

Rubus costifolius and *R. bergii* in the National Herbarium of Victoria

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Abstract

Original specimens of *Rubus costifolius* Foerster have been found in the National Herbarium of Victoria (MEL) and this name turns out to be the correct name of the species that until now was named *R. longior* A.Beek. A lectotype is selected. Furthermore, specimens in the Sonder collection in MEL support synonymy of *R. bergii* Cham. & Schltld. ex Eckl. & Zeyh. with *R. affinis* Weihe & Nees as had already been proposed by the author.

Key words: Sonder, *Rubus longior*, *Rubus affinis*, *Rubus costifolius*, *Rubus bergii*

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Introduction

In 1878, German entomologist and botanist Arnold Foerster (1810–1884) described *Rubus costifolius* Foerster in a footnote of his *Flora des Regierungsbezirkes Aachen*. Specimens of *Rubus* L. collected by Foerster are conserved in BR, but none of these is labelled with a name that Foerster used in his flora. Thus his herbarium does not help to interpret his short description of *R. costifolius*. However, in his text he mentions that the name is based on a specimen that Sonder collected at Burgsteinfurt and identified as *R. pubescens* Weihe. Burgsteinfurt is in the far north-west of Germany in the current state of North Rhine-Westphalia, near the Dutch border. Such a specimen was not found by Arne Anderberg who searched for me in the herbarium of the Swedish Museum of Natural History (S), where a part of Sonder's herbarium is conserved. The major part of the Sonder herbarium, however, is now conserved in MEL (Short 1990). Catherine Gallagher (MEL) was so kind as to search in the Sonder collection and succeeded in finding four sheets with well-preserved samples that were labelled as '*R. pubescens* Weihe'. Apart from this, she also found specimens labelled as '*Rubus bergii* E.& Z.', which were collected in South Africa. In this article I will discuss the identity and status of these specimens and typify *R. costifolius* Foerster.

Interpretation and status of the specimens

Rubus costifolius Foerster – the correct name of *Rubus longior* A.Beek

Until now, the identity of *Rubus costifolius* has not been clearly defined. Since the brambles of the region of Burgsteinfurt have been well explored from the 19th century to the present day, botanists have been inclined to conjecture about its description. Weber (1986) suggested that it might be *R. lindleianus* Lees. I considered the possibility of it being *R. poliothyrsus* A.Beek, which is closely related to *R. pubescens* Weihe (= *R. chloocladus* W.C.R.Watson) and is common just across the Dutch border south-east of Burgsteinfurt.

Surprisingly, the MEL specimens all belong to the species that has, since 1981, been known as *Rubus longior* A.Beek (Van de Beek 1981). Burgsteinfurt is the type locality of this name and the species is common

around this town. Having seen the specimens, it is strange that this identification was not considered previously. The remarkably strong veins upon which the epithet '*costifolius*' ('with veined leaves') is based, are even mentioned in the description of *R. longior* that I made myself (see <http://rubus-nederland.nl/nl/soorten/alfabetische-namenlijst>).

Banning and Focke had collected the same taxon in Burgsteinfurt in 1876, and Focke (1877) based *Rubus banningii* Focke on this material, naming it after the person with whom he found it. However, he cited the earlier named *Rubus pyramidatus* P.J.Müll. in synonymy under *R. banningii*, with two infraspecific taxa, '1. *Rubus pyramidatus*' and '2. *Rubus banningii* typicus (sens. strict.)'. Focke argued that the epithet in *R. pyramidatus* was too similar to that of *R. pyramidalis* Kaltenb. However the two epithets are not homonyms, and he should have taken the earlier *R. pyramidatus* as the species name. Consequently, *R. banningii* is nomenclaturally superfluous and a later synonym of *R. pyramidatus* of which the type is included (International Code of Nomenclature 2012, art. 52.1 and 2). I therefore provided it with a new name at species level: *R. longior* A.Beek (Van de Beek 1981). *Rubus pyramidatus* P.J.Müll. is a very different species, as Weber and I (Van de Beek & Weber 1994) pointed out after I found a type specimen in the herbarium of Bordeaux Botanical Garden (BORD). Thus, until now, the correct name of the taxon was *R. longior* A.Beek.

Since the publication of *R. costifolius* appeared a hundred years earlier, and is fully legitimate, this must now be the correct name. A lectotype can be chosen from the specimens in MEL because this part of Sonder's herbarium was purchased in 1883 (Short 1990) and thus was still in Germany when Foerster published his flora in 1878. Three of the sheets (MEL 2358120–22) contain inflorescences and one (MEL 2358123) two pieces of a primocane. The material of MEL 2358120–22 was conserved in one cover before being mounted and has only one label, so that it is obviously one gathering as the cross references in the numbering on the sheets also indicate. This is sufficient to meet the requirements of ICN art. 8.3. The writing of Latin words is in Latin handwriting and the German text about locality and date are in old German handwriting as Prof. Wim Janse (VU University Amsterdam) clarified. MEL 2358123 has

a different label and appears in another cover. It might be that Sonder only arranged the specimens in this way because the former are floricanes and the latter primocanes. However, as this is uncertain, I chose only the collection MEL 2358120–22 as the lectotype, in order to avoid any ambiguity as for the type. MEL 2358123 must be considered a syntype because it is clear that Foerster used it for his description in the protologue, for he describes characteristics of the primocane which are lacking in the lectotype. It is possibly part of the lectotype, because it might be the primocane part of the same gathering as the lectotype.

The synonymy of the species would now appear as follows:

Rubus costifolius Foerster, *Fl. Regierungsbez. Aachen* 105 (1878); lectotypus (hic designatus): "Rubus pubescens Weihe/ Burgsteinfurt/ an Wegen [along country roads]/ July 1835", O. Sonder [Anon.] s.n.: MEL 2358120–22 (Fig. 1). Syntype, possible part of lectotype gathering: MEL 2358123 (Fig. 2).

Rubus banningii [typicus] Focke, *Synopsis Ruborum Germaniae* 261 (1877), nom. illeg. type excluded; *Rubus longior* A.Beek, *Gorteria* 10: 149 (1981); holotypus (Van de Beek 1981): Focke, "Burgsteinfurt, 10.8.1876". BREM.

Rubus costifolius is common around Burgsteinfurt and is not rare in that region of Westphalia and in the east of the Netherlands (see Weber 1986; Kurtto et al. 2010; Van de Beek et al. 2014). It can vary conspicuously in the strength of the prickles, the density of both single and stellate hairs, and in the color of the petals (from white to reddish pink). The long inflorescences are characteristic.

The identity of *Rubus bergii* Cham. & Schldl. ex Eckl. & Zeyh. is confirmed

Rubus bergii Cham. & Schldl. ex Eckl. & Zeyh., Enum. pl. Afric. austral. 2: 262. 1836

Specimens examined: '*Rubus* ... /prope urbem Capetown/ leg. Ecklon' and on another label, also in Ecklon's handwriting: '*R. bergii* E&Z. similis *R. affini* W&N' and further in old German handwriting: 'Mit dieser Bezeichnung hat Harvey die Pfl[anze] erhalten/ Sonder' ('Harvey received the plant with this identification/ Sonder') (MEL 2358124); '*R. bergii* E. & Z. / similis *R. affinis* W. & N. sed non idem videtur / prope urbem Cape Town / G. Ecklon 1841' (MEL 2358125–26) (Fig. 3).



Figure 1. Part of the lectotype of *Rubus costifolius* (MEL 2358122)



Figure 2. A syntype of *Rubus costifolius* (MEL 2358123)



Figure 3. A specimen of *Rubus bergii*, collected by Ecklon (MEL 2358125)

Four sheets were located in Sonder's collection in MEL with specimens of *Rubus bergii* Cham. & Schltld.ex Eckl. & Zeyh. They belong to two collections as the cross references on the sheets indicate. The species name is based on a variety *Rubus fastigiatus* ?var. *bergii* Cham. & Schltld., that Chamisso and Schlechtendal published in 1827, based on a specimen in the collection of Bergius ('inter plantas bergianas capenses'). The name is not validly published because, due to the '?' in the description, it does not meet the requirements of ICN art. 35.2. Because it is, however, the validating description of the species published by Ecklon & Zeyher, the type must be the specimen upon which the publication of Chamisso & Schlechtendal is based (ICN art. 7.7). This specimen has not been found, therefore I selected a neotype (Van de Beek 2014) from the specimens of Zeyher that Sieber sold after his return from the Cape in 1824 ("Flora capensis. Dornhoogde. In planitie capensi. Junio. Legit Zeyher. Communicavit Drejer" in P, sect. Africa). The neotype is identical to *R. affinis* Weihe & Nees (= *R. vigorosus* Wirtg.; see Van de Beek 2014). This identification already has solid ground in the fact that *R. affinis* is the only European *Rubus* to have been introduced in that region of South Africa. It is still common in the hills and mountains of the Western Cape. Both specimens in Sonder's collection (MEL 2358124 and 2358125–6) that were collected near Cape Town by Ecklon and labelled by him as *R. bergii* are also *R. affinis*, which supports the neotypification. Ecklon already noticed the similarity between *R. bergii* and *R. affinis* as the label on the sheet indicates, though he did not make a formal identification.

Conclusion

The correct name of the species that was named *Rubus longior* A.Beek (syn. *R. banningii* Focke excluding the type) is *R. costifolius* Foerster. The identity of *R. bergii* Cham. & Schltld. ex Eckl. & Zeyh. as a synonym of *R. affinis* Weihe & Nees is supported.

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