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A new hairy *Leptogium* from Nepal.

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Abstract: The new species *Leptogium sphaerosporum* from Langtang in Nepal is described. It is closely related to *L. pedicellatum*, but differs in being more delicate with phyllidia and having spheroid spores. It is most probably a local species of the lower montane forests. An emendation to the world key of hairy *Leptogium* species is presented.

Key words: Himalayas, lichen

Introduction

A number (*c*. 15) of hairy *Leptogium* species [in the so-called sect.*Mallotium* (Ach.) Vain.] is known from the Himalayas and adjacent mountain chains (Jørgensen 1997), so it came as a surprise to find an additional, new species among recently collected lichen material from Nepal. This new species, described below, increases the number of hairy *Leptogium* species known from Nepal (Awasthi 1988) to ten.

The Species

Leptogium sphaerosporum P. M. Jørg. & L. Olley sp. nov.

Leptogio burnetiae similis sed thallo subtili, phyllidiato et ascosporis sphaericis.

Typus: Nepal, Langtang, track from Thulo Syabru to Bamboo, *c*. 1970 m, 16 September 2007, *L. R. Sharma*, *L. Olley* & *A. Cross* AC 7.1 (E—holotypus).

(Figs 1 & 2B)

Thallus foliaceus, bluish grey, to 5 cm wide with orbicular marginal, smooth, non-swelling lobes, 0·5 cm broad, to 150 µm thick Lower surface paler with a dense covering of long-celled, 6–10 × 4 µm, white hairs, to 1mm long.

Apothecia scattered, subpedicillate, to 1·5 mm diam. with flat brown disc and pale bluish thalline margin, dentate to phyllidiate, obscuring the proper exciple of periclinal hyphae, 100–150 µm wide. *Ascospores* colourless, thick-walled, muriform, spheroid, (19–) 20 (–27) × (14–)15(–19) µm with rounded apices.

Conidiomata not observed.

Chemistry. All spot reactions negative, no substances detected by TLC.

Notes. This new species is undoubtedly closely related to *Leptogium burnetiae* Dodge which occasionally produces some phyllidia, but always has clustered coralloid laminal isidia. It is also close to the non-isidiate, usually fertile *Leptogium pedicellatum* P. M. Jørg. which likewise may produce phyllidia, but has quite different, ellipsoid ascospores, 25–30 × 10–15 µm with pointed apices (Fig. 2). Both of these species occur in the same region, though at higher altitudes, and there is no overlap in spore-sizes or form. *Leptogium sphaerosporum* also has a more delicate appearance than these two species, and may easily be overlooked as an underdeveloped (shade) form of them, but the ascospores prove otherwise.

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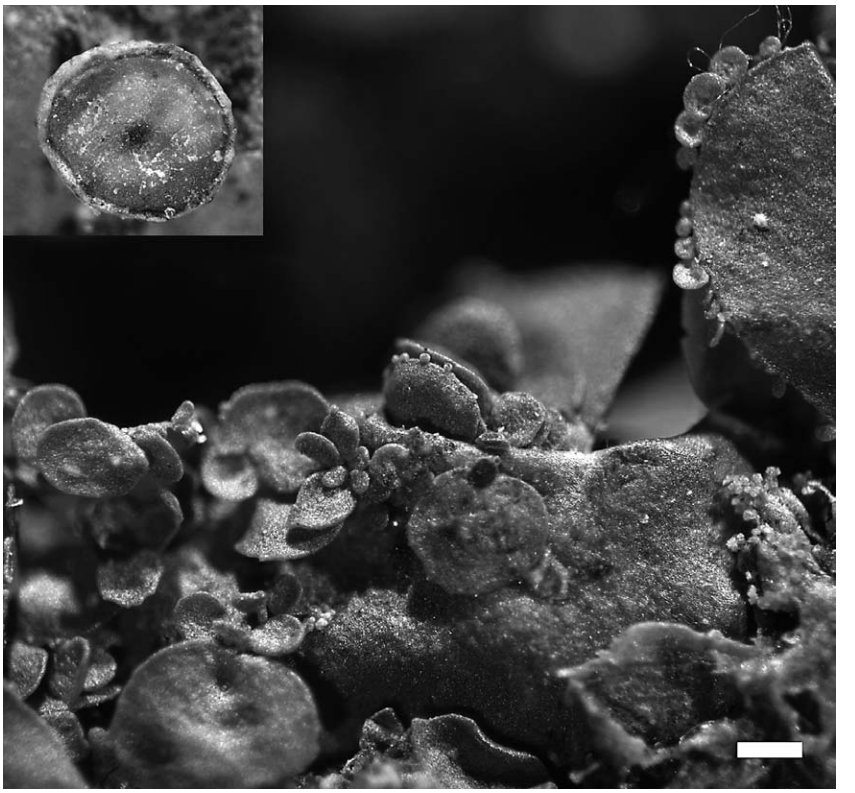


FIG. 1. *Leptogium sphaerosporum*, habitus; inset, an apothecium (E—holotype). Scale = 1 mm.

Leptogium sphaerosporum may be included in the world-key to the hairy *Leptogium* species (Jørgensen 1997) in the following way (new numbering in italics):

34 Apothecia distinctly stalked *35*
Apothecia sessile or shortly stalked *36*

35 Thallus always phyllidiate; ascospores spheroid, 20–30 × 15–19 µm . . . . . **L. sphaerosporum**
Thallus occasionally phyllidiate; ascospores ellipsoid and acuminate, 25–35 × 10–15 µm . . . . . **L. pedicellatum**

Habitat and distribution. The type is corticolous and was collected on *Alnus nepalensis* in an undisturbed, mixed broad-leaved forest (including oak and maple) in the lower temperate zone, at nearly 2000m, a rather shady and humid forest with *Castanopsis*, *Eugenia jambulans*, *Ficus*, *Machillus* and *Rhododendron*. Bryophytes dominated the larger trunks and few lichens were found there. *Leptogium sphaerosporum* may be a local taxon since it was not found among other collections from Nepal. Only one other species of hairy *Leptogium* species is found at lower altitudes, the subtropical *Leptogium trichophorum* Müll. Arg., though the little known, but widespread *L. askotense* Awasthi appears nearly at the same altitude as *L. sphaerosporum*.

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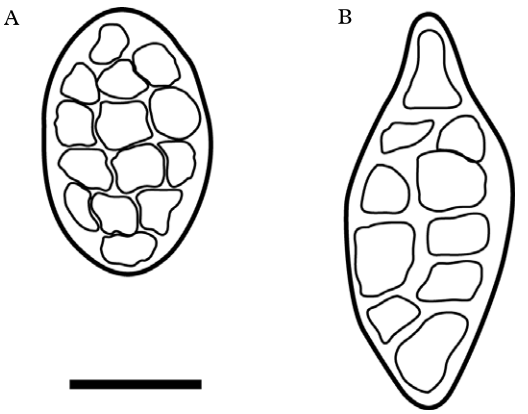


FIG. 2. *Leptogium* species, ascospores. A, *L. sphaerosporum*; B, *L. pedicellatum*. Scale = 10 µm.

LO is indebted to A. Cross for finding the specimen and to Dr L. R. Sharma for his support in co-leading the expedition. We also thank Jan Berge and Beate Helle for their assistance in preparing Figs 1 & 2, respectively.

REFERENCES

Awasthi, D. D. (1988) A key to the macrolichens of India and Nepal. *Journal of the Hattori Botanical Laboratory* **65:** 207–302.

Jørgensen, P. M. (1997) Further notes on hairy *Leptogium* species. *Symbolae Botanicae Upsalienses* **32:** 112–130.

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