

New Species *Chromocrea Zarii* Sp. Nov. Reported from Zari, District Yavatmal, MS, India.

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Abstract

In the present mycological survey, the new species of *Chromocrea zarii* sp. nov. reported from Zari tehsil, District Yavatmal, MS, India. In random seasonal field visit authors have collected different varieties of fungal flora from various places of Zari tehsil. Which is popular for their dense abundant Teak wood dominated marshy, moist, shady habitat flourishing diversified mycoflora in this region. Forest area in and around Zari village is a dry deciduous type supports exploring many diverse groups of saprobic fungi. During the study of several members of ascomycetes genus *Chromocrea* (basionyms), *Hypocrea* (synonyms) authors come across with the interesting member Out of which *Chromocrea zarii* sp. nov. is reported as new on the basis of taxonomic identification.

Keywords: Taxonomy, Stromata, Perithecia, Asci, Ascospore.

Introduction

Zari tehsil is the remote and tribal area of Yavatmal district. This area of investigation is unique with its topography and mycoflora richness serve as an immense scope to explore the diversity of mycoflora in this region (Kamble S.K. *et.al.* 2022, Shaheezad M.A. *et.al.*, 2018), *Chromocrea* is a genus of ascomycetous fungi commonly found growing on dead wood. The members of *Chromocrea* has Stromata patellate or subpatellate, whitish, yellowish or reddish to greenish-black, more or less variable in a given species, fleshy; perithecia entirely immersed with necks only slightly prominent; asci cylindrical, becoming 16-spored by the separation of each original spore into 2 subglobose cells (Bicelled); spores specifically colored, greenish or brownish. On the basis of host specificity and detailed taxonomical and comparative study of already known species the species in this paper reported as new species.

Materials and Methods

The collected specimens were wrapped in butter paper and brought to the laboratory. Fine sections were made by using a sharp razor blade and stained in lacto phenol mixed with cotton blue. The slide preparation was studied microscopically mainly structure and measurement of stromata, perithecia, asci and ascospores etc. with the help of relevant keys and literature (Tode HI 1791, Fred J. Seaver, 1910, Petch T 1938, Bilgrami *et al.*, 1991, Jamaluddin *et al.*, 2004). The material was deposited at the Mycological Herbarium Agharkar Research Institute Pune, India.

Result

Chromocrea zarii sp. nov. (Plate 1, Fig 1:A,B,C,D,E,F,G,H)

Stromata, patellate or subpatellate, fleshy, soft, becoming contracted and wrinkled when dry, at first bright lemon-yellow or yellowish-white becoming punctate with greenish dots, the necks of the perithecia filled with dark colored spores, the entire stroma becoming darker with age, finally dark black, flattened, tough, discoid, concave or convex, measures about 68-132.71 μm X 82.46-88.81 μm .; perithecia entirely immersed with the necks slightly protruding and becoming rather prominent in dried specimen; asci cylindrical; each ascus is 63-86.92 μm X 4.27-7.95 μm in size. Ascus has 16-spored by the separation of each original spore into 2 subglobose cells; spores at first green, becoming brown, Bicelled ascospores are 9.23-10.35 μm X 5.8-7.52 μm , while unicelled ascospores 5.95-7.89 μm in diameter.

Collection examined:

Zari forest area on unknown dead stem Dt.14/8/2016 by Swapnil Kamble AMH.No.10273.

Table 1; Comparative account of *Chromocrea* species.

Species	Stromata	Perithecia	Ascus	Ascospores	Reference
<i>Chromocrea gelatinosa</i> (Tode:Fr.) Seaver 1910	1-4mm	-----	-----	5 µm,diameter	Tode HI (1791). Fungi Mecklenburgenses Selective. Vol II.
<i>Chromocrea ceramica</i> (Ellis & Everh.) Seaver 1910	-----	-----	-----	4 µm,diameter	Ellis & Everh. N. Am. Pyrenbm. 85. 1892.
<i>Chromocrea aureoviridis</i> (Plowr. & Cooke) Petch 1938	2.5mm	0.1mm	70-75 µm x 4 µm	4.5 µm x 4 µm 4 µm,diameter	Petch T (1938). British Hypocreales. Transactions of the British Mycological Society 21: 243–305.
<i>Chromocrea cupularis</i> (Fr.) Petch 1938	5mm.		100-125 µm x 7-8 µm	8-9 µm x 6-7 µm , 6-9 µm diameter	Petch T (1938). British Hypocreales. Transactions of the British Mycological Society 21: 243–305.
<i>Chromocrea spinulosa</i> (Fuckel) Petch 1950	1-3mm	140-160 X 90-110 µm	70-85 x 4 µm	Bicelled; 6.5-9 x 3 µm Unicelled 5-6 x 2.5-3 µm	Petch 1950. Transactions of the British Mycological Society Volume 33, Issues 3–4, 1950, Pages 350-35
<i>Chromocrea substipitata</i> Seaver 1910	1-4mm	-----	-----	4X5 µm diameter	<u>The Hypocreales of North America: III</u> Fred J. Seaver, <i>Mycologia</i> , Vol. 2, No. 2 (Mar., 1910), pp. 48-90+92.
<i>Chromocrea zarii</i> sp. nov.	68-132.71µm X 82.46-88.81µm (0.68-1.32mm)	-----	63-86.92 µm X 4.27-7.95 µm	Bicelled 9.23-10.35 µm X 5.8-7.52 µm. Unicelled 5.95-7.89 µm in diameter	Under study

Conclusion

Comparative taxonomic study of already reported species vide (Table-1) have shown that the stroma, perithecia, ascus and ascospores of the species understudy is show variabilities in their morphological structure and measurement than existing species therefore treated as new species *Chromocrea zarii sp. nov.* and reported first time from Zari village area.

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Conflicts of Interest:

The authors declare no conflict of interest.

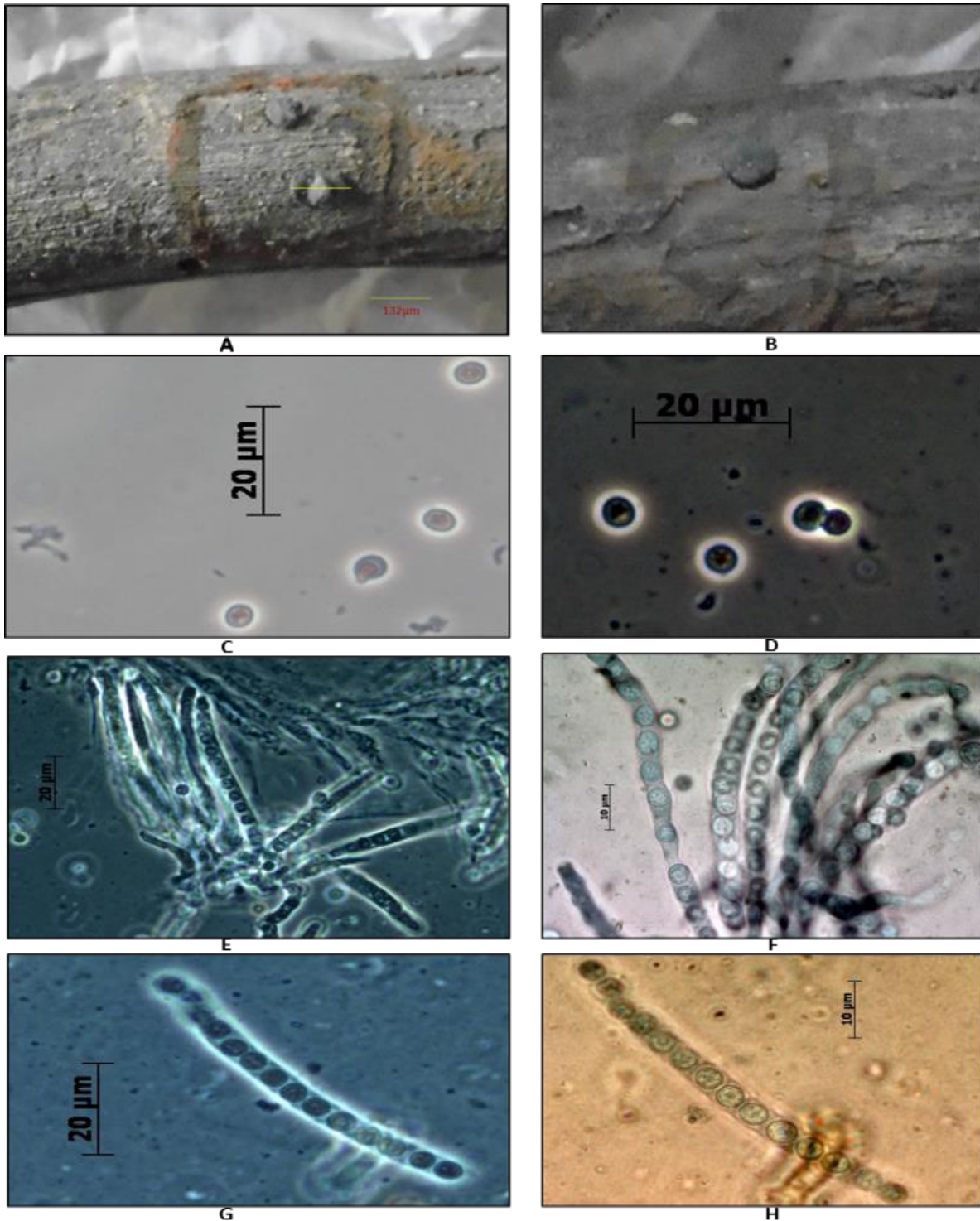


Plate I :

Chromocrea zarii sp. nov. from Zari Forest District Yavatmal (MS) India. Plate 1.Fig. A) Habit B) Stroma & Perithecia C, D,E,F,G,H. Ascus with Ascospores.

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