



Article

Two new species and a new record of *Lecanora sensu stricto* (Lecanoraceae, Ascomycota) from India

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Abstract

The new species *Lecanora girigangaensis* and *L. upretii* from Himachal Pradesh in India are described. The former has large apothecia with a constricted base, *melacarpella*-type amphithecium, *glabrata*-type epihymenium, hyaline hypothecium, and contains atranorin and usnic acid, while the latter is characterized by having yellow-brown to pale brown apothecial discs, a *melacarpella*-type amphithecium, *pulicaris*-type epihymenium, and contains atranorin and usnic acid. Also, *Lecanora subalbellina* is recorded from Asia for the first time.

Keywords: Asia, biodiversity, Lecanorales, taxonomy, tropical lichens

Introduction

The large genus *Lecanora* includes crustose (incl. placodioid) lichens with hyaline, usually non-septate ascospores, *Lecanora*-type asci and mostly lecanorine apothecia. Molecular data have shown that the genus as currently circumscribed is not monophyletic (Arup & Grube 1998, 2000; Grube *et al.* 2004; Lumbsch 2002), but no revised classification is currently available. The core group of *Lecanora sensu stricto* is characterized by the presence of calcium oxalate crystals in the amphithecium, filiform conidia, and the presence of atranorin and/or usnic acid. This largely agrees with the wider circumscription of the *Lecanora subfusca* group to include taxa containing usnic acid and a dark hypothecium (Guderley 1999; Lumbsch 1995; Lumbsch *et al.* 1995, 1996, 2003; Papong *et al.* 2012). Recently, *Lecanora sensu stricto* has received increased attention in South and South-East Asia, including regional treatment on species groups occurring in Japan, India, and Thailand (Miyawaki 1988, 1994; Nayaka *et al.* 2006; Papong *et al.* 2011; Papong & Lumbsch 2011; Upreti 1998; Upreti & Chatterjee 1998). These studies and other recent ones in Australia and East Africa (Kirika *et al.* 2012; Lumbsch *et al.* 2011; Lumbsch & Elix 2004) showed that several undescribed species occur in the paleotropics. Currently, there is no comprehensive revision of *Lecanora* species in India, but one of us (SN) has been working for some time on the Indian species of the genus. Among the material studied in connection with this ongoing research project, specimens of two new species were found that are described below. Further, *Lecanora subalbellina* was found in the material collected in India and is here recorded from Asia for the first time.