

## A new genus *Harikrishnaella* from India

By D. V. Singh

U. P. Institute of Agricultural Sciences, Kanpur — 2, India and A. K. Sarbhoy

Division of Mycology and Plant Pathology, Indian Agricultural Research Institute, New Delhi — 12, India

The family Sphaeriodeae comprises three important genera viz. *Chaetomella* Fuckel (1969) *Volutellospora* Mathur and Thirumalachar (1965) and *Amerosporium* Speg. (1882). The genus *Chaetomella* was erected by Fuckel to which he included two species *Chaetomella oblonga* Fuckel with hyaline spores and *C. atra* Fuckel with fuscous spores. The differences of the spore colour led Saccardo (1884) to divide this genus into two sub-genera *Eu-Chaetomella* Sacc. with fuscous spores and *Melochaeta* with hyaline spores. Höhnelt (1915) treated *Eu-Chaetomella* as synonymous with *Amerosporium* Speg. Stolk (1963) made an extensive study of this genus and its related genera, and also made several synonymous of the same. She recognised only three important species of *Chaetomella* out of the thirty-two described and also separated the genus *Amerosporium* Speg. from it which included *A. atrum* (Fuckel) Höhnelt (= *C. atra* Fuckel).

During our studies the authors found a genus resembling to *Amerosporium*, *Volutellospora* and *Chaetomella* associated with the leaves of groundnut (*Arachis hypogaea* L.). The present genus comes close to *Amerosporium* but it differs in not having the coloured pycnidiospores. Moreover it can not be placed even in *Chaetomella* as well as *Volutellospora* because the typical raphe is also absent. We, therefore, strongly suggest that the above characters are sufficient to warrant a new generic name in the honour of Dr. Harikrishna Saksena, Professor of Plant Pathology, U. P. Institute of Agricultural Sciences, Kanpur India.

***Harikrishnaella* Singh and Sarbhoy, gen. nov.**

Coloniae in agar 'oat meal' brunneae, ad 25° C. Pycnidia brunnea, globosa vel subglobosa, obsita setis brunneis rigidis. Paries pycnidialis densus in parte apicale pycnidi. Raphe typica abest. Pycnidiosporae portatae apice conidiophorum hyalinae, aseptatae, elliptical vel naviformes inclusae in massa mucosa, liberataque fissione irregulare.

Colonies on oat meal agar brown at 25° C, pycnidia brown globose to subglobose, beset with brown rigid setae of two types, pyc-



Fig. 1. *Harikrishnaella arachitis*, a—e Developmental stages of the Pycnidia; f, two types of setae; g, Pycnidiospores; h—i, Developmental stages of conidiophores attached with pycniospore.

nidial wall thick apically, typical raphe is absent, pycnidiospores borne at the tip of the conidiophores, hyaline, aseptate, elliptical to boat shaped, pycnidiphores embedded in a mass of mucous and release through irregular splitting.

Type species: **Harikrishnaella arachidis** Singh and Sarbhoy (Fig. 1)

Colonies in agar 'oat meal' brunneae attingentes 4 cm. diam. ad. 25° C. Pycnidia brunnea, globosa vel subglobosa, 145—312×112—245 µm obsita setis brunneis rigidis. Setae 96—108.4 µm applanatae et 4.4—11.0 µm in basi, plerumque gradatim angustatae ad 2.2—4.4 µm ad apicem, in nonnullis apice leniter incurvae. Paries pycnidialis densus in parte apicale pycnidi. Raphe typica abest. Cellulae pycnidiales dispositae radiatim. Conidiophora filiformia, ramosa, 39.78—91.68 (61—27 µm) exorientia e basi pycnidi. Pycnidiosporae portatae apice conidiophorum hyalinae aseptatae, ellipticae vel naviformes, 3.6—9.6 µm inclusae in massa mucosa, liberataque fissione irregulare. Status perfectus non observatus.

Colonies on oat meal agar brown, attaining a diameter of 4 cm at 25° C, pycnidia brown, globose to subglobose, 145—312×112—245 µm beset with brown rigid setae of two types. Setae 96—108.4 µm flattened and 4.4×11.0 µm at the base, mostly tapering 2.2—4.4 µm at the tip, slightly incurved in other type, pycnidial wall thick apically, a typical raphe is absent. Cells of the pycnidia are arranged radially. From the base of the pycnidium arise thread like conidiophores 39.78—91.68 (61—27) µm branched in an irregular verticillate manner, pycnidiospores borne at the tip of the conidiophores, hyaline, aseptate, elliptical to boat shaped 3.5—9.6×3.06 µm; pycnidiospores embedded in a mass of mucous and release through irregular splitting. No perfect state has been observed.

Holotype culture desposited at Indian Type Culture Collection, I. A. R. I., New Delhi No. 1377. Isolated from the leaves of *Arachis hypogaea* L. as a saprophyte from Kanpur U. P. India.

#### Acknowledgement

The authors are grateful to Mr. P. Basu and Dr. Jean Stamp of the Commonwealth Mycological Institute, Kew, England for kindly rendering the Latin diagnosis and also to Dr. M. J. Thirumalachar, Hindustan Antibiotics, Pimpri, Poona for going through the manuscript.

#### References

1. Fuckel, L., 1869: *Symbolae Mycologiae* f. Nassau ver. Naturk., Nos. 23—24, 402.
2. Höhnelt, F. V., 1915: Über *Chaetomella atra* Fuck. S. B. Akad. Wiss. Wein (Math.) Nat. K. Abt. 1, 124, 114.

3. Mathur, P. N. and M. J. Thirumalachar, 1965: *Volutellospora*  
a new genus of Sphaeropsidales. *Sydowia*, **18**: 35—40.
4. Saccardo, P. A., 1884: *Sylloge Fungorum*. **3**: 321—323.
5. Spegazzini, 1882: *Anal. Soc. Cient. Argentina* XIII, p. 20.
6. Stolk, C. A., 1963: The genus *Chaetomella* Fuckel. *Trans. Brit. mycol.*  
*Soc.* **46**: 409—425.

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Sydowia](#)

Jahr/Year: 1971/1972

Band/Volume: [25](#)

Autor(en)/Author(s): Singh D. V.

Artikel/Article: [A new genus Harikrishnaella from India. 66-69](#)