

NOTE

AUTHORSHIP OF THE FRESHWATER RED ALGAL
SPECIES *TUOMEYA AMERICANA*
(BATRACHOSPERMACEAE)

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Tuomeya Harvey (1858) is recognized as a genus of freshwater red algae of the order Batrachospermales (Kumano 2002; Vis et al. 1998). *Tuomeya americana* was originally described and reported from the eastern half of North America (Bailey 1848; Flint 1948; Harvey 1858; Kaczmarczyk et al. 1993; Kützing 1857; Prescott 1951; Sheath and Hymes 1980; Smith 1950). Although Sheath (2003) referred to *T. americana* as unique to North America, the species now is known also from South Africa (Borge 1928), Finland (Eloranta and Kwadrans 1996), India (Babu and Baluswami 2005), and China (Feng et al. 2007). The record of *T. americana* from Australia (from a Master's thesis and reported by Day et al. 1995) is based on a misidentification (*T. Entwisle*, Royal Botanic Gardens Sydney, pers. comm.). A second species reported from North America, *T. grandis* (Wolle) Wolle (Wolle 1887), was transferred to *Paralemanea* (Kumano 2002). An additional species, *T. gibberosa* Kumano (1978), was described from Malaysia but later transferred to *Batrachospermum* (Kumano 1986). Necchi and Entwisle's (1990) proposal to relegate *Tuomeya* to the status of a section within *Batrachospermum* was opposed by Kaczmarczyk et al. (1993) and has not been subsequently followed (Vis et al. 1998).

Ever since Papenfuss (1958) proposed the binomial *Tuomeya americana* (Kütz.) Papenf. to replace the taxonomic synonym *T. fluviatilis* Harv., the authorship of the former name has persisted in the literature, including contemporary publications and on-line resources (Bourrelly 1970; Entwisle 1984; Guiry and Guiry 2007; Kaczmarczyk et al. 1993; Kapraun et al. 2007; Kumano 2002; Sheath 2003; Vis and Entwisle 2000; Vis et al. 1998, 2005). Papenfuss (1958) pointed out that Kützing's (1857) *Baileya americana* predated

Harvey's (1858) *T. fluviatilis*. But the problem is that Kützing's name was not the basionym. The actual basionym is *Lemanea americana* Harv. in Bailey (1848), which was cited by Kützing (1857). Silva (2007) cites Harvey's name as valid, and indeed Harvey is quoted by Bailey on how "*Lemanea Americana*, Harv. MSS." is distinguished from *L. fluviatilis* (L.) C. Agardh: "the European plant is very much more simple with distant nodules, the American one is much branched and quite moniliform."

Silva (2007) does not recognize *Batrachospermum americanum* (Kütz.) Necchi & Entwisle (1990) as valid because *Baileya americana* Kütz. (1857) was cited rather than *Lemanea americana* Harv. in Bailey (1848). This same requirement (Art. 33.4) of the Code (McNeill et al. 2006) also applies to the Papenfuss (1958) binomial in that "On or after 1 January 1953, a new combination ... is not validly published unless its basionym ... is clearly indicated and a full and direct reference given to its author and place of valid publication, with a page or plate reference and date ..." In that Kützing (1857) referred to *Lemanea americana* Harv. in Bailey (1848), one cannot treat Papenfuss's (1958) reference to *Baileya americana* Kütz. as a bibliographic error for *Lemanea americana* Harv. In this case, Art. 33.7(a) does not apply.

Therefore, the following proposal is made:

Tuomeya americana (Harv.) Papenf. ex M.J. Wynne, *comb. nov.*
Lemanea [*Lemania*] *americana* Harv. in J.W. Bailey, Amer. J. Sci., ser. 2 6: 41. 1848. *Baileya americana* (Harv.) Kütz., Tab. Phycol. 7: 35. Tab. 87, fig. III. 1857.

Tuomeya fluviatilis Harv. Smithsonian Contr. Knowl. 10 (Art. 2): 64. 1858.

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