



<http://dx.doi.org/10.11646/zootaxa.3873.2.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:1520EA33-CFB7-4369-8157-3D52B4540004>

## A new species of *Canace* Haliday from Portugal, with a revised key to species (Diptera: Canacidae: Canacinae)

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### Abstract

A new species of *Canace* Haliday, in Curtis, 1837 from Portugal is described. This species, related to *C. actites* Mathis, 1982, is known so far from a single maritime locality near Lisbon. A key to species of the genus is also provided.

**Key words:** Canacidae, Canacinae, *Canace*, new species, Portugal, key to species

### Introduction

*Canace* is an Old World genus of thalassobiontic Beach Flies so far known only from the Atlantic and Mediterranean coasts of the western Palaearctic Region, as well as from western Africa north of the Equator. Only five species of *Canace* were known previously (Munari and Mathis, 2010). Three of these species have been recorded in the literature from the Euro-Mediterranean coasts (including Macaronesia): *Canace actites* Mathis, 1982, *C. nasica* (Haliday, 1839), and *C. salonitana* Strobl, 1900. The other two species occur in western Africa: *Canace rossii* Canzoneri, 1982 (coast of Sierra Leone) and *C. zvuv* Mathis and Freidberg, 1991 (coast of Cameroon).

A sixth species is described herein from Portugal and its head and male terminalia figured. According to the current knowledge about the distributional range of the species of this genus, the new species would appear to be rather localized on the Atlantic coast of Portugal. However, it is also true that maritime Portugal as well as the Atlantic coast of northern Morocco have been very poorly investigated as to the canacid fauna. Therefore, discovery of a wider distribution for this new species might likely be expected in the future.

### Material and methods

Thirteen specimens from the rocky beach of Parede (near Lisbon, Portugal) resulted from field collections carried out by one of us (J.M.A.), while three additional specimens, from the same site, have also been found in the Diptera collection of the Natural History Museum, London. All specimens are double mounted, micropinned in a plastic block. As for the material collected in 2014, the specimens have been dry prepared from alcohol. Study and illustrations of the material examined required the use of dissecting and compound microscopes, the latter used in particular for perusal of the genitalic structures. Fine-tipped tweezers and micro-pins were used to remove and dissect the abdomen, which was macerated in a boiling potassium hydroxide solution. The abdomen was dipped in a 20% acetic acid solution for about one minute to fully neutralize the action of caustic potash, and then rinsed in distilled water. Genitalia were then transferred to glycerine for observation. When necessary for proper orientation, the structure was transferred from glycerine to glycerine jelly. The glycerine jelly was heated, and the structure appropriately oriented. After cooling, the structure embedded in glycerine jelly became immobilized. Abdomen and terminalia were studied in this way, photographed and illustrated, and finally placed in a small plastic tube filled with glycerine, and pinned below the specimen from which the structure was removed. Descriptive

Externally this species is similar to *C. actites*, but differs in the number of setae on the mesofrons (*C. actites* bears only 1 pair of large proclinate setae), which are, moreover, of the same length and strength. In addition, the new species exhibits a much more subrectangular, sharp-cornered surstylus than Mathis' species, and the fingerlike ventral lobe is displaced at the posteroventral corner of the surstylus (in *C. actites* this process is otherwise placed at the anteroventral corner of the surstylus). Furthermore, the ventral lobes are quite symmetrical in posterior view, whereas the apices of these processes are distinctly asymmetrical in *C. actites* (see Munari, 2014, fig. 3). Despite these substantial differences, the two species appear to be closely related, and we strongly presume that they share a recent common ancestor.

## Acknowledgements

We are particularly grateful to Dr. Daniel Whitmore (London, UK) for allowing us to examine specimens from the type locality preserved in the collections of the Insects Division of the Natural History Museum of London. Thanks are also due to two anonymous reviewers for critical reading of a first draft of the manuscript.

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