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Ultrastructural study of the male gamete of *Pleurogonius truncatus* Prudhoe, 1944 (Platyhelminthes, Digenea, Pronocephalidae) parasite of *Eretmochelys imbricata* (Linnaeus, 1766)

Étude ultrastructurale du gamète mâle de *Pleurogonius truncatus* Prudhoe, 1944 (Platyhelminthes, Digenea, Pronocephalidae) parasite de *Eretmochelys imbricata* (Linnaeus, 1766)

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ABSTRACT

In Pronocephaloidea, the spermatozoa of only two species have been studied today. Because of this, we present in this work data concerning to a third specie, *Pleurogonius truncatus* Prudhoe, 1944. The mature spermatozoon of *P. truncatus* possesses two axonemes with the 9+“1” pattern typical of Trepaxonemata, mitochondrion, nucleus, parallel cortical microtubules, spinelike bodies, cytoplasmic expansion and an external ornamentation of the plasma membrane. A particularity of the spermatozoon of *P. truncatus* is in the ultrastructure of the anterior spermatozoon extremity with only cortical microtubules and ornamentation of the plasma membrane. This type of anterior extremity has never been described until today in Pronocephaloidea. On the other hand, the ultrastructure of the posterior extremity of the spermatozoon confirms that already described in Pronocephalidae.

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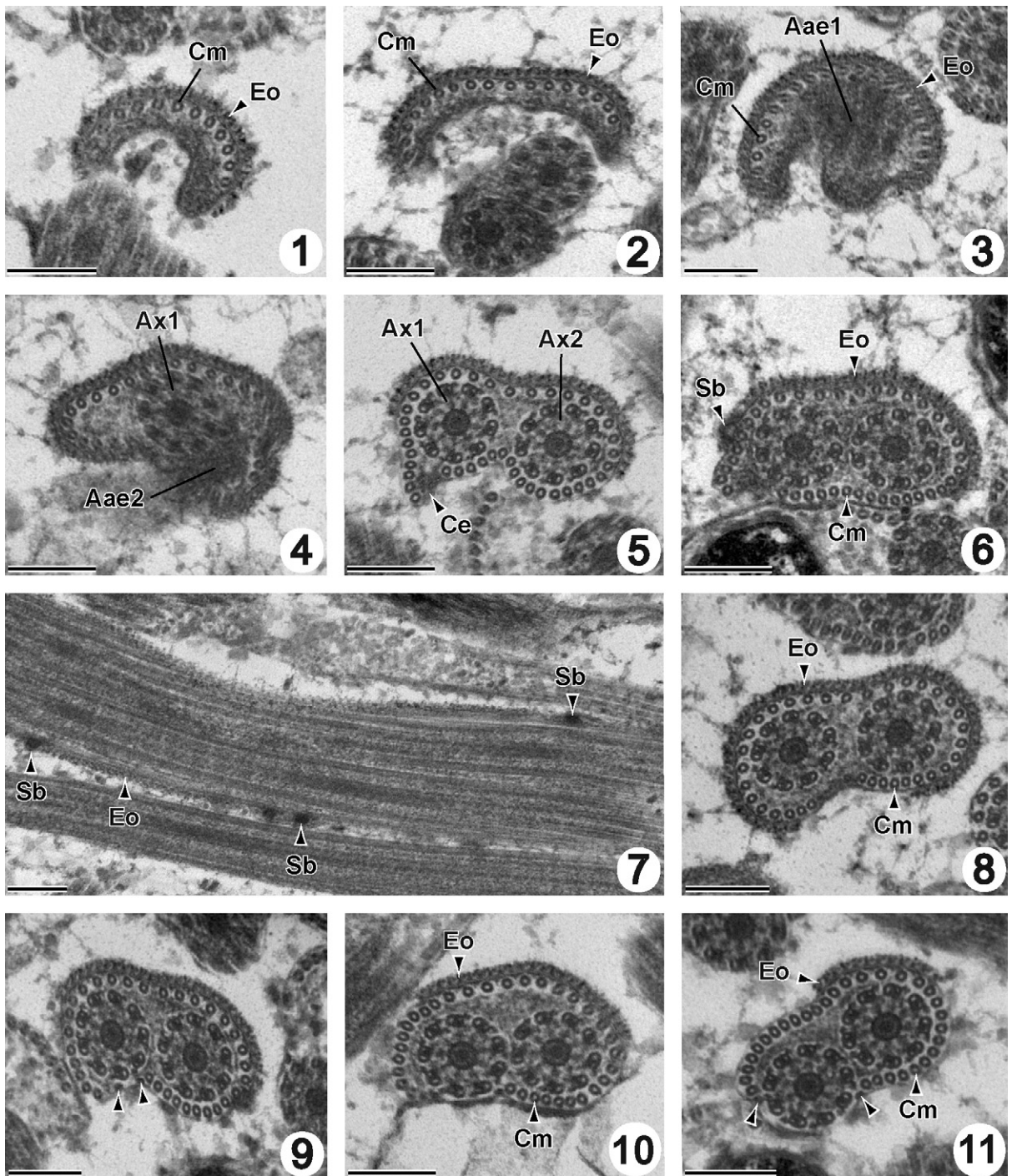
R É S U M É

Le spermatozoïde de seulement deux espèces de Pronocephaloidea ont été étudiées à ce jour. C'est pourquoi nous présentons dans ce travail, l'étude d'une troisième espèce, *Pleurogonius truncatus* Prudhoe, 1944. Le spermatozoïde mature de *P. truncatus* possède deux axonèmes de type 9+“1” caractéristique des Trepaxonemata, une mitochondrie, un noyau, des microtubules corticaux parallèles, des corps en forme d'épines, une expansion cytoplasmique une ornementation de la membrane plasmique. Une particularité du spermatozoïde de *P. truncatus* réside dans l'ultrastructure de son extrémité antérieure caractérisée par seulement des microtubules corticaux et une ornementation de la membrane plasmique. Ce type d'extrémité antérieure n'a jamais été décrite jusqu'alors chez un Pronocephaloidea. Par contre, l'extrémité postérieure du spermatozoïde confirme l'homogénéité des Pronocephalidae concernant ce critère.

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Figures 1-11. Region I of the spermatozoon of *Pleurogonius truncatus*. Scale bar = 200 nm. (1-2) Cross sections of the anterior extremity of the spermatozoon showing only cortical microtubules (Cm) and the external ornamentation of the plasma membrane (Eo). (3) Cross section in the anterior part of the spermatozoon with the apparition of the first axonemal anterior extremity (Aae1), cortical microtubules (Cm) and the external ornamentation of the plasma membrane (Eo). (4) Cross section in the anterior part of the spermatozoon showing the first axoneme (Ax1), the second axonemal anterior extremity (Aae2), cortical microtubules (Cm) and the external ornamentation of the plasma membrane (Eo). (5) Cross section of the spermatozoon the two axonemes (Ax1 and Ax2), the external ornamentation of the plasma membrane (Eo), an expansion of the cytoplasm (Ce) and 41 cortical microtubules surrounding the axonemes. (6) Cross section of the spermatozoon showing the simultaneous presence of the two axonemes, a spinelike body (Sb), the external ornamentation of the plasma membrane (Eo), the expansion of the cytoplasm and 39 cortical microtubules surrounding the axonemes. (7) Longitudinal section of the spermatozoon with spinelike bodies (Sb) and the external ornamentation of the plasma membrane (Eo). (8) Cross section of the spermatozoon with two axonemes, the external ornamentation of the plasma membrane (Eo) and cortical microtubules (Cm). (9) Cross section showing two attachment zones (arrowheads), spinelike body, the external ornamentation of the plasma membrane and cortical microtubules. (10-11) Cross sections with the two axonemes, two attachment zones (arrowheads), a reduction of the external ornamentation of the plasma membrane and cortical microtubules.

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