

Typification of the Linnaean name *Trapa natans* (Lythraceae)

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Abstract – The typification of the name *Trapa natans* L. (*Trapaceae*) is discussed. A specimen from the Clifford Herbarium (BM) is designated as the lectotype. For a clearer interpretation of the name, a specimen at K is designated as epitype.

Key words – *Trapa*, Linnaean name, lectotypification, epitype.

INTRODUCTION

Trapa L. (Myrtales Juss. ex Brecht. & J.Presl, Lythraceae J.St.-Hil.; Reveal & Chase 2011) is a genus of 20–30 species distributed in subtropical and temperate regions of Eurasia and Africa, while it is considered introduced in North America and Australia (Ghazanfar 1976, Chen et al. 2007, Diop 2010). Linnaeus (1753: 120) described one species under *Trapa*, *T. natans*. This name is not validly typified, and is investigated here.

TYPIFICATION OF THE NAME

Linnaeus' protologue consists of a phrase ("*Trapa petiolis foliorum natantium ventricosis*") taken directly from Linnaeus (1737: 483, 1745: 134, 1749: 52) and Dalibard (1749: 52) plus two synonyms cited from Bauhin (1623: 194) and Rheede (1692: 65).

Ghazanfar (1976: 3) proposed the sheet no. 158.1 (LINN) as type but this lacks the original annotation of the *Species Plantarum* number and therefore suggesting that it was a post-1753 addition to the collection and not original material for the name (see Jarvis 2007: 46–47). Subsequently, Verdcourt (1986: 448) designated a specimen kept in K ("*Fiori 471*") as neotype in preference to the material in the Clifford Herbarium and the Rheede illustration because both of these elements were sterile, and fruit characters have been regarded as crucial in distinguishing between closely related taxa in *Trapa*. Although the specimen selected as the neotype by Verdcourt shows the fruit, the typification cannot be considered effective because original material (from which a lectotype should have been chosen) is in existence (Art. 9.17 of the ICNB – McNeill et al. 2006).

In the Clifford Herbarium there is a sheet (No. 483, *Trapa* 1 - BM000647658) that bears a plant that matches the protologue, and it bears a Clifford phrase ("*Tribulus aquaticus*...") referable to the description by Bauhin (1623).

I have been unable to trace any further specimens representing original material in any of the other Linnaean and Linnaean-linked herbaria (see also Jarvis 2007: 892).

Rheede (1692) provided an illustration ("*Tab. 33*") that was cited by Linnaeus and can be considered original material for the name which depicts a plant whose characteristics correspond with the diagnosis by Linnaeus (1753: 120).

Among the type candidates (the Clifford specimen and Rheede's illustration), I prefer to designate the specimen at BM as the lectotype of this name (image available at <http://www.nhm.ac.uk/resources/research-curation/projects/clifford-herbarium/lgimages/BM000647658.JPG>) since *exsiccata* are better choices than illustrations because of their potential ability to provide a large number of additional characters (micromorphological, chemical, molecular, etc.) that cannot be checked by illustration or images. Given the importance of the fruit characters (e.g. Ghazanfar 1976, Chen et al. 2007) for a clear interpretation of the name *T. natans*, I am also selecting an epitype, the fruiting specimen collected by Adriano Fiori which was previously treated as a neotype by Verdcourt (K; image available at <http://www.apps.kew.org/herbcat/getImage.do?imageBarcode=K000742715>).

Trapa natans L. (Linnaeus 1753: 120). – Lectotype: Herb. Clifford, 483: *Trapa* 1 (BM, **designated here**). – Epitype: Italy, Longobardia (Lombardia), Mantua (Mantova), in lacu Superiore, in aquis lente fluentibus vel stativis, ex caulibus longissimis in limo radicatis natans, alt. 20 m, 20 Sep. 1904, *Fiori* 471 (K, barcode K000742715, **designated here**).

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