

[COMMUNICATION]

***Pseudabbreviata yambarensis* sp. n. (Nematoda: Physalopteridae)
from the Tree Lizard, *Japarula polygonata polygonata*
(Agamidae), on Okinawa Island, Japan¹**

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ABSTRACT — *Pseudabbreviata yambarensis* sp. n. (Nematoda: Physalopteridae) is described from male specimens found in the duodenum of the tree lizard, *Japarula polygonata polygonata*, on Okinawa Island, Japan. This species is readily distinguishable from other members of the genus *Pseudabbreviata* and from some closely-related representatives in the genus *Abbreviata* by the disposition of caudal papillae, the arrangement of teeth and denticles on the pseudolabia and body dimensions. This is the first species of the family Physalopteridae recorded from Japanese reptiles.

Until now, there has been no report of nematodes of the family Physalopteridae from Japanese reptiles. We have detected a new species of the genus *Pseudabbreviata* in the family from the duodenum of two of four tree lizards collected on Okinawa Island, Japan. The following description is based on seven male adults fixed in 70% ethanol at 70°C and cleared in a glycerin-alcohol solution or in gum-chloral solution.

DESCRIPTION

***Pseudabbreviata yambarensis* sp. n. (Fig. 1)**

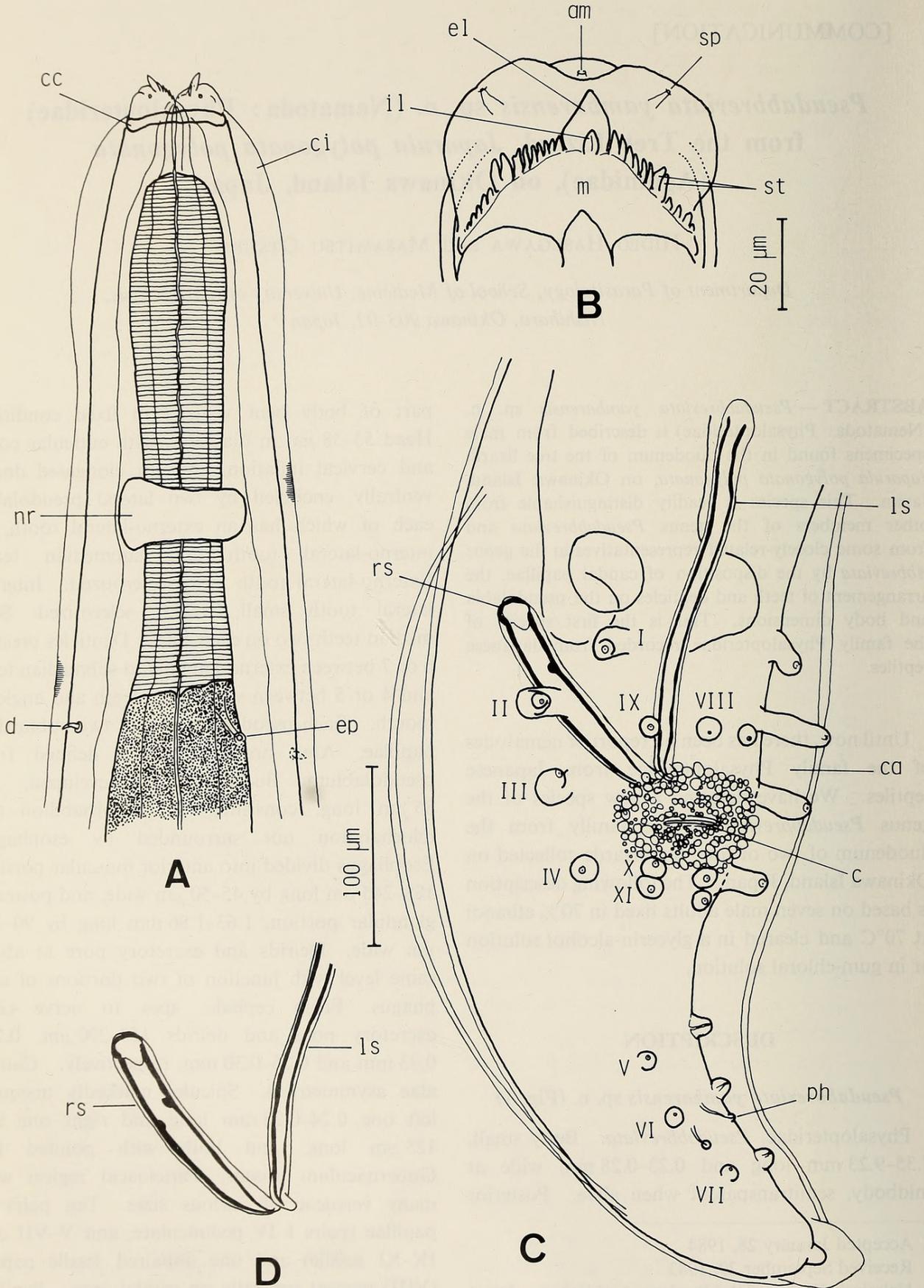
Physalopteridae, *Pseudabbreviata*. Body small, 7.35–9.23 mm long and 0.23–0.28 mm wide at midbody, semitransparent when alive. Posterior

part of body bent ventrad in fixed condition. Head 53–58 μm in diameter, with cuticular collar and cervical inflation. Mouth elongated dorso-ventrally, encircled by two lateral pseudolabia, each of which has an externo-lateral tooth, an interno-lateral tooth and submedian teeth. Externo-lateral tooth large, sclerotized. Interno-lateral tooth small, weakly sclerotized. Submedian teeth two on each side. Denticles present, 6 or 7 between externo-lateral and submedian teeth and 4 or 5 between submedian teeth and angle of mouth. Each pseudolabium with two submedian papillae. Area around amphid defined from pseudolabium. Buccal cavity developed, 25–35 μm long, consisting of protorhabdion and telorhabdion not surrounded by esophagus. Esophagus divided into anterior muscular portion, 188–245 μm long by 45–50 μm wide, and posterior glandular portion, 1.63–1.86 mm long by 90–128 μm wide. Deirids and excretory pore at about same level with junction of two portions of esophagus. From cephalic apex to nerve ring, excretory pore and deirids 155–200 μm , 0.28–0.33 mm and 0.26–0.30 mm, respectively. Caudal alae asymmetrical. Spicules markedly unequal: left one 0.24–0.28 mm long and right one 93–125 μm long, and both with pointed tip. Gubernaculum absent. Pericloacal region with many verrucae of various sizes. Ten pairs of papillae (pairs I–IV pedunculate, and V–VII and IX–XI sessile) and one unpaired sessile papilla (VIII) present ventrally on caudal area. Papillae II in middle between I and III; III slightly anterior

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to cloaca; X and XI attached to each other, just behind pericloacal verrucose area; IV at same level with X and XI but more lateral; VI midway between IV and caudal tip; V in front of VI; VII in middle between V and caudal tip; IX and VIII at same level, slightly posterior to level of II (IX not adherent to pericloacal verrucose region, but VIII adherent to it in four specimens). Phasmids situated between papillae VI and VII. Tail conical, 0.25–0.28 mm long.

Type host: *Japarula polygonata polygonata* (Hallowell)

Site: Duodenum.

Locality: Ada, Kunigami Village, Okinawa Island, Japan.

Date of collection: July 31, 1981.

Specimens deposited: Holotype (male) in the National Science Museum, Tokyo, Coll. No. NSMT-As 1771; and 6 paratypes (males) in the Department of Parasitology, School of Medicine, University of the Ryukyus, Nishihara, Okinawa, Japan.

COMMENTS

The genus *Pseudabbreviata* was erected by Lichtenfels and Quigley [1] based on a new species, *P. nudamphida*, from a "lizard" in Ghana, Africa. This genus is closely related to the genus *Abbreviata* Travassos, 1920, but is distinguishable from it in having a developed buccal cavity consisting of a protorhabdion and telorhabdion which are not surrounded by the esophagus. Sharpilo [2] transferred *Abbreviata markovi* Annaev, 1972 and *A. pallaryi* (Seurat, 1917) Morgan, 1945 to *Pseudabbreviata* and described a *Pseudabbreviata* sp. nematode. *Pseudabbreviata yambarensis* sp. n. differs from *P. nudamphida* in having a smaller body, shorter spicules and caudal papilla X attached to XI instead of separated as in the latter species [1]. Since *P. markovi* has caudal papillae

I and II on the same level and V midway between IV and the caudal tip [2] and *P. pallaryi* has submedian teeth of almost the same size as its denticles [3], *P. yambarensis* is distinguishable from them. It also differs from *Pseudabbreviata* sp. of Sharpilo, 1976, which has caudal papilla X apart from XI, a larger body, a longer left spicule and shorter right spicule [2].

Lichtenfels and Quigley [1] thought that several representatives of *Abbreviata* might belong to *Pseudabbreviata*. Among reptilian *Abbreviata* species, *A. golvani* Le-Van-Hoa, 1961 [4], *A. euzebii* Le-Van-Hoa, 1961 [4], *A. nyassae* Fitzsimmons, 1964 [5], *A. cyanogasteri* Hörchner and Weissenburg, 1965 [6] and *A. legendrei* Caballero, 1968 [7] resemble *P. yambarensis* in having Type IV arrangement of teeth and denticles on the pseudolabium [3], the left spicule shorter than 1 mm in length and more than five denticles between the lateral and submedian teeth. However, they differ from *P. yambarensis* in that *A. cyanogasteri* and *A. legendrei* have a wider verrucose region extending to the caudal alae, *A. golvani* has a unique submedian tooth, *A. euzebii* has more denticles (more than ten) between the lateral and submedian teeth, and *A. nyassae* has more anteriorly located deirids on the level with the nerve ring.

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- 1 Lichtenfels, J. R. and Quigley, D. (1968) *J. Parasitol.*, **54**: 1092–1094.
- 2 Sharpilo, V. P. (1976) [Parasitic Worms of Rep-

FIG. 1. *Pseudabbreviata yambarensis* sp. n., male.

A: Anterior part, ventral view. B: Cephalic extremity, subapical view. C: Posterior part, ventral view. D: Distal ends of spicules. am; amphid, c; cloaca, ca; caudal ala, el; externo-lateral tooth, ep; excretory pore, il; interno-lateral tooth, ls; left spicule, m; mouth, nr; nerve ring, ph; phasmid, rs; right spicule, sp; submedian papillae, I–XI; papillae numbers.



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