

## On a New Reptilian Cestode *Oochoristica pauriensis* n.sp. from *Hemidactylus brooki* (Gray) and *Hemidactylus flaviviridis* (Rüppell) from Garhwal Hills, U.P., India\*

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### INTRODUCTION

The morphological studies of the collected cestode parasites revealed these to belong to genus *Oochoristica* Lühe (1898) of the family Anoplocephalidae (Cholodkovsky, 1902) (now order Anoplocephalidea Wardle, McLeod and Radinovsky, 1974 of class Eucestoda Wardle *et al.*, 1974).

### MATERIALS AND METHODS

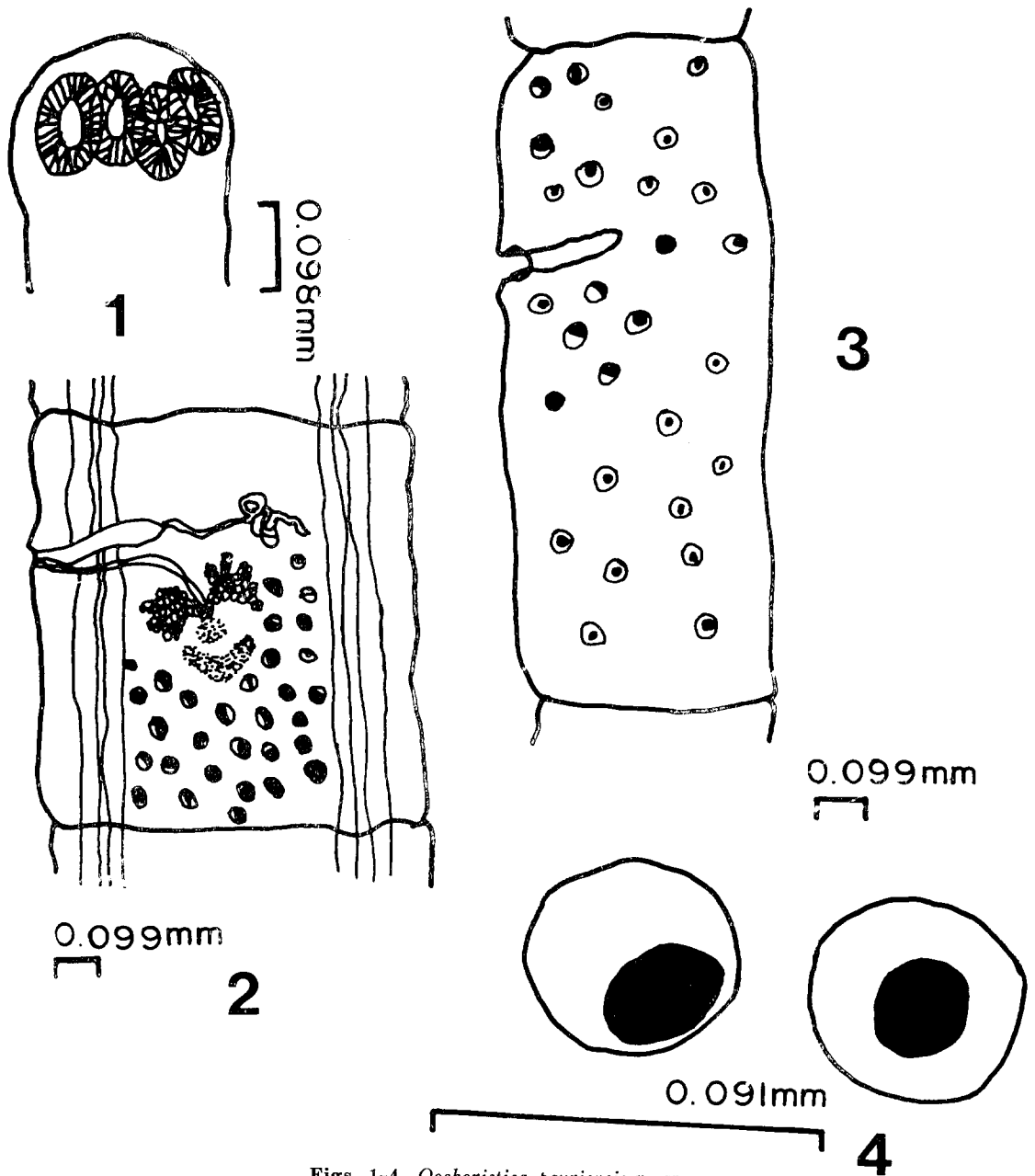
Thirty-eight of 201 examined wall lizards, *Hemidactylus brooki* (Gray) and 6 of 25 *H. flaviviridis* (Rüppell) yielded 62 and 10 tapeworms, respectively. The studies were conducted at high altitude (325-1,600 mASL) in the Garhwal Himalayan ecosystems. Worms were killed and stretched in lukewarm water; fixed in aqueous Bouin's solution; stained in haemalum; dehydrated; cleared in xylol and mounted in canada balsam. Camera lucida drawings were prepared. All measurements are in mm. unless otherwise stated.

### RESULTS

Worms measure 77.95~174.0 (115.49) in length and 1.42 in maximum width, met within

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mature and gravid proglottides. Proglottides longer than wide. Scolex (Fig. 1), 0.19~0.204 (0.195) × 0.16~0.25 (0.199). Suckers, 0.07~0.11 (0.09) × 0.03~0.10 (0.07), unarmed. Rostellum absent. Neck, 0.16~0.18 (0.17) × 0.18~0.23 (0.22). Proglottides craspedote. Immature, mature (Fig. 2), and gravid (Fig. 3) proglottides measure, 0.015~0.72 (0.26) × 0.18~0.66 (0.44), 0.28~1.42 (0.82) × 0.38~0.99 (0.72), and 1.07~2.26 (1.62) × 0.54~1.42 (0.88), respectively. Testes number 31~55 (41) in each proglottid. Testes spherical to oblong, measure, 0.009~0.08 (0.04) × 0.009~0.09 (0.05), distributed lateroposterior to the ovary between the two ventral longitudinal excretory vessels. Cirrus pouch elongated, 0.09~0.32 (0.18) × 0.02~0.11 (0.05), extends beyond the ventral excretory vessel. Internal and external seminal vesicles absent. Vas deferens forms a few coils before entering into cirrus pouch. Cirrus unarmed. Ovary bilobed, secondarily lobulated, 0.02~0.32 (0.11) × 0.01~0.51 (0.22), located normally medially but in some proglottides it may be slightly towards poral side. Vitelline glands compact, postovarian, measure, 0.019~0.14 (0.07) × 0.02~0.25 (0.11). Vagina, 0.002~0.008 (0.005) in diameter. Receptaculum seminis absent. Ootype, 0.019~0.09 (0.05) × 0.02~0.11 (0.06). Genital atrium, 0.006~0.06 (0.02) deep and 0.014~0.10 (0.03) wide. Genital openings irregularly alternate located



**Figs. 1-4.** *Oochoristica pauriensis* n. sp.

1. Scolex ( $\times 80$ ) 2. Mature proglottid ( $\times 8$ ) 3. Gravid proglottid ( $\times 8$ ) 4. Eggs with oncosphere ( $\times 80$ )

in the anterior one third of the lateral proglottid margin. Eggs (Fig. 4) numerous (approximately 1,626 in each proglottid), measure,  $0.01\sim 0.06$  ( $0.03$ ) $\times 0.009\sim 0.05$  ( $0.026$ ), scattered throughout the proglottid and cross ventral excretory vessels. Oncosphere,  $0.01\sim 0.03$  ( $0.02$ ) $\times$

$0.02\sim 0.04$  ( $0.03$ ).

#### DISCUSSION

The present form comes closer to *Oochoristica elaphis* Harwood (1932), *O. eumecis* Harwood

(1932), *O. gallica* Dollfus (1954), *O. lagrangei* Joyeux and Houdemer (1927), *O. salensis* Dollfus (1954), and *O. scelophori* Voge and Fox (1950).

The new species differs from *O. elaphis* in its longer strobila and cirrus pouch; smaller scolex; narrower neck and larger mature proglottides, from *O. eumecis* in its narrower scolex; smaller suckers; larger cirrus pouch and absence of receptaculum seminis, from *O. gallica* in longer strobila, wider oncosphere and larger number of testes, from *O. lagrangei* in longer and narrower strobila; narrower scolex, suckers; wider testes, oncosphere; larger cirrus pouch and absence of receptaculum seminis, from *O. salensis* in narrower scolex, suckers; larger testes, cirrus pouch, eggs; wider ovary and oncosphere, and from *O. scelophori* in narrower scolex; wider testes and ovary; and larger oncosphere.

**Species diagnosis:**

Medium sized worms. Scolex not well marked off. Neck present. Gravid proglottides longer than wide. Testes not numerous, lateroposterior to female genitalia. Cirrus pouch elongated. Internal and external seminal vesicles absent. Genital pores irregularly alternating at anterior one third of lateral margin. Ovary bilobed, normally medial but may be tilted towards poral side. Vitellaria median, postovarian. Gravid uterus breaking down into capsules, each containing a single egg; capsules may intrude into cortex. Receptaculum seminis absent. Adults in reptiles.

Hosts: *Hemidactylus brooki* (Gray) and *H. flaviviridis* (Rüppell)

Habitat: Small intestine

Locality: District Pauri-Garhwal (325~1,600 mASL), U.P., India.

Holotype: Holotype slide no. PCLS 012/79 and paratype slide no. PCLS 013/79 deposited with the Parasitological Collections, Department of Zoology, University of Garhwal, Srinagar (Garhwal), U.P., India.

**SUMMARY**

*Oochoristica pauiensis* n.sp. has been described and figured from *Hemidactylus brooki* (Gray) and *H. flaviviridis* (Rüppell) on size of strobila, scolex, suckers, testes, ovary, eggs and oncosphere, and number of testes. The new species has been compared with close species.

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