



A RARE MITOSPORIC FUNGI FROM GHATANJI (M.S.) INDIA

M. A. Shahezad

S.P.M. Gilani Arts, Commerce and Science College, Ghatanji, dist. Yavatmal,
(MS), India.

Email:shahezadakil@yahoo.com

Abstract:

Present paper deals with the mitosporic fungi *Volutella agavella* sp.nov collected from Ghatanji. Ghatanji is an area not surveyed till now for mycological work. The geographical location of this area is between 20.13A⁰ North latitude and 78.32A⁰ East meter (898 feet)above mean sea level with average rain fall 988.3 mm.In recent survey many rare and interesting fungi were collected. *Volutella* is known for leaf spot disease *Volutella* blight caused by a species of *Volutella*.Morphological characters reveals that present specimen is distinct than existing one and treated as new species.

Introduction:

During routine surveys Hyphomycetes from Ghatanji region author has collected very interesting mitosporic fungi Haplosporella, Dinemasporium, Gyrothrix, Stauroinema .Of these a rare and new species of *Volutella* is described here.

Materials and Method:

After proper indexing,thin hand sections were taken. The sections were studied with lactophenol cotton blue, with the help of keys(Barnett &Hunter1972,Ainsworth *et al* 1973)the specimen was identified as *Volutella*.Holotype is deposited in Agharkar Mycological Herbarium, Pune.On comparison with other species,the specimen understudy was proved to be different in some characters given under(Bilgrami *et al*1991,Sarbhoy *et al* 1996 Jamaluddin *et* 2004, Dharkar and Subhedar 2006,Sharon Douglas 2008)

Result and Discussion:

Volutella agavella Sp.nov (Fig.1 A,B,C)

(Etymology:After Host *Agave americana* L.)





Infection spot dark brown,circular. Sporodochia disc-shaped, subepidermal, erumpent, embedded black,s stromatic measure 66.0-150.0x40.0-196.0µm.Setae brown,erect or slightly curved ,tapering towards tip,broad at base,septate 39.0-96.0x4µm.Conidiophore simple densely arranged 1-2 septate brown towards base,hyaline at apex measure 15.4-22.6x3.6-6.6 µm long.Conidia hyaline, unicellular,allantoid,falcate,measure 19.0-22.4x2.5-4.8 µm.

Contagious maculae fusce brunneae,circuleris. Sporodochiis discodeis, subepidermalibus, erumpentibus,insidentibus stromati magnit66.0-150.0x40.0-196.0µm.Setae brunneae,erectae vel curvatae,latiores and basim et fastigate ad apicem, septate magnit39.0-96.0x4µm.Conodiophorii simplices, continuae densa 1-2 septati brunnei ad basim, hyalini late apicem magnit 15.4-22.6x3.6-6.6 µm. Conidia hyalina unicellularia, allantoides falcate magnit19.0-22.4x2.5-4.8 µm.

Matrix :

On dead leaf of *Agave americana* L.(Fam:Asparagaceae)legit.M.A.S.at Ghatanji on 11-01-2006AMH No.9160.(Holotype).The comparative table reveals morphological distinctness

Table 1: comparison between the species of *Volutella*

Species	Sporodochia	Setae	Conidiophre	Conidia	Reference
<i>V.cassicola</i> Rao	120-300 µm	40-200x5-8 µm	16-30x4-6 µm	20-30x4-5 µm	Rao, V.G.1962
<i>V.lini</i> Mukarji <i>et al</i>	160X18.7-45.8 µm	50-200X5 µm	8-12X1.5 µm	8-14X1.2-1.6 µm	Mukarji <i>et al</i> 1968
<i>V.kamati</i> Anantha Narayan	0.3-0.5mm	38.5-11.8x4.3-7.5 µm	10.7-30.0x3.2-5.2 µm	15.5-23.5x4.3-5.3 µm	Anantha Narayan 1962
<i>V.martynialla</i> Dharkar& Subhedar	76-190.0x38.0-57.0 µm	38-76.0x4 µm	11.4-19.0x3.8 µm	15.2-19.0x3.8-4.1 µm	Dharkar& Subhedar 2006
<i>V.agavella</i> Sp.nov	66.0-150.0x40.0-196.0µm	39.096.0x4 µm	15.4-22.6x3.6-6.6 µm	19.0-22.4x2.5-4.8 µm	Understudy



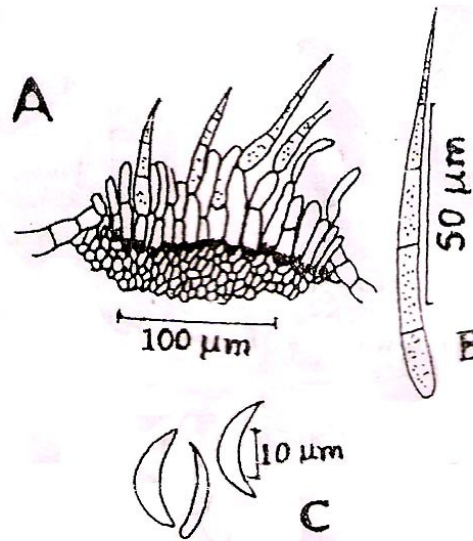


Fig.-1

Illustration

A Rare Mitosporic fungi from Ghatanji (MS) India *Volutella agevella* Sp. nov
Sporodochia B) Setae C) Conidia

Reference :

- Ainsworth G.C., Sparrow, F.K., Sussman, A.S. (1973). The Fungi An Advanced Treatise Vol IV, A taxonomic review with keys, Ascomycetes & fungi imperfecti Acad Press New York. Pp 621.
- Ananth Narayanan S. (1962) *Volutella kamati* Sp. nov from India J. Mycol. Mycol. Appl. 18:147 -148.
- Barnett H.L. and Hunter B.B. (1972) Illustrated genera of imperfect fungi. Burgess Publishing Company pp. 240.
- Bilgrami, K.S. Jamaluddin S. And Rizwi, M.A. (1991) Fungi of India , Today & tomorrow's Printer And Publishers New Delhi pp789.





- Dharkar Ninad and Subhedar Anand (2006) *Volutella* A new species from Amravati District, India. Science J. of GVISH, Vol. III: 1-3.
- Douglas Sharon (2008) *Volutella* Blight of *Pachysandra*. The Connecticut Agricultural Experiment Station (www.ct.gov/caes), pp 1-3.
- Jamaluddin, S., Goswami, M.G. And Ojha, B.M. (2004) Fungi of India (1989-2001) Scientific Publishers (India), Jodhpur. pp 326.
- Mukarji K.G. Tiwari J.P. And Rai J.N. (1968) *Volutella lini* Sp. nov. From India. J. Trans. Brit. Mycol. Soc. 51:337:-339.
- Rao, V.G. (1962) Some New Records of Fungi Imperfecti From India J. Anni. Soc. Pernabuco. 31:3-11.
- Sarbhaoy, A.K. Varshey, J.L. And Agarwal, D.K. (1996) Fungi of India (1982-1992) CBS Publisher & Distributors, New Delhi. pp 350.

