

A Note About Two Hypotrich Ciliate Species of the Genus *Amphisiella*

Gregorio FERNANDEZ-LEBORANS and Apolonia NOVILLO*

Departamento de Biología Animal I (Zoología), Facultad de Biología, Universidad Complutense, Madrid, Spain

Summary. The diagnosis of two species of marine hypotrich ciliates: *Amphisiella arenicola* and *A. ovalis* is shown. These species were described previously by the same authors, as well as the statistical analysis of their biological features and the comparison with the most similar species. Since the diagnosis of both species did not appear in the previous work, these diagnosis are included, in order to observe the rules of the International Code of Zoological Nomenclature.

Key words: *Amphisiella*, Ciliophora, marine hypotrich, species, Protozoa.

INTRODUCTION

In 1992 the authors described two new species of marine hypotrich ciliates: *Amphisiella arenicola* and *Amphisiella ovalis* (Fernandez-Leborans and Novillo 1992). The samples were collected in two littoral areas: ciliates of *Amphisiella arenicola* from a beach zone of the Mediterranean Sea (Gandia, Spain), and ciliates of *Amphisiella ovalis* from a beach zone of the Cantabrian Sea, beside the Atlantic Ocean (Castro Urdiales, Spain). Statistical analysis of the different features and comparison with the species most similar to the ciliates studied appeared in this previous work, in which two

new species were proposed, taking into account the differences observed respect to other described species.

Recently Dr. Petz (Institute of Zoology, University of Salzburg) indicated that although these species are valid, they need the publication of their diagnosis since this is a condition according to the International Code of Zoological Nomenclature (personal communication).

Diagnosis of *Amphisiella arenicola* Fernandez-Leborans & Novillo sp. n. (Fig. 1)

Oval elongated ciliates, with dorsal and ventral sides flattened (132-162 µm long, 37.5-67.5 µm width). Oral ciliature on the left side of ventral surface with an adoral organelles zone (AO) and a paroral formation (PF). AO comprises 36-42 organelles disposed in three parts: (a) an "anterior part" with 15-17 organelles having three parallel kineties (with 2, 6 and 6 kinetosomes each); (b) an "intermediate part" of 16-19 organelles having three rows (with 2, 10-14 and 10-14 kinetosomes each); (c) a "posterior part" of 5-6 organelles having 2 rows of 6-8

Address for correspondence: Gregorio Fernandez-Leborans, Departamento de Biología Animal I (Zoología), Facultad de Biología, Pnta 9, Universidad Complutense, 28040 Madrid, Spain; E-mail: greg@eucmax.sim.ucm.es

*Present address: Biology Department, 5 Cummington St, 02215 Boston, Massachusetts, USA

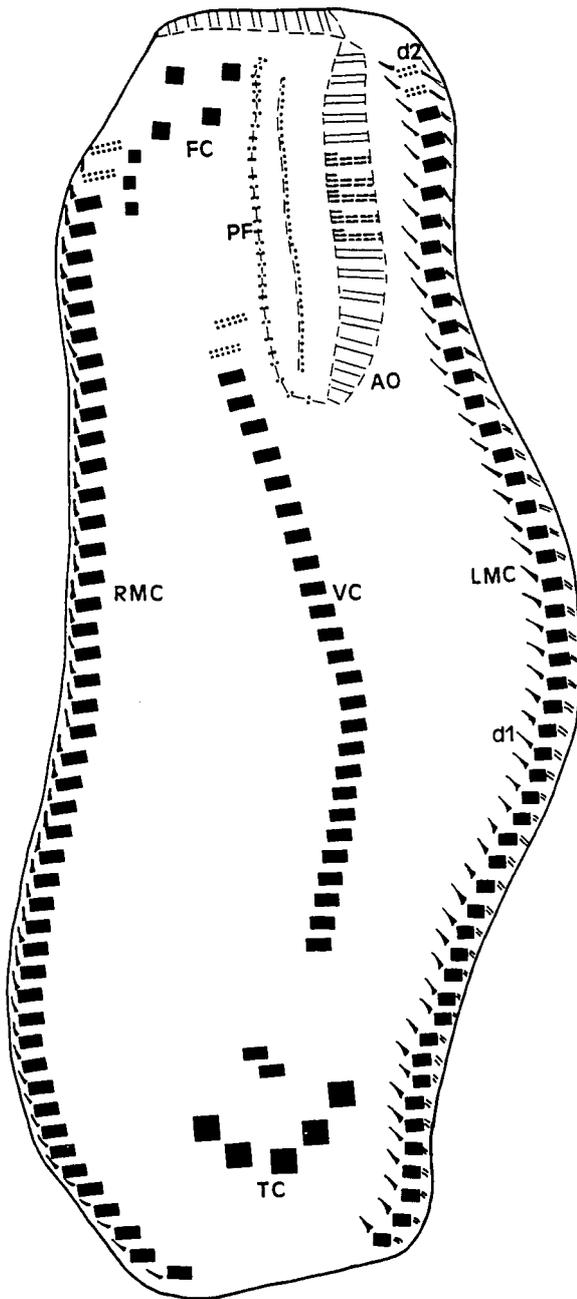


Fig. 1. Infraciliature of *Amphisiella arenicola*. AO - adoral zone of organelles, d1 and d2 - kinetosomal derivatives, FC - frontal cirri, LMC - left marginal cirri, PF - paroral formation, RMC - right marginal cirri, TC - transverse cirri, VC - ventral cirri

kinetosomes each (the next to last organelle with 2 rows of 4 kinetosomes, and the last 2 rows of 2 kinetosomes each). PF composed of two components: (a) "paroral formation 1", nearest the adoral zone of organelles, is a stichomonad of 60-68 kinetosomes; (b) "paroral formation 2", beside the frontal cirri, formed of 50-52 pairs of

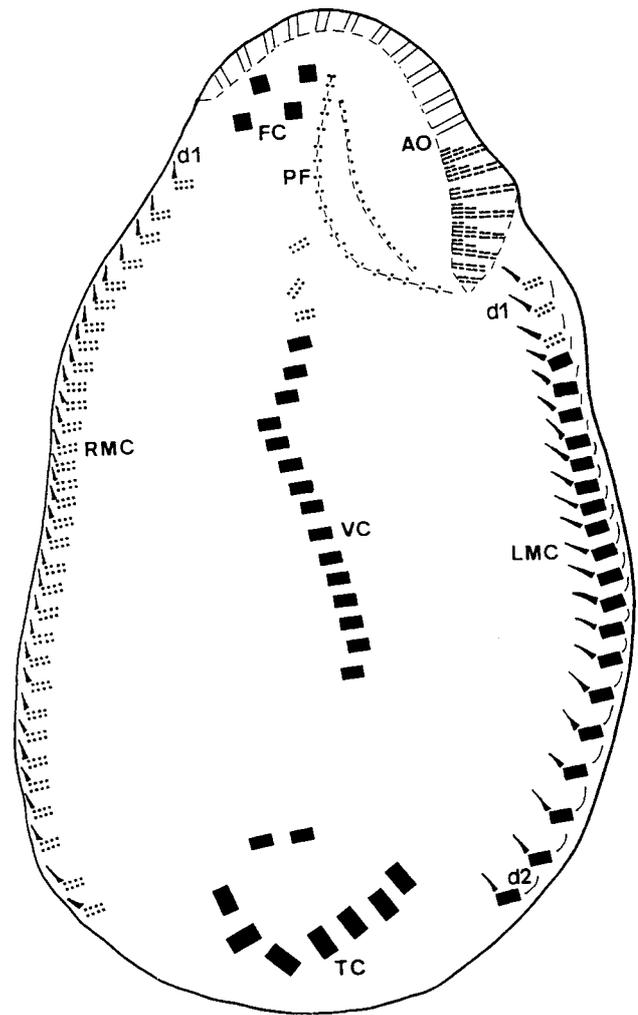


Fig. 2. Infraciliature of *Amphisiella ovalis*. AO - adoral zone of organelles, d1 and d2 - kinetosomal derivatives, FC - frontal cirri, LMC - left marginal cirri, PF - paroral formation, RMC - right marginal cirri, TC - transverse cirri, VC - ventral cirri

kinetosomes (diplostichomonad). Four anterior frontal cirri and three posterior or frontoterminal cirri. 50-54 right marginal cirri. 48-50 left marginal cirri. 52-56 ventral cirri with two cirri located directly above the transverse cirri. 5-6 transverse cirri. Two oval macronuclei in the middle region of the body (19.5-31.5 μm long, 9-13.2 μm width each). Beside each macronucleus is an oval micronucleus (6.75-7.5 μm long). Dorsal surface with 5-6 kineties.

Type location: Gandía Beach (38°01' N; 0°10' E) (Mediterranean Sea, Spain)

Type specimens: permanent slides staining with silver carbonate technique (ref. n. 1663a-f) (Departamento Biología Animal I, Facultad de Biología, Universidad Complutense, Madrid)

Diagnosis of *Amphisiella ovalis* Fernandez-Leborans & Novillo sp. n. (Fig. 2)

Ciliates oval in shape, with posterior end rounded and anterior end slightly pointed (49.5-63 µm long, 27-46.5 µm width). Oral ciliature on the left anterior part of the ventral surface with an adoral zone of organelles (AO) and a paroral formation (PF). AO composed of 16-19 organelles. On middle region of this zone each organelle has four rows of kinetosomes (a short row of 3-4 kinetosomes, an intermediate row of 9-10 kinetosomes, and two rows of 15-16 kinetosomes each. Posterior end of AO with an organelle with two rows of 6-8 kinetosomes each. PF consists of a shorter internal part (a stichomonad with 22-25 kinetosomes), and of a longer external part (a diplostichomonad with 24-26 pairs of kinetosomes). Four frontal cirri; 30-32 right marginal

cirri; 20-24 left marginal cirri; 18-22 ventral cirri with two cirri located directly above the transverse cirri; 6-7 transverse cirri; 32-45 macronuclear nodes (4.2-9 µm long, 2.1-4.4 µm width each); 2-4 micronuclei (1.56-2.04 µm long each). On the dorsal side there are four kineties.

Type location: Castro Urdiales Beach (43°22' N; 0°28' W) (Cantabrian Sea, Spain)

Type specimens: permanent slides staining with silver carbonate technique (ref. n. 1665a-l) (Departamento Biología Animal I, Facultad de Biología, Universidad Complutense, Madrid)

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