3 The Regional Accounts
3.1 The High Mountain Vegetation of the Scandes

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3.1.1 Geography, Geology and Ecological Conditions

The Scandinavian mountain chain (Scandes) extends from 58°N to 70°N. Its highest peak is Galdhøpiggen (2469 m above sea level, a.s.l.), Jotunheimen massif, Norway. The Scandes belong to the Caledonides and were formed as a result of a collision between the Baltic and Laurentian shields ca. 550–400 million years ago. Their main landforms were strongly modified by later tectonic movements, weathering and glaciations (e.g. Binns 1978; Bax 1989; Svenningsen 1995; Eide et al. 1999). The geology of the Scandes is variable and includes Precambrian, igneous, schistose metamorphic and sedimentary rocks. The latter, containing high concentrations of calcium and magnesium carbonate, are of great botanical importance. The upper elevation of the mountain birch (*Betula pubescens* ssp. *czerepanovii*) treeline is at ca. 1300 m a.s.l. in the mountains of SE Norway, descending almost to sea level in the coastal mountains of northern Norway (Aas and Faarlund 2001). A recent overview of the ecological conditions in the Scandes can be found in Väisänen (1998), Sonesson and Molau (1998) and Moen (1999).

3.1.2 Climate

The western or Atlantic side of the Scandes is characterised by an oceanic climate with high precipitation, relatively mild winters with abundant snow. The eastern side has a relatively continental climate with less precipitation, less snow cover and a higher amplitude in temperature than in the west. For further details on climatic conditions, see, e.g., Moen (1999) and Chap. 2.