5. Pandey, N. D., Yadav, D. R. and Teotia, T. P. S., *Indian J. Ent.*, 1968, 30, 229.
6. Pant, N. C. and Dang, K., *Ibid*, 1969, 31, 147.
7. Prasad, J. and Bhattacharya, A. K., *Z. ang. Ent.*, 1975, 79. 34.
8. Rathore, Y. S. and Verma, J. K., *Pantnagar J. Res.*, 1977, 2, 233.

CHROMOSOME NUMBER IN *POLYSTOMOIDES KACHUGAE* (TREMATODA : MONOGENEA)

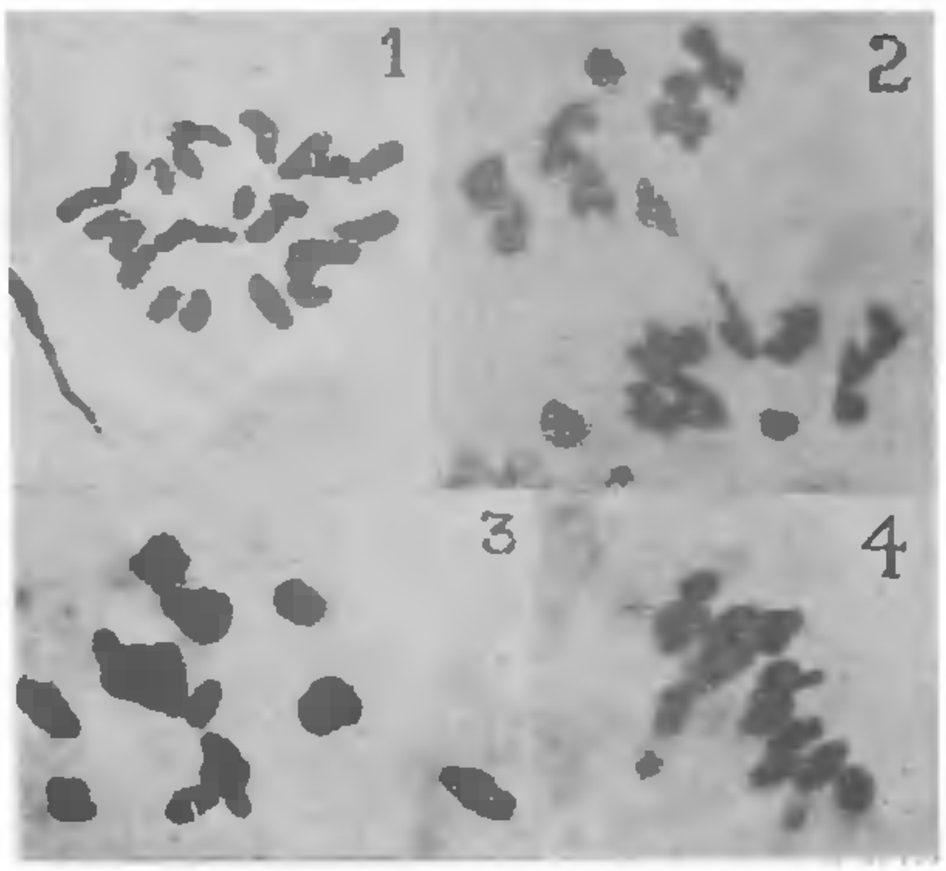
A GOOD deal of information is available on the chromosome numbers of digenetic trematodes[1-7]. As regards monogenetic species, the chromosome numbers are known for two species, *Gyrodactylus elegans* and *Polystoma integerrimum*. In the present communication, the chromosome number for a monogenetic trematode. *Polystomoides kachugae*, parasitic in the urinary bladder and cloacal bursae of a fresh water turtle. *Kachuga smithi* from Jammu (J. & K. State) is presented. Perhaps, this is the first chromosome count for any polyopisthocotylean genus from a reptilian host.

Live parasites, collected from the host, were washed in physiological saline for about 10 minutes and were fixed in acetic-alcohol (1 : 3) for two hours. The fixed material was partially macerated and put in 1% aceto-orcein for an hour for staining. Testes from pretreated parasites were then teased out on a slide and were squashed under a cover glass in aceto-orcein. Good metaphase and anaphase spreads from temporary preparations of both mitotic and meiotic figures were photographed. The mitotic chromosomes were studied from spermatogonial metaphases and meiotic chromosomes from diakinesis, metaphase I and anaphase I from spermatocytes.

In all 62 cell spreads (both mitotic and meiotic) from the testes of 8 parasites collected from 3 host specimens were scanned for chromosome counts. In 80% of cells scored, a diploid count of $2n = 24$ (Fig. 1) was obtained. Four pairs of chromosomes appeared to be consistently larger elements of the entire set and constituted approximately 43·3% of the total complement length. The remaining pairs were of nearly equal size. The centromeric position, however, could not be ascertained for any chromosome of the set, though a majority of them appeared to be metacentric (Fig. 2).

The meiotic cells at diakinesis (Fig. 3) and metaphase I (Fig. 4) regularly formed 12 bivalents. The mean chiasma frequency at diakinesis was around 15 per cell and 1·25 per bivalent. The meiotic configurations confirm the diploid count of $2n = 24$ for this species.

Morphologically, *Polystomoides kachugae* shows a strong similarity with *Polystoma integerrimum*, notwithstanding the fact that the latter form is exclusively an amphibian parasite and is known to exist in two cytotypes, with $n = 4$ and $n = 10^{1-7}$. A haploid count of $n = 12$ in *Polystomoides kachugae*, thus, appears to be a new count for any polyopisthocotylean trematode.



FIGS. 1–4. Fig. 1. Chromosomes of *Polystomoides kachugae* at spermatogonial metaphase showing $2n = 24$ (Approximately, × 1,000); Fig. 2. Primary spermatocyte anaphase chromosomes with 12 at each pole (*ca.*, × 1.000). Fig. 3. Chromosomes in diakinesis of meiosis I from primary spermatocytes showing $n = 12$ (*ca.*, × 1,000). Fig. 4. Meiotic metaphase I chromosomes with 12 II inside view (*ca.*, × 1,000).

We are thankful to Professor Y. R. Malhotra, Head of the Department of Bio-Sciences, University of Jammu, for providing us the facilities to work, and to Dr. A. K. Koul for inducement.

Department of Bio-Sciences, P. L. DUDA.
University of Jammu, VIJAY GUPTA.
Jammu 180 001, India,
October 7, 1977.

1. Walton, A. C., *J. Parasit.*, 1959, 45, 1.
2. Short, R. B. and Menzel, N., *Ibid.*, 1960, 46, 273.
3. Gresson, R. A. R., *Parasit.*, 1965, 55, 117.
4. Srivastava, M. D. L. and Jha, A. G., *Proc. Natl. Acad. Sci. India*, 1964, 34, 126.
5. Saksena, J. M., *Ibid.*, 1969, 39, 81.
6. Tripathi, N. P., *Proc. II All Ind. Congr. Cytol. Genet*,, 1975, p. 200.
7. Makino, S., *A Review of the Chromosome Numbers in Animals*, Hokuryukan. Tokyo, Japan, 1956.

6883/78. Published by Prof. M. R. A. Rao, Current Science Association, Bangalore-560 006
and Printed at The Bangalore Press, Bangalore-560 018.