

DESCRIPTION OF A NEW GENUS AND SPECIES OF NEMATODE WORM OCCURRING IN THE NORTHWESTERN BELTED KINGFISHER, WITH A KEY TO THE GENERA OF THE SUBFAMILY ACUARIINAE

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Underneath the corneous membrane of the gizzard of the northwestern belted kingfisher (*Ceryle alcyon caurina*), a bird quite common about the lakes and streams of the United States Range Livestock Experiment Station, Miles City, Mont., small nematodes occur very frequently. The nematode belongs to the family Acuariidae Seurat, 1913, and to the subfamily Acuariinae Railliet, Henry, and Sisoff, 1912. This species belongs to a new genus, for which the name *Aviculariella* is proposed.

The author wishes to express his sincere thanks to Dr. Eloise B. Cram, also of the zoological division, for her very helpful suggestions during the course of this study.

AVICULARIELLA, new genus

Generic diagnosis.—Acuariinae: Body delicate, slender, and tapering toward the extremities. Cuticle about head inflated. Cordons restricted to cephalic region, triangular, serrated on their inner borders, not recurrent, but anastomosing posteriorly in pairs in the lateral fields. Spicules unequal and dissimilar. Caudal alae present. Vulva near anus. Parasitic in the gizzard of birds.

Type species.—*Aviculariella alcyona*, new species.

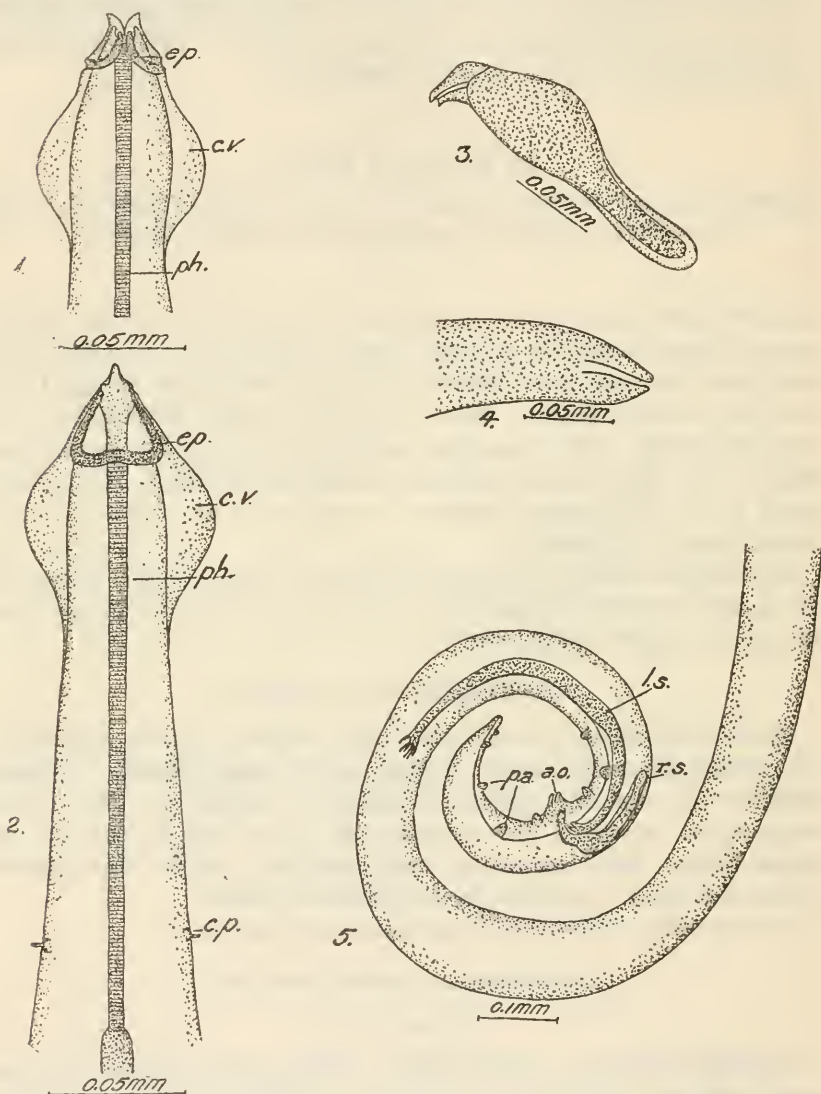
AVICULARIELLA ALCYONA, new species

FIGURES 1 TO 5

Specific diagnosis.—*Aviculariella*: Cuticle of the cephalic region much inflated. The cordons, which are confined to the cephalic region, are triangular in shape. Posteriorly the two cordons of each side do not anastomose in an exactly straight line across the body, but anastomose after they have curved very slightly toward the head end.

Male.—6 to 7 mm. long by 102μ wide near the equator of the body. The body is very slender and tapers gradually toward the two ex-

tremities. Cuticle with distinct transverse striations except in the region surrounding the head. The cuticle about the head is dilated and at its broadest point measures 54μ in width. The cephalic vesicle



FIGURES 1-5.—*Aviculariella alcyona*, new species. 1, Dorsal view of head of female; 2, lateral view of head of female; 3, right spicule; 4, tip of left spicule; 5, posterior extremity of male

a. o., Anal opening; c. p., cervical papilla; c. v., cephalic vesicle; c.p., epaulet-like cordon; ph., pharynx; l. s., left spicule; pa., papillae; r. s., right spicule

extends back from the anterior end of the body for a distance of 119μ . The cervical papillae are located slightly anterior to the union of the pharynx and the anterior division of the esophagus, 163μ posterior to

the tip of the head, and 41μ posterior to the termination of the cephalic vesicle. The cordons extend posteriorly from the base of the lips for a distance of 27μ . The inner edges of the cordons are toothed or serrated. Mouth with two conical, projecting lips, each bearing a pair of submedian cephalic papillae. The caudal extremity is tightly coiled in the preserved specimens, and it was impossible to secure a satisfactory view of either the dorsal or ventral surface. Caudal alae are present and these alae bear 8 pairs of papillae, 5 of which are postanal and 3 preanal. Four of the 5 pairs of postanal papillae are apparently pedunculated, whereas the most posterior pair, situated near the tip of the posterior end, is sessile. The spicules are unequal and dissimilar. The right spicule is short and thick, consisting of a strongly chitinized part which is rounded at the distal end, and a hyaline portion extending beyond this which has a groove cut out of its free end, this portion resembling somewhat a bird's beak; the spicule is 143μ long and 34μ wide. The left spicule is nearly three times as long as the right, and more slender, being 408μ long and 17μ wide, and has a rounded distal end.

Female.—17 to 18 mm. long by 150μ wide. The head at its widest point is 61μ wide. The cephalic vesicle terminates 136μ from the tip of the anterior extremity; the cervical papillae are 170μ from the anterior extremity. The cordons are triangular in shape as in the male, and extend 30μ from the base of the lips. The pharynx is 175 to 214μ long by 8.5μ wide; the anterior esophagus about 610μ to 650μ long, and the posterior esophagus 1.5 to 2.1 mm. long by 51μ wide. The slightly depressed vulva is situated in the posterior part of the body near the anal opening, the distance between the two orifices being 476μ . From the vulva the ovejector courses in a posterior direction for a distance of 360μ , then turns anteriorly to join the uterus. The anal opening lies 82μ anterior to the tip of the posterior extremity of the body. The embryonated eggs measure 31μ by 20μ .

Host.—Northwestern belted kingfisher (*Ceryle alcyon caurina*).

Location.—Gizzard.

Distribution.—Montana (Miles City), United States.

Type specimen.—U.S.N.M. No. 29848.

KEY TO THE GENERA OF ACUARIINAE

1. Ornamentation of the anterior end in the form of cordons extending posteriorly from the head along the cervical region, usually in the submedian fields (*Acuaria*, s. l.)-----2
- Ornamentation of a nature different from the above, or cordons, in either case confined to cephalic region-----8
2. Cordons not recurrent, not anastomosing-----3
- Cordons recurrent or anastomosing, or both-----4

3. Both spicules thick and only slightly unequal; 6 to 8 pairs of postanal papillae.....**Acuaria**
 Spicules very dissimilar and very unequal; 5 to 7 pairs of postanal papillae.....**Cheilospirura**
4. Cordons not recurrent, but anastomosing.....5
 Cordons recurrent, anastomosing or separate.....6
5. Cuticle raised in front of postcervical papillae to form a large collar or sheath; cordons anastomose on the free posterior border of the collar.....**Chevreuxia**
 No such sheath or collar present.....**Echinuria**
6. Cordons recurrent but not anastomosing.....**Dispharynx**
 Cordons recurrent and anastomosing.....7
7. Cordons form a loop directly after their origin in the head, and not flat against body but applied to margin of plates or alae; lateral alae present on body.....**Cosmocephalus**
 Cordons with loops lacking at their anterior ends, and applied directly to body; no lateral alae.....**Synhimantus**
8. Cephalic ornamentation consisting of a narrow denticulated collar, which is the margin of a depression surrounding the head at the base of the lips; cervical papillae large and crescent-shaped, with numerous teeth.
Streptocara
 Cephalic ornamentation not in the form of a collar, but of epaulets or alate appendages; cervical papillae not as above.....9
9. Cephalic ornamentation consisting of 4 delicate membranous alae directed posteriorly.....**Sciadiocara**
 Cephalic ornamentation not as above.....10
10. Cervical papillae tricuspid; body with two rows of posteriorly directed hooks.....**Seurattia**
 Cervical papillae simple; no rows of hooks on body.....11
11. Cephalic ornamentation consisting of two crescent-shaped cordons, the free edges of which are smooth; no cephalic vesicle.....**Rusguniella**
 Cephalic ornamentation consisting of two triangular-shaped cordons, the inner edges of which are dentate; cephalic vesicle present...**Aviculariella**

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