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**Type specimens of names in *Misodendraceae* at the Berlin-Dahlem herbarium (B)****Abstract**

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Specimens at the Berlin-Dahlem herbarium collected by Commerson, Dusén, Kuntze and Pöppig, and representing original material (isotypes) of names in *Misodendrum*, are listed and discussed. A lectotype is designated for *Misodendrum linearifolium* var. *contractum*. Several other noteworthy historical specimens are briefly mentioned. These include some specimens collected by C. Gay and R. A. Philippi, and one, in the Willdenow herbarium, collected by L. Née.

The *Misodendraceae* with the only genus *Misodendrum* are a small family of hemiparasitic plants (mainly on *Nothofagus* spp.) related to *Loranthaceae* and limited in distribution to the forest regions of subantarctic and temperate southern South America (Argentina and Chile). The eight accepted *Misodendrum* species (including one variety), according to the recent revisions by Rossow (1982, 1984), are represented in the general herbarium at Berlin-Dahlem (B) by some 78 specimens. Although the *Misodendraceae* were mentioned by Hiepko (1987: 252) among the families partially saved from the destruction of the Botanical Museum Berlin-Dahlem in 1943, neither Rossow nor an earlier monographer, Orfila (1978), seemed to be aware of the type specimens and other historical material at the Berlin-Dahlem herbarium. In a recent paper by Zavaro & al. (1997) no type material is mentioned.

A recently made survey of the *Misodendraceae* holdings revealed the presence of unmarked type material and other old material studied and annotated, but not cited, by Skottsberg (1913). Without indication of the herbarium, he listed some collections later (Skottsberg 1914). The five type specimens and several other noteworthy specimens, including material from BHU currently incorporated into B, are all located in the general herbarium (regarding the BHU-material, see Davies 1993; herbarium abbreviations follow Holmgren & al. 1990). The Willdenow herbarium (B-W) does not contain type specimens but one historically interesting sheet discussed below.

The annotated list provides information on the extant type material, on the status of the types, and the currently accepted names. The names are arranged in alphabetical order and the listing includes: (a) name so typified, author, reference to the protologue including textual citation of collections mentioned therein and to be considered as original material; (b) type material at B with label data quoted in full, and indication of status; (c) accepted name according to Rossow (1982) if different from the typified name; (d) notes.

### List of names of *Misodendrum* with type material at B

1. *Misodendrum linearifolium* DC., Prodr. 4: 671. 1830 (“in Chili, legit cl. Poeppig Genus novum, n. 2, Poepp.! pl. exs. n. 800”).

Specimen at B: “(Pöppig Coll. pl. Chil. III.) 256. *Angelopogon* (nov. gen. fam. nov.?) *linearis* Pöpp. Syn. pl. Amer. austr. msc. Diar. 800. In Chil. austr. arboribus sylvar. alpinar. ad Antuco. Decbr. lect.” (isotype).

Note: Skottsberg saw the specimen at B in 1912 and annotated it as “spec. Authent.” (authentic specimen). The specimen at G-DC is the holotype (seen on IDC microfiche 800/2). It bears the annotation “mis. Poeppig 1830”, and the Poeppig number 800 on the label. The specimen was collected at Antuco in December 1828, according to Skottsberg (1914: 11).

2. *Misodendrum linearifolium* var. *contractum* Skottsberg. in Bot. Jahrb. Syst. 50: 390. 1913. – Syntypes: “Dusén bei Lago Argentino n. 5624, Skottsberg im Koslowsky-Tal, 5. XII. 1908”. – Lectotype (designated here): *Dusén 5624* (UPS).

Specimen at B: “Plantae Patagonicae e territorio Sta. Cruz reportatae. 5624 *Myzodendron linearifolium* DC. Lago Argentino in *Nothofago antarctica*. Jan. 21 a. 1905, P. Dusén” (isolectotype).

Note: In the protologue, Skottsberg placed the only two collections cited under var. *contractum*, i.e. *Dusén 5624* and *Skottsberg*, under a ‘forma *monoicum* (“*monoica*”)’ of this variety, so that they would be the syntypes of both the forma and the variety, if the forma were not nomenclaturally invalid as a mere nomen nudum (a fact overlooked by Rossow 1982: 262, 1984: 45). Specimens of both collections are extant at UPS, where Skottsberg worked at the time of the publication. The Dusén specimen at UPS that we select as lectotype, is annotated only to the variety, while the Skottsberg specimen is annotated as “f. *monoica*!” in Skottsberg’s handwriting on the main (and only) label (photocopies provided by R. Moberg, UPS). Similarly, the Dusén specimen at B was annotated in 1912 as “vr. *contractum* Skottsberg.” without indicating a forma, and the same holds true for a further duplicate of *Dusén 5624* at S (according to a photocopy from the Regnellian Herbarium (S) provided by R. Lundin).

Skottsberg (1914: 11) listed under *Misodendrum linearifolium* var. *contractum* a number of specimens, but he did not treat the forma separately, and added “– forma *monoica*” only in two cases, following the specimen citation of *Dusén 5624*, and *Skottsberg 759* (this number is not on the label of the specimen at UPS, but the other data agree well with the protologue). Another one of the collections listed there, “Magallanes, *Philippi*”, is also represented by a specimen at B.

3. *Misodendrum oblongifolium* DC., Prodr. 4: 671. 1830 (“in Chili, legit cl. Poeppig, Genus novum n. 1, Poepp.! pl. exs. n. 813”).

Specimen at B: “(Pöppig Coll. pl. Chil. III.) 257. *Angelopogon* (nov. gen. fam. nov.?) *heterophyllus* Pöpp. Syn. pl. Amer. austr. msc. Diar. 813. In Chil. austr. sylv. alpin. parasit. in Fagis. Lect. ad Antuco (5500’) Januar” (isotype).

Note: Skottsberg saw the material at B in 1912 and annotated it as *M. oblongifolium* DC. without noting its type status, but later he cited *Poeppig 813* as “Original der Art” without indicating the herbarium (Skottsberg 1914: 12). The specimen at G-DC is the holotype (seen on IDC microfiche 800/2). It bears the annotation “mis. Poeppig 1830”, and the Poeppig number 800 on the label. The specimen was collected at Antuco in December 1828, according to Skottsberg (1914: 12).

**4. *Misodendrum punctulatum* var. *magellanicum* DC.**, Prodr. 4: 286. 1830 (“Ad fretum Magellanicum. Viscum flavescens Comm.! herb. (v.s. sine fl.)”).

Specimen at B: “*Myzodendron* Banks et Vahl, Viscum flavum aphyllum Comm., Magellan” (isotype?).

= *M. punctulatum* DC., according to Rossow (1982: 254).

Note: The sheet at B has three labels. Two labels bear the handwritten heading “Herb. Kunth” and the annotation “Ad. Jussieu ded. 1826” (on the smaller label), and “Ad. Jussieu ded. 1823”. This appears to refer to material received in two portions by Kunth during his stay in Paris between 1813 and 1829 (Stafleu & Cowan 1979). On both labels the name and origin are given as “*Myzodendron* Banks et Vahl, Viscum flavum aphyllum Comm., Magellan”. The smaller label may have been written by Commerson himself (as compared with the handwriting published by Montessus 1886). The third label is more recent and reads “*Myzodendron punctulatum* Banks & *magellanicum* DC.” Skottsberg annotated the material at B in 1912 as “*M. punctulatum* Banks et Sol.” without further comment.

It seems important to note that the relevant sheet in the De Candolle Prodr. herbarium (G-DC) (seen on IDC microfiche 800/2) contains three specimens with the locality “Magellan” indicated on the labels. The one referred to by De Candolle is presumably that with the label “Detr. de Magellan” (= Magellan Strait) without collector, but the handwriting is difficult to assess. Therefore, no formal lectotypification is attempted here.

**5. *Misodendrum rioquinoense* Kuntze**, Rev. Gen. 3: 284. 1893 (“Auf *Fagus* schmarotzend am Rio Quino in Chile”).

Specimen at B: “*Myzodendron rioquinoense* OK. Rio Quino, Chile, 17/2 [18]92 Otto Kuntze” (isotype).

= *M. punctulatum* DC., according to Rossow (1982: 254).

Note: The name on the label at B, unlike on the one at NY, is not marked as “nov. sp.”, and Skottsberg annotated the specimen in 1912 only as “*M. punctulatum* Banks et Sol., pl. G”. The specimen at NY consists of two sheets labelled as “isotypes” and has the same collection data as the one at B. Since, however, the original herbarium of Kuntze is at NY, one of the sheets there is the holotype and the specimen at B has to be considered as isotype.

#### Further noteworthy historical *Misodendraceae* material extant at B

The Willdenow herbarium (B-W) contains (among unnumbered and unidentified material) one single specimen identified and annotated as *Misodendrum* sp. by Hiepko in 1985. The specimen is labelled “Madrid .....[illegible]....., plante Parasyte, Sta Cruz, Chyly, Née D. D”. The label bears the annotation “(Humboldt)” written by D. F. L. von Schlechtendal, referring to material received by Willdenow from Humboldt. The specimen undoubtedly originates from the Malaspina expedition and must have been collected by L. Née in 1790 in Chile and distributed via Madrid (Marticorena 1995). It can be identified as *Misodendrum linearifolium* DC. var. *linearifolium*. Née was listed as “Don Luis Née” among the members of the Malaspina expedition by Gicklhorn (1966: 42), who in the same paper (p. 107, 108) also commented on the fate of Née’s collections and manuscripts. The collector’s name “Née” on the label is not in Née’s handwriting as compared with the documents published by Gicklhorn (1966: unpag. pl. 25, fig. 29) and Martínez (1989: 121).

Among the *Misodendraceae* in the general herbarium, further material was saved from the destruction in 1943. This includes collections of R. A. Philippi (14 sheets), W. Lechler (4), C.

H. Andreas (2), P. Dusén (2), C. Gay (2), H. Gunckel (2), K. F. Reiche (2), Herb. Th. Bernhardt (1), Dr. Gärtner (1), A. Hollermayer (1), J. D. Hooker (1), F. K. Naumann (1), and E. Werdermann (1).

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### References

- Davies, R. (ed.) 1993: News and notes. Herbaria, collections, and collectors. The BHU herbarium transferred to the Botanical Museum Berlin-Dahlem (B). – *Taxon* **42**: 897.
- Gicklhorn, R. 1966: Thaddaeus Haenkes Reise und Arbeit in Südamerika. – *Acta Humboldt.*, Ser. Hist., **1**.
- Hiepko, P. 1987: The collections of the Botanical Museum Berlin-Dahlem (B) and their history. – *Englera* **8**: 219-252.
- Holmgren, P., Holmgren, N. H. & Barnett, L. C. 1990: Index herbariorum I. The herbaria of the world, ed. 8. – *Regnum Veg.* **120**.
- Martcorena, C. 1995: Historia de la exploración botánica de Chile. – Pp. 1-62 in: Martcorena, C. & Rodríguez, R. (ed.), *Flora de Chile 1. Pteridophyta - Gymnospermae*. – Concepción.
- Martínez, R. C. [1989]: La Expedición Malaspina 1789-1794. I. Circunstancia histórica del viaje. Presentación de la obra. – Barcelona & Madrid.
- Montessus, F.-B. de 1886: Martyrologe et biographie de Commerson. – Chalon-sur-Saône.
- Orfila, E. N. 1978: *Misodendraceae* de Argentina y Chile. – Buenos Aires.
- Rossow, R. A. 1982: Sinopsis de las *Misodendraceae*. – *Parodiana* **1**: 245-270.
- 1984: *Misodendraceae*. – Pp. 43-52 in: Correa, M. N. (ed.), *Flora Patagónica 4a, Dicotiledoneas dialipétalas (Salicaceae - Cruciferae)*. – Colecc. Ci. Inst. Nac. Tecnol. Agropecu. (Buenos Aires) **8(4a)**.
- Skottsberg, C. 1913: Bemerkungen zur Systematik der Gattung *Myzodendron*. – *Bot. Jahrb. Syst.* **50**: 384-391.
- 1914: *Myzodendraceae*. – Pp. 1-16 in: Engler, A. (ed.), *Das Pflanzenreich* **62**. – Leipzig & Berlin.
- Stafleu, F. A. & Cowan, R. 1979: Taxonomic literature, ed. 2, **3**. H-Le. – *Regnum Veg.* **98**.
- Zavaro, C. A., Crisci, J. V. & Morrone, J. J. 1997: Synopsis and cladistics of the genus *Misodendrum* (*Misodendraceae*, *Santales*). – *Fontqueria* **48**: 225-239.

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