# New record of an Earthworm *Octochaetona surensis* from Kolkata, West Bengal

<sup>1</sup>Md. Nurul Hasan, <sup>2</sup>Ujjal Das, <sup>3</sup>C.K.Mandal <sup>1, 2, 3</sup> Zoological Survey of India, FPS Building, Kolkata-7000016

Abstract – Octochaetona surensis earthworm collected from Hatiara, Kolkata, first record, West Bengal, Transport of soil. This species belongs to Family Octochaetidae and genus Octochaetona. It has 15 species of Octochaetona genus in India. Length 54 – 135 mm, diameter 2.4 - 6 mm, segments 175 -180; colour brown; clitellum XII – XVI; first dorsal pore at 12/13; genital markings oval, paired or unpaired and median, post setal in some of XVIII – XXII; Spermathecal pores minute at or near equators of VIII –IX, in A B; male pores minute median to B; prostatic pores minute, at B; female pores paired, sometimes unpaired and median. Gizzards between septa 4/5 and 8/9; Last pair of hearts in XII; intestine begins in XVII; seminal vesicles in IX & XII.

*Index Terms* – New Locality, Octochaetona surensis, Hatiara, Kolkata, first record, West Bengal, Transport of soil.

## I. Introduction

The paper deals with the new locality record of an earthworm (Class-Clitellata) *Octochaetona surensis* Kolkata (Latitude 22°.57′ 48″ (N) and Longitude 88°. 39′ 825″). There are more than 4400 species of earthworms in the world, where as in India 560 and 61 in West Bengal and 18 in kolkata (Julka et al. 2009). *Octochaetona surensis* first recorded from Hatiara, Kolkata West Bengal. Bandyopadhyay et.al(2008) works on earthworms of North 24 Parganas; Beddard (1883) works on some earthworms from India; Haldar et.al & Halder (2004, 1998) some earthworms present in unnamed collections of ZSI and earthworms, Fauna of West Bengal, respectectively; Julka (1988) Earthworm Fauna of India & the adjacent Countries; Mandal (2006, 2008) a report on earthworm species of Tarakeswar and Adjoining area of Hughly district, west Bengal with some ecological notes and Record and abundance earthworm Ballavpur wildlife sanctuary, Birbhum, west Bengal respectively; Paliwal and Mandal (2008) Earthworm fauna of Museum Tank. Stephenson (1916) on a collection of Oligochaeta belonging to the Indian Museum.

Md. Nurul Hasan et al.

## II. MATERIALS AND METHODS

This Earthworm specimen are collected from root of bushes of Hatiara, Kolkata. Collection is made by Md. Nurul Hasan having gloves in the hand. After making the collection, Earthworms were sorted out and cleaned. They were placed in a tray with a small quantity of water and were slowly killed by anaesthetizing with alcohol allowing them to expand before death. Just after death, the leeches were kept in 70% alcohol for permanent preservation. For good dissection material were kept in 4% formalin for 12 hours just after narcotization.

#### Material examined:

1ex. Hatiara, Kolkata West Bengal. 05.02.2017. Coll. Md. Nurul Hasan. The specimens have been deposited in the national collection of Z.S.I. Calcutta. Registration number is An 4833/1. Other materials examined:

18 ex. from Puri, Orissa on 11.04.1978. Coll. M.C.Das. The specimens have been deposited in the national collection of Z.S.I. Calcutta. Registration number is An 4078/1.

4 ex. from Murshidabad, West Bengal India. 27.07.2016. Mintu Ghosh. The specimens have been deposited in the national collection of Z.S.I. Calcutta. Registration number is An 4702/1.

3ex. from Jhunjhunu, Rajasthan India. 10.01.2016. Dr. C.K.Mandal. The specimens have been deposited in the national collection of Z.S.I. Calcutta. Registration number is An 4534/1.

2ex. from Garjan Sagar, Udaypuru, Rajasthan India. 15.08.2015. Dr. C.K.Mandal. The specimens have been deposited in the national collection of Z.S.I. Calcutta. Registration number is An 4491/1.

13ex. from Pune, Maharashtra India. 29.03.1960. Dr. T.D.Soota. The specimens have been deposited in the national collection of Z.S.I. Calcutta. Registration number is An 4512/1.

## Diagnostic characters:

Length 54 – 135 mm, diameter 2.4 - 6 mm, segments 175 -180; colour brown; clitellum XII – XVI; first dorsal pore at 12/13; genital markings oval, paired or unpaired and median, post setal in some of XVIII – XXII; Spermathecal pores minute at or near equators of VIII –IX, in A

© I.JARBEST PUBLICATIONS

B; male pores minute median to B; prostatic pores minute, at B; female pores paired, sometimes unpaired and median. Gizzards between septa 4/5 and 8/9; Last pair of hearts in XII; intestine begins in XVII; seminal vesicles in IX & XII.

## Remarks:

This is recorded for the first time from Kolkata district West Bengal. The species is also very common within the sanctuary, however, restricted to the moist humus mixed soil.

## Distribution:

India: Kota, Alwar, Bundi, Udaypur, Rajasthan; Orissa; Uttar Pradesh; Madhya Pradesh; Assam; Hatiara, Kolkata, West Bengal.

#### Outside India:

# Myanmar.







Fig. 2. Octochaetona surensis from Rajasthan

#### III. SUMMARY

This earthworm species is recorded for the first time from Kolkata district West Bengal. Due to transportation of soil and stones from North India to all over India and global warming Species are sustaining not only in cold area but also in less cold area. So far some mountain species are found in plain land also.

#### ACKNOWLEDGEMENTS

We are grateful to Dr. Kailash Chandra, Director, Zoological Survey of India, for lucid suggestions during the study of the leeches and facilities. Our special thanks are due to Dr. Ch. Satyanarayana, O/C, General Non-Chordata Section for encouragement and guidance. We extend our deep gratitude to Sri S.S. Mishra, Scientist "C" Marine Fish Section for his valid suggestions and staffs of General Non-Chordata section for co-operation.

#### REFERENCES:

- [1] Bandyopadhyay, P.K., Mandal C.K. and Mitra, A.K. 2008. Earthworms of North 24 Parganas Rec. Zool. Surv. India: 108(Part-3): 21-25.
- [2] Beddard, F.E. 1883. Note on some earthworms from India. Annals and Magazine of Natural history, (5) 12: 213-224.
- [3] Beddard, F.E. 1891. The classification and distribution of earthworms. Proceedings of the Royal Physical Society Edignborough, 10; 235-290.
- [4] Darwin, C. 1881. The formation of vegetable mould through the action of worms with observations on their habits. Murry, London, 298 pp.
- [5] Haldar, K. R. Dhani. S. And Mandal, C.K.2004. On some earthworms present in unnamed collections of ZSI. Rec.Zool.Surv.india.107 (part-3):79-93, 2007.
- [6] Halder, K.R. 1998. Annelida: Oligochaeta: earthworms, State Fauna Series 3: Fauna of West Bengal, part 10: 17-93.
- [7] Julka, J.M. 1988. Fauna of India & the adjacent Countries: Megadrile Oligochaeta (earthworms); Haplotaxida: Lumbricina: Megascolecoidea: Octochaetidae, 400 p.p. Zoological Survey of India
- [8] Mandal, C.K. Misra. A. and Mitra.S.2006.a report on earthworm species of Tarakeswar and Adjoining area of Hughly district, west Bengal with some ecological notes. Rec.Zool.Surv.india.106 (part-3).123-130.
- [9] Mandal, C.K., Misra. A., Roy, G.C. and Biswas. S, 2008. Record and abundance earthworm Ballavpur wildlife sanctuary, Birbhum, west Bengal. Rec.Zool.Surv.india. 108 (part-3):97-108.
- [10] Mandal, C.K.2008. Earthworm studies of population in saline and non-saline soil of Midnapore and Bardwan district of West Bengal. Rec. Zool. Surv. india.108 (part-3).49-54.
- [11] R. Paliwal and Mandal, C.K. 2008. Earthworm fauna of Museum Tank. Rec. Zool. Surv. India, Occ. Paper No. 333, 46-48.
- [12] Stephenson, J. 1916. On a collection of Oligochaeta belonging to the Indian Museum. Records of the Indian Museum, 12: 299-354.