

DESCRIPTION OF TWO NEW SPECIES OF TESTACIDS (PROTOZOA : RHIZOPODA) FROM UTTAR PRADESH, INDIA

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Two new species of the family Centropyxidae viz. *Centropyxis faizabadensis* Bindu sp. nov. and *Cyclopyxis bharateii* Bindu sp. nov. are described and their differences with close species of the respective genus are provided.

Key words : Centropyxidae, *Cyclopyxis*, *Centropyxis*, new species, Uttar Pradesh.

INTRODUCTION

The genus *Centropyxis* was raised by Stein in 1857 and *Cyclopyxis* by Deflandre 1929. These are testate amoebae coming under the family Centropyxidae. There are no published reports of these two genera from Uttar Pradesh and in this communication one new species each of the genus *Cyclopyxis* and *Centropyxis* are described from water samples of Uttar Pradesh, India.

MATERIALS AND METHODS

Water samples from Uttar Pradesh were collected by the scientists of the Zoological Survey of India, Kolkata and brought to the laboratory and kept for some days with the lid opened for considerable increase in protozoa population in them. The samples were observed under a compound microscope (Olympus BX 41) at 400X magnification. For making permanent slides the tests were isolated and air dried after two or three washings in absolute alcohol and mounted in DPX.

RESULTS AND DISCUSSION

Cyclopyxis bharateii Bindu sp. nov.
(Fig. 1)

Diagnosis : Test hemispherical in lateral view, circular or elliptical in ventral view; dimension 61.1-62.9 μm X 60.2- 62.1 μm ; yellowish brown and encrusted with quartz particles; oral aperture centrally located (dimension 36-37 μm X 35.8-36.9 μm) ; arched anteriorly and pointed posteriorly (inverted triangular shape) and more than half the diameter of the test; periphery of aperture thick and encrusted with linearly arranged sand particles.

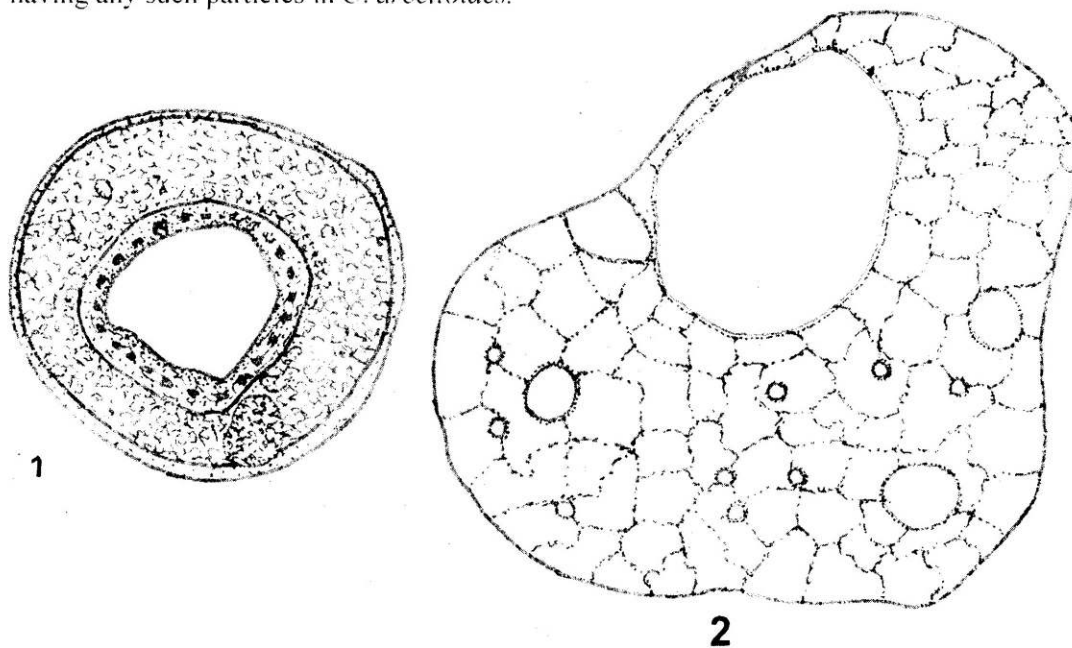
Type location : Water sample collected from Bharatkund which is a sacred place in Ayodhya in Faizabad district of Uttar Pradesh. It is a place for performing holy sraddha named after Bharat.

Type material : Holotype : Reg. No. 2547 ; 2 examples on slide; date of collection - 17. xi. 2008. Paratype : 1ex. on slide. Reg. No. 2548 ; date of collection : as for holotype. The type specimens are deposited in the National Zoological Collections of Protozoology Section of Zoological Survey of India , Kolkata.

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Etymology : *bharateii* : derived from the name of collection site of the type species.

Discussion : The present species *C. bharateii* in having peculiar shape of aperture (curved anteriorly and pointed posteriorly) can easily be differentiated from all the known species of the genus *Cyclopyxis*. The present species somewhat resembles with *Cyclopyxis arcelloides* Penard which was reported for the first time from India as *Centropyxis arcelloides* by Das *et al.* (1993). Later Das *et al.* (1995, 2004 & 2006) reported this species from Meghalaya, Manipur, Andhra Pradesh and Arunachal Pradesh. The present species *C. bharateii* sp. nov. differs from *C. arcelloides* Penard in general shape, composition of the test and peculiar shape of the oral aperture. The aperture is curved anteriorly and pointed posteriorly with thick periphery encrusted with linearly arranged sand particles of the present species versus circular, thin aperture without having any such particles in *C. arcelloides*.



Figs. 1-2. : 1. *Cyclopyxis bharateii* Bindu sp. nov.; 2. *Centropyxis faizabadensis* Bindu sp. nov.

Centropyxis faizabadensis Bindu sp. nov.
(Fig. 2)

Diagnosis : Test brownish, almost bean shaped (dimension 88-88.8µm X 110-111µm) showing slight flanks towards the posterior side; posterior extremity is flat; oral aperture elliptical, oblique and located near the anterior border of the test (dimension 51.1-51.8µm X 36.5-37µm); some small pebbles and stony particles are found scattered in the test and covered with quartz grains.

Type location : Water sample collected from Ranupali village in Faizabad district of Uttar Pradesh.

Type material : Holotype; Reg No. 2546; 2 examples on one slide; date of collection- 17. xi. 2008. The type specimens are deposited in the National Zoological Collections of Protozoology Section of Zoological Survey of India, Kolkata. West Bengal.

Etymology : *faizabadensis* : derived from the name of the district of type location.

Discussion : The present species *C. faizabadensis* shows close resemblance with *C. orbicularis* Deflandre which was reported for the first time from India by Naidu (1966) from Andhra Pradesh and further Chathopadhyay and Das (2003) from Himachal Pradesh. In *C. orbicularis* test is almost circular while for the present species it is almost bean shaped and showing slight flanks towards the posterior part. In the present species the aperture is elliptical and oblique whereas for *C. orbicularis* it is semicircular and in *C. faizabadensis* there are scattered small pebbles and stony particles in the test. But in *C. orbicularis* the test is clearly encrusted with large stony particles on its dorsal border.

ACKNOWLEDGEMENT

The author is grateful to the Director, Zoological Survey of India, Kolkata for the facilities provided. Thanks are also due to Dr. A.K. Das, Rtd. Additional Director, Zoological Survey of India, Kolkata for the help rendered during the study of the specimens. I also express my gratefulness to Shri. Nikhil Bhowmik, Senior Artist, ZSI, Kolkata for the drawings.

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