



## Two new combinations in *Erythranthe* section *Simiolus* (Phrymaceae) for the flora of Chile

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### Abstract

Two Chilean members of *Mimulus*, *M. minimus* and *M. depressus* var. *cimum*, are transferred to *Erythranthe* as *E. minima* and *E. depressa* var. *cimum* respectively.

**Key words:** *Mimulus*, Scrophulariaceae, nomenclature, Mexico

### History of the specific taxon

Two different species of *Mimulus* have been published with the same name. One, *M. nanus* Philippi (1860: 45), is a diminutive, yellow-flowered annual collected by its author in Chile. It is known only from his type collection obtained in the lower Andes of the Atacama Desert (Muñoz Pizarro 1960, von Bohlen 1995). Later it was reduced in rank to varietal status as *M. depressus* Philippi (1860: 45) var. *nanus* (Philippi) Reiche (1911: 62). The specific epithet is not legitimate although the varietal name is acceptable under ICN Article 11.2 (McNeill *et al.* 2012).

The legitimate earlier *Mimulus nanus* Hooker & Arnott (1839: 379) is a small annual from western North America with rich pink or strong violet-pink corollas. It has lately been transferred to the genus *Diplacus* as *D. nanus* (Hooker & Arnott) G.L. Nesom (Barker *et al.* 2012: 29).

While reviewing *Mimulus* in Chile for a monograph, Christian von Bohlen (1995) concluded that *M. nanus* of Philippi was distinct from *M. depressus*, and proposed *M. minimus* C. Bohlen (1995: 13) as a new name. Hitherto, Reiche's varietal combination had been the accepted name (Marticorena & Quezada 1985: 70). This binomial, in turn, also has a later illegitimate homonym, *M. minimus* E. Pérez-Calix & Zamudio (2011: 32), given to a recently discovered Mexican species now known as *Erythranthe visibilis* G.L. Nesom (2012: 97, 2013: 3–4).

Phylogenetic studies at the end of the last century resulted in the fragmentation of Scrophulariaceae and establishment of *Mimulus* in Phrymaceae (Olmstead & Reeves 1995, Olmstead *et al.* 2001, Beardsley & Olmstead 2002). A subsequent study of Phymaceae by Barker *et al.* (2012) led to the transfer of *Mimulus* section *Simiolus* Greene (1885: 109) to *Erythranthe* as section *Simiolus* (Greene) G.L. Nesom (Barker *et al.* 2012: 42).<sup>1</sup> That alliance contains the relevant Chilean taxa treated here, and was established in *Erythranthe* in a series of publications (e.g. Barker *et al.* 2012, Nesom 2012, Nesom 2013).

During these revisions Nesom identified *Mimulus nanus* Philippi as conspecific with *M. acaulis* Philippi (1895: 112), which he recombined as *Erythranthe acaulis* (Philippi) G.L. Nesom (Barker *et al.* 2012: 45). A careful investigation has revealed that the type gatherings of *M. nanus* Philippi (syn. *M. minimus* C. Bohlen) and his *M. acaulis* display markedly different morphologies. The former is a distinct taxon, while the latter is now reduced to

1. Nesom changed Greene's sectional epithet *Simiolus* to *Simiola* to agree with the gender of *Erythranthe*. In IPNI (2014) it is presented as *Simiolae*, a correct, would-be adjectival form for the section name of a feminine genus. We, on the other hand, understand *Simiolus* to be a recognized and scientifically employed noun in apposition, translated as “little monkey”, which refers to the established vernacular name of the genus, “monkey-flower”. Nouns in apposition retain their original gender, viz. ICN Article 23.5 (McNeill *et al.* 2012).

C. Bohlen) G.L. Nesom (2012: 45) and rejected *E. minima*. But in seeking information on the latter as *Mimulus*, we discovered the existence of the later Pérez-Caliz & Zamudio homonym. During our attempts to resolve this problem we were in communication with J.L. Reveal who kindly supplied us with relevant details of the genus *Erythranthe*. This proved not only to be the key to fully solving the double identity question, but also led to revelation of von Bohlen's variety.

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