

ON SOME NEMATODES PARASITIC IN VERTEBRATE HOSTS FROM BIHAR, INDIA

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(With one Text-figure)

INTRODUCTION

During August, 1973, the authors undertook a faunistic survey of some areas in Patna district in the course of which some helminths parasitic in various vertebrates were collected. The nematode component of this collection with which the present paper deals comprises 13 species of 12 genera and 12 families of which one species is new.

All measurements are in millimeters.

Order ASCARIDIDA

Superfamily (1) SUBULUROIDEA

Family SUBULURIDAE (Travassos, 1914) Yorke and Maplestone, 1926

Genus *Subulura* Molin, 1860

Subulura turdoideae sp. n.

(Text-fig. 1a & b)

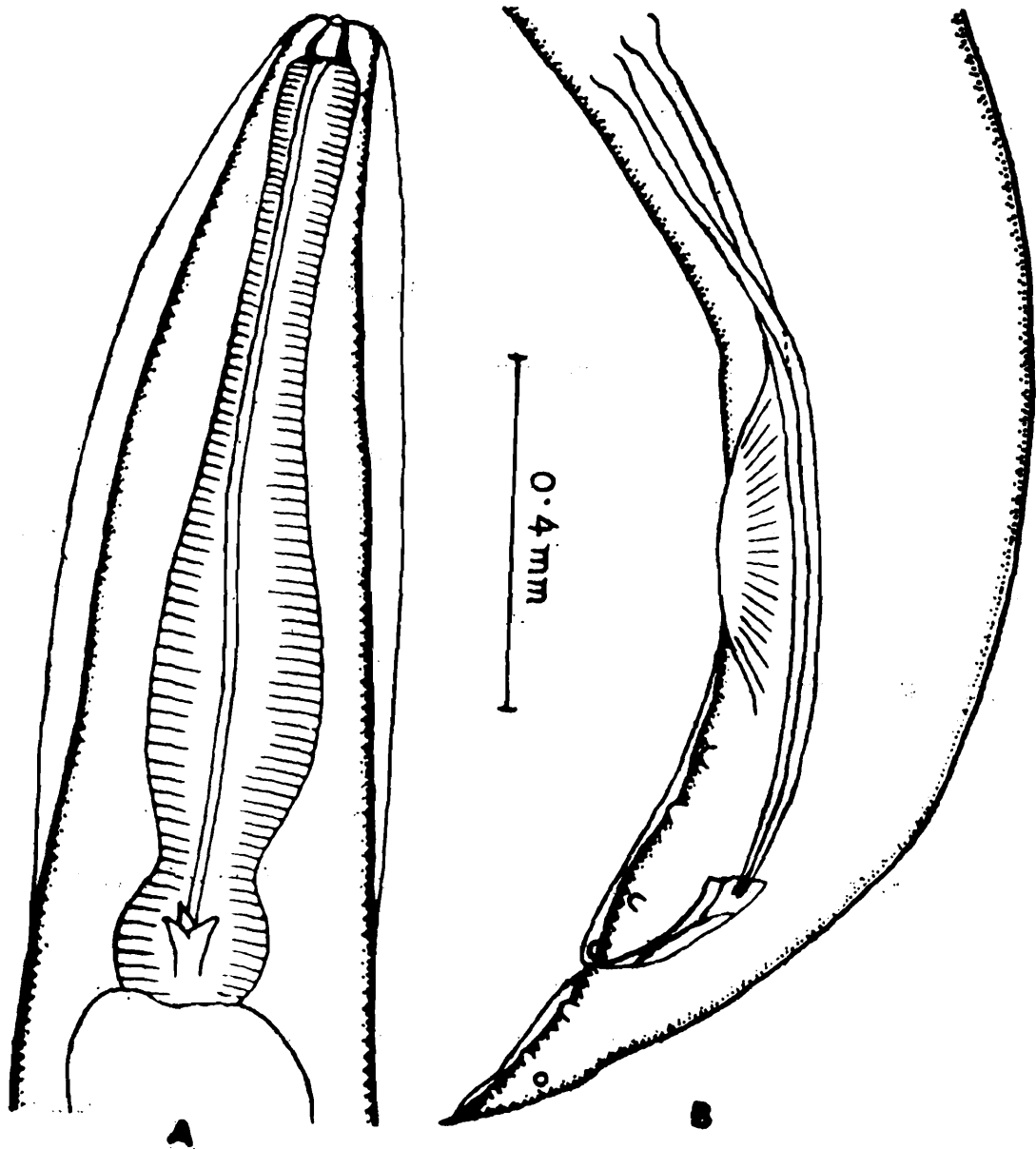
Material: Holotype ♂; Z.S.I. Reg. No. WN 252/1; host—Jungle Babbler (*Turdoides striatus*); location—intestine; locality—Monar, Dist. Patna; 18.ix.1973, coll. T. D. Soota.

Description: Body 13.0 long, 0.44 wide; cervical alae 1.0 long; buccal capsule with chitinous walls and 0.055 long; oesophagus including bulb 1.1 long; bulb 0.16 long; tail 0.24 long; sucker fan-shaped and 0.38 from cloaca; caudal alae narrow; spicules equal, 0.9 long; gubernaculum 0.22 long; caudal papillae 9 pairs, 3 preanal, one adanal, and 5 postanal.

Remarks : Gupta and Kumar (1975), in abstract, described the

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new species *Subulura sinensisi* from *Pseudibis papillosa* from Lucknow. Subsequently, Kumar and Gupta (1976) published the full description of this species designating it again as a new species without any reference at all to their earlier abstract publication and showing two avian host species instead of one.



Text-fig. 1. *Subulura turdoideae* sp. n. Holotype ♂. Body portions, A—Anterior B—Posterior.

The present species comes close to *Subulura sinensisi* Gupta and Kumar, 1975, *S. gracilis* (Linstow, 1899) Railliet and Henry, 1913, and *S. recurvata* (Linstow, 1901) Railliet and Henry, 1913, in the number of caudal papillae, but differs from them in size and shape of spicules, and in the arrangement of caudal papillae. It also differs from the second and third species in body size.

Superfamily (2) COSMOCERCOIDEA

Family COSMOCERCIDAE (Railliet, 1916, Subfam.) Travassos, 1925

Subfamily COSMOCERCINAE Railliet, 1916

Genus *Oxysomatium* Railliet and Henry, 1913

Oxysomatium macintoshii (Stewart, 1914) Karve, 1927

Material: 4 ♂♂ & several ♀♀; Z.S.I. Reg. No. 253/1; host—*Rana tigrina*; location—intestine; locality—Patna; 30.viii.1973, coll. T. D. Soota.

Remarks: Widely distributed in India.

Superfamily (3) HETERAKOIDEA

Family ASCARIDJIDAE Travassos, 1919

Genus *Ascaridia* Dujardin, 1845

Ascaridia galli (Schrank, 1788) Freeborn, 1923

Material: 1 ♂ & 4 ♀♀; Z.S.I. Reg. No. WN 254/1; host—domestic fowl; location—intestine; locality—Rajgirh; 6.ix.1973, coll. T. D. Soota.

Remarks: Widely distributed in India as common parasite of the domestic fowl.

Superfamily (4) ASCARIDOIDEA

Family ASCARIDIDAE Baird, 1853

Subfamily TOXOCARINAE (Hartwich, 1954, fam.) Osche, 1958

Genus *Porrocaecum* Railliet and Henry, 1912

Porrocaecum reticulatum (v. Linstow, 1899)

Baylis and Daubney, 1922

Material: 1 ♂ & 1 ♀; Z.S.I. Reg. No. WN 255/1; host—Pond Heron (*Ardeola grayii*); location—intestine; locality—Rajgirh; 7.ix.1973, coll. T. D. Soota.

Description: Male: Body 38.0 long, 1.1. wide; oesophagus including ventriculus 3.5 long; ventriculus 0.44 long; intestinal caecum 0.76 long; tail 0.44 long and with a finger—like terminal appendage; spicules 0.6 long; gubernaculum 0.25 long; caudal papillae eleven pairs, 7 preanal and 4 postanal, of which latter one after cloaca and 3 on the appendage.

Female: body 54.0 long, 1.1 wide; oesophagus including ventriculus 4.0 long; ventriculus 0.44 long; intestinal caecum 2.9 long; tail 0.99 long; vulva 18.7 from anterior end; eggs 0.044 × 0.044.

Remarks: The specimens show slight differences from the earlier descriptions of the species which, however, are considered here as intraspecific variations.

Order ENOPLIDA

Superfamily TRICHUROIDEA

Family TRICHURIDAE Railliet, 1915

Subfamily Trichurinae Ransom, 1911

Genus *Trichuris* Raederer, 1791*Trichuris globulosa* (v. Linstow, 1901) Ransom, 1911

Material : 2 ♂♂ & 4 ♀♀ ; Z.S.I. Reg. No. WN 256/1; host—domestic goat; location—intestine; locality—Patna; 14.ix.1973, coll. T. D. Soota.

Remarks : Widely distributed in India.

Order STRONGYLIDA

Superfamily (1) TRICHOSTRONGYLOIDEA

Family TRICHOSTRONGYLIDAE Leiper, 1912

Subfamily HAEMONCHINAE Skrjabin and Schulz, 1952

Genus *Haemonchus* Cobb, 1898*Haemonchus contortus* (Rud. 1803) Cobb, 1898

Material : 6 ♂♂ & 20 ♀♀ ; Z.S.I. Reg. No. WN 257/1; host—domestic goat; location—abomasum; locality — Patna; 14.ix.1973; coll. T. D. Soota.

Remarks : Widely distributed in India.

Superfamily (2) DJAPHANOCEPHALOIDEA

Family DIAPHANOCEPHALIDAE Travassos, 1920

Genus *Kalicephalus* Molin, 1861*Kalicephalus costatus indicus* Ortlepp, 1923

Material : 4 ♂♂ & 1 ♀ ; Z.S.I. Reg. No. WN 258/1; host—rat snake (*Ptyas mucosus*); location—intestine; locality—Patna; 27. viii.1973, coll. T. D. Soota.

Remarks : Widely distributed in India as common parasite of snakes.

Superfamily (3) STRONGYLOIDEA

Family STRONGYLIDAE Baird, 1853

Subfamily OESOPHAGOSTOMINAE Railliet, 1915

Genus *Oesophagostomum* Molin, 1861*Oesophagostomum brevicaudum* Schwartz and Alicata, 1930

Material : Several ♂♂ & ♀♀ ; Z.S.I. Reg. No. WN 259/1; host—pig; location—intestine; locality—Patna; 19.ix.1973, coll. T. D. Soota.

Remarks : Widely distributed in India as common parasite of pigs.

Oesophagostomum columbianum (Curtice, 1890) Stossich, 1899

Material : 3 ♂♂ & 4 ♀♀ ; Z.S.I. Reg. No. WN 260/1; host — domestic goat; location — intestine; locality — Patna; 14.ix.1973, coll. T. D. Soota.

Remarks : Widely distributed in India.

Order SPIRURIDA

Suborder (I) CAMALLANINA

Superfamily CAMALLANOIDEA

Family CAMALLANIDAE Railliet and Henry, 1915

Genus *Camallanus* Railliet and Henry, 1915

Camallanus anabantis Pearse, 1933

Material : 3 ♂♂ & 4 ♀♀ ; Z.S.I. Reg. No. WN 261/1; host — *Anabas testudineus*; location — intestine; locality — Patna, 13.ix.1973, coll. T. D. Soota.

Description : Male: Body 3.4-3.6 long, 0.15-0.16 wide; tridents 0.044-0.055 long; cephalic papillae present; oesophagus 0.77 long; tail 0.088 — 0.099 long and with two spines; a short precaudal ala present; spicules two and unequal, smaller 0.22 and larger 0.5 long; caudal papillae 10 pairs, 4 preanal, one adanal, and 5 postanal.

Female: Body 13.5-20.0 long, 0.5-0.55 wide; tridents 0.022 long; cephalic papillae present; a pair of cervical papillae (hitherto unreported) also observed and 0.22 from anterior end; oesophagus 1.2 — 1.3 long; tail 0.2 - 0.24 long and bifid.

Remarks : Pearse (1933) described this species from the Climbing Perch (*Anabas testudineus*) from Bangkok, Thailand, and also reported a female of the species from *Clarias batrachus* from the same locality. Chakravarty (1939) redescribed the species from the type host from Calcutta. Kulasiri and Fernando (1956) added some data and new host records for the species from Sri Lanka. Yeh (1960), while reviewing the family Camallanidae, transferred the species to the genus *Zeylanema*, created by him which was accepted by subsequent workers. Thus, Fernando and Furtado (1963) redescribed this species from the type host from Sri Lanka, and Kalyankar (1971) from *Channa gachua* (= *Ophiocephalus gachua*) from Aurangabad (Maharashtra). However, in the recent classification of the family Camallanidae by Chabaud (1975) and upheld by Petter (1979) the genus has not been recognised due to the distinguishing character of the longitudinal bands in cephalic valves being shown to be variable. The present authors also agree both with Chabaud and Petter (*op. cit.*) and retain the original genus referring their specimens to it.

Suborder (II) SPIRURINA

Superfamily (1) GNATHOSTOMATOIDEA

Family GNATHOSTOMATIDAE Railliet, 1895

Genus *Tanqua* Blanchard, 1904*Tanqua anomala* (Linstow, 1904) Baylis, 1916

Material : 4 ♂♂ & 2 ♀♀ ; Z.S.I. Reg. No. WN 262/1; host — water snake (*Xenochrophis piscator*); location — intestine; locality — Rajgir; 10.ix.1973, coll. *T. D. Soota*.

Remarks : Widely distributed in India.

Superfamily (2) SPIRUROIDEA

Family SPIROCERCIDAE

(Chitwood & Wehr, 1932, subfam.) Chabaud, 1975

Subfamily ASCAROPSINAE Alicata and McIntosh, 1933

Genus *Physocephalus* Diesing, 1861*Physocephalus sexalatus* (Molin, 1860) Diesing, 1861

Material : 1 ♂ & 1 ♀ ; Z.S.I. Reg. No. 263/1; host — pig; location — intestine; locality — Patna; 14.ix.1973, coll. *T. D. Soota*.

Remarks : Widely distributed in India.

Superfamily (3) DIPLOTRIAENOIDEA

Family DIPLOTRJAENIDAE

(Skrjabin, 1916, subfam.) Anderson, 1958

Genus *Diplotriaena* Railliet and Henry, 1909*Diplotriaena tricuspis* (Fedchenko, 1874) Seurat, 1915

Material : 4 ♂♂ & 1 ♀ ; Z.S.I. Reg. No. WN 264 /1; host — common Mynah (*Acridotheres tristis*); location — body cavity; locality — Patna; 31.viii.1973, coll. *T. D. Soota*.

Remarks : Widely distributed in India as common parasite of the Common Mynah.

SUMMARY

The paper deals with 13 species of nematodes of 12 genera and 12 families collected from Patna district of which one species is new.

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