

A NEW SPECIES OF ACANTHOCEPHALA *NEOECHINORHYNCHUS ROONWALI* FROM AFGHANISTAN, AND NOTES ON *POMPHORHYNCHUS KASHMIRENSIS* KAW

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(With 1 Text-figure)

CONTENTS

	PAGE
I—Introduction .. .. .	35
II—Systematic Account .. .. .	36
III—Summary .. .. .	38
IV—References .. .. .	39

I—INTRODUCTION

The present paper deals with a new species of *Neoechinorhynchus* Hamann, being the first species of the genus to be recorded from Afghanistan ; it is based on the material collected from Kabul by Mr. Ali Akhtar from the fish *Orienus* sp., and sent to the Zoological Survey of India, Calcutta, for identification. The paper also contains notes on some variations indicated by *Pomphorhynchus kashmirensis* Kaw, another Acanthocephalan parasite from the same host *Orienus* sp., but from a different locality.

*Acknowledgments.*—We are thankful to Mr. Ali Akhtar for donating the specimens to the Zoological Survey of India and to Dr. B. L. Kaw, Professor of Zoology, S. P. College, Srinagar, for supplying us data of the material of *Pomphorhynchus kashmirensis* examined by him in 1948.

## II—SYSTEMATIC ACCOUNT

1. *Neoechinorhynchus roonwali* \* Datta & Soota, sp. nov.

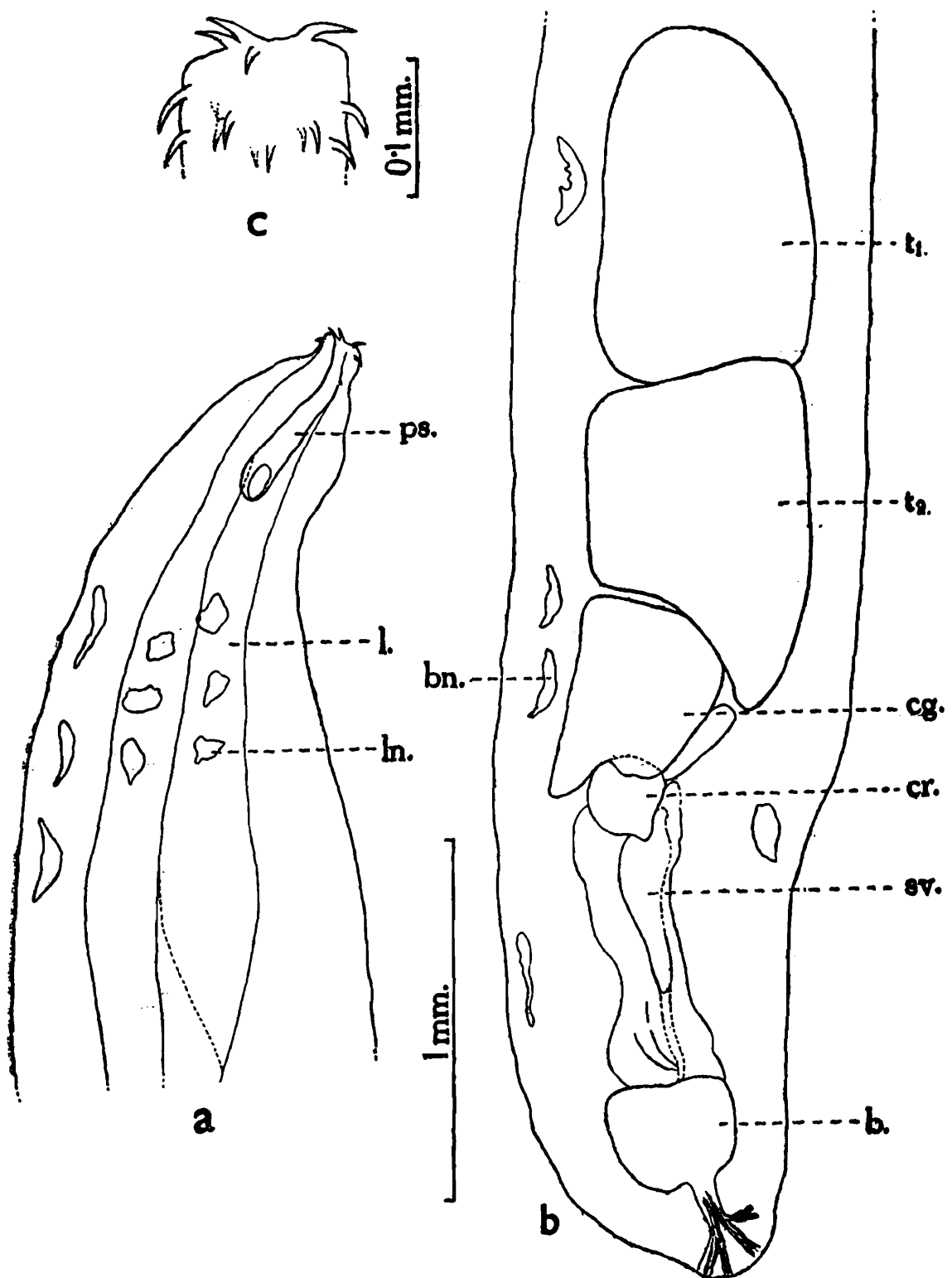
(Text-fig. 1a—c)

*Material*.—6 males, all from the host-fish (*vide infra*), from Kabul.*Diagnosis*.—Sub-cuticular body nuclei 11—12 (dorsals 9—10 and ventrals 2) ; lemnisci equal or subequal, extending either upto the fore-margin of the anterior testis or attaining the anterior margin of the posterior testis ; nuclei of lemnisci 4—6 (3 : 3, 4 : 0, 4 : 2).*Description*.—*Male* : Total body length of mounted specimens 3—8 mm. (holotype 8 mm.), width in middle 0.6—1.0 mm. (holotype 1 mm.). Proboscis length 0.09—0.12 mm. (holotype 0.12 mm.), with three circles of six hooks each. Hooks in the first row largest, being 0.044—0.052 mm. long (holotype 0.044 mm.) and diminishing in size posteriorly ; in the second row 0.040—0.044 mm. (holotype 0.044 mm.), in the third row 0.036 mm. (holotype 0.036 mm.). Proboscis sheath nearly 0.375—0.48 mm. long (holotype 0.48 mm.). Lemnisci overlapping, 2—3.8 mm. long (holotype 3.6—3.8 mm.). Testes slightly unequal, anterior larger nearly 0.5—1.0 mm.  $\times$  0.3—0.6 mm. (holotype 1.0  $\times$  0.6 mm.), posterior smaller nearly 0.4—0.9 mm.  $\times$  0.3—0.6 mm. (holotype 0.9  $\times$  0.6 mm.) ; in one paratype only one big testis 1.65  $\times$  0.6 mm. discernible. Cement gland nearly 0.2—0.65 mm. long (holotype 0.6 mm.). Cement gland reservoir nearly 0.09—0.2 mm. long (holotype 0.2 mm.). Seminal vesicle and bursa nearly 0.8—1.35 mm. long (holotype 1.35 mm.).*Female* : Not available.*Type-specimens*.—*Holotype* : A♂, deposited with Zoological Survey of India, Calcutta. Registered No. W 3990/1, mounted on a slide. *Paratypes* : Five ♂♂, with retracted proboscis, each mounted on a separate slide, Regd. Nos. W 3991/1 to W 3995/1.*Type-locality*.—Kabul (Afghanistan).*Type-host*.—From the intestine of the fish, *Orienus* sp. (Pisces : Order Cypriniformes. Family Cyprinidae). Host-fish identified by the donor, Shri Ali Akhtar.*Remarks*.—We have placed the new species under the genus *Neoechinorhynchus* instead of under *Eosentis* van Cleave as in our opinion the character (number of body nuclei) by which the latter genus is differentiated from the former does not seem to be of generic significance in the light of recent researches (*vide* Lynch, 1936). When a revision of these genera is done, it is likely that *Eosentis* would become untenable. This is the only species of the genus *Neoechinorhynchus* so far recorded from Afghanistan.2. *Pomphorhynchus kashmirensis* Kaw, 19411941. *Pomphorhynchus kashmirensis* Kaw, *Proc. Indian Acad. Sci.*, Bangalore, 13, pp. 369—374.1948. *Pomphorhynchus kashmirensis* Kaw, *Proc. 34th Indian Sci. Congr. Assoc.* (Delhi, 1948), Pt. 3, *Abstracts*, Calcutta, p. 173.

\* The new species is named after our chief, Dr. M. L. Roonwal, in appreciation of his interest in the work.

*Material.*—5 ♂♂ and 6 ♀♀, in a poor state of preservation.

Kaw (1941) first recorded this species from the fish *Nemachilus kashmirensis* from Kashmir, and later (1948) from two schizothoracine



TEXT-FIG. 1.—*Neoechinorhynchus roonwali* Datta & Soota, sp. nov.

Holotype ♂ : (a). Anterior end. (b). Posterior end. (c). Proboscis enlarged.

b., bursa ; bn., body nucleus ; cg., cement gland ; cr., cement gland reservoir ; l., lemniscus ; bn., lemniscus nucleus ; ps., proboscis sheath ; sv., seminal vesicle ; t<sub>1</sub>., anterior testis ; t<sub>2</sub>., posterior testis.

fishes (*Schizothorax esocinus* and *S. niger*) also from Kashmir and gave the observed variations. The present specimens are from another

schizothoracine fish *Orienus* sp. There are some variations in regard to size, etc., which are worth recording and are given below.—

—	Kaw, 1941	Kaw, 1948	Specimens under report
<i>Body—</i>			
Length	♂10.3—11.6 mm.	6.3—11.6 mm.	7.9—19.8 mm.
	♀12.7 mm.	6.45—12.7 mm.	7.9—18.4 mm.
<i>Proboscis—</i>			
Length	0.55—0.62 mm.	0.4—0.9 mm.	0.8—1.1 mm.
<i>Proboscis hooks—</i>			
Length	0.022—0.041 mm.	0.024—0.045 mm.	0.02—0.07 mm.
<i>Proboscis receptacle—</i>			
Length ..	2.2—2.8 mm.	1.5—2.8 mm.	0.96—3.71 mm.
<i>Neck including bulla—</i>			
Length .. .	1.55—2.35 mm.	1.2—2.55 mm.	1.5—4.65 mm.
<i>Bulla—</i>			
Length	0.65—1.3 mm.		0.66—1.95 mm.
<i>Anterior testis—</i>			
Length .. ..	1.4 mm.	0.45—1.4 mm.	0.45—2.1 mm.
<i>Posterior testis—</i>			
Length	1.3 mm.	0.5—1.3 mm.	0.45—2.1 mm.
<i>Cement gland—</i>			
Length ..	0.65—0.95 mm.	0.65—0.95 mm.	0.645—0.82 mm.

*Regd. Nos. W3972/1 to W3976/1, mounted on slides, deposited in the collections of the Zoological Survey of India, Calcutta.*

### III—SUMMARY

A new species of the Acanthocephalan parasite *Neoechinorhynchus roonwali* (family Neoechinorhynchidae) is described, and the variations observed in *Pomphorhynchus kashmirensis* Kaw from the fish *Orienus* sp., the same host as of *Neoechinorhynchus roonwali* but from a different locality, have been recorded.

## IV—REFERENCES

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