

Oribatid mites of Alpine Fennoscandia

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The diversity and distribution of oribatid mites in alpine regions of Fennoscandia have been studied by many scientists since at least 1902. Increased focus on biodiversity in general and distributions in alpine regions in particular creates a need for a summary of these many published studies. The information that can be drawn from published articles is limited by their varying quality, and further studies are needed to explore altitudinal patterns of species richness. Some interesting distributional patterns are, however, revealed in this synthesis.

Ceratoppia sphaerica (L. Koch, 1879), *Chamobates cuspidatiformes* (Trägårdh, 1904), *Camisia borealis* (Thorell, 1871), *Malaconothrus globiger* Trägårdh, 1910, *Mycobates sarekensis* (Trägårdh, 1910), *Trichoribates monticola* (Trägårdh, 1902), *Phauloppia lucorum* (C. L. Koch, 1841), and *Trichoribates setiger* (Trägårdh, 1910) show an alpine distribution in this data-set. *Adoristes ovatus* (C. L. Koch, 1840), *Conchogneta traegardhi* (Forsslund, 1947), *Diapterobates humeralis* (Hermann, 1804), *Hemileius initialis* (Berlese, 1908), *Heminothrus longisetosus* Willmann, 1925, *Melanozetes mollicomus* (C. L. Koch, 1839), *Moritzoppia splendens* (C. L. Koch, 1841), *Moritzoppia neerlandica* (Oudemans, 1900), *Oppiella nova* (Oudemans, 1902), and *Suctobelbella subtrigona* (Oudemans, 1900) are all found to have a distribution limited by altitude. Some species may additionally show signs of altitudinal limitations, and should be investigated further. *Belba compta* (Kulczynski, 1902), *Edwardzetes edwardsi* (Nicolet, 1855), and *Oribatula tibialis* (Nicolet, 1855) are equally present along the entire altitudinal gradient. *Liochthonius lapponicus* (Trägårdh, 1910), *Liochthonius sellnicki* (Thor, 1930), *M. sarekensis*, *Camisia foveolata* Hammer, 1955, *O. nova*, *Oromurcia bicuspidata* Thor, 1930, *Suctobelbella acutidens* (Forsslund, 1941), and *Tectocephus velatus* (Michael, 1880) all thrive in glacier-forelands.

Key words: Acari, Oribatida, Alpine environments, Fennoscandia, Distribution, Diversity.

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Introduction

Through the Convention on Biological Diversity, the Fennoscandian countries of Finland, Norway, and Sweden are committed to reduce significantly the loss of biodiversity by 2010 (United Nations Environment Programme 1993). This has led to a renewed attention to biodiversity loss and the urgent need to survey current biodiversity has emerged, for example through the initiation of national centres. Data on biodiversity have, however, been collected since the early days of

pioneer naturalists who collected and identified what they found. This approach changed towards a more structured and rigid sampling and later to investigations of ecosystems and species traits. Much relevant basic knowledge on biodiversity can be obtained from all these studies.

Biodiversity is not only important in its own right. Anthropogenic changes of the environment and climate are occurring at an alarming speed and many organisms and environments have been suggested as suitable models for studying