

**A New Cestode Species of the Genus *Oochoristica* Liihe, 1898 and a New Nematode Species of a New Genus *Parathelandros* from Dabb-Lizard, *Uromastyx aegyptia***

**M. Magzoub, A. A. Kasim and Y. Shawa**

*Department of Zoology, College of Science, University of Riyadh, Riyadh, Saudi Arabia.*

*Oochoristica najdei* sp. n., *Parathelandros* gen. n. and *Parathelandros kanistica* sp. n. were described from Dabb-lizard, *Uromastyx aegyptia* which is popular in Arabia for its delicious meat. A total of 11 animals were killed and examined for the presence of worms. The size of worms, the morphology and size of scolex, the size and number of testes and dimensions of cirrus pouch clearly distinguish the new cestode species from all others. The new genus, however, is distinguished from other related genera by the arrangements of lips, size of the oesophagus, absence of paillae, presence of caudal alae and the shape of the posterior extremity of the male.

The worms described herein were collected as part of the internal parasites of desert reptiles in Najd area (Central region) of Saudi Arabia. The host *Uromastyx aegyptia* which is used by the local people as a source of meat was captured from burrows situated in the open desert about 100 miles due North and Northeast of Riyadh city. A total of 11 animals was discussed in the laboratory and examined for the presence of parasitic worms.

The study represents the first report of a new cestode species (Family: Anoplocephalidae) and a new nematode species of a new genus (Family: Oxyuridae) obtained from the Arabian lizard. The worms were picked from the caecum of 8 specimens of the host.

**Materials and Methods**

Living specimens were individually removed from the caecum of freshly killed

hosts, washed in physiological saline and left to relax for about 9 hr. Individual specimens were fixed in 10% formalin at 60°C and stored in 70% alcohol. Whole-mounted specimens were stained with Delafield's haematoxylin (Carvajal and Dailey 1975). The specimens were left in the stain solution until the correct definition of the internal organs was accomplished. After the staining was completed the specimens were dehydrated by passing them through a graded series of alcohol solutions from 70 percent through 100 percent for about 15 min. each. The specimens were then cleared for a few minutes in Cedarwood oil and placed into the mounting medium (canada balsam) on slides. Drawings were made with the aid of a drawing tube. Average measurements are given in millimeters and microns. Keys adopted by Spassky (1951), Wardle and McLeod (1952), Magzoub (1964), Yorke and Maplestone (1969) and Schmidt (1970) were used for the identification.

(a) *Oochoristica najdei* sp. n.

(Fig. 1 - 5)

*Host*

*Uromastix aegyptia*

*Locality*

Najd (Central region of Saudi Arabia)

*Parasitic habitat*

Caecum of the host.

*Diagnosis*

Description based on 13 specimens. Worms possess no hooks or rostellum, 4 true suckers present (un-armed). Proglottids wider than long and each with one set of genital organs. Genital pores marginal and irregularly alternating. Genital ducts dorsal to osmoregulatory canals. Testes numerous; cirrus pouch small. Seminal vesicle absent. Ovary bilobed. Vitelline gland postovarian. Vagina posterior to cirrus pouch. Seminal receptacle present. Uterus breaking into egg capsules containing single egg.

*Measurements* (in millimeters and microns)

Length of worms 62-75 mm and breadth 1-1.3 mm. Width of holdfast (Scolex) 320  $\mu$ . Diameter of suckers 90-100  $\mu$ . Genital apertures in the anterior third of the segment margin. Cirrus pouch 130-200  $\mu$  long and 30-40  $\mu$  wide. Testes 50-60  $\mu$  in diameter and all postovarian and arranged in two lateral fields. The right lobe of the ovary 220  $\mu$  long and 170  $\mu$  wide and the left 170  $\mu$  long and 140  $\mu$  wide. Yolk gland 160  $\mu$  long and 120  $\mu$  wide. Inner egg capsule measures 110  $\mu$ , egg 50  $\mu$  and oncosphere 32  $\mu$ . Length of the hook 15  $\mu$ . Number of testes 16-24.

*Remarks*

*Oochoristica najdei* sp. n. most closely resembles *O. Phrynosomatis* Harwood, 1932; the latter worm is smaller in size (55-70mm) and has a larger scolex (400-

600  $\mu$ ). Cirrus pouch (32-300 by 130 - 180  $\mu$ ) and testes (125-180  $\mu$ ) are bigger than those of *O. najdei* sp. n.

(b) *Parathelandros* gen. n.

Mouth surrounded by 6 small lips, 4 dorsal and 2 subventral. Cuticle finely striated transversely. Vestibule short; oesophagus short and followed by a bulb. Male: posterior extremity truncate. One pair of caudal alae present. Papillae absent. A process arising from the mid-line dorsally is prolonged posteriorly as a kind of a short tail. Spicule short and needle-like. Female tail conical. Valva slightly behind middle of body.

(c) *Parathelandros kanistica* gen. n. sp. n.

(Fig. 6 — 10)

*Diagnosis*

Description based on 30 males and 130 females. Length of males 2.8-3.4 mm, length of the oesophagus 0.75 mm, length of tail 0.13 mm and length of spicule 0.11 mm, the projecting process 0.15 mm long. Females 6.0-7.5 mm long, oesophagus 1.1 mm, vulva 3.8 mm from the anterior tip, tail 0.36 mm long. Dimensions of the egg 0.15 by 0.07 mm. *P. kanistica* sp. n. is the type species of the new genus.

*Remarks*

*Parathelandros* gen. n. resembles genus *Thelandros* Wedl, 1862, but differs in the shape and arrangements of lips, in the presence of culticular striations, in the absence of pre- and post-anal papillae and in the presence of one pair of caudal alae. It also resembles genus *Tachygonetria* Wedl, 1862, but differs in the length of the worms, arrangements of lips round the mouth, length of the oesophagus, shape of the posterior extremity of the males, presence of a projecting process in this region and absence of papillae.

**References**

- Carvajal, J. and Dailey, M.D. (1975) Three new species from *Echineibothrium* (Cestode: Tetrphyllidea) from the Skate, *Raja Chilensis* Guichenot, 1848 with comments on mode of attachment and host specificity. *J. Parasit.*, **61**, 89-94.
- Magzoub, M. (1964) Three nematode species (Strongyloidea: Trichoneminae) from Queensland Wallabies. *Trans. Roy. Soc. Sou. Aust.*, **88**, 47-51.
- Schmidt, G.D. (1970) *How to Know the Tapeworms*. WMC. Brown Company Publishers, Dubuque, Iowa. pp. 217-240.
- Spassky, A.A. (1951) *Essentials of Cestodology*. Vol. 1. Anoplocephalata. Akad. Nauk SSSR, Moscow. pp. 400-418.
- Wardle, R.A. and McLeod, I.A. (1952) *The Zoology of Tapeworms*. Hafner, New York. pp. 351-369.
- York, W. and Maplestone, P.A. (1969) *The Nematode Parasites of Vertebrates*. Hafner Publishing Company, New York and London, pp. 182-253.

**Keys**

Fig. 1 — 5. *Oochoristica najdei* sp. n.,  
 Fig. 6 — 10. *Parathelandros kanistica* sp. n.

- 1: Head,
- 2: Mature proglottid,
- 3: Strobila,
- 4: Gravid proglottid,
- 5: Egg capsule,
- 6: Whole female worm,
- 7: Anterior view of the worm,
- 8: Posterior view of female,
- 9: Whole male worm,
- 10: Posterior view of male.

a: anus, c: cloaca, c.p.: cirrus pouch,  
 g.a.: genital atrium, h: hooks, L: Lip,  
 oes.: Oesophagus, onc.: oncosphere,  
 r.o.: Right ovary, s.: spicule, t.: testes, v.: vulva, v.g.: vitelline gland,  
 v.s.: vesicular seminalis.

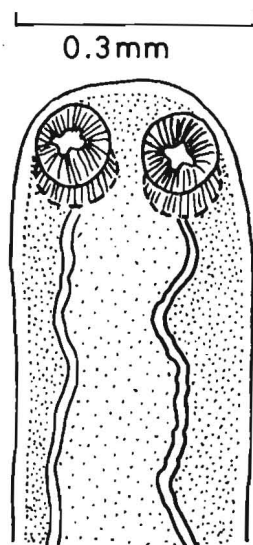


Fig.1

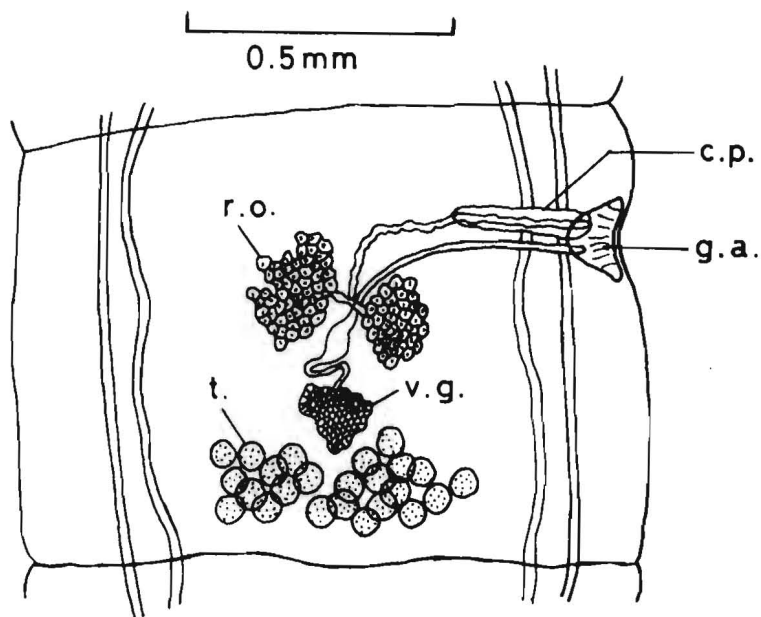


Fig.2

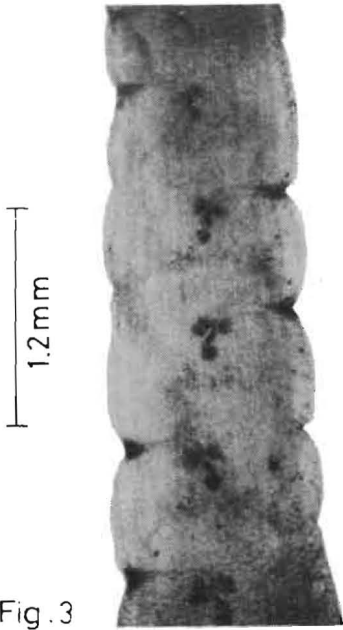


Fig. 3

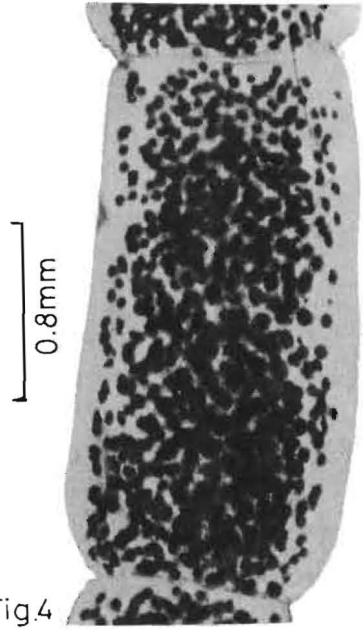


Fig. 4

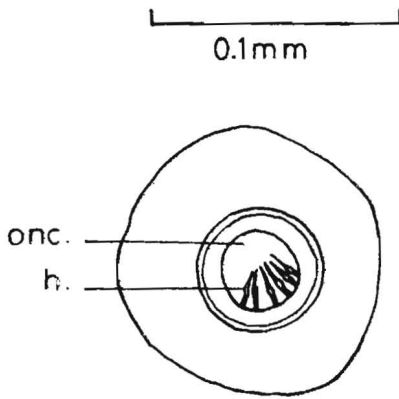


Fig. 5

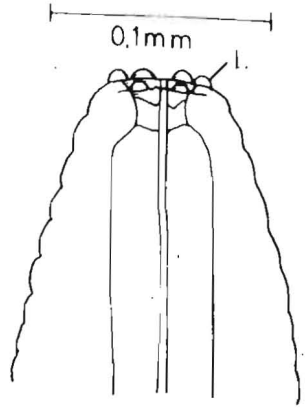
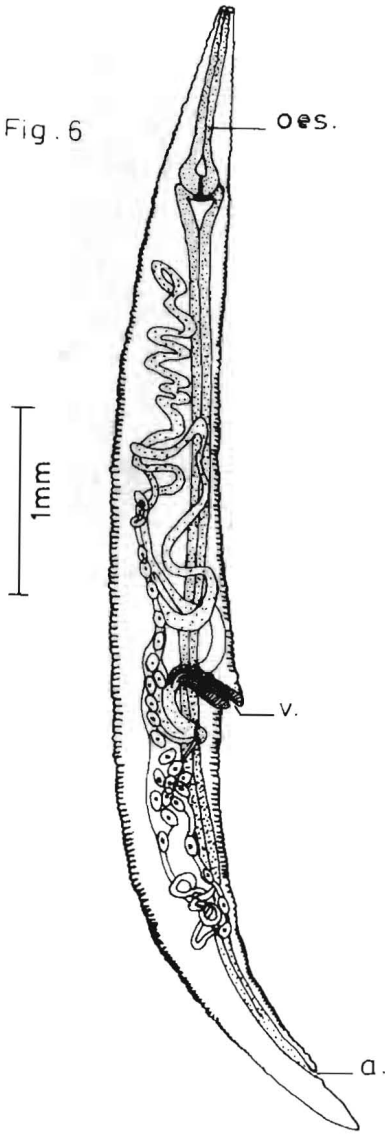


Fig. 7

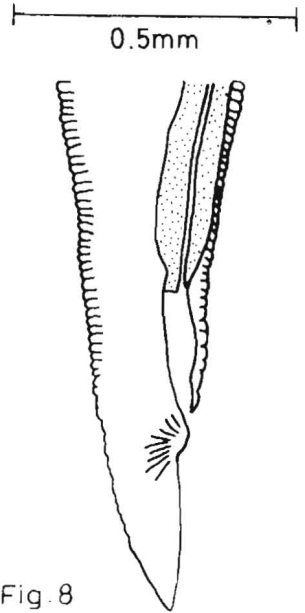


Fig. 8

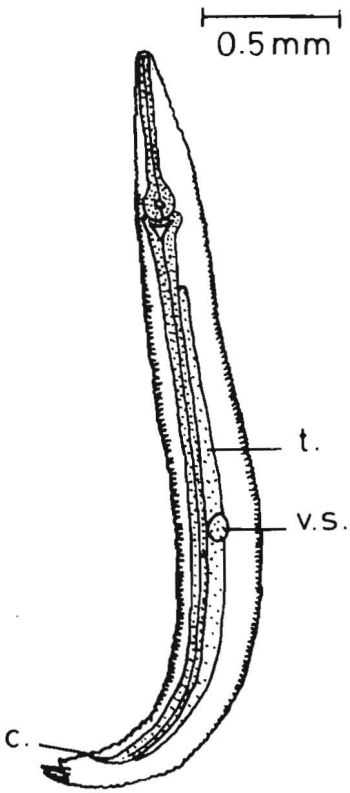


Fig .9

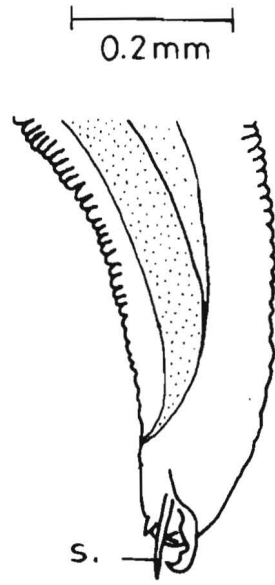


Fig.10

نوع شريطى جديد تابع لجنس « اوكورستكا » ( ليه  
١٨٩٨ ) ونوع خيطى جديد تابع لجنس جديد من الضب  
الدابى ( يوروماستكس ايجبتيا )

محمد مجذوب ، أحمد أحمد قاسم ، ياسر الشوا  
قسم علم الحيوان ، كلية العلوم ، جامعة الرياض ، المملكة العربية  
السعودية •

« اوكورستكا نجدياي » نوع جديد ، « بارا ثيلاندرس » جنس جديد  
« وبارا ثيلاندرس كانستكا » نوع جديد ، وصفوا من الضب ( يوروماستكس  
ايجبتيا ) المشهور بلحمه الشهى فى الجزيرة العربية •  
ذبح إحدى عشر حيوانا وفحصت أجسامهم لوجود الديدان ، حجم الديدان  
ومورفولوجية وحجم الرأس وحجم وعدد الخصى ومقاسات الكيس الذكرى •  
تميز النوع الشريطى الجديد ، الجنس الجديد بتنظيم الشفافة وحجم المرئ  
وعدم وجود الحملات ووجود الجنينات وشكل مؤخرة جسم الذكر •