Candelariella commutata sp. nov. for C. unilocularis auct. medioeur. – an arctic-alpine lichen on calcareous substrata from the Caucasus and Europe

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A new Candelariella species is described and reported from the Caucasus, the Alps, Scandinavia and Novaya Zemlya. It grows on calcareous ground and partly comprises what has earlier been named C. unilocularis.


Eine neue Candelariella-Art wird beschrieben und aus dem Kaukasus, den Alpen, Skandinavien und Nowaja Zemlja nachgewiesen. Sie siedelt auf kalkreichem Untergrund und umfasst einen Teil dessen, was bisher als C. unilocularis bezeichnet worden ist.

Key words: Candelariaceae, Candelariales, Ascomycota, lichens, lichenized fungi.

Introduction

In a study of the lichens in the Caucasus Otte (2007) mentioned an alpine, terricolous Candelariella referred to as “Candelariella unilocularis sensu Nimis”, supposing its identity with material from Central Europe named so by some authors. As C. unilocularis has been shown to be a synonym of C. aurella (Khodosovtsev 2005; see Discussion below) it is necessary to describe a new taxon for this entity. In this paper we describe Candelariella commutata, verify the taxonomic identity of the Caucasian material with the European and provide a detailed description of the species.

Materials and methods

Specimens from several European localities deposited at G, GLM, H, LD and S and material collected by the first author in the Western Caucasus between 1997 and 2010 as well as in the Eastern Caucasus in 2013 was studied with stereo microscopes Motic ST-39 and Leica M 165 C and with a compound microscope Leica DM 2500 P. For transmitting light microscopy, hand cut sections of apothecia were made with razor blades after soaking the material in tap water. The sections were mounted in water on a glass slide and partly squashed. Photographs were taken with a Leica DFC 495 digital microscope camera using Software Leica LAS V 3.8. Spot tests were done with 10% KOH solution. HPTLC was performed according to the methods in Arup et al. (1993).