



New combinations in *Potentilla* (Rosaceae) for the Nordic Flora

MAARTEN J. M. CHRISTENHUSZ & HENRY VÄRE

Botany Unit, Finnish Museum of Natural History, University of Helsinki, Finland.

E-mail: maarten.christenhusz@helsinki.fi, henry.vare@helsinki.fi

Abstract

For an updated checklist of the Nordic Flora, several new combinations are needed in the genera *Potentilla* (Rosaceae). Combinations for species occurring or cultivated in the Nordic Countries (Denmark, Finland, Iceland, Norway and Sweden) are provided here. The genera are still in need of a worldwide taxonomic revision, where numerous other species of especially *Alchemilla* and *Lachemilla* need to be transferred to *Potentilla*, but this is not within the framework of our study. We restrict us here to species relevant to the Nordic Flora and species cultivated in that area.

Introduction

Recent developments in molecular phylogeny and systematics have not only resulted in reorganisation of plant families (e.g. APG III; Angiosperm Phylogeny Group 2009), but it also created a greater understanding of the relationships between and among genera in these families. Some of these were surprising results, such as the relationship between Proteaceae, Platanaceae and Nelumbonaceae, which received ample attention, but other findings have not resulted in a reclassification of a family. A good example is Rosaceae in which several studies have shown that some of the genera are not monophyletic in their traditional sense. To keep the embedded usually smaller genera, authors have opted for accepting even smaller genera, but, although this reflects a natural classification, it often resulted in genera that are morphologically difficult to distinguish from each other and are often so small in species number that it appears as if every species is placed in its own genus, therefore defying the usefulness of the genus as a category for classification. Therefore we prefer to circumscribe larger genera, and the natural classification of groups within these genera can be treated at the subgeneric level. This will make recognition of the genus instant and easy for the non-specialist to apply, whereas specialists can refer to subgenera if they wish to do so. This follows treatments of other large genera such as *Euphorbia* L. (Bruyns *et al.* 2006), *Blechnum* L. (Christenhusz *et al.* 2011) and *Streptocarpus* Lindl. (Christenhusz 2012).

The genus *Potentilla* L. is here redefined based on recent molecular findings of Dobeš & Paule (2010), which includes the genera *Alchemilla* L., *Aphanes* L., *Argentina* Hill, *Chamaerhodos* Bunge, *Comarum* L., *Dasiphora* Raf., *Drymocallis* Fourr. ex Rydb., *Duchesnea* Sm., *Farinopsis* Chrtek & Soják, *Fragaria* L., *Fragariastrum* Heist. ex Fabr., *Horkelia* Cham. & Schltdl., *Horkeliella* Rydb., *Lachemilla* Rydb., *Ivesia* Torr. & A.Gray, *Piletophyllum* Soják, *Potentillopsis* Opiz, *Schistophyllidium* Ikonn., *Sibbaldia* L., *Tormentilla* L., and *Tylosperma* Botsch., which are together forming a monophyletic clade. To merge these small genera with *Potentilla* is the most parsimonious solution, because the majority of these genera were segregated from *Potentilla* and their species were previously already placed in that genus and have been continued to be treated as such in many floras (e.g. the genera *Argentina*, *Comarum*, *Dasiphora* and *Tormentilla* are still frequently treated as *Potentilla*). *Fragaria* was already reunited with *Potentilla* by Mabberley (2002), who provided all species combinations. Many other species already have combinations in *Potentilla* available as well, but especially members of *Alchemilla*, *Aphanes* and