

Fungi on *Caesalpinia crista* L

By Ramchandra Rao

Botany Department, M. S. G. College, Malegon, Dist: Nasik, Maharashtra, India

(With figs. 3)

Caesalpinia crista L, belonging to family Leguminosae, is an extensively growing climber of this region with branches armed with hooked and straight hard prickles.

During recent mycolgical investigations of saprophytic fungi from Manthwada region, the author came across with dead stems and branches of the plant being associated with some peculiar black fungus. On

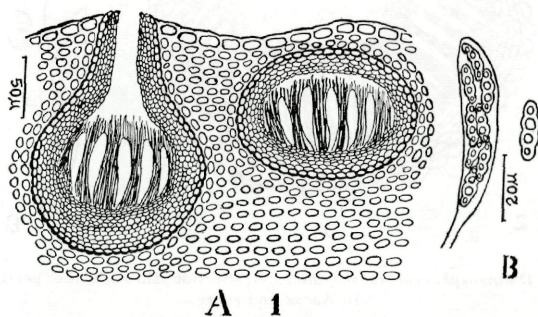


Fig. 1. *Clypeothecium caesalpiniae*. A. Section through perithecium. B. Ascus and spores

detailed examination they were found to be new to science on the basis of host specificity and comparative morphological studies besides being reported on hitherto unreported host.

1. *Clypeothecium caesalpiniae* spec. nov.

Perithecia omnino innata, clypeo epidermali tecta, globosa vel lageniformia, $180-300 \times 150-200 \mu$; pariete pseudoparenchymatico, e cellulis extus crassiuscule, intus tenuiter tunicatis composito; asci cylindricei vel clavati, antice late rotundati, postice in stipitem crassiusculum

attenuati, crasse tunicati, 8-spori, $41-45.6 \times 9.5-11.4 \mu$, paraphysati; sporae primum distichae, postea irregulariter ordinatae, fusiformes vel ellipsoideae, utrinque leniter attenuatae, 2—3-septatae, vix vel leniter constrictae, hyalinae, $16-19.2 \times 5 \mu$.

Perithecia completely embedded in the host tissue, ostiolate, forming clypeus with the epidermis, globular to flask shaped and measuring from $180-300 \times 150-200 \mu$. The wall of the ascocarp heavily thickened from outside while inner cells are thin walled. Asci originate from the basal layer, hyaline, bitunicate, cylindrical or club shaped, paraphysate, 8 spored, $41-45.6 \times 9.5-11.4 \mu$. Ascospores fusoid, elliptic, 2—3 transversely septate, hyaline, slightly tapering at ends $16-19.2 \times 5 \mu$. Ascospores primarily biserial later irregular.

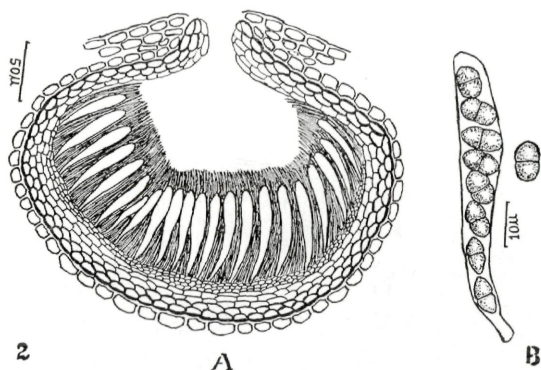


Fig. 2. *Didymosphaeria caesalpiniae*. A. Section through the perithecium. B. Ascus and spores

Collected on dead stems of *Caesalpinia crista* L. in the month of April, 1965 at Aurangabad, Leg. Ramchandra Rao and deposited in the herbarium of Marathwada University under number MUH. 206 (Rao type).

3. *Didymosphaeria caesalpiniae* spec. nov.

Perithecia omnino innata, ostiolata, clypeo epidermali tecta, globosa vel ovoidea, $345-570 \times 255-480 \mu$; pariete pseudoparenchymatico, e cellulis extus crassiuscule, intus tenuiter tunicatis composito; asci cylindracei vel cylindraceo-clavati, antice late rotundati, postice paulatim attenuati, breviter et crassiuscule stipitati, crasse tunicati, 8-spori, $60-74 \times 9 \mu$; paraphysati; sporae monostichae, ellipsoideae, utrinque rotun-

datae, brunneae, medio septatae, plus minusve constrictae, $9.6-12.8 \times 5-6.4 \mu$.

Perithecia completely embedded in the host tissue, ostiolate, forming clypeus with the epidermis, globular to ovoid and measuring from $345-570 \times 255-480 \mu$. The wall consists of thick walled outer cells and thin walled inner cells. Asci cylindrical or club shaped, hyaline, bitunicate, paraphysate, 8 spored, $60-74 \times 9-11.2 \mu$. Ascospores fusoid, bicelled, brown to dark brown, constricted at the septum, ellipsoid, uniseriate, $9.6-12.8 \times 5-6.4 \mu$.

Collected on dead stems of *Caesalpinia crista* L, in the month of May 1965 at Aurangabad, Leg. Ramchandra Rao and deposited in the herbarium of Marathwada University under number MUH. 207 (Rao type).

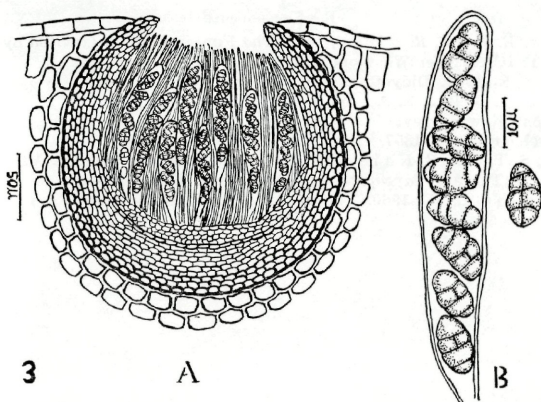


Fig. 3. *Pleospora caesalpiniae*. A. Section through perithecium. B. Ascus and spores

3. *Pleospora caesalpiniae* spec. nov.

Perithecia omnino innata, globosa, $195-250 \times 190-210 \mu$, in maturitate poro rotundato aperta; pariete pseudoparenchymatico, e cellulis extus crassiuscule, intus tenuiter tunicatis composito; asci cylindracei vel cylindraceo-clavati, antice late rotundati, postice attenuati, breviter et crassiuscule stipitati, crasse tunicati, 8-sporei, $89-96 \times 4.8-11.2 \mu$; paraphysoides filiformes; sporae mono- vel incomplete distichae, transverse 3-longitudinaliter 1-2- et saepe incomplete septatae, aurantiaco-brunneae, $12-16 \times 6-7.5 \mu$.

Ascocarp dark, completely embedded, unilocular, globose, $195-250$

$\times 190-210 \mu$, breaking at maturity with a round pore. Stroma consists of outer layers of cells with thick walls and inner layers somewhat thin walled. Asci in basal layers, numerous, cylindrical to clavate, bitunicate, 8 spored, $89-96 \times 9.8-11.2 \mu$. Paraphysoids filiform. Ascospores somewhat biseriate, muriform with 3 transverse septa and 2-3 vertical septa, golden brown, 5-7 celled, thick walled, $12-16 \times 6-7.5 \mu$.

Collected on dead stems of *Caesalpinia crista* L, in the month of Dec. 1965, at Aurangabad, Leg. Ramchandra Rao and deposited in the herbarium of Marathwada University under number 208 (Rao type).

Acknowledgements

Thanks are due to Dr. S. T. Tilak for guidance and encouragement and to Dr. F. Petrak for rendering the latin diagnosis of new species.

References

- Butler, E. J. & J. R. Bisby, 1954. The Fungi of India. (revised by Vasud-
va) ICAR Scientific Monograph.
Muller, E, 1962. Didymosphaerious ascomycetes II: 289.
Mundkur, B. B. & S. Ahmed, 1946. Mycological papersno. 18: 2, I. M. I.
Inst. Kew Surrey.
Rabenhorst, L., 1857. Herbarium Myc. Eidt. II: 347.
Tilak, S. T. & S. B. Kale, 1964. Mycopath. et Mycol. appl. XXVII: 60-64.
Tilak, S. T., 1959. Mycopath. et Mycol. appl. XII: 141-144.
Wehmeyer, L. E., 1960. The world genus Pleospora and its segregates.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Sydowia](#)

Jahr/Year: 1969/1970

Band/Volume: [23](#)

Autor(en)/Author(s): Rao Ramachandra

Artikel/Article: [Fungi on Caesalpinia crista L. 211-214](#)