(2811) Proposal to reject the name *Mollugo triphylla* (*Molluginaceae*)

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(2811) ***Mollugo triphylla*** Burm. f., Fl. Ind.: 32. 1 Mar–6 Apr 1768 [Angiosp.: *Mollugin*.], nom. utique rej. prop.
Lectotypus (hic designatus): India, [Coromandel: Nagapattinam], *Outgaarden* (G-PREL barcode G00808164).

Gisekia L. is a small genus of its own family *Gisekiaceae* Nakai (*Caryophyllales*), which is distributed mostly in Africa with extensions to West Asia. The number of accepted species in the genus varies from seven (Gilbert in Kew Bull. 48: 343–356. 1993) to one polymorphic species, *G. pharnaceoides* L. (Bissinger & al. in Amer. J. Bot. 101: 499–509. 2014). The common habitats of *G. pharnaceoides* are sandy areas, river basins and a wide range of ruderal habitats. It is well known as a medicinal plant (Phondani & al. in J. Tradit. Complem. Med. 6: 209–218. 2015).

The name *Gisekia pharnaceoides* is widely accepted in the taxonomic literature and numerous floristic accounts (e.g., Moquin-Tandon in Candolle, Prodr. 13(2): 27. 1849; Oliver, Fl. Trop. Afr. 2: 593. 1871; Heimerl in Engler & Prantl, Nat. Pflanzenfam. III(1b): 11. 1889; Jeffrey in Fl. Trop. E. Afr.: 3. 1961; Bogle in J. Arnold Arbor. 51: 435. 1970; Hedge & Lamond in Rechinger, Fl. Iranica 114: 2. 1975; Gilbert, l.c.: 346; Hernández-Ledesma & al. in Willdenowia 45: 345. 2015). It has a number of nomenclatural synonyms, which are listed by Gilbert (l.c.: 346).

Like *Gisekia pharnaceoides*, *Mollugo triphylla* Burm. f. was also described from "India" [Indian subcontinent] (Burman, Fl. Ind.: 32. 1768) but has never been accepted or placed into synonymy in Indian checklists or floras. Although its original description is very brief, it provides some characters that may be indicative of *Glinus oppositifolius* (L.) DC. (obovate leaves, pedicellate flowers in whorls), and therefore was considered a synonym of the latter (Merrill in Philipp. J. Sci. 19: 349. 1921). However, the study of its original material brought us to a different conclusion.

In the protologue, Burman (l.c.) cited an illustration that appeared in Plukenet (Amaltheum Botanicum: 17, t. 357, fig. 1. 1705) under the polynomial "Anthyllis indica, Tithymali fructu botryoide, tricarpos, ad caulem in verticillis posito, ternis inaequalibus foliis", and a specimen labelled "Mansjel calinier", which was donated to J. Burman by H.O. van Outgaarden, who most likely collected the plant while staying at Nagapattinam (Coromandel Coast, India) from 1731 to 1747 (Florijn in Taxon 36: 34–38. 1987). This specimen is extant at G-PREL (G00808164).

Plukenet's illustration was identified as *Gisekia pharnaceoides* already by Lamarck (Encycl. 2: 720. 1788), although the relevant binomial published by Burman was not mentioned in that work. Later, Lamarck (Encycl. 4: 237. 1797) explicitly placed *Mollugo triphylla* into the synonymy of *G. pharnaceoides*. Nevertheless, this identification and synonymy passed unnoticed by other botanists. Merrill (l.c.) stated, without supporting arguments and a formal type designation, that he considered *M. triphylla* to be indistinguishable from *M. oppositifolia* (≡ *Glinus oppositifolius*). Quite surprisingly, current databases (Plants of the World Online [POWO], Global Biodiversity Information Facility [GBIF]) do not follow any of the previously proposed synonymisations but list *M. triphylla* as a synonym of *M. disticha* (L.) Ser., for which we cannot find any support in the literature.

The drawing (Plukenet, l.c.) displays a top fragment of the plant that resembles *Glinus oppositifolius* in its habit but is identifiable as *Gisekia pharnaceoides* s.str. because of the statement "tricarpos", which is indicative of the *Gisekia* fruit with free mericarps rather than the *Glinus* fruits with a connate gynoecium (Lu & Hartmann in Fl. China 5: 437–439. 2003). It seems that this drawing was the main basis of the species name, not only because of the choice of its epithet but also because of the rather unusual character stressed by Burman: "foliis ternis inaequalibus, intermedio maximo". These regularly inequal leaves (the leaf in the middle being much larger) were clearly shown on the drawing but can hardly be seen in the cited Outgaarden specimen: it has the typical habit of *Gisekia pharnaceoides*, with very short pedicels not exceeding petioles, which are clearly distinct from the much longer pedicels of *Glinus oppositifolius* (Lu & Hartmann, l.c.). Contrary to POWO, the specimen cannot be identified as *Mollugo disticha* because of its glomerate axillary inflorescences, which are typical of *G. pharnaceoides* (the first species is characterized by spike-like terminal inflorescences).

This specimen was correctly associated by Burman with Plukenet's drawing. The drawing in Plukenet (l.c.) and the Outgaarden collection at G-PREL (G00808164) form the original material of *Mollugo triphylla*. Since the specimen collected by Outgaarden is directly cited in the protologue, it is a syntype that has priority in lectotypification. This specimen is designated above as lectotype.

Mollugo triphylla is an older synonym of *Gisekia pharnaceoides* s.str. (which is the only species of *Gisekia* ever recognised in Asia) and must therefore provide the specific epithet for a new combination in *Gisekia* because of priority and in the absence of a

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blocking name in *Gisekia*. The name *Gisekia pharnaceoides* has been universally accepted for the species since its original description (Linnaeus, Mant. Pl. Altera: 562. 1771). Importantly, *Gisekia pharnaceoides* provides the type of *Gisekia* and the *Gisekiaceae*, currently accepted by APG IV (in Bot. J. Linn. Soc. 181: 1–20. 2016). Therefore, in order to avoid unnecessary name changes for purely nomenclatural reasons (*ICN* Art. 14.1), we propose outright rejection of the unused name *Mollugo triphylla* Burm. f. that otherwise would provide the correct epithet for *G. pharnaceoides*.

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(2812) Proposal to reject the name *Primula sawyeri* (*Dionysia sawyeri*) (*Primulaceae*)

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(2812) ***Primula sawyeri*** G. Watt, Rep. Bot. Coll. H. A. Sawyer S. W. Persia: 94. 1891 [Angiosp.: *Primul*.], nom. utique rej. prop. Typus: deest.

The type of the name *Primula sawyeri* G. Watt (Rep. Bot. Coll. H. A. Sawyer S. W. Persia: 94. 1891) (≡ *Dionysia sawyeri* (G. Watt) Wendelbo in Aarbok Univ. Bergen, Mat.-Naturvitensk. Ser. 1961(3): 64. 1961) is believed to have been early lost, but there is little doubt about its identity, as I will show below. The hitherto accepted application of this name (Wendelbo, l.c.) is without doubt erroneous.

Watt's description reads [typed copy in E]: "whole plant not more than 1 to 1.5 inches. Stem perennial tufted, subwoody. Leaves 1/4 inch long, elliptic obovate sessile entire with a fringe of stout ciliae around the apex. Calyx deeply 5-toothed, segments obovate obtuse, and like the leaves ciliate, 1/3 the length of the corolla. Corolla tube long, thin, 1/2 inch in length, yellow; limb pale purple with a yellow naked mouth, lobes obcordate […] In size and appearance of flowers this very much resembles the minute Himalayan species *P. minutissima*." [Watt's Report was published as Appendix A to: Sawyer, H.A., Report of a reconnaissance in the Bakhtiari country S.W. Persia. Simla.]

Primula sawyeri was collected in the Bakhtiari Province of Iran in the central Zagros mountains by H.A. Sawyer "on rocks in the South of Kar Kanun near the sources of the Karun in the Kuh-i-Rang at an altitude of 8,000 feet". In the detailed map provided by Sawyer (in Geogr. J. (London) 4: 481–501. 1894), we find that this locality is in the upper Koohrang valley near the present dam (ca 32°27′N 50°06′E). This and the surrounding area have been visited repeatedly by dedicated *Dionysia* collectors during the last 25 years, and only one purple-flowered species, *D. archibaldii* Wendelbo (in Bot. Not. 120: 144. 1967), has ever been encountered.

Wendelbo, however, identified *Primula sawyeri* with the rare *Dionysia bachtiarica* Bornm. & F.N. Alex. (in Bull. Herb. Boissier, ser. 2, 4: 515. 1905), which is still only known from Alexeenkos's collections 1902–1903. Wendelbo based this identification on "purple flowers" and "ciliate leaf margins and calyx lobes", but most facts speak strongly against his suggestion:

(a) The calyx of *Dionysia bachtiarica* is 1/6 the length of the corolla, not 1/3.

(b) *Dionysia bachtiarica* is only known from Kuh-e Kallar, 100 km southeast of the type locality of *Primula sawyeri*.

Note also that, although Bornmüller assumed that the corolla colour of *Dionysia bachtiarica* is purple, this is far from certain. Alexeenko did not record it, and yellow *Dionysia* corollas are notorious for becoming bluish green, brownish or dark blue in herbaria (the latter in, e.g., the type specimens of *D. mira* Wendelbo [in Bot. Not. 112: 500. 1959] and *D. diapensifolia* Boiss. [Diagn. Pl. Orient. ser. 1, 7: 65. 1846]). Further, *D. bachtiarica* is strikingly anisophyllous, with the middle leaves of a shoot 3–5 times longer than the terminal ones; cf. the single measure given by Watt.

Identification with *Dionysia archibaldii* is much more likely:

(a) It is the only *Dionysia* species known from the type locality of *Primula sawyeri*.

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