Indian J.Sci.Res. 12 (2): 078-080, 2017 ISSN: 0976-2876 (Print)
ISSN: 2250-0138(Online)

ON A NEW NEMATODE, *TRAVNEMA ANABANSIS* N.SP FROM FRESH WATER FISH ANABAS TESTINEUS (BLOCH)

SAMAN SIDDIQUI[1]

Department of Zoology, Sai College, Bhilai, Chhattisgarh, India

ABSTRACT

A new species of family Oxyuroidea Cobbold, 1864, from the intestine of fresh water fish Anabas testudineus from Rani talab (Ratanpur), Distt. Bilaspur (C.G). The specimen do not agree with the description of known species of the genus Oxyuroidea, hance a new species *Travnema anabansis* has been established to describe these nematodes. The new species is characterized by body size, distance of vulva, distance of excretory pore from posterior end etc.

KEYWORDS: Nematodes, Anabas testudineus*, T. anabansis*.

During the study on nematode parasite of fresh water fishes of Bilaspur (C.G). A new species of nematode *Travnema anabansis* was obtained from the intestine of fresh water fish Anabas testudineus (Bloch) of this region. This paper gives the status and description of new species.

MATERIALS AND METHODS

The host Anabas testudineus(Bloch) was obtained from Rani Talab Ratanpur, Distt. Bilaspur (C.G).Fishes were examined thoroughly for nematode parasites, out of 13 fishes examined, only 9 were infected, in these 5 male and 4 female were observed.

Nematodes were fixed in hot 70% alcohol and preserved in 10% glycerol. Two clearing media glycerol and creosote were used in order to examine properly All measurements are given in millimetres.

DESCRIPTION

Travnema anabansis n.sp (a-d)

Medium sized nematodes with transversly situated cuticle,head end rounded , with four cephalic papillae.mouth circular without lips. buccal capsule large well sclerotized. anterior part of the body is shorter than those in middle part. oesophagus short consisting of strongly developed two parts, very short pharyngeal part and longer posterior part bulbously inflated at its posterior half,oesophagus opening into intestine through large vulva .nerve ring encircle the oesophagus at the anterior part of posterior oesophagus.(nerve ring encircling isthmus).excretory pore situated far behind posterior end of oesophagus.spicules equal. one pair of post anal papillae and one pair of pre anal papillae present. vulva somewhat pre-equitorial from anterior end of body.vagina short, tail conical and sharply pointed.

MALE: length of body 3.3-5.1 respectively, thickness 0.3-0.4 head measures 0.2-0.3 in diameter. mouth circular without lips, buccal capsule large well developed. oesophagus consisting of two parts (anterior) pharyngeal part and measures 0.3-0.5 posterior narrow part of oesophagus (isthmus) and it measures 0.4-0.6 respectively. nerve ring encircling Isthmus, distance of excretory pore 0.8-0.9 form anterior extremity. spicules equal and measures 0.5-0.7 from the posterior end. gubernaculam absent. one pair of pre anal and one pair of post anal papillae present. tail conical, pointed 0.4-0.5 from the posterior end.

FEMALE: Length of body 6.7-8.9 respectively, thickness 0.4-0.5, head rounded and measures 0.3-0.4 in diameter. mouth circular without lips, buccal capsule large and well developed. oesophagus consisting of two parts (anterior)pharyngeal part and measures 0.3-0.6 respectively,(posterior) narrow part of oesophagus bulbous (isthumus). it measures 0.6-0.7 respectively. nerve ring encircling the posterior part of oesophagus at its anterior part and measuring 0.5-0.8 from the anterior end. nerve ring encirculing isthumus, distance of excretory pore 1.9-2.1 from the anterior extremity, vulva somewhat pre equatorial, vagina short distance of vulva 2.2-3.2 from the posterior end of body, vulvular lips not elevated .two thin parallel overies extending along almost whole body length. Tail conical, sharply pointed and it measures 0.5-0.6 from posterior end of the body.

[1]**Corresponding author**

DISCUSSION

The present form *Travnema anabansis* n.sp when compared with the known forms it differs from Travnema araujoi Fernandis,Compos et Artigas,1983; Travnema travnema Pereira,1938; in the presence of one pair of pre anal papillae and one pair of post anal papillae and equal spicules, length of body, distance of vulva , distance of excretory pore from posterior end.

The present specimen differs in the body measurements, structure of spiral thickening, number and arrangement of papillae and length of spicules with the other two known species.

The present specimen does not resemble with the known forms. In view of the important differences mention above the present specimens are regarded as a new species *Travnema anabansis.*

Table: Comparison of *Travanema anabansis* n.sp with some known forms
(All measurements are taken in mm otherwise stated)

MALE			
Characters	T. araujoi	T. travnema	T. anabansis n.sp.
Length	2.35	-	3.3 - 5.1
Thickness	0.204	-	0.3 - 0.4
Oesophagus			
anterior	0.093	-	0.3 - 0.5
posterior	0.081	-	0.4 - 0.6
Nerve Ring	0.147	-	0.5 - 0.7
Excretory pore	0.666	-	0.8 - 0.9
Spicule	0.063	-	0.5 - 0.7
Papillae pre	1 pair	-	1 pair
post	-	-	1 pair
Tail	0.219	-	0.4 - 0.5
FEMALE			
Length	4.62 – 5.78	2.86 – 3.05	6.7 – 8.9
Thickness	0.367 – 0.490	0.340	0.4 – 0.5
Oesophagus			
anterior	0.126 – 0.141	0.120 – 0.123	0.3 - 0.6
posterior	0.081 – 0.108	0.036 – 0.045	0.6 – 0.7
Nerve Ring	0.183 – 0.204	0.138 – 0.144	0.5 – 0.8
Excretory pore	1.06 – 2.76	-	1.9 – 2.1
Dist. of vulva	2.05 – 2.76	1.59	2.2 – 3.2
Tail	0.201 – 0.270	0.147 – 0.156	0.5 – 0.6

Figure: ***Travnema anabansis*** **n.sp**

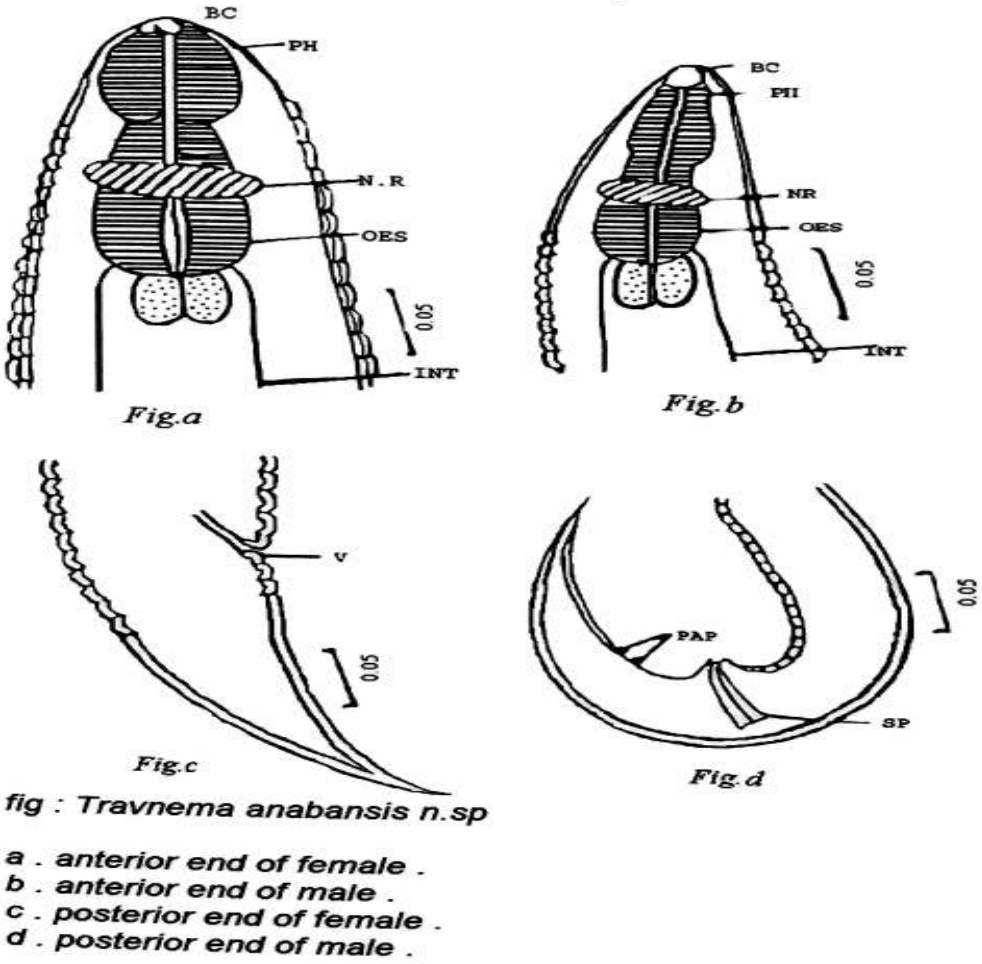

fig : Travnema anabansis n.sp

a . anterior end of female .
b . anterior end of male .
c . posterior end of female .
d . posterior end of male .

REFERENCES

Ward H.B. and Magath T.B., 1917. Notes on some nematodes from fresh water fishes. J. Parasite., **3**:57-67.

Pereira C., 1938. Travnema travnema n.gen.n.sp. (Nematoda:Oxyuridea) parasite de Curimatus elegans (Pisces: Characinidae) no Novdestc Brasitero, Livro Jubilas do Dr .Lauro Travssos, pp. 318-385.

Kalyankar S.D., 1971. Studies on a known & some new nematode parasites of fresh water fishes from India.

Pereira, (1938) and Travassos, (1949). Structure of the cepghalic rnd of two little –known oxyuroid genera , travnema pereiva,1938 & cosmoxynemoides Travassos, 1949, parasites of fishes, as revealed by SEM.

Gupta S.P., 1959. Nematode parasites of vertebrates of East Pakistan Zool., **37**:771-779.

Chitwood M.B., 1957. Intraspecific variation in parasitic nematodes. Systematic Zoology, **6**:19-23