

Typification of names published by the Finnish botanist Fredrik Nylander

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The plant names (23) published by Fredrik Nylander (1820–1880) are lectotypified. In total Nylander described 39 taxa, consisting of 11 species, eight subspecies and 20 varieties. In addition, he published one unranked name and made ten combinations. He also collected specimens (30 taxa) to the *Herbarium Normale* distributed by Elias Fries in 1840–1846. The type specimens were collected mainly in the northwestern Russia. *Carex spiculosa* Fr. is lectotypified also. Three new combinations are proposed, *Carex* × *acutangula* (F. Nyl.) Väre (*C. acuta* L. × *salina* Wahlenb.), *Eriophorum russeolum* Fr. subsp. *albidum* (F. Nyl.) Väre and *Scorzoneroides autumnalis* (L.) Moench var. *keretina* (F. Nyl.) Väre. *Viola* × *fennica* F. Nyl. antedates *V. × ruprechtiana* Borb.

Key words: Fredrik Nylander, *Carex*, nomenclature, taxonomy, typification

Introduction

Doctor in medicine, Fredrik Nylander, Ph.D. (9.IX.1820–29.IX.1880) was born in Oulu, Finland. Between 1836 and 1840, he studied natural sciences at the Alexandrian University (today Helsinki University), with botany and zoology as the main subjects. Simultaneously he studied also medicine.

In 1842, Nylander travelled in northeastern Fennoscandia collecting material for his theses to obtain a docentship in botany (Nylander 1843). This was the first part of his *Spicilegium Plantarum Fennicarum*. In 1843, Nylander collected more material from the same area, and in 1844 he defended his Ph.D. thesis (Nylander 1844), being the second part of the *Spicile-*

gium. In summer 1844 Nylander made excursions again, mainly in the Kola Peninsula. The third part of the *Spicilegium* was aimed to be the first part of a series, in which Finnish sedges would be presented (Nylander 1846). However, it never materialised. In his *Spicilegium* Nylander described several new taxa, and later also some *Eriophorum* (Nylander 1849). Most of the names are lectotypified here.

Material and methods

The localities Nylander mentions in his *Spicilegium* and herbarium labels are given in Table 1. Most of the specimens are from *Ostrobottnia ouluensis* (Obo), *Regio kuusamoënsis* (Ks) and

Table 1. List of localities visited by F. Nylander in years 1842, 1843 and 1844 according to the herbarium labels at H and UPS, and publications (Fries 1842a, 1844b, Nylander 1843, 1844, 1846). Jn = June, Jl = July, A = August, S = September. Names of the localities used by Nylander are first, in square brackets the Swedish names used by Fries in italics, and then the current Russian or Finnish name and biogeographical province. Abbreviations for biogeographical provinces are according to Kotiranta *et al.* (1998). Boldface indicates that there is a herbarium specimen.

	42	43	44
1. Kymijoki [<i>Kymmene-elf</i> , EK]		Jn	
2. Hamina [<i>Fredrikshamn</i> , EK]		Jn	
3. Lappeenranta [<i>Willmanstrand</i> , ES]		Jn	
4. Imatra [ES]		Jn	
5. Jaakkima [Yakkima, KI]		Jn	
6. Valamo [<i>Walamo</i> , Valaam, KI]		Jn	
7. Sortavala [<i>Sordavala</i> , KI]		Jn	
8. Kirjavalhti [<i>Kirjavolaks</i> , Kirlyavalakhti, KI]		Jn	
9. Ruskiala [Ruskeala, KI]		Jn	
10. Suistamo [Suystama, KI]		Jn	
11. Suojärvi [Suoyarvi, Kb]		Jn	
12. Koikari [<i>Koivokari</i> , Koykari, Kon]		Jl	
13. Päljärvi [<i>Peljervi</i> , Pal'eozero, Kon]		Jn	
14. Tiudie/Tivdja [<i>Tiudje</i> , Tivdiya, Kon]		Jn	
15. Käppesälka [Kyappesel'ga, Kon]		Jn	
16. Pergamo [<i>Pergola</i> , Pergavshina Bay, Kk]		Jl	
17. Vig lacus [Uikujärvi, Vygozero, Kpor]		Jl	
18. Suma [Sumskiy Posad, Kpor]		Jl	
19. Tschuja [Shuyostrov, Kpoc]		Jl	
20. Kem [Kem', Kk]		Jl	
21. Kalgolax [Kalgalaksha, Kk]		Jl	
22. Oulu/Ulaburgi/Uloënsë [<i>Uleåborg</i> , Obo]	Jn		Jl
23. Oulu: Hietasaari, Tuira and Varjakka [Obo]	Jn		
24. Uleå-elf [Oulu River, Oulujoki, Obo]	Jn		
25. Kiiminki [Obo]			Jl
26. li [Yo, Obo]	Jn		
27. Iijoki/Ijo-elv [<i>Yo-elf</i> , Obo]	Jn		
28. Pudasjärvi (Obo)	Jn		
29. Pudasjärvi, Kipinä [Obo]			Jl
30. Kuusamo [<i>Kusamo</i> , Ks]	Jn		Jl
31. Kuusamo: Kallioluoma, Muojärvi, Nissi, Rukatunturi, Rukajärvi [Ks]	Jn	A	
32. Paanajärvi [<i>Panajervi</i> , Paanayarvi, Ks/Rs]	Jl		Jl
33. Kuolayarvi [Ks/Rs]	Jl		
34. Kuolajoki [Kuolayoki, Ks/Rs]	Jl		
35. Kuolajärvi, amnis Kutja [by Kutsa River, Ks/Rs]	Jl		
36. Koutajärvi [Kovdozero, now Knyazhegubskoe Rervoir, Kk]	Jl		
37. Kouta [Kovda village, Kk]	Jl		
38. Keret' [Kk]	Jl	Jl	Jl
39. Skjälskjärv [Bolshoe Cherlivoe Lake, Kk]		Jl	
40. Gridina [Gridino, Kk]	Jl	Jl	
41. Siirobatka [<i>Särovatka</i> , Shirolanga guba (?), Kk]		Jl	
42. Plaveschaja guba [Kk]		Jl	
43. Kuusokotka [Mys Kuzokotskiy, Kk]		Jl	
44. Knäsö [<i>Knjescha-Gubá</i> , Knyazaya Guba, Kk]	Jl	A	Jl
45. Saolenskaja Guba [Zaolenskaya Guba, Kk]		A	
46. Kantalahti/Kandalax [Kandalaksha, Lim]	A	A/S	Jl/A
47. Niva [Nivskiy, Lim]	A	A	A
48. Imandra [Lim]	A	A	A
49. Imandra: Sascheika [Zaseek, Lim]	A		
50. Hiipinä/Kibirensium [<i>Kipinä</i> , Khibiny Mts., Lim]	A	A	A

continued

Table 1. Continued.

	42	43	44
51. Vissåka island [Vysokiy island at Viteguba, Lim]		A	
52. Kola, Kolskoi sabor [Kola town, Lt]	A	A	A
53. Kitsa [Lt]		A	
54. Wainga [Vajenga, Severomorsk, Lt]	A		
55. Kildin Island [Lt]		A/S	
56. Visalkina [Veselkina guba, Lm]			A
57. Gavrilova [Gavrilovo, Lm]			A
58. Litsa [Vostochnaya Litsa, Lm]			A
59. Kukovicha [Mys Kakovikha, Kachalovka Lp]			A
60. Jokonga [Iokanga, Lm]			A
61. Svätjunos/Promontorium sanctum [<i>Heliganosen</i> , Svyatoy Nos, Lp]			A
62. Vostra guba, Bëcmra Guba [Vestra Guba, near Svyatoy Nos, Lp]			A
63. Raddeoi [near Svyatoy Nos, Lp]			A
64. Tres Insulas [Tri Ostrova, Lp]		S	S
65. Ponoj [Ponoy, Lp]			S
66. Kusmin-nos [Izba Kuz'mina, Lp]		A/S	
67. Arkangel/Archangopolia [Arkangel'sk]		S	
68. Utsjocki [Utsjoki, Ohčejohka, Li]			
69. Kuusamo [Ks]	A	S	
70. Kemijoki, Nousu [Salla, Ks]	A		
71. Kemijoki, Laurila [Keminmaa, Obu]	A		

its Russian part (Ks/Rs), *Karelia ladogensis* (Kl), *Karelia onegensis* (Kon), *Karelia pomorica orientalis* (Kpor), *Karelia keretina* (Kk), *Lapponia imandrensis* (Lim), *Lapponia tulomensis* (Lt), *Lapponia murmanica* (Lm) and *Lapponia ponojensis* (Lp). Most of the specimens are deposited at the Finnish Museum of Natural History, Botanical Museum (H), some also at LE and UPS. The acronyms are according to Holmgren *et al.* (1990). Specimens have also been deposited elsewhere, as Nylander collected material to the *Herbarium Normale* fascicles VII (1840), IX (1842), X (1843), XI (1844–1845) and XII (1846), which were arranged by Elias Fries.

Nylander did not indicate exact collection dates on the labels. The locality was given, and usually the year and often also the month. Fortunately Nylander wrote to Elias Fries and mentioned to him many sites he had visited, and Fries published referates of the letters in *Botaniska Notiser* (Fries 1842a, 1842b, 1844c), and made a referate of the second *Spicilegium* (Fries 1844a).

There is inconsistency in the way Nylander used taxic levels when his herbarium labels and publications are compared. However, in his publications (Nylander 1843, 1844, 1846, 1849) Nylander used concepts of species, subspecies

(indicated with *) and varieties (indicated with –) unambiguously. For example, the descriptions of *Cenolophium fischeri* * *lapponicum* F. Nyl. (Nylander 1844: 6), *Carex halophila* * *affinis* and *C. halophila* * *acutangula* (Nylander 1844: 23) explicitly refer to subspecies, or in the descriptions of *Calamagrostis lapponica* – *rubens* (Nylander 1844: 1), *C. maritima* – *brunnescens* F. Nyl. (Nylander 1844: 21) and *Carex hirta* – *repens* F. Nyl. (Nylander 1844: 18) he referred to varieties. Further, in the connection of *Potamogeton natans* – *sparganifolius* (Laest.) F. Nyl. (Nylander 1843: 11) and *Carex subspathacea* – *nardifolia* Fr. (Nylander 1844: 24) he referred to varieties. Thus, the taxic levels in the labels must be considered preliminary.

New plant taxa published by Fredrik [“Fredericus”] Nylander

Arenaria lateriflora L. var. *parviflora* F. Nyl.

Spic. Pl. Fenn., Cent. 1: 20. 1843. — LECTOTYPE (designated here): [Russia], *Lapponia Kolaënsis* [*Lapponia tulomensis*], in graminosis, VII.1842 F. Nylander (LE!, the upper left-hand specimen).

There is one sheet of *A. lateriflora* var. *parviflora* collected by Nylander at LE, taken from the type area, viz. meadows at Kolskoi sabor and Kola (Nylander 1843). The lectotype is annotated by Nylander himself as *A. lateriflora* L. *parviflora*. In the description var. *parviflora* is characterised “*floribus duplo minoribus*”. The petals are very small in the specimens of the lectotype sheet. The variety was not recognised by Nylander and Saelan (1859) or Lindberg (1901). The currently used name is *Moehringia lateriflora* (L.) Fenzl.

Related material was distributed in fascicle IX (no. 39) of *Herbarium Normale*, collected in Imandra, located between Kolskoi sabor and Kola. In some specimens of that extensive collection petals are smaller than is usual in the species.

***Calamagrostis lapponica* Wahlenb. var. *rubens* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 1. 1844. — LECTOTYPE (designated here): [Russia, *Lapponia ponojensis*], Tres Insulae [Tri Ostrova], [XI.1843] F. Nylander (H 188377!).

SYNONYM: *C. lapponica* f. *rubens* (F. Nyl.) Hiit., Suomen Kasvio: 190. 1933.

There are three sheets of *C. lapponica* collected by Nylander at H, but only one taken from the type locality, viz. White Sea and the Kola Peninsula (Nylander 1844). The lectotype is annotated by Nylander himself as *Calamagrostis lapponica* f. ?. The specimens are slightly more reddish than is usual in the species, perhaps induced by strong sunshine at an open site. Although the name was accepted by Nylander and Saelan (1859) and Lindberg (1901), it does not deserve taxonomic recognition.

***Cardamine pratensis* L. var. *pubescens* F. Nyl.**

Spic. Pl. Fenn., Cent. 1: 22. 1843.

An area between Rukajärvi and Nissi in par. Ku[u]samo [Ks] is given as the type locality (Nylander 1844). Such a specimen collected by Nylander was not found at H or UPS. In the protologue it is stated, that “*foliis petiolisque radicalibus pubescentibus, flore albido*” (basal

leaves with petioles clearly pubescent, flowers white). Nylander wrote to Fries, that he had discovered in Kuusamo a specimen which have sparsely hairy basal leaves and exceptionally large flowers (Fries 1842a). White flowers suggest, that var. *pubescens* belongs to *C. pratensis* subsp. *paludosa* (Knaf) Čelak. In the other subspecies of the area, subsp. *polemonioides* Rouy, the flowers are pinkish. Usually the leaves are glabrous in *C. pratensis*, but there are at H two specimens collected from Ks, in which the smallest leaves are densely pubescent with setaceous hairs. Flora of Murmansk (Poyarkova 1956) presents *Cardamine dentata* Schult. [*C. pratensis* subsp. *paludosa*] f. *pilosa* Beck., in which the lower leaves are densely pubescent. A rank of form seems appropriate at most, and it cannot be ruled out, that the pubescence is induced by a seasonal phenomenon. The variant was not recognised by Nylander and Saelan (1859) or Lindberg (1901).

***Carex acuta* L. subsp. *colorata* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 20. 1844. — LECTOTYPE (designated here): [Russia, *Pomorica orientalis*], Suma [Sumskiy Posad], VII.1843 F. Nylander (H 323998!).

SYNONYM: *Carex acuta* L. var. *colorata* (F. Nyl.) Nyl. & Sael., *Herb. Mus. Fenn.* 12. 1859.

There is one sheet at H, determined by Nylander as *Carex acuta* L. * [subsp.] *colorata*, taken from the type area (Nylander 1844). He stated that the subspecies is distributed throughout Lapland, “*usque ad Lapponiam infimam*”. Sumskiy Posad is located on the southwestern shore of the White Sea. Almqvist first identified the lectotype as *C. acuta* L. × *aquatilis* Wahlenb., but added later “dock underlig *acuta*” [a strange *acuta*]. The lectotype represents merely a modification of *C. acuta* L., with very dark bracts and utricles. Sylvén (1963: 84) included subsp. *colorata* in *C. acuta* s. str. also, and the name was not recognised by Lindberg (1901).

***Carex aquatilis* Wahlenb. var. *flavicans* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 23. 1844. — NEOTYPE (designated here): [Russia], *Lapponia rossica* [*Lapponia ponojensis*], Kukovirta [Kukovicha = Kachalovka] pr. Svätöjnos [near

Svyatoy Nos], [VIII.1844] *F. Nylander* (H 325636!; isoneotype H 200697!).

SYNONYMS: *C. salina* Wahlenb. var. *flavicans* (F. Nyl.) Sael., Kihlm. & Hjelt., Herb. Mus. Fenn. ed. 2.: 17. 1889; *C. salina* subsp. *mutica* (Wahlenb.) Almq. [¹nom. illeg.] var. *flavicans* (F. Nyl.) Almq., Bot. Not. 1891: 127. 1891.

Since *Centuria altera* was released on 12.VI.1844, the original material must have been collected during the 1842 or 1843 excursions. However, such a specimen could not be found at H, LE or UPS. Nylander did not cite any specimen, but he stated that the variety is distributed on shores of the Kola Bay (Nylander 1844).

The neotype sheet is chosen amongst the material Nylander collected in 1844. It was named, perhaps tentatively, by Nylander himself as *C. salina* Wg. [Wahlenb.] var. *flavicans* Nyl. typica! Sylvén determined the neotype (H) as *C. aquatilis* Wg. [Wahlenb.] × *salina* Wg. [Wahlenb.], and Almqvist (1891) considered that the taxon represents *C. salina* Wahlenb. subsp. [var.] *mutica* Wahlenb. [¹nom. illeg.] var. *flavicans* F. Nyl. That name was used by Hjelt (1892) also. Nylander and Saelan (1859) synonymised *C. flavicans* (see below) with *C. salina* Wahlenb. var. *mutica* Wahlenb. [¹nom. illeg.], and the name was not recognised by Lindberg (1901) at all.

Later Nylander (1846: 15) made a new combination *C. flavicans* (F. Nyl.) F. Nyl., but again did not cite any specimens. The distribution area was extended to cover the shores of the Arctic Ocean and Bothnian Bay. Kükenthal (1909), Lepage (1956), Sylvén (1963), Cayouette and Catling (1992), and Cayouette (H 325636 in 2005) considered that this name represents a hybrid *C. aquatilis* Wahlenb. × *subspathacea* Wormsk., which is agreed with here. As a consequence, the binary name for this hybrid is *C. × flavicans* (F. Nyl.) F. Nyl., *stat. nov.*

***Carex aquatilis* Wahlenb. var. *planifolia* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 23. 1844. — LECTOTYPE (designated

here): [Russia, Karelia *pomorica orientalis*], ad pagum Suma [Sumskiy Posad] juxta Mare Album [White Sea], VII.1843 *F. Nylander* (LE!).

There is one sheet of *C. aquatilis* var. *planifolia* collected by Nylander at LE, from the type area. Nylander (1844) did not mention any exact locality, but he stated that the variety is distributed on the shores of the White Sea etc. The lectotype is named by Nylander himself as *Carex aquatilis* Wg. *planifolia*. The description “*glaucescens, culmo acutangulo, foliis siccitate planis*” fits the lectotype well. Nylander and Saelan (1859) synonymised the name with *C. aquatilis* Wahlenb. var. *cuspidata* Laest., and the name was not recognised by Hjelt (1895) or Lindberg (1901) at all. The lectotype represents a pale specimen of *C. aquatilis*.

***Carex arctophila* F. Nyl.**

Spic. Pl. Fenn., Cent. 3: 14. 1846. — LECTOTYPE (designated here): [Russia], *Lapponia rossica* [*Lapponia murmanica*], Jokonga [Iokanga], VIII.1844 *F. Nylander* (H 326442!). — SYNTYPE: [Russia], *Lapponia rossica* [*Lapponia murmanica*], Litsa prope Seratoj Nos [Svyatoy Nos], VIII.1844 *F. Nylander* [H 326443!; isosyntypes H 325287!, UPS! (two sheets)].

SYNONYM: *C. × subreducta* Lepage, Nat. Can. 83: 135. 1956.

There are five sheets of *C. arctophila* at H collected by Nylander, and one at UPS, taken from the type localities (Nylander 1846). The lectotype is annotated by Nylander as *Carex arctophila mihi*. The syntype at H is named by Nylander as *C. (epigejos) arctophila* and the other isosyntype in UPS as *C. arctophila* Nylander. Both Iokanga and Litsa are located by the Arctic Ocean. The syntype collection was distributed in fascicle XII (no. 89) of *Herbarium Normale* in 1846, as *C. hyperborea* Drej. First Almqvist (1879) considered, that no. 89 represents *C. aquatilis* Wahlenb. var. *epigejos* Laest. [Sylvén (1963) considered that this name represents *C. aquatilis* × *bigelowii*], and later Almqvist (1891)

¹ Wahlenberg (1803) described *Carex cuspidata* (= *halophila* F. Nyl. *sensu auct. scand.*) and *C. salina*. In his *Flora Lapponica* Wahlenberg (1812: 246) treated them as varieties of *C. salina*, viz. var. *cuspidata* (basionym *C. cuspidata*) and var. *mutica* (synonym *C. salina*, as he did not recognize var. *salina*). Var. *mutica* is thus illegitimate new name instead of var. *salina*, that is formed automatically by making var. *cuspidata*. *C. cuspidata* Host. 1801 antedates *C. cuspidata* Wahlenb. 1803 (Moberg & Nilsson 1991). Nylander and Saelan (1859) made a new valid combination (Art. 58.1) *C. salina* Wahlenb. f. *cuspidata* Nyl. & Sael., and included *C. halophila* in it.

identified it as *C. rigida* [*bigelowii* subsp. *rigida*] × *salina* Wahlenb. subsp. [var.] *mutica* Wahlenb. [var.] *flavicans* (F. Nyl.) Almq. (concerning the name *mutica*, see *C. aquatilis* var. *flavicans* F. Nyl.). Sylvén has named the isosyntype sheets at UPS as *C. aquatilis* × *salina*, and I agree with that notion. Lepage (1956: 138) wrote that he was aware of the name *C. arctophila*, but had not seen the specimens, and consequently described *C. × subreducta*.

Nylander and Saelan (1859) synonymised *C. arctophila* with *C. salina* Wahlenb. var. *mutica*, and Egorova (1999: 468) referred the taxon to *C. cf. bigelowii* Torr. ex Schwein. Lindberg (1901: 13), Sylvén (1963: 25, 35), Elven (1998: 804) and Cayouette (in lectotype 2005) considered that *C. arctophila* represents a hybrid *C. bigelowii* Torr. ex Schwein. × *subpathacea* Wormskj., which is agreed with here, thus the binary name of this hybrid being *C. × arctophila* F. Nyl., *stat. nov.*

***Carex blyttii* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 35. 1844. — LECTOTYPE (designated here): [Russia, *Karelia ladogensis*], Sordavala, Kirjavalax [Kirjavalakhti], 1843 *F. N.* [*Fredrik Nylander*] (H 330122!).

There is one sheet of *Carex blyttii* collected by Nylander at H, taken from the type locality. The lectotype was named by Nylander as *C. blyttii* mihi. *C. blyttii* was not recognised by Nylander and Saelan (1859) or Lindberg (1901). It has been determined by Norrlin in 1871 as *C. tenella* [*disperma*] and by Heikki Toivonen as *C. disperma* Dewey, and I agree with the determinations.

Carex buxbaumii* Wahlenb. var. *mutica* F. Nyl., *nom. illeg.

Spic. Pl. Fenn., Cent. 2: 25. 1844.

There are no specimens of *C. buxbaumii* collected by Nylander at H or UPS. Nylander (1844) did not cite any specimens in the protologue, but he stated that the variety is distributed throughout Finland and Lapland. However, his name is a later homonym of *C. buxbaumii* Wahlenb. β [var.] *mutica* Hartm. (Hartman 1820: 40). Most obviously Nylander was aware of var. *mutica*,

because he owned the Hartman's flora, where var. *mutica* is given without the author. It is possible, that Nylander just followed that practice. The variety was not recognised by Nylander and Saelan (1859) or Lindberg (1901). The nomenclature of *C. buxbaumii* subsp. *mutica* was discussed by Isoviita (1977).

***Carex discolor* F. Nyl.**

Spic. Pl. Fenn., Cent. 3: 12. 1846. — LECTOTYPE (designated by Egorova 1999: 429): *Lapponia rossica* [*Lapponia murmanica*], Jokonga [Iokanga], VIII.1844 *F. Nylander* (LE!; isolectotypes H 200700!, H 752366!, LE!, UPS V-107242!, UPS V-107243!, UPS!). — SYNTYPE: [Russia, *Lapponia imandrensis*], Zaolenskaja gubá prope Kandalax [Kandalaksha] (not seen).

SYNONYMS: *C. salina* Wahlenb. subsp. *cuspidata* Hjelt A. [var.] *borealis* Almq. f. *discolor* (F. Nyl.) Hjelt, Acta Soc. Fauna Flora Fennica 5: 281. 1895; *C. salina* Wahlenb. f. *discolor* (F. Nyl.) Sylvén, Opera Bot. 8: 122. 1963.

The lectotype, collected from the type locality, was distributed in fascicle XII (no. 87) of *Herbarium Normale*. Thus, even more isolectotypes may exist. The isolectotype H 200700 is annotated by Nylander as *Carex discolor* F. Nyl. *typus!*, unlike the lectotype chosen by Egorova (1999: 429). Iokanga is located by the Arctic Ocean.

Nylander and Saelan (1859) included *C. discolor* as a good species in their list of Finnish plant and fungal taxa. Lindberg (1901) mentioned *C. salina* subsp. *cuspidata* f. *discolor* (F. Nyl.) Almq., but Almqvist has apparently not published such a combination. Elven (1998: 804), Egorova (1999: 428) and Cayouette (isolectotype at H in 2005) considered that *C. discolor* is *C. salina* Wahlenb., and I agree.

***Carex halophila* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 21. 1844. — LECTOTYPE (designated by Kreczetowicz ex Egorova 1999: 428): [Russia, *Karelia pomorica orientalis*], Suma [Sumskiy Posad], mare alb [White Sea], VII.1843 *F. Nylander* (LE!; isolectotype H 200802!). — SYNTYPES: [Russia, *Lapponia tulomensis*], ad sinum Kolaënsis, [VIII.]1843 *F. N[ylander]* (LE!); [Russia, *Karelia pomorica orientalis*], Suma [Sumskiy Posad], juxta mare album [White Sea], VII.1843 *F.N.* [*Fredrik Nylander*] (LE!, two sheets).

SYNONYMS: *C. cuspidata* Wahlenb., K. Svenska Vetensk. Acad. Nya. Handl. 1803: 164. 1803, *non* Host 1801; *C. halo-*

phila F. Nyl. subsp. *acutangula* F. Nyl., Spic. Pl. Fenn., Cent. 2: 22. 1844; *C. halophila* F. Nyl. subsp. *affinis* F. Nyl., Spic. Pl. Fenn., Cent. 2: 21. 1844; *C. salina* Wahlenb. subsp. *halophila* (F. Nyl.) Almq. in Hartman, Handbok i Skandinavians Flora: 466. 1879; *C. salina* subsp. [var.] *cuspidata* Wahlenb. var. *kattegatensis* Fr. f. *ostrobotnica*² Almq. ex Hjelt, Acta Soc. Fauna Flora Fennica 5: 280 (1895); *C. aquatilis* × *salina* (*cuspidata*) Almq. f. *halophila* (F. Nyl.) Kük., Das Pflanzenreich IV.20: 380. 1909; *C. maritima* O.F. Müll. × *salina* subsp. *cuspidata* var. *ostrobotnica* (Almq.) Saxén, Acta Bot. Fennica 22: 26. 1938; *C. × subsalina* Lepage, Nat. Can. 83: 127. 1956.

Nylander (1844) diagnosed simultaneously *C. halophila*, *C. halophila* subsp. *acutangula* and *C. halophila* subsp. *affinis*. He did not cite any specimens or exact localities, but stated that all taxa are distributed on the shores of the Kola Bay and White Sea. Since the publication appeared on 12.VI.1844, the material must have been collected during the 1842 or 1843 excursions. Nylander did not diagnose subsp. *halophila*, and Kreczetowicz (in Egorova 1999: 428) selected the lectotype of *C. halophila* subsp. *affinis* as a lectotype for *Carex halophila* subsp. *halophila*. Kreczetowicz made his comment on the lectotype sheet already in 1934. The lectotype was named by Nylander as *C. halophila* * [subsp.] *affinis* m[*ihi*]. The isolectotypes and syntypes were originally determined by Nylander as *C. halophila* without subspecific rank, unlike in the case of subsp. *acutangula* and subsp. *affinis*. The isolectotype specimen at H is a poor one, being young and lacking the base.

The lectotype has been determined as *C. aquatilis* × *salina*, perhaps by Almqvist, and I agree with that. As a consequence, the valid binary name for this hybrid is *C. × halophila* F. Nyl., *stat. nov.* Sylvén determined the isolectotype (at H) as *C. aquatilis* Wahlenb. × *salina* Wahlenb. (also Sylvén 1963), which is agreed with here, concerning the syntypes also. Sylvén also included subsp. *acutangula* F. Nyl. and subsp. *affinis* F. Nyl. in this hybrid. Further, he considered that this hybrid is very variable due to backcrossing, and described four formae of *C. aquatilis* × *paleacea*, which are not treated here. Already Almqvist (1879) stated that the variation between *C. aquatilis* and *C. salina* is clinal.

Further, Almqvist (1891), Hjelt (1895), Lindberg (1901) and Sylvén (1963) considered that the name *C. halophila* F. Nyl. represents *C. aquatilis* × *salina*. Moberg and Nilsson (1991: 291) considered that *C. cuspidata* Wahlenb. (younger synonym of *C. cuspidata* Host), a much applied name in the Scandinavian literature of the 19th century, is synonymous with *C. halophila* F. Nyl.

In July 1844 Nylander collected at Litsa by the Arctic Ocean near Svyatoy Nos an extensive sedge collection, that was distributed in fascicle XII (no. 86) of *Herbarium Normale*. Both Almqvist and Sylvén have determined part of the no. 86 material as *C. aquatilis* Wahlenb. × *salina* Wahlenb. Considering the sheet at UPS!, this view is agreed. Nylander collected also another set of *C. halophila* to *Herbarium Normale*, to fascicle XI (no. 77), from Oulu, most likely in 1843 or 1844. That material represents *C. recta* Boot. Lepage (1956: 129) claimed that he had seen much North European material under “*C. halophila*” (not the type material) but as they seemed to him [correctly] closer to *C. recta*, he therefore proposed his *C. × subsalina* (*C. aquatilis* × *salina*).

Carex recta

Egorova (1999) considered that the name *C. halophila* F. Nyl. represents *C. recta* Boot., although she identified in 1973 the lectotype of *C. halophila* as *C. aquatilis* × *recta* (LE). Later it has been shown that *C. recta* is a hybridogenous taxon, the parental species being *C. aquatilis* Wahlenb. and *C. paleacea* Wahlenb. (Cayouette & Morisset 1985, 1986, Cayouette & Catling 1992, Faulkner 1972, 1973, Standley 1990). This stabilized hybrid occurs also on the shores of the Bothnian Bay, with fairly high seed set (unpublished). The distribution pattern is thus amphiatlantic. Until now it has been called as *C. halophila* in Scandinavia. According to Cayouette (in letter 2006), the correct name seems to be *C. recta* Boot in Hook., Fl. Bor.-Amer. 2: 220. 1839.

² Almqvist never diagnosed the name *ostrobotnica*. It was introduced by Hjelt (1895: 280) without description, based on the identifications at H by Almqvist.

***Carex halophila* F. Nyl. subsp. *acutangula* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 22. 1844. — LECTOTYPE (designated here): [Russia], *Lapponia rossica* [*Lapponia tulomensis*], ad sinum Kolaënsem [Kola Bay], [VIII]1843 F. Nylander (H 200611!).

SYNONYM: *C. aquatilis* Wahlenb. var. *acutangula* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 12. 1859.

There is one sheet at H determined as *C. salina* Wg. * *halophila* F. Nyl var. *acutangula* F. Nyl. by Nylander, taken from the type area. Subsp. *acutangula* was distributed in fascicle XII (no. 77) of *Herbarium Normale*. Almqvist (1879, 1891) considered no. 77 to approach *C. aquatilis* Wahlenb. × *salina* Wahlenb. subsp. [var.] *cuspidata* Wahlenb. var. *kattegatensis* Fr., and that the collection does not represent the type. Sylvén has determined the lectotype as *C. gracilis* Curtis [*C. acuta* L.] × *kattegatensis* Fr. [× *vacillans* Drejer = *nigra* (L.) Reichard × *paleacea* Wahlenb.]. Almqvist (1891) and Lindberg (1901) in turn considered, that subsp. *acutangula* is *C. acuta* L. × *salina* Wahlenb., which is agreed with here.

A new combination is proposed for this hybrid, *C. × acutangula* (F. Nyl) Väre. Basionym: *C. halophila* F. Nyl. subsp. *acutangula* F. Nyl., Spic. Pl. Fenn., Cent. 2: 22. 1844.

***Carex halophila* F. Nyl. subsp. *affinis* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 21. 1844. — LECTOTYPE (designated here): [Russia], *Lapponia rossica* [*Karelia pomorica orientalis*], Suma [Sumskiy Posad] mare alb [White Sea], VII.1843 F. N.[ylander] (LE!; isolectotype H 200710!).

SYNONYMS: *C. aquatilis* Wahlenb. var. *affinis* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 12. 1859; *C. affinis* (F. Nyl.) Nyman, *Consp. Fl. Eur. Suppl.* II: 323. 1890.

There is one sheet at LE collected by Nylander and determined by him as *C. halophila* * [subsp.] *affinis* m[ihi]. For discussion see *C. halophila*. Sylvén has determined the isolectotype (young specimen lacking basal sheaths) as *C. aquatilis* Wahlenb. × *maritima* O.F. Müll. [*paleacea* Wahlenb.] f. *supra-aquatilis* Sylvén. In my opinion it is *C. aquatilis* Wahlenb. × *salina* Wahlenb. Kükenthal (1909: 309) considered, that this taxon represents either *C. aquatilis* f. *vires-*

ens Anders. or f. *angustata* Kük. Subsp. *affinis* was not recognised by Nylander and Saelan (1859) or Lindberg (1901).

According to Almqvist (1891), subsp. *affinis* was distributed in fascicle XII (no. 85) of *Herbarium Normale* in 1846, as *C. aquatilis* [Wahlenb. var.] *cuspidata* Laest. Both Almqvist (1891) and Sylvén (1963: 31) considered that it is *C. aquatilis* × *halophila*. In 1940 Uno Saxén considered that no. 85 (H) is *C. salina* Wg. ssp. *cuspidata* Wg. var. *kattegatensis* (Fr.) Almq.

***Carex hirta* L. var. *repens* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 18. 1844.

Nylander (1844) did not cite any specimens, but he stated that his variety is common on sandy shores of the Bothnian Bay. There is no sheet of *C. hirta* at H or UPS collected by Nylander. Further, *C. hirta* is very rare in Finland except on Åland, and it is not a plant of sandy sea shores. The description of var. *repens* (*prostrata*, *humilis*, *radice longissime repente*, i.e. “low-growing with unexpectedly long roots”), suggests that the specimen was just a small-sized *C. hirta*. The variety was not recognised by Nylander and Saelan (1859) or Lindberg (1901), and Hjelt (1895) considered the name a printing error.

***Carex maritima* O. Müll. var. *brunnescens* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 20. 1844. — LECTOTYPE (designated here): [Russia], *Karelia Rossica* [*Karelia keretensis*], Sirobotka [Shirolanga guba], VII.1843 Fr. Nylander (H 764303!). — SYNTYPE: [Russia, *Karelia pomorica occidentalis*], Tschuja [Shuyostrov], VIII.1843 F. Nyl. (LE!).

There is one sheet of *C. maritima* var. *brunnescens* collected by Nylander at H, taken from the type area. The lectotype is annotated by Nylander as *C. maritima* Müll. var. *brunnescens* m[ihi]. White Sea and the Bothnian Bay are given as the distribution area (Nylander 1844). Shirolanga guba is located on the western shore of the former. This variety was not recognised by Nylander and Saelan (1859) or Lindberg (1901). The lectotype and syntype represent *C. paleacea* Wahlenb.

***Carex personii* Sieb. var. *laetior* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 34. 1844. — LECTOTYPE (designated here): [Russia], *Karelia Rossica* [*Karelia onegensis*, Government Olonetz], [VII.1843], *Fr. Nylander* (H 327264!).

SYNONYM: *C. brunnescens* (Pers.) Poir. var. *laetior* (F. Nyl.) Holmb., Bot. Not. 1927: 216. 1927.

There is one sheet of *C. brunnescens* var. *viridis* at H collected by Nylander in the type area. Nylander (1844) did not cite any specimens, but he stated that his var. *laetior* is distributed in southern Finland and Government Olonetz. Such a specimen was not found by Kalela (1965: 202) at H. However, one specimen collected by Nylander was discovered later, and identified by Kalela as *C. brunnescens* (Pers.) Poir. subsp. *vitis* (Fr. em. Bl.) Kalela. This variety was not recognised by Nylander and Saelan (1859) or Lindberg (1901).

According to Nylander (1844) var. *laetior* resembles *C. vitilis* Fr., which was distributed in fascicle VII (no. 85) of *Herbarium Normale* by E. Fries in 1842. Based on the description (“*spiculis virentibus*”), Kalela (1965: 202) considered, that var. *laetior* F. Nyl. is identical with *C. vitilis* Fr., being published in 1842 in *Novitium Florae Suecicae*. The currently used name is *C. brunnescens* var. *vitis* (Fr.) Asch. & Graebn.

***Carex spiculosa* Fr.**

Bot. Not. 1843(7): 99. 1843. — LECTOTYPE (designated here): [Russia], *Lapponia rossica* [*Karelia keretina*], in promont[orium] [Mys Kuzokotskiy, VIII.1842], *Fr. Nylander* (UPS V-157460!; isolectotype H 200703!).

HOMONYM: *Carex spiculosa* Fr. & F. Nyl., Spic. Pl. Fenn., Cent. 2: 21. 1844.

There is one sheet of *C. spiculosa* collected by Nylander at UPS, from the type locality. The label is insufficient, but in the isolectotype at H the locality is given. The isolectotype is annotated by Nylander as *C. spiculosa* Fr. & Nyl. Obviously it was not Nylander's intention that Fries would describe *C. spiculosa* alone. In LE there are two sheets collected by Nylander in 1843 at Mys Kuzokotskiy, and named by him *C. spiculosa* Fries & Nyl. Since the description was published in July 1843, the material must have been collected in 1842.

According to Kükenthal (1909), the taxon is *C. juncella* Fr. [*C. nigra* (L.) Reichard subsp. *juncella* (Fr.) Lemke] × *martima* O. Müll. [*C. paleacea* Wahlenb.], and according to Hjelt (1895) *C. salina* Wahlenb. × *vulgaris* Fr. var. *juncella* Fr. [*C. nigra* (L.) Reichard subsp. *juncella* (Fr.) Lemke] and Sylvén (1963) *C. juncella* Th. Fr. × *salina*. I consider that the taxon is *C. nigra* s. lato × *salina*, and the valid binary name is *C. × spiculosa* Fr., as proposed by Lepage (1957).

***Carex subspathacea* Wormsk. var. *rigidiuscula* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 24. 1844. — LECTOTYPE (designated here): [Russia], *Lapponia tulomensis*], Kola, [VIII.]1842 *Fr. Nylander* (H 200687!).

There are two sheets of *C. subspathacea* Wormsk. at H collected by Nylander, from the type area. Nylander (1844) did not cite any specimens, but he stated that the variety is distributed on the sea shore by the alpine region. The varietal name is not indicated in the lectotype sheet. However, the description “*culmo foliisque rigidus*” fits the specimen. The other sheet is determined by Nylander as *C. subspathacea* Wormsk. f. *nardifolia* Fr., which is also characterised in *Spicilegium*, as a variety (Nylander 1844). Var. *rigidiuscula* was not recognised by Nylander and Saelan (1859) or Lindberg (1901). The lectotype was first determined by Sylvén as *C. aquatilis* Wahlenb. × *subspathacea* Wormsk. Later Sylvén (1963) considered, that the name represents *C. [nigra (L.) Reichard] subsp. juncella* × *subspathacea* Wormsk. In my opinion the lectotype represents *C. nigra* s. lato × *subspathacea*. The valid binary name for that hybrid is *C. × reducta* Drej. (Sylvén 1963, Cayouette 1992).

***Carex vesicaria* L. subsp. *virens* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 17. 1844. — LECTOTYPE (designated here): [Russia], *Lapponia rossica* [*Lapponia murmanica*], Kildin, [VIII.]1843 *Fr. Nylander* (H 753294!; isolectotype H 753296!).

SYNONYM: *C. vesicaria* var. *virens* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 13. 1859.

There are two sheets of *C. vesicaria* subsp.

virens at H collected by Nylander, taken from the type locality, viz. the shores of the Arctic Ocean and northern shores of the White Sea (Nylander 1844). Kildin is located by the former. The lectotype is annotated by Nylander himself as *Carex vesicaria* L. v. [subsp.] *virens* m[ihi]. Hjelt (1895: 331) considered that the specimen represents *C. vesicaria* var. *pulla* Good. [saxatilis L.] × var. *vesicaria*. Subsp. *virens* was not recognised by Lindberg (1901). The lectotype has been identified as *C. vesicaria* L., without any infraspecific rank by A. Kalela in 1940, which is agreed with here.

***Carex vulgaris* Fr. subsp. *zonata* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 19. 1844. — LECTOTYPE (designated by Egorova 1999): [Russia], *Lapponia rossica* [*Lapponia imandrensis*], ad fl[umen] Niva, VIII.1843 F. N. [Fredrik Nylander] (LE; isoelectotype H 767826!).

SYNONYM: *C. vulgaris* var. *zonata* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 12 (1859).

There is one sheet of *C. vulgaris* subsp. *zonata* collected by Nylander in 1843 at H, taken from the type locality. The isoelectotype is annotated by Nylander himself as *Carex vulgaris* Fr. * *zonata* Nyl. There are three other sheets at H collected and named as * *zonata* by Nylander in 1844, two taken from the type locality, and one from Imandra. They all represent *C. nigra* (L.) Reichard subsp. *juncella* (Fr.) Lemke, as interpreted also by Hjelt (1895: 263). Subsp. *zonata* was not recognised by Lindberg (1901).

***Cenolophium fischeri* Koch subsp. *lapponicum* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 5. 1844. — LECTOTYPE (designated here): [Russia, *Karelia keretina*], Keret, VIII.1843 F. Nylander (H 411161!; isoelectotype UPS V-137763!). — SYNTYPE: [Russia, *Lapponia imandrensis*] Kandalax [Kandalaksha], [VIII.]1843 F. Nylander] (UPS V-137764!).

SYNONYMS: *C. lapponicum* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 33 (1859); *C. fischeri* Koch f. *lapponicum* (F. Nyl.) Cajander, Suomen Kasvio: 435. 1906, “*lapponica*”.

There is one sheet of *C. fischeri* collected by Nylander at H, taken from the type locality. The lectotype is annotated by him as *C. fischeri* K[och] var. *lapponicum*. The shores of the western part of the White Sea, Keret and Kandalak-

sha are given as a distribution area (Nylander 1844). Keret and Kandalaksha are located on the northwestern gulf of the White Sea. Subsp. *lapponicum* was not recognised by Lindberg (1901). The currently used name is *C. fischeri* Koch.

***Chrysanthemum arcticum* L. var. *integrifolium* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 10. 1844. — LECTOTYPE (designated here): *Lapponia rossica* [*Lapponia ponojensis*], Tres Insulae [Tri Ostrova], [IX.]1843 F. Nylander (H 529004!).

There is one sheet of *C. arcticum* var. *integrifolium* collected by Nylander in 1843 at H, taken from the type locality. The lectotype is annotated by Nylander as *Chrysanthemum arcticum* L. Tri Ostrova (“Three islands”) locates on the eastern coastal area of *Lapponia ponojensis*. In 1844 Nylander took a more extensive collection from Svyatoy Nos, that was distributed as *C. arcticum* Linn. in fascicle XII (no. 1) of *Herbarium Normale* 1846. The variety was not recognized by Nylander and Saelan (1859) or Lindberg (1901). The currently used name is *Arctanthemum arcticum* (L.) Tzvelev.

***Cirsium heterophyllum* L. var. *glaucescens* F. Nyl.**

Spic. Pl. Fenn., Cent. 1: 25. 1843.

The village of Kuolajärvi [Ks/Rs] is given as the type locality. Such a specimen has not been found at H or UPS. According to the description “*tota planta pallidis, flosculis albidis*”, the specimen is pale with white-flowers. The variety was not recognized by Nylander and Saelan (1859) or Lindberg (1901). A rank of form might be appropriate, infraspecific to *C. heterophyllum* (L.) Hill.

***Eriophorum gracile* W.D.J. Koch ex Roth var. *ambiguum* F. Nyl.**

Acta Soc. Scient. Fennica 3: 20. 1849. — LECTOTYPE (designated here): [Alaska], Sitka, *D. Mertens* (LE!).

There is a sheet at LE, taken from the type locality. The handwriting in the label resembles that of Nylander. Nylander (1849) recommended

to study additional material of Sitka region, as he thought that his var. *ambiguum* (“doubtful”) needs to be examined in more detail. As a synonym for his var. *ambiguum* Nylander (1849) mentioned *E. gracile* Prescott in Bong[ard], which is written in the label of the lectotype also.

***Eriophorum hoefitii* F. Nyl.**

Acta Soc. Scient. Fennica 3: 18. 1849.

“*Gubernio Kursk Rossiae australioris ad Dmitrieff*” is given as the type locality, the collector being Dr. v. Höfft. in 1825. The type specimen is perhaps at LE. Currently used name is *E. gracile* W.D.J. Koch ex Roth.

***Eriophorum russeolum* Fr. var. *albidum* F. Nyl.**

Acta Soc. Scient. Fennica 3: 10. 1849.

SYNONYM: *E. chamissonis* C.A. Mey subsp. *albidum* (F. Nyl.) Piper & Beattie, Fl. N.W. Coast: 85. 1915.

The Kodjak island in Alaska is given as the type locality (Nylander 1849). The sample was studied by him at Herb. Ac. Sc. Petr. (today LE), but such a specimen has not been found at LE (Cayouette 2004). For some reason Novoselova (1993) considered, that the type is from Scandinavia. Therefore a new subspecies *E. russeolum* Fr. subsp. *leiocarpum* Novoselova was described. However, there seems to be no reason to doubt the type locality information given by Nylander. Nylander worked in St. Petersburg in 1843–1846, and that herbarium (Herb. Ac. Sc. Petr.) is cited in several connections (Nylander 1849). According to ICBN (McNeill *et al.* 2006), subsp. *leiocarpum* Novoselova is a *nom. illeg.*, since *albidum* is an older epithet at subspecies level (Art. 11.4.). A new combination is proposed, *Eriophorum russeolum* Fr. subsp. *albidum* (F. Nyl.) Väre. Basionym: *E. russeolum* var. *albidum* F. Nyl., Spic. Pl. Fenn., Cent. 1: 24. 1843.

***Eriophorum russeolum* Fr. var. *major* F. Nyl.**

Acta Soc. Scient. Fennica 3: 11. 1849.

The new taxon was based on exceptionally tall specimens from Kamtschatka, which Nylander studied in Herb. Ac. Petrop. Type material may exist in LE.

***Eriophorum vaginatum* L. var. *humile* Turcz. ex F. Nyl.**

Acta Soc. Scient. Fennica 3: 13. 1849.

The new taxon was based on material named as *E. humile* by Turczaninow in a herbarium label. Nylander studied the specimens in Herb. Ac. Petrop. The distribution area is indicated to be southern parts of Siberia, around Altai and Daurica regions. Type material has not been seen.

***Lachnophorum* F. Nyl.**

Acta Soc. Scient. Fennica 3: 22. 1849.

In his *Eriophorum* monograph Nylander (1849) divided the genus in to three unranked categories, *viz.* *Trichophorum*, *Eriophorum* and *Lachnophorum*, of which the last one was described by him. The type species is *Scirpus comosus* Wall. That species was included in *Eriophorum* by Weight (1834) and in *Erioscirpus* by Palla (1896). Oteng-Yeboah (1974: 314) made a combination *Erioscirpus* Palla subgen. *Lachnophorum* (Nylander) [F. Nyl.] Oteng-Yeboah, and Koyoma (1958) a combination *Scirpus* L. sect. *Lachnophorum* [F. Nyl.] series *Lachnophorum* (Nylander) [F. Nyl.] Koyama.

***Hierochloë odorata* Wahlenb. [(L.) P. Beauv.] var. *firma* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 1. 1844. — LECTOTYPE (designated by Weimarck 1971): [Russia, *Karelia ladogensis*], Sordavala, VII.1843 *F. Nylander* (H 507757!)

SYNONYM: *H. borealis* Schrad. var. *firma* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 6. 1859; *H. odorata* (L.) Wahlenb. [(L.) P. Beauv.] f. *firma* (F. Nyl.) Cajander, Suomen Kasvio: 60. 1906.

Lindberg (1901) accepted the taxon. According to Weimarck (1971), the lectotype represents *H. hirta* (Schrank) Borbás. At a subspecies level it belongs to subsp. *hirta*.

***Leontodon keretinus* F. Nyl.**

Spic. Pl. Fenn., Cent. 1: 24. 1843. — NEOTYPE (designated here): [Russia, *Karelia keretina*], ad pagum Keret, [VII.]1843 Fr. Nylander (LE!).

SYNONYM: *Scorzoneroides keretina* (F. Nyl.) Greuter, Willdenowia 36: 691. 2006.

Since *Centuria I* was published on 31.V.1843, original type material must have been collected in 1842. However, such a sheet has not been found at H, LE or UPS. There is one sheet of *L. keretinus* at LE collected by Nylander in 1843, taken from the type locality (Keret on the shore of the White Sea). The neotype is annotated by Nylander as *Leontodon keretinus* Nyl.

Leontodon keretinus is mentioned e.g. in *Flora Rossica* of Ledebour (1846: 779) and in the *Sylloge* of Nyman (1854–1855: 54). It was not recognized by Nylander and Saelan (1859) or Lindberg (1901). Varietal rank seems appropriate due to an apparently common occurrence of intermediates. A new combination is proposed, *Scorzoneroides autumnalis* (L.) Greuter var. *keretina* (F. Nyl.) Väre. Basionym: *L. keretinus* F. Nyl., Spic. Pl. Fenn., Cent. 1: 24. 1843.

No thorough study has been devoted to the varieties of *Leontodon autumnalis*, and their distributions are poorly known. In var. *keretinus* the involucre is thickly covered with yellowish woolly hairs, while in var. *pratensis* (Hornem.) W.D.J. Koch the hairs are brownish, and in var. *taraxaci* (L.) Hartm. the hairs are blackish. In the lectotype of var. *asperior* (Wahlenb.) Lindm., (UPS!), designated by Moberg and Nilsson (1991), the hairs are blackish, but sparse. The leaves of var. *asperior*, var. *keretinus* and var. *taraxaci* are shallowly lobed, while in var. *pratensis* they are clearly lobed. Hjelt considered that the description of var. *keretinus* "... involucri squamis fusco hirsutis ..." refers to *L. autumnalis* L. var. *pratensis* (Hornem.) W.D.J. Koch.

***Lonicera caerulea* L. var. *glabra* F. Nyl.**

Spic. Pl. Fenn., Cent. 1: 15. 1843.

An area between Kandalaksha and Imandra [Russia, *Lapponia imandrensis*] is given as the type locality. Such a specimen has not been found at H (Saelan *et al.* 1889), and nor later

at LE or UPS. Further, Harald Lindberg, who examined the *Lonicera caerulea* collections at H, stated that there is only one specimen, which can be considered glabrous, and that is a later collection (Hjelt 1923). This variety was recognised by Cajander (1906) and Hiitonen (1933), but not by Nylander and Saelan (1859), Lindberg (1901) or recently by Sennikov (2005). According to Skvortsov (1986), the hairiness seems to be an unimportant character in *L. caerulea*.

***Orchis curvifolia* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 12. 1844. — LECTOTYPE (designated here): [Russia, *Karelia onegensis*], Tiudie [Tivdiya], [VII.]1843 F. Nylander (H 769110!).

SYNONYMS: *O. traunsteineri* Saut. [ex Rchb.] f. *curvifolia* (F. Nyl.) Sael., Kihlm. & Hjelt., Herb. Mus. Fenn. ed. 2.: 30. 1889; *O. incarnata* L. f. *curvifolia* (F. Nyl.) H. Lindb., Enum. Pl. Fenn.: 17. 1901; *Dactylorhiza traunsteineri* (Saut. ex Rchb.) Verm. subsp. *curvifolia* (F. Nyl.) Verm., Contr. Bot. Inst. Amst. 2(7): 66. 1947; *Dactylorhiza curvifolia* (F. Nyl.) Czerep., Sosud. Rast. SSSR: 307. 1981; *D. traunsteineri* (Saut. ex Rchb.) Soó var. *curvifolia* (F. Nyl.) Aver., Turczaninowia 3: 50. 2000.

There is one sheet of *O. curvifolia* collected by Nylander in 1843 at H, taken from the type area. Lake Vig [Uikujärvi] etc. and surroundings of Gub. [Government] Olonetz are given as the distribution area (Nylander 1844). The village of Tivdiya is located there. The lectotype was annotated by Nylander himself as *Orchis curvifolia* Nyl. In 1844 he collected more material by Paanajärvi (H). Nylander and Saelan (1859) considered that *O. curvifolia* is very similar to *O. maculata*. *Orchis curvifolia* is currently treated as a species, *Dactylorhiza curvifolia* (F. Nyl.) Czerep., or as *D. traunsteineri* (Saut. ex Rchb.) Soó subsp. *curvifolia* (F. Nyl.) Verm., or included in *D. traunsteineri* without formal recognition.

***Poa fulva* Trin. var. *lapponica* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 2. 1844. — LECTOTYPE (designated here): [Russia], *Lapponia rossica* [*Lapponia pono-jensis*], Tres Insulae [Tri Ostrova], IX.1843 F. Nylander (H 163485!).

SYNONYMS: *Glyceria fulva* Trin. var. *lapponica* F. Nyl., Herb. Norm.: 91. 1846; *Arctophila fulva* (Trin.) Rupr. f. *lapponica* (F. Nyl.) Cajander, Suomen Kasvio: 93. 1906.

There is one sheet of *P. fulva* var. *lapponica*

collected by Nylander in 1843 at H, taken from the type locality. Tri Ostrova (“Three islands”) locates on the eastern coast of *Lapponia pono-jensis*. The lectotype was annotated by Nylander himself as *Poa fulva* Tr. var. *lapponica* m[ihi]. In 1844 he took an extensive collection, that was distributed as *Glyceria fulva* Trin. var. *lapponica* Nyl. [F. Nyl.] in fascicle XII (no. 91) of *Herbarium Normale*. Var. *lapponica* was not recognised by Lindberg (1901), nor by the Russian botanists. Considering authors see Sennikov (2002).

***Potentilla multifida* L. subsp. *lapponica* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 6. 1844. — LECTOTYPE (designated here): [Russia, *Lapponia imandrensis*], Kandalax [Kandalaksha], VIII.1843 F. Nylander (H 086505!).

SYNONYMS: *P. multifida* var. *lapponica* (F. Nyl.) Nyl. & Sael., Herb. Mus. Fenn.: 47. 1859; *P. lapponica* (F. Nyl.) Juz., Fl. URSS 10: 117. 1941.

There is one sheet of *P. multifida* subsp. *lapponica* collected by Nylander at H, taken from the type locality. The lectotype is annotated by Nylander himself as *Potentilla multifida* L. v.[ar] *lapponica* F. Nyl. Jiří Soják has chosen (not published) an another lectotype (H) in 1994, but that specimen has been collected in July or August 1844, after the description was published. Subsp. *lapponica* was not recognised by Lindberg (1901). The currently used name is *P. arctica* Rouy (Kurtto *et al.* 2004: 170).

In a letter to Elias Fries, Nylander wrote that *Potentilla alpestris* var. *geranioides* represents his *P. multifida* var. *lapponica* (Fries 1844b: 53), which was reported as *P. salisburgensis* Haenke var. *geranioides* Hartm. in *Centuria prima* (Nylander 1843: 21).

***Sanguisorba polygama* F. Nyl., nom. illeg.**

Spic. Pl. Fenn., Cent. 1: 10. 1843. — LECTOTYPE (designated here): [RUSSIA, *Karelia keretina*], ad lacum Koutajärvi [Ozero Kovda], VIII.1842 F. Nylander (H 380173!). — SYN-TYPE: [Russia, *Lapponia imandrensis*], Ad lacum Imandra, VII.1842 F. N[ylander] (UPS!; isosyntype UPS!).

SYNONYMS: *S. officinalis* var. *polygama* (F. Nyl.) Sael., Kihlm. & Hjelt., Herb. Mus. Fenn. ed. 2.: 79. 1889; *Poterium officinale* (L.) Benth. & Hook. subsp. *polygamum* (F. Nyl.) H. Lindb., Enum. Pl. Fenn.: 35. 1901; *S. officinalis* subsp. *polygama* (F. Nyl.) Hagfors, Luettelo Suomen Putkilokasveista: 76. 1924.

There is one sheet of *S. polygama* collected by Nylander in 1842 at H, taken from the type locality. The lectotype is annotated, probably by Nylander, as *Sanguisorba officinalis*. Lake Imandra, the River Niva, the villages of Kandalaksha, Knjäsčaja gubá by the White Sea, Koutajärvi in *Karelia Rossica* and Kuolajärvi in *Lapponia Kemensis* [today Ks/Rs] are also mentioned by Nylander (1843). Two other sheets of *S. polygama* at H and three at UPS have been collected by Nylander and Ångström in August 1843. That collection was distributed in *Herbarium Normale* as no. 54 of fascicle X. The name was accepted by Nylander and Saelan (1859: 47).

Sanguisorba polygama F. Nyl. is illegitimate, since Waldstein & Kitaibel (1805) described *Poterium polygamum* (Descr. Icon. Pl. Hung. 2: 217, tab. 198), which was transferred to *Sanguisorba* by Cesati 1842, Stirp. Ital. Rar. 2 (in pag. ad tab. *S. dodecandrae*). The currently used name is *S. officinalis* L.

***Salicornia herbacea* L. var. *pygmaea* F. Nyl., nom. illeg.**

Spic. Pl. Fenn., Cent. 1: 5. 1843.

The mouth of the Oulujoki [*Ostrobotnia ouluensis*], the Arctic Ocean and White Sea are given as possible type localities. Such specimens have not been found at H or UPS. This variety was not recognised by Nylander and Saelan (1859) or Lindberg (1901). Based on the description, “*semper monandra*”, (one stamen), the plant is referable to *S. europaea* L. It is often very tiny in the north, but such plants do not need taxonomic recognition at any rank. Nylander’s var. *pygmaea* is a later homonym of *S. herbacea* L. var. *pygmaea* (Pall.) Moq., *Chenopodearum monographica enumeratio*: 115. 1840. The currently used name for that taxon is *Halopeplis pygmaea* (Pall.) Ung.-Sternb.

***Thalictrum leptophyllum* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 8. 1844. — LECTOTYPE (designated here): [Russia, *Lapponia tulomensis*], ad exitum Sinus Kolaënsis [mouth of the Kola Bay], IX.1843 F. N[ylander] (LE!).

There is one sheet of *T. leptophyllum* col-

lected by Nylander at LE, taken from the type locality. The lectotype is annotated by Nylander as *Thalictrum leptophyllum mihi*. This name was not recognised by Nylander and Saelan (1859) or Lindberg (1901). Original material was not found at H by Hjelt (1906: 157) or Kihlman (1902: 119). Kihlman made a request to B, LE and UPS with a negative result at that time. He considered that the description fits *T. kemense* Fr., currently treated as *T. minus* L. subsp. *kemense* (Fr.) Cajander. Hjelt in turn considered that *T. leptophyllum* represents *T. simplex* L., which is confirmed here. At subspecies level the lectotype represents subsp. *boreale* (F. Nyl.) Á. Löve & D. Löve.

***Thalictrum strictum* Ledeb. subsp. *boreale* F. Nyl.**

Spic. Pl. Fenn., Cent. 2: 7. 1844. — LECTOTYPE (designated by Jonsell 1996): Lapon, ad fluvios: Torneåelf. Kemielf, [1842 F. Nylander] (UPS V-109196!).

SYNONYMS: *T. simplex* L. var. *boreale* (F. Nyl.) Fr., *Herbarium Normale* X:24. 1843; *T. rariflorum* Fr. var. *boreale* (F. Nyl.) Nyl. & Sael., *Herb. Mus. Fenn.*: 36. 1859; *T. simplex* L. subsp. *boreale* (F. Nyl.) Á. Löve & D. Löve, *Bot. Not.* 114: 52. 1961.

The lectotype belongs to an extensive collection, that was distributed in fascicle X (no. 24) of *Herbarium Normale* by E. Fries in 1843. The currently used name is *T. simplex* L. subsp. *boreale* (F. Nyl.) Á. Löve & D. Löve (Jonsell 1996).

***Viola* × *fennica* F. Nyl.**

Spic. Pl. Fenn., Cent. 1: 28. 1843. — LECTOTYPE (designated here): [Russia, Ks/Rs], Paanajärvi [Paanayarvi], [VII.1842] F. Nylander (H 037618!).

SYNONYMS: *Viola* × *ruprechtiana* Borbás in W. D. J. Koch, *Syn. deutsch. Schweiz. Fl.*, ed. 3: 193. 1890; *V. epipsila* Ledeb. var. *fennica* (F. Nyl.) Hagfors, *Luettelo Suomen Putkilokasveista*: 84. 1924; *V.* × *hyperborea* (Rupr.) V. Nikit., *Fl. Vostočnoj Evropy* 9: 201. 1996; *V.* × *albimaritima* V. Nikit., *Nov. Syst. Pl. Vasc.* 35: 143. 2003.

There is one sheet of *V.* × *fennica* at H collected by Nylander in 1842, taken from the type area “*in par. Kuusamo autem optima et frequens*”. Paanayarvi is a lake located in former Finland, in the undivided parish of Kuusamo. The lectotype is annotated by Nylander as *V. epipsila fennica* F. Nyl. Shores of the Oulujoki and Iijoki (both Obo) are also mentioned in the

description. The name was not recognised by Nylander and Saelan (1859) or Lindberg (1901).

The lectotype represents the hybrid *V. epipsila* Ledeb. × *palustris* L., for which the binary name *V.* × *fennica* F. Nyl. clearly antedates *V.* × *ruprechtiana* Borbás. According to Stafleu and Cowan (1979), page 193 of Koch’s *Synopsis* was printed in 1890.

Viola × *hyperborea* (described from Arkhangelsk region as *Viola epipsila* var. *hyperborea* Rupr.) is stated to represent the hybrid *V. epipsila* × *epipsiloides* (Nikitin 1996) and *V.* × *albimaritima* (described from the White Sea, Western Russia) the hybrid *V. epipsiloides* × *palustris* (Nikitin 2003). The diagnostic characters, the leaves more or less glabrous below and their shape (Tzvelev 1980, Nikitin 1996), fits *V.* × *fennica*. In Finland it forms a hybrid swarm between *V. epipsila* and *V. palustris*, with a very variable chromosome number, $2n = 30–48$ (Sorsa 1965).

Viola epipsiloides Á. Löve & D. Löve (1975) was described in order to raise *V. epipsila* subsp. *repens* (Turcz. ex Trautv. & C.A. Mey) W. Beck. to species level as *V. repens* Turcz. ex Trautv. & C.A. Mey. 1856 is a later homonym for *V. repens* Schwein. 1822. *Viola repens* was described from Siberia, southern Baikal. That taxon is distributed from Siberia to NW North America (Hultén & Fries 1986).

New nomenclatural combinations published by F. Nylander

Carex epigejos (Laest.) F. Nyl., *Spic. Pl. Fenn.*, Cent. 2: 23. 1844. — BASIONYM: *C. aquatilis* Wanlenb. var. *epigejos* Laest. The combination is a later homonym of *Carex epigejos* (Laest.) Fr. (1843).

Carex robusta (Weinm.) F. Nyl. in Fries, *Bot. Not.* 1844: 53. 1844. — BASIONYM: *C. ampullacea* [rostrata Stokes] var. *robustior* [robusta] Weinm. Later in the same year Nylander (Fries 1844b) considered that the plant is *C. rhynchophysa* CAM [Fisch., C.A. Mey. & Avé-Lall.].

Carex vahlitii Schkuhr var. *inferalpina* (Wahlenb.) F. Nyl., *Spic. Pl. Fenn.*, Cent. 2: 25. 1844. — BASIONYM: *C. alpina* Liljeb. var. *inferalpina* Wahlenb. The currently used name is *C. norvegica* Retz. subsp. *inferalpina* (Wahlenb.) Hultén.

Eriophorum scheuchzeri Hoppe var. *chamissonis* (C.A. Mey.) F. Nyl., *Acta Soc. Scient. Fenn.* 3: 8. 1849. — BASIONYM: *E. chamissonis* C.A. Mey., which is the currently used name.

Eriophorum angustifolium Roth. [Honck.] var. *vaillantii* (Duby) F. Nyl., *Acta Soc. Scient. Fenn.* 3: 16. 1849.

— BASIONYM: *E. polystachyon* Wahlenb. var. *vallantii* Duby. The currently used name is *E. angustifolium* Honck.

Hippuris vulgaris L. var. *maritima* (Hell.) F. Nyl., Spic. Pl. Fenn., Cent. 1: 5. 1843. — BASIONYM: *H. maritima* Hellen. The currently used name is *H. tetraphylla* L. f.

Gnaphalium uliginosum L. var. *pilulare* (Wahlenb.) F. Nyl., Spic. Pl. Fenn., Cent. 1: 25. 1843. — BASIONYM: *G. pilulare* Wahlenb. The currently used name is *G. uliginosum* subsp. *pilulare* (Wahlenb.) Nyman.

Orchis latifolia L. var. *majalis* (Rchb.) F. Nyl., Spic. Pl. Fenn., Cent. 2: 11. 1844. — BASIONYM: *O. majalis* Rchb. The currently used name is *Dactylorhiza majalis* (Rchb.) P.F. Hunt & Summerh.

Orchis latifolia L. var. *angustifolia* (Rchb.) F. Nyl., Spic. Pl. Fenn., Cent. 2: 12. 1844. — BASIONYM: *O. angustifolia* Rchb. The currently used name is *Dactylorhiza latifolia* (L.) Soó.

Potamogeton natans L. var. *sparganiifolius* (Laest.) F. Nyl., Spic. Pl. Fenn., Cent. 1: 11. 1843. — The basionym and the currently used name is *P. × sparganiifolius* Laest. ex Fr.

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