
A Study On Chromosomes Numbers Of Some Species Of (Family Plagiorchiidae :
Digenia)

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This investigation the author has no thought of furnishing a complete solution of the problem of the gametogenesis of digenetic trematodes. Rather it is the author belief, than an extensive and intensive study of gametogenesis, that might be contribution towards the further addition of the useful cytological data to rewa region.

Further work on gametogenesis of Indian species have been done by Tripathi (1972), Saxena (1972), Ghos (1974), Sharma L.P. (1974), Pandey (1975), Mishra (1978), Pande (1979), Sharma S.D. (1981), Awasthi (1982), Gupta (1982), Tiwari (1985), Singh (1986), Mathur (1991) And Dubey (1993).

INTRODUCTION

The present investigation of the author is concerned with the studies of chromoson number of certain species. Of digenetic tremades of plagiorchiidae family. During the present century the cytology of spermatogenesis. Oogenesis and fertilization in the digenetic trematodes have enterivdy studied. The earlier observations were based on the limited methods of the histological techniques and were primarily concerned with general features of the gametogenesis and chromosome number.

Chromosomes are filamentous bodies which are typically present in the nucleus and which become visible during cell division. They are the carriers of the genes or units of heredity. Chromosomes are not visible in the active nucleus due to their higher water content, but are clearly seen during cell division. The author has studied chromosomes of 3 species of plagiorchiidae family

Data of three available Indian species of digenetic trematodes, of plagiorchiidae family of rewa region, viz.

1. *Bilorchis Mehrai, Dwivedi, 1963*
2. *Trimiorchis vanareum, verma 1930*
3. *Xenopharynx Solus, Nicoll, 1912*

MATERIAL AND METHOD

Table : 1 indian species of digenetic trematodes of family plagiorchiidae collected during this investigation.

S. No.	Classification Of Trematode Parasites	Host	Location	Locality& Collection
1	<i>Bilorchis Mehrai, Dwivedi, 1963</i>	Kachhaga intermedia	Gall bladder	Bichhia river, l.b. tank rewa
2	<i>Trimiorchis vanareum, verma 1930</i>	Rana tigrina	Intestine	Dal sagar pond and bihar river
3	<i>Xenopharynx Solus, Nicoll, 1912</i>	Tropidont us piscator	Gall bladder	Rani talab and jhiria rewa

Squash preparation to study spermatogenesis the testes, were taken out from the parasites. The materials were fixed in carnoy's fixative for 6 hours. It was then stained in aceto-carmine or aceto-orcein, for 30 minutes to 2 hours. The squash preparation of testis was necessary for the study of spermatocytes and sperms as well as for chromosomal studies.

Slides. Of temporary squash preparations were sealed with aceto-gelatine solution (dirlington and la cour, 1969). Normally all the individuals of a species have the same number of chromosomes. Closely related species usually have similar chromosome numbers

Table -2

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S.NO.	CLASSIFICATION OF TREMATODES	NATURE OF WORK DONE, CHROMOSOME NUMBER	AUTHORITY AND THE YEAR
1	t. Varunum	Spermatogenesis	Singh, Aparna 2006

		8	16	
2	Biolorchis Mehrai	Spermatogenesis		Singh, Aparna 2006
		6	12	
3	Xenopharynx Solus	Spermatogenesis		Singh, Aparna 2006
		11	22	

Fig . 1 Haploid Number Of Chromosomes Of B. Mehrai.

Fig . 2 Diploid Number Of Chromosomes Of B. Mehrai.

Fig . 3 Haploid Number Of Chromosomes Of T. Vanarun.

Fig . 4 Diploid Number Of Chromosomes Of T. Vanarun

Fig . 5 Haploid Number Of Chromosomes Of X. Solus.

Fig . 6 Diploid Number Of Chromosomes Of X. Solus.

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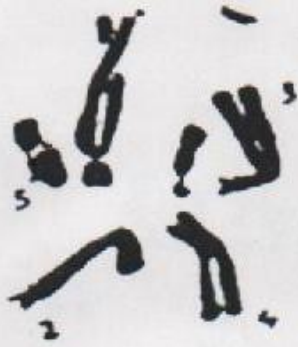


Fig. 1



Fig. 2



Fig. 3

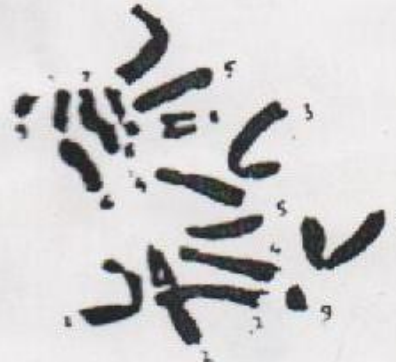


Fig. 4



Fig. 5



Fig. 6

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