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ABSTRACTS



جامعة أسيوط
كلية العلوم

المؤتمر العلمي الثاني
مكتب وكيل الكلية لشئون البيئة

إفـادـة

تفيد كلية العلوم ببها بأن السيد / الدكتور ديهوم عبد الحميد الباسل
تقدم بحث بعنوان " وصف ثلاثة أنواع من التريما تودا انكترىما سانجونيم انكترىما لوجيفورمس وبروسوديدير.
بارفيوترس من الخفافيش والزواحف فى مصر "

وقد حضر المؤتمر العلمى الثانى المنعقد بكلية العلوم ببها " دور العلم فى خدمة المجتمع المصرى

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المنعقد فى الفترة من ٢٣ - ٢٤ / ١٠ / ١٩٩٩

علما بأن سيادته قام بالقاء البحث وقد قبل البحث للإلقاء والنشر بتاريخ ١/٥/١٩٩٩ .

وتفضلوا سيادتكم بقبول وافر الشكر والاحترام

مقرر المؤتمر

وكيل الكلية لشئون البيئة

أ.د/ مبرى صادق الصيرفى



REDESCRIPTION OF THE THREE TREMATODES *ANCHITREMA SANGUINEUM* (SONSINO, 1894) LOOSS, 1899, *A. LONGIFORMIS* SAOUD AND RAMADAN, 1977 AND *PROSTHODENDRIUM (P.) PARVOUTERUS* (BHALERAO, 1926) DUBOIS, 1955 FROM SOME BATS AND REPTILES IN EGYPT.

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Key Words: Trematodes, Digenea, Lecithodendriidae, *Prosthodendrium*, *Anchitrema*.

ABSTRACT

Three species of digenetic trematodes *Anchitrema sanguineum* (Sonsino, 1894) Looss, 1899, *A. longiformis* Saoud and Ramadan, 1977 redescribed from *Rousattus aegyptiacus* and *Prosthodendrium (P.) parvouterus* (Bhalerao, 1926) Dubois, 1955 redescribed from *chamaeleon chamaeleon* in Egypt. A comparison between the original and present descriptions is presented and discussed.

INTRODUCTION

Sonsino (1894) described *Distomum sanguineum* from a reptile *Chamaeleon vulgaris* in Egypt. Later, Looss (1899) established the genus *Anchitrema* for that trematode which he also recorded from two species of Egyptian bats.

The genus *prosthodendrium* was established by Dollfus 1931 with *Prosthodendrium dinantum* (Bhalerao, 1926) Dollfus, 1931 as the type species. Dollfus (1937) divided the genus *Prosthodendrium* into two subgenera viz *Prosthodendrium* and *Paralecithodendrium*.

During the present investigation, trematodes belonging to the above two genera were collected from *Rousattus aegyptiacus* and *Chamaeleon chamaeleon* in Egypt.

MATERIAL AND METHODS

During the present investigation 10 trematodes belonging to the genera *Anchitrema* and *Prosthodendrium* are collected from small intestine of the two hosts *Rousattus aegyptiacus* and *Chamaeleon chamaeleon* locally called khofash and Herbaya respectively caught from Egypt. The hosts were examined for helminth

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parasites. The identification of hosts as well as methods followed in collection, fixation, staining, clearing and mounting were done by the usual way. Drawings were made to the scale using a Camera Lucida. Measurements are in millimetres unless stated otherwise.

RESULTS AND DISCUSSION

I Trematodes of the genus *Anchitrema* Looss, 1899

1- *Anchitrema sanguineum* (Sonsino, 1894) Looss, 1899 (Fig. 1)

The following description is based on 3 specimens.

The body is elongate oval tapering posteriorly. The tegument of the anterior half of the body is beset with small spines. The body measures 4.61-4.92 long and 1.42-1.60 wide. The length/ width ratio varies from 3.01-3.08 : 1. The oral sucker is subterminal and measures 0.41 – 0.54 long and 0.39-0.50 wide. The ventral sucker is round but slightly smaller and measures 0.31-0.36 in diameter. It lies about 1.11-1.20 from anterior extremity. The oral sucker/ ventral sucker ratio is 1.3-1.5 : 1.

The pharynx is well developed, round or oval measuring 0.18-0.20 long and 0.20-0.22 wide. The esophagus is almost absent. The intestinal caeca pass laterally to end very close to the posterior extremity.

There are two large oval testes which lie in the anterior half of the body, paracetabularly, at the same level or one of them may be found a little anterior to the other. The right testis measures 0.90-0.98 long and 0.50-0.52 wide. The left testis measures 1-1.10 long and 0.45-0.50 wide. The cirrus pouch is irregularly round in shape, it lies anterior to the ventral sucker and ends a short distance from the intestinal bifurcation; it measures 0.26-0.28 long and 0.25-0.27 wide. The genital pore lies between the ventral sucker and the intestinal furca. The almost round ovary lies in the post-testicular region, it measures 0.38-0.40 long and 0.40-0.42 wide.

The vitellaria form two longitudinal bands of vitelline follicles which extend posteriorly from behind the two testes to end a short distance from the posterior extremity of the body. The uterus occupies the posterior half of the body length, with ascending, descending and transverse coils. The eggs are oval in shape and measuring 17-21 μ long and 8-11 μ wide.

Saoud and Ramadan (1977) redescribed the same species from different *spp.* of bats caught at different localities in Egypt. Although the characters of the trematodes described above agree fairly with Saoud and Ramadan description the present material still possess minor differences as shown in (Table. 1). *Anchitrema sanguineum* is recorded for the first time from *Rousattus aegyptiacus* in Egypt.

(Table. 1).

A comparison between two description of *A. sanguineum* from Egypt.

Characters	Saoud and Ramadan (1977)	Present work
Body length	1.79-3.73	4.61-4.92
Body width	0.63-0.98	1.42-1.60
Oral sucker	0.23-0.25 x 0.21 – 0.32	0.41-0.54 x 0.39-0.50
Ventral sucker	0.18-0.32 x 0.18-0.28	0.31-0.36 in diameter
Pharynx	0.09-0.13 x 0.08-0.14	0.18-0.20 x 0.20-0.22
Right testis	0.32-0.49 x 0.18-0.27	0.90-0.98 x 0.50-0.52
Left testis	0.32-0.48 x 0.18-0.25	1-1.10 x 0.45-0.50
Ovary	0.18-0.24 x 0.15-0.21	0.38-0.40 x 0.40-0.42
Cirrus Pouch	0.14-0.26 x 0.13-0.23	0.26-0.28 x 0.25-0.27
Hosts	<i>Asellia (t.) tridens</i> , <i>Taphozous (n.) nudiventris</i> , <i>Rhinopoma hardwickei cystops</i> , <i>Rhinolophus</i> <i>clivus brachygnathus</i> and <i>Otomyeris</i> <i>hemprichi</i>	<i>Rousaltus aegyptiacus</i>

2- *Anchitrema longiformis* Saoud and Ramadan, 1977 (Fig. 2).

The following description is based on 4 specimens.

The body is elongated, measuring 3-3.3 long and 0.76 – 0.86 wide. The length/width ratio is 3.8-4.34 : 1. The tegument covering the anterior half of the body is beset with backwardly directed spines measuring 8-9 μ long. The oral sucker is subterminal, fairly round and measured 0.30-0.38 long and 0.32-0.36 wide. The ventral sucker is oval in shape and measuring 0.22-0.26 long and 0.30-0.33 wide. The ratio of the oral sucker/ ventral sucker diameters is about 1.1-1.7 : 1. The ventral sucker lies 1.15-1.17 from the anterior extremity.

The pharynx is well developed, round in shape and measures 0.12-0.14 long and 0.11-0.13 wide. The oesophagus is very short and measured 0.05-0.06 in length. The caeca are thin, extending to near posterior extremity and measure 2.37-2.41 in length.

The testes are elongate in shape, symmetrical and preequatorial in position. The right testis lies 1.42 from the anterior extremity, it measures 0.60-0.62 long and 0.12-0.15 wide. The left testis lies 1.32 from the anterior extremity, it measures 0.52-0.59 long and 0.15-0.18 wide. The cirrus pouch is egg-shaped, 0.23-0.28 long and 0.20-0.26 wide, it lies in front of the ventral sucker. It includes a tubular convoluted seminal vesicle. The genital pore lies 0.90-0.98 from anterior extremity, between the ventral sucker and the intestinal furca.

The ovary is oval in shape, lying between the posterior half of the two testes, it measures 0.23-0.28 long and 0.12-0.15 wide. Small oval – shaped receptaculum seminis is found posterior to the ovary and measured 0.09-0.10 long and 0.08-0.10 wide. The vitellaria are in the form of two lateral groups of vitelline follicles which extend posteriorly from posttesticular level to end a short distance from the distal ends of the intestinal caeca.

The uterus occupies most of the posterior third of the body. It is full of small eggs measuring 19-24 μ long and 10-12 μ wide. The excretory pore is located at the posterior end of the body, but the shape of the excretory vesicle could not be seen due to overlapping by eggs.

Saoud and Ramadan (1977) described *Anchitrema longiformis* from the intestine of the bat *Asellia tridens tridens* from Upper Egypt, for those trematodes having more elongated body. The present material is similar in the main characteristics to *Anchitrema longiformis* Saoud and Ramadan, 1977, but there are certain minor differences shown in (Table 2). The present material is recorded for the first time from *Rousattus aegyptiacus* in Egypt.

(Table 2)

A comparison between the original and present description of *A. longiformis* Saoud and Ramadan, 1977 in Egypt.

<i>Characters</i>	<i>Original description</i>	<i>Present description</i>
Body length	2.69-3.02	3-3.3
Body width	0.37-0.38	0.76-0.86
Oral sucker	0.23-0.25 x 0.24 – 0.26	0.30-0.38 x 0.32-0.36
Ventral sucker	0.23-0.24 x 0.13-0.14	0.22-0.26 x 0.30-0.33
Pharynx	0.09-0.11 x 0.09-0.10	0.12-0.14 x 0.11-0.13
Oesophagus	0.085-0.099 in length	0.05-0.06 in length
Caeca	-----	2.37-2.41 in length
Right testis	0.25-0.43 x 0.18-0.21	0.60-0.62 x 0.12-0.15
Left testis	0.23-0.43 x 0.08-0.17	0.52-0.59 x 0.15-0.18
Cirrus pouch	0.12-0.21 x 0.09-0.13	0.23-0.28 x 0.20-0.26
Ovary	0.15-0.20 x 0.10-0.13	0.23-0.28 x 0.12-0.15
Receptaculum semenis	0.14-0.16 x 0.09-0.13	0.09-0.10 x 0.08-0.10
Hosts	<i>Asellia (t.) tridens</i>	<i>Rousattus aegyptiacus</i>

II-Trematodes of the genus *Prosthodendrium* Dollfus, 1931.

1- *Prosthodendrium* (P.) *parvouterus* (Bhalerae, 1926) Dubois, 1955 (Fig. 3).

The following description is based on three specimens.

The body is round or widely oval in shape. The tegument is smooth. The body measures 1.50-1.57 long and 1.52-1.59 wide. The ratio of length/ width is 0.98-1.03:1.

The oral sucker is round in shape, subterminal and measured 0.18-0.22 long and 0.19-0.20 wide. The ventral sucker is round in shape and measured 0.15-0.17 long and 0.17-0.18 wide, it lies 0.60-0.63 from the anterior extremity. The ratio of the oral sucker/ ventral sucker is 1.40-1.46: 1.

The pharynx is oval in shape and measured 0.09-0.099 long and 0.098-0.099 wide. The prepharynx is absent. The oesophagus is moderately short and measured 0.087-0.088 in length. The intestinal caeca extend laterally to near the anterior border of the testes and measure 0.26-0.27 in length. The caeca are saccular in shape.

The testes are egg- shaped, situated paraacetabularly. The right testis measures 0.23-0.26 long and 0.20-0.22 wide. The left testis measures 0.25-0.27 long and 0.18-0.21 wide. The cirrus pouch is irregular in shape, situated preacetabular immediately below the intestinal furca. It measures 0.25-0.26 long and 0.17-0.18 wide. The genital pore is preacetabular in position and measured 25-28 μ in diameter.

The ovary is oblong in shape, lies between the right testis and the cirrus pouch it measures 0.22-0.24 long and 0.10-0.13 wide. The vitellaria are pretesticular, composed of 20-23 follicles on each side.

The receptaculum seminis lies below the ovary and measured 0.075-0.077 long and 0.066-0.069 wide. The uterus occupies the posterior half of the body; the uterine loops are mostly transverse, reaching up to the posterior margin of testes. The eggs are small and oval in shape, measuring 23-26 μ long and 10-12 μ wide.

Prosthodendrium (P.) *parvouterus* (Bhalerao, 1926) Dubois, 1955 has been originally described from *Tadarida plicatus* in Burma. The present material is similar in the main characteristics to *prosthodendrium* (P.) *parvouterus* (Bhalerae, 1926) Dubois, 1955, but there are certain minor differences in the body length, ovary shape and eggs size. The present material is recorded for the first time from *Chamaeleon chamaeleon* in Egypt.

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الملخص العربي

وصف ثلاثة أنواع من التريماتودا تنالفة العائل *انكيتريما سانجونيم*، *انكيتريما لونجيفورمس*

وبروسونينديريم بارفيتوتيرس من الخفافيش والزواحف في مصر

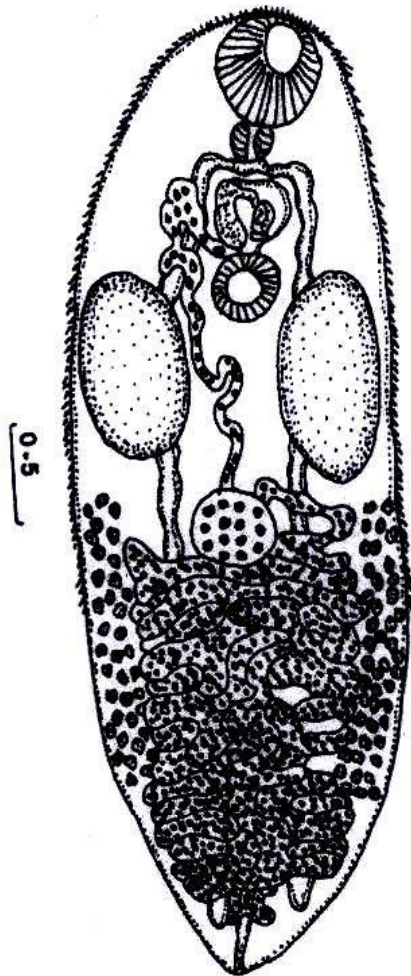
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قسم علم الحيوان كلية العلوم بالفيوم فرع جامعة القاهرة

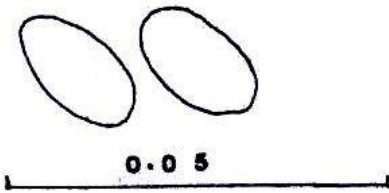
أهين عبد الباقي عاشور

قسم علوم الحيوان كلية العلوم جامعة عين شمس

تم وصف ثلاثة أنواع من التريماتودا تنالفة العائل *انكيتريما سانجونيم*، *انكيتريما لونجيفورمس* وبروسونينديريم بارفيتوتيرس النوعان الأولان من أمعاء الخفاش روزيتس *اجيتياكس* والنوع الثالث من أمعاء الحرباء *كاميليون كاميليون*. وهذه تعتبر عوائل جديدة لتلك الأنواع في مصر. تم عمل مقارنة بين النتائج السابقة وهذا العمل.

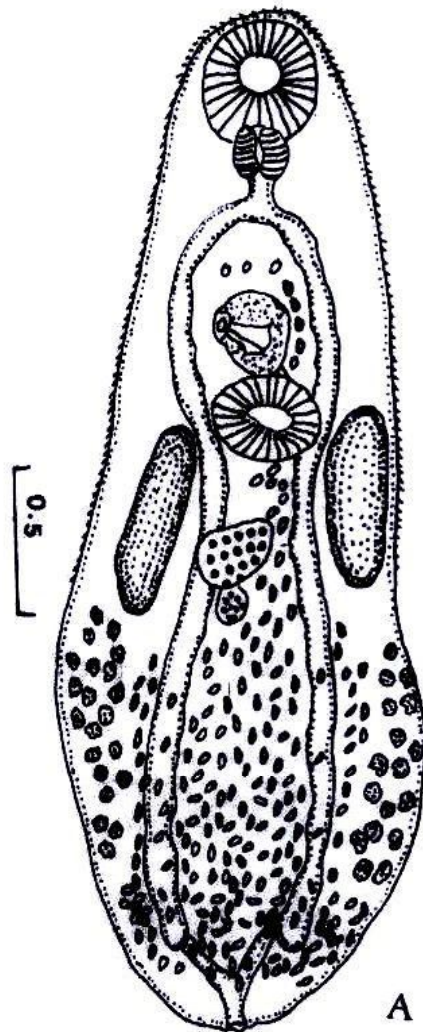


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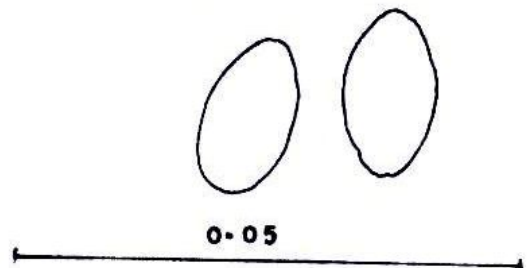


B

(Fig. 1) A) *Anchitrema sanguineum*
(Sonsino, 1894) Looss, 1899
(Ventral view).
B) The Eggs.

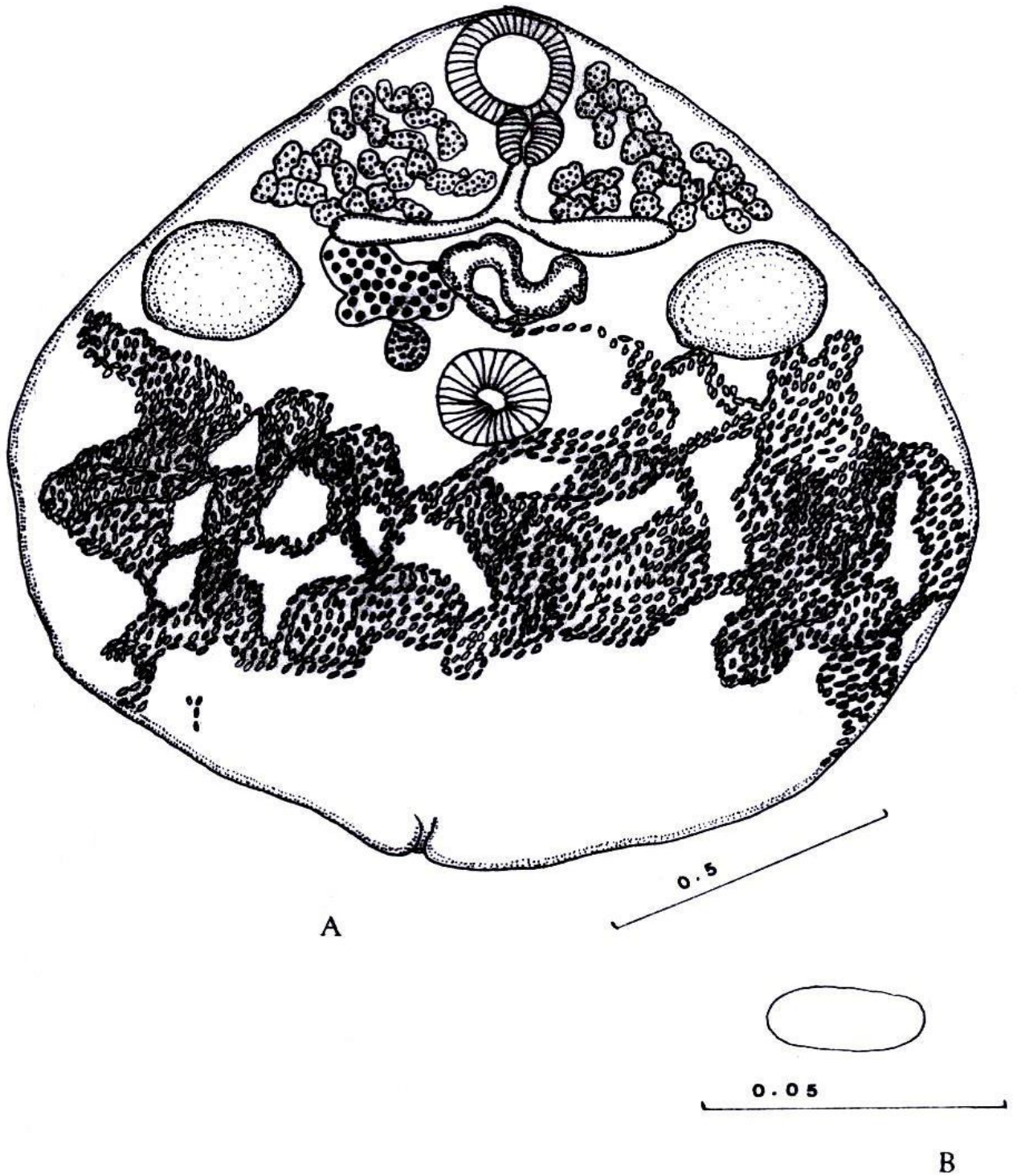


A



B

(Fig.2) A) *Anchitrema longiformis*
Saoud and Ramadan, 1977
(Ventral view).
B) The Eggs.



(Fig. 3) A) *Prosthodendrium (P.) parvouterus* (Bhalerao, 1926) Dubois, 1955 (ventral view).
 B) The Eggs.

