

New Estonian records and amendments: Liverworts and mosses

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Presently 579 species belong to the bryoflora of Estonia. Eight species and one variety new for Estonia are reported here, seven taxa have been collected and identified by Estonian and foreign scientists, two species are new according to taxonomical rearrangements. Two species, *Dicranodontium denudatum* (Brid.) E. Britton, and *Dicranum muehlenbeckii* Bruch & Schimp., should be eliminated from the list of Estonian bryophytes due to misidentification. The first has been reported for Estonia in 2007 from two localities (Leis & Kannukene, 2007), but both specimens have been re-identified as *Ditrichum* sp. The second species had three old records (Ingerpuu et al., 1994), all specimens have been re-identified as *Dicranum brevifolium* (Lindb.) Lindb.

Grimmia muehlenbeckii Schimp. [Mühlenbecki rahnik] had been earlier reported from Estonia (Malta, 1930; Laasimer, 1948), but then included in *G. trichophylla* Grev. (Ingerpuu et al., 1994). According to the last studies they are separate species (Porley & Maier, 2007; Streiff, 2006), and by checking Estonian herbaria specimens it appeared that majority of these are *G. muehlenbeckii* and *G. trichophylla* has much less localities.

HEPATICAE

CONOCEPHALUM SALEBROSUM Szweyk. et al. [salekoonik]

This recently described species (Szweykowski et al., 2005) is distributed across the whole Nordic

hemisphere. Being more desiccation tolerant it is more frequent than *C. conicum* (L.) Dumort (Szweykowski et al., 2005). This is also true for Estonia. We have checked all the specimens in the Estonian herbaria and found that the majority of these belong to *C. salebrosum*. We can conclude that this species is frequent and widely distributed in Estonia. The distribution and frequency of *C. conicum* in Estonia is much more restricted and needs more study. However, a number of specimens have some intermediate characters. The epidermal cell walls can be both inflated and flat in the same specimen. The depth of furrow between the air chambers, and the size of the cells above the air chamber walls seem to depend also on the height of the air chamber tissue.

BRYOPHYTA

BRYUM RADICULOSUM Brid. [lõuna-pungsamal]

Two localities in Saaremaa Island near Kuressaare have been indicated in literature (Dengler & Boch, 2007). A duplicate of one specimen was acquired from the collector and is kept at TU. 1st loc.: Saare Co., SW of Kuressaare, south of the main road, on basic periodically inundated of *Crepido-Allietum* dry grassland, over limestone rock. 17 July 2004, leg./ det. S. Boch, ver. C. Dolnik, (TU). This species has been reported as dry-tolerant species growing on calcareous-rich exposed habitats. In northwestern Europe it is known only from Denmark (Hallingbäck et al., 2008).

CAMPYLOPUS INTROFLEXUS (Hedw.) Brid. [võõrköverharjak]

1st loc.: Saare Co., Põide District, 2 km NW from Kareda village, south from Kuressaare-Virtsu road. Southern part of Koigi abandoned peat field. 03 September 2007, leg. U. Ramst, det. L. Kannukene (TAM, dupl. TAA); 2nd loc.: Pärnu Co., Väandra District, 4 km NW from Tootsi, west from Pärnu-Rakvere-Sõmeru road. Central part of Märdama abandoned peat field. 24 October 2007, leg. R. Ramst, det. L. Kannukene (TAM, dupl. TU). This species is common in Southern Hemisphere and has invaded Europe in the middle of the last century (Hassel & Söderström, 2005), it can inhabit large variety of communities, all of which are usually somehow disturbed. As a stress tolerant dominant species

C. introflexus diminishes species richness of bryophyte communities (Isermann, 2005).

CYNODONTIUM POLYCARPON (Hedw.) Schimp. [püst-penihammas]

1st loc.: Harju Co., Loksa District, Mohni Island, on boulders in SO part of island. 12 August 2008, leg. M. Leis, det. M. Leis, L. Kannukene, ver. M. Ignatov (TAA). This species is common in Scandinavia, but is missing from Latvia and Lithuania (Söderström et al., 1996).

DICRANOWEISIA CIRRATA (Hedw.) Lindb. [sile sä-brusammal]

1st loc.: Saare Co., Karjalasma forestry, south from Panga village. *Arctostaphylos*-pine forest, on ground. 20 July 2006, leg./det. K. Vellak (TU). 2nd loc.: Harju Co., Loksa District, Mohni Island. On boulders on SO coast of island. 12 August 2008, leg. M. Leis, det. M. Leis, L. Kannukene (TAA). *D. cirrata* has a cosmopolite distribution, it is more frequent in open habitats on tree bases, roots or stones, also in urban environments (Hallingbäck et al., 2008).

ORTHOTRICHUM ROGERI Brid. [Rogeri tutik]

1st loc.: Harju Co., Loksa District, eastern part of Purekari Cape. On deciduous tree trunk at the edge of forest. 13 August 2008, leg./det. M. Leis, ver. T. Hallingbäck (TAA). This species grows in open habitats on trunks of broad-leaved trees, and is distributed sparsely in Europe, outside of Europe it is known from Asia (Hallingbäck et al., 2008). Due to increasing human influence (air pollution and forest management) this species is included in Annex I of the Bern Convention and Annex 2 of the EU Habitat Directive (EU Habitat Directive, 1992).

ORTHOTRICHUM SCHIMPERI Hammar [Schimperitutik]

Specimens of genus *Ortotrichum* from TU were checked by Dr. R. Medina in 2007. As a result, eight specimens of *O. pumilum* and one of *O. pallens* was identified as *O. schimperii*. This species was recognized as a species only in 2001 (Hill et al., 2006) and it seems to be not rare in Estonia, having several localities in mainland as well as on islands.

PSEUDOTAXIPHYLLUM ELEGANS (Brid.) Z.Iwats. [peen ebasarmik]

1st loc.: Harju Co., Lahemaa National Park. Sandstone outcrop "Turje Kelder", on sandstone, 26 May 2008, leg. N. Ingerpuu, det. N. Ingerpuu,

K. Vellak (TU). This species is quite common in Western and Northern Europe (Frey et al., 2006), and has been presumably overlooked in Estonia.

TORTELLA INCLINATA (R.Hedw.) Limpr. var. DENSA (Loretz & Molendo) Limpr.

1st loc.: Saaremaa Island. Kärla District, Oriküla alvar, on limestone pavements, 18 June 2006, leg./det. N. Ingerpuu, K. Vellak (TU). The distribution of this taxon is restricted to exposed calcareous rich habitats and alvars (Hallingbäck et al., 2008).

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New Estonian records: Pezizales (Ascomycetes)

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CHEILYMENIA CHIONOPHILA T. Schumach.

Tartumaa Co., Rõngu Comm., Tilga Village, Partsi (58°11'04" N, 26°15'36" E, alt 70 m), on soil within mosses, 26 Mai 2008 leg. B. Kullman, det. B. Kullman (TAA(M) 190177).

DISCINA WARNEI (Peck) Sacc.

Tartumaa Co., Rõngu Comm., Tilga Village, Pärna (58°10'32" N, 26°15'54" E, alt 73 m), on decay timber stump, 14 Mai 2008 leg. B. Kullman, det. B. Kullman (TAA(M) 190159).

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