Cyathus lignilantanae sp. nov., a new species of bird’s nest fungi (Basidiomycota) from Cape Verde Archipelago

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Abstract

Cyathus lignilantanae sp. nov. is described and illustrated on the basis of morphological and molecular data. Specimens were collected on Santiago Island (Cape Verde), growing on woody debris of Lantana camara. Affinities with other species of the genus are discussed.

Resumen

Sobre la base de datos morfológicos y moleculares se describe e ilustra Cyathus lignilantanae sp. nov. Los especímenes se recolectaron en la isla de Santiago (Cabo Verde), creciendo sobre restos leñosos de Lantana camara. Se discuten las afinidades de esta especie con las del resto del género.

Key words: biodiversity hotspot, Sierra Malagueta Natural Park, gasteromycetes, Agaricales, Nidulariaceae, ITS nrDNA, taxonomy

Introduction

The Cape Verde archipelago is situated in the Atlantic ocean (14°50’–17°20’N, 22°40’–25°30’W), about 750 km off the Senegalese coast (Africa), and is formed by 10 islands (approximately 4033 km²), discovered and colonized by Portuguese explorers in the 15th century. The islands are of volcanic origin and the Pico de Fogo (2829 m) is the largest active volcano in the region. Due to the proximity of the Sahara, the islands are dry, but in those with steep mountains, the humidity is much higher providing a rainforest habitat. Santiago is the largest island with an area of 991 km²; it is dominated by two volcanic mountains: the arch of the Serra da Malagueta (1064 m), in the north, and the Pico d’Antónia (1394 m), at the center of the island.

Geologically Cape Verde archipelago is one of the hotspots of the African plate, a region also considered as a hotspot for diversity of terrestrial (Vasconcelos et al. 2012) and marine organisms (Roberts et al. 2002). Cape Verde Islands have a number of endemic species of birds (e.g. Passer iagoensis, the Iago Sparrow) and reptiles (e.g. Tarentola gigas, Cape Verde giant gecko), many of which are endangered by human development (BirdLife International 2015, World Wild Life 2015). At least 92 species of vascular plants are reported as endemic from a total of 659 (Frodin 2001). However, there are few papers on fungi from Cape Verde; some exceptions are Gjaerum (1984) that cites 23 species of rust fungi found in Macaronesia, twelve of them new to Cape Verde; Eckblad & Brochman (1988) that mentions 12 species of gasteroid and secotiod fungi; and Mies (1993) that has a checklist with 370 lichenized and lichenicolous Ascomycota. Even in the global overview of wild edible fungi and their use and importance to people published by Boa (2004), the Cape Verde Islands were one of the few areas that the author mentioned for which there is not information. Recently, new lichenized fungi have been described, three in the genus Rinodina (Giralt & van den Boom 2008) and one in the genus Plectocarpon (Ert & van den Boom 2012).

During a survey of the corticiaceous fungi from Cape Verde, small branches of Lantana camara L. were collected