

SMITHSONIAN MISCELLANEOUS COLLECTIONS

VOLUME 91, NUMBER 5

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## Johnson Fund

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JOHNSON-SMITHSONIAN DEEP-SEA EXPEDITION  
TO THE PUERTO RICAN DEEP

A NEW  
NEMATODE OF THE GENUS *DIPLOTRIAENA*  
FROM A HISPANIOLAN WOODPECKER

BY

EVERETT E. WEHR

Zoological Division, Bureau of Animal Industry,  
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### A NEW NEMATODE OF THE GENUS DIPLOTRIAENA FROM A HISPANIOLAN WOODPECKER

By EVERETT E. WEHR

*Zoological Division, Bureau of Animal Industry, U.S. Department of  
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The species of nematode described in this paper was collected from the body cavity of a Hispaniolan woodpecker killed near Santa Barbara de Samaná, Dominican Republic, by E. W. Price while a member of the scientific staff of the Johnson-Smithsonian Deep-Sea Expedition to Puerto Rico and adjacent areas.

#### DIPLOTRIAENA SERRATOSPICULA, n. sp.

*Description.*—*Diplotriaena*: Body long, slender, attenuated at extremities, more abruptly so at anterior than at posterior portion. Oral opening more or less oval in shape, not surrounded by lips. Four pairs of large submedian cephalic papillae, one papilla of each pair internal to the other papilla; papillae approximately equal in size. Lateral papillae or amphids appearing as dark areas, one on each lateral side, situated between the two outer submedian papillae. Chitinous tridents (fig. 1, *b*) very conspicuous, one on each lateral side of anterior end of esophagus, their distal ends somewhat enlarged and tips of dorsal and ventral prongs of tridents delaminated. Esophagus differentiated into an anterior short, narrow, and a posterior long, broad portion. Intestine usually visible through body wall as a narrow dark streak extending through most of body length.

*Male* 33 mm long by 390  $\mu$  wide near equator of body. Body very light in color for a short distance behind anterior end and usually so for a slightly greater distance anterior to tip of posterior extremity; remaining portion of body slightly darker in color. Esophagus much lighter in color than intestine; anterior portion of esophagus 220  $\mu$  long and approximately 48  $\mu$  wide; posterior portion 2.55 mm long and about twice as broad as anterior portion. Nerve ring 146  $\mu$  from anterior end of body. Each trident averaging about 109.5  $\mu$  in length. Spicules (fig. 1, *c*) unequal in length and dissimilar in shape; the left spicule the longer, about 1.60 mm long, broadly curved, its diam-

eter gradually decreasing from proximal to distal ends; the short right spicule (fig. 1, *d*) about  $675\ \mu$  long when measured in a straight line from end to end, describing two shallow loops, and with edges serrated except at extreme anterior and posterior ends. Posterior portion of body truncated or broadly rounded, usually with the two spicules extruding for a considerable distance out of the cloacal opening. Tip of tail in specimens somewhat shrunken as illustrated in

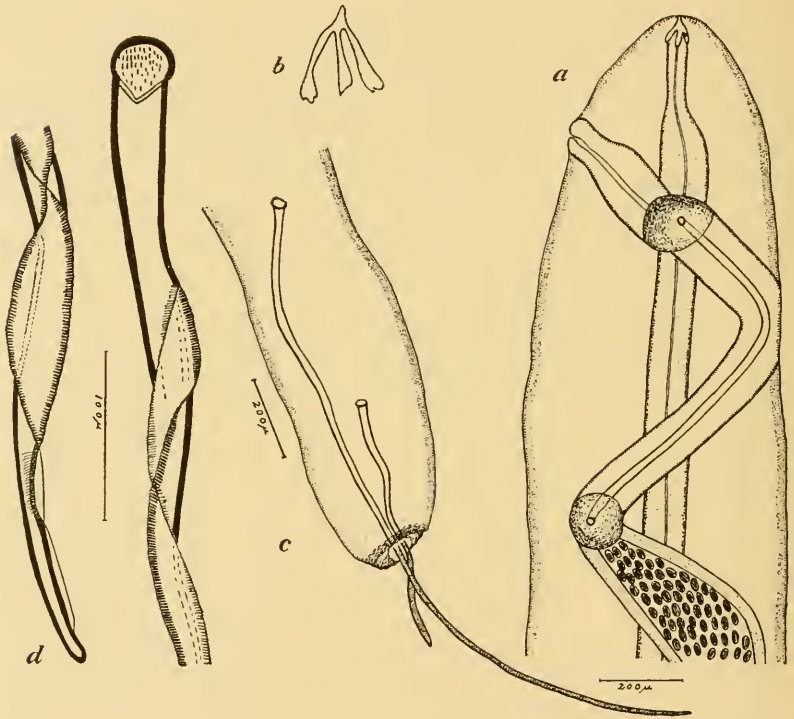


FIG. 1. *Diplotriacna serratospicula*, n. sp.; *a*, lateral view of female; *b*, trident; *c*, ventral view of posterior extremity of male; *d*, enlarged view of short spicule of male.

figure 1*c*; shrinkage due apparently to the fixing reagent. If any caudal papillae were present it was impossible to recognize them.

*Female* 75 mm long by  $750\ \mu$  wide near equator of body. Body color the same as in male. Anterior part of esophagus about  $224\ \mu$  long and  $48.5\ \mu$  wide, and posterior portion  $4.65\ \text{mm}$  long and about  $104\ \mu$  wide. Nerve ring  $187\ \mu$  from anterior extremity. Trident  $117\ \mu$  long and very similar in appearance to that of male. Vulva (fig. 1, *a*) rather prominent,  $300$  to  $375\ \mu$  from anterior end. True vagina or

ovjector about 1.35 mm long and averaging about  $134 \mu$  in width, describing one knee-shaped bend a short distance from vulvar opening and a second one at the point of its union with uterine vagina. It was impossible to determine the length of the uterine vagina because of the many coils of egg-filled uteri that concealed it. Posterior end of intestine atrophied; anus not discernible. Tail broadly rounded. Eggs in posterior portions of uteri containing embryos; those in anterior portions not embryonated. Embryonated eggs 48 to  $52 \mu$  long by 32 to  $36 \mu$  wide, with a shell about  $8 \mu$  thick.

*Host*.—Hispaniolan woodpecker, *Chryserpes striatus*.

*Location*.—Body cavity.

*Locality*.—Santa Barbara de Samaná, Dominican Republic.

*Type specimens* (male and female).—U.S.N.M. Helm. Coll. no. 8705; paratypes no. 8706.

*D. serratospicula* may be distinguished from all other species of the genus *Diplotriana*, so far as the present writer is able to determine from the published descriptions and figures of those species, by the short spicule which is serrated for its entire length except for the two extremities, and by the size of the long spicule, which is nearly two and one half times as long as the short spicule. This long spicule is exceeded in length by those of only two other species of the genus, namely, *D. nocti* Hoëppli and Hsü (1929) and *D. obtuso-caudata* (Rudolphi, 1819).

#### LITERATURE CITED

HOEPLI, R. J. C., and Hsü, H. F.

1929. Parasitische Nematoden aus Vögeln und einem Tümmler. Beiheft (1) Arch. Schiffs-u. Tropen-Hyg., vol. 33, pp. 24-34, pls. 1-5, figs. 1-22, Leipzig.

RUDOLPHI, C. A.

1819. Entozoorum synopsis cui accedunt mantissa duplex et indices locupletissimi. x + 811 pp., 3 pls., Berlin.