

STUDIES ON SOME AMPHIBIAN TREMATODES FROM
WEST BENGAL AND MAHARASHTRA (PART-II)

By

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I—INTRODUCTION

In our earlier paper (1970) we have exhaustively dealt with amphibian trematodes from Uttar Pradesh and West Bengal. This paper is a continuation of the previous paper and includes a list of trematode parasites from West Bengal and Maharashtra. The detail descriptions of the species have not been included here as most of the species have been adequately dealt with by other workers and in our previous paper. However, the variations observed in the present material are briefly discussed wherever considered necessary. The paper also includes the distribution of the various species in India and elsewhere.

The parasites reported herewith were collected during our survey from certain parts of West Bengal and Ramtek, District Nagpur, Maharashtra. The collections from Ramtek were made by the senior author and those from West Bengal by the junior author.

Our thanks are due to the Director, Zoological Survey of India for providing laboratory facilities.

II—SYSTEMATIC ACCOUNT

Family : 1. LECITHODENDRIIDAE Odhner, 1910

Subfamily : 1. PLEUROGENETINAE Looss, 1899.

1. *Pleurogenoides gastroporus* (Lühe, 1901).

1901. *Pleurogenes gastroporus* Lühe, *Zentbl. Bak. ParasitKde. Abt.*, 30 (4) : 166.

Material.—4 exs. (i) 1 ex. from intestine of *Rana tigrina*, Ramtek, 13. xi. 68 ; (iii) 3 exs. from intestine of *Rana cyanophlyctis*, Ramtek 11. xii. 68.

Distributions.—Sitapur, Bareilly, Allahabad, Varanasi (U.P.), Nagpur, Ramtek (Maharashtra), Dacca (Bangladesh).

Remarks.—This species is reported from different parts of U.P. Simha (1958) recorded this species from a reptilian host *Chamaeleon zeylanicus* from Hyderabad. This species or any other species of the genus *Pleurogenoides* has not yet been reported from West Bengal.

Sub family : 2. GANEONIAE Yamaguti, 1958.

2. *Ganeo tigrinum* Mehra and Negi, 1928.

1928. *Ganeo tigrinum* Mehra and Negi, *Allahabad Univ. Stud.*, 4 : 63.

Material.—13 exs. (i) 9 exs. from intestine of *Rana tigrina*, Ramtek, 13.xii.68 ; 24.xii.68 ; (ii) 4 exs. from intestine of *Rana cyanophlyctis*, Ramtek, 11.xii.68.

Distributions.—Allahabad, Varanasi, Bareilly, Almora, Bhimtal (U.P.), Jaisalmer (Rajasthan), Srinagar, Shalimar (Jammu and Kashmir), Hyderabad (A.P.), Nagpur, Ramtek (Maharashtra), Dacca (Bangladesh).

Remarks : The present lot shows some interesting variations in the position of the testes and ovary in relation to ventral sucker, caecal length in relation to vitelline follicles and the extension of vitellaria. These variations will be discussed in a separate paper. This species has also been recorded from *Chamaeleon zeylanicus* from Hyderabad by Simha (1958). This species has not yet been reported from West Bengal.

Family : 2. PARAMPHISTOMIDAE Fiscoeder, 1901.

Sub family : 3. DIPLODISCINAE Cohn, 1904.

3. *Diplodiscus amphichrus* Tubangui, 1933

1933. *Diplodiscus amphichrus* Tubangui, *Philipp. J. Sci.*, 52 : 167.

Material.—12 exs. (i) 4 exs. from rectum of *Rana tigrina*, Howrah, 10.viii.67 ; (ii) 6 exs. from rectum of *Rana tigrina*, Ramtek, 6.x.68 ; and (iii) 2 exs. from rectum of *Rana tigrina*, Ramtek, 13.xii.68.

Distribution.—Sitapur, Almora, Bhimtal, Lucknow, Bareilly (U.P.), Bombay, Ramtek (Maharashtra), Srinagar, Shalimar, Punch, Bimna, Harwan, Hundawara, Shupyan (Jammu and Kashmir), Guntur (A.P.) Howrah (West Bengal), Philippines, Manchuria, Korea, Japan.

Remarks.—This species is widely distributed in India and elsewhere.

Family : 3. PLAGIORCHIIDAE Ward, 1917.

Sub family : 4. PLAGIORCHIINAE Pratt, 1902.

4. *Tremiorchis ranarum* Mehra and Negi, 1925

1925. *Tremiorchis ranarum* Mehra and Negi, *Proc. 12th. Indian Sci. Cong., Abs.*, pt. 3 : 147.

1926. *Tremiorchis ranarum* : Mehra and Negi, *Parasit.*, 18 (2) : 168.

Material.—10 exs. (i) 2 exs. from intestine of *Rana cyanophlyctis*, Ramtek, 11.xii.68 ; (ii) 8 exs. from intestine of *Rana tigrina*, Ramtek., 11.xii.68 ; 13.xii.68.

Distribution.—Sitapur, Lucknow (U.P.), Karnal (Haryana), Calcutta (West Bengal), Jabalpur, Ramtek (Maharashtra).

Remarks.—Some of the specimens in the present lot show variation in the beginning of the vitellaria. In some specimens they start from the middle level or slightly anterior of ventral sucker while in others they start from two different levels, thus, they are asymmetrical.

Family : 4. LECITHODENDRIIDAE Odhner, 1910.

Sub family : 5. PROSTOCINAE Yamaguti, 1958.

5. **Mehraorchis ranarum** Srivastava, 1934.

1934. *Mehraorchis ranarum* Srivastava, *Bull. Acad. Sci. U. P. Allahabad*, 3 (4) : 239.

Material.—6 exs. (i) 2 exs. from intestine of *Rana tigrina*, Ramtek, 11.xii.68 ; (ii) 4 exs. from liver of *Rana tigrina*, Ramtek, 12.xii.68.

Distribution.—Sitapur, Lucknow (U.P.), Hoshiarpur (Punjab), Udaipur (Rajasthan), Hyderabad (A.P.), Birati (West Bengal), Nagpur, Ramtek (Maharashtra), Dacca (Bangladesh).

Remarks.—Ovary variously placed in relation to ventral sucker. Uterus may or may not extend to post caecal ends.

Family : 5. HEMIURIDAE Lühe, 1901.

Sub family : 6. HALIPEGINAE Ejsmont, 1931.

6. **Halipegus mehransis** Srivastava, 1933.

1933. *Halipegus mehransis* Srivastava, *Bull. Acad. Sci. U. P. Allahabad*, 3 (1) : 42.

Material.—2 exs. from intestine of *Rana cyanophlyctis*; Ramtek, 11.xii.68.

Distribution : Sitapur, Bareilly (U.P.), Hyderabad (A.P.), Nagpur, Ramtek (Maharashtra), Burma, Ceylon.

Family : 6. PLAGIORCHIIDAE Ward, 1917.

Sub family : 7. HAEMATOLECHINAE Teixeira de Freitas *et* Lent, 1939. nom. emend. Yamaguti, 1958.

7. **Haematolechus almorai** (Pande, 1937).

1937. *Pneumonaeces almorai* Pande, *Proc. Indian Acad. Sci.*, 6 : 114.

Material.—3 exs. from lungs of *Rana cyanophlyctis*, Ramtek, 11.xii.68.

Distribution.—Almora (U.P.), Srinagar (Jammu and Kashmir), Ramtek (Maharashtra).

Remarks.—This species has been recorded so far only from high altitude and this is the first record of the species from the plains.

Family : 7. BRACHICOELIDAE Johnston, 1912.

Sub family : 8. MESOCOELINAE Dollfus, 1929.

8. *Mesocoelium sociale* (Lühe, 1901).

1901. *Distoma sociale* Lühe, *Zentrbl. Bakt. ParasitKde., Abt. 1, : 30*
(4) : 171

Material : 348 exs. (i) 103 exs. from intestine of *Bufo melanostictus*, Burdwan, 13.vi.68 (ii) 245 exs. from intestine and rectum of *B. melanostictus*, Burdwan, 26.vii.68.

Distribution.—Calcutta, Burdwan (West Bengal), Rangoon (Burma), East Indies, Paraguay, Philippines.

Remarks.—Uterine coils in some of the specimens with eggs ascend up to the mouth giving a false impression about the genital pore. Position of testis and ovary also varies in relation to ventral sucker.

Family MICROPHALLIDAE Travassos, 1920

Subfamily MICROPHALLIDAE Ward, 1901

9. *Megalotriotrema dicaecus* (Mukherjee and Ghosh, 1967)

1967. *Microphallus dicaecus* Mukherjee and Ghosh, *Zool. Anz.*, **178** (5/6) : 342.

1970. *Bengaliniella dicaecus* : Deblock, Mukherjee and Ghosh *Ann. Parasitol. hum. comp.*, **45** (2) : 203.

1970. *Megalotriotrema dicaecus* : Deblock., Mukherjee and Ghosh, *Ann. Parasitol. hum. comp.*, **45** (2) : 2211.

Material.—15 exs. (i) 2 exs. from liver of *Rana tigrina*, Sujapur, 9.viii.67 (ii) 1 ex. from rectum of *R. tigrina*, Sujapur, 9. viii. 67 and (iii) 12 exs. from intestine of *R. tigrina* Sujapur, 19.vi.68.

Distribution.—Sujapur (West Bengal).

Remarks.—After its first record, this species has subsequently been recovered from different locations in addition to its normal habitat in the intestine. There does not seem to be any appreciable difference in its size or topography of various organs.

III—REFERENCES

- MUKHERJEE, R. P. and GHOSH, R. K. 1970. Studies on some amphibian trematodes from Uttar Pradesh and West Bengal. *Indian J. Helminth*, **22** (1) : 67-78.
- SIMHA, S. S. 1958. Studies on the trematode parasites of reptiles found in Hyderabad State. *Z. ParasitKde.*, **18** : 161-218.
- YAMAGUTI, S. 1958. *Systema Helminthum*, Vol. 1 (1 & 2) New York.