



A new species of amphipod, *Photis inornatus* sp. nov. (Corophiidea, Photidae) from a ‘*Haploops* community’ in Brittany

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Abstract

A new species of *Photis*, *P. inornatus* sp. nov., is described and figured from a *Haploops* community between 20 and 35 m depth in shallow waters from South Brittany, in the bay of Concarneau, northernmost part of the Bay of Biscay. This species was consistently found in macrobenthic samples extracted from the muddy *Haploops* community but not in surrounding muddy environment. An updated identification key is provided for European Atlantic and Mediterranean species of *Photis*.

Key words: amphipod, *Photis*, new species, taxonomy, France

Introduction

Haploops community is characterized by dense *Haploops* tube mats in consolidated muddy environments. In south Brittany, recent mapping investigations on benthic communities highlighted a large extension of this habitat in different coastal embayments (Ehrhold *et al.* 2006; Rigolet *et al.* 2011). As part of a larger program designed to understand the ecological role played by the extension of the gregarious amphipod *Haploops nirae* Kaim-Malka in the functioning of the ecosystem, macrobenthic sediment samples were collected in 2009 and 2010 from all muddy sedimentary environments from the bay of Concarneau (France), between 20 and 35 m depth at less than 7 nautical miles off the coast. A new species of amphipod was discovered. This species is described herein as *Photis inornatus* sp. nov. It is characterised by the unornamented palps of the gnathopods in both sexes. In this respect it differs from all other known species in the genus. A key is provided to the known species of *Photis* from the north-eastern Atlantic.

Material and methods

In August 2009 and in February, May, August and November 2010, field trips were conducted onboard RV *Thalia* in 6 to 15 stations in the bay of Concarneau, France. Several benthic muddy habitats were investigated, from *Amphiura filiformis* muddy sand community to *Sternaspis scutata* and *Haploops nirae* muddy communities. Macrofauna samples were extracted using a Van Veen grab (surface core area 0.1 m²) at each station and undisturbed sediment samples were collected in the mean time with a Reineck box-corer. Macrofauna samples were sieved on a 1 mm mesh-size and preserved in a 5% buffered formaldehyde solution. In the laboratory, all macrofauna species were sorted and identified to the species level. Two *Photis* species were isolated and enumerated: *P. longicaudata* (Bate & Westwood, 1863) and *P. inornatus* sp. nov., the later being described herein.

Abbreviations used in figures: G1, gnathopod 1; G2, gnathopod 2; Lab, labium; Lbr, labrum; Mx1, maxilla 1; Mx2, maxilla 2; Md, mandible; Mxp, maxilliped; P3-7, pereopods 3–7; U1-3, uropods 1–3; T, telson.