Typification of the name *Sempervivum dolomiticum* Facchini (Crassulaceae)

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Abstract
The designation of type material is a crucial step in taxonomy. It enables the establishment of a strong morphological reference for plant species description and identification. In the current work, we investigated the MUSE-preserved collections to trace back the original study material employed by Francesco Facchini to describe *Sempervivum dolomiticum* Facchini. This chasmophyte is an Italian endemic occurring in the eastern Dolomites. A lectotype and an isotype have been designated.

Keywords
Alpine flora, chasmophytes, Dolomites, herbaria

Introduction

*Sempervivum dolomiticum* Facchini (Facchini 1855) is an alpine chasmophytic species endemic to Italy. Its distribution is limited to the administrative regions of Veneto and Trentino-Alto Adige/Süd Tirol (Bartolucci et al. 2018; Argenti et al. 2019; Pignatti et al. 2019). A nomenclatural study of *S. dolomiticum* (Crassulaceae) revealed that this name has not yet been typified (Peruzzi et al. 2015). Our contribution has the
aim to identify the type material of *S. dolomiticum* and is part of ongoing research on the names of vascular plants described for the Italian Alps (e.g. Orsenigo and Galasso 2019; Orsenigo et al. 2019).

**Materials and methods**

This study is based on the examination of relevant literature and on a survey of the original material in the herbarium of the Italian botanist Francesco Facchini (1788–1852). The *exsiccata* are currently stored at the MUSE herbarium (TR, MUSE – Museo delle Scienze, Thiers B. 2018 onwards) in the “Ambrosi-Facchini” and “Gelmi” collections (Pedrotti and Tisi 1993; Festi and Prosser 2008). The protologue of *S. dolomiticum* (Facchini, 1855) has been meticulously scrutinized and compared with Facchini’s collected material. The designation of type material has been done according to McNeill (2014) and Turland et al. (2018). Moreover, current presence of the species in its *locus classicus* was confirmed through a field survey conducted in the summer of 2019.

**Typification of the name**


**Type.** Italy. “*Sempervivum* (1843/9/23) Sas della Porta. In tre pendici fino alla sommità, meno 5–10 passi. In alto, come gli altri sempervivi fra l’erba per difesa.” “NB. Petala lata [?] 5”’ longa, 1 1/3 lata reperta, medio striosatura fiore purpurea. Corolla *S. arachnoidei* major, sed quidem forma etiam germina. Squamae ut *S. funkii*, montani, etc.”, 23 September 1843, *F. Facchini* (lectotype designated here: TR-BOT 002203, image available at https://www.muse.it/home/ricerca-e-collezioni/le-collezioni-scientifiche/catalogo-online-collezioni-muse/#/dettaglio/d01a09a4-d253-4b2d-ba6a-58e5c706c24a).

**Ind. Loc.** “Sas della Porta. In tre pendici fino alla sommità, meno 5–10 passi”.

Reg. Trentino–Alto Adige, Prov. Trento. TAA.


**Note.** Code TR-BOT 002203 and TR-BOT 002204 refer to the herbarium vouchers selected as lectotype and isotype. However, the TR herbarium provides a code for each handwritten original note attached to the voucher. In particular, the Gelmi and Ambrosi-Facchini collections are study herbaria, and often the notes have been added on multiple occasions. As a consequence, a single voucher may be registered with more than one code. This is the case of isotype TR-BOT 002204, which has an additional note (marked TR-BOT 002205, visible at the provided link).
Nomenclatural notes. In the original description of *S. dolomiticum*, Facchini noted that this species co-occurs with *Sempervivum arachnoideum* L. (1753: 465) (“[…] germina angustiora S. aracnoidei”), specifically noting the absence of apical trichomes in the rosette. Additionally, among the diagnostic characteristics, Facchini identified: leaves with marginal hairs, purple petals, linear-lanceolate leaves, and lanceolate petals (see Fig. 1). We could trace seven specimens of *S. dolomiticum* in the TR collections. Amongst these, five were collected by Facchini himself while two were collected by Enrico Gelmi (Table 1). The sampling locations of two specimens collected by Facchini (TR-BOT002203 and TR-BOT002204) match with the protologue: “[…] in *Alpe Seekofl*”, corresponding to the locality Croda del Becco, a mountainous part of the complex of Croda Rossa, bordering Veneto and Trentino Alto Adige. Between the two sheets, the lectotype has been chosen based on the conservation status of the sample and the quality of the notes: voucher TR-BOT002203 was chosen as lectotype and voucher TR-BOT002204 as isotype. Notes on these vouchers report the same date and location and the plant material is probably part of a single gathering. The quality of the

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**Table 1.** List of *exsicata* belonging to “Ambrosi-Facchini” and “Gelmi” collections considered in this study.

<table>
<thead>
<tr>
<th>Specimen code</th>
<th>Collection name</th>
<th>Sampling locality</th>
<th>Sampling date</th>
<th>Collector</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR-BOT002200</td>
<td>Gelmi</td>
<td>Fiemme, San Pellegrino, Trentino</td>
<td>31 July 1892</td>
<td>Enrico Gelmi</td>
</tr>
<tr>
<td>TR-BOT002201</td>
<td>Gelmi</td>
<td>Cirelle, Trento</td>
<td>10 October 1846</td>
<td>Enrico Gelmi</td>
</tr>
<tr>
<td>TR-BOT002203</td>
<td>Gelmi</td>
<td>Sas della Porta, Bolzano</td>
<td>23 September 1843</td>
<td>Francesco Facchini</td>
</tr>
<tr>
<td>TR-BOT002204</td>
<td>Gelmi</td>
<td>Alpe del Sas della Porta, Bolzano</td>
<td>23 September 1843</td>
<td>Francesco Facchini</td>
</tr>
<tr>
<td>TR-BOT002206</td>
<td>Gelmi</td>
<td>Not specified</td>
<td>Not specified</td>
<td>Francesco Facchini</td>
</tr>
<tr>
<td>TR-BOT002208</td>
<td>Gelmi</td>
<td>Trento</td>
<td>29 June 1848</td>
<td>Francesco Facchini</td>
</tr>
<tr>
<td>TR-BOT050525</td>
<td>Ambrosi-Facchini</td>
<td>Soraga, Soraga di Fassa, Trentino</td>
<td>23, 24 July 1850</td>
<td>Francesco Facchini</td>
</tr>
</tbody>
</table>
specimens is low in all the herbarium vouchers considered in this study, probably due to difficulties in desiccating and preserving succulent plant tissues. Nevertheless, we can evaluate the selected types as fully compliant with the species description.

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References


