, circulo exteriore rubello-flavo circumcinctae (halos), 2-5 mm in diametro, margo regularis, in superficiebus ambabus folii observatae.

Acervuli nigri granulares, primo tecti, demum massae sporarum nigrae expositae, conidia 21.5-27.3 μm longa et 3.9-4.7 μm lata in parte latissima, 4-septata, cellula extrema hyalina, 3 cellulae intermediae pallide brunneae, 2 cellulae superiores perfuscatae. 2-3 setulae apicales usque 19.5-20 μm longae, appendix basalis 7-8 μm longa.

In foliis vivis *Excoecaria agallochae* L. (Euphorbiaceae) lectus ad locum Bhagbatpur, Sundarbans, 24 Parganas, Benghala occidentalis, India, die 14.5.91, et positus in herbario IMI sub numero 348454.

Leaf spots distinct, circular, discrete with greyish-white centre and dark brown border, surrounded by a reddish-yellow halo, 2-5 mm in diameter, margin regular, observed on both surfaces of leaf.



Figs. 1-2. *Pestalotiopsis agallochae* Pal & Purkayastha sp. nov. Fig. 1. Vertical section of Acervulus. Fig. 2. Conidia. Figs. 3-5. *Cladosporium marinum* sp. nov. Fig. 3. Conidia with conidiophore, Fig. 4. Conidiophores, Fig. 5. Conidia.

Acervuli black, granular, initially covered and later expose black spore masses, conidia 21.5-27.3 μm long and 3.9-4.7 μm broad at the widest part, 4 septate,

end cells hyaline, intermediate three cells pale brown, the two upper ones very dark, 2-3 apical setulae up to 19.5-20 μm long, basal appendage 7-8 μm long.

On living leaves of *Excoecaria agallocha* L. (Euphorbiaceae) collected from Bhagbatpur (Sundarbans), 24 Parganas, West Bengal, India on 14.5.91, IMI number 348454.

The specific epithet has been derived from the name *Excoecaria agallocha* L., the host plant.

Cladosporium marinum Pal et Purkayastha sp. nov. (Figs. 3-5).

Maculae in foliis paucae ad multae, in ambabus superficiebus, plus frequens in foliis vetustioribus, maculae regulares ad irregulares marginem atro-brunneae, in centro cinerascentes interdum coalescentes maculas majores formantes, saepe halore luteolo circumcincto, saepe, vice macularum foramina praesentia. Maculae plerumque 0.6-10 mm longae, 3-8 mm latae. Mycelia atro-olivacea, velutina, hyphae ramosae, septatae, pallidae vel olivaceo-brunneae, cellulae hypharum 7.8-15.6 μm longae, 3.9 μm latae, cum chlamydosporae profusae terminales intercalaresque, brunneolae, parietibus crassibus, interdum in catenis, conidiophora simplicia vel ramosa, micronemata vel macronemata, flexuosa vel recta, pallida vel olivaceo-brunnea, 74.1-85.8 μm longa, 3.9 μm lata, interdum tumida ad basin, cellulae conidiogenae polyblastae, terminales vel intercalares, conidia aseptata, solitaria, simplicia vel ramosa, cylindrica ad fusiformia cum cicatricibus protrudentibus ad extremum unum vel duo, olivaceo brunnea ad pallida, 7.8-19.5 μm longa, 3.9-5.85 μm lata.

In foliis vivis *Avicenniae marinae* (Forssk.) Veih. lectus ad locum Bakkhali, Sundarbans, 24-Parganas, Benghala occidentalis, India, die 14.5.91, et positus in herbario IMI, sub numero 351331.

Leaf spots few to several, on both surfaces, more on older leaves, spots regular to irregular with a dark brown margin and greyish centre, sometimes coalescing forming large patches with a yellowish halo around them, often spots are replaced by shot holes, spots normally 0.6-10 mm long and 3-8 mm broad.

Mycelia dark olivaceous, velvety, hyphae branched, septate, pale or olivaceous brown, hyphal cell 7.8-15.6 μm long, 3.9 μm broad with profuse terminal and intercalary, thick walled, brownish chlamydospores, sometimes in chains, conidiophores simple or branched, micronematous, flexuous or straight, pale or olivaceous brown, 74.1-85.5 μm long, 3.9 μm broad, sometimes swollen at the base, conidiogenous cells polyblastic, terminal or intercalary, conidia aseptate, solitary, simple or branched, cylindrical to fusiform with protruding scars at one or both ends, olivaceous brown to pale in colour 7.8-19.5 μm long 3.9-5.85μm broad.

On living leaves of *Avicennia marina* (Forssk.) Veih. collected from Bakkhali (Sundarbans), 24-Parganas, West Bengal, India on 14.5.91, IMI number 351331.

The specific epithet has been derived from *Avicennia marina* (Forssk.) Veih. the host plant.

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