

ON A NEW TREMATODE *PALITREMA MACRORCHIS*, GEN. ET SP. NOV. FROM RANGOON LIZARDS.

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From the intestine of the lizards *Calotes versicolor* (Daudin 1802) and *Hemidactylus brooki* Gray 1845, five and two trematodes respectively belonging to the family Lecithodendriidae Odhner 1911 were obtained. As may be seen from the following table the specimens obtained from *H. brooki* were larger than those from *C. versicolor*. It follows that the specimens obtained from *H. brooki* were full grown and that the worms may attain maturity before they reach full size.

				Specimens from <i>H. brooki</i> gray 1845.	Specimens from <i>C. versicolor</i> (Daudin 1802).
Length	..	..	..	2.75—2.78 <sup>1</sup>	1.25—1.37
Breadth	..	..		1.47—1.49	1.05—1.11
Oral sucker	..	..	}	0.191—0.194	0.112—0.119
				×	×
				0.250—0.260	0.163—0.190
Pharynx	..	..	}	0.076—0.078	0.041—0.084
				×	×
				0.101—0.104	0.051—0.098
Oesophagus	..	..	..	0.384—0.389 long	0.098—0.142 long
Ventral sucker	..	..	}	0.191—0.194	0.142—0.149
				×	×
				0.203—0.205	0.154—0.171
Testes	..	..	}	0.487—0.571	0.300—0.415
				×	×
				0.480—0.493	0.360—0.439
Cirrus sac	.	..	}	0.512—0.542	0.360—0.413
				×	×
				0.150—0.190	0.130—0.142
Ovary ..	..	..	}	0.356—0.358	0.233—0.293
				×	×
				0.253—0.257	0.196—0.218
Ova ..	..	..	}	0.013—0.030	0.016—0.026
				×	×
				0.007—0.015	0.0081—0.015

***Palitrema macrorchis*, gen. et sp. nov.**

*Hosts.*—*Calotes versicolor* (Daudin 1802) and *Hemidactylus brooki* Gray 1845.

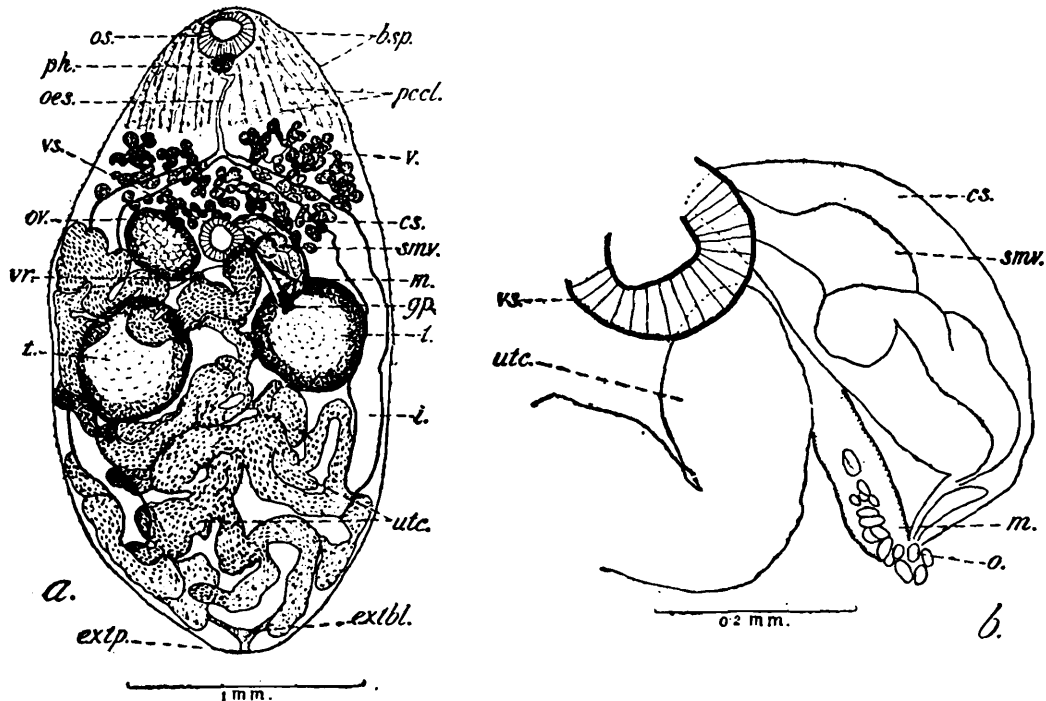
*Location.*—Intestine.

<sup>1</sup> All measurements in millimetres.

*Locality.*—Rangoon.

*Description.*—Body small,  $1.25-2.78 \times 1.05-1.49$ , elliptical or elongated, covered with spines. Suckers moderately muscular: ventral sucker  $0.142-0.194 \times 0.154-0.205$ , oral sucker  $0.112-0.194 \times 0.163-0.260$ ; prepharynx very short, visible only in sections; pharynx  $0.041-0.084 \times 0.051-0.104$ . Oesophagus sinuous,  $0.098-0.389$  long. Caeca broad, sinuous, overlapped partially or completely by testes and continuing into the last third of the body. In the anterior region of the body, extending from the oral to ventral sucker, are clusters of peculiar parenchymatous cells, arranged in longitudinal rows converging towards the oral sucker.

Testes big,  $0.300-0.571 \times 0.360-0.493$ , round to oval, symmetrically situated in the middle of body, separated from one another and closer to body margin than to the median line. Cirrus sac  $0.360-0.542 \times 0.13-0.19$ , situated on the left side of ventral sucker commencing at its anterior border, with its axis oblique to that of the body and its tip



TEXT-FIG. 1.—*Palitrema macrorchis*, gen. et sp. nov., from *H. brooki* Gray, 1895.

a. Entire ventral view.

b. Cirrus sac and Metraterm.

slightly curved; a coiled vesicula seminalis enclosed in the cirrus sac. Genital pore ventro sinistral, overlying the left testis. Metraterm running parallel to cirrus sac on its inner side.

Ovary  $0.233-0.358 \times 0.196-0.257$ , transversely oval, on right side of ventral sucker and often partially overlapped by it. Shell gland and receptaculum seminis in median line of body and obscured in whole mounts by the uterine coils. Vitellaria a dorsal layer extending from side to side of the body between pharynx and ventral sucker. Vitelline ducts oblique to median line of body, meeting medially behind ventral sucker in the intertesticular region to form a vitelline reservoir. Uterus filling posterior half of the body, consisting of heavy transverse coils with descending and ascending limbs; the latter in its final course covering the right testis and sometimes ovary and then passing over the

posterior border of ventral sucker is continued as matraterm, running dorsal to cirrus sac in its early portion and parallel in the later one. Eggs 0.013—0.030×0.007—0.015, yellow and operculate.

Excretory bladder V-shaped. Excretory pore terminal.

The type slides, No. W3423/1, are preserved in the collection of the Zoological Survey of India (Ind. Mus.), Calcutta.

*Remarks.*—The present form differs from all others (except *Parabascoïdes* Stunkard 1938) at present included in the family Lecithodendriidae by the combination of the following characters: lateral postacetabular position of genital pore, presence of cirrus sac, long intestinal caeca, and V-shaped excretory bladder. From *Parabascoïdes* Stunkard 1938 it differs in the big isolated testes, oblique cirrus sac, acetabular position of ovary and preacetabular band of vitellaria extending from side to side. It is obvious that for it must be created a new genus for which I propose the name *Palitrema* with the diagnosis given below. Both *Palitrema* and *Parabascoïdes* differ from all other forms of the family Lecithodendriidae in the combination of characters just given. These characters appear to be as important as those used to separate the various sub-families of the Lecithodendriidae and, therefore, justify the creation of a new sub-family. I propose the name Palitreminae with the diagnosis given below.

Macy (1935) erected the sub-family Gyrabascinae for the reception of those forms with "genital pore postacetabular, lateral to nearly median; seminal vesicle sinuous, lying free in the body parenchyma, not surrounded by a definite prostate mass" and included within it the genera *Gyrabascus* Macy 1935 and *Ophiosacculus* Macy 1935. The nature of the seminal vesicle of the latter is still disputed and Macy was, therefore, of the opinion that, should it prove to be a true cirrus sac, a new sub-family should be created for it. In that case it would automatically be included within the new sub-family Palitreminae.

#### *PALITREMINAE*, subfamily nov.

Body oval to elongated, spined, suckers of about same size. Caeca extending posterior to testes. Genital pore postacetabular, situated over the left testis or anterior to it. Cirrus sac partly postacetabular and oblique to the axis of body or wholly postacetabular and transverse to it. Ovary in the acetabular zone or posterior to it. Vitellaria either a transverse band of moderately sized follicles between pharynx and ventral sucker, or a horse shoe of big follicles anterior and lateral to ventral sucker. Uterus with heavy coils occupying posterior half of body, anteriorly not extending beyond acetabular zone.

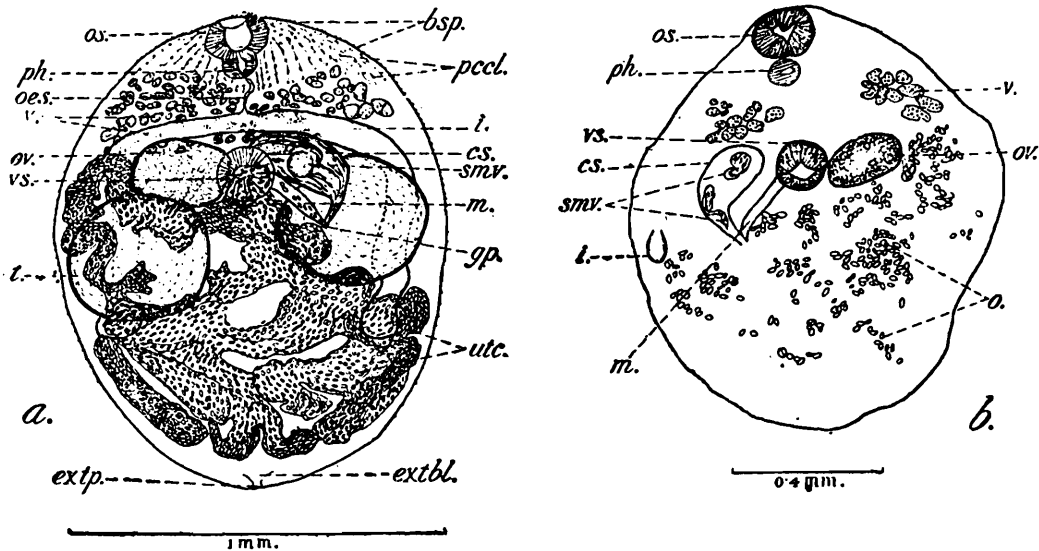
Parasites of bats and lizards.

*Type Genus.*—*Palitrema*, gen. nov.

#### **Palitrema**, gen. nov.

Oesophagus long and sinuous. Caeca broad, sinuous, extending to the posterior third of body. Peculiar parenchymatous cells arranged in longitudinal rows converging towards oral sucker anterior to ventral sucker. Testes rounded to oval, symmetrical, situated in middle of body, and separated from one another. Cirrus sac partly postacetabular,

oblique to body axis, with tip slightly curved, and sinistral to ventral sucker. Genital pore overlying the left testis. Ovary dextral, oval, situated in acetabular zone and often partially overlapped by it. Shell gland and receptaculum seminis median, situated in the



TEXT-FIG. 2.—*Palitrema macrorchis*, gen. et sp. nov., from *C. versicolor* (Daudin), 1802.  
a. Entire ventral view. b. H. L. section, dorsal view.

intertesticular region. Vitellaria extending from side to side between pharynx and ventral sucker. Uterus with heavy transverse coils; the ascending limb of uterus in its terminal portion covering the right testis and finally the posterior border of ventral sucker runs parallel to cirrus sac on its inner side as metraterm.

Parasitic in the intestine of lizards.

*Type Species*.—*Palitrema macrorchis*, sp. nov.

#### ABBREVIATIONS FOR TEXT-FIGURES.

*bsp.*, body spines; *cs.*, cirrus sac; *extbl.*, excretory bladder; *extp.*, excretory pore; *gp.*, genital pore; *i.*, intestine; *m.*, metraterm; *o.*, ova; *oes.*, oesophagus; *os.*, oral sucker; *ov.*, ovary; *pccl.*, clusters of parenchymatous cells; *ph.*, pharynx; *smv.*, seminal vesicle; *t.*, testis; *utc.*, uterine coils; *v.*, vitellaria; *vr.*, vitelline reservoir; *vs.*, ventral sucker.

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