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EARTHWORMS OF FAISALABAD DIVISION

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Fifteen species of earthworms belonging to ten genera viz. Allolobophora, Bimastus, Dichogaster, Drawida, Eutyphoeus, Lampito, Ocnerodrilus, Octochaetoides, Pheretima and Ramiella and four families viz. Lumbricidae, Megascolecidae, Moniligastridae and Ocnerodilidae have been reported from Faisalabad Division.

INTRODUCTION

Earthworms are the soil dwelling creatures which make up a large part of the total biomass of invertebrates of the soil. A number of biologists namely Bassalik (1913), Nijhawan and Kanwar (1952), Guild (1955) and Edwards and Lofty (1972) have confirmed the importance of earthworms in soil fertility. It is, therefore, not surprising that the earthworms activities result in increasing the yield of crops as has been demonstrated by Kahsnitz (1922) and Dreidax (1931). Previously, earthworms of Lahore city (Pakistan) have been studied by Prashad (1916), Stephenson (1923) and Bhatti (1962) who reported 6 species, 5 species and 14 species, respectively. The present investigation dealt with the systematics of earthworms in Faisalabad Division.

MATERIAL AND METHODS.

Earthworm specimens were collected from various habitats such as croplands, grassy lawns, gardens, canal banks and forest plantations located in Faisalabad Division. These specimens were

preserved following the method of Stephenson (1923). The specimens were identified using the keys, diagrams and descriptions provided by Stephenson (1923) and Bhatti (1962). The numbers written in brackets show the number of specimens found from the respective places. After identification and measurement, the specimens of each species were kept in separate jars with the species name inscribed on each one of them.

RESULTS AND DISCUSSION

A total of 15 species belonging to four families and ten genera were collected from various localities of Faisalabad Division. Information pertinent to their systematics and collection data is given below:

Family LUMBRICIDAE

I. Genus: Allolobophora Eisen 1874

1. Allolobophora trapezoides (Duges), 1828

This species is found in grassy lawns, gardens and water channels.

Collection data: Faisalabad:University Campus (5), city areas and suburbs (3). Jhang:Rodu (5), Mochiwala (4), Chiniot (5). Toba Tek Singh:Govt. College Campus (4), Gojra Mongi Road (4).

II. Genus: Bimastus Moore 1893

2. Bimastus parvus (Eisen), 1874

It occurs in grassy lawns, gardens and canal banks.

Collection data: Faisalabad: University Campus (4), city areas and suburbs (4), Gutwala (3). Jhang: City areas and suburbs (3), Rodu (2), Chiniot city area (3). Toba Tek Singh: Govt. College Campus (2), Gojra, Govt. College Campus (3), Pir Mahal (4).

Family MEGASCOLECIDAE

III. Genus: Dichogaster Beddard 1888

Key to species of Dichogaster in Pakistan.

1. Clitellum: saddle-shaped.....bolaui (Michaelsen)
- Clitellum: ring-shaped-----modigliani (Rosa).

3. Dichogaster bolaui (Michaelsen), 1891

10. Pheretima hawayana (Rosa). 1891.
It is also found in grassy lawns and croplands.

Collection data: Faisalabad: University Campus (10), city areas and suburbs (10), Gutwala (7). Jhang: Shah Jewana (10), Maghi Sultan (7), Chiniot (10). Toba Tek Singh: Gojra Mongi Road (8), Kamalia (3).

11. Pheretima morrisi (Beddard), 1892.

Collection data: Faisalabad: University Campus (8), city areas and subrubs (7). Jhang: Shorkot (14), Mochiwala (7), Chiniot (8). Toba Tek Singh: Govt. College Campus (12), Kamalia (5), Gojra Mongi Road (8).

12. Pheretima posthuma (Vaillant), 1889.

Collection data: Faisalabad: University Campus (9), city areas and suburbs (10), Gutwala (6). Jhang: Govt. College Campus (4), Mochiwala (2), Chiniot (4). Toba Tek Singh: Govt. College Campus (6), Gojra, Govt. College Campus (8), Gojr Mongi Road (5).

VIII. Genus: Ramiella Stephenson 1921.

13. Ramiella bishambari (Stephenson), 1914.

This species is found in grassy lawns and gardens.

Collection data: Faisalabad: University Campus (4), city areas and suburbs (2), Gutwala 92). Jhang: Shorkot (7), Mochiwala (3), Chiniot (4). Toba Tek Singh: Govt. College Campus (3), Kamalia, Govt. College Campus (3).

Family: MONILIGASTRIDAE

IX. Genus: Drawida Michaelsen 1900.

14. Drawida nepalensis (Michaelsen), 1907.

It is found in grassy lawns, gardens, canal banks, croplands, and forest plantations.

Collection data: Faisalabad: University Campus (2), city areas and suburbs (4). Jhang: Govt. College Campus (3),

Maghi Sultan (1), Chiniot (2). Toba Tek Singh: Gojra Mongi Road (2), Pir Mahal (2), Maurussipur (3).

Family: OCNERODRILIDAE

X. Genus: Ocnerodrilus Eisen 1874.

15. Ocnerodrilus occidentalis (Eisen), 1878.

This is found in grassy lawns and gardens.

Collection data: Faisalabad: University Campus (5), city areas and suburbs (3), Gutwala (3). Jhang: City areas and suburbs (6), Shah Jewana (2). Toba Tek Singh: Gojra, Govt. College Campus (3), Kamalia (3).

The present study on earthworms of Faisalabad Division, revealed that only one species viz. Pheretima hawayana Rosa constituted an addition to the fauna reported by Bhatti (1962) from Lahore, while the other 14 species were the same. Thus, with the exception of P. hawayana Rosa, the earthworm fauna of Faisalabad were quite similar to those of Lahore. The reason for the similarity between the earthworm fauna of these two areas was most probably traceable to their physiognomic features especially after the introduction of canal irrigation system in Faisalabad region.

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