

# Catalogue and typifications of new taxa of vascular plants described by Anders Thiodolf Saelan (1834–1921)

Henry Väre

Finnish Museum of Natural History, Botanical Museum, P.O. Box 7, FI-00014 University of Helsinki, Finland (e-mail: henry.vare@helsinki.fi)

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Väre H. 2022: Catalogue and typifications of new taxa of vascular plants described by Anders Thiodolf Saelan (1834–1921). — *Ann. Bot. Fennici* 59: 303–312.

Anders Thiodolf Saelan (1834–1921) was a notable non-professional botanist in the late 19th and early 20th century Finland, and was amongst the most diligent writers of his time in the country, authoring five books, 75 articles and 83 communications, for a total of 163 texts. Saelan was particularly known for writing extensive botanical reviews, such as *Herbarium Musei Fennici* in 1889 and *Bibliography of Finnish botanical literature until the end of 1900*. He validly published 34 taxa, including two species, *Hieracium linifolium* and *H. pilipes*, 6 varieties, 25 forms, and one subform, and introduced 46 names as *nomina nuda*. Saelan had no concept of type specimens and therefore all his plant taxa need typification, and 28 of those are lectotypified here. In this paper, *nomina nuda* and the taxa whose type material was not found are also listed, except those of the apomictic genus *Hieracium*. Most of Saelan's new taxa are nowadays not recognised. Saelan's type collection treated here, as well as his other specimens are deposited at the Botanical Museum (H), Finnish Museum of Natural History, University of Helsinki, Finland.

## Introduction and background

Anders Thiodolf Saelan (Fig. 1) was born in Lappeenranta on 20 November 1834. His parents were Anders Johan Saelan, a prison priest and a primary school teacher, later vicar of Jämsä, and Antoinette Henriette Christine Müller. Saelan married Naemi Lovisa Vivika von Knorring (1850–1920) in 1873, and they had four children. He died in Helsinki on 24 June 1921.

Saelan graduated from the Porvoo secondary school in 1851. Subsequently he studied natural sciences at the Imperial Alexander University of Finland (nowadays the University of Helsinki), receiving his Bachelor of Science degree on 15

May 1856, and Master's degree on 29 May 1857. After that he studied medicine: Bachelor of Medicine 30 May 1859, Licentiate in Medicine on 22 May 1865, and Doctor of Medicine and Surgery on 1 June 1865. He was awarded the title of Professor in 1877, and in 1907 he was promoted to the Faculty of Philosophy at the University of Helsinki with both an honorary doctorate and a honorary master's degree. In 1917, he became a Jubilee Doctor of the Faculty of Medicine (Aspelin *et al.* 1879–1883, Renvall 1891, Carpelan 1903, Hagelstam 1921, Häyrén 1921, Elfving 1923, Palmgren 1925).

Saelan was the Finnish Medical Board's Physician Extraordinary in 1861–1864, and Acting



**Fig. 1.** Anders Thiodolf Saelan (photo by Atelier Rembrandt, Helsinki).

District Physician of Tornio and Lapland District 1864–1865. He was thereafter Assistant Physician at Lapinlahti Hospital in Helsinki 1865–1868, and its Medical Superintendent 1868–1904. In his own time, he was Finland's most prominent psychiatrist for several decades.

In his spare time, Saelan was also a passionate plant enthusiast, and he acted as Amanuensis at the University of Helsinki Botanical Museum and Botanic Garden 1859–1866 before serving as medical officer at Lapinlahti (Pitkänen 2008: 41).

He was elected as a member of the *Societas pro Fauna et Flora Fennica* (hereafter *Societas*) in 1856. *Societas* held its meetings at the Botanical Museum. There, he soon became acquainted with the Finnish professional botanists and was able to study herbarium specimens. Saelan donated many specimens to the *Societas*, the first ones already in the 1850s. Saelan served as the

Society's intendent of botany from 1856 to 1866 ("Keeper of Plant Collections", *Suometar* 110, 14 May 1864). He also acted as the Society's vice-chairman from 1872 to 1889, and chairman 1889–1892 (Saelan 1892a, 1892b, 1892c 1893). He became an Honorary Member of the *Societas* on 5 November 1904. Professor of Botany Johan Petter Norrlin (1842–1917) wrote a summary of his achievements for that event (Norrlin 1906).

Anders Thiodolf Saelan was a notable non-professional botanist in the latter half of the 19th and early 20th century Finland, and was amongst the most diligent writers of his time in the country, authoring five books, 75 articles, and 83 communications, for a total of 163 texts (Väre 2022). Most of these were brief communications presented in the meetings of the *Societas*. Most of them were published in *Societas'* series *Acta Societatis pro Fauna et Flora Fennica*, *Meddelanden af Societas pro Fauna et Flora Fennica* and *Notiser ur Sällskapet pro Fauna Flora Fennica*. The first two were continuations of the last-mentioned. Apart from his scientific descriptions of new taxa, he focused mostly on floristic records, bibliographica studies, bryology, dendrology and teratology (Väre 2022).

## Field trips

During his high school years, Saelan became acquainted with Erik Niklander (1835–1856), a slightly older student, who took Saelan along on his botanical excursions, which took place in eastern Nylandia according to herbarium specimens at Botanical Museum, Helsinki. A lifetime of botanical pursuits began with these expeditions.

## Kymenlaakso

During the summers of 1854 and 1855, Saelan made excursions in the municipalities of Pernaja and Porvoo. In the summer of 1856, he and Johan Elias Strömborg (1833–1900) explored the flora of Kymenlaakso [areas in eastern Nylandia and southern Karelia australis], with the help of a travel grant awarded by the *Societas*. There, they discovered *Cinna latifolia* and *Najas ten-*

*uissima* (Saelan 1858, 1859a), for the first time in Finland, and *Alisma wahlenbergii* at Pyhtää, Munapirtti. These all are threatened in Finland.

They also sailed to the islands of Haapasaari in the Province of Karelia australis and Suursaari, at that time in the Province of Nylandia [today in Leningrad Oblast of Russia]. The number of vascular plants known from Suursaari was 417, including 15 ferns. He later supplemented the species list with a few additional plants (Saelan 1859b). As new to science, he described four forms: *Campanula rotundifolia* f. *pusilla*, *Festuca rubra* f. *sabulosa*, *Verbascum thapsus* f. *virescens*, and *Viola tricolor* f. *odora*.

Arvi Ulvinen (1971) clarified Saelan's contribution to the flora of Kymenlaakso and compiled a detailed travelogue based on Saelan's diaries (discovered in 1971) and the specimens held at the Helsinki Botanical Museum (Ulvinen 1974). Sixty-two collection sites were identified, and the most significant discoveries were mentioned for each. The diaries made it possible to locate places of discovery that were only vaguely described in the publication (Saelan 1858).

## Lapland 1864

Arvi Ulvinen's son, Tauno Ulvinen, donated Saelan's travel notes from an excursion to Lapland in 1864 to me. So far, nothing has been published about this excursion. The content of the notes mainly focuses on travel-time experiences, and plant observations are scarce, mostly regarding crops. The travel notes are deposited in the Botanical Museum archive of the University of Helsinki.

## Extensive book projects

Saelan was particularly known for writing extensive botanical reviews, such as *Herbarium Musei Fennici* in two editions (Nylander & Saelan 1859, Saelan *et al.* 1889), *Flora Fennica* (Lönnrot & Saelan 1866) and *Bibliography of Finnish botanical literature until the end of 1900* (Saelan 1916).

*Herbarium Musei Fennici*'s were first lists of vascular plants, of which there was at least one

specimen in the Botanical Museum, collected in eastern Fennoscandia. The first edition included also fungi.

The first editions of *Herbarium Musei Fennici* (Nylander & Saelan 1859) mentioned 1025 vascular plant taxa, of which 930 species were accepted in the second edition (Saelan *et al.* 1889). In addition, the first edition listed seven hybrids, 33 varieties or forms, 12 casual aliens or taxa found only in Enontekiö Lapland, and eight uncertain taxa. The second edition listed 1047 vascular plant taxa, with an additional 59 hybrids and 85 varieties. In the second edition, eastern Fennoscandia was divided into 28 biogeographical provinces (Fig. 2), instead of the previous 14 (Fig. 3).

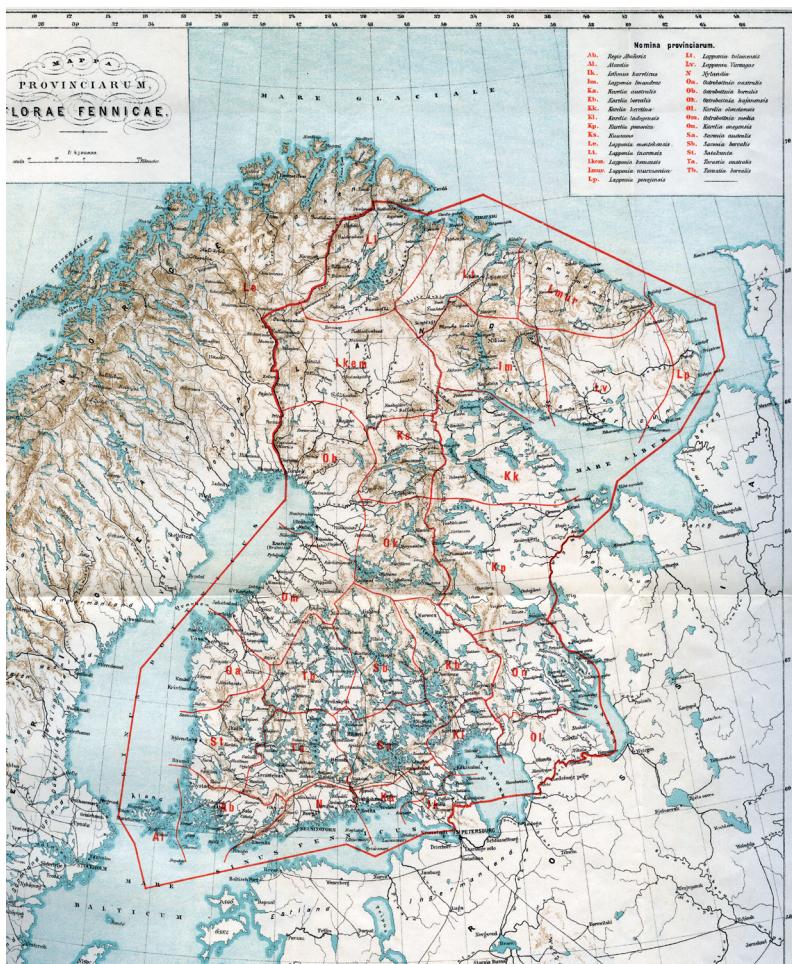
There were many shortcomings in the first edition of the first *Flora of Finland* (*Suomen kasvisto*) *Flora Fennica* (Lönnrot 1860), and Saelan took part in correcting and updating the second edition (Lönnrot & Saelan 1866).

Saelan (1861, 1867) was interested in the early history of publications treating Finnish flora. He arranged these publications chronologically by persons. An invaluable summary of early Finnish botanical publications appeared in 1916. It contains about 6000 source references, and in addition to botany includes works on agriculture, horticulture, forestry, and medical bacteriology, among other disciplines (Saelan 1916).

## New taxa

He validly published 34 taxa, including two species, 6 varieties, 25 forms, and one subform. The species were *Hieracium linifolium* and *H. pilipes* (Saelan 1874, 1881). The description of *H. linifolium* was later given with more details (Saelan 1878). Saelan had no concept of type specimens and therefore all his plant taxa need typification, and 28 of his taxa are lectotypified here. A few typified earlier are included in the list below. He also introduced 46 names as *nomina nuda*. In this paper, *nomina nuda* and the taxa whose type material was not found are also listed, except those of the apomictic genus *Hieracium*.

Most of Saelan's new taxa are not recognised nowadays. Saelan's type collection treated here, as well as his other specimens, are deposited at



**Fig. 2.** Biogeographical provinces of eastern Fennoscandia in 1889 (Saelan *et al.* 1889).

the Botanical Museum (H), Finnish Museum of Natural History, University of Helsinki, Finland.

Spelling of Saelan's scientific names is standardised following Turland *et al.* (2018). Current biogeographical provinces of eastern Fennoscandia are shown in Fig. 4. Concerning authors, brackets are used when Saelan did not give an author, or gave a different author than currently used. Saelan usually used Swedish toponyms, and I have added the Finnish names in brackets.

## List of taxa published by Thiodolf Saelan

***Alnus glutinosa* (L.) Gaertn. f. *sorbifolia***  
Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 129, 1889. — LECTOTYPE

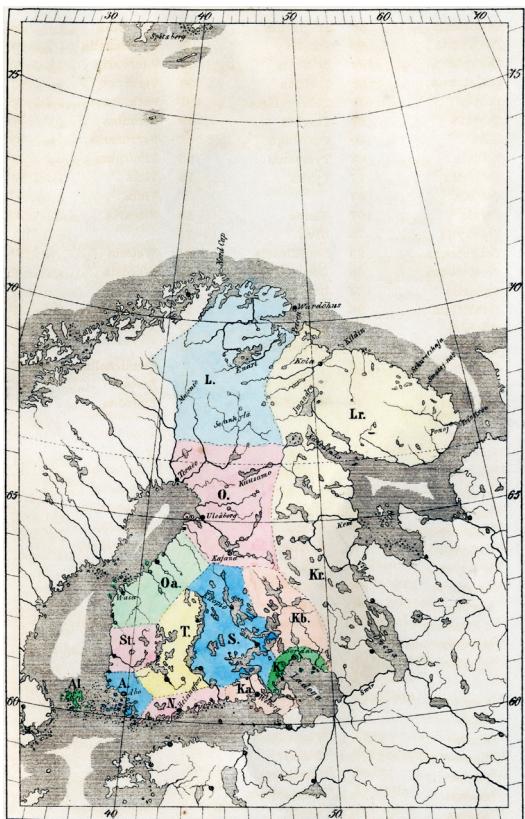
(designated here): Finland. Om, Larsmo [Luoto], Botsön, August 1873 *L. Schalin s.n.* (H086192!)

August 1873 E. Saelan s.n. (1886:192.).  
 Protologue locality in Saelan *et al.* (1889): Finland. 1.  
 Om. On the label f. *sorbiifolia* by Saelan. Leaves are lobed.  
 This is *Alnus glutinosa* f. *lobulata* Larsson. This sheet was  
 used in drawing of f. *lobulata* in *Woody flora of Finland*  
 (Hämälähti *et al.* 1992, Väre *et al.* 2021).

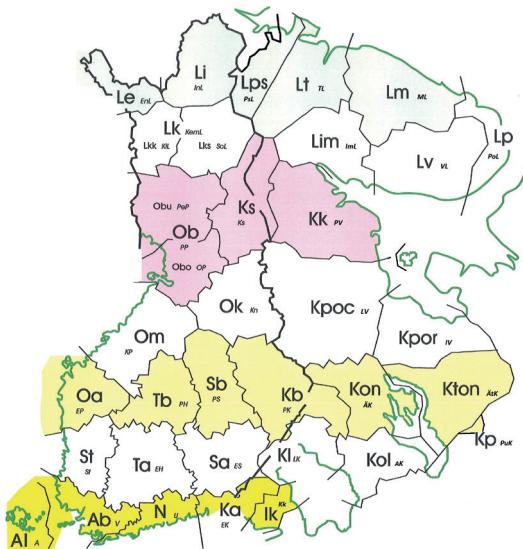
***Arctostaphylos uva-ursi* (L.) Spreng. f. *ciliolata* Saelan**

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 140. 1889. — LECTOTYPE (designated here): Russia. Kol, Gorgi, 13 June 1875, *Freder. Elfving* s.n. (H016653!). — ORIGINAL MATERIAL: Finland. 1. Kb, Kontiolaks [Kontiolahti], 9 June 1865, *Fr. V. Woldstedt* s.n. (H016672!); 2. Russia. Kol, Petrosavodsk, 6 June 1863 *A. Kullhem* s.n. (H016654!).

Protologue localities in Saelan *et al.* (1889): Finland. 1. Kb; Russia. 2. Ol [Kol]. On the labels f. *ciliolata* by Saelan. Calyx is ciliolate. This is *Arctostaphylos uva-ursi*.



**Fig. 3.** Biogeographical provinces of eastern Fennoscandia in 1859 (Nylander & Saelan 1859).



**Fig. 4.** Biogeographical provinces of eastern Fennoscandia (Kotiranta *et al.* 1998). Al = Alandia, Ab = Regio aboensis, N = Nylandia, Ka = Karelia australis, Ik = Isthmus karelicus, St = Satakunta, Ta = Tavastia australis, Sa = Savonia australis, Kl = Karelia ladogensis, Kol = Karelia olonetsensis, Oa = Ostrobotnia australis, Ta = Tavastia borealis, Sb = Savonia borealis, Kb = Karelia borealis, Kon = Karelia onegensis, Kton = Karelia transnegensis, KP = Karelia Pudogensis, Om = Ostrobotnia media, Ok = Ostrobotnia kajanensis, Kpoc = Karelia pomorica, Kpor = Karelia pomorica orientalis, Obo = Ostrobotnia ouluensis, Obu = Ostrobotnia ultima, Ks = Regio kuusamoënsis, Kk = Karelia keretina, Lkk = Lapponia kittilensis, Lks = Lapponia sompiensis, Lim = Lapponia lmandrae, Lv = Lapponia Varsugae, Lp = Lapponia ponojensis, Le = Lapponia enontekiensis, Li = Lapponia inarensis, Lps = Lapponia petsamoënsis, Lt = Lapponia tulomensis, Lm = Lapponia murmanica

### ***Atriplex patula* L. f. *salina-erecta* Saelan**

Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 59. 1858.

Protologue locality in Saelan (1858): Finland. 1. Östra Nyland. — ORIGINAL MATERIAL: not found at H.

***Atriplex patula* L. f. *salina-prostrata* Nyl.  
& Saelan**

Not Sallsk Fauna El Fenn Forh 4: 59 1858

Protologue locality in Saelan (1858): Finland. 1. Östra Nyland. — ORIGINAL MATERIAL: not found at H.

***Batrachium circinatus*** (Sibth.) Spach. var.  
***oligandrum*** Saelan

Herb. Mus. Fenn.: 35. 1859. — LECTOTYPE (designated here): Finland. N, Strömfors [Ruotsinpyhtää], Reimars, 6 August 1856 *Th. Saelan s.n.* (H800012!). — ORIGINAL MATERIAL: Finland. N, Strömfors, inter Gäddbergsö et Bullers, ad Reimars, 6 June 1865 *Th. Saelan s.n.* (H800050!).

Protologue locality in Nylander and Saelan (1859): Finland, I. N. Lovisae [Lovisaal] Strömfors [Reimars Saelan]

1898b]. On the label var. *oligandrus* by Saelan. Small plant, leaves are distinct, petiolate, less regular, flowers are small. This is *Ranunculus cincinnatus* Sibth.

***Betula odorata* Bechts. f. *rotundata***  
Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 129. 1889. — NEOTYPE (designated here): Finland. Ta, Sysmä, Urajärvi, 26 June 1871 K. J. W. Unonius s.n. (H734954!). — ORIGINAL MATERIAL: not found at H.

*B. pubescens* Ehrh. f. *rotundata* (Saelan) Cajander,  
Suomen Kasvio, ed. 5; II 203, 1906.

Protologue localities in Saelan *et al.* (1889): Finland. 1. Al; 2. Sa; 3. Ik; Russia. 4. Li. On the label f. *rotundata* Sael. According to the protologue, base of the leaves is roundish.

tips are broadly acute. Morphology of the neotype is congruent the protologue. This is *Betula pubescens* Ehrh. f. *pubescens*.

***Betula verrucosa* Ehrh. var. *rhomboidea***  
Nyl. & Saelan

Herb. Mus. Fenn. I: 55. 1859. — NEOTYPE (designated here): Finland. Ab, Åbo [Turku], Kuppis [Kupittaa], 27 July 1891 Th. Saelan s.n. (H734696!). — ORIGINAL MATERIAL: not found at H.

Protologue locality in Nylander and Saelan (1859): Finland. 1. Ab, Korpo [Korppoo]. On the label f. *rhomboidea* by Saelan. Leaves are rhombic. This is *Betula pendula* Roth. f. *pendula*.

***Betula verruosa* Ehrh. f. *ovata*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 129. 1889. — ORIGINAL MATERIAL: not found at H.

Protologue locality in Saelan et al. (1889): Russia. 1. On [Kon].

***Bulliarda aquatica* L. var. *prostrata***  
Saelan

Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 51. 1858. — LECTOTYPE (designated here): Finland. N, Borgå [Porvoo], Seitlaks [Seitalhti], 2 September 1859 L. Runeberg s.n. & Th. Saelan s.n. (H366292!).

Protologue locality in Saelan (1858): Finland. 1. N, Borgå [Porvoo], Seitlaks [Seitalhti]. On the label var. *prostrata* by Saelan. According to the protologue this is a tall plant with descending branches. This is *Crassula aquatica* (L.) Schönlund. f. *crassula*.

***Callitrichie verna* L. var. *divaricata*** Saelan

Herb. Mus. Fenn.: 56. 1859. — LECTOTYPE (designated here): Finland. Ka, Pyttis [Pyhtää], Hinkaböhle, 23 August 1856 Th. Saelan s.n. & Strömborg s.n. (H396972!).

Protologue locality in Nylander and Saelan (1859): Finland. 1. N, Pyttis [Pyhtää]. On the label var. *divaricata* by Saelan. This variety is characterised by glaucous colouration. On the label Saelan indicate that it is morphologically between *Callitrichie autumnalis* and *verna*. This is *Callitrichie palustris* L.

***Campanula rotundifolia* L. f. *pusilla*** Saelan

Meddel. Soc. Fauna Fl. Fenn. 25: 78. 1900. — LECTOTYPE designated by Piirainen and Nurmi (2018). This is *Campanula rotundifolia* L. subsp. *fennica* Piirainen & Nurmi.

***Festuca rubra* L. f. *sabulosa*** Saelan

Meddel. Soc. Fauna Fl. Fenn. 25: 75. 1900. — LECTOTYPE

(designated here): [Russia. Ka], Hogland [Suursaari], Kapelinlahti, 29 July 1898 Th. Saelan s.n. (H142164!).

Protologue locality in Saelan (1900): [Russia]. 1. [Ka], Hogland. On the label f. *sabulosa* by Saelan. Inflorescence is greenish, with hairy lemmas and glumes. This is *Festuca rubra* subsp. *arctica* (Hack.) Govor.

***Humulus lupulus* L. f. *integrifolius*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 130. 1889. — LECTOTYPE (designated here): Finland. Sb, Kiuruvesi, Korpjoki, Humalikoniemi, 15 August 1865 C. Lindström s.n. & A. Palmén s.n. (H783335!).

Protologue locality in Saelan et al. (1889): Finland. 1. Sb. On the label f. *integrifolia* by Saelan. Leaves are entire, ovate-cordate, acuminate, coarse-toothed. This is *Humulus lupulus*.

***Lathyrus maritimus* (L.) [Bigelow] f. *pubescens*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 139. 1889. — LECTOTYPE (designated here): Finland. Ab, Pargas [Parainen], Örfjärden, insula Landeholmen, 9 July 1875 C. J. Arrhenius s.n. (H062359!).

Protologue localities in Saelan et al. (1889): Finland. 1. Ab; Norway. 2. Li [ØFi]; Russia 3. Kp [Kpoc]. On the label f. *pubescens* by Saelan. Plants hairy. This is *Lathyrus maritimus* (L.) Bigelow.

***Polygonum aviculare* L. f. *conferta***  
Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Finland. Tb, Jyväskylä, 12 August 1870 F. Brotherus s.n. (H786416!).

Protologue localities in Saelan et al. (1889): Finland. 1. Kb; 2. Oa; 3. Tb; 4. Ob. On the labels f. *conferta* by Saelan. Stems are articulate and short, especially upper leaves are densely. This is *Polygonum arenastrum* Boreaus, det. Thomas Karlsson 1997 *P. aviculare* subsp. *microspermum*.

***Polygonum dumetorum* L. var. *apterum***  
Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Finland. N, Lojo [Lohja], Hiitis [Hiitti], 1 August 1877 S. O. Lindberg s.n. (H295610!).

Protologue localities in Saelan et al. (1889): no localities given. On labels f. *aptera* by Saelan. Tepals are without membranaceous wings. This is *Fallopia dumetorum* (L.) Holub.

***Polygonum hydropiper* L. f. *eciliatum***  
Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTO-

TYPE (designated here): Finland. Kb, Libelits [Liperi], 18 August 1872 M. A. Europaeus s.n. & K. A. Hällström s.n. (H787341!).

Protologue locality in Saelan *et al.* (1889): Finland. 1. Kb. On the label f. *eciliata* by Saelan. Upper edge of the ochrea are without cilia. This is *Persicaria hydropiper* (L.) Delarbre.

### ***Polygonum hydropiper* L. f. *uliginosa*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Russia. Kon, Velikaja guba [Suurlahti], 8 August 1870 J. P. Norrlin s.n. (H787345!).

Protologue locality in Saelan *et al.* (1889): Russia. 1. On [Kon]. On the label f. *uliginosa* Sael. by Saelan. According to the protologue this plant is submerged, stems are fragile, inflorescence is sparse and leaves are small. This is *Persicaria hydropiper* (L.) Delarbre f. *hydropiper*.

### ***Polygonum lapathifolium* L. var. *incanescens*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 130. 1889. — LECTOTYPE (designated here): Finland. Obo, Rovaniemi, Lohiniva, 14 August 1877 Hj. Hjelt s.n. & R. Hult s.n. (H787748!).

Protologue locality in Saelan *et al.* (1889): Finland. 1. Ob, Rovaniemi. On the label var. *incanescens* Sael. by Saelan. Stems and leaves above are glabrous, leaves hairy below, ochrae is usually very small, glabrous. This is *Persicaria lapathifolia* (L.) Delarbre subsp. *lapathifolia*.

### ***Polygonum lapathifolium* L. f. *viridis*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Russia. Kon, Jalguba [Jallahti], 1869 Günther s.n. (H787720!).

Protologue localities in Saelan *et al.* (1889): no localities given. On the label f. *viridis* Sael. by Saelan. Leaves are green on both sides. This is *Persicaria lapathifolia* (L.) Delarbre subsp. *lapathifolia*.

### ***Polygonum lapathifolium* L. f. *viridis*** Saelan. subf. *latifolium* Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Russia. Lim, Umba [Umpi], 7 September 1870 A. J. Malmberg s.n. (H787766!).

*P. lapathifolium* L. var. *latifolium* (Saelan) Mela, Suomen Koulukasvio, ed. 3: II 276. 1895.

Protologue localities in Saelan *et al.* (1889): no localities given. On the label f. *viridis* Sael. subf. *latifolium* by Saelan. Leaves are broad. This is *Persicaria lapathifolia* (L.) Delarbre subsp. *lapathifolia*.

### ***Polygonum mite* Schrank f. *linearifolia*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Finland. Ka, Andrea [Antrea], Vuoksi, 29 July 1882 Th. Saelan s.n. (H787965!).

*P. minus* Ait. f. *linearifolia* (Saelan) Hjelt, Acta Soc. Fauna Fl. Fenn. 21(1): 215 (1902).

Protologue localities in Saelan *et al.* (1889): Finland. 1. Ka; 2. Ta; 3. Tb; 4. Om; 5. Ob; 6. On the labels f. *linearifolia* Sael. by Saelan. Leaves are narrow. This is *Persicaria minor* (Huds.) Opiz.

### ***Polygonum mite* Schrank f. *litorale*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Finland. N, Borgå [Porvoo], Pellinge [Pellinki], 15 August 1857 Th. Saelan s.n. (H787915!). — ORIGINAL MATERIAL: Finland. 1. N, Pernå [Pernaja], 16 July 1854 Th. Saelan s.n. (H787886!), 2. Ka, Tammio (Stams) prope Fredrikshamn [Hamina], 1851 E. Nylander s.n. (H787982!), 3. Ka. Kymmene [Kymi]; 4. Ka, Haapasaari (Aspö), 19 August 1856 Th. Saelan s.n. & E. Strömborg s.n. (H787972!).

Protologue localities in Saelan *et al.* (1889): Finland. 1. Ab; 2. N; 3. Ka; 4. Sa; 5. Russia. Ol; 6. On. On the label f. *litoralis* Sael. by Saelan. Upright-growing plants with short internodes, leaves are thick, erect. This is *Persicaria minor* (Huds.) Opiz.

### ***Polygonum mite* Schrank f. *umbrosa*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889. — LECTOTYPE (designated here): Finland. Sa, [Lappeenranta], Lapvesi, 13 August 1857 Th. Simming s.n. (H788039!). — ORIGINAL MATERIAL: Finland. 1. N, Strömfors [Ruotsinpyhtää], 22 July 1856 Th. Saelan s.n. & E. Strömborg (H787887!).

Protologue localities in Saelan *et al.* (1889): Finland. 1. N; 2. Sa. On the labels f. *umbrosa* Sael. by Saelan. Stems are long and fragile, leaves are thin. These are *Persicaria minor* (Huds.) Opiz f. *minor* collected on shady sites.

### ***Sedum acre* L. f. *imbricata*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 137. 1889. — LECTOTYPE (designated here): Russia. Lapponia orientalis [Lt], Kola, ad templum, 1861 N. J. Fellman s.n. (H365769!).

Protologue locality in Saelan *et al.* (1889): Russia. 1. Lt, Kola. On the label f. *imbricata* by Saelan. Leaves densely in stems. This is *Sedum acre*.

### ***Sedum telephium* L. f. *orbiculata*** Saelan

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 137. 1889. — LECTOTYPE (designated here): Russia. Ka, Batteriholmarna [Patterisaaret] between Trångsund [Uuraansalm] and Viborg [Viipuri],

Vyborg], 20 June 1866 “lector” [teacher] *Nervander s.n.* (H366124!).

Protologue locality in Saelan *et al.* (1889): Russia. 1. Ka, Viborg [Viipuri, Vyborg]. On the label f. *orbiculata* Sael. by Saelan. Leaves are roundish. This is *Hylotelephium telephium* (L.) H. Ohba subsp. *ruprechtii* (Jalas) H. Ohba. (det. Arto Kurtto 1997).

### ***Tilia ulmifolia* Scop. f. *rostrata* Saelan**

Meddel. Soc. Fauna Fl. Fenn. 5: 244. 1880. — LECTOTYPE (designated here): Finland. Ta, Tavastehus [Hämeenlinna], 20 August 1873 *O. Collin s.n.* (H208532!).

Protologue locality in Saelan (1880): no locality given. On the label f. *rostrata* by Saelan. Later Saelan *et al.* (1889) gave as localities: Finland. 1. Ta; 2. N (cult.). Fruits are cuspidate. This is *Tilia cordata* Mill.

### ***Tilia ulmifolia* Scop. f. *viridis* Saelan**

Meddel. Soc. Fauna Fl. Fenn. 5: 244. 1880. — LECTOTYPE (designated here): Finland. Ta, Sysmä, 9 August 1871 *K. J. W. Unonius s.n.* (H208649!).

Protologue locality in Saelan (1880): no locality given. On the label f. *viridis* by Saelan. Later Saelan *et al.* (1889) mention as localities: Finland. 1. Ta; 2. Sa; 3. Om. Leaves are only slightly paler below than above. This is *Tilia cordata* Mill.

### ***Urtica dioica* L. f. *glabrescens* Saelan**

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 130. 1889. — LECTOTYPE (designated here): Finland. Ks, Kuusamo, Mäntyjoki, 27 July 1864 *B. A. Nyberg s.n.* (H083827!). — ORIGINAL MATERIAL: Russia. 1. Lim, Nuortijaur, [Nuortijärvi], 18 August 1886 *R. Enwald s.n.* & *H. Hollmén s.n.* (H783550!); 2. Lim, alpe Schlesna pr. Kantalahti, August 1885 *V. F. Brotherus s.n.* (H083828!).

Protologue localities in Saelan *et al.* (1889): Finland. 1. Ks; 2. Le; 3; Russia. 3 Lt; 4. Im. On the labels f. *glabrescens* Sael. by Saelan. Leaves are subglabrous. The lectotype is *Urtica dioica* subsp. *sondenii* (Simmons) Hyl., other original material *Urtica dioica* subsp. *dioica* × subsp. *sondenii*.

### ***Verbascum thapsus* L. f. *virescens* Saelan**

Meddel. Soc. Fauna Fl. Fenn. 25: 77. 1900. — LECTOTYPE (designated here): Russia. Ka, Hogland [Suursaari], Suurkylä, 18 August 1898 *Th. Saelan s.n.* (H596675!).

Protologue locality in Saelan (1900a): Russia. 1. Ka, Hogland [Suursaari]. On label first f. *glabrescens* (overdrawn), then f. *virescens* by Saelan. Less hairy than f. *thapsus*.

### ***Vicia sepium* L. f. *angusta* Saelan**

Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 139. 1889. — LECTOTYPE

designated by Hämet-Ahti (1970). This is *Vicia sepium* L. subsp. *montana* (W.D.J. Koch) Hämet-Ahti.

### ***Viola tricolor* L. f. *odora* Saelan**

Meddel. Soc. Fauna Fl. Fenn. 25: 80. 1900. — LECTOTYPE (designated here): Finland. Ka, Haapasaari, 10 August 1898 *Th. Saelan s.n.* (H403964!).

Protologue locality in Saelan (1900): Russia. 1. Ka, Haapasaari. On the label f. *odora* by Saelan. Fragrant plant. This is *Viola tricolor* L.

### **Nomina invalida and nomina nuda**

Saelan used often scientific names (set in boldface in the list) without an author, but did not give a description. These 43 names are *nomina invalida* or *nomina nuda* (Turland *et al.* 2017: art. 38.1).

*Allium schoenoprasum* L. f. ***albiflorum***, Meddel. Soc. Fauna Fl. Fenn. 25: 79. 1900.

*Atriplex patula* L. f. ***erecta***, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 132. 1889.

*Atriplex patula* L. f. ***halophila***, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 132. 1889.

*Atriplex patula* L. f. ***procumbens***, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 132. 1889.

*Calamagrostis gracilis* Blytt var. ***ladogensis***, Meddel. Soc. Fauna Fl. Fenn. 9: 127. 1883.

*Callitricha verna* L. var. ***maxima***, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 61. 1858.

*Callitricha vernalis* Koch [L.] f. ***minima***, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 136. 1889.

*Callitricha vernalis* Koch [L.] f. ***repens***, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 136. 1889.

*Campanula rotundifolia* L. f. ***albiflora***, Meddel. Soc. Fauna Fl. Fenn. 25: 78. 1900.

*Campanula rotundifolia* L. var. ***albiflora***, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 34. 1858.

*Carex dioica* L. var. ***isogyna***, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 125. 1889.

*Carex flava* L. var. ***humilis***, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 70. 1858.

*Carex vulgaris* Fr. f. ***valde-stolonifera***, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 71. 1858.

*Erythraea linarifolia* Pers. var. ***minor***, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 38. 1858.

*Festuca pratensis* Huds. var. ***loliacea***, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 72. 1858.

*Geranium pratense* var. ***parviflorum***, Meddel. Soc. Fauna Fl. Fenn. 24: 21. 1900.

*Gymnadenia conopsea* f. ***lapponica***, Acta Soc. Fauna Fl. Fenn. 5: 498. 1895.

*Gymnadenia conopsea* var. ***lapponica***, Herb. Mus. Fenn.: 19. 1859.

*Juncus supinus* Moench. var. ***fluitans***, Not. Sallsk. Fauna Fl.

- Fenn. Forh. 4: 67. 1858.  
*Lotus corniculatus* L. var. *crassifolius*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 54. 1858.  
*Matricaria inodora* L. f. *maritima*, Meddel. Soc. Fauna Fl. Fenn. 25: 80. 1900.  
*Matricaria inodora* L. var. *salina*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 28. 1858.  
*Melandrium diurnum* Sibth. var. *carneum*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 49. 1858.  
*Odontites vernus* (Bellardi) Dumort. var. *litoralis*, Meddel. Soc. Fauna Fl. Fenn. 25: 80. 1900.  
*Orchis maculata* L. var. *angustifolia*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 63. 1858.  
*Picea excelsa* (Lam.) Peterm. [Link] f. *brevifolia*, Meddel. Soc. Fauna Fl. Fenn. 25: 74. 1900.  
*Plantago maritima* L. var. *dentata*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 41. 1858.  
*Polygonum amphibium* L. var. *terrestris*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 57. 1858.  
*Prunus spinosa* L. var. *rustica*, Herb. Mus. Fenn. 4: 48. 1859.  
*Ranunculus marinus* (Fr.) f. *terrestris* Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 133. 1889.  
*Ranunculus paucistamineus* Tausch. f. *trichodes*, Acta Soc. Fauna Fl. Fenn. 30(1): 227. 1906.  
*Rubus arcticus* L. × *saxatilis* L. f. *pararcticus*, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 138. 1889.  
*Rubus arcticus* L. × *saxatilis* L. f. *persaxatilis*, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 138. 1889.  
*Rubus arcticus* L. f. *glandulifera*, Acta Soc. Fauna Fl. Fenn. 41(1): 58. 1919.  
*Rubus idaeus* L. f. *inermis*, Acta Soc. Fauna Fl. Fenn. 41(1): 43. 1919.  
*Rumex acetosella* L. f. *lancifolia* Mela, Herb. Mus. Fenn., ed. 2, Pl. Vasc.: 131. 1889.  
*Sagittaria sagittifolia* L. f. *subintegerrifolia*, Meddel. Soc. Fauna Fl. Fenn. 19: 22. 1893.  
*Stellaria crassifolia* Ehrh. f. *congesta*, Acta Soc. Fauna Fl. Fenn. 30(1): 99. 1906.  
*Thalictrum flavum* L. f. *latifolium* Saelan in Hjeltn, Suomen Kasvio: 357. 1933.  
*Thalictrum flavum* L. f. *pauciflorum* Saelan in Hjeltn, Acta Soc. Fauna Fl. Fenn. 30(1): 165. 1906.  
*Thymus serpyllum* f. *latifolia*, Meddel. Soc. Fauna Fl. Fenn. 24: 21. 1900.  
*Tilia ulmifolia* Scop. f. *macrophylla*, Meddel. Soc. Fauna Fl. Fenn. 5: 244. 1880.  
*Veronica scutellata* L. var. *villosa*, Not. Sallsk. Fauna Fl. Fenn. Forh. 4: 39. 1858.  
*Viscaria alpina* × *vulgaris* f. *subalpina*, Meddel. Soc. Fauna Fl. Fenn. 9: 152–153. 1883.  
*Viscaria alpina* × *vulgaris* f. *subviscaria*, Meddel. Soc. Fauna Fl. Fenn. 9: 152–153. 1883.

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