



A new species of *Sciadiocara* Skrjabin, 1916 (Nematoda: Acuariidae) parasitic in shorebirds in Argentina

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Abstract

In the present paper we describe a new species of the genus *Sciadiocara* from *Haematopus palliatus* from the Mar Chiquita coastal lagoon (37°46'S, 57°27'W), Argentina. We provide two host records (*H. palliatus* and *Larus dominicanus*) for the genus, both from Buenos Aires province, Argentina. *S. haematopodi* n. sp. closely resembles *S. legendrei* Petter, 1967. The new species can be distinguished by the morphology of the distal end of the left spicule, the shorter length of the right spicule, the number of pre-anal papillae and the ratio of the length of the vagina vera to the length of the vagina uterina.

Introduction

The genus *Sciadiocara* was proposed by Skrjabin (1916) and at present seven species have been described: *S. umbellifera* Molin, 1860; *S. bihamata* (Mueller, 1897); *S. cucullatus* (Wehr, 1934); *S. chabaudi* Schmidt & Kinsella, 1972; *S. rugosa* Schmidt & Kinsella, 1972; *S. legendrei* Petter, 1967; and *S. serrata* Wang, 1966. These species mainly parasitise charadriiform birds (Wong & Lankester, 1985) and only *S. umbellifera* has been reported from South America (Wong & Lankester, 1985; Wong & Anderson, 1991).

In the present paper we describe a new species of the genus *Sciadiocara* from South American shorebirds and provide two host records for the genus in Argentina.

Materials and methods

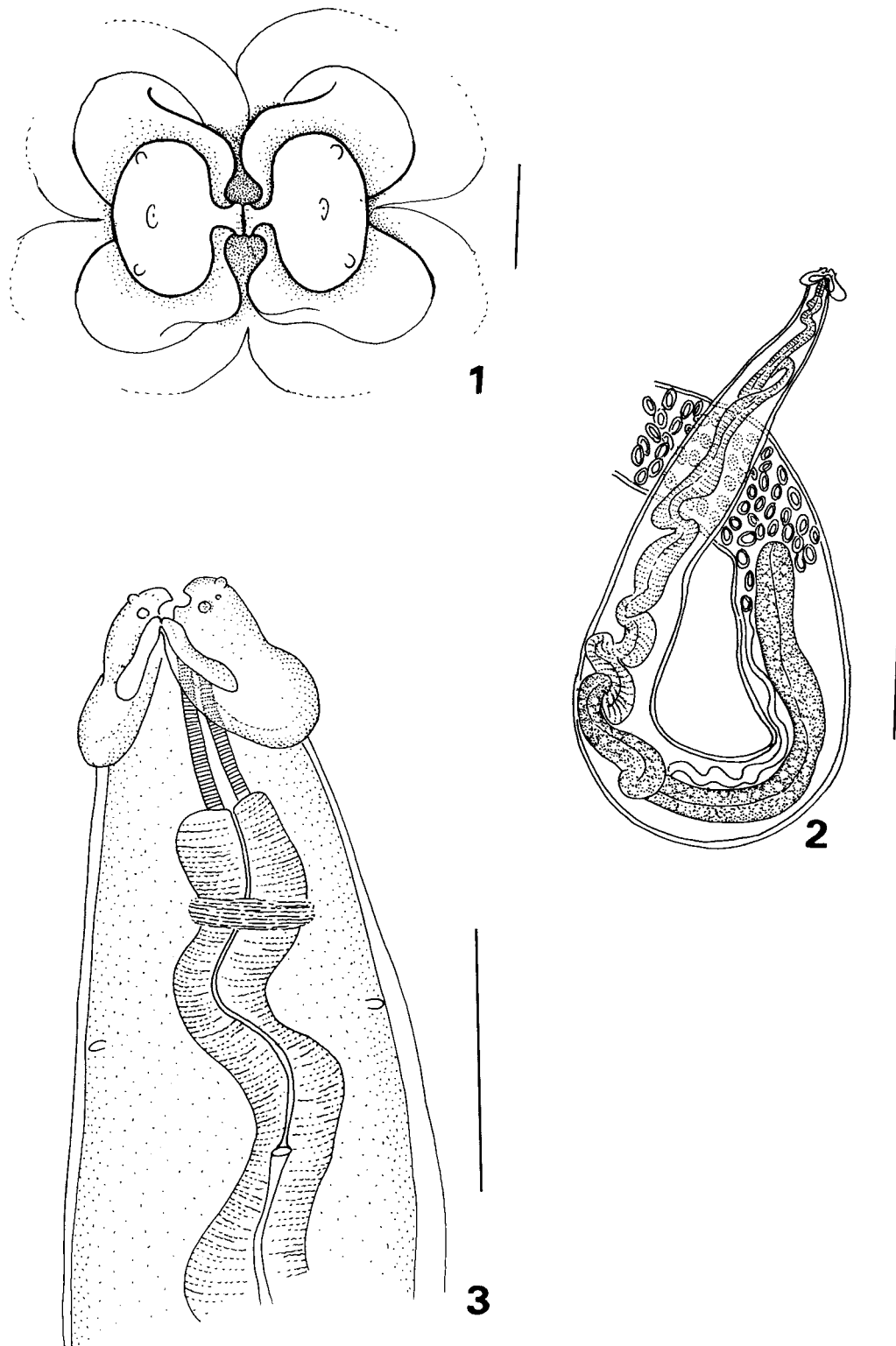
One American oystercatcher *Haematopus palliatus* Temminck from Mar Chiquita coastal lagoon (37°46'S, 57°27'W) and one kelp gull *Larus dominicanus* Lichtenstein from Balneario Orense (38°42'S, 59°47'W) (Buenos Aires province, Argentina) were collected, identified and frozen. In the laboratory, the

hosts were dissected and adult worms recovered under the lining of the gizzard were fixed in 10% formalin and stored in 70% alcohol. Some specimens were mounted in lactophenol and rolled under a coverslip in order to study various parts of the body from different angles. The drawings were made with the aid of the camera lucida (Olympus CHB). Measurements are given in micrometres with the range in parentheses, except when indicated otherwise. Other specimens were dried using the critical point method for study under the Scanning Electron Microscope (Jeol/SET100) and photographed.

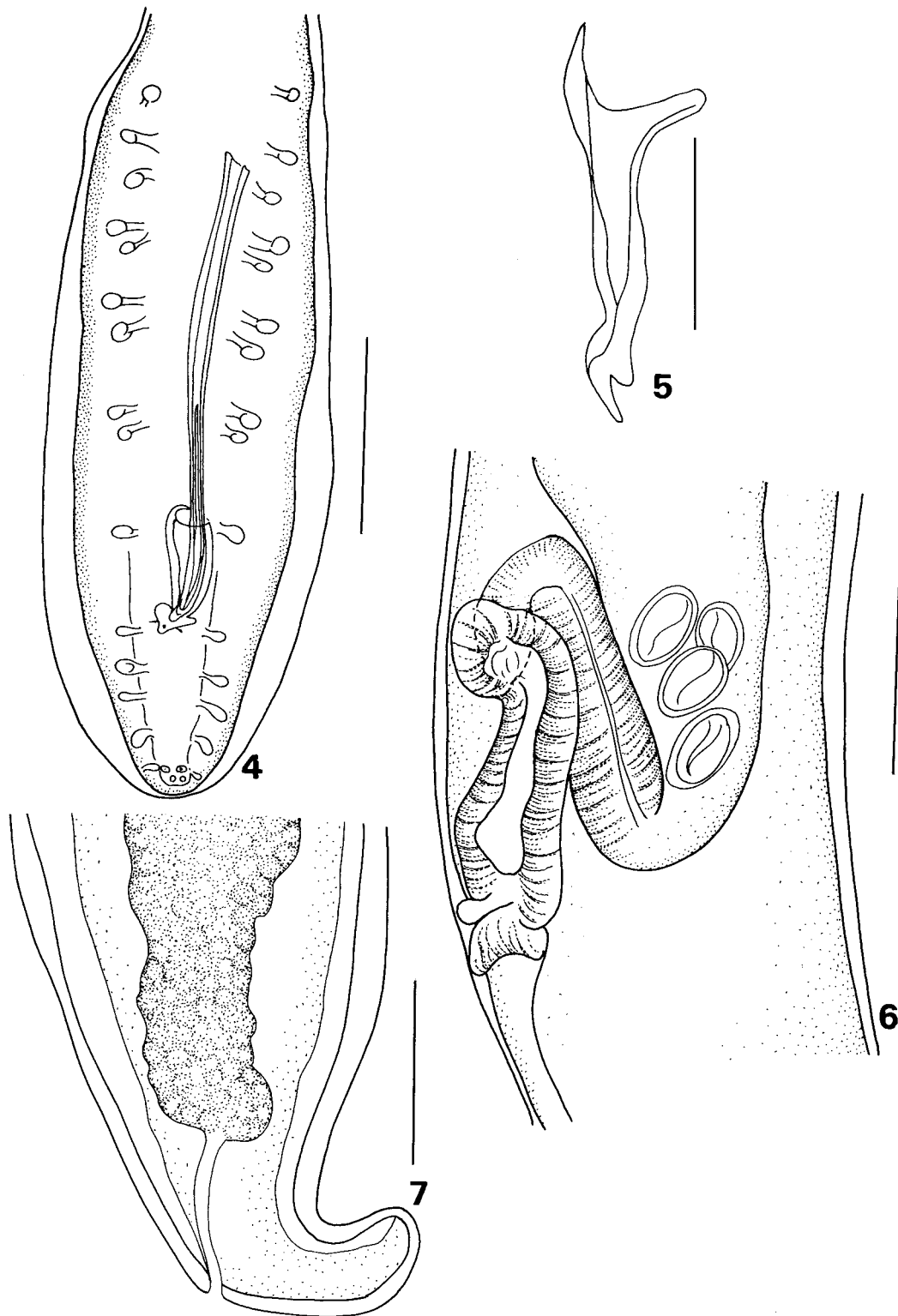
Sciadiocara haematopodi n. sp.

Description (Figures 1–11)

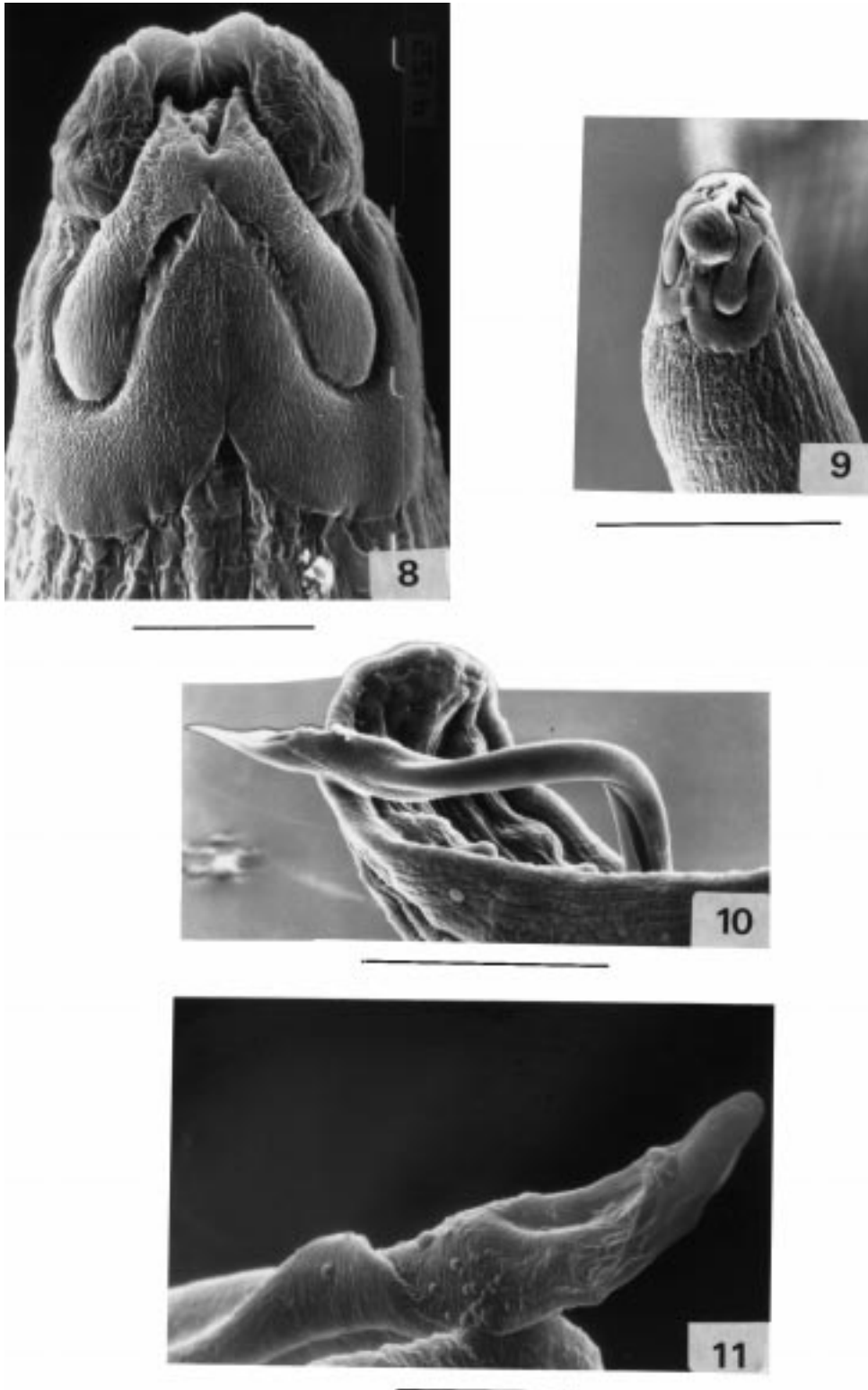
General morphology. Acuarioidea, Acuariidae, Schistorophinae Travassos, 1918; *Sciadiocara* Skrjabin, 1916. Anterior extremity strongly attenuate. Cuticle with transverse striations along entire length of body. Pseudolabia well developed with apices continuous with antero-lateral walls of oral opening. Four cephalic papillae and 2 amphids located at bases of pseudolabia. Two pairs of sublabia present and surrounded by 2 oval ptilina. Buccal capsule short and ex-



Figures 1–3. *Sciadiocara haematopodi* n. sp. 1. Anterior extremity of male, *en face* view. 2. Anterior part of body of female, muscular and glandular oesophagus, lateral view. 3. Anterior extremity of male, nerve ring, deirids, and excretory pore. *Scale-bars*: 1, 10 μm ; 2, 500 μm ; 3, 50 μm .



Figures 4–7. *Sciadiocara haematopodi* n. sp. 4. Posterior extremity of male, ventral view. 5. Right spicule, lateral view. 6. Vagina vera and uterina, eggs containing larvae, lateral view. 7. Posterior end of female, lateral view. Scale-bars: 4,6,7, 100 μm ; 5, 40 μm .



Figures 8–11. *Sciadiocara haematopodi* n. sp. 8. Anterior end of male, ventral view. 9. Anterior extremity of male, lateral view. 10. Posterior end of male, left spicule, lateral view. 11. Distal end of the left spicule, lateral view. Scale-bars: 8, 10 μm ; 9–11, 100 μm .

panded anteriorly. Deirids inconspicuous and located immediately posterior to nerve-ring. Oesophagus divided into 2 portions; muscular portion slightly shorter than glandular portion.

Male (N = 6). Length 4.74 (3.78–5.61) mm. Width at mid-body 129 (117–138). Buccal capsule 35 (33–42) long. Ptilina 29 (26–33), deirids 101 (96–105), nerve-ring 76 (63–93) and excretory pore 132 (129–135) from anterior extremity. Oesophagus 2.33 (2.28–2.37) mm in length. Muscular oesophagus 1.12 (0.90–1.20) mm and glandular oesophagus 1.18 (1.14–1.23) mm in length. Spicules dissimilar and unequal. Right spicule 62 (60–66) and left spicule 315 (300–324) in length. Left spicule long, slender, with distal region twisting ventrally and with 2 lateral projections; distal end spoon-shaped. Right spicule acting as gubernaculum through which left spicule glides. Distal part of right spicule with 2 lateral projections. Tail 90 (81–96) long. Caudal extremity slightly curved ventrally, with wide caudal alae bearing 10 pre-anal and 5 post-anal pairs of pedunculate papillae. Pre-anal papillae distributed as 3 single pairs followed by 3 double pairs and one single pair close to anus. One pair of sessile papillae located just ventral to last pair of pedunculate papillae. Phasmids present near tip of tail.

Female (N = 6). Length 10.22 (9.67–11.39) mm. Width at level of vulva 195 (186–201). Buccal capsule 37 (36–39) long. Ptilina 34 (31–37), nerve-ring 57 (42–75), deirids 104 (87–120) and excretory pore 146 (135–152) from anterior extremity. Oesophagus 2.07 (1.83–2.22) mm in length. Muscular oesophagus 901 (835–970) and glandular oesophagus 1.19 (0.99–1.38) mm in length. Vulva 5.16 (4.46–6.11) mm from tip of tail. Vagina vera 36 (30–48) in length; vagina uterina 290 (285–300) in length. Eggs 36 (33–39) × 23 (21–24); contain larvae. Tail 98 (90–119) in length.

Type-host: *Haematopus palliatus* Temminck (Aves: Haematopodidae).

Type-locality: Mar Chiquita coastal lagoon (37°46'S, 57°27'W), Buenos Aires province, Argentina.

Site of infestation: Gizzard.

Intensity of infestation: 22 males and 15 females.

Other host: *Larus dominicanus* Lichtenstein (Aves: Laridae).

Locality: Balneario Orense (38°42'S, 59°47'W), Buenos Aires province, Argentina.

Site of infestation: Gizzard.

Intensity of infestation: 6 males and 8 females.

Type-material: Holotype, allotype and paratypes are in the Helminth Coll. No. 40,066/1, 40,066/2 and 40,066/3, Museo de La Plata, La Plata, Argentina.

Comments

According to descriptions given by Wong & Lankester (1985) and Wong & Anderson (1985), *Sciadiocara haematopodi* n. sp. most closely resembles *S. legendrei* Petter, 1967. *S. haematopodi* can be clearly distinguished from the latter species by the morphology of the distal end of the left spicule and by the shorter length of the right spicule (100–110 vs 60–66). Also, *S. legendrei* has six pairs of pedunculate pre-anal papillae which are widely spaced, while *S. haematopodi* has 10 mostly arranged in pairs. Finally, in *S. legendrei* the ratio of the length of the vagina vera to the length of the vagina uterina is 1 : 3.5, while that in *S. haematopodi* is 1 : 8. Of the remaining six species of *Sciadiocara*, *S. haematopodi* differs from *S. umbellifera* (Molin, 1860) in the shorter length and morphology of both spicules, from *S. bihamata* (Mueller, 1897) and *S. serrata* Wang, 1966 in the lack of serrations on the edges of the ptilina, and from *S. rugosa*, Schmidt & Kinsella, 1972, *S. cucullatus* (Wehr, 1934) and *S. chabaudi* Schmidt & Kinsella, 1972 in the absence of triangular cuticular plates in the anterior region of the body.

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