

Carl Reinhold Sahlberg – Demonstrator in Botany at old Åbo Akademi, later Professor in Botany and Zoology at Imperial Alexander University of Finland*

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Sahlberg was the temporary Demonstrator in Botany 1805–06, Demonstrator in Botany 1810–13, Associate Professor in Natural History and Museum Inspector 1813–16, temporary Professor in Natural History 1816–18, Professor 1818–1841 at old Åbo Akademi and at Imperial Alexander University of Finland. As a Demonstrator, his main duty was to instruct medical students on the subject of medicinal plants. In his research, he focused on insects, especially the Coleoptera. As a botanist, his major achievements were building the Herbarium and Botanic Garden, in two phases. Prior to the Great Fire of Åbo in 1827, he acted at old Åbo Akademi. During that period, he acquired an extensive collection to the Botanical Museum during his visits to Sweden in 1801 and 1806, and to St. Petersburg in 1813, and by exchange especially with Professors Olof Swartz and Carl Peter Thunberg. Travel to St. Petersburg was fruitful, 1 500 species of seeds, 240 roots and cuttings was received to Åbo Botanic Garden. Those were arranged by Count Vladimir Grigorievich Orlov, botanist Christian Friedrich Stephan, gardeners Johann Peter Buek and Jason Petrow in St. Petersburg, and probably by Count Alexei Razumovsky and Professor von Fischer in Moskow. In 1821 Sahlberg established *Societas pro Fauna et Flora Fennica*, to increase knowledge on Finnish animals and plants. After the Great Fire of Åbo, everything had to be re-built in Helsinki, the new capital of Finland since 1812. University had to move in 1828. In Helsinki Sahlberg built up new collections, first by selling his private plant collection consisting of 5 132 specimens to the Alexander University of Finland. Others collections were also bought. At the time of his retirement in 1841, the Herbarium consisted of ca. 40 000 specimens, Botanic Garden of 5 000 species. After retirement, Sahlberg establish an orchard to Yläne, SW Finland, at his Uusikartano estate. It was the largest orchard of its time in Finland, with over 1 200 apple trees.

Introduction

Carl Reinhold Sahlberg (Fig. 1) was born at Eura, SW Finland, on 22 January 1779. His parents were Second Lieutenant Reinhold Sahlberg and Lovisa Katharina Polviander. In 1807 Sahlberg married Johanna Sofia Björkforss. He died at Yläne, Uusikartano, on the 10 October 1860.

On 5 February 1795 Sahlberg graduated from Åbo secondary school. He studied natural sciences from 7 February 1795 to 16 June 1802 at the Åbo Akademi. For historical names of the Academy, see footnote in Väre (2014a). Sahlberg specialised in natural sciences and medicine under the supervision Carl Niclas Hellenius (1745–1820), Professor in Economic and Natural History from 1793 to 1816. However, he first defended his Pro Exercitio -thesis "On reasons that prevent the favourable development of public insti-

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Herbarium acronyms follow *Index Herbariorum*.

tutions” (Tolpo & Sahlberg 1796) to forthcoming vicar of Sauvo, Martinus Johannes Tolpo (1768–1830). Sahlberg obtained his Phil. Cand. -degree on 4 June 1801. Sahlberg defended his Pro Gradu -thesis ”Are lichens dangerous to trees” (Hellenius & Sahlberg 1802) to Hellenius on 10 June 1802 (Fig. 2), and obtained his Phil. Mag. -degree in 15 June 1802 as head of the year. Triumphal Master 50 years later, in 1853.

Sahlberg supervised a doctoral theses ”On the development of cryptogam knowledge” (Sahlberg & Rönnbäck 1804) (Fig. 3) in pursuit of a docentship at Åbo Akademi, on 6 June 1804. It was defended by forthcoming lecturer at Åbo secondary school, Gustaf Vilhelm Rönnbäck (1782–1834). When Demonstrator in Botany at Imperial Åbo Academy, Fredrik Wilhelm Radloff (1766–1838) resigned (Väre, this volume), Sahlberg continued with medical studies to be qualified in that position. BM 5 June 1806. Lic.Med. 15 June 1810, after having defended his thesis ”The addition of some medicines to Swedish pharmacopoeia” (Haartman & Sahlberg 1810), under supervision of Professor of Practical Medicine Gabriel Erik von Haartman (1757–1815). In order to obtain doctorship in Medicine at Åbo Akademi, Sahlberg supervised a thesis ”On observations on northern barley crop maturation rates and utility of different cultivars in agriculture” (Sahlberg & Utter 1817) (Fig. 4). Doctor in Medicine in 6 November 1817.

Career

Curator of Åbo Akademi students’ association from Satakunta region (1800–1817) and later its’ inspector (1828–1841). Temporary Amanuensis (1799–1800) at the Botanic Garden of Åbo Academy, temporary Demonstrator in Botany 1805–1806, Demonstrator in Botany 1810–1813, Associate Professor in Natural History and Museum Inspector 1813–1816, temporary Professor in Natural History 1816–1818, Professor 1818–1841 (since 1828 professorship of botany and zoology). His inaugural lecture was entitled *De mirando in plantis ope insectorum fecundandis* (”On the miracle of plant pollination by insects”). Upon retirement Sahlberg continued to act as inspector of the museum and the Botanic Garden,



Fig. 1. Carl Reinhold Sahlberg (1779–1860) painted by I. E. Lind.

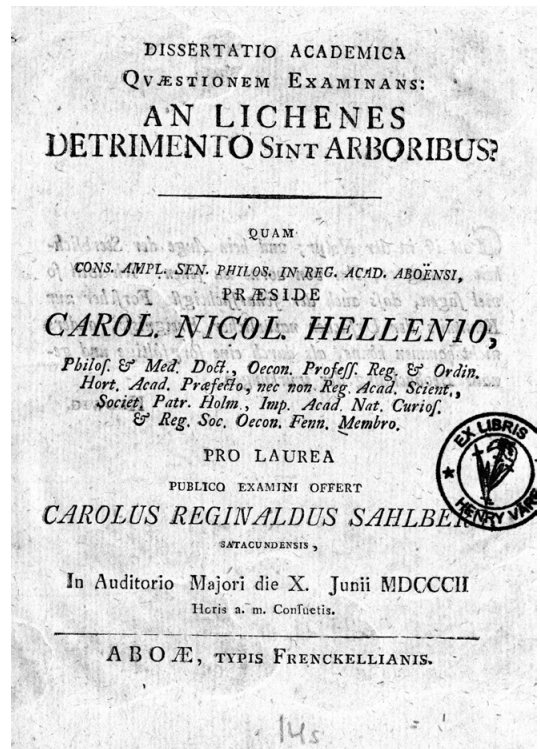


Fig. 2. Title page of thesis *An lichenes detrimento sint arboribus*, a thesis defended by Sahlberg.

as well as the member of the consistory concerning on their matters. After retiring Sahlberg moved to his Yläne Uusikartano estate.

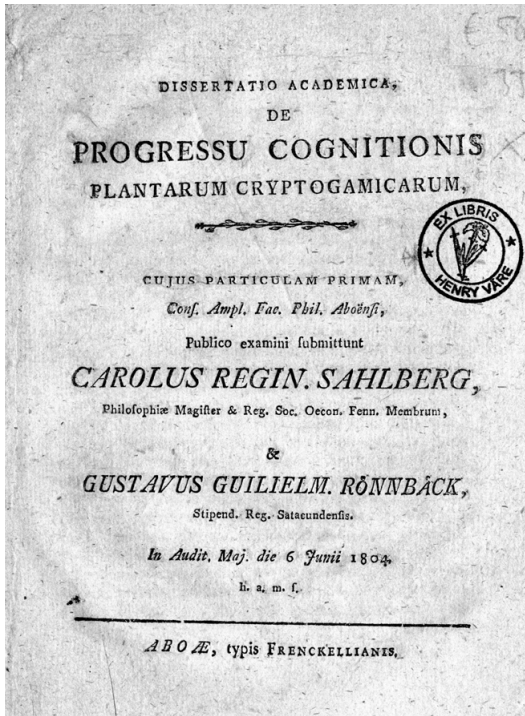


Fig. 3. Title page of thesis *De progressu cognitionis plantarum cryptogamicarum*, a thesis defended by Rönnbäck.

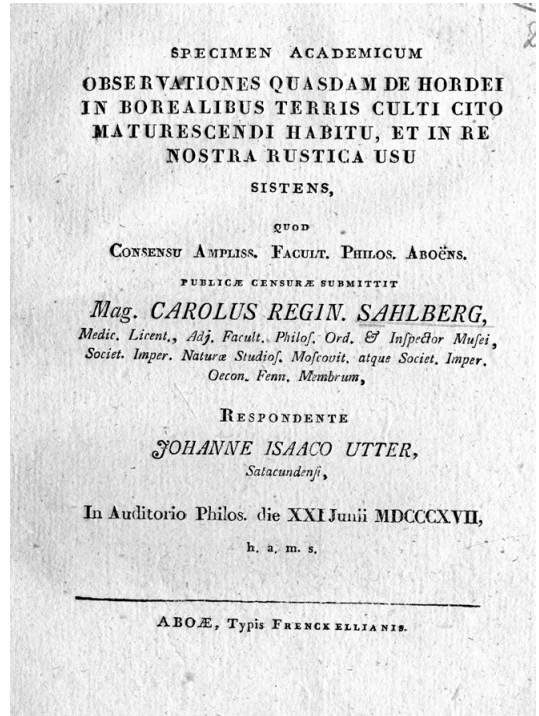


Fig. 4. Title page of thesis *Observationes quasdam de hordei in borealibus terris culti cito maturescendi habitu, et in re nostra rustica usu sistens*, a thesis defended by Ursin.

Theses

Sahlberg's Pro Gradu -thesis "Are lichens dangerous to trees" (Hellenius & Sahlberg 1802) (Fig. 2) concluded that lichens have no roots, consequently they are not parasitic, as was often believed. Lichens depend on air moisture and protect trunks from drying. Most likely lichens are not harmful, and are completely natural on the trunks of trees. This thesis was the first lichenological study in Finland (Sahlberg 1803b). Sahlberg had already worked with practical questions concerning lichens. He was employed 1801–1802 by the Royal Finnish Economy Society as an advisor on the use of lichens as substitute for regular food (Hjelt 1896).

"On the development of cryptogam knowledge" (Sahlberg & Rönnbäck 1804) briefly presents early cryptogamists and cryptogam literature, like Paulo Bocconi's (1633–1704) *Icones et descriptiones rariorum plantarum* (1674) and *Museo di pianti rare* (1674), Hieronymos

Bock (1498–1554), Jacob Breynii's (1637–1697) *Centurium plantarum exoticarum* (1697), Caspar Bauhin (1560–1624), Johannes Bauhin (1541–1621), Clusius' (1526–1609), John Gerard (1545–1607/12), Conrad Gesner (1516–1565), Georg Marcgrave's (1610–1644) *Iter Brasiliae* (1644), John Parkinson (1567–1650), Johan Ray (1628–1705), Robert Morison (1620–1683), Valerius Cordus (1515–1544) and Hieronymos Bock alias Tragus' *Neue Kreüterbuch vom Unterscheide, Wirkung und Nahmen der Kreüter, so in Deutschland wachen* (1539).

"Observations on northern barley crop maturation" (Sahlberg & Utter 1817) (Fig. 4) was conducted at Sahlberg's Uusikartano estate. He cultivated barley of both northern and southern origins. The northern one ripened in 78 days and the southern one in 92 days. Sahlberg concluded that the northern one was adapted to the shorter nights of the north.

Sahlberg and Botanic Garden

While working as Demonstrator in Botany Sahlberg was given responsibility over Academy Garden by Professor Hellenius. In 1809 Finland was incorporated into the Russian Empire as an autonomous Grand Duchy. Chancellor of the new Imperial Academy of Åbo, Mauri Kustaa Armfelt (1757–1814) believed in the abilities of Sahlberg and encouraged the Bishop and Vice Chancellor of Åbo Akademi, later Archbishop Jakob Tengström (1755–1832), to promote his career and opportunities to travel abroad (Kontkanen 1929). The new Imperial University received new positions, and in 1813 Sahlberg was nominated as Associate Professor in Natural History and Museum Inspector.

The same year, 1813, Sahlberg followed the recommendation by Chancellor Mikhail Speransky (1771–1839) to visit St. Petersburg to obtain specimens to the Botanical Museum and Gardens, during which he also increased his person-

al biological collections. Sahlberg became familiar with many researchers including Christian von Steven (1781–1863).

Travel to St. Petersburg was fruitful, 1 500 species of seeds, 240 roots and cuttings was received to Åbo Botanic Garden. Those were arranged by Count Vladimir Grigorievich Orlov (1743–1831), botanist Christian Friedrich Stephan, gardeners Johann Peter Buek and Jason Petrow (presented later in article) in St. Petersburg, and also by Count Alexei Razumovsky (1748–1822) and Professor Ferdinand Ernst Ludwig von Fischer (1782–1854) in Moscow.

Donated plants were soon listed in three theses supervised by Demonstrator in Botany Lars Johan Prytz (1789–1823) (Väre 2014b). The first thesis lists 48 seedlings and roots (Prytz & Bonsdorff 1814), the second (Prytz & Baeck 1814) 190 seedlings and 683 species of seeds, the third 725 sets of seeds (Prytz & Hjertman 1814) (Fig. 5). Prior to the visit the number of species in the Academy Gardens was 1 000, in 1814 already 3 000 (*Helsingfors' Morgonblad* 9, 1.2.1836). Sahlberg's successor as Demonstrator, L. J. Prytz (Väre 2014b), inherited a fine Garden. However, Prytz died in 1820, and Sahlberg had to take responsibility again.

In 1820 Sahlberg was granted permission to expand the Academy Gardens to the adjacent Bishop's field. However, this option was not used. The Great Fire of Åbo in 1827 changed everything, 75% of the city, including the Garden, was destroyed. This prompted the Imperial degree to relocate the Academy from Åbo to Helsinki, the new capital of Finland since 1812, in 1828. Survived plants were sent to the new Botanic Garden at Kaisaniemi. In 1831 the new Imperial Alexander University's consistory decided to auction the remaining stone building materials of the old garden (*Åbo Underrättelser* 85:3, 26.10.1831). This was the end, and a new beginning of the Botanic Garden in Finland.

Moving to Helsinki

Sahlberg's task was to establish a new Botanic Garden in Helsinki. It was built 1829–33 to Kaisaniemi, an area then outside the city. However, there had been a garden in Kaisaniemi (Fig.

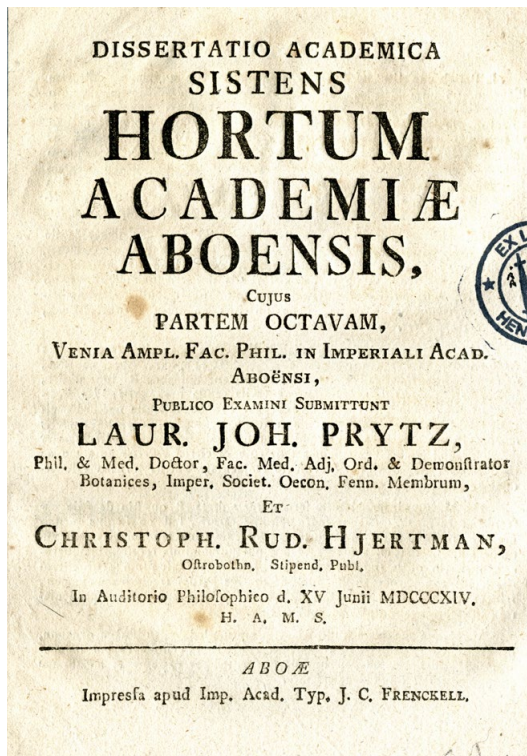


Fig. 5. Title page of thesis *Sistens hortum Academiae Aboensis VIII*, a thesis defended by Hjertman.

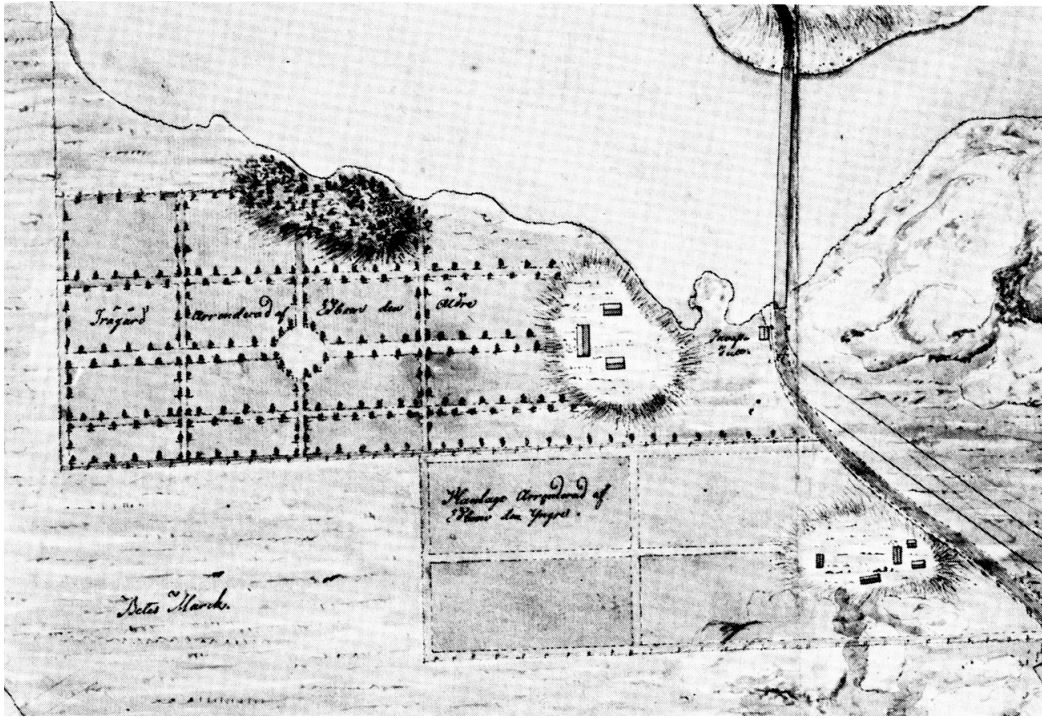


Fig. 6. Kaisaniemi gardens as owned by Boije and later Edbom in 1810, 19 years before Botanic Garden were established. Map drawn by Anders Kocke.

6) since 1763, originally owned by the Governor of Nyland, Hans Henrik Boije (1716–1781). After retirement in 1773 Boije transferred the rights to keep the garden to his gardener Eric Edbom (1744–1814) and to his son Fredrik Edbom († 1824). By the decision of Emperor Alexander II this became the new Botanic Garden in 1829. The area of systematic garden was planned to be 1.5 ha. Arboretum was also needed as well as greenhouses. Sahlberg's idea was not modest, the greenhouses should be 120 m long! In addition, staff apartments were needed (Elfving 1933).

Head gardener of St. Petersburg's Imperial Botanic Garden, Franz Falderman (1799–1838), designed the Kaisaniemi garden (Fig. 7). He visited Helsinki in the spring of 1829 (*Helsingfors Tidningar* 38:4, 20.5.1829). The head gardener of Kaisaniemi, Gustaf Adolf Lindstedt (1800–1863), had visited the Botanic Garden of St. Petersburg as a guest of Falderman and Professor von Fischer in 1828–1829.

Department of Botany and Zoology was also established to Kaisaniemi. The main building was planned by the architect Riegler from St. Peters-

burg. However, the gardener's apartment was built first, in 1830–1831, and it was the first building of the new Alexander University. Greenhouses (Fig. 8) were opened in 1832, designed by architect Carl Ludvig Engel (1778–1840), and constructed by commercial counsellor Fredrik Adrian Gadd (1794–1871). Sahlberg himself lived in the Kaisaniemi main building until 1841.

Sahlberg estimated that 3 000 species would be needed to Kaisaniemi. Plants were received from Åbo Academy Gardens [1829], Tartu Botanic Garden [1833–1836] and greenhouse plants from St. Petersburg [1833] (Havas-Matilainen & Uotila 2012). In June 1832, head gardener Gustav Adolf Lindstedt brought 800 species from St. Petersburg. Plants were also bought from Lübeck and Hamburg (Elfving 1933). Market gardener Nathusius from Germany donated 400 trees and shrubs in summer 1834, mining counsellor Johan Jacob von Julin (1787–1853) 252 seedlings from his Fiskars estate in SW Finland (*Helsingfors Tidningar* 101: 1, 24.12.1842, Linkola 1933, Simonen 1961:96). Furthermore, the Botanic Garden received 150 sets of seeds from Van

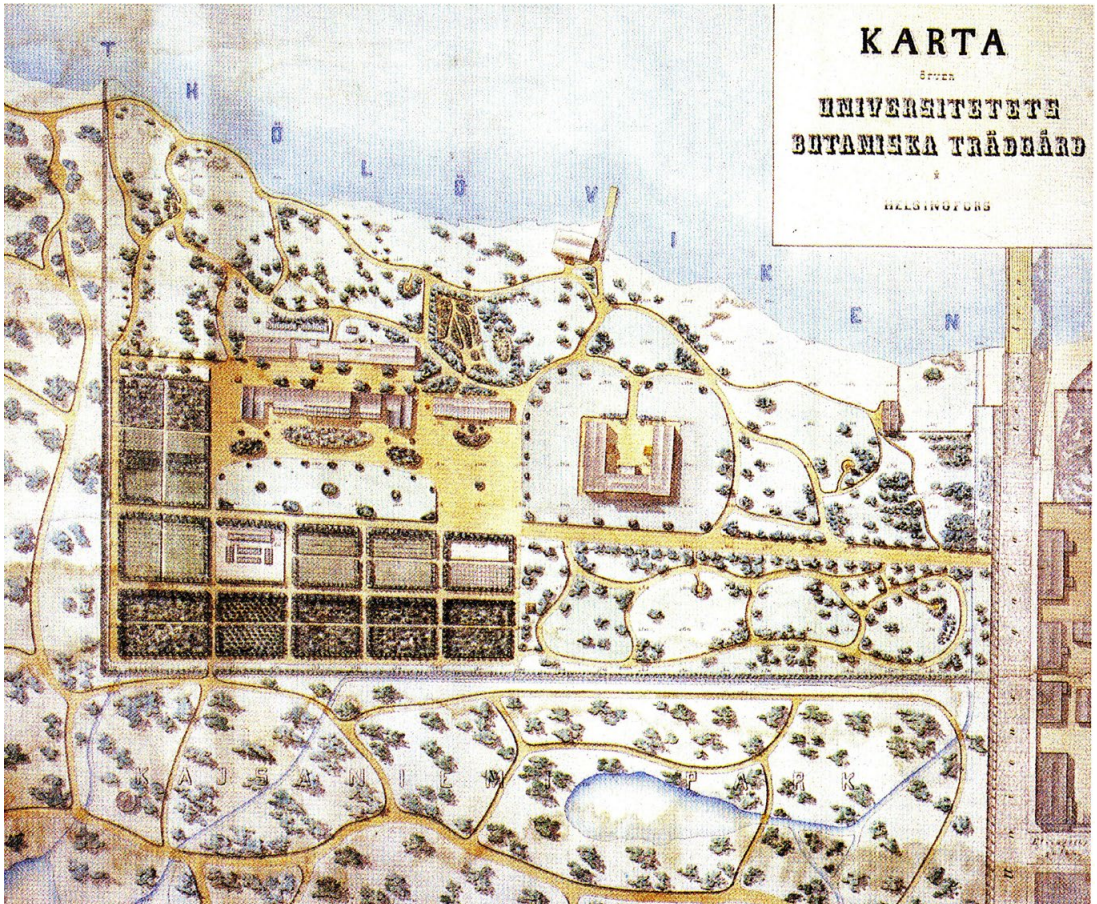


Fig. 7. Map of Botanic Garden in 1874 in a similar shape than in the time of Sahlberg.

Diemen's Land (Tasmania) (Elmgren 1851). Kaisaniemi Botanic Garden was soon rich in species, and new staff, such as a gardener, were employed (*Finlands Allmänna Tidning* 23.9. and 25.9.1833). Opening ceremonies were held in 1833 (Elfving 1918). As soon as in 1835 the Kaisaniemi Garden was as rich in species as the old Åbo Akademi had been. At the end of 1830's the number of taxa was 5 000 (*Åbo Tidningar* 34:1, 1.5.1839), more than today.

Societas pro Fauna et Flora Fennica

Åbo Akademi, and Sahlberg especially, began to arrange collecting expeditions for biological materials in 1810's. During one of these to Yläne,

an idea to establish a society for biological sciences was brought up. *Sällskapet för finsk zoologi och botanik* was established in 1821, since 1829 *Societas Pro Fauna et Flora Fennica* ("Fauna et Flora society") (Fig. 9). Sahlberg was the chair 1821–41. Number of members reached 450 in 15 years (*Helsingfors Tidningar* 44:1–2, 7.6.1837). Other founding members were forthcoming Professor in Theoretical and Practical Medicine Mathias Kalm (1793–1833) (Väre 2015c), Doctor of Philosophy Wilhelm Fredrik Brummer (1798–1837), forthcoming hospital physician at St. Petersburg Sigfrid Karl Matias Tams (1803–1839), forthcoming district physician Adolf Wilhelm Dammert (1800–1858), forthcoming Professor in Zoology Alexander von Nordmann (1803–1866), forthcoming chamber Counsellor of National

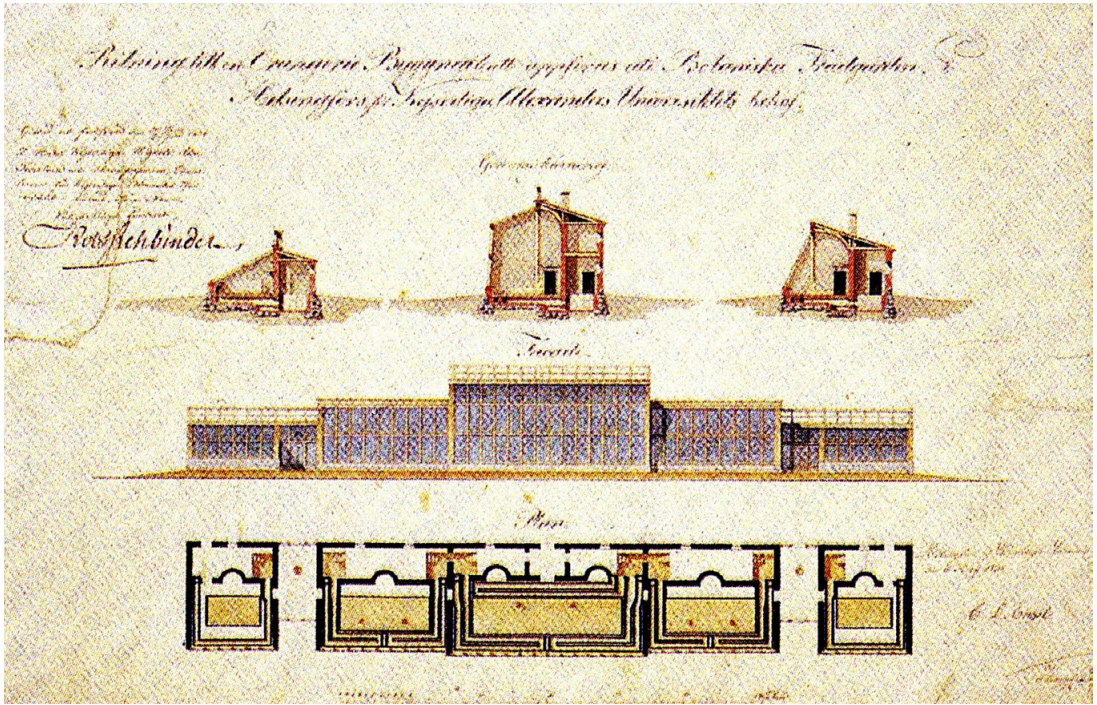


Fig. 8. Greenhouses drawn by Carl Ludvig Engel in 1830 were not realised in a size Sahlberg wished.

Board of Health Frans Johan Rabbe (1801–1879) and hospital physician Fredrik Gabriel Sanmark (1798–1886). Sanmark wrote Sahlbergs necrology (Sanmark 1861). Sahlberg was also a founding member of the Finnish Garden Society in 1837 and of The Finnish Society of Sciences and Let-

ters in 1838. *Societas pro Fauna et Flora Fennica* is the oldest active scientific society in Finland.

Fauna et Flora Society and the Botanical Museum

Already as a young student Sahlberg enjoyed collecting plants and insects. For example specimens of *Elatine alsiniastrum* and *Hippuris tetraphylla* collected in early 1800's at Åbo were sent as exchange to Uppsala (UPS). It is likely that many specimens collected before the Great Fire of Åbo are at UPS. Founding members of the *Fauna et Flora Society*, Dammert and Tams, visited the Crimean Peninsula and Mingrelia (Georgia) in 1824–1826 and reported to Sahlberg, in a letter dated 1 December 1824, having a collection of 10 000 plant specimens (Hjelt 1896, Saalas 1955), after having been advised by the Finnish born famous collector and taxonomist Christian von Steven, who resided in Simferopol (Saalas 1955). Tams with Sanmark had made an expedition to Northern Finland already in 1820 (Hjelt 1896). It took considerably longer than expected



Fig. 9. Logo of *Societas Pro Fauna et Flora Fennica*, established by Sahlberg 1821.

Table 1. Main vascular plant collections of Botanical Museum University of Helsinki 1827–1841. Herbarium Antiquum bolded.

1828 Sahlberg, Carl Reinhold	5 132
1829 Bridel-Brideri, Samuel Elisée, de	25 000
1832 Hast, Herman Rufolf	2 690
1834 Acharius, Erik	2 015
1834 Schjerfbeck, Sven	3 896
1834 Etholén, Arvid Adolf	428
1834 Sahlberg, Reinhold Ferdinand	122
1835 Vienna, Pareys	273
1836 Schultén, Nathanael Gerhard	400
1836 Ilmoni, Immanuel	195
1836 Larsen	70
1841 Reichenbach, Ludwig	
	40 221

Table 2. Number of specimens once on other herbaria, prior to Herbarium Sahlbergianum.

Herbarium Alstroemerii	59
Herbarium Bueckii	78
Herbarium Dahlianum	258
Herbarium Goldbachii	88
Herbarium Hellenii	572
Herbarium Hornstedtii	9
Herbarium Kalmianum	5
Herbarium Linnaei	42
Herbarium Linnaei filius	12
Herbarium Murrayii	141
Herbarium Radloffii	81
Herbarium Rutstroemii	74
Herbarium Stephanii	31
Herbarium Stevenii	25
Herbarium Swartzii	210
Herbarium Thunbergii	171
Herbarium Trinii	115
Herbarium Vahlil	46
Herbarium Wahlenbergii	107

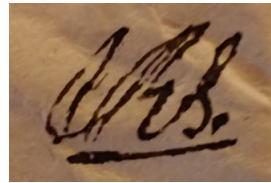


Fig. 11. Carl Reinhold Sahlberg marked at least most of his plant sheets with his initials CRS.

Table 3. Number of specimens countrywise based on information in labels.

Australia	2
Austria	10
Brasil	3
Canada	6
China	28
Cuba	1
Denmark	20
Dominica	3
England	4
Estonia	15
Finland	776
France	17
France (Saint Barthélemy)	87
Georgia	2
Germany	16
India	7
Indonesia (Java, Sumatra)	8
Italy	94
Jamaica	9
Japan	1
Lithuania	1
Mauritania	1
Netherlands	12
Norway	13
Portugal	55
Russia	396
South Africa	192
Spain	11
Sri Lanka	4
Sweden	242
Switzerland	17
Tunis	13
Ukrania	3
United States	9
	2078

for the specimens of Dammert and Tams to arrive to Åbo, but when they did, they were still received too early. All specimens were destroyed eight months later in the Great Fire of Åbo (Elfving 1928a,b, Heikel 1940, Saalas 1955) together with the Åbo Akademi Herbarium. Johan Magnus af Tengström (1793–1856), later Professor in Botany and Zoology, draw from memory a list (National Library) of the destroyed plants in the collections (9210 species) of the Botanical Museum at Åbo. In those days the museum policy was that one specimen per species was adequate, others were treated as duplicates and often donated to other herbaria or botanists. Consequently, a large number of species were donated to the museum after the fire. The number of such specimens was ca. 15 000 (bolded) in the 1830's (Table 1). This part of the collections at Botanical Museum, University of Helsinki (H), is called Herbarium Antiquum. It is defined as specimens which existed or were collected in Finland prior to the Great Fire of Åbo in 1827. When Sahlberg retired, the size of the vascular plant collections was ca. 40 000 specimens (Table 1).

Although young Sahlberg was initially a botanist in the sense of the period of utility, he was interested in insects, especially the Coleoptora, from very early on. He presented in *Allmän Litteratur-Tidning* the book on insects by Johan Christian Fabricius (1745–1808) (Sahlberg 1803a). Insects and plants in mind, he began a correspondence with Professor Carl Peter Thunberg (1743–1828) at Uppsala in 1803 (Hjelt 1896, Kontkanen 1927, 1929). Sahlberg sent a list of his

plant collections to Thunberg in 1804, with specimens *Elatine* and *Hippuris* mentioned above, and also *Calypso bulbosa*, a great rarity in those days (Hjelt 1896).

His most important work was the study on Finnish beetles, which was released in 1817–1839 as 40 theses in a series *Entomologica insecta Fennica enumerans*, 846 pages, with 1 500 species presented. In total Sahlberg supervised 65 theses (Hjelt 1909, Kontkanen 1929, Vallinkoski 1965), of which only two were "botanical" in content.

Herbarium Sahlbergianum

Loss of the Åbo Akademi's collections was a major disaster to Finnish biology, and especially to the key person for the substance, Professor Sahlberg. Sahlberg kept his private collections in his city apartment, but was gone when the fire broke out. Fortunately some of Sahlberg's students and a keen insect collector Maria Astrén were nearby and rescued the largest part of the collections. It consisted of 5 132 vascular plant specimens, many marked with CRS (Fig. 11), of 4 336 species. It included specimens collected by himself, exchange material and donations by many amateur and professional botanists (Tables 2, 4). Collections were international (Table 3). Sahlberg sold his collections in 1828 to the University for 7 000 rubles (Elfving 1918, Hintikka 1921). With that money, Sahlberg established a fund aimed to support collecting expeditions.

Table 4. Origin and number of specimens in Herbarium Sahlbergianum. A = number of specimens. B = person briefly presented in text.

donated by	to and by	to and by	to and by	to and by	to and by	to	collector	donated to S	area	A	B
Acharius, Erik (1757-1819)								1822		10	1
Afzelius, Adam (1750-1837)	Sahlberg									37	2
Afzelius, Pehr (1760-1843)										2	
Agardh, Carl Adolph (1785-1859)									Sweden	31	3
Ahlström	Sahlberg									3	
Aiton, William (1731-1793)	Dahl	Sahlberg							Kew Bot. Gardens	3	4

Table 4 continued

donated by	to and by	to and by	to and by	to and by	to and by	to	collector	donat- ed to S	area	A	B
Alm	Sahlberg									1	
Alstroemer, Claes (1736-1794)	Dahl	Hellenius	Sahlberg						Italy Mon- te Baldo, not all	3	5
Alstroemer, Claes (1736-1794)	Dahl	Sahlberg							Italy Mon- te Baldo, not all	4	
Asp	Sahlberg									2	
"B"	Sahlberg									132	
Bache	Hellenius	Sahlberg								1	
Barckenbom	Dahl	Hellenius	Sahlberg							1	
Bergmark	Sahlberg							1805		63	
Bielke, Sten Carl (1709-1753)	Hast	Sahlberg								1	
Billberg, Gustaf Jo- han (1772-1844)	Sahlberg						Billberg	1806	Sweden, Gotland	13	6
Björkgren	Dahl	Hellenius	Sahlberg						China, Hainan	3	
Björkgren	Dahl	Sahlberg							China, Hainan	2	
Bladh, Peter Johan (1746-1816)	Sahlberg								China, South Af- rica	7	7
Bladh, Peter Johan (1746-1816)	Dahl	Sahlberg					Bladh		China	1	
Blomberg, Petter (†1795)	Sahlberg									5	8
Boeber, Johann, von (1746-1820)	Sahlberg							1812	Russia	22	9
Boström	Sahlberg									1	
Brander, Fredrik Reinhold (1730- 1800)	Sahlberg							1799		1	
Buek, Johann Peter (1769-?)	Sahlberg							1813	Russia, St. Petersburg, Hort. Count Vladimir Grigorie- vich Orlov	78	10
Carenius	Sahlberg							1800		1	
Caström, Samuel Niklas (1763-1827)	Sahlberg									2	11
Castrén, Matthias (1764-1845)	Sahlberg							1802		2	12
Cirillo, Maria Leone (1739-1799)	Dahl	Hellenius	Sahlberg						Italy, Ne- apol	1	
Dahl, Anders (1751-1789)	Hellenius	Sahlberg							Brasil 2, Gothen- burg Hort. Christinedal 4, Hort. Ups. 1	106	13
Dahl, Anders (1751-1789)	Hellenius	Steven	Sahlberg							14	
Dahl, Anders (1751-1789)	Molin	Hellenius	Sahlberg							3	
Dahl, Anders (1751-1789)	Schultén	Hellenius	Sahlberg							2	
Dannberg	Sahlberg									1	
Dierk	Sahlberg								Switzerland	2	

Table 4 continued

donated by	to and by	to and by	to and by	to and by	to and by	to	collector	donat- ed to S	area	A	B
Ekeberg, Carl Gustav (1716-1784)	Swartz	Sahlberg							China, In- donesia, South Af- rica	6	14
Ekholm, Barth. (Bertil Rudolf 1771- 1834)	Sahlberg									8	
Erström	Sahlberg							1810	Portugal	22	25
St. Yves Satubal district	Sahlberg							1805, 1806	Portugal		31
Euphrasén, Bengt Anders (1756-1796)	Forsström	Sahlberg						1806	Dominica 1788, Saint Barthéle- my	5	15
Fallén, Carl Fredrik (1764-1830)	Sahlberg							1805		64	16
Fischer, Friedrich Ernst Ludwig, von (1782-1854)	Sahlberg								Altai		1
Forselles, Jakob Henrik, af (1785-1855)	Sahlberg						Forselles	1805	Finland, Sweden	25	17
Forsström, Johan Erik (1775-1824)	Sahlberg						For- sström	1806	Saint Bar- thélemy, Finland, France, Sweden	164	18
Gadd, Pehr Adrian (1761-1787)	Sahlberg									3	19
Gadelius, Erik (1778-1827)	Sahlberg							1801- 1803		5	20
Gevalin	Sahlberg									1	
Goldbach, Carl Ludwig 1793-1824	Sahlberg							Russia	Sibiria	88	21
Grape, Erik J. (1755-1808)	Sahlberg						Grape	1802	Finland, Enontekiö	1	
Grönberg	Sahlberg										2
Grönlund	Sahlberg							1813	Finland, Turku	1	
Grönstrand	Sahlberg							1790- 95	South Af- rica, Caput Bonae Spei	11	22
Gyllenhaal, Leonard (1752-1840)	Sahlberg									1	
Haartman	Sahlberg							1810- 12		1	
Hellenius, Carl Niclas (1745-1820)	Molin	Sahlberg								3	23
Hellenius, Carl Niclas (1745-1820)	Sahlberg										492
Hjerpe, Gustaf Adolf (1782-1826) in 1801	Sahlberg									2	
Hornemann, Jens Wilken (1770-1841)	Sahlberg								Denmark	20	24
Hornstedt, Clas Fredrik (1758-1809)									Finland, Indonesia	9	25
Hortus Bononiense (Bologna)	Dahl	Sahlberg								1	
Höberg	Sahlberg									1	
Höfen	Sahlberg								Asutria	1	

Table 4 continued

donated by	to and by	to and by	to and by	to and by	to and by	to	collector	donated to S	area	A	B
Trinius, Carl Bernhard, von (1778-1844)	Sahlberg							1813	Several countries	115	47
Utter, Johan (1776-1824)	Sahlberg							1801		5	
Vahl, Martin (1749-1804)	Dahl	Hellenius	Sahlberg						Tunis	22	48
Wahlenberg, Göran (1780-1851)	Ilmoni	Sahlberg					Wahlenberg	[1813]	Several countries	36	49
Wahlenberg, Göran (1780-1851)	Murray	Sahlberg					Wahlenberg	1835	Norway, Sweden	6	
Wahlenberg, Göran (1780-1851)	Sahlberg						Wahlenberg		Several countries	65	
Wallstedt	Sahlberg							1800		1	
Winbom, Johan (1746-1826)	Sahlberg								Sweden	10	50
Wänman, Carl Henriksson (1733-1797)	Dahl	Sahlberg								25	51
										4785	

1. Erik Acharius (1757–1819), Swedish botanist who pioneered the taxonomy of lichens and is known as the "father of lichenology". Director of the new Vadstena Hospital in 1795, titular Professor in 1803. Member of the Royal Swedish Academy of Sciences in 1796. The vascular plant collections of Acharius are distributed over several herbaria H, LD, UPS. Herbarium Sahlbergianum (HS) ten specimens donated to Sahlberg in 1822, when he visited Sweden. No collecting information on labels (NCI).

2. Adam Afzelius (1750–1837), Swedish botanist, student of Carl Linnaeus. Teacher of oriental languages at Uppsala University 1777, Demonstrator of Botany 1785. In Sierra Leone 1792–93 and 1794. Botanical collections later acquired by Uppsala University. HS mainly typical Scandinavian plants and few exotics. NCI. A few sheets are marked Pet. Afzelius, most likely Pehr Afzelius (1760–1843), Swedish physician and Professor in Uppsala.

3. Carl Adolph Agardh (1785–1859), Swedish botanist who specialised in algae, eventually bishop of Karlstad. Teacher of mathematics at Lund University 1807, Professor of Botany and Natural Sciences 1812, member of the Royal Swedish Academy of Sciences in 1817. HS 31 specimens, perhaps donated to Sahlberg in 1822 when he visited Sweden. All collected in Sweden, 28 in Scania.

4. William Aiton (1731–1793), Scottish-born botanist and gardener. Assistant to Philip Miller at Chelsea Physic Garden 1754, Superintendent of the Kew Botanic Garden 1759–1793. HS three common species collected at Kew.

5. Baron Claes Alströmer (1736–1794), Swedish naturalist, student of Carl Linnaeus. Established a Botanic Garden and natural museum near Gothenburg managed by the notable botanist Anders Dahl (Väre 2015a), another student of Linnaeus. HS 59 specimens brought to Finland by Dahl, many of which once at Herbarium Linneanum.

6. Gustaf Johan Billberg (1772–1844), Swedish lawyer and naturalist, member of county administrative board in Visby 1798. Collected in Gotland 1799. Material was used by Wahlenberg in *Utkast till Gottlands flora* 1806. HS specimens from Gotland.

7. Peter Johan Bladh (1746–1816), Finnish businessman and politician, supercargo in Swedish East India Company 1777–83, five times in China, accompanied Anders Sparrman (1748–1820) to Cape Town 1772. HS eight specimens collected in China or Cape area.

8. Petter Blomberg (†1795), gardener at Åbo Akademi. HS five specimens, e.g. *Ocimum prostratum* and *Sorbus aria* collected at the garden.

9. Johann von Böber (also Boeber and Berber, 1746–1820), German teacher, entomologist

and botanist, director of schools in Yekaterinoslav Governorate, Professor at St. Peter's College Jelgava, advisor to the Academy of Sciences in St. Petersburg 1796. HS 22 specimens collected in Russia. Travelled 1792 to southern Russia and the Crimean peninsula (Trautvetter 1837). *Ammi boeberi* was described by Hockert at Åbo Akademi to honour him (Väre 2014a). In lectotypification erroneously *A. boeberi* (Väre 2014a).

10. Johann Peter Buek (1769–?), trade gardener in Hamburg, later Imperial Russian gardener in St. Petersburg. Sahlberg visited St. Petersburg in 1813, and either collected 78 specimens in the garden, or specimens were given by Buek.

11. Samuel Niklas Casström (1763–1827), member of Royal Swedish Academy of Sciences since 1812, Inspector of Academy's Botanical Museum 1820, later Swedish Museum of Natural History. His main botanical collection is deposited there. HS two specimens. NCI.

12. Matthias Castrén (1764–1845), vicar in Kemi, Northern Finland. A keen amateur botanist. HS *Silene uniflora* and *Tofieldia borealis*, probably collected at Kemi region.

13. Anders Dahl (1751–1789), Demonstrator in Botany (1786–1789) at Åbo Akademi (Väre 2015a), donated an herbarium of 6 000 specimens, of which ca. 1 000 had once belonged to Herbarium Linnaeanum, but later donated to Claes Alströmer, prior to his arrival to Åbo. HS 256 specimens once at Herbarium Dahlianum, e.g. *Collinsonia canadensis* and *Hypericum ascyron* collected by P. Kalm in North America, seven specimens collected by Thunberg in South Africa, one in Japan, five by Björkgren in China, eight by Martin Vahl in Tunis.

14. Carl Gustaf Ekeberg (1716–1784), Swedish sea captain and travel writer. Since 1742 in service of Swedish East India Company. HS two specimens from each China, South Africa and Sumatra.

15. Bengt Anders Euphrasén (1756–1796), Swedish botanist, with support from Royal Swedish Academy of Sciences in the Antilles, including Saint Barthélemy and Saint Christopher islands (latter today Saint Kitts and Nevis) in 1788. HS five specimens, one collected in Dominica 1788, others Saint Barthélemy.

16. Carl Fredrik Fallén (1764–1830), Swedish botanist and entomologist, member of Royal

Swedish Academy of Sciences 1810. HS 84 specimens, NCI.

17. Jakob Henrik af Forselles (1785–1855), bergmeister and member of Royal Swedish Academy of Sciences 1817, member of Linnaean Institute established at Uppsala in 1800 (Väre 2007), described as new to science *Artemisia coarctata* and *Poa remota*. HS 25 specimens collected in Finland (Nylandia and Karelia australis) and Sweden, e.g. *Scolochloa festucacea* at Kymmene (Finland).

18. Johan Erik Forsström (1775–1824), Swedish pastor and naturalist from Dalarna. Accompanied Göran Wahlenberg on an expedition through Fennoscandia in 1800. Pastor in Saint Barthélemy 1802–1815. HS 164 specimens, 14 from Lapland, of which four collected at Enontekiö, NW Finland, viz. *Hierochloa alpina* (Mt. Lammastunturi), *Luzula parviflora* (Peerakoski rapids), *Luzula spicata* (by Lake Kelottijärvi) and *Bartsia alpina* (Markkina village), in 1806 (Hjelt 1896) and 1809 84 specimens from Saint Barthélemy, forwarded by Swartz.

19. Pehr Adrian Gadd (1761–1787), first Professor in Chemistry at Åbo Akademi. HS three specimens with initials PAG. NCI.

20. Erik Gadelius (1778–1827), Swedish doctor, M.D. at Åbo Akademi in 1802. Member of the Royal Swedish Academy of Sciences 1817. HS five specimens. NCI.

21. Carl Ludwig Goldbach (1793–1824), German botanist in Russia. He was an outstanding plant taxonomist. Goldbach's main herbarium, ca. 10 000 specimens, is at MW. HS 88 specimens, most collected in 1822 at Tscherkash [Russia, Rostov Oblast, Cherkasskaya].

22. Dominus Grönstrand. HS 11 specimens from South Africa. This is perhaps doctor Carl F. Gröndahl (1760–1816), born at Åbo, who collected in 1790–95 in South Africa employed by Swedish East India Company. Twice in East India.

23. Carl Niclas Hellenius (1745–1820), Professor of Economics to whom Sahlberg defended his thesis and whom he succeeded as professor. HS 572 specimens. Mainly NCI.

24. Jens Wilken Hornemann (1770–1841), Danish botanist, lecturer at the University of Copenhagen Botanic Garden from 1801. Published *Flora Danica* after the death of Professor Martin

Vahl in 1804, Professor of Botany from 1808, director of the Botanic Garden from 1817. HS 20 specimens, collected at Copenhagen, most likely in the Botanic Garden.

25. Immanuel Ilmoni (1797–1851), Professor in Medicine at Imperial Alexander University. Travelled in Europe. Founding member of *Societas pro Fauna et Flora Fennica*. HS three specimens collected in Italy. Wahlenberg donated 36 specimens to Ilmoni.

26. Clas Fredrik Hornstedt (1758–1809), Swedish naturalist, taxonomist, botanical illustrator and student of Carl Peter Thunberg. Travelled with Johan Daniel Lundmark, Falroth, Olof and Johan Swartz in Lapland 1780. His 1781 dissertation dealt with plants collected in Japan by Thunberg. In Batavia 1783–84. Supported by the Batavian Society of Arts and Sciences collected natural history specimens. His collection also contained a set of medical drawings based on a Japanese medical text. Member of the Royal Swedish Academy of Sciences 1809. Later head physician at Russian hospital in Suomenlinna fortress, Helsinki. HS nine specimens, Finland, Indonesia.

27. Pehr Kalm (1718–1779), the first Professor of Economics at Åbo Akademi. Member of the Royal Swedish Academy of Sciences 1745. HS five specimens collected in Canada: *Ceanothus americanus*, *Collinsonia canadensis*, *Hypericum ascyron*, *H. prolificum* and *Robinia pseudoacacia*.

28. Carl Linnaeus pater (1707–1778). HS 42 specimens, sent to Finland by Anders Dahl (Väre 2015a).

29. Carl Linnaeus filius (1741–1783). HS 12 specimens, sent to Finland by Anders Dahl (Väre 2015a).

30. Johan Daniel Lundmark (1755–1792), collected in Lapland 1780 (see Hornstedt). HS 19 specimens.

31. Gustaf Nils Molin (1779–1824), Finnish clergyman. HS 168 specimens, marked as Gnm. NCI.

32. Adolph Murray (1751–1803), distinguished Swedish anatomist, student in Uppsala 1764, pupil of Carl Linnaeus. Member of the Royal Swedish Academy of Sciences 1789. HS 141 specimens, 34 from Italy.

33. Daniel Erik Naezén (1752–1808), Swedish doctor and naturalist. Thesis supervised by

Linnaeus the Younger, member of Royal Swedish Academy of Sciences 1793. HS 16. NCI.

34. Pehr Osbeck (1723–1805), Swedish explorer, naturalist and student of Carl Linnaeus. In 1750–1752 Canton region of China for four months studying the flora and fauna. Returned home just in time to contribute more than 600 species of plants to Linnaeus' (1753) *Species Plantarum*. Member of the Royal Swedish Academy of Sciences 1758. HS 21 specimens, mainly collected in China and Spain.

35. Peter Simon Pallas (1741–1811), German zoologist and botanist in Russia. HS four specimens. NCI.

36. Jason Petrow (1780–1844), gardener at Apothecarian Garden, St. Petersburg. Sahlberg visited St. Petersburg in 1813, and either collected 26 specimens in the garden, or specimens were given by Petrow.

37. Lars Johan Prytz (1789–1823), Demonstrator in Botany at Imperial Academy of Åbo (Väre 2014). HS 15 specimens collected in Sweden.

38. Carl Birger Rutström (1758–1826), Demonstrator in Botany at Åbo Akademi (Väre 2105b). HS 74 specimens. NCI.

39. Carl Reinhold Sahlberg (1779–1860). Owner of the Herbarium Sahlbergianum. Sold his plant collection consisting of 5 132 specimens of 4 336 species to the Imperial Alexander University in 1828. So far ca. 4 800 have been traced. HS 1 947 specimens. Sahlberg both collected and received a large number of specimens in Russia in 1813. In Finland he collected 723 specimens at Åbo Akademi Botanic Garden 1798–1822, at Uppsala Botanic Garden ca. 110 specimens, at Hortus Botanicus of Count Vladimir Grigorievich Orlov, St. Petersburg 120 specimens in 1813, and at Apothecarian Garden, St. Petersburg, 26 specimens. Sahlberg visited Sweden in 1805, 1806 and 1822 (Hjelt 1896).

40. Nathanael Gerhard af Schultén (1750–1825), astronomer, senator and member of the Royal Swedish Academy of War Sciences, member of the Royal Swedish Academy of Sciences since 1789. HS three specimens. NCI.

41. Daniel Solander (1733–1782), Swedish naturalist and student of Carl Linnaeus. HS one specimen.

42. Carl Stenhammar (1782–1827), Doctor of Medicine and Professor at Karolinska Institutet in Stockholm, member of Linnaean Institute founded in 1800. HS 22 specimens collected in Sweden.

43. Christian Friedrich Stephan (1757–1814), German botanist in Russia, St. Petersburg since 1782. Travelled e.g. in the Crimean Peninsula. Forest Intitute of St. Petersburg 1804–1811, established "Medicinal Botanic Garden". HS 31 specimens, some of which collected in Siberia.

44. Christian von Steven (1781–1863), Finnish-born Russian botanist and entomologist. HS 25 specimens.

45. Olof Peter Swartz (1760–1818), Swedish botanist and taxonomist best known for his taxonomic work and studies into pteridophytes. University of Uppsala, where he studied under Carolus Linnaeus the Younger and received his doctorate in 1781. In Lapland with Hornstedt and Lundmark in 1780. North America and the West Indies, primarily in the area of Jamaica and Hispaniola 1783. Member of Royal Swedish Academy of Sciences 1789, Professor Bergianus at the Academy of Sciences in Stockholm 1791. His botanical collection of 6 000 specimens is at the Swedish Museum of Natural History (S). HS 210 specimens sent mainly to Sahlberg in 1805 and especially in 1811, e.g. specimens collected by Osbeck in China and Spain, specimens collected by others in China (13), South Africa (34) collected mainly by Thunberg, Jamaica (3), the Netherlands (12), United States (8) and Sweden (6).

46. Carl Peter Thunberg (1743–1828), Swedish naturalist and student of Carl Linnaeus. "the father of South African botany", "pioneer of Occidental Medicine in Japan" and the "Japanese Linnaeus". Thunberg was encouraged by Linnaeus in 1770 to travel to Paris and Amsterdam, surgeon in the Dutch East India Company, South Africa 1772–75, Batavia 1775, Japan Aug. 1775–Nov. 1776, Java and Ceylon (Sri Lanka, July 1777), Sweden in 1779. Member of the Royal Swedish Academy of Sciences 1776. HS 171 specimens, South Africa 145, Ceylon 3, Japan 1. In addition, there are many specimens collected in South Africa, but not indicated by whom, in a set sent by Swartz to Åbo. It is a possible, that also these were collected by Thunberg.

47. Carl Bernhard von Trinius (1778–1844), German-born botanist and physician in Russia. "Herbarium Trinii" (ca. 4 000–5 000 specimens) is at LE. HS 115 specimens collected in many European countries, donated by Trinius to Sahlberg in 1813 at St. Petersburg.

48. Martin Henrichsen Vahl (1749–1804), Danish-Norwegian botanist and zoologist. Studied botany in Copenhagen and in Uppsala under Carl Linnaeus. Lecturer at the University of Copenhagen Botanic Garden 1779–1782. Vahl made several research trips in Europe and North Africa between 1783 and 1788. Professor at the Society for Natural History in Copenhagen in 1786, full Professor of Botany at the University of Copenhagen 1801–04. Foreign member of the Royal Swedish Academy of Sciences 1792. HS 46 specimens, of which 11 collected in Tunis.

49. Göran Wahlenberg (1780–1851), Swedish naturalist, Demonstrator in Botany 1814, Professor of Medicine and Botany 1829 succeeding Carl Peter Thunberg. Wahlenberg studied Lapland (Finland, Norway, Sweden) in 1800, 1802, 1807 and 1810. His *Flora lapponica* (1812) is a classic. In Gotland 1799, Southern Sweden in 1810 and 1811, Switzerland and Italy 1811, Carpathian range 1813. Member of the Royal Swedish Academy of Sciences in 1808. HS 107 specimens, many collected by Wahlenberg himself in Austria, Germany, Italy, Switzerland, and Lapland (in Finland 13).

50. Johan Winbom (1746–1826), Swedish theologian, and a highly qualified plant collector. HS ten specimens collected in Sweden.

51. Carl Henriksson Wänman (1733–1797), defended his thesis *Flora Capensis* in 1759 to Linnaeus. In China twice, 1766–68 and 1768–70, also in South Africa. Since 1779 District Doctor in Finland. He donated his collection of 600 plant specimens to Peter Jonas Bergius. HS 25 specimens, NCI. Some collected in South Africa or of South African origin.

Later additions to Herbarium

Other collections than Sahlberg's were also bought (Table 1). In 1829 University acquired the vascular plant collection of Swiss-German bry-

ologist Samuel Elisée de Bridel-Brideri (1761–1828). It included 25 000 specimens consisting of 7 000 species, collected especially in the Orient, the Alps and in Italy. Bryophytes were deposited to Berlin. Steven arranged 27 parcels of Brazilian woody specimens, perhaps some 300 collections, to the museum in 1829. 271 specimens including 204 species were sent from St. Petersburg in 1829 and 1830. Herbarium Hastianum was acquired in 1834 with 2 690 species, of which 477 have been reported as lost (Elfving 1918). That collection included specimens collected by Barthold Rudolf Hast (1724–1784), probably in the 1740's (Hintikka 1921), and by his son Herman Rudolf Hast (1756–1821). The collection was sold by the son of the latter, Johan Rudolf Hast (1795–1840) (Elfving 1918). Barthold Rudolf Hast had defended his Pro Exercitio -thesis *Amphibia Gyllenborgiana* to Linnaeus in 1745 and Herman Rudolf Hast *De Oxalide* in 1781 and his Pro Gradu -thesis *De Caryophyllis aromaticis* in 1788 to Carl Peter Thunberg.

Collection of Fauna et Flora society

Fauna et Flora Society's collections were listed three years before Sahlberg retired in 1838. They consisted of 573 species of plants as 1 027 specimens (Hintikka 1921). *Fauna et Flora society* and University collections were combined in 1857.

In 1841, when Sahlberg retired, the number of specimens at the Botanical museum and the *Fauna et Flora Society* totalled ca. 40 000 (Table 4). Sahlberg had initiated the discussion with Steven, that he should donate his collection to Alexander University. This was actualised in 1860 by a close friend of Steven, Professor Alexander von Nordmann (1803–1866). Herbarium Christian von Steven has been estimated to contain 23 000 species, 120 000 specimens. Building up new plant collections was the major achievement by Sahlberg as a botanist. In 1834, he had also managed to acquire the lichen and vascular plants collections of Erik Acharius (1757–1819).

Retirement and Huvitus estate

Sahlberg was early on devoted to pomology. In 1812 he built a country house at Yläne, SW Finland, named Uusikartano. He expanded it to an estate (Sahlberg 1856, 1869). Within the estate was an enclave called Kolvaa, situated by the lake Pyhäjärvi. Especially apples (*Malus pumila*) were planted there (Elfving 1922), to Sahlberg's favourite excursion area. Dozens of seedlings and cultivars were brought from France, from Booth in Germany, England and Sweden (Sahlberg 1855). Sahlberg was inspired by the Finnish Garden Society (established 1837) he himself being an active member (Zilliacus 2003:127).

After retirement in 1841, a new phase began concerning the magnitude of his trials. A new garden was established by using German garden books as source for technical solutions, only the south side was open to wind. Otherwise a dense forest bordered the garden. Surface area was 3.7 ha (Sahlberg 1869). The area was rocky and the clearance took ten years. During time several gardeners worked at Kolvaa. Locals were not willing to work there calling it a Siberia (a letter in 28 February 1852 to Professor Gabriel Rein, Elfving 1922b). The first orchard apple tree seedlings were planted in 1845 and the last in the spring of 1852. That year Sahlberg named this area Huvitus [”Amusement”] (Söderberg 1873). The name 'Huvitus' was also given to an apple tree which was born in the garden and had tasty fruits. It still exists.

It proved out early on that most of the foreign cultivars were not hardy. Thus Sahlberg ended up increasing good tasting cultivars by grafting (Fig. 13). If an apple tree was grown from seed, the taste of the fruit was never like that of a fruit from the mother tree (Sahlberg 1869).

In 1850 one hundred cultivars of apple trees, totally 1 227 individuals grew at Yläne. Among them 30–40 produced fruits (Sahlberg 1855). In a letter 28 February 1852 to Professor Gabriel Rein, Sahlberg informed that he had 1 192 *Malus pumila*, 16 *Pyrus communis*, 15 *Prunus domestica* and ca. 100 *Prunus cerasus*, totalling 1 327 trees. In 1852 the number of *Malus pumila* cultivars was 120 (Smirnoff 1892). According to one of the gardeners at Huvitus, the number of planted fruit trees was 1 352, of which 49 produced fruits in

1856 (Söderberg 1873). Söderberg (1862) lists 46 cultivars (Fig. 14). An extensive unpublished list of cultivars which were monitored by Sahlberg 1849–1854 is kept at the library of University of Turku. In that list Sahlberg mentions all cultivars of those years (Marja Lehtonen, pers. comm. 10 November 2016).

Gardener Gustaf Schärström was responsible for selling georgines (*Dahlia*), of which there were 220 cultivars at Yläne (Åbo *Tidningar* 2:4, 8.1.1850; 5:6, 18.1.1850). Also American cultivars of *Fragaria* × *ananassa* were produced, 'English Queen' and 'Myatto Eliza', but also older cultivars like 'Ananassa' and 'Rosenbär' (Smirnof 1892, Simonen 1961) and 'Victoria' (Åbo *Underrättelser* 88, 14.11.1851). For a short period Huvitus was the largest private orchard garden in Finland (Rein 1853). In 1877, most of the trees had died, and the owner decided to sow it as arable land (Smirnof 1892).

Honours

The culmination of Sahlberg's career was to be promoter (Fig. 15) in the bicentennial Jubilee Promotion of the University on 20.7.1840 (Sahlberg 1840, Lemström 1890). Sahlberg was honoured by many tributes, e.g. honorary member of several scientific societies, e.g. Société Impériale des Naturalistes de Moscou in 1815, Naturforschende Gesellschaft zu Leipzig 1820, Société Entomologique de France 1833 and Société Cuvierenne Paris 1833 (Renvall 1891). Törnroth (1861) depicted Sahlberg as a man of the old guard, a man who did not want to renew when the time changed. Particularly difficult was the new era at the University of Helsinki.

Sahlberg donated a scholarship fund named after him to the University.

Eponymy: *Rhacopus sahlbergi* (Mannerheim, 1823) (Fig. 16); *Cicindela sahlbergi* Fischer von Waldheim, 1824; *Chatocnema sahlbergii* (Gyllenhal, 1827); *Nebria sahlbergi* Fischer v. Waldheim, 1828; *Chrysolina orientalis sahlbergi* (Ménétriés, 1832); *Chrysolina sahlbergi* (Ménétriés, 1832); *Microon sahlbergi* (Sahlberg, 1835); *Anthomyza sahlbergi* Zetterstedt, 1838; *Dolichopus sahlbergi* Zetterstedt, 1838; *Thamniocolus sahlbergi* (Sahlberg, 1845); *Hesperocorixa sahlbergi* (Fieber, 1848).

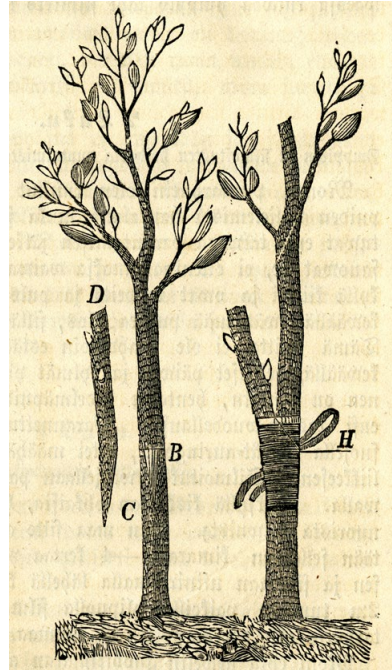


Fig. 13. Sahlberg decided to increase his apple trees by inoculation. That was perhaps performed by his gardener Söderberg, who published later a book on cultivation of fruit plants in Finland, the first one in Finnish (Söderberg 1862).



Fig. 14. Cultivars of apple trees as listed by Söderberg (1862).

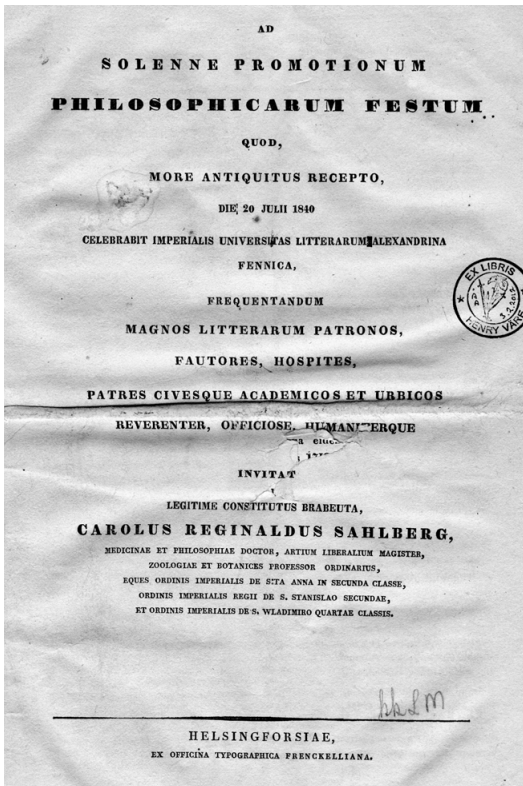


Fig. 15. The culmination of Sahlberg's career was to be promoter in the bicentennial Jubilee Promotion of the University in 20.7.1840 (Sahlberg 1840).

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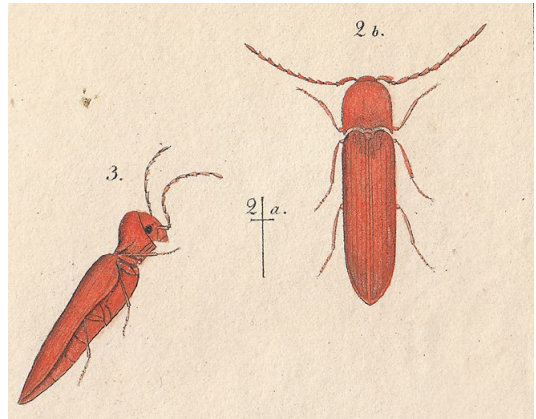


Fig. 16. *Eucnemis sahlbergi*, described by Carl Gustaf Mannerheim, currently *Rhacopus sahlbergi*.

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