



Validation of ordinal and family names for a Triassic fossil liverwort, *Naiadita* (Naiaditaceae, Marchantiopsida)

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The fossil genus *Naiadita* Brodie (1845: 93) was originally described by Brodie based on a leafy plant species from the Late Triassic England, *Naiadita lanceolata* Brodie (1845: 93). The taxonomic position of the species has long fluctuated and it had been supposed to be a monocotyledon allied to *Najas* Linnaeus (1753: 1015), a water moss allied to *Fontinalis* Hedwig (1801: 298), or an aquatic Lycopod until Harris (1938, 1939) discovered its reproductive organs and made a comprehensive study on the species. On Harris's (1938, 1939) closer examinations of the species, it turned out to be a liverwort allied to *Riella* Montagne (1852: 11) (Riellaceae, Sphaerocarpaceae, Marchantiopsida). However, its unusual combination of characteristics, makes it impossible to assign to an order/family of extant liverworts. Schuster (1953, 1966) proposed a monogeneric order Naiaditales and a family Naiaditaceae, placed in Marchantiidae of Marchantiopsida. These ordinal and family names are in common use in systematics of liverworts, (e.g. Grolle 1972; Schuster 1979; Krassilov & Schuster 1984; Schofield 1985; Brown 2003). However, each of these names lacked a description/diagnosis when proposed and has never been validly published (ICN Art. 38.1, McNeill *et al.* 2012). In order to be able to use these names, the ordinal and family names are validated here.

Taxonomy

FAMILY

Naiaditaceae R.M.Schust. ex T.Katag. & A.Hagborg, stat. nov.

Naiaditaceae R.M.Schust., Hapat. Anthocer. N. Amer. 1: 385. 1966; nom. nud.

Naiaditaceae Grolle, J. Bryol. 7: 226. 1972; nom. nud.

Type: *Naiadita* P.B.Brodie, Hist. Fossil Insects Second. Rocks England: 93. 1845. [type species *Naiadita lanceolata* P.B.Brodie, Hist. Fossil Insects Second. Rocks England: 93. 1845.]

Systematic position: Phylum Marchantiophyta Stotler & Crand.-Stotl., Class Marchantiopsida Cronquist, Takht. & W.Zimm., Order Naiaditales R.M.Schust. ex T.Katag. & A.Hagborg

Diagnosis: Similar to Riellaceae (Sphaerocarpaceae), but different from it in having spirally arranged leaves, terminal gemma cups, perianths consisting of a series of leaves, subtended by a well-developed gametophytic pedicel.

Description: See Harris (1938, p.16–64; 1939, p. 58–63).

Note: The generic and species names, *Naiadita* and *Naiadita lanceolata*, were simultaneously validated by provision of a single description by Brodie (1845, p. 93) in accordance with ICN Art. 38.5 (McNeill *et al.* 2012).