Notes on the genus *Anisomeridium* (lichenized Ascomycotina) from Madeira and the Azores (Macaronesia)

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Abstract

Descriptions are presented for two new species found on Madeira and the Azores: *Anisomeridium macaronesicum* and *A. macropycnidiatum*. The differentiation from related species is discussed and a key to the genus *Anisomeridium* in Macaronesia is added.

Key words: biodiversity in lichens, ecology, key, new species, Portugal, taxonomy

Introduction

The lichenized ascomycetes of Macaronesia have received considerable attention in recent decades. A checklist of Macaronesian lichens and lichenicolous fungi with four additions was published by Hafellner (1995, 1999, 2002, 2005, 2008). For Madeira the foliicolous lichens were treated by Sérusiaux (1996), and a recent checklist was published by (Carvalho et al. 2008). Further information on lichens and lichenicolous fungi of Madeira was provided by Pišút (2009), Sérusiaux et al. (2007), Flakus & Kukwa (2011), Breuss (2012), Lücking & Breuss (2012), Aptroot & Schumm (2012) and van den Boom & Ertz (2014). A recent checklist for lichens and lichenicolous fungi of the Azores is provided by Gabriel (2008).

These sources indicate the following species of *Anisomeridium* (Müll. Arg.) M. Choisy, for Macaronesia: *A. biforme* (Borrer) R.C. Harris, *A. polypori* (Ellis & Everh.) M.E. Barr, *A. ranunculosporum* (Coppins & P. James) Coppins and *A. viridescens* (Coppins) R.C. Harris. During fieldwork on the Macaronesian islands Madeira, São Miguel and Terceira, the author collected several specimens of *Anisomeridium* that did not match any of these species, nor any other species treated in a world-wide key by Harris (1995) or in the most recent keys of *Anisomeridium* for Costa Rica (Aptroot et al. 2008) and Great Britain (Smith et al. 2009). Based on them, two species new to science are described below.

Materials and Methods

All specimens have been studied by conventional macro- and microscopical techniques with hand-cut sections mounted in tap water. Amyloid reactions were tested using Lugol’s iodine solution (K/I). Voucher specimens are kept in the herbarium of P. van den Boom, holotype specimens are deposited in the herbarium of Berlin [B]. Distribution data for Macaronesia were taken from the checklists of the Canary Islands (Hernández-Padrón & Pérez-Vargas 2010), Madeira (Carvalho et al. 2008) and the Azores (Gabriel 2008).

Taxonomy

*Anisomeridium macaronesicum* van den Boom sp. nov. (Fig. 1) Mycobank: MB 811451
3. Ascospores 1-septate (15‒)17‒22(‒25) × 7–9(‒10) µm (M) .......................................................... A. macaronesicum
   - Ascospores 1-septate, smaller ........................................................................................................ 4

4. Ascospores 12–17(−19) × 3.5–4.7 µm (A) .......................................................................................... A. viridescens
   - Ascospores 12–16 × 4.5–6 µm ........................................................................................................... 5

5. Ascospores with an elongate lower cell and a short upper cell, with a median constriction (C) .................... A. ranunculosporum
   - Ascospores with equal cells, or the lower cell shorter than the upper, without a median constriction (A,C)........... A. biforme

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