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ON *PROPYCNADENOIDES NAFFARI* N. SP. AND *PROCTOECES* SP. FROM
MULLUS SURMULETUS AND *SERRANUS SCRIBA* FROM THE
MEDITERRANEAN SEA IN LIBYA

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During the present investigation, two trematode genera namely *Propychnadenoides* Fischthal et Kuntz, 1964 and *Proctoeces* Odhner, 1911 were briefly reviewed. *Propychnadenoides naffari* n. sp. and *Proctoeces* sp. were described from *Mullus surmuletus* and *Serranus scriba* respectively from the Mediterranean Sea in Libya. *Propychnadenoides naffari* n. sp. differs from the only known species *P. philippinensis* by having y-shaped small body, terminal oral sucker, no prepharynx, larger and spherical testes, club shaped retracted acetabulum, and the vitelline follicles restricted in testicular zone. *Proctoeces* sp. was reported here from new host and new locality.

Key words: Trematoda, marine, fishes, Mediterranean, Libya.

INTRODUCTION

The genus *Propychnadenoides* was established by Fischthal et Kuntz (1964) with *P. philippinensis* from *Gymnocranius griseus* Fischthal et Kuntz, 1964 in Palawan island, Philippines as the type species. The genus *Proctoeces* was established by Odhner (1911) with *P. maculatus* (Looss, 1901) Odhner, 1911 from *Labrus merula* in Black Sea as the type species. Looss (1901) originally described the same species as *Distomum maculatum*, from the same host in the Adriatic Sea at Trieste. Linton (1907) then described the same species as *Distomum subtenue* from *Calamus calamus* from Bermuda. Odhner (1911) added *P. erythraeus* from *Sparus lunare* in the Red Sea. Manter (1963) considered *P. erythraeus* as synonym of *P. maculatus*. Bray and Gibson (1980) made a review of the genus *Proctoeces* and considered *P. major*, *Cercaria temuans*, *Cercaria milfordensis*, *P. progeneticus*, *P. buccini*, *P. scrobiculariae*, and *P. hawaiiensis* as synonyms of *P. maculatus*. The aim of the present work is to extend our knowledge on the morphological, morphometrical analysis, prevalence and distribution of the above two species in marine fishes from the middle southern part of the Mediterranean Sea in Libya.

MATERIAL AND METHODS

Several adult fishes of *Mullus surmuletus* and *Serranus scriba* locally called "Trelya" and "Pacroon" were respectively caught from the Libian Coastal waters near Misurata in Libya. They were dissected and as soon as possible examined for helminth parasites inhabiting the intestine. Trematode parasites were first relaxed, then fixed in hot 70% alcohol or 5% formalin. The parasites were then stained using aceto-alum carmine stain (Al-Bassel, 1990). Drawings were made to the scale using a Camera Lucida. Measurements and scales are in millimeters, unless otherwise stated. The identification of fishes as well as methods followed in collection, fixation, staining, clearing and mounting of helminthes were carried out by the usual way.

RESULTS AND DISCUSSION

1) *Propycnadenoides naffari* n. sp. (Fig. 1).

Host: *Mullus surmuletus*.

Site: intestine.

Locality : Mediterranean Sea , Misurata , Libya.

Prevalence: 10 specimens from 6 hosts out of 30 fish examined.

Deposition : Holotype and Paratypes were deposited in the Department of Zoology, Faculty of Science at Fayuom, Branch of Cairo University.

The new species is named in the honor of the late Professor M. K. El-Naffar a distinguished Egyptian Parasitologist

The following description is based on eight specimens:

Body globular, y-shaped ,truncate posteriorly, 1.28-1.49 long and 0.75-0.79 wide .Oral sucker terminal, 0.16-0.18 long and 0.27-0.29 wide.Prepharynx absent.Pharynx well developed, 0.086-0.89long and 0.10-0.12 wide.Oesophagus short , being 0.039-0.041 long.Caecal bifurcation between pharynx and cirrus pouch and extending to near posterior extremity,each caecum is 0.90-0.99 long.Acetabulum club-shaped, covered up by circular body fold,lying on the right side of the body and larger than oral sucker being 0.27-0.29 long and 0.36-0.39 wide. From each lateral corner of acetabular aperature extend radial muscle fibers toward the lateral edge of body.Suckers ratio 0.44-0.59:1

Testes two ,tandem , close together ,intercaecal , lying in posterior third of the body.Anterior testis is 0.24-0.27 long and 0.20-0.22 wide. Posterior testis is 0.19-0.20 long and 0.22-0.25wide. Hermaphroditic pouch clavate, anterolateral to the acetabulum, being 0.16-0.19 long and 0.086-0.088 wide,enclosing 0.086-0.87 long and 0.071-0.073 wide saccular internal seminal vesicle; prostatic complex and eversible ejaculatory duct is surrounded by prostate gland cells.Genital pore median or slightly to left of median line lying near intestinal bifurcation.

Ovary submedian, anterolateral to testes being 0.15-0.17 long and 0.11-0.13 wide.Receptaculum semenis and Laurer' s canal present .Vitellaria circumcaecal, in two lateral fields in testicular zone .Uterus intercaecal,pretesticular ;metraterm well differentiated .Eggs large,operculated each is 58-62 μ long and 37-40 μ wide.Excretory vesicle Y-shaped with terminal excretory pore .

Fischthal et Kuntz (1964) established the genus *Propycnadenoides* with *P. philippinensis* Fischthal et Kuntz,1964 from *Gymnocranius griseus* as the type species in Palawan Island in Philippines .No other species was added hitherto.

P. naffari n . sp. though slightly resembles *P. philippinensis*, it differs by having small y-shaped body instead of oval-shaped .Body of the new species is truncate anteriorly instead of posteriorly.The oral sucker is terminal instead of subterminal. Egg is small instead of large .Prepharynx absent. Testes are large and spherical instead of small and transversally elongate .Acetabulum is club-shaped,lying in the right side of the body and retracted into the body parenchyma instead of stout, spherical ,lying between two caeca and not retracted into the body parenchyma

. Vitellaria restricted in testicular zone instead of extended to posterior extremity . Excretory vesicle y-shaped instead of saccular . The writer believes that all these differences are sufficient to designate the present material as a new species and proposed its name as *P. naffari*.

2) *Proctoeces* sp. (Fig. 2)

Host : *Serranus scriba*

Site: intestine.

Locality: Mediterranean Sea Misurata, Libya .

Prevalence: 3 specimens from 2 hosts out of 17 fish examined.

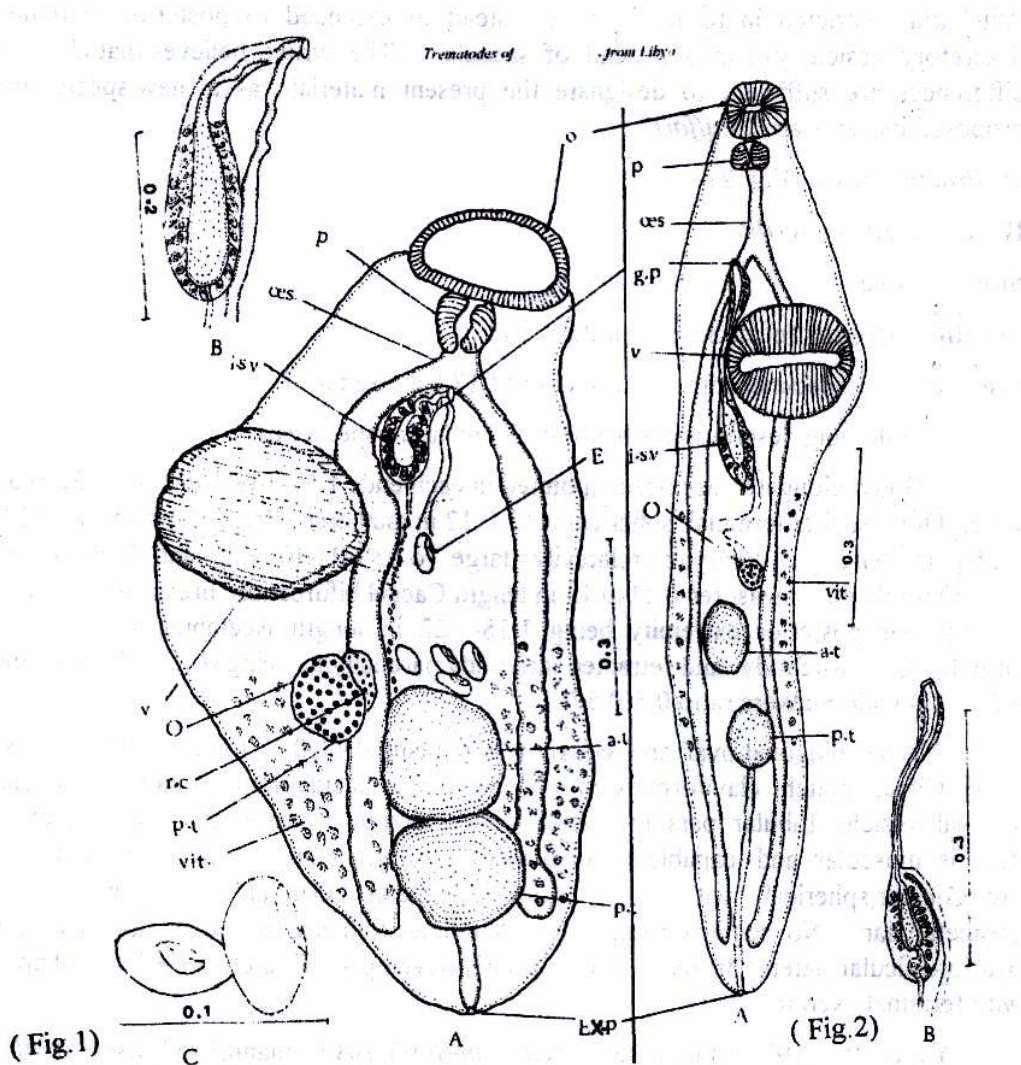
The following description is based on 3 immature specimens :

Body elongate , aspinose , pointed in each ends 1.57-1.60 long and 0.32-0.35 wide. Oral sucker terminal, spherical 0.10-0.12 in diameter . Prepharynx short 0.014-0.016 in length . Pharynx relatively large 0.038-0.040 long and 0.062-0.065 wide. Oesophagus measures 0.11-0.13 in length. Caecal bifurcation preacetabulum, and ending near posterior extremity being 1.18-1.22 in length . Acetabulum moderately large, lying in forebody and retracted into body parenchyma being 0.19-0.21 long and 0.22-0.24 wide. Suckers ratio 0.5-0.57 : 1 .

Testes diagonal, oval and equal in size being 0.11-0.12 long and 0.078-0.086 wide. Cirrus pouch claviform extending posterior to acetabulum, containing succular seminal vesicle, tubular pars prostatica surrounded by prostate cells The ejaculatory duct is muscular and capable of being everted to form a small, conical cirrus . Ovary pretesticular, spherical with 0.047-0.048 diameter . Genital pore submedian , preacetabular . No seminal receptacle . Vitelline follicles extending along caeca in ovariotesticular lateral fields . Uterus poorly developed . Excretory vesicle y-shaped with terminal excretory pore .

Yamaguti (1971) stated that *Cercaria milfordensis* Uzzmann, 1953, from *Mytilus edulis* is the larva of *P. maculatus* . *Mytilus galloprovincialis* from Gulf of Marseille harbored sporocysts containing *Cercaria milfordensis* . Metacercaria was found in the foot of *Mytilus galloprovincialis* and also in *Nereis*, *Hydroides*, *Patella* and *Acanthochites* . Metacercariae from *Nereis caudata* were fed to *Gobius niger*, *Coris julis* and *Crenilabrus griseus*, and adults were recovered from *C. griseus* . He also listed 11 species belonging to the genus *Proctoeces* .

It is obvious from the above description of *Proctoeces* sp. , that the only closely related species is *P. maculatus* (Looss, 1901) Odhner, 1911 . Although the present material is similar to the latter species, the writer prefers to examine some more mature specimens before definitely designating its specific nomenclature.



Propychnadenoides naffari n. sp.

Proctoeces sp.

A) Ventrolateral view.

A) Ventral view.

B) Cirrus pouch.

B) Cirrus pouch.

C) Eggs.

Abbreviation of figure: o= oral sucker , p= pharynx ,oes.=oesophagus, g.p=genital pore, v= acetabulum,vit.=vitellaria, o= ovary, r.c=receptaculum seminis, E=egg , A.t= anterior testis, P.t= posterior testis, Ex.p= excretory pore, i.s.v= internal seminal vesicle, E= egg.

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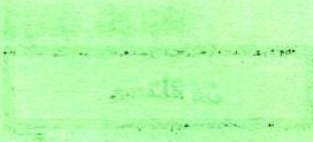
وصف برويكنادينودس نافارى (نوع جديد) ونوع من جنس بروكتوزيس
جمعا من نوعى الاسماك مولاس سيرميوليتيس وسيرانس سكريبيا من
البحر المتوسط فى ليبيا

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قسم علم الحيوان - كلية العلوم - فرع جامعه القاهرة بالفيوم

تم فى هذا البحث مراجعه مختصرة لجنسين من التريماتودا هما برويكنادينودس وبروكتوزيس. كما تم وصف نوعين هما برويكنادينودس نافارى (نوع جديد) ونوع من بروكتوزيس جمعا من اسماك ميلاس سيرميوليتيس وسيرانس سكريبيا على الترتيب من البحر المتوسط فى ليبيا. ويختلف برويكنادينودس نافارى (النوع الجديد) عن النوع الوحيد المعروف من هذا الجنس بأحتوانه على جسم صغير يشبه حرف *Y* وله ممص فى طرفى مع غياب قبل البلعوم وبشموله على خصيتين كرويتين كبيرتين وممص بطنى سباتى الشكل مندغم فى برانشيما الجسم ووجود الحويصلات المحيه محصورة حول الخصيتين .

اما نوع بروكتوزيس فلم يتأكد تحديده بعد ويحتاج لفحص المزيد من الديدان البالغة لكنه يسجل لأول مرة من اسماك سيرانس سكريبيا وكذلك من ليبيا



وادي النيل لدراسات بحوث اسيوط

للسنة الثامنة

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رئيس التحرير
عضوا
عضوا
عضوا
عضوا
عضوا

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علم الحيوان

مجلد ٣٠ (٢)

ديسمبر ٢٠٠١