



Checklist of the hornworts and liverworts of Java

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Abstract

In this checklist all hornworts and liverworts reports for Java are listed. The horn- and liverwort flora of the island consists of 568 known and accepted species (plus 39 invalid or illegitimate names). In addition 12 recorded species are considered dubious and another 111 species are excluded from the flora of Java. Most of the species are reported from West Java. The genus *Stenolejeunea* is synonymized with *Lejeunea* and we make the new combination *Lejeunea thallophora* (Eifrig) Gradst. and the new name *Lejeunea propagulifera* Gradst. (nom. nov. pro *Trachylejeunea schiffneri* Herzog; non *Lejeunea schiffneri* Steph. ex Schiffn.). A new synonym of *Lejeunea papilionacea* (*Cardiolejeunea cardiantha* R.M.Schust. et Kachroo syn. nov.) is proposed.

Key words: *Stenolejeunea*, *Cardiolejeunea cardiantha*, Java, checklist, liverworts, hornworts

Introduction

Checklists are important tools in taxonomy, systematics and conservation (Söderström *et al.* 2007, 2008). In spite of that, several important areas lack recent checklists, including a number of islands in the Malesian archipelago.

Java is one of the larger Indonesian islands with an area of 132,000 km² and with mountains up to 3,676 m a.s.l. The western part of the island includes two ecoregions (Olson *et al.* 2001), Western Java Rainforest in the lowlands and Western Java montane rain forest at higher altitudes. The latter belongs to the 200 most threatened ecoregions of the world (Olson & Dinerstein 2002). The corresponding ecoregions in the east are Eastern Java-Bali rain forest and Eastern Java-Bali montane rain forests. The western part of the island is very wet with an annual rainfall of 4500 mm while the eastern part is considerably drier. This can also be seen in the number of liverwort and hornwort species reported from the island. Of the reported 607 species (including doubtful and invalid/illegitimate species) from Java 488 species have been reported from West Java (Jawa Barat) while there are only 84 from Central Java (Jawa Tengah) and 61 from East Java (Jawa Timur). The higher species richness of West Java is also influenced by the location of the main centers of botanical exploration, Herbarium Bogoriense and Bogor Botanical Garden, in this part of the island

Knowledge of the hornworts and liverworts of Java

Liverworts and hornworts from Java were first reported by Reinwardt *et al.* (1824a) and Nees (1830). Important later authors publishing on liverworts and hornworts of Java are van der Sande Lacoste (e.g., 1857,