



Corrections to the specific epithet of the generitype of *Dickieia* (*Anomoeoneidaceae*, *Bacillariophyceae*) and to the authority for the genus name

Eileen J. Cox¹ & David M. Williams¹

¹*Science, The Natural History Museum, Cromwell Road, London, SW7 5BD, UK (correspondence: e.cox@nhm.ac.uk)*

The genus name *Dickieia* was published twice, first by Berkeley & Ralfs (1844: 328) with *D. ulvoides* Berkeley & Ralfs as the generitype (by monotypy), and shortly afterwards by Kützinger (1844: 119) with the generitype *D. ulvacea* Berkeley, also by monotypy. Both publications were based on the same material collected by George Dickie from Aberdeen in Scotland on 20th April 1844, and Kützinger referred to the name given by Berkeley as *D. ulvacea* [Kützinger (1844: 119, ‘*Dickieia ulvacea* Berkeley in litt. (1844)’)]. This name, with the authority Berkeley ex Kützinger, was the basis for Cleve’s (1894: 129) transfer to *Navicula* Bory; a transfer accepted until Mann (1994) reinstated *Dickieia* as a genus, with *D. ulvacea* Berkeley ex Kützinger as the generitype. However, Hanic & Lobban (1979) had earlier discussed the issue of the dates for the two publications but, lacking a precise date for the Berkeley & Ralfs paper and, given ‘...the accepted practice of using frustule characteristics in diatom systematics’, followed Cleve (1894) in assigning it to *Navicula ulvacea* (Berkeley ex Kützinger) Cleve.

Kützinger had written (1844: 11): ‘Endlich erhielt ich noch während des Druckes des Manuscripts eine Mittheilung vom Herren Dr Dickie in Aberdeen, welcher eine sehr ausgezeichnete eigenthümliche Meeresform an den Küsten Schottlands entdeckt hatte. Sie ist unter den Naviculæen als *Dickieia ulvacea* beschrichen’ [Finally, while the manuscript was still being printed, I received a communication from Dr Dickie of Aberdeen, who had discovered a very distinctive marine form on the coasts of Scotland. It is known among the Naviculæe as *Dickieia ulvacea*]. Later, in the same monograph, he added (Kützinger 1844: 119): ‘An der Küste von Aberdeen (Nord-Brittanien) in Seesümpfen, zuerst entdeckt am 20. April 1844 von Dr. G. Dickie in Aberdeen, welcher mir unter dem 25. Mai Exemplare nebst beigefügter Zeichnung einsandte. - Später (5. Juni) zeigte mir Hr. Berkeley an, dass er diese interessante Form unter dem angegebenen Namen in den Annals of Natural History beschreiben werde. Eine Abbildung konnte nicht mehr aufgenommen werden [On the coast of Aberdeen (North Britain) in sea marshes, first discovered on April 20, 1844, by Dr. G. Dickie of Aberdeen, who sent me specimens with an attached drawing on May 25. Later (June 5), Mr. Berkeley informed me that he would describe this interesting form under the given name in the Annals of Natural History. An illustration could no longer be included.]

It is now known (Evenhuis 2003: 16) that *Dickieia* Berkeley & Ralfs was published on 1st Nov. 1844 (*Annals and Magazine of Natural History*, series 1, 14: 328), while the Kützinger name was published a few days later between 7–9th November 1844. Both refer to the same collection. Whereas the earlier publication is illustrated, there is no illustration in Kützinger’s volume, and although Kützinger stated that the name was provided by Berkeley, the earlier publication used *D. ulvoides* rather than *D. ulvacea*. The former name not only has priority and, given that Berkeley and Ralfs’ account is illustrated, should be used as the first reference. It should also be noted that the original illustration (Berkeley & Ralfs 1844: pl. IX: top set of figures a–d; Fig. 1) included drawings of diatom frustules that showed the distinctively bluntly curved girdle views and highlighted the more refractive areas around the helictoglossae. The drawings Berkeley sent Kützinger are not conserved in the collection in **BM**.

Dickieia Berkeley & Ralfs (1844 [1st Nov.]: 328)

≡ *Dickieia* Berkeley ex Kützinger (1844 [7th–9th Nov.]: 119)

Type: *Dickieia ulvoides* Berkeley & Ralfs (1844 [1st Nov.]: 328, pl. IX: top set of figures a–d)

≡ *Dickieia ulvacea* Berkeley ex Kützinger (1844 [7th–9th Nov.]: 119)

Type locality: Scotland: Aberdeen.

Holotype: ‘Hab. In shallow pools between high and low water mark with *Schizonema comoides* and other allied forms. April 20, 1844. Aberdeen, Dr. Dickie’ (Berkeley & Ralfs 1844 [1st Nov.]: 328), **BM** 19188 (‘*D. ulvacea* Berk. | Aberdeen | [Kütz.] 683’; ‘*Dickieia britannica* nom. herb. = *D. ulvacea*’).

Isotypes: **BM** 18988 (‘*Schizonema tenellum* Kütz. | Aberdeen | M^r. Dickie | [Kütz.] 609’); **BM** 18675 (‘*Gomphonema geminatum* Ag. | Angleterre [Aberdeen] | [Kütz.] 1174; *D. ulvacea* Berkeley’); **BM** 47482 (‘*Dickieia ulvoides* | Aberdeen 103 | April 1844 | G.D.’ ex Rylands; raw material; **BM** 001222398, two packets: ‘*Dickieia ulvoides*, Aberdeen, April 20, 1844’ and ‘*Dickieia ulvoides*, New genus, Aberdeen’, ex Herb. Berkeley; **BM** 001222397; three packets: ‘~~*Dickieia britannica* Kütz.~~ *Dickieia ulvacea*, Aberdeen, 20 April, 1844’, herb. Kütz. 683 [= **BM** 18988]; ‘*Dickieia ulvoides*, herb. Kütz. 683 [= **BM** 18988] and ‘122 *Dickieia ulvacea* [?], *Navicula* Aberdeen (in mari)’, herb. Kütz. 1174 [= **BM** 18675], **BM** 53725 (‘Aberdeen’ ex Tulk, **BM** 66760 (‘Aberdeen | April 1847 [sic] | Dr. Dickie’), all isotypes; **BM** 19109 (‘*Schizonema mesogloeoides* Kütz.’ | Aberdeen | Sept. 1844, [Kütz.] 600; ‘*Dickieia pinnata* = *D. ulvacea*’).

Cox referred to the specimens on **BM** 19188 as ‘type material’ (Cox 1985: 174–5, 178). Here we formally recognise **BM** 19188 as holotype and the many other specimens from Aberdeen in **BM** as isotypes. Representative specimens from these materials are illustrated in Cox (1985: figs 44–46).

Berkeley, M.J. & Ralfs, J. (1844). On a new genus of Diatomaceae. *Annals and Magazine of Natural History*, Series 1, 14: 328–329, pl. IX.

Cleve, P.T. (1894). Synopsis of the naviculoid diatoms. Part 1. *Kongliga Svenska Vetensk-Akademie Handlingar* 26 (2) 1–194.

Cox, E.J. (1985). Auxosporulation by a naviculoid diatom and the taxonomic implications. *European Journal of Phycology* 20: 169–179.

Evenhuis, N.L. (2003). Publication and dating of the journals forming the *Annals and Magazine of Natural History* and the *Journal of Natural History*. *Zootaxa* 385: 1–68.

Hanic, L.A. & Lobban, C.S. (1979). Observations on *Navicula ulvacea*, a rare foliose marine diatom. *Journal of Phycology* 15: 174–181.

Kützinger, F.T. (1844). *Die Kieselschaligen Bacillarien oder Diatomeen*. pp. [i–vii], [1]–152, pls 1–30. Nordhausen: zu finden bei W. Köhne.

Mann, D.G. (1994). Auxospore formation, reproductive plasticity and cell structure in *Navicula ulvacea* and the resurrection of the genus *Dickieia* (Bacillariophyta). *European Journal of Phycology* 29: 141–157.

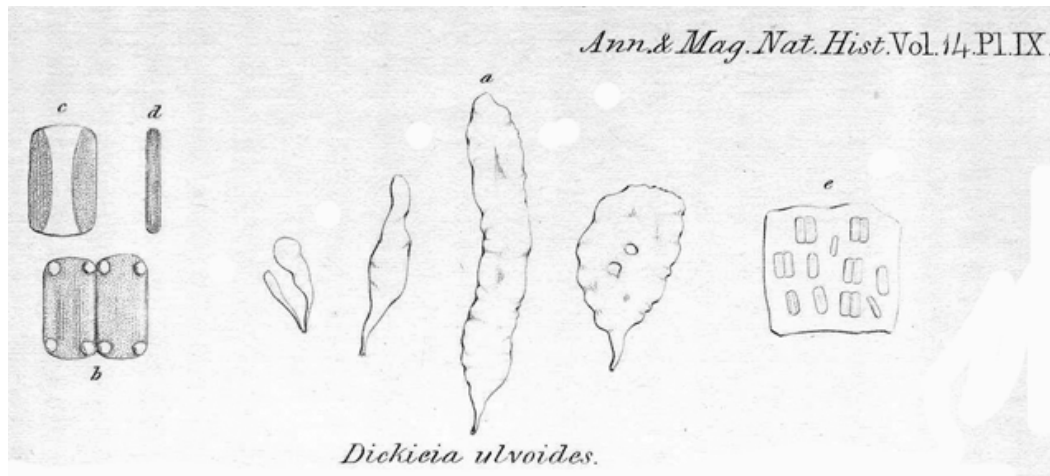


Fig. 1. Original illustration of *Dickieia ulvoides* (Berkeley & Ralfs (1844: pl. IX, *partim*)).