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3D models related to the publication: Siphonodella leiosa (Conodonta), a new unornamented species from the Tournaisian (lower Carboniferous) of Puech de la Suque (Montagne Noire, France).

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To cite this version:

Louise Souquet, Carlo Corradini, Catherine Girard. 3D models related to the publication: Siphonodella leiosa (Conodonta), a new unornamented species from the Tournaisian (lower Carboniferous) of Puech de la Suque (Montagne Noire, France).. MorphoMuseum, 2020, 6 (3), pp.e115. 10.18563/journal.m3.115 . hal-02934226

HAL Id: hal-02934226

https://hal.science/hal-02934226v1

Submitted on 9 Sep 2020

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Dataset

3D models related to the publication: *Siphonodella leiosa* (Conodonta), a new unornamented species from the Tournaisian (lower Carboniferous) of Puech de la Suque (Montagne Noire, France).

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Abstract

The present 3D Dataset contains the 3D models of the holotype and the paratypes of the new species *Siphonodella leiosa* described and analyzed in the following publication: L. Souquet, C. Corradini, C. Girard: *Siphonodella leiosa* (Conodonta), a new unornamented species from the Tournaisian (lower Carboniferous) of Puech de la Suque (Montagne Noire, France). Geobios, https://doi.org/10.1016/j.geobios.2020.06.004.

Keywords: Carboniferous, Conodonts, Holotype, Montagne Noire, Siphonodella

Submitted:2020-03-26, published online:2020-07-21. https://doi.org/10.18563/journal.m3.115

Model IDs	Status	Description
UM PSQ 1	Paratype	Dextral P1 element
UM PSQ 2	Holotype	Dextral P1 element
UM PSQ 3	Paratype	Dextral P1 element
UM PSQ 4	Paratype	Dextral P1 element
UM PSQ 5	Paratype	Sinistral P1 element
UM PSQ 6	Paratype	Dextral P1 element
UM PSQ 7	Paratype	Dextral P1 element
UM PSQ 8	Paratype	Sinistral P1 element
UM PSQ 9	Paratype	Dextral P1 element

Table 1. 3D models of the holotype and paratypes of *Siphonodella leiosa*. Collection: University of Montpellier, France

INTRODUCTION

Siphonodella leiosa is a new species of conodont described in our paper entitled "*Siphonodella leiosa* (Conodonta), a new unornamented species from the Tournaisian (lower Carboniferous) of Puech de la Suque (Montagne Noire, France)" based on a set of P1 buccal elements. The specificity of this species compared to other *Siphonodella* is its unornamented platform. This new discovery reinforces the idea that ornamentation of siphonodellids is related to bathymetry, but also to sea-surface temperature. We discuss the ecological and environmental significance of this new taxon. The 3D models of the holotype (UM PSQ 2) and the paratypes are provided here (Table 1, Fig.1).

METHODS

Digitization of the specimens was performed using an X-ray microtomograph (µCT) Phoenix nanotomeS on the AniRA-Immos platform of the SFR Biosciences (UMS 3444, ENS Lyon) at a cubic voxel resolution of 1 µm. The 3D surfaces were extracted semi-automatically within AVIZO 6.3.0 (FEI) using the segmentation threshold selection tool. The 3D surfaces are provided in .ply format, and can therefore be opened with a wide range of freeware.

ACKNOWLEDGEMENTS

We acknowledge the contribution of SFR Biosciences (UMS3444/ CNRS, US8/ Inserm, ENS de Lyon, UCBL) AniRa-ImmOs facility. We particularly thank Mathilde Bouchet for her kind assistance during the scanning sessions. The research was supported by the Project Marcon (Labex CeMEB). This is contribution ISEM 2020-143.

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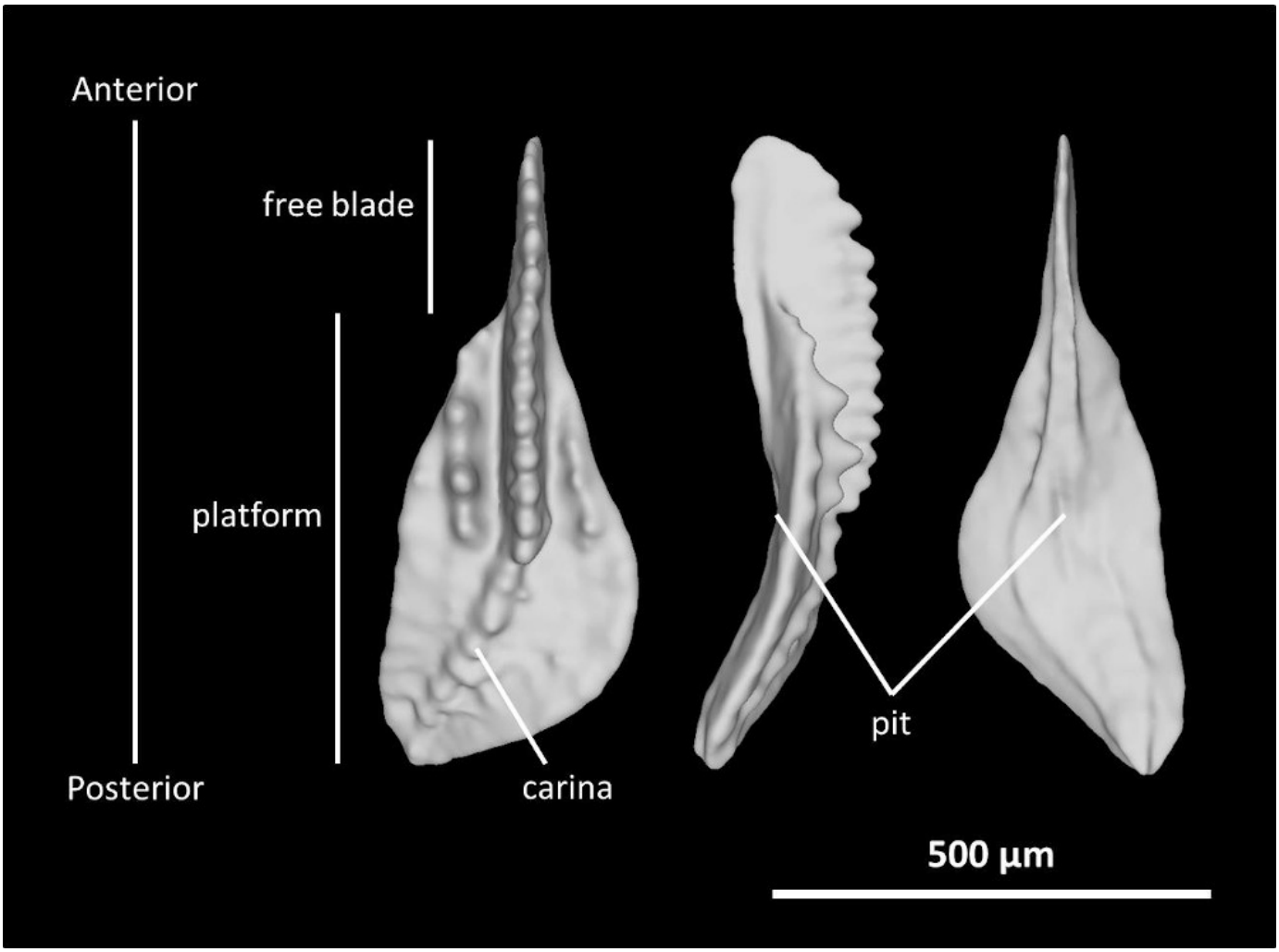

Figure 1. *Siphonodella leiosa,* new species. Holotype (UM PSQ 2). From left to right: upper (oral), lateral and lower (aboral) views of P1 element.

 ISSN: 2274-0422