

Some Additions to Fungi of India

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(With 2 figures)

A regular and systematic survey was undertaken by the writers in parts of Poona and forests of Coorg and other places of Mysore State (India), resulting in the collection of a large number of fungi. Critical examination and study of some of these collections revealed that some proved to be new to science and others were in the nature of new host records or new additions to the fungi of India.

This communication presents an account of 10 fungi two of which are new to science, six new host records and two new additions to India.

The material of the above fungi is deposited in the Ajrekar Mycological Herbarium, M. A. C. S., Poona 4 (India).

1. *Colletotrichum memecylonis* sp. nov. (Fig. 1)

Necrotic spots slightly rough, ashy white with distinct margin, and having scattered acervuli. Acervuli few in number, convex, circular to subcircular, measure $425-1020 \times 19-57 \mu$; setae 6-10 per acervulus, scattered, long, spine-like, often branched, dark brown, 2-8 septate, $87.4-209 \times 2.8-4.7 \mu$; conidiophores simple, hyaline, erect, brown, conidia unicellular, subhyaline, to olivaceous, sword-like, with one end pointed and the other end slightly cylindrical or peg like, measure $9.5-19 \times 2.8-3.8 \mu$.

Maculae dispersae, pallide canescentes, distincte marginatae; acervuli subnumerosi, convexi, orbiculares vel suborbiculares, $425-1020 \times 19-57 \mu$; setae 6-10, dispersae, acuminatae, saepe ramosae, obscure brunneae, 2-8 septatae, $87.4-209 \times 2.8-4.7 \mu$; conidiophora continua, hyalina, recta, brunnea; conidia cylindracea, inferne acuminata, superne obtusa, continua, subhyalina vel olivacea, $9.5-19 \times 2.8-3.8 \mu$.

Habit: On living leaves of *Memecylon umbellatum* Burm. (Fam. Melastomaceae) Leg. D. V. Narendra at Mahabaleshwar (Poona), 12-10-71, M. A. C. S. Herb. No. 1596 (HOLOTYPE).

No species of *Colletotrichum* has been reported on this host or its related species. The fungus described here differs markedly from the type as well as other common species of *Colletotrichum* in having

typically sword-like or peg-like conidia with raised or convex acervuli and also branching nature of etae, thus justifying accomodation in a new taxon.

Fig. 1

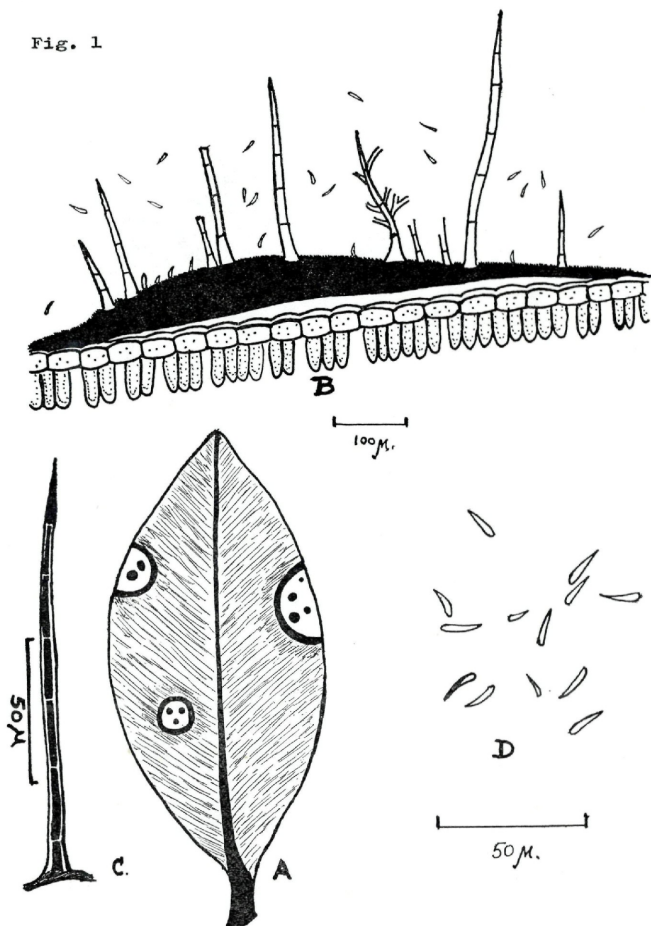


Fig. 1. *Colletotrichum memecylonis* sp. nov.

A. Infected leaf. — B. Section through Acervulus. — C. Setae. — D. Conidia.

2. *Diatrype syzygii* sp. nov. (Fig. 2)

Stroma black, erumpent gregarious, dense and shallow, multi-loculate. Perithecia subglobose to flask shaped, 3—8 in each stroma, embedded in the stromatic tissue with beaked ostiole, outer wall consisting of black sclerenchymatous cells and inner of thin parenchymatous cells, measure $493-663 \times 323-425 \mu$. Asci densely arranged in wall layers, cylindrical, with a long narrow tapering pedicel, unituni-

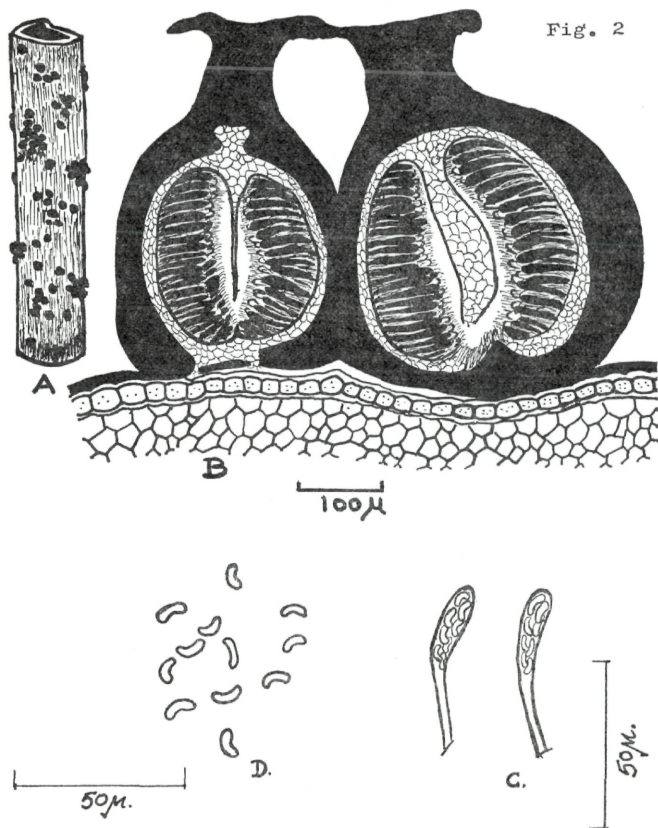


Fig. 2. *Diatrype syzygii* sp. nov.
A. Habit. — B. Section through stroma. — C. Asci. — D. Ascospores.

cate, subhyaline, thin-walled, 8-spored, measure $30.4-38 \times 4-5.7 \mu$; paraphyses and periphyses numerous; ascospores hyaline, allantoid, single-celled, biseriata, $4.7-7.6 \times 2-2.8 \mu$.

Stromata gregaria, erumpentia, nigrescentia, superficialia, multiloculata; perithecia subglobosa vel ovoidea, 3-8 in quoque stromate, stromati insidentia, ostiolo previter cylindraceo erumpentia; pariete pseudoparymchymatico, extus e cellulis grassiuscule intus tenuiter tunicatis composito, $493-663 \times 323-425 \mu$; asci numerosi, cylindracei, longe stipitati, tenuiter tunicati, 8-sporei, $30.4-38 \times 4-5.7 \mu$; sporae distichae, cylindraceae, allantoideae, continuae, hyalinae, $4.7-7.6 \times 2-2.8 \mu$.

Habit: On dead twigs of *Syzygium cumini* (L.) Skeels. (Fam. Myrtaceae). Leg. D. V. N a r e n d r a at Sagar (Mysore State), 25-10-71, M. A. C. S. Herb. No. 1598 (HOLOTYPE).

A n a h o s u r (1970) reported *Diatrype disciformis* on *Syzygium cumini** collected at Coorg. On comparison the writers' collection from Sagar (Mysore State) showed significant variations in morphology and dimensions of ascostromata, asci and ascospores on the basis of which the same has been described as a new species (Vide table No. 1).

Table 1

Species	Host	Ascostromata	Asci	Ascospores	Author
<i>Diatrype disciformis</i> (Hoffen) Fr.	<i>Eugenia jambolana</i> at Coorg (Mysore)	$310-420 \times 450-560 \mu$	$100-150 \times 8-12 \mu$	$8-10 \times 1-2 \mu$	Anahosur (1970)
<i>Diatrype</i> sp. (under study)	<i>Eugenia jambolana</i> at Sagar (Mysore)	$493-663 \times 323-425 \mu$	$30.4-38 \times 4-5.7 \mu$	$4.7-7.6 \times 2-2.8 \mu$	Authors

New Hosts or Fungus Records

1. *Ampelomyces quisqualis* Ces.

Pycnidia globose to subglobose, light yellowish brown to dark, superficial, $34.2-61 \times 22.8-45.6 \mu$; pycnidiospores small, hyaline to subhyaline, one-celled, ovoid, $4.7-5.7 \times 2-3.8 \mu$.

Habit: Hyperparasite (mycoparasite) on *Acrosporium* sp. (= *Oidium* sp.) affecting living leaves of *Clitoria ternatia* L. (Fam. Leguminosae) Leg. D. V. N a r e n d r a at Dodballapur (Mysore State), 23-11-71, M. A. C. S. Herb. No. 1594.

Clitoria ternatea is a new host record for the fungus.

(* ≡ *Eugenia jambolana* L.).

2. *Colletotrichum dematium* (Pers. ex Fr.) Grove

Habit: On living leaves of *Justicia gendarussa* (L. (Fam. Acanthaceae) Leg. D. V. Narendra at Poona, 4—10—71, M. A. C. S., Herb. No. 1595.

The fungus has been reported for the first time on the above host which is, therefore, a new host record.

3. *Colletotrichum gloeosporioides* Penz.

Habit: On living leaves of *Marsdenia volubilis* T. Cooke (Fam. Asclepiadaceae) Leg. V. G. Rao at Mahabaleshwar (Poona) 12—10—71, M. A. C. S., Herb. No. 1597.

Marsdenia volubilis being a medicinal plant forms a new record for the fungus.

4. *Gyrothrix thevetiae* (Chona & Munjal) Pirozynski

Habit: Growing saprophytically on *Actinodaphne hookeri* Meissn. (Fam. Lauraceae) at Mahabaleshwar (Poona) Leg. V. G. Rao, 12—10—71, M. A. C. S., Herb. No. 1599.

This is a new host record for the fungus.

5. *Hypoxylon nummularium* var. *merrillii* (Bres.) Miller (Xylariaceae)

Habit: Growing on dead branches of *Bambusa* sp. (Fam. Graminae), Leg. D. V. Narendra at Coorg Forest (Mysore State), M. A. C. S. Herb. No. 1709.

This fungus has been collected on an hitherto unreported host.

6. *Pestalotia cinnamomi* Petch

Infection areas conspicuous, hopophyllous, dirty-black, scattered crust-like. Acervuli black, sunken with a narrow neck which opens outwards at maturity, irregular, $95-247 \times 76-114 \mu$, conidia 5-celled, narrowly clavate to fusoid, measuring $22.8-34.2 \times 7.6-11.4 \mu$, apical cell hyaline, bears setulae which are narrow, thread-like, hyaline, 2—4 in number, $22.8-41.8 \mu$ in length.

Habit: On leaves of *Cinnamomum zeylanicum* Blume (Fam. Lauraceae) Leg. D. V. Narendra at Coorg (Mysore State) 10—11—71, M. A. C. S. Herb. No. 1606.

Pestalotia cinnamomi (on *Cinnamomum zeylanicum*) constitutes an addition to the fungal flora of India.

7. *Spiropes helleri* (Stev.) Ellis.

Colonies effuse, dark brown to black, hairy, mycelium-superficial composed of a network of branched and anastomosing, straw-coloured or pale brown, smooth, septate, hyphae; conidiophores usually single, erect, straight, or flexuous, more or less cylindrical, brown to dark brown, pale near apex, with rather scattered conidial scars, smooth, septate, measure upto 1020μ long (646μ avg.) and $5.7-11.4 \mu$ thick (avg. 9.12μ); conidia borne singly at the apex of the conidiophore, curved, obclavate, few rostrate, usually three, occasionally four-septate, with barrel-shaped central cells, pale brown, smooth or verrucose,

cells at each ends almost hyaline or pale brown, measuring $26.6-41.8 \mu \times 7.6-11.4 \mu$ (avg. $32.7 \times 8.36 \mu$).

Habit: Growing as a hyperparasite on *Meliola* sp. affecting *Flacourtia* sp. Leg. D. V. N a r e n d r a at Coorg forest (Mysore State). M. A. C. S. Herb. No. 1710.

Spiropes helleri is a new addition to the fungi of India.

8. *Tryblidiella rufula* (Spreng.) Sacc. (Hysteriales)

Habit: On dried twigs of *Zizyphus jujuba* Lam. (Fam. Rhamnaceae) at Sagar (Mysore State) Leg. D. V. N a r e n d r a, 25-10-71, M. A. C. S. Herb. No. 1600.

This fungus is highly cosmopolitan in nature being collected on a large number of hosts from India, but was not previously reported on this Host. This host *Zizyphus jujuba*, therefore, constitutes a new host record for this fungus.

A c k n o w l e d g e m e n t s

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