

## New national and regional biological records for Finland 2. Contributions to the Finnish aphylloroid funga (Basidiomycota)

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*Athelium hallenbergii*, *Tomentella albomarginata*, *Tomentella cinereoumbrina*, *Tubulicrinopsis granulose* and *Tulasnella calospora* are reported as new to Finland. New records of *Lindtneria chordulata*, *Phlebia cremeoalutacea*, *Tomentella coerulea*, *Tomentella terrestris*, *Tomentellopsis zygodesmoides*, *Trechispora araneosa*, *Trechispora caucasica*, *Trechispora minima* and nine other little collected species are presented and notes of their substrates are given. Many of these records were made in Southwestern Finland, from the forested islands of the Archipelago Sea. In addition we list 33 aphylloroid fungi as new to some section of the boreal vegetation zone in Finland.

### Introduction

A check-list of Finnish aphylloroid fungi was published in 2009 (Kotiranta *et al.* 2009). After that plenty of knowledge has accumulated and new records were published by Kunttu *et al.* 2009, 2010, 2011. Here we report new records including five species new to Finland, 17 little collected species with only few records earlier in Finland, as well as 33 aphylloroid fungi new to some section of boreal vegetation zone in Finland. We have included also species which already have been reported from Finland, but since they are in taxonomical articles they are easily buried.

### Material and methods

Many of the records are made by Panu Kunttu (PK) during the years 2008–2010 as a part of

large scale biogeographical and ecological research on aphylloroid fungi in Archipelago Sea. All these collections were made from the hemiboreal zone in the biogeographic province of Regio Aboënsis (Ab). The specimens were identified by Matti Kulju (MK), Heikki Kotiranta (HKta) and Urmas Kõljalg (UK).

Other material was collected by several researchers: HA = Heikki Anttila, VH = Veli Hainkonen, PH = Pekka Halonen, PKe = Panu Keihäs, KK = Kari Kukko-oja, HKta = Heikki Kotiranta, HK = Heino Kulju, MK = Matti Kulju, PK = Panu Kunttu, MO = Martti Ohenoja, TN = Tuomo Niemelä, RP = Reijo Penttilä, TR = Tapio Rintanen, S-MR = Sanna-Mari Rivasto, MS = Marko Sievänen, JS = Jari Särkkä, US = Unto Söderholm, TT = Tiiu Tenno and HV = Henry Väre. The aims of these studies varies but are mostly connected with species inventories of certain areas or ecology of polypores and corticioids.

Finnish national uniform grid system (27°E) according to Heikinheimo and Raatikainen (1981) was used for coordinates and biogeographic provinces according to Hansen & Knudsen (1997). UCS = Uniform Coordinate System. Boreal and hemiboreal vegetation zones consist of 11 sections which are used in this article (Ahti *et al.* 1968, Hämet-Ahti 1981). The maps of the sections can be found in, e.g., Kotiranta *et al.* (2009, p. 7) and Rassi *et al.* (2010, p. 27). Voucher specimens are deposited in the herbaria of the Universities of Helsinki (H), Turku (TUR), Tartu (TU), Oulu (OULU) and/or in the reference herbarium of Heikki Kotiranta (H.Kta).

Nomenclature of the genus *Hyphodontia sensu lato* follows Hjortstam & Ryvarden (2009) and others mainly Kotiranta *et al.* (2009). The Finnish national red-listing evaluation of IUCN Red List Categories are according to Kotiranta *et al.* (2010). The decay stage classification of trunks is according to Renvall (1995).

## Results and discussion

In this paper we report five species new to Finland, new records of 17 little collected species, as well as 33 species new to some section of boreal vegetation zone in Finland. Species are presented in alphabetic order. The number of new species to some section of boreal vegetation zone divide as follows: Hemiboreal, Åland (1a) 2, Hemiboreal, Oak zone (1b) 5, Southern boreal, Southwestern Finland and Southern Ostrobothnia (2a) 1, Southern boreal, Lake district (2b) 2, Middle boreal, Ostrobothnia (3a) 12, Middle boreal, Northern Carelia – Kainuu (3b) 1, Middle boreal, Southwestern Lapland (3c) 7, Northern boreal, North Ostrobothnia (4b) 2 and Northern boreal, Fjeld Lapland (4d) 1.

## List of species

### *Albatrellus subrubescens* (Murrill) Pouzar

*Specimen examined:* FINLAND, Ostrobothnia ultima, Rovaniemi, Pisavaara Strict Nature Reserve, on ground, UCS 7360466:3415852, 25.IX.2011, TT & MK 70/11 (OULU).

New to Middle boreal, Southwestern Lapland (3c).

### *Athelium hallenbergii* Yurchenko & Kotir.

*Specimens examined:* FINLAND, Tavastia australis, Lamm, Evo, Tuohimetsä, burned *Picea abies* dominated forest, on decorticated *Picea* log, decay 1, diam. 15 cm, UCS 6789:3402, 24.X.1998, RP 13364 & HKta, (H, H.Kta); Ostrobothnia ouluensis, Oulu, Toppila, on deciduous tree, UCS 7217220:3425862, 25.X.2011, PH & MK130/11 (OULU).

New to Finland, new to Southern Boreal, Lake district, (2b) and Middle boreal, Ostrobothnia (3a).

*Athelium hallenbergii* was described in 2007. It was collected in 2000 and 2006 in an oak forest from Belarus (Yurchenko & Kotiranta 2007).

### *Botrybasidium aureum* Parmasto

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Vänö, fallen trunk of *Alnus glutinosa*, decay 4, diam. 14 cm, UCS 6650189: 3230896, 14.XI.2008, S-MR & PK 4449 (TUR), det. MK; Ostrobothnia ouluensis, Oulu, Vihriäsaari, on coniferous tree, UCS 7213735:3426117, 2.IX.2011, MK 10/11 (OULU).

New to Middle boreal, Ostrobothnia (3a).

There are three earlier records from Finland (Kotiranta *et al.* 2009). All the Finnish collections are anamorphs (*Haplotrichum aureum* (Pers.) Hol.-Jech.).

### *Colacogloea peniophorae* (Bourdot & Galzin)

Oberw., R. Bauer & Bandoni

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Stora Buskär, fallen *Alnus glutinosa* branch, decay 4, diam. 5 cm, UCS 6644:3229, 17.VIII.2010, PK 6620c (TUR), det. MK.

This is the sixth record in Finland (Kotiranta *et al.* 2009, Kunttu *et al.* 2009).

### *Irpex lacteus* (Fr.: Fr.) Fr.

*Specimen examined:* FINLAND, Ostrobothnia ouluensis, Oulu, Kynsilehto, on *Salix* sp., UCS 7215:3431, 1.XI.2007, PH & PKe (OULU).

New to Middle boreal, Ostrobothnia (3a).

### *Irpex oreophilus* (Lindsey & Gilb.) Niemelä

*Specimen examined:* FINLAND, Ostrobothnia ouluensis, Oulu, Toppila, on *Salix* sp., UCS 7216877:3426121, 25.X.2011, PH & MK 124/11 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Junghuhnia pseudozilingiana*** (Parmasto)

Ryvarden

Syn. *Irpex cremicolor* Miettinen, Niemelä & Ryvarden

*Specimen examined*: FINLAND, Ostrobothnia ultima, Kemi, Iso-Räiskö, on *Salix* sp., UCS 7297144:3382293, 4.IX.2012, PKe & MK 6/12 (OULU).

New to Middle boreal, Southwestern Lapland (3c).

This record is the seventh in Finland (Kotiranta et al. 2009; see under *Irpex cremicolor* and *Steccherinum pseudozilingianum*).

***Lagarobasidium detriticum*** (Bourdot) Jülich

*Specimen examined*: FINLAND, Ostrobothnia ultima, Kemi, Iso-Räiskö, UCS 7298030:3382718, 11.IX.2012, PKe & MK 23/12 (OULU).

New to Middle boreal, Southwestern Lapland (3c).

***Lindtneria chordulata*** (D.P. Rogers) Hjortstam

*Specimen examined*: FINLAND, Regio aboënsis, Parainen, Nauvo, Boskär, fallen trunk of *Populus tremula*, decay 1, diam. 48 cm, UCS 6669265:3208963, 1.VIII.2010, PK 6439 (TUR), det. MK.

This record is the sixth in Finland. Earlier records are from U, Helsinki in four places (1990's) on *Salix caprea*, *Salix* sp., coniferous board, *Pinus* timber and *Syringa vulgaris* (cult.); EH, Lammi (1997) on *Corylus* (Kotiranta et al. 2009). *Lindtneria chordulata* is classified as vulnerable species in Finland (Kotiranta et al. 2010).

***Luellia recondita*** (H.S. Jacks.) K.H. Larss. &

Hjortstam

*Specimen examined*: FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Högholmen, fallen *Picea abies* trunk, decay 2, diam. 32 cm, UCS 6664135:3250006, 22.VIII.2010, PK 6780 (TUR) det. MK.

This record is the fourth in Finland. All three earlier records are made in hemiboreal zone and fruit bodies grew on coniferous trees (Kotiranta et al. 2009).

***Peniophora nuda*** (Fr.) Bres.

*Specimen examined*: FINLAND, Ostrobothnia media, Kalajoki, Rahja, on *Hippophaë rhamnoides* UCS 7124570:3339325, 21.IX.2011, MS, JS & MK 63/11 (OULU); Ostrobothnia ouluensis, Oulu, Intiö, on *Amelanchier spicata*, UCS 7213:3429, 27.III.1998, MK & HV 49/98 (OULU); Ostrobothnia ouluensis, Muhos, Suokylä, Muhosjoki, Liimanninkoski, on *Lonicera xylosteum*, UCS 71841:34597, 4.V.1996, MO 17 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Peniophora pithya*** (Pers.) J. Erikss.

*Specimen examined*: FINLAND, Lapponia enontekiensis, Enontekiö, Dierpmesjavri, on a coniferous log (diam. 20 cm) inside of the wilderness hut, UCS 7671417:3269819, 20.VII.2011, PK 7573 (TUR), det. Jorma Pennanen.

New to Northern boreal, Fjeld Lapland (4d).

***Peniophorella echinocystis*** (J. Erikss. & Å. Strid)

K.H. Larss.

*Specimen examined*: FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Jungfruholmen, fallen *Corylus avellana* trunk, decay 3, diam. 8 cm, UCS 6663728:3242646, 26.VIII.2010, PK 6927 (TUR), det. MK; Regio aboënsis, Parainen, Nauvo, Boskär, fallen *Alnus glutinosa* trunk, decay 1, diam. 11 cm, UCS 6669:3208, 29.VII.2010, PK 6336a (TUR), det. MK; Regio aboënsis, Nauvo, Boskär, natural stump of *Alnus glutinosa*, decay 4, diam. 26 cm, UCS 6669:3208, 30.VII.2010, PK 6385a (TUR), det. MK; Regio aboënsis, Parainen, Nauvo, Boskär, fallen *Betula* sp. trunk, decay 4, diam. 34 cm, UCS 6669803:3209065, 1.VIII.2010, PK 6400b (TUR), det. MK.

There are three earlier records in Finland (Kotiranta et al. 2009, Kunttu et al. 2010).

***Peniophorella guttulifera*** (P. Karst.) K.H. Larss.

*Specimen examined*: FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Stora Buskär, fallen *Betula* sp. trunk, decay 4, diam. 20 cm, UCS 6644:3229, 17.VIII.2010, PK 6594 (TUR), det. MK.

This is the sixth record in Finland. Five earlier records are made in Hemi and South boreal zones, two of them are more than 70 years old. All have grown on deciduous tree (Kotiranta et al. 2009). *Peniophorella guttulifera* is classified as near-threatened species in Finland (Kotiranta et al. 2010).

***Phellinus nigrolimitatus*** (Romell) Bourdot &

Galzin

*Specimen examined*: FINLAND, Alandia, Eckerö, Skeppsvik, Långmo, fallen *Picea abies* trunk, decay 2, diam. 25 cm, UCS 6697922:3086979, 6.X.2012, PK 7824 (TUR).

New to Hemiboreal, Åland (1a).

***Phlebia cremeoalutacea*** (Parmasto) K.H. Larss.

&amp; Hjortstam

*Specimen examined*: FINLAND, Regio aboënsis, Nauvo, Fårö, fallen *Pinus sylvestris* kelo trunk, decay 4, diam. 14 cm, UCS 6657904:3209037, 26.VII.2010, PK 6218 (TUR), det. MK.

This record is the third in Finland, earlier records are made in Regio aboënsis, Dragsfjärd (Kunttu et al. 2009, Kunttu et al. 2011).

***Phlebia fuscoatra*** (Fr.) Nakasone

*Specimen examined:* FINLAND, Ostrobothnia ultima, Kemi, Iso-Räiskö, on coniferous tree, UCS 7297043:3382429, 4.IX.2012, PKe & MK 5/12 (OULU).

New to Middle boreal, Southwestern Lapland (3c).

***Polyporus squamosus*** (Huds.: Fr.) Fr.

*Specimen examined:* FINLAND, Ostrobothnia ultima, Kemi, Pieni-Räiskö, on *Salix* sp., UCS 7296601:3383552, 11.IX.2012, PKe & MK 17/12 (OULU).

New to Middle boreal, Southwestern Lapland (3c).

***Porothleum fimbriatum*** (Pers.: Fr.) Fr.

*Specimen examined:* FINLAND, Ostrobothnia media, Pyhäjärvi, Jonasuo, on *Populus tremula*, UCS 7040202:3451861, 18.IX.2011, HK, HA & MK 49/11 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Steccherinum bourdotii*** Saliba & A. David

*Specimen examined:* FINLAND, Regio aboënsis, Parainen, Nauvo, Duvholm, on fallen *Alnus glutinosa* trunk, decay 1, diam. 38 cm, UCS 6675276:3231413, 19.IX.2010, S-MR & PK 7172 (TUR), det. MK, conf. HKta.

This is the fifth record in Finland. All earlier records are also made on deciduous trees in Southern Finland (Kotiranta et al. 2009).

***Scytinostroma portentosum*** (Berk. & M.A.

Curtis) Donk

*Specimen examined:* FINLAND, Ostrobothnia ouluensis, Oulu, Hietasaari, on *Alnus incana*, UCS 7213931:3426164, 8.IX.2011, MK 29/11 (OULU); Ostrobothnia ultima, Kemi, Hietaliete, on *Salix* sp., UCS 7298847:3384217, 6.IX.2012, PKe & MK 13/12 (OULU).

New to Middle boreal, Ostrobothnia (3a) and Middle boreal, Southwestern Lapland (3c).

***Stypella subgelatinosa*** (P. Karst.) P. Roberts

*Specimen examined:* FINLAND, Ostrobothnia ouluensis, Oulu, Vihriäsaari, on decorticated *Alnus* (decay 3), UCS 72137:34261, 8.IX.2012, US 4473 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Tomentella albomarginata*** (Bourdot & Galzin)

M. J. Larsen

This species belongs to *Tomentella sublilacina*-group.

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Kuggskär, on fallen and broken *Alnus glutinosa* trunk, decay 5 diam. 6 cm, UCS 6638889:3240603, 30.IX.2008, PK 4010 (TUR, TU), det. UK; Re-

gio aboënsis, Kuggskär, on fallen branch of *Betula* sp., decay 4, diam. 3 cm, UCS 6638929:3240604, 29.IX.2008, PK 3997 (TUR, TU), det. UK; Regio aboënsis, Parainen, Nauvo, Sillholm, on fallen kelo branch of *Pinus sylvestris*, decay 2, diam. 7 cm, UCS 6689:3223, 9.VIII.2009, S-MR & PK 4882 (TUR, TU), det. UK.

New to Finland, new to Hemiboreal, Oak zone (1b).

***Tomentella cinereoumbrina*** (Bres.) Stalpers

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Norrön, dry and mesic herb-rich forest, on fallen and broken *Populus tremula* trunk, decay 2, diam. 5 cm, UCS 6656:3260, 7.VIII.2009, S-MR & PK 4851 (TUR, TU), det. UK.

New to Finland, new to Hemiboreal, Oak zone (1b).

***Tomentella coerulea*** (Bres.) Höhn. & Litsch.

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Kuggskär, fallen *Betula* sp. trunk, decay 4, diam. 16 cm, UCS 6638932:3240615, 30.IX.2008, PK 3995 (TUR, TU), det. UK; Regio aboënsis, Kemiönsaari, Dragsfjärd, Norrön, fallen *Betula* sp. trunk, decay 5, diam. 28 cm, UCS 6656:3260, 7.VIII.2009, S-MR & PK 4820 (TUR, TU), det. UK; Regio aboënsis, Parainen, Nauvo, Sillholm, fallen *Populus tremula* trunk, decay 1, diam. 23 cm, UCS 6689:3223, 9.VIII.2009, S-MR & PK 4906 (TUR) det. MK.

New to Hemiboreal, Oak zone (1b).

There is only one earlier record in Finland: Ostrobothnia ultima, Rovaniemi (1980) on *Populus tremula* (Kotiranta et al. 2009).

***Tomentella radiosa*** (P. Karst.) Rick

*Specimen examined:* FINLAND, Ostrobothnia kajanensis, Vaala, Rokua Nat. Park, on *Pinus sylvestris*, UCS 7162701:3474494, 20.IX.2005, PH, PKe & MK 90/05 (OULU); Ostrobothnia media, Raahe, Saloinen, Järvelänjärvi S, UCS 71718:33768, 3.IV.1993, JS 142 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Tomentella sublilacina-coll.*** (Ellis & Holw.)

Wakef.

*Specimen examined:* FINLAND, Ostrobothnia ouluensis, Oulu, Hupisaaret, on *Sorbus aucuparia*, UCS 7214:3428, 17.IV.1998, MK & HV 79/98 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Tomentella terrestris*** (Berk. & Broome) M.J.

Larsen

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Kuggskär, dry and mesic herb-rich for-

est, *Betula* sp., fallen trunk, decay 1, diam. 6 cm, UCS 6638:3240, 29.IX.2008, PK 4003 (TUR, TU), det. UK.

New to Hemiboreal, Oak zone (1b).

This record is the third in Finland. Earlier records are made in Ka, Vehkalahti on decayed wood (1979) and Ostrobothnia kajanensis, Kuhmo (1990) on *Betula* (Kotiranta *et al.* 2009).

***Tomentellopsis zygodesmoides*** Ellis & Hjortstam

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Hamnholmen, on fallen, broken *Alnus glutinosa* trunk, decay 3, diam. 16 cm, UCS 6665:3241, 6.VIII.2009 PK4755b (TUR, TU), det. UK.

New to Hemiboreal, Oak zone (1b).

This record is the second in Finland. The earlier record was made in U, Tuusula (2004) on *Pinus sylvestris* (Kotiranta *et al.* 2009).

***Trechispora araneosa*** (Höhn. & Litsch.) K.H.

Larss.

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Stora Buskär, on fallen *Alnus glutinosa* trunk (decay 4, diam. 33 cm), UCS 6644:3228, 17.VIII.2010 PK6646 (TUR), det. MK, conf. HKta.

This record is the second in Finland. The earlier record: Regio aboënsis, Dragsfjärd, on strongly decayed *Alnus glutinosa* trunk (Kunttu *et al.* 2010).

***Trechispora caucasica*** (Parmasto) Liberta

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Högholmen, sawed stump of *Alnus glutinosa*, decay 4, diam. 18 cm, UCS 6663877:3249852, 4.X.2010, PK 7078b (TUR), det. HKta.

This record is the third in Finland. Earlier records in Finland are made in Alandia, Eckerö (2007) on *Juniperus* and Nylandia, Tammisaari (2000) on *Tilia* branch (Kotiranta *et al.* 2009).

***Trechispora confinis*** (Bourdot & Galzin) Liberta

*Specimen examined:* FINLAND, Ostrobothnia media, Kalajoki, Rahja, on *Hippophaë rhamnoides*, UCS 7124616:3339350, 21.IX.2011, MS, JS & MK 60/11 (OULU).

New to Middle boreal, Ostrobothnia (3a).

***Trechispora invisitata*** (H.S. Jacks.) Liberta ssp.

*hauerslevi* K.H. Larss.

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Stora Buskär, fallen *Betula* sp. trunk, decay 4, diam. 8 cm, UCS 6644:3229, 17.VIII.2010, PK 6578 (TUR), det. MK.

This is the sixth record in Finland (Kotiranta *et al.* 2009, Kunttu *et al.* 2009).

***Trechispora laevis*** K.H. Larss.

*Specimen examined:* FINLAND, Regio aboënsis, Parainen, Korppoo, Stora Hästö, fallen *Pinus sylvestris* kelo trunk, decay 2, diam. 15 cm, UCS 6673:3196, 20.VII.2010, PK 6078 (TUR), det. MK; Ostrobothnia kajanensis, Suomussalmi, Malahvia, Lomalampi N, coniferous tree, UCS 718989:362772, 11.IX.2009, KK & MK.

New to Middle boreal, Northern Carelia – Kainuu (3b).

There are five earlier records from Finland (Kotiranta *et al.* 2009, Kunttu *et al.* 2009).

***Trechispora minima*** K.H. Larss.

*Specimen examined:* FINLAND, Regio aboënsis, Kemiönsaari, Dragsfjärd, Högholmen, on natural stump of *Picea abies*, decay 4, diam. 36 cm, UCS 6664135:3250006, 22.VIII.2010, PK 6782b (TUR), det. MK, conf. HKta.

This record is the third in Finland. Earlier records are made in N, Helsinki (1990's) on *Alnus glutinosa* and Ostrobothnia ultima, Rovaniemi (1960) on *Picea* (Kotiranta *et al.* 2009).

***Tyromyces canadensis*** Overh. ex J. Lowe

syn. *Antrodiella canadensis* (Overh.) Niemelä

*Specimen examined:* FINLAND, Ostrobothnia ouluensis, Oulu, Vihriäsaari, probably on coniferous tree, UCS 7213757:3425986, 2.IX.2011, MK 22/11 (OULU, H).

New to Middle boreal, Ostrobothnia (3a).

*Tyromyces canadensis* is classified as endangered in Finland (Kotiranta *et al.* 2010).

***Tubulicrinopsis granulosa*** Hjorts., Miettinen &

Kotir.

*Specimen examined:* FINLAND, Lapponia kittilensis Kittilä, Koivakero W, Keimiöoja E, on decorticated *Picea*, decay 1, UCS 7541:3382, 23.VIII.2000, TN 6761b (H).

New to Finland, Northern boreal, North Ostrobothnia (4b).

This is the third Finnish *Tubulicrinopsis* species in the little known genus (Kotiranta *et al.* 2007).

***Tulasnella calospora*** (Boud.) Juel

*Specimen examined:* FINLAND, Karelia australis, Virolahti, Tinkanen, Kajansaari, on decorticated *Pinus sylvestris*, decay 3, diam. 13 cm, UCS 670897:352780, 15.X.2011, HKta 25176 (H, H.Kta).

New to Finland, Southern boreal, Southwestern Finland and Southern Ostrobothnia (2a).

***Vuilleminia cystidiata*** Parmasto

Reported from Finland by Ghobad-Nejhad *et al.* (2010): Alandia, Kökar, Idö, on *Crataegus curvisepala*, UCS 666:316, 6.VIII.1947, Kukkonen (H).

New to Hemiboreal, Åland (1a).

***Vuilleminia erastii*** Ghobad-Nejhad

*Specimens examined*: FINLAND, Savonia borealis, Kangaslampi, Rauhamäki, Rauhajärvi, mixed forest, on corticated *Betula pendula* shoot, UCS 6910:3558, VH 23446 (H); Lapponia sompiensis, Sodankylä, Pomokaira, Neiti-Karjala, on *Betula* sp., UCS 754:347, 3.VIII.1960, TR (OULU).

New to Southern boreal, Lake district (2b) and new to Northern boreal, North Ostrobothnia (4b).

Newly described *Vuilleminia erastii* has its distribution area from western North America to East Asia, Siberia and Finland. The species has a preference for species of Betulaceae in the boreal zone (Ghobad-Nejhad & Ginns 2012).

***Xylodon crustosus*** (Pers.) Chevall.

*Specimen examined*: FINLAND, Ostrobothnia ultima, Kemi, Pieni-Räiskö, on *Alnus incana*, UCS 7296663: 3383494, 11.IX.2012, PKe & MK 19/12 (OULU).

New to Middle boreal, Southwestern Lapland (3c).

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