

Typification of *Chara chilensis* Kützing (*Characeae*, *Charophyceae*)

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Chara chilensis Kützing (1857: 29, pl. 72, b, b', b'') was described from Chile ("Aus den Cordilleren von Chile, bei 9–10,000' Höhe: Meyen. (Herb. Berol.)"). The specimen(s) examined by Kützing at Botanischer Garten und Botanisches Museum, Freie Universität Berlin (B) appear to be lost, and no duplicates have been located (Blindow & al. 2018: 14). Accordingly, these images are designated here as a lectotype for *C. chilensis* (ICN Art. 9.11 and 9.12; Madrid Code, Turland & al. 2025). Kützing (1857: 29) listed "*Chara foetida* [var.] *chilensis* A.Braun" after *C. chilensis* in brackets as a synonym. However, such a name has not been recorded in any earlier publications, and it is probable the material used for preparation of drawings was labelled by Alexander Karl Heinrich Braun (1805–1877) as "*Chara foetida* var. *chilensis*", and thus it appears that "*C. foetida* var. *chilensis*" is an unpublished manuscript name and is invalid.

Chara chilensis Kützing 1857: 29, pl. 72: b, b', b''

≡ *Chara foetida* var. *chilensis* (Kützing) A.Braun & Nordstedt 1882: 165

Lectotype (icons! designated here): Kützing 1857: pl. 72: b, b', b''

Type locality: Andes in Provincia de Cordillera, central Chile.

Registration (of lectotype): <http://phycobank.org/106087>

Note: Since its description all authors treated *C. chilensis* and *C. foetida* var. *chilensis* as synonymous with *C. vulgaris* Linnaeus (Kützing 1857; Braun & Nordstedt 1882; Wood 1965; Blindow & al. 2018). However, long verticillate bract-cells, because of long abaxial (posterior) bract-cells, do not accord with any recent concept of *C. vulgaris* (e.g. Han & Li 1994; Denys & al. 2024 and recent references herein). The single row of decumbent long stipulodes illustrated by Kützing (1857: pl. 72: b, b', b'') may indicated the presence of rudimentary stipulodes in a lower row, not shown in the drawing. This makes sense because Kützing does not show rudimentary or short stipulodes forming low row at his drawings of *C. jubata* A. Braun (Kützing 1857: pl. 47: b), *C. fragilis* var. *crassiuscula* Kützing (Kützing 1857: pl. 54: e), *C. hedwigii* C.Agardh (Kützing 1857: pl. 55: c), *C. virgata* Kützing (Kützing 1857: pl. 56: f), *C. karelinii* Lessing (Kützing 1857: pl. 71: b''), and *C. capensis* Meyen ex Kützing (pl. 71: a''), i.e. species that have diplostephanous stipulodes (Wood 1965). The acceptance of diplostephanous stipulodes for *C. chilensis* makes this species similar to *C. calveraënsis* (Wood) Y.J.Ling, G.Z.Deng & Z.Li. *Chara chilensis* differs from *C. calveraënsis* only by short single-celled ecorticate ends of branchlets vs. 3–4-celled ecorticate end segments (Wood 1965: 100). However, the description by Blindow & al. (2018: 11), reporting 1–2 ecorticate segments instead of indicating number of cells in end segments, appears to be undermine this difference. The length of spine cells of *C. calveraënsis* is variable (Blindow & al. 2018: 10) and includes very short spine-cells, described as only one variant in the original material (Wood 1965: 100), which seems to be suitable for *C. chilensis*. The same is notable for the axial cortex of *C. calveraënsis*, which is also variable (incl. isostichous cortex; Wood 1965; Blindow & al. 2018). By contrast, it was illustrated as isostichous for *C. chilensis* by Kützing (1857: pl. 47: b). Therefore, *C. chilensis* and *C. calveraënsis* may be conspecific, but this decision requires further study of variability of *C. calveraënsis*, especially regarding the ends of branchlets. Wood (1962) described *C. vulgaris* [var. *vulgaris*] f. *calveraënsis* R.D.Wood and later proposed new combination and species rank for *C. calveraënsis* (R.D.Wood) R.D.Wood *nom. inval.* in the "Microspecies appendix" (Wood 1965) without referring to the place of valid publication of the basionym (ICN Art. 41.5, Turland & al. 2025) and without citation of the basionym, rendering his nomenclatural act invalid. However, Ling & al. (1990: 418) validly published the new

combination of *Chara calveraensis* ‘grad. nov.’, which is acceptable as equivalent to ‘comb. & stat. nov.’. They fully cited the basionym and place and page of its valid publication, thus fulfilling the requirements of ICN Art. 41.5 (Turland & al. 2025).

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