

THE HELMINTH FAUNA OF ANDAMAN AND
NICOBAR ISLANDS TREMATODA

By

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(With 2 Text-figures)

INTRODUCTION

The present paper deals with the study of a small collection of trematodes obtained during the Andaman and Nicobar Survey, 1969 (February-April) led by the first author. The specimens belong to three species *viz.*, *Brachylecithum andamanensis* Soota, Srivastava and Ghosh; 1970 ; *Acanthoparyphium cambelensis* Soota, Srivastava and Ghosh, 1969 and *A. lobatum* Soota, Srivastava and Ghosh, 1970. These species are described in detail below. All measurements are in mm.

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SYSTEMATIC ACCOUNT

Family DICROCOELIIDAE

Subfamily DICROCOELIINAE

Genus **Brachylecithum** Strom, 1940

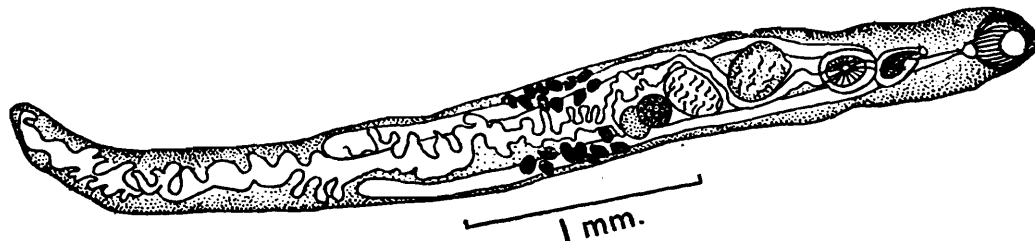
1. **Brachylecithum andamanensis** Soota,
Srivastava & Ghosh, 1970

(Text-fig. 1)

1970. *Brachylecithum andamanensis* Soota, Srivastava & Ghosh, *Proc. 57th Indian Sci. Cong.*: 465.

Material.—Holotype—one, Z.S.I. Reg. No. W 7051/1 ; host—white-collared king-fisher (*Halcyon chloris*) ; location—intestine ; locality—Maya Bunder (Middle Andaman) ; 25.iii.1969, T. D. Soota Coll. Paratypes—3, Z.S.I. Reg. No. W 7052-54/1. Other details as for holotype. (All specimens extremely fragile).

Description.—Body smooth, thin, elongated, 3.73-4.09 long, 0.36-0.41 in maximum width in testicular or ovarian zone. Oral sucker, subterminal, almost round, $0.18-0.20 \times 0.16-0.18$.



Text-fig. 1. *Brachylecithum andamanensis* Soota, Srivastava & Ghosh.

Acetabulum in anterior third of body, slightly larger than oral sucker, measures $0.20-0.27 \times 0.20-0.22$. Pharynx muscular, round, $0.04-0.05$ in diameter. Oesophagus very short, $0.13-0.17$ in length. Caeca asymmetrical, reaching up to posterior fourth of the body length. Testes tandem, round or oval, separated by uterine loops, measure $0.21-0.23 \times 0.22-0.25$ and $0.16-0.23 \times 0.17-0.25$. Cirrus sac just anterior or overlapping the acetabulum, measures $0.14-0.20 \times 0.72-0.90$. Vesicula seminalis bipartite. Ovary post-testicular, round, $0.11-0.13$ in diameter. Receptaculum seminis and shell gland well developed, postero-lateral to ovary. Uterine coils extensive, form ascending and descending loops from post-ovarian region. Coils pass through spaces between ovary and posterior testis and intertesticular space. Genital pore pre-bifurcal. Vitellaria limited in extent, extending a short distance from acetabular zone. Vitelline follicles constant in number, 12 on left and 9 on right side. Eggs yellow, elliptical, numerous, $0.012-0.016 \times 0.063-0.090$. Excretory bladder Y-shaped. Excretory pore terminal.

Discussion.—The present species bears close resemblance to *Brachylecithum halcyonis* (Yamaguti, 1941), *B. strigio* (Yamaguti, 1939), *B. stunkardi* Pande, 1939 and *B. chapmani* Singh, 1962, but differs from the first species in the number of vitelline follicles, ratio of the two suckers, and size of the gonads; and from the remaining three it differs in absence of lateral processes of acetabulum, in size of ovary, and nature of vitelline follicles. This species, however, stands apart from all other known species of the genus in having an unique character *viz.*, 12 vitelline follicles on left and 9 on the right side.

Family ECHINOSTOMATIDAE
Subfamily ECHINOSTOMATINAE

Genus *Acanthoparyphium* Dietz, 1909

2. *Acanthoparyphium lobatum* Soota,
Srivastava & Ghosh, 1970

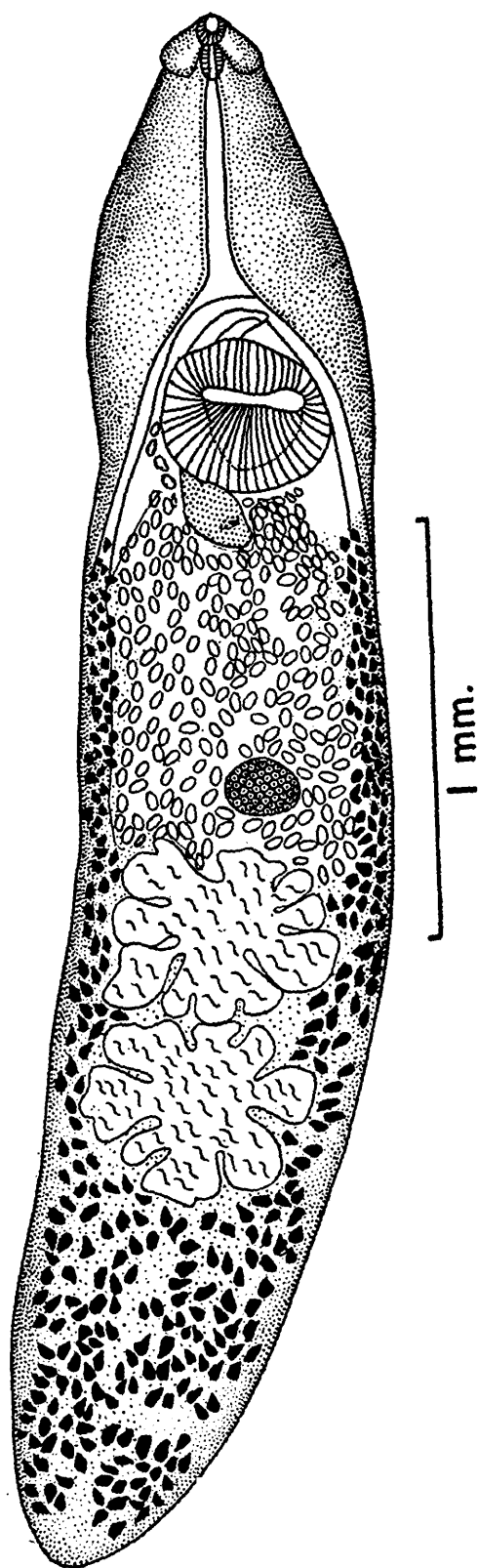
(Text-fig. 2)

1970. *Acanthoparyphium lobatum* Soota, Srivastava & Ghosh, *Proc. 57th Indian Sci. Cong.*: 465.

Material.—Holotype—one, Z.S.I. Reg. No. W 7046/1, host—Plover (*Pherialis* sp., location—intestine, locality—Maya Bunder (Middle Andaman), 25.iii.1969, *T. D. Soota* Coll. Paratypes—4, Z.S.I. Reg. No. W 7047-50/1. Other particulars as for holotype.

Description.—Body elongate, tapering at both ends, 6.84-7.20 long, 1.26-1.46 in maximum width, spinulate, spines sparse in posterior region. Head-collar armed with single uninterrupted row of 26-28 spines. Oral sucker terminal, 0.14-0.16 × 0.13-0.18. Prepharynx 0.07 long. Pharynx 0.10-0.14 × 0.11. Oesophagus slender, 0.76-0.83 long. Caeca reaching posterior extremity, terminal ends dilated. Acetabulum in anterior third of the body, 0.72-0.83 in diameter. Testes post-acetabular, deeply lobed, tandem, measure 0.72-0.81 × 0.85-0.88 and 0.72-0.85 × 0.81-0.86 respectively. Cirrus sac long, post-bifurcal, surpassing acetabulum, enclosing vesicula seminalis, measures 1.01-1.39 × 0.18-0.24. Genital pore median, postbifurcal. Ovary small, almost round, equatorial, pre-testicular, submedian, 0.25-0.27 × 0.25-0.29. Shell gland complex posterolateral to ovary. Vitelline follicles extend laterally from acetabulum to posterior extremity, contiguous in post-testicular zone. Uterine coils confined mostly to pre-testicular and post-acetabular zone. Eggs yellow, elliptical, operculate, 0.081-0.09 × 0.036-0.054.

Discussion.—Genus *Acanthoparyphium* Dietz, 1909 contains seven species as discussed by Soota *et al.* (1969, 1970a). The present species bears close resemblance to *Acanthoparyphium othodromi* Tubangui, 1933 but differs from it in the nature of lobulation of testes, in the extension of body spines, in the position of shell gland complex, in length of cirrus sac and in the size of body and eggs.



Text-fig. 2. *Acanthoparyphium lobatum* Soota, Srivastava & Ghosh.

**3. *Acanthoparyphium cambellensis* Soota,
Srivastava & Ghosh, 1969**

1969. *Acanthoparyphium cambellensis* Soota, Srivastava & Ghosh, *Proc. 56th Indian Sci. Cong.*: 503-504.

1970. *Acanthoparyphium cambellensis* Soota, Srivastava & Ghosh, *Proc. Indian Acad. Sci.* 72 (6): 243.

Material.—12 exs., Z.S.I. Reg. No. W 7055/1, Host—golden plover (*Pherialis dominica*), location—intestine, locality—Maya Bunder (Middle Andaman), 26.iii.1969, T. D. Soota Coll..

Remarks.—Soota *et al.* (1969, 1970a) described this species from the same host from Cambell Bay, Great Nicobar Island. Some of the measurements of the present specimens are given below :

Body $4.23-5.22 \times 0.63-0.77$; Oral sucker $.09-0.1 \times 0.1-0.11$, Pharynx $0.09-0.1 \times 0.06-0.11$; Acetabulum $0.31-0.4 \times 0.31-0.39$; testes $0.31-0.45 \times 0.24-0.4$ and $0.38-0.54 \times 0.24-0.36$ respectively ; ovary $0.12-0.18 \times 0.13-0.15$; eggs $0.08-0.09 \times 0.03-9.95$.

SUMMARY

The paper deals with the description of three species of trematodes from birds from Andaman Islands. Of these, two have been fully described and some of the measurements of the third species have been incorporated and its distribution range extended.

REFERENCES

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