



New synonyms and lectotypes in *Aspicilia* (Megasporaceae, Ascomycota)

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The genus *Aspicilia* A.Massal. *s.l.* (Megasporaceae Pertusariales Ascomycota) has a worldwide distribution and the species are common components in the lichen vegetation on exposed rocks in a wide variety of biomes from hot deserts to Arctic tundras. The genus has a reputation of being taxonomically extremely complicated, which is partly caused by the extreme morphological variation and phenotypic plasticity of the species (Nordin 2013; Nordin *et al.* 2007, 2008, 2010; Owe-Larsson *et al.* 2008, 2011; Roux *et al.* 2011). The only existing taxonomic treatment of the genus with a wide scope was published by Magnusson (1939), who applied very narrow species circumscriptions in most cases. Here a number of new synonyms are presented and discussed, most of which are names introduced by Magnusson (*loc. cit.*), and lectotypes of *Lecanora griseopallida* and *Sagedia laevata* are designated.

Aspicilia aquatica (Fr.) Körber (1855:165)

Basionym:—*Parmelia cinerea* var. *aquatica* Fries (1831: 144). Type:—NORWAY. Troms: Storfjord, by the river Gustavsvingen, 7 August 2003, Owe-Larsson 8938 (neotype, designated by Nordin & Jørgensen 2008: 989, UPS!).

= *Lecanora griseopallida* Vainio (1878: 59). *Aspicilia griseopallida* (Vain.) Hue (1910: 112). Lectotype (**designated here**):—RUSSIA. “Fennia, Viipuri (Viborg), in vallo”, 1875, E. Wainio (TUR-VAIN 5702!). *syn. nov.*

The original material of *Lecanora griseopallida* at TUR-VAIN has been divided and placed in two separate packets numbered 5702 and 5702a, each containing a small piece of rock, but there is just one original label, which indicates that the separation of the material was not made by Vainio himself but later by a curator at the museum. Thus both should be regarded as part of the lectotype. It cannot be ruled out that original material can also be found elsewhere. Both the general appearance and the size of spores and conidia agree with *Aspicilia aquatica*, which like many other *Aspicilia* species is quite variable in colour, areolation and the appearance of the apothecia.

Aspicilia cinerea (L.) Körber (1855: 164)

Basionym:—*Lichen cinereus* Linnaeus (1767a: 709, 1767b: 132). Type:—SWITZERLAND. In m. Belpberg. Schaerer, Lich. Helv. exs. 127 (neotype, designated by Jørgensen *et al.* 1994:374, UPS!).

= *Lecanora delimitata* Magnusson (1952: 188). Type:—SWEDEN. Torne lappmark: Jukkasjärvi par., Abisko, Jebrenjokk, 16 July 1919, A. H. Magnusson 3303 (holotype UPS!). *syn. nov.*

Aspicilia cinerea is very variable, both in terms of morphology and DNA sequence variation in the Internal Transcribed Spacer, and is most probably to be regarded as a species complex, but there is poor correspondence between morphological and molecular variation (Roux *et al.* 2011). The type of *Lecanora delimitata* differs from most other specimens mainly by its partly shiny, yellow-brown thallus, with slightly elongated marginal areoles. In other respects it does not differ significantly from other *A. cinerea* specimens, although the surrounding, black, slightly effigurate prothallus is unusually conspicuous. In addition to the type specimen there are two more collections in UPS determined to *L. delimitata* by Magnusson, but the yellow-brown parts of these are not as dominant as in the type. One of these is from the same area as the type, the other from the province of Möre and Romsdal in Norway.

Aspicilia verrucigera Hue (1910: 48)

Type:—FINLAND. Savonia media: Pieksämäki, 1880, *J. P. Norrlin*. Norrlin, Herb. Lich. Fenn. 241 (holotype PC, isotype UPS!).
Lecanora trunciseda Magnusson (1939: 117). Type:—SWEDEN. Blekinge: Yttre Vämö, 1874, *H. Falk* (holotype UPS!). *syn. nov.*
Lecanora uplandica Magnusson (1939: 165). Type:—SWEDEN. Uppland: Uppsala, Halmbyboda, 12 July 1852, *Th. M. Fries* (holotype UPS!). *syn. nov.*

The lignicolous *Lecanora trunciseda* is known only from the type collection. The thallus is paler than usual and some of the apothecia are slightly compressed end elongated, but in other respects it agrees well with other specimens of *Aspicilia verrucigera*. At UPS there are at least a couple of other collections with lignicolous material of this species.

It is not uncommon for other normally saxicolous species of the Megasperaceae to occur both on lignum and bark.

Lecanora uplandica is another example of a name based on only one collection. Magnusson (1939) placed it among the “*Radiantes*”, i.e. species with radiating elongated marginal areoles. This is a bit surprising. Compared to other species in this group, the radiating marginal areoles in *L. uplandica* are quite indistinct and not really more than can be found in other specimens of *A. verrucigera*. It is true that the specimen has a rather odd appearance. The thallus has an unusual blue-green tint and the apothecia are relatively large and protruding. The erroneous information about conidium length provided by Magnusson (1939: 166) made it difficult to interpret. The measurements given by him, (17)20–25 µm, agree with the conidia of *Protoparmeliopsis muralis*, which also grows on the same piece of rock. Fortunately, a single pycnidium undoubtedly belonging to the right thallus was found. This contained conidia with a length of 13.5–17 µm, which agrees with the conidium length of *A. verrucigera*.

Acknowledgement

Stefan Ekman gave valuable suggestions for the improvement of the text.

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