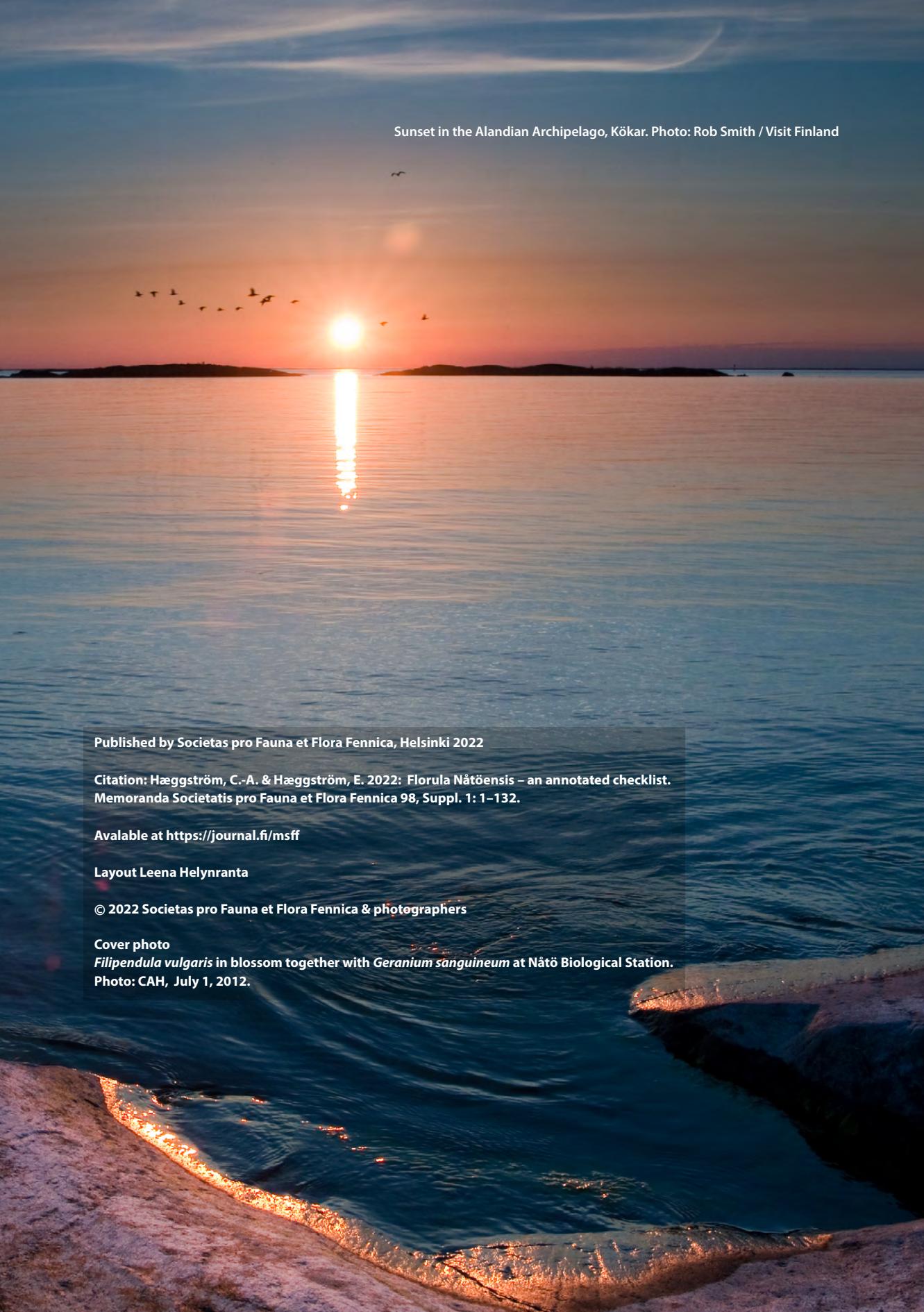




Florula Nåtöensis

Carl-Adam Hæggström • Eeva Hæggström



Sunset in the Alandian Archipelago, Kökar. Photo: Rob Smith / Visit Finland

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Cover photo

Filipendula vulgaris in blossom together with *Geranium sanguineum* at Nåtö Biological Station.
Photo: CAH, July 1, 2012.

Florula Nåtöensis – an annotated checklist

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The island of Nåtö, located about 7–8 kilometres south of the town of Mariehamn in the Åland Islands, SW Finland, is probably the most species rich spot regarding indigenous vascular plants in Finland. Studies of the wooded meadows of Nåtö were initiated by Alvar Palmgren in the early 20th century and continued by the author CAH from 1964 onwards with the Nåtö Biological Station as the base. The vascular plant flora of several parts of the Nåtö – Jungfruskär Nature Reserve were studied by both authors from the late 1960s onwards.

This paper gives a short description of the Nåtö area and its main vegetation features. The main part is a list of all known observations, information in the literature and voucher specimens in herbaria of the vascular plants of this area.

Introduction

The archipelago village of Nåtö in the Åland Islands, SW Finland, is located about 5–10 km south of the town of Mariehamn. Although Nåtö Island itself is connected with Mariehamn by a road since the early 1970s, the village of Nåtö belongs to the rural municipality of Lemland. The name Nåtö is a local variant of Nötö, "Nut Island".

The island of Nåtö, with an area of roughly 1.8 square kilometres, is probably the most species rich spot regarding indigenous vascular plants in Finland. Studies of the wooded meadows of Nåtö were initiated by Palmgren in the early 20th century (Palmgren 1915–1917) and continued by the author CAH from 1964 onwards (Hæggström 1983; the publications by the author CAH are referred as Hæggström only; the sole publication by the author EH is cited as E. Hæggström 1983). The vascular plant flora of several parts of the Nåtö – Jungfruskär Nature Reserve were studied by both authors from the late 1960s onwards.

Descriptions of the Nature Reserve are given by Kulves (1980, 2004) and of the wooded meadow areas by Hæggström (1983, 1996).

During the time span between Palmgren's studies and the 1960s, the wooded meadows of Åland went through a dramatic change. The hay-making and leaf fodder harvesting through polarding ceased with a general overgrowth as a result. This was also the case in Nåtö (Fig. 1).

The Landscape Authorities of Åland bought the farmstead of Grannans (Norrgård) in the village of Nåtö in 1959. After a few years, the Nåtö Biological Station (NBS) was founded with research work starting on a very modest scale in 1963 and with full summer season activity in 1964 (Fig. 2). A short description of the Station's first 20 years is given by E. Hæggström (1983) and a more elaborate description by Hæggström (1996). A thorough description of the wooded meadow area in the NE part of Nåtö Island is given by Hæggström (1983).

All parts of Nåtö village owned by the Landscape of Åland were protected by law in 1964



▲ Fig. 1. The nature trail on north-eastern Nåtö Island runs through the former wooded meadow area called "Själskats norra stycke". It was a meadow in the cadastral map of 1905 (Ölander 1905). The area is now a spruce wood with a few old birch pollards and declining hazel stools. The meadow flora was rather poor already in the 1960s. Among other, a few small specimens of *Primula veris* and a tiny stand of *Ficaria verna* grew in the area (Hæggström-1983). Photo: CAH, May 31, 1987.

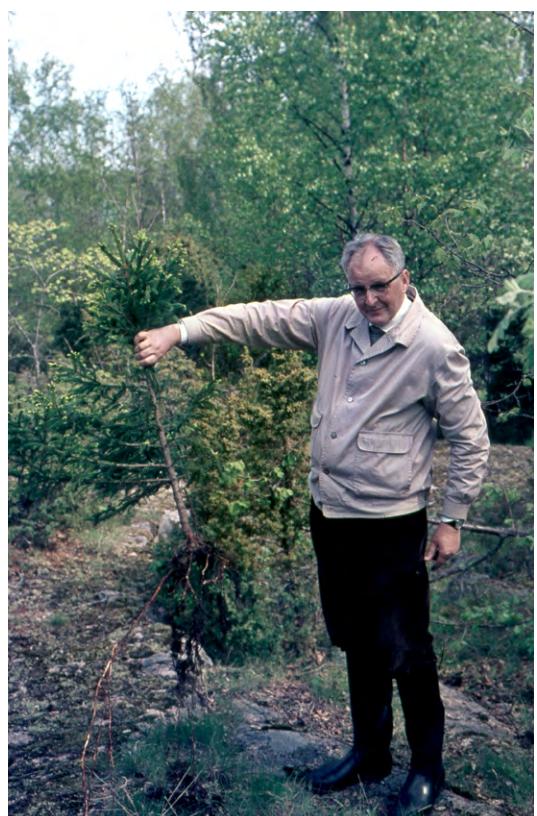
▼ Fig. 2. A view of Nåtö Biological Station seen from the southwest. The small house, the windmill, built in 1886, and the main building are seen. Photo: CAH, May 6, 1990.



(ÅFS 17/1964). The island of Jungfruskär, which was protected as a separate nature reserve already in 1943, and the small island of Idholm in the neighbour village of Järsö, were included in the Nåtö – Jungfruskär Nature Reserve in 1985 (ÅFS 25/1985). In 1992, the western part of Inre Korsö and the southeastern part of Korsö were included in the Nature Reserve (ÅFS 47/1992). Three islets next to Styrsö, belonging to the town of Mariehamn, namely Norra Styrsöklubben, Södra Styrsöklubben and Styrsögrundet, were added to the Nature Reserve in 2005 (ÅFS 13/2005). The Nåtö – Jungfruskär Nature Reserve was included in the Natura 2000 network in 2016 (ÅFS 4/2016).

The most important actions for preserving the wooded meadows in Nåtö were as follows. In 1962 and 1963, most of the Norway spruces (*Picea abies*, in the following text called spruce) were cut (Figs. 3–4). A part of the central wooded meadow area in northeastern Nåtö was grazed by sheep in 1965–1972. Despite these actions, sap-

▼ Fig. 3. When spruces were cut in 1962 and 1963, three tall spruces, one of them seen here, were left as "seed trees". They spread their seeds very well. Spruce seedlings occurred all over the terrain in the vicinity of the tall spruces. After a few years, the three spruces were cut, as spruce do not belong to the tree flora in a well-managed wooded meadow in Åland. Photo: CAH, August 26, 1966.



▲ Fig. 4. Professor in botany Hans Luther (1915–1982) acted as the head of Nåtö Biological Station from the start up to his death. Here he has torn up a spruce sapling. Photo: CAH, June 8, 1969.



▲ Fig. 5. Raking of dry leaves, twigs and other plant debris in the wooded meadow area just north of NBS. Photo: CAH, April 6, 2007.

▼ Fig. 6. A part of the wooded meadow near the bay of Idviken. The sward is low and even, due to haymaking and grazing. A pile of meadow hay is seen to the left. It was burnt during the following winter. One of the two fenced *Taxus* trees is seen in the background to the right. Photo: CAH, August 18, 2012.



lings of deciduous trees flourished and the terrain was soon overgrown with dense thickets of deciduous trees and shrubs. From 1973 onwards, the Nature Conservancy authorities of the Åland Islands began a systematic maintenance programme with raking, cutting of saplings and shrubs, and later also haymaking (Figs. 5–6). Grazing with heifers during late June to mid-September was included in the maintenance programme (Fig. 7). Because of the general overgrowth of the central part of the wooded meadow area in northeastern Nåtö during the 1960s and 1970s, *Primula farinosa* could not be found any longer in the small *Sesleria* meadow at Idviken. *Polygala amarella* was almost gone in the area, too. The *Sesleria* meadow was totally covered with about one-metre-high saplings of *Fraxinus excelsior*. These were cut in 1986 and after that a thorough maintenance of most of the northeastern area was initiated, with yearly mowing of the sward and cutting of unnecessary young trees. This improved the area enormously and today many hundred specimens of *Primula farinosa* and *Polygala amarella* occur in the *Sesleria* meadow (Fig. 8). These are two examples of species that had increased due to the maintenance programme. There are dozens of other examples, too.



▲ Fig. 7. Cattle grazing the sea-shore meadow of Idviken. The cattle graze common reed (*Phragmites australis*) to such an extent that it disappears, but the bulrush species *Schoenoplectus tabernaemontani* is avoided by them. The promontory of Själ-skata is seen in the background. Photo: CAH, August 29, 1992.



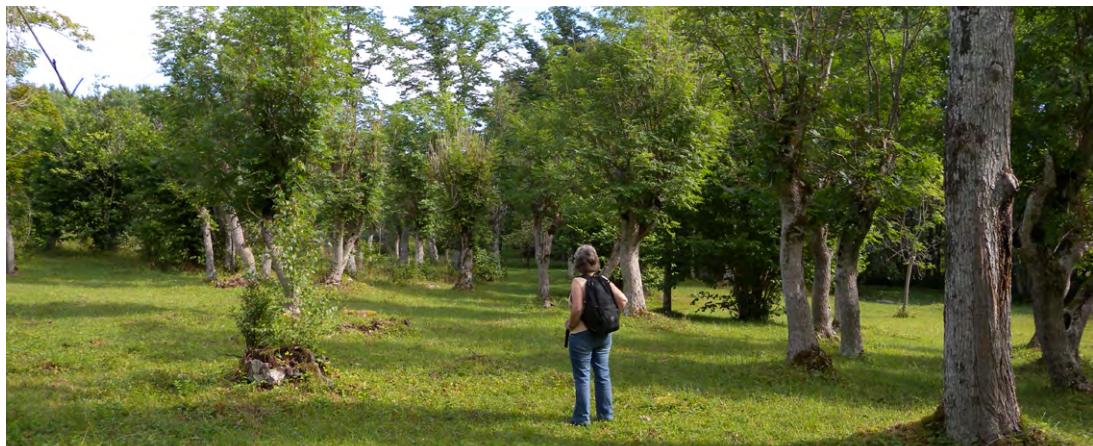
◀ Fig. 8. The *Sesleria* meadow with abundant pale lilac *Primula farinosa*. The yellow flowers in the foreground belong to *Caltha palustris*. Dead ash pollards and some hazel stools grow on drier ground. Photo: CAH, May 28, 2012.

During the maintenance work, young "valuable" trees, among others *Acer platanoides* and *Ulmus glabra*, were saved. Then the meadow glades disappeared and the whole area was instead overgrown with young deciduous trees. Almost all of these trees were cut in the last years of the 20th

century. Thus, the mosaic structure of the wooded meadow areas, with copses comprising of single trees or shrubs or groups of them alternating with open meadow glades, was restored (Fig. 9). Simultaneously, the sward of the meadow glades was cut.

The small islands Senskär and Idholm were also included in the maintenance programme with clearing of thickets, mowing the sward and sheep grazing. Today, excellent wooded meadow areas can be found in the northeastern part of Nåtö, as well as in Senskär and Idholm (Figs. 10–11). The westernmost part of Eskskär is included in the Nature Reserve. Cutting of trees and shrubs began in 1965 and then the sward was mown every year in the narrow valley in which *Fritillaria meleagris* occurs.

▼ Fig. 9. The author EH standing at the edge of the *Sesleria* meadow. The terrain of the pollard meadow is park like with the sward of the meadow glades cut and grazed. Photo: CAH, August 18, 2012.



▼ Fig. 10. The author EH in the pollard meadow of the small island Senskär. The ashes were repollarded in 1995. Photo: CAH, June 21, 1997.



To restore the wooded meadows of the pollard meadow type, old ash pollards were repollarded from 1974 onwards, first only a few trees, later dozens of them. The repollarding occurred with an interval of 5–6 years (Figs. 12 A–B). When the ashes were repollarded in 2006 or 2007, they were badly affected by the fungus disease ash die-back (*Hymenoscyphus fraxineus*; syn. *H. pseudoalbidus*, *Chalara fraxinea*). The infestation culminated in 2008–2010 and almost all the old repollarded ash trees are now dead (Fig. 13; cf. Häggström 2014). Some young birches were also pollarded (Fig. 14).

Sheep were grazing almost every year since the mid-1970s in one part in NE Nåtö (Norrbacka-åkern, a former cultivated field, with adjacent ter-

rain; Fig. 15) and two parts in SW Nåtö, Harskats-åkern with adjacent seashores and the former cultivated field Rosklev. The island of Slätskär was occasionally grazed by sheep in the 1970s.

According to the regulations of the Nåtö – Jungfruskär Nature Reserve (ÅFS 47/1992), all the spruce dominated areas shall be left to develop on their own. The western part of Nåtö is partly a spruce wood, and it has been so for centuries (Braxter 1765). Unfortunately, in the night

between January 1 and 2, 2019, a gale struck the Åland Islands with the result that the central part of the spruce wood of Västerskog was blown down. In an area of approx. 300 m × 100 m almost every tree fell over (Figs 16–17). After that, it was almost impossible to go into this area which was a magnificent wood in near natural state. Because of problems with the European spruce bark beetle (*Ips typographus*), the fallen trees have now been removed.



▲ Fig. 11. The upper meadow in Idholm lies between the crest of the rock and the lower lying wooded area. Pillar junipers are common in the meadow. Photo: EH, June 24, 1997.

Fig. 12 A–B. Two ash pollards. – A. The ashes were repollarded after about 35 years in September 1975. The ashes are still without young twigs and leaves on May 16, 1976. – B. The same ashes with abundant leafy twigs on September 1, 1976. Photos: CAH.



Fig. 13. Because of the fungus disease ash dieback (*Hymenoscyphus fraxineus*) almost all the repollarded ashes here are dead. Photo: CAH, June 26, 2016.



Fig. 14. Young birch pollards. Re-pollarding old birch pollards were not successful, all of them died after a few years. Photo: CAH, May 20, 2018.



Fig. 15. Sheep grazing the old field Norrbackåkern north of NBS. Photo: CAH, June 6, 1981.



▲ Fig. 16. The spruce wood of Västerskog was a good example of a wood in near natural state. The tree canopy was uneven with numerous dead trees, both standing and lying on the ground. The field layer was sparse. Photo: CAH, June 11, 2014.

▼ Fig. 17. Västerskog after the gale called Alfrida. Almost all trees have fallen. The photo was taken from the gravel road passing through the wood of the Nature Reserve. Photo: CAH, June 11, 2019.



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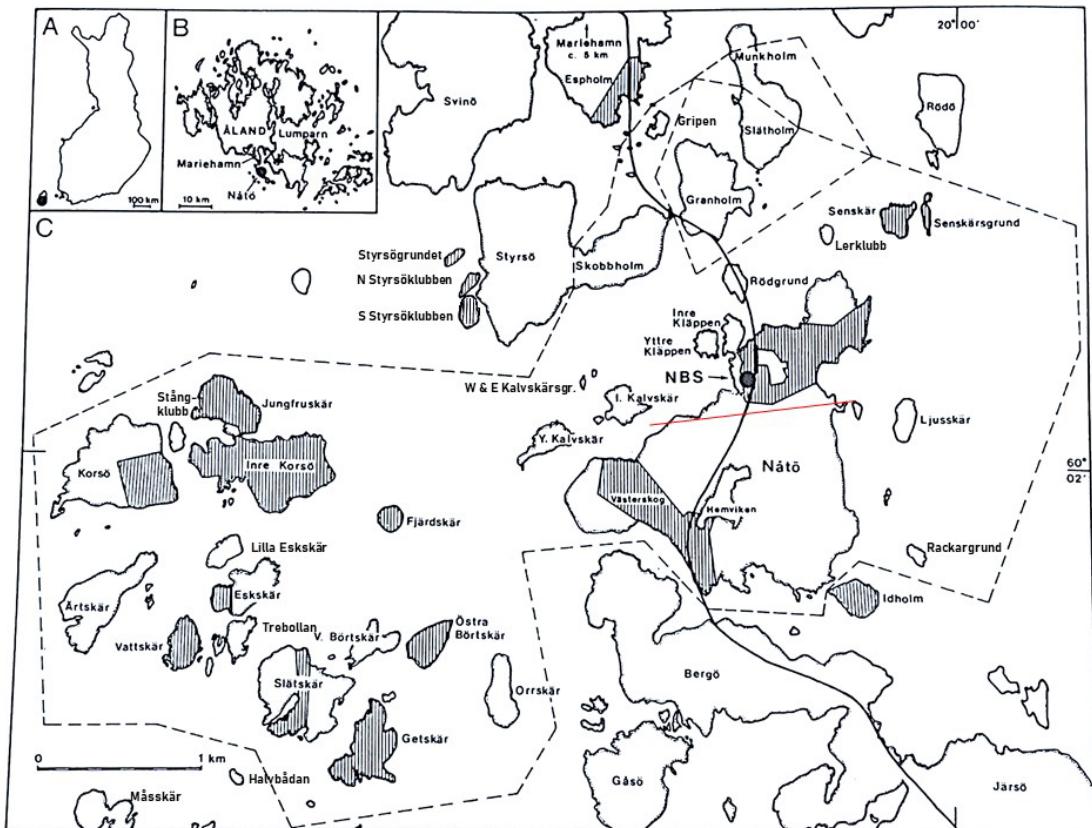
The study area

The study area comprises of the whole of Nåtö village, with the main island, called Nåtö or alternatively Nåtö Island, 32 other small or large islands with at least a few trees and more than 20 small islets and skerries (Fig. 18). The island of Idholm in the village Järsö, included in the Nåtö – Jungfruskär Nature Reserve, belong to the study area. The island of Granholm in the village of Lemböte and the island of Slätholm including Munkholm, a part which belongs to the village of Lemböte are included. Whenever possible, the locality is marked as Nåtö Slätholm viz. Lemböte Slätholm and Nåtö Munkholm viz. Lemböte Munkholm. Granholm is included because it is located between the islands Rödgrund, Skobbholm, Gripen and Slätholm belonging to Nåtö village. The three islets Norra Styrsöklubben, Södra Styrsöklubben and Styrsögrundet in Mariehamn were not included, although they were added to the Nature Reserve in 2005.

The data of vascular plant taxa are not evenly available from the study area. Some islands were not visited by us, for instance Lerklubb, Inre Kalvskär, Yttre Kalvskär, Västra Börtskär, Trebollan with Vattskärshällarna, Stångklubb and the small islets Kalvskärsgrundens, Koklubb and a few others. From some other islands data has not been collected systematically, for instance Yttre Kläppen and Lilla Eskskär. Old data is available from several localities, e.g., voucher specimens in herbaria (chiefly H) and published information.

The coordinates given are according to the Uniform Coordinate System (UCS): Grid 27 °E. The coordinates given is with an accuracy of 10

▼ Fig. 18. – A. General location of Nåtö. – B. location of Nåtö in the archipelago of Åland. – C. Nåtö Islands and its surroundings. Hatched areas belong to Nåtö – Jungfruskär Nature Reserve and Espholm Nature Reserve, respectively. NBS = Nåtö Biological Station. The boundaries of the village of Nåtö are marked by broken lines. The red line across Nåtö Island is the boundary between N Nåtö and S Nåtö.



metres. The area of each island and islet in hectares (ha; one hectare = 10 000 m²) is estimated. The approximate length and width in metres of each island are given.

A short description of the islands and islets of the study area (Fig. 18)

Nåtö Island (UCS 667879–668084: 310790–310994; area 180 ha of which the lake Hemviken is about 3 ha; two parts, one in NE, the other in W, belong to the Nature Reserve). – Nåtö is roughly of a triangular shape with 1.5 to 2.5 km long sides. The highest points, rising almost 20 metres above the sea level (asl.), are found in some rocky areas in the western part of the island. The northeastern and southeastern parts are somewhat lower with dominating deciduous stands and partly covered by wooded meadows in the northeastern part. This is the most species rich area with partly quite luxuriant vegetation (Figs. 19–20). The southeastern part has much spruc-

es interspersed among the deciduous trees. The western part is mainly a spruce wood with stands of Scots pine (*Pinus sylvestris*, in the following text called pine) on the rock outcrops. Stands of black alder (*Alnus glutinosa*) and sea-buckthorn (*Hippophaë rhamnoides*) border shores with fine sediment. The old harbour bay Hemviken is nowadays a hypertrophic lake (Fig. 21). The old inlet S of Hemviken has been excavated to a pond area for natural fish spawning in the early 2000s. Nåtö is inhabited with several year-round housings and summer cottages.

In the list of taxa Nåtö Island is marked either as N Nåtö or as S Nåtö – the dividing line is the UCS p-coordinate limit between 667999 and 668000. The roadbank northwards to the rock Gnällgrundet is included in N Nåtö.

Inre Kläppen (UCS 668037–668064: 310896–310914; area 2.5 ha). A former island, but due to the land upheaval it is connected to Nåtö Island since the early 20th century. Therefore, it forms a 300 m long and 170 m wide promontory at NW

Fig. 19. The spring flora with abundant *Primula veris* next to NBS. Photo: CAH, May 6, 1990.





▲ Fig. 20. *Orchis mascula* and *Primula veris* in the wooded meadow of Nåtö Island. This orchid was first observed in the north-eastern wooded meadow area in 1967. Six flowering specimens were seen. Little by little the number of flowering *O. mascula* specimens increased, to 12 in 1968, to 25 in 1969 and then to about 50 in 1970. During the last years, tens of thousands of flowering specimens occurred. Photo: CAH, June 22, 2010.

▼ Fig. 21. The old harbour sea bay Hemviken developed, due to the land uplift, into a small lake. Photo: CAH, June 20, 2018.



Nåtö. Rock outcrops with pines dominate the W, N and E shores. Deciduous stands with a few spruces grow in the low parts. The former sound is today a shore meadow, heavily overgrown with reed (*Phragmites australis*). There are three summer cottages in the promontory.

Yttre Kläppen (UCS 668035–668056:310880–310895; area 2 ha). – A 200 m long and 150 m wide, almost square rocky island with small copses of black alders and two summer cottages.

Rödgrund (UCS 668070–668099:310901–310917; area 2.5 ha). – An elongated 300 m long and 160 m wide island with a few rock outcrops and mainly covered with luxuriant deciduous stands. A summer cottage is located in the W part. The main road divides the island into a western and eastern half. The roadbank from Gnällgrund in the south to the bridge over Nåtö strömmar is included in Rödgrund in the species list.

Lerklubb (UCS 668102–668157:310966–310973; area 0.8 ha). – An oval 130 m long and 70 m wide island with a rocky area in the N part and an edg-

ing of deciduous stands, mainly *Alnus glutinosa*, along the W, S and SE shores. A summer cottage is located on the rocky area. Only few records are available from this island.

Senskär (UCS 668101–668125:311004–311028; area 3.5 ha; the whole island is included in the Nature Reserve). – An uninhabited rounded low island, roughly 250 m long and wide. A few smooth rocks occur (Fig. 22). This island is included in the wooded meadow maintenance programme, with haymaking, pollarding and sheep grazing. The vegetation is luxuriant and rich in species.

Senskärsgrund (UCS 668101–668129:311029–311037; area 1 ha; the whole island is included in the Nature Reserve). – A 280 m long and 60 m wide barren, uninhabited, rocky island with a few trees (e.g., *Alnus glutinosa*, *Pinus sylvestris*, *Prunus padus*, *Sorbus aucuparia*) along the W shore. During low water level in the sea, the about 20 m wide sound towards Senskär is more or less dry. The whole island is included in the Nature Reserve.

Fig. 22. Smooth low rocks and a pollard meadow in Senskär. Photo: CAH, June 24, 1992.



Ljusskär (UCS 667972–667800:310990–311015; area 3 ha). – A 270 m long and 130 m wide rocky island with *Pinus* wood in the depressions. One summer cottage.

Rackagrund (UCS 667895–667909:311000–311012; area 1 ha). – A low, oval 160 m long and 100 m wide island with a rocky area in the N and E parts and stands of *Alnus glutinosa* etc. in the S and W parts. One summer cottage.

Idholm (UCS 667865–667891:310950–310980; area 4.5 ha; the whole island is included in the Nature Reserve). – A 300 m long and 200 m wide uninhabited island with a longitudinal rocky area of about 17 m height. The vegetation is luxuriant and rich in species. The island is included in the wooded meadow maintenance programme with haymaking and grazing by sheep.

Inre Kalvskär (UCS 667997–6608024:310820–310850, area 3.5 ha). – A 250 m long and wide wooded island with rocky shores in the N and W parts (Fig. 23). There are three summer cottages in the island. Only old information is available from this island.

Östra Kalvskärsgrundet (UCS 668030–668035:310814–310817; area 0.2 ha) and **Västra Kalv-**

skärsgrundet (UCS 668023–668032:310806–310810; area 0.3 ha). – Two about 60 and 90 m long and 30–40 m wide low, rocky, uninhabited islets. There are only a few records of species from these two islets.

Yttre Kalvskär (UCS 667975–668006:310763–310801; area 3.5 ha). – A 400 m long and 180 m wide rocky island with tree stands in the central and eastern part. There is one summer cottage in the island. Only old information is available from this island.

Fjärdskär (UCS 667944–667961:310672–310688; area 3.0 ha). – An almost round, uninhabited rocky island with a diameter of about 160–170 m. Small deciduous stands, mainly *Alnus glutinosa*, grows along the S shore (Fig. 24).

Jungfruskär (UCS 668014–668052:310559–310605; area 11 ha; the island is included in the Nature Reserve, with the exception of a small rocky area which is common ground). – A 450 m long and wide, uninhabited island with pine and spruce stands and large stands of *Taxus baccata*. Small deciduous stands grow along the shores. Rocky areas occur along the shores and in the mid part (Fig. 25). Due to the land upheaval and sedimentation, the sound between Jungfruskär and

Fig. 23. The island Inre Kalvskär seen from the boat bridge at Nätö Island during a calm day. The two islets Västra and Östra Kalvskärsgrundet are seen to right, the latter with a mound of stones painted white as a navigation mark. Photo: CAH, May 5, 1990.





▲ Fig. 24. The islet Fjärdskär seen from the west with a low spruce stand on the northern rocky area and a black alder stand at the stony and gravelly seashore in the south. Photo: CAH, August 25, 1973.

▼ Fig. 25. A stone labyrinth on the moss and lichen covered low rock outcrop in Jungfruskär. The surrounding wood comprises mainly of pines and spruces with numerous *Taxus baccata* trees. Photo: CAH, August 10, 1967.



Inre Korsö has almost disappeared; it is water-filled only during high water conditions.

Inre Korsö (UCS 667963–668014:310556–310647; area 26 ha; the whole island is included in the Nature Reserve). – A 1 000 m long and 500 m wide uninhabited island with pine and spruce stands and some stands of *Taxus baccata*. Small deciduous stands grow along the shores. Rocky areas

occur all over the island with the highest rocks 15–20 m a.s.l.

Stångklubb (UCS 668007–668025:310545–310555; area 1.2 ha). – A 200 m long and 100 m wide island with rock outcrops in the N and S and a mixed wood in the mid part. There is one summer cottage in the island. There are only a few records of species from this island.

Korsö (Ytre Korsö; UCS 667974–668034: 310477–310548; area 28 ha; the SE part is included in the Nature Reserve). – A 750 m long and 600 m wide rocky island with pine and spruce woods and some stands of *Taxus baccata* (Figs. 26–27) The highest rock area is located 25 m a.s.l. There is an old radio-beacons keeper's cottage in the W part of the island.

Ärtskär (UCS 667885–667946:310471–310533; area 15 ha). – An elongated about 800 m long and 350 m wide uninhabited rocky island with sparse pine and juniper dominated vegetation. A large rock-pool or pond is located at the narrow bay on the W shore (Fig. 28).



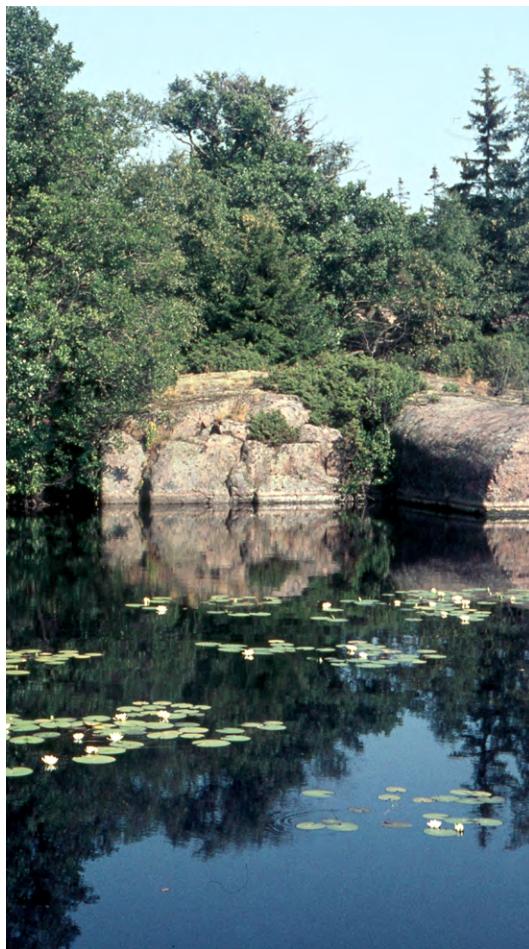
Fig. 26. The south-western shore of Korsö is partly rocky, partly a boulder and stone shore. The shore vegetation is dominated by the grass *Phalaroides arundinacea*. A black alder stand is seen in the background. The island far in the background is Granö in Jomala. Photo: CAH, June 9, 1990.



Fig. 27. The terrain in Korsö is dominated by rock outcrops with pine wood and spruces in lower lying terrain. Photo: CAH, June 9, 1990.

Lilla Eskskär (Lilla Äskskär) (UCS 667932–667952:310563–310587; area 2 ha). – A 270 m long and 120 m wide rocky island with sparse tree vegetation. There is a summer cottage in the island. Only few records of species are known from this island.

Eskskär (Äskskär) (UCS 667900–667936: 310564–310608; area 8 ha; the W end is included in the Nature Reserve). – A 500 m long and 250 m wide uninhabited rocky island with partly luxuriant deciduous stand in the low lying areas. The narrow valley across the westernmost part of the island has been maintained as a wooded meadow since 1965 (Figs. 29–30).



▲ Fig. 28. The pond at the western shore of Ärtskär. *Nymphaea candida* is flowering in the pond. Photo: CAH, August 3, 1967.

Trebollan (UCS 667871–667900:310573–310592; area 3 ha). – A 250 m long and 100 m wide rocky island with sparse tree vegetation. Two summer cottages.

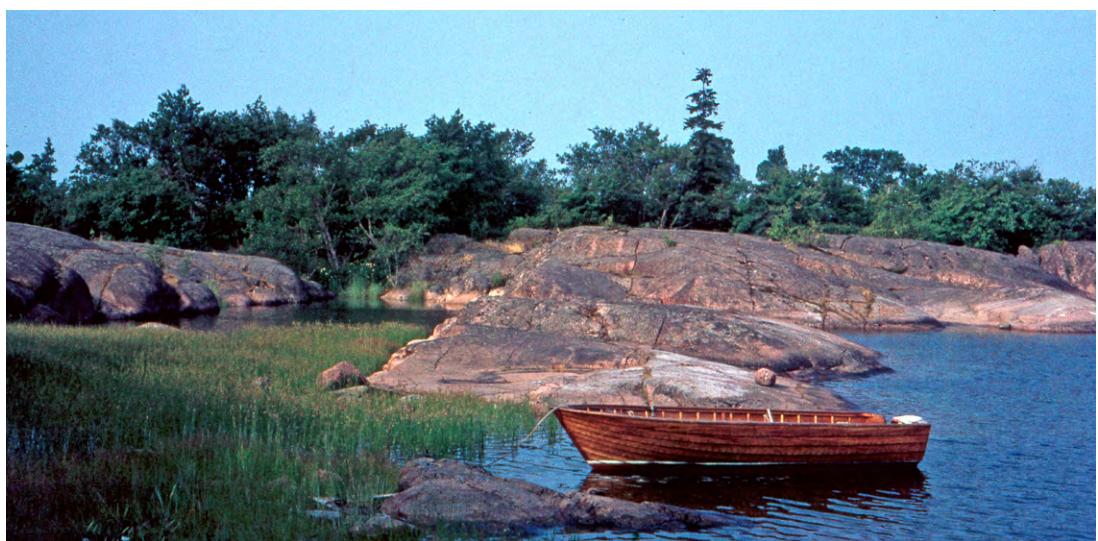
Vattskär (UCS 667871–667904:310536–310558; area 5 ha; the whole island is included in the Nature Reserve). – A 350 m long and 220 m wide uninhabited barren rocky island with sparse tree vegetation.

Orrskär (UCS 667817–667863:310730–310751; area 5 ha). – A 460 m long and 210 m wide uninhabited barren rocky island with sparse tree vegetation (Fig. 31).

Östra Börtskär (UCS 667857–667888:310683–310714; area 5.5 ha; the whole island is included in the Nature Reserve). – A narrow triangular shaped 350 m long and 210 m wide, uninhabited, barren rocky island with sparse tree vegetation.

Västra Börtskär (UCS 667861–667892:310644–310681; area 4.5 ha). – A narrow irregularly triangular shaped 400 m long and 250 m wide, barren rocky island with sparse tree vegetation. There are two summer cottages in the island.

▼ Fig. 29. The north-western sea bay of Eskskär with smooth cliffs. The motor boat called "Fritillaria" belonged to the Biological Station. Photo: CAH, July 18, 1966.





▲ Fig. 30. The small coppice meadow in western Eskskär is recently mown. To the right a *Taxus baccata* tree, in the background a multi stemmed black alder, typical of coppice meadows. Photo: CAH, August 8, 1990.

▼ Fig. 31. The vegetation of the rocky island Orrskär is rather poor, with abundant *Calluna vulgaris* in blossom. The trees are pine, spruce and creeping junipers. A few birches occur, too. Photo: CAH, August 25, 1974.





Fig. 32. The south shore of Getskär with rocks and boulders. The tree vegetation, comprising of pine, spruce, birch and black alder is quite sparse. Photo: EH, June 7, 1973.

Getskär (UCS 667790–667843:310630–310675; area 11 ha; the whole island is included in the Nature Reserve). – An irregular shaped 600 m long and 250–350 m wide, uninhabited, barren rocky island with sparse tree vegetation (Fig. 32).

Slätskär (UCS 667819–667880:310591–310650; area 21 ha; the mid part is included in the Nature Reserve). – An irregularly rounded 650 m long and wide, partly rocky island. A 250 m long, narrow sea bay runs from the SW into the central part of the island. The rock outcrops are covered with pine and juniper vegetation, whereas the low-lying central parts are deciduous stands (*Alnus glutinosa*, *Prunus padus*, etc.). *Taxus baccata* is abundant. The central low-lying part was a wooded meadow in the early 20th century. There is one summer cottage in the N part.

Halvbådan (Hallbådan) (UCS 667796–667807: 310569–310578; area 0.4 ha). – A 110 m long and 90 m wide uninhabited treeless rock islet. The only lignoses found were *Juniperus communis* and a small *Sorbus aucuparia*.

Måsskär (Västra Måsskär) (UCS 667759–667802:310475–310511; area 8 ha). – An irregularly shaped, 430 m long and 360 m wide rocky island. Two wide bays divide the island in a northwestern part and a southwestern part. Only a few small stands of *Alnus glutinosa* and *Betula pubescens* occur (Fig. 33). *Juniperus communis* is abundant. The island is uninhabited, but there were small fishing huts in the 19th and early 20th centuries. The last one was torn down in 1968 (Fig. 34).

Munkholm – Slätholm (UCS 668146–668248: 310917–310960; area 22 ha). – These two islands were once separated, but due to the land upheaval they have been united for centuries. Their combined length is about 1 000 m and their width is maximum about 200 m (Munkholm) and 400 m (Slätholm). There are only small rock outcrops (Fig. 35). The vegetation is luxuriant and rich in species. The islands are connected to the main road via a bridge from Granholm in the W. There are several year-round housings and summer cottages, especially in Slätholm.



▲ Fig. 33. Måsskär with the Alandian Sea in the background. A mire with, among others, *Eriophorum angustifolium*, is developing around the rock-pool. Photo: CAH, June 28, 1994.

▼ Fig. 34. The island of Måsskär was a fishing place in former days. All the homesteads and crofts of Nåtö had their own fishing huts in the island. The hut in the picture was the last one left and it was torn down in August 1967. The islands in the background are from left to right Ärtskär, Inre Korsö and Slätskär. Photo: CAH, June 8, 1967.





Fig. 35. A summer cottage on the western shore of Nåtö Munkholm. The deciduous trees, two black alders and a *Salix caprea* are still without leaves. Junipers occur abundantly in the rather dry rocky terrain. Photo: CAH, March 27, 2016.

Gripen (UCS 668180–668199:310860–310876; area 1 ha). – A 190 m long and 160 m wide island with deciduous stands and buildings. The island is connected to the mainland by a roadbank and a narrow bridge (Fig. 36). Gripen has a year-round housing.

Seven small stony islets (the rims of De Geer moraines) are located N and W of Gripen. These islets are **Vigg-grund** (a part of Gripen today), **Kärringgrund** (next to Gripen in NW), **Mittgrund**, and four nameless islets. They were studied by Ulla Bärlund in the 1930s and by Collander (1976) in the 1960s and 1970s.

Small islets on both sides of the main road (UCS 668165–668180:310841–310857) – The islets are the rims of De Geer moraines. They are from S to N: **N Stengrund** and **S Stengrund** (today one islet, partly in the roadbank), **Gräsgrund** (with the exception of the westernmost part), **Tärngrund** (a rock outcrop, partly under the road),

Lillnotsgrund (only the eastern part), **Ormgrund** (on both sides of the roadbank), **Mellangrund** (on the eastern side of the roadbank), **Algrund** (with a small summer cottage). These small islets were studied by Ulla Bärlund in the 1930s and by Collander (1976) in the 1960s and 1970s.

Tunngrund (UCS 668157–668160:310846–310852; area 0.1 ha). – A 60 m long and 30 m wide stony islet (a De Geer moraine, too), with a dense *Alnus glutinosa* stand and *Hippophaë rhamnoides* thickets near the shore.

Skobbholm (UCS 668087–668138:310876–310926; area 20 ha). – A 800 m long and 300–400 m wide island with luxuriant vegetation. There are only a few rock outcrops in this island. It is connected via a broad isthmus to Styrsö in the W. The main road runs over the easternmost end of Skobbholm. There are several year-round housings and summer cottages in the island.



Fig. 36. A road bank and a bridge are leading from Espholm via the islet Käringgrundet with a low stand of black alders to Gripen to the right. The stony and gravelly islet in the foreground belongs to Mariehamn. A dense *Hippophaë rhamnoidea* shrub grows on the crest of the islet. Many of the islets between Sköbbholm and Espholm are quite similar. Photo: CAH, October 9, 2010.

Granholm (UCS 668111–668178:310878–310878; area 18 ha). – A 670 m long and 500 m wide island with luxuriant vegetation. There are several rock outcrops. The main road runs along the SW shore. There are several all-year-round housings and summer cottages in the island.

Eight low islets between Granholm and Slätholm (668129–668196:310905–310931): **Blockgrund**, **Krokgrund**, **Skrakgrund**, **Starrgrund**, **Vettagrund**, and three nameless islets V–VII. These islets were studied by Ulla Bärlund in the 1930s and by Collander (1976) in the 1960s and 1970s.

Material and methods

Data on vascular plants found in the study area have been gathered from the Vascular plant database KASTIKKA of the Finnish Museum of Natural History in Helsinki (Lampinen & Lahти 2019a), literature and other sources. Our own observations began in 1964 in the Nåtö Island. Many other localities in the study area were included later. The nomenclature of the vascular

plant taxa and the order of families are according to Kurtto et al. (2019), with some older synonyms in brackets according to Hämet-Ahti et al. (1998, 2005). The nominate subspecies is not mentioned if it is the only subspecies occurring in southern Finland and adjacent areas. The order of species (taxa) in the families is according to Hämet-Ahti et al. (1998, 2005). For herbarium acronyms, see Index Herbariorum (2021).

For many frequent and common plants, an observation period is given, e.g., 1964–2019 which means that the taxon has been observed several times during this period, albeit not necessarily every year. When more than ten separate localities have been recorded in N Nåtö and/or S Nåtö, they are only reported as "numerous localities". More exact information is given for certain taxa. If several sources, e.g., information in the literature, voucher specimens and our own observations are available, the oldest is listed followed by the time span of our own information, including information in other studies. Such studies were done during the period 1964–2019 by Collander (1976), Håkanson (1976), Silfverberg (1980) and Slotte (1983). Their observations are included in the data below.

The company Silvestris Luontoselvitys Oy [Silvestris Nature Research Company] studied the vascular plant flora in some parts of the Nåtö – Jungfruskär Nature Reserve in 2015 (Silvestris 2015). The two nature reserve areas in Nåtö Island were divided in four parts with the main road as a dividing line. The northeastern part comprises Nåtö west and east (Nåtö W & E), the southwestern Västerbergen and Harskata. The part called Nåtö east is quite very rich in species and diverse, but no exact locality is mentioned for the taxa found there. Västerbergen is regarded among the inhabitants of Nåtö only as the westernmost rocky area, which is outside the Nature Reserve, while the spruce wood, partly included in the Nature Reserve, is called Västerskog. Harskatan is only a small promontory. The area Harskata by Silvestris is a much wider part with rocky terrain with pine stands, with spruce stands in lower lying areas, the eastern part of the former cultivated field Harskatsåkern and a swampy part at the small lake Hemviken.

Further, the study by Silvestris is not always quite accurate. A few obviously wrongly determined taxa were included in the list of taxa found in the different parts of the area studied:

- *Arctium tomentosum* is the only species of *Arctium* observed by Silvestris, and it was found in one locality in the NE part of Nåtö Island only. However, the only *Arctium* species found by us in this part of Nåtö is *A. nemorosum*. We have observed it in many places and one or two plants were observed by us at the main road next to Norrbacka during the period 2007–2019. Silvestris has no observation of *A. nemorosum* at all.
- *Hierochloë australis* was observed in the island of Slätskär. The only taxon of *Hierochloë* found in the Åland Islands is *odorata* subsp. *baltica* (Häggström & Häggström 2010). It grows in Slätskär, but it was not included from Slätskär in the list of Silvestris.
- *Ranunculus reptans* is rare in the Åland Islands (Häggström & Häggström 2010) and it is found on mineral soil in shallow water and on moist mineral soil shores of oligotrophic lakes. Such habitats are not found in the Nåtö area. The observation by Silvestris is probably of some other taxon, e.g., *R. flammula*.

- *Veronica longifolia* var. *longifolia* was noted in many islands as a subspecies. However, this inland taxon is not known anywhere in the archipelagos of Finland. Thus, the taxon ought to be var. *maritima* which is common in the Åland Islands.

A few other taxa observed by Silvestris have not been seen in the area before. As no voucher specimens were collected for later control, it is not possible to know whether the determination is right or not. These doubtful observations are discussed in the list of taxa below.

Further, many species occurring in the Nature Reserve area on Nåtö Island, are not included in the plant list by Silvestris, e.g., *Adoxa moschatellina*, *Agrostis gigantea*, *Allium vineale*, *Betula pubescens*, *Carex pulicaris*, *C. extensa*, *C. ornithopoda*, *Dianthus deltoides*, *Gagea minima*, *Geranium pusillum*, *Helictochloa pratensis*, *Juncus articulatus*, *Lathraea squamaria*, *Molinia caerulea*, *Myosotis arvensis*, *Myosurus minimus*, *Persicaria* spp., *Platanthera bifolia*, *Poa angustifolia*, *P. compressa*, *P. humilis*, *P. trivialis*, *Salix cinerea*, *Sanicula europaea*, *Sedum annuum*, *Selinum carvifolia*, *Senecio vulgaris*, *Spergula morisonii*, *Spergularia salina*, *Thalictrum flavum*, *Tripleurospermum inodorum*, *Veronica hederifolia* subsp. *hederifolia*, *V. scutellata*, *V. spicata*, *Viola canina* subsp. *montana* and *V. reichenbachiana*. Almost all of the aquatic macrophytes in the sea were neglected by Silvestris.

Species protected in Åland (cf. Häggström & Koistinen 1999) are marked with PrÅ immediately after the scientific name. Partially protected species, e.g., a few tree species, are marked with (PrÅ). If the species is under strict protection in Åland, an asterisk (*) is added. Threat categories (regionally extinct = RE, critically endangered = CR, endangered = EN, vulnerable = VU, near threatened = NT) are according to the 2019 Red List of Finland (Rytäri et al. 2019).

The first (oldest) information, *prima loca* (= p.l.), is mentioned for each taxon, with the exception of taxa that has been recorded only once or very few times, and further cultivated taxa. In many cases, there are several "prima loca", especially according to the information by Palmgren (1915–1917). Then no specific locality is indicated, but (AP-15) only.

The frequency and abundance of each species were estimated by the seven-degree scales often used in floristic studies in Finland. As there are no or only little information of the flora in some of the islands, the frequency has been calculated according to this fact. The separate localities on N and S Nåtö have been treated as one to few, depending on how near each other they are located. The frequency and abundance cannot be estimated in some cases because the information is lacking. Then they are marked with a question mark in italics (?). The frequency and abundance were not estimated for cultivated taxa.

The frequency scale used:

- fqq* = frequentissime, very common, >31 localities
- fq* = frequenter, common, 24–31 localities
- st fq* = sat frequenter, fairly common, 17–23 localities
- p* = passim, here and there, 11–16 localities
- st r* = sat raro, fairly rare, 6–10 localities
- r* = raro, rare, 3–5 localities
- rr* = rarissime, very rare, 1–2 localities

The abundance scale:

- cpp* = copiosissime, very abundant
- cp* = copiose, abundant
- st cp* = sat copiose, fairly abundant
- sp* = sparsim, scattered
- st pc* = sat parce, fairly sparse
- pc* = parce, sparse
- pcc* = parcissime, very sparse

Many taxa, especially aquatic plants and weeds, have been overlooked by us. Ornamental plants were not searched for systematically. They occur mainly in gardens and flowerbeds and we have not studied those of many of the houses and summer cottages in the area.

Typical habitats in the Åland Islands are mentioned for each species. However, every typical habitat mentioned does not occur in the study area. Specific localities are often mentioned, especially regarding Nåtö, the largest and most diverse of the islands. The distances given are approximations. The localities mentioned are not necessary all in which a certain species occurs, especially regarding more common species.

Other abbreviations

- (AP-10) = Palmgren (1910)
- (AP-15) = Palmgren (1915–1917), part II of this study published in 1915
- (AP-22) = Palmgren (1922)
- (AP-61) = Palmgren (1961)
- (CTZ-47) = Cedercreutz (1947)
- (HS-83) = Slotte (1983)
- (MH-76) = Håkanson (1976)
- NBS = Nåtö Biological Station
- (RC-76) = Collander (1976)
- (SIL-15) = the study of the vascular plant flora of a part of the Nåtö – Jungfruskär Nature Reserve by Silvestris (2015). Most information with the year 2015 is according to the studies of Silvestris and the tag (SIL-15) is mostly omitted. Only dubious finds are marked with the tag.
- (UB-36), (UB-37, map) & (UB-38, map) = Ulla Bärlund's notes made in 1936 and distribution maps of certain seashore species in the area between Espholm and Skobbholm, including Granholm and Rödgrund, in 1937 and 1938. This information is according to Collander (1976).

Photo: CAH = Carl-Adam Hæggström

Photo: EH = Eeva Hæggström

Photo: HV = Henry Väre

Photo: KN = Kurt Nordman

List of taxa found in the study area

- Huperzia selago* subsp. *selago*** – p.l. Nåtö 1919 (H) – *r-st r, pc-st pc* – Deciduous and spruce woods, rocky areas. – N Nåtö, among hazel shrubs N of Norrbacka 1965 (H); S Nåtö, in a hazel shrub among spruces about 350 m SE of Övergård 1981 (H); spruce wood of Västerskog 1996–2015; **Jungfruskär**, beneath a *Taxus baccata* stand at the Nature Trail 1974–1996; on the rocky area between the Nature Trail and the stone labyrinths 1996; **Inre Korsö**, at the N shore 1975/1976 (MH-76); in the spruce wood of the E part 1975/1976 (MH-76) – 2015; **Vattskär** 1973 (H); **Slätskär** 2015; **Östra Börtskär** 2015. – Fig. 37.

Spinulum annotinum (*Lycopodium a.*) – p.l. Nåtö 1906 (H) – *str*; *st pc-cp* – Spruce woods. – N **Nåtö**, spruce wood about 150 m W of Fiskarudden 1997; S **Nåtö**, several localities in the spruce wood of Västerskog 1982–2015; at Lastklubbsvägen 100 m NW of Svärtesnabba 2007; Harskata 2015; **Jungfruskär**, (AP-15); beneath *Taxus baccata* at the Nature Trail next to Inre Korsö 1973–1996; **Inre Korsö** 1973–2015; **Korsö** 1990–2015; **Eskskär** (AP-15); 1964; **Slätskär** (AP-15); 1972–2015; **Östra Börtskär** 2015.

Lycopodium clavatum – p.l. (AP-22) – *rr*; ? – Spruce woods. – **Nåtö** (AP-22, Palmgren 1925). – No later information. The species is quite rare in the Åland Islands (Häggström & Häggström 2010).

Selaginella selaginoides – p.l. Skobbholm 1902 (H) – *rr*; ? – Rich fens, moist seashore meadows. – **Skobbholm** 1902 (H); **Granholm** 1932 (H). – No later information. The species declined during the latter part of the 20th century, partly due to drainage of rich fens and partly due to the common overgrowth of previously open habitats, among others seashores. Today, it is extremely rare in the Åland Islands.

▼ Fig. 37. *Huperzia selago* among reindeer lichens. Eckerö, Storby, Berghamn. Photo: EH, June 18, 2009.



Equisetum fluviatile – p.l. S Nåtö 1995 – *r*; *st pc-sp* – Ditches, ponds, lakes, fens. – S **Nåtö**, Väster-skog, in a road ditch 200 m W of Harskatsåkern 1995; in a small mire on Västerbergen about 50 m N of the summer cottage of Nordqvist 1995–2015; **Skobbholm** 2007.

E. sylvaticum – p.l. S Nåtö 1995 – *r*; *st pc* – Moist spruce woods. – S **Nåtö**, moist wood NW of Hemviken 1995; at the road about 300 m SSE of Övergård 1995; approx. 180 m S of Övergård 2016; **Skobbholm** 2007.

E. pratense – p.l. Nåtö 1931 (H) – *r*; *pcc-st pc* – Moist spruce and mixed woods. – S **Nåtö**, Västeråker W of Södergård 1974 (H); Rosklev 1975/1976 (MH-76); 200 m S of Övergård 2007; 200 m NE of Lastklubb 2007; Västerbergen 2015.

E. arvense – p.l. (AP-15) – *st r-p*, *pcc-st cp* – Mesic and moist woods, moist meadows, sandy roadsides and other sandy areas. – N and S **Nåtö**, numerous localities 1964–2019; **Rödgrund** 2007; **Fjärdskär** 1973; **Skobbholm** 2007; Lemböte Slätholm 2011; **Granholm** 2007.

Ophioglossum vulgatum – p.l. Granholm 1908 (H) – *fq*, *pc-sp* – Seashore meadows and moist meadows. – In the whole area 1964–2019.

Botrychium lunaria – NT – p.l. (AP-15) – *p, pcc-
pc* – Dry and mesic meadows, juniper stands, lax deciduous and mixed woods. – **N Nåtö**, 100 m ENE of Nygård 1964 (H); 50 m E of Norrbacka 1965 (H), 200 m E of Norrbacka 1964–1967; 70 m NE of Nygård 1971; **S Nåtö**, Rosklev 1932 (H); mixed wood 300 m ESE of Björklund 1966; dry meadow at the NW border of Österåker 1966 (H); **Inre Kläppen** 1966 (H); **Rödgrund** (AP-15); **Senskär** 1965–1977; **Idholm** (AP-15); 1974–1978; **Eskskär** 1966–1971; **Slätskär** (AP-15); 1965 (H); **Slätholm** (AP-15); **Granholm** (AP-15); 1927 (H). – The species has obviously declined during the last decades, as no finds are known since the 1970s.

B. matricariifolium – EN – p.l. Nåtö 1931 (H) – *rr-r, pcc* – Meadows and woods. – **Nåtö** 1931 (H); **S Nåtö**, under spruces at the E shore approx. 750 m SE of NBS 1964 (H); on a **small islet N of Inre Korsö** 1948 (H). This islet may be the rocky one about 120 m E of Jungfruskär.

Fig. 38. *Cystopteris fragilis*. Ingå, Barösund, Svartö. Photo: KN, July 19, 1981.



Pteridium pinetorum (*P. aquilinum* subsp. *pinetorum*) – p.l. (AP-15) – *st r, pc-cpp* – Spruce and pine woods, clear-cut areas, roadsides. – **N Nåtö**, roadside at NBS 1973; 50–100 m S of Kumme-ludden 2007; **S Nåtö**, numerous localities 1964–2019; **Rödgrund**, roadsides 1997; **Jungfruskär** (AP-15); 1974–1996; **Inre Korsö** 1973–2015; **Korsö** 1990–2015; **Eskskär** (AP-15); **skerry N of Getskär** 2015; **Sköbbholm** (AP-15).

Cystopteris fragilis – p.l. (AP-15) – *st r, st pc* – Rock outcrops, stony rock meadows. – **N Nåtö**, 70 m ESE of NBS 1997–2019; at Idviken 1995; Nåtö E 2015; **S Nåtö**, W of Österåkersgrund 1971; Västerskog NW of Hemviken 1995; between Björklund and Övergård 1995; between Söderäng and Hemviken 2007; Harskata 2015; **Inre Kläppen** 2008; **Senskär** 1973–1997; **Idholm** (AP-15); 1974–2015; **Inre Kalvskär** (AP-15); **Slätskär** (AP-15); 1972–1977; **Sköbbholm** (AP-15); 1987; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 2007. – Fig. 38.

Gymnocarpium dryopteris – p.l. (AP-15) – *st r, st
pc-st cp* – Mesic spruce and deciduous woods. – **N Nåtö**, at Finngräftet 1967–1978; 50–100 m NE of Norrbacka 1971; 150 m NE of Nygård 2007; Nåtö E 2015; **S Nåtö**, Västerskog, in six areas 1975/1976 (MH-76); Harskatan 1975/1976 (MH-76); 1997–2007; Tegelvik 1995; Rosklev 2007; at Harskatsåkern 2007; Västerbergen 2015; Harskata 2015; **Jungfruskär** (AP-15); 1945 (TURA); **Inre Korsö** 1973–2015; **Korsö** 1999; **Östra Börtskär** 2015; **Slätskär** 1975; Getskär 2015.

Asplenium trichomanes subsp. *trichomanes* – p.l. Nåtö 1891 (H) – *st r-p, pc-st pc* – Rock outcrops – **N Nåtö**, at Själkskatsudden 1964–1995, disappeared thereafter; at Tegelvik 1995; **S Nåtö**, W of Österåkersgrund 1971; N of Harskatan 1975/1976 (MH-76); SW Västerbergen 2007; between Söderäng and Hemviken 2007; Harskata 2015; **Idholm** (AP-15); 1922 (H); 1974–2015; **Inre Kalvskär** (AP-15); **Korsö** 1990; **Slätskär** (AP-15); 1945 (H); **Slätholm** (HS-83); **Nåtö Munkholm**, rocky area at the E shore 1981–1987; **Granholm** (AP-15).

A. trichomanes subsp. *quadrivalens* – NT – *rr,
pcc-pc* – Rock outcrops. – **S Nåtö**, Harskata 2015 (SIL-15).



Fig. 39. The hybrid *Asplenium septentrionale* × *trichomanes* subsp. *trichomanes*. A firm shoot of a *Hieracium*-species and few shoots of *Galium verum* grow next to the hybrid. In the right corner below, a few leaves of *A. trichomanes* subsp. *trichomanes* are seen. Lemland, Norrby. Photo: CAH, July 23, 2007.

A. septentrionale – p.l. (AP-15) – *p*, *pcc-pc* – Rock outcrops. – **N Nåtö**, at Själkatsudden 1964–2018, not found in 2019, probably because of the extremely dry summer of 2018; rocky area W of Fiskarudden 1995; N of Fiskarudden 1995; at Tegelvik 2002; Nåtö E 2015; **S Nåtö**, W of Österåkersgrund 1971; SW of Hemviken 1975/1976 (MH-76); rock outcrop between Hemviken and the former field Hemåker 1980; rock outcrop in Västerskog NW of Hemviken 1995; 200 m SE of Södergård 1995; 200 m NE of Övergård 2007; between Söderäng and Hemviken 2007; SW slope of Västerbergen 2007; Harskata 2015; **Inre Kläppen** 2008; **Idholm** (AP-15); 1948 (TUR); 1974–2015; **Inre Kalvskär** (AP-15); **Korsö** 1990; **Eskskär** (Gadolin 1927); **Slätskär** (AP-15); **Getskär** 1973–2015; **Östra Börtskär** 2015; **Slätholm** (AP-15); (HS-83); **Nåtö Munkholm**, rocky area at the E shore 1981–1987; **Granholm** (AP-15)

A. septentrionale* × *trichomanes subsp. *trichomanes* – p.l. Nåtö 1901 (H) – *rr*, *pcc* – Rock out-

crops. – **Nåtö** 1901, 1902 (H); **N Nåtö**, rocky area at Själkatsudden, one specimen, 1964–1993, disappeared thereafter; **Idholm** (AP-15). – Fig. 39.

Woodsia ilvensis – p.l. Nåtö 1914 (H) – *st r-p*, *st pc* – Rock outcrops. – **N Nåtö**, 150 m S of Fiskarudden 1982 (H); 1987; at Idviken 1995; W of Fiskarudden 1995; N of Fiskarudden 1995; at the nature trail 2009; **S Nåtö**, W of Österåkersgrund 1971; N of Harskatan 1975/1976 (MH-76); between Hemviken and Harskatan 1984 (H); 600 m SSE of Övergård 1986; between Övergård and Österåker 1995; between Söderäng and Hemviken 1995–2007; S of Hemviken 1997; SW Västerbergen 2007; Västerbergen 2015; **Inre Kläppen** 2008; **Rödgrund** (AP-15); **Idholm** (AP-15); 1975–2015; **Östra Börtskär** 1972–1973; **Korsö** 1927 (VOA), **Skobbholm** (AP-15); **Slätholm** (HS-83); **Granholm** (AP-15); 1927 (H); 2007.

Matteuccia struthiopteris – *rr?*, ? – Moist spruce and deciduous woods. – **N Nåtö**, cultivated at NBS; **S Nåtö**, Västerbergen 2015 (SIL-15).

Athyrium filix-femina – p.l. (AP-15) – *p, pc-sp* – Moist spruce and deciduous woods. – **N Nåtö**, at Vidkärr 1971–2019; central part of the wooded meadow area 2007; Nåtö E 2015; **S Nåtö**, more than ten localities 1975–2019; **Senskär** 1972; **Idholm** (AP-15); **Fjärdskär** 1973; **Jungfruskär** (AP-22); **Korsö** 1999; **Måsskär** 1987; **Slätskär** 1972–1999; **Orrskär** 1974; **Ormgrund** 1963–1970 (RC-76); **Skobbholm** 2007; **Slätholm**, introduced in 1983 (HS-83).

Thelypteris palustris – p.l. 1972 (H) – *rr, cpp* – Rich fens, quagmire shores of eutrophic lakes. – **S Nåtö**, on the quagmire and fen shores of Hemviken 1972–2018; in the pond area for natural fish spawning S of Hemviken 2018. – Four localities were noted by Silvestris in 2015, namely **S Nåtö** **Västerbergen** and **Harskatan**, **Inre Korsö** and **Slätskär**. Harskatan may refer to the quagmire and fen shores of Hemviken. As far as we know, the proper habitats are lacking for this species, both in the Väterskog area and in the two smaller islands. – Fig. 40.

Fig. 40. *Thelypteris palustris*. Ingå, Barösund, Barö. Photo: KN, August 30, 1981.



Phegopteris connectilis – p.l. Östra Börtskär & Jungfruskär 1972 – *r, pc-sp* – Spruce and mixed woods. – **S Nåtö**, Väterskog N of Harskatsåkern 1975/1976 (MH-76); central spruce wood of Väterskog 1975/1976 (MH-76); NE of Rosklev 1975/1976 (MH-76); Västerbergen 2015; **Östra Börtskär** 1972; **Jungfruskär**, 1972–1973; E part 1975/1976 (MH-76); **Inre Korsö** 2015; **Korsö** 1999.

Dryopteris filix-mas – p.l. Nåtö 1914 (H) – *fqq, sp-st cp* – Rock outcrops and stony places at and beneath rocks, deciduous, mixed and spruce woods. – In the whole area 1964–2019.

D. cristata – p.l. Slätskär 1973 – *rr, pc* – Moist woods, fen margins. – **S Nåtö**, Väterskog E of Rosklev (MH-76, uncertain determination); Slätskär 1973–1976.

D. carthusiana – p.l. (AP-15) – *fq, pc-sp* – Spruce, mixed and deciduous woods. – In the wooded islands of the whole area 1964–2019.

D. carthusiana × **dilatata** – *rr, ?* – **Jungfruskär**, in the *Taxus* wood 1984 (H). – Uncertain determination; J. Sarvela, a Finnish expert on *Dryopteris*, marked the determination with a question mark.

D. expansa – p.l. Nåtö 1906 (H) – *st r, sp* – Moist spruce and deciduous woods. – **S Nåtö**, Väterskog 1982–2015; Harskatan 1991–2015; Tegelvik 1995; SE of Hemviken 1997; **Idholm** 1974–2015; **Jungfruskär** 1939 (H); 1996; **Inre Korsö** 1970–2015; **Korsö** 2015; **Slätskär** 2015; **Skobbholm** 1901 (H). – Palmgren (1922) included *D. expansa* in *D. dilatata*.

D. dilatata – p.l. Skobbholm 1931 (H; uncertain locality, because the place on the label is Skobbskär, an unknown island name in Lemland); Jungfruskär 1939 (H) – *p, pc-sp* – Moist spruce and deciduous woods. – **N Nåtö**, N of Norrbacka 1995; E of Fiskarudden 1995; **S Nåtö**, Harskatan 1975/1976 (MH-76), 2007–2015; Väterskog 1995; Rosklev 1995–2007; approx. 180 m S of Övergård 2016; **Idholm** 1974–1978; **Inre Kläppen** 2008; **Senskär** 1975; **Jungfruskär** 1974–2015; **Inre Korsö** 1967–2015; **Korsö** 1990; **Esk-skär** 1971–1995; **Måsskär** 1987; **Slätskär** 1972–2015; **Getskär** 2015; **Orrskär** 1974 (uncertain determination); **Skobbholm** 2007. – Palmgren (1922) included *D. dilatata* in *D. expansa*.

D. cf. *dilatata* × *expansa* – rr, pc – Moist spruce and deciduous woods. – **Korsö** 1990.

Polypodium vulgare – p.l. (AP-15) – fqq, st pc-sp – Rock outcrops, boulders. – In the whole area 1964–2019.

Larix sp. – Cultivated in woods. – **Korsö** 1999, cultivated sapling.

Picea abies – p.l. S Nåtö (Braxer 1765) – fqq, pcc-cpp – Spruce and mixed woods. – In the whole area 1964–2019, with the exception of the smallest treeless islets. – Most of the spruces were cut in the wooded meadow area of the Nature Reserve on N Nåtö and on Senskär and Idholm (one tree left in 1997 in both islands; two found in Idholm in 2011; at least one still there in 2015). The central part of Västerskog in Nåtö Island was destroyed by a gale in January 2019.

Pinus sylvestris – p.l. S Nåtö (copy of Braxer 1765) – fqq, pcc-cpp – Rock outcrops, coniferous and mixed woods chiefly growing on rock outcrops. – In the whole area 1964–2019, with the exception of the smallest treeless islets.

Juniperus communis – (PrÅ) – p.l. (AP-15) – fqq, st pc-cpp – Rock outcrops, woods, rich fens. – In the whole area 1964–2019. – Junipers of at least 6 m height are protected in Åland (cf. Häggström & Koistinen 1999). Trees of that size have not been found in the study area.

Taxus baccata – PrÅ, NT – p.l. Slätholm 1886 (H) – st fq, pcc-cpp – Mesic spruce and deciduous woods, usually close to seashores. – **N Nåtö**, one tree N of the windmill of NBS 1964–2019; three trees at the Nature Trail 1964–2019; one tree 100 m S of Finngräfet c. 1970; one tree NW of Jonsson's summer cottage c. 1970; one tree on Själ-skatsudden 1975; one tree 200 m E of Nygård 1980; **S Nåtö**, two trees at Österåkersgrund in the 1960s and early 1970s, both cut c. 1975; two trees 50 m E of Hemviken in the 1960s; one tree on Lastklubb in the 1960s; one tree at the small former field N of Västeråker c. 1970; two trees on Harskatan c. 1970, one tree still there in 2007; one tree at the kiosk 250 m SW of Södergård 2007; Västerbergen and Harskata 2015; three trees S of the fish spawning ponds 2018; **Inre Kläppen**, two trees planted between Danielsson's house and the boathouse in the 1970s; one in good con-

dition, the other was dying back in 2009; **Rödgrund**, at least five trees 2007; **Senskär**, 1994–2015; **Idholm**, one tree 1978–1995; **Inre Kalvskär**, one sapling (AP-15); **Yttre Kalvskär** (AP-15); (Håkan Slotte, in letter 1984); **Inre Korsö** 1927 (H); abundant 1964–2015; **Stångklubb** 1928 (H); **Korsö** (AP-15); several trees 1990; **Jungfruskär** (AP-15); abundant – very abundant 1964–2015; the largest tree was approx. 8 m high with a circumference of the trunk of 162 cm at 10 cm height, 153 cm at 60 cm height, and 149 cm at 130 cm height, in 1987; **Ekskär** (AP-15); several trees 1964–1998; **Slätskär** (AP-15); fairly abundant 1964–2015; **Getskär** 2015; **Skobbholm**, one tree S of Rothberg's house 2007; **Slätholm** 1886 (H); (HS-83); **Nåtö Slätholm**, one tree on the N part (Håkan Slotte, in letter 1984); **Nåtö Munkholm** 2016; **Lemböte Munkholm**, one tree on the NE part (Håkan Slotte, in letter 1984); **Granholm** (AP-15); several trees on the W and NW parts 2007. – Häggström (1994a). – Fig. 41.

Fig. 41. One of the *Taxus baccata* trees at the Nature Trail in Nåtö Island. The tree was heavily browsed by roe deer in the mid 1980's and after the cold winter of 1985–1986 only two basal branches were alive. The metal mesh cage was erected for protection and the tree has recovered. Photo: CAH, November 11, 2011.



Nymphaea alba coll. – Lakes, ponds. – S Nåtö, red-flowered plants cultivated in Hemviken at Södergård 2018.

N. candida (*N. alba* subsp. *candida*) – p.l. Slätskär (CTZ-47) – rr, st pc – Lakes, ponds, large rock-pools – Ärtskär, in the large rock-pool at the W shore 1967; Slätskär, N pond (CTZ-47).

Nuphar lutea – Lakes, ponds, large rock-pools. – S Nåtö, cultivated in Hemviken at Södergård 2018; Slätskär 1972 (uncertain record).

Lemna trisulca – rr, pc – Eutrophic lakes, also in brackish water. – N Nåtö, in the sea at the shore of Knäckgraven 1983 (H).

L. minor – p.l. (CTZ-47) – r, cpp – Lakes, ponds, rock-pools, ditches. – S Nåtö, Hemviken (CTZ-47); Ärtskär (CTZ-47); Vattskär 1973; Getskär (CTZ-47), 2015. – Probably overlooked, especially in the western skerries, e.g., Måsskär.

Alisma plantago-aquatica – p.p. Nåtö (CTZ 47) – r, pc – Lakeshores, ditches, ponds, rock-pools. – Nåtö, rock-pool (CTZ-47); N Nåtö, Vidkärr 2007; in the small wet fen 200 m NE of Nygård 2009; in the wet fen Gärsins kärr about 100 m S of Nygård 2012; S Nåtö, in the pond area for natural fish spawning S of Hemviken 2018.

Stratiotes aloides – rr, pc – Eutrophic lakes, ponds. – S Nåtö, four plants introduced in the pond area for natural fish spawning S of Hemviken in 2011; abundant and flowering in 2018.

Najas marina – p.l. S Nåtö (CTZ-47) – r, ? – On soft bottoms in sea bays and eutrophic lakes. – S Nåtö, Hemviken (CTZ-47); Gripen, in the bay between Gripen and the roadbank in the 1980s. – Overlooked. The species has disappeared from Hemviken.

Triglochin maritima – p.l. (UB-36) – fq-fqq, pc-cp – Seashores. – In the whole area 1964–2019.

T. palustris – p.l. S Nåtö 1906 (H) – st r, pc-st pc – Moist and fen meadows, seashore meadows. – N Nåtö, seashore meadow at Idviken 1994; the *Sesleria* meadow at Idviken 1997; S Nåtö, seashore against Bergö 1906 (H); Senskär 1977; Jungfruskär 1974 (uncertain determination); Slätskär 1977; Granholm (AP-61).



Fig. 42. *Potamogeton perfoliatus*. Ingå, Barösund, Svartö.
Photo: KN, June 30, 1980.

Zostera marina – NT – p.l. Lilla Eskskär 1972 (H) – st r?, ? – On sandy bottoms in the sea, often at some metres depth. – N Nåtö, floating at the shore at Knäckgraven 1995; floating at the shore by the boathouse of NBS 1997; Lilla Eskskär, floating at the E shore 1972 (H); Slätholm (HS-83). – No rooted populations have been found by us.

Potamogeton natans – p.l. Slätskär 1901 (H) – r, st pc? – Lakes, ponds, rock-pools. – S Nåtö, in the pond area for natural fish spawning S of Hemviken 2018; Ärtskär, the pond (CTZ-47); Slätskär 1972.

P. gramineus – p.l. Slätholm 1886 (H) – r, ? – Lakes, ponds, rock-pools. – Nåtö (CTZ-47); S Nåtö, in the pond area for natural fish spawning S of Hemviken 2018. Slätskär 1902 (H); Slätholm 1886 (H).

P. ×sparganiifolius (*P. gramineus* × *natans*) – rr, ? – Lakes, ponds, rock-pools. – Slätskär 1902 (H).

P. perfoliatus – p.l. N Nåtö 1964 – *r* (probably much more frequent), *sp-cpp* – Lakes, brackish water. – **N Nåtö**, on 50–150 cm deep water by the boathouses 1964–2019; at Knäckgraven 1995; **S Nåtö**, in the pond area for natural fish spawning S of Hemviken 2018; **Senskär**, in the NW bay 1997; **Skobbholm** 2007. – Overlooked. – Fig. 42.

P. berchtoldii – p.l. Getskär (CTZ-47) – *rr*; ? – Lakes, ponds, rock-pools, ditches. – **Vattskär**, rock-pool on the NW part 1972 (H); **Getskär** (CTZ-47).

Stuckenia filiformis (*Potamogeton f.*) – p.l. Nåtö 1901 (H) – *st r*; *st pc* – In brackish water on stony bottom at wave exposed seashores, very rarely in lakes. – **N Nåtö**, at the boathouse of NBS 1988; at Knäckgraven 2018; **S Nåtö**, at Rosklev 2007; **Jungfruskär**, in the NW bay 1996; **Eskskär**, in the NW bay 1995 (H); **Lilla Eskskär**, on the E shore 1972 (H); **Getskär** 1973. – Overlooked.

S. pectinatus (*Potamogeton p.*) – p.l. Nåtö 1931 (H) – *p* (probably more frequent), *sp-cp* – In brackish water, rarely in lakes. – **N Nåtö**, in the sea at the boathouses 1964–2019; in the bay W of Fiskarudden 2007; at Knäckgraven 2008; **S Nåtö**, Harskatan 2007; **Inre Kläppen/Yttre Kläppen**, in the sound between the islands in the 1960s (mf. *zosteraceus*); **Rödgrund** 2007; **Jungfruskär**, in the NW bay and the harbour bay 1996; **Eskskär**, in the NW bay 1995 (H); **Getskär** 1973; **Gräsgrund** 2007; **Tunngrund** 2007; **Granholm** 2007. – Overlooked.

Zannichellia palustris (incl. var. *palustris* and var. *pedicellata*) – p.l. Nåtö 1909 (H) – *st r* (probably more frequent), *sp-cpp* – On soft bottom in brackish water and eutrophic lakes. – **Nåtö** 1932 (H); **N Nåtö**, on soft bottom in shallow water at the boathouses 1994–2019; on soft bottom at Knäckgraven 2007; in the bay W of Fiskarudden 2007; **S Nåtö**, Rosklev 2007; Harskatan 2007; **Jungfruskär**, NW bay and harbour bay 1996; **Eskskär**, NW bay 1995 (H); **Lilla Eskskär**, E shore 1972 (H); **Getskär** 1973, **Gräsgrund** 2007; **Skobbholm**, NW shore 2007; **Granholm**, NE shore 2007. – Overlooked.

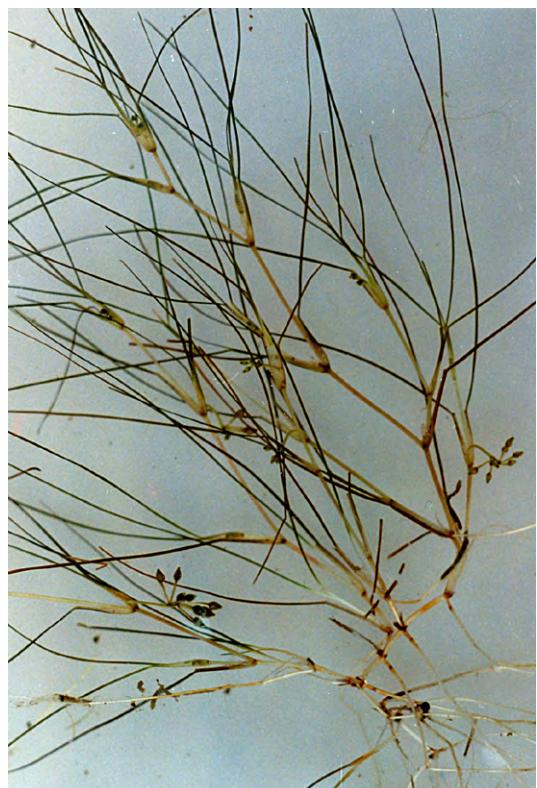
Z. major – p.l. Lilla Eskskär 1972 – *r*; *st pc-sp* – In brackish water on stony bottom at wave exposed shores. – **S Nåtö**, Rosklev 2007; **N Kalv-**

skärsgrundet 1994; **Jungfruskär**, N bay at the W point 1996; **Lilla Eskskär**, in the 1970s; **Eskskär**, NW bay 1995 (H). – Overlooked.

Ruppia maritima coll.– NT – Nåtö 1919 (H) – *r*; *st pc-sp* – On soft bottom in shallow sea bays. – **Nåtö** 1919 (H); 1932 (H); **N Nåtö**, Idviken 1994; at Knäckgraven 2008–2018; E of Själsskatsudden 2018; **S Nåtö**, in the bay S of Österåkersgrund 1973; at Rosklev 2007; **Gräsgrund** 2007. – Overlooked. – Both var. *brevirostris* and var. *maritima* occur, but they have not been determined to the variety. – Fig. 43.

R. spiralis (*R. cirrhosa*) – NT – p.l. Nåtö 1908 (H) – *st r*; *pc-st pc* – On soft bottom in sea bays. – **N Nåtö**, on 1 m depth between Jansson's boathouse and sauna 1960s–1988, not found since; Tegelvik 1994; on 50–60 cm depth at the boathouse of NBS 2007; **S Nåtö**, at the W shore of Harskatan 2007; **Jungfruskär**, in the harbour bay c. 1990; in the NW bay 1996; **Eskskär**, in the NW bay 1995 (H). – Overlooked.

Fig. 43. *Ruppia maritima*. Hangö, Tvärminne. Photo: KN, July 26, 1986.



Paris quadrifolia – p.l. Granholm 1902 (H) – *p, pc-cp* – Deciduous and mixed woods. – N and S **Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); **Senskär** 1975–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Inre Korsö** 2015; **Jungfruskär** 1996; **Eskskär** 1998; **Slätskär** 1978–2015; **Skobbskär** 2007; **Slätholm** (HS-83); **Granholm** 2007.



Fig. 44. *Fritillaria meleagris* in Eskskär. Photo: CAH, June 2, 1969.

Fritillaria meleagris – PrÅ* – p.l. Eskskär 1904 (H) – *r, pcc-cpp* – Mesic, moist and sea-shore meadows. – N **Nåtö**, two to five flowering specimens 30 m S of the midsummer pole 1960s – 2019; cultivated at the summer cottage of Blomqvist in the 1960s – 2007; cultivated at Västergård in the 1960s; cultivated at NBS, two garden escapes at NBS 1997; **Jungfruskär**, sea-shore in the late 1960s; **Eskskär**, in the area belonging to the Nature Reserve, first observed in 1904 (AP-15, H); about 160 flowering plants in 1966, 163 flowering and 150–200 vegetative shoots in 1969, about 300 flowering plants (3–4 white) in 1970, about 350 flowering plants (7 white, 1 pale lilac) in 1971, 28 specimens E of the footpath, 140 specimens W of the footpath in 1995; 263 flowering (4 white) in 1997; **Slätskär** 1952 (OULU). – Fig. 44.

Lilium bulbiferum – Ornamental plant. – N **Nåtö**, one plant as a garden escape at NBS 1964 – 1990s, not seen since.

Tulipa sp. – Ornamental plant. – N **Nåtö**, an old cultivar with red and yellow narrow tepals at NBS main building 1964–2019. The number of flowering specimens has decreased during the years and only a few non-flowering specimens were left in 2019.

Gagea lutea – p.l. Idholm 1904 (H) – *st r, pc-sp* – Deciduous woods, mesic meadows. – N **Nåtö**, at NBS 1964–2019; central part of the wooded meadow area 1964–2019; hazel stand 60 m E of Nygård 1964–2007; hazel copse between Norrbacka and Nygård 1964–2007; 50–100 m NE of Nygård 1979; 50 m NE of Norrbacka 1979; between Norrbacka and Inre Kläppen 1997; 120 m W of Norrbacka 2003 (H); S **Nåtö**, hazel copse 80 m S of Björklund 1971; at the main road near Västergård 2007 (Thomas Kuusela, pers. comm.); **Senskär** 1974; **Idholm** 1978; **Slätholm** (HS-83).

G. minima – p.l. N **Nåtö** 1964 – *r, sp* – Mesic and dry meadows, rock meadows, former cultivated fields. – N **Nåtö**, at NBS 1964–2019; rock meadows 70 m ESE of NBS 1997–2007; S **Nåtö**, Harstsåkern 1967 (H).

Epipactis palustris – PrÅ*, EN – Rich fens. – **Nåtö**, in a meadow between rock outcrops 1965 (H). – The information on the label of this voucher specimen is certainly false, because the plant was not collected in Nåtö. The collector, Mr. V. Lylly, was accompanied by the author CAH on the day when the plant is reported to have been collected. The collector did not take a single plant with him on that occasion from Nåtö. – There are also some other obviously false collections of Mr. Lylly from other parts of Åland (cf. Häggström 1986a, 2003a, Häggström et al. 2003, Carlsson et al. 2011).

E. helleborine – *rr, pcc* – Deciduous, mixed and spruce woods, roadsides. – S **Nåtö**, the spruce wood of Västerskog 200 m E of the northern field of Rosklev, two non-flowering specimens 1982.

Cephalanthera longifolia – PrÅ*, VU – *rr, pcc* – Deciduous woods. – N **Nåtö**, two flowering shoots 1914 (AP-15); both shoots were picked by the local inhabitant Hanna Jansson (nee Johansson, pers. comm 1964).

Neottia nidus-avis – NT – p.l. Nåtö 1931 (H) – *st r, pcc-st pc* – Deciduous, mixed and spruce

woods. – **N Nåtö**, hazel copse 100 m NE of Nygård in the 1960s; hazel copse at Vidkärr c. 1990; **S Nåtö**, 30 m NE of Lastklubbsåkern in the 1960s; spruce wood 400 m SE of Övergård 1971; spruce wood of Västerskog 1994; at the road in Västerskog 50 m NW of Lastklubbsåkern, three shoots 2002; Västerbergen 2015; **Jungfruskär** 1996; **Inre Korsö** 1999; **Slätholm** (HS-83); **Granholm** 1981 (H).

N. ovata (*Listera o.*) – p.l. (AP-15) – *p-st fq, st pc-cp* – Deciduous, mixed and spruce woods, mesic meadows. – **N Nåtö** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1997–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1999–2015; **Eskskär** 1997; **Slätskär** 1978–2015; **Skobholma** 2007; **Slätholm** (HS-83); **Granholm** 2007.

N. cordata (*Listera c.*) – p.l. **S Nåtö** 1966 (H) – *r, pc-sp* – In *Sphagnum* carpets on moist ground in spruce woods, fen margins. – **S Nåtö**, in moist to wet depression in the spruce wood of Västerskog 1966–2005; in moist spruce wood approx. 30–40 m SE of Rosklev 2007, one flowering and 11 flowerless plants, some of them very small 2015; **Korsö**, on *Sphagnum* carpets on rocks of the N and NE part 1990; **Måsskär** (Håkan Slotte, in letter 1984).

Herminium monorchis – RE – Rich fens, calcareous fen like seashore meadows. – **N Nåtö**, plants from Saaremaa (Ösel), Estonia were planted on the seashore meadow of Idviken in 1989 and 1990 and on the seashore meadow 100 m NE of Själksatsudden in 1990 (Häggström 1992); the introduction was unsuccessful as no plants were seen after 1992.

Platanthera bifolia – p.l. (AP-15) – *st fq, pc-st cp* – Dry, mesic, rock and heath meadows, lax woods. – **N and S Nåtö**, numerous localities 1964–2019; **Rödgrund**, according to Göran Stenlid still in 2007; **Senskär** 1977–2015; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Eskskär** 1995; **Slätskär** 1994–2015; **Getskär** 1973; **Skobholma** (AP-15); **Slätholm** (HS-83); **Granholm** 2007. – In the field flora of Finland (Hämälähti et al. 1998) and the Checklist of vascular plants in Finland (Kurtto et al. 2019), the taxon in Finland, including the Åland Islands, is assigned to subsp. *latiflora*.



Fig. 45. A stand of *Platanthera bifolia* in Lemland, Järsö. The habitat, a dry heath meadow between rock outcrops, is quite typical for this orchid in the Åland Islands. The specimens are rather short with dense spikes. Photo: CAH, June 19, 2010.

flora. However, according to studies by the author CAH (Häggström 1994b, 1995), it is not possible to distinguish between subsp. *bifolia* and subsp. *latiflora* in Finland. Numerous specimens in Nåtö and other parts of SW Finland show distinctive morphological features of typical subsp. *bifolia*, others are more or less intermediate regarding the distinguishing characters. – Fig. 45.

P. chlorantha – p.l. **Slätskär** 1901 (H) – *fq, pc-sp* – Deciduous, mixed and spruce woods, mesic meadows. – **N and S Nåtö**, numerous localities 1964–2015; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1933 (H), 2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1975/1976 (MH-76), 2015; **Eskskär** 1998; **Slätskär** 1994–2015; **Get-**

skär 2015; **Östra Börtskär** 2015; **Ormgrund** (RC-76); **Tunngrund** 2007; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Platanthera sp. – **Inre Korsö** 1999; **Östra Börtskär** 1973; **Orrskär** 1974. – Specimens without flowers are difficult, or even impossible to determinate to the species.

Coeloglossum viride (*Dactylorhiza viridis*) – NT – p.l. Nåtö & Skobbholm (AP-15) – *str*, *pcc* – Dry and mesic meadows. – **N Nåtö**, two separate localities in Ormdalssläten 1964–1966; two plants in a dry meadow between Knäckgraven and Ormdalssläten in the 1960s; flowering plant 50 m NE of Norrbacka 1967; Skarpbacka in the 1970s; two plants in the *Sesleria* meadow between NBS and the boathouses 1980; **S Nåtö**, Söderäng, several decades ago (according to Göran Stenlid, pers. comm. 2007); two plants 50 m S of Björklund in the 1960s; **Senskär**, two plants 1974; **Skobbholm** (AP-15). – The species seems to be declining in the study area and in the Åland Islands as a whole.

Gymnadenia conopsea subsp. *conopsea* – PrÅ, VU – p.l. (AP-15) – *r*; *pc* – Mesic meadows, lax deciduous woods. – **Idholm**, two shoots c. 1967; **Eskskär** (AP-15); **Slätskär** 1932 (H). – The species has not been seen in the study area since c. 1967.

Dactylorhiza sambucina – (PrÅ), VU – p.l. Slätskär 1901 (H) – *p-st fq*, *pc-cpp* – Mesic, dry and rock meadows. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, Harskatan 1964–2019, dry meadow at Österåker in the 1960s; at the N margin of Västeråker 1995; at the main road at Södergård 1995; at Harskatsåkern 2007; **Inre Kläppen** 2008; **Rödgrund**, about 1 000 flowering plants 1996 (according to Göran Stenlid); several stands 2007–2018; **Senskär** 1964–2015; **Idholm** 1964–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Eskskär** 1964–1995; **Slätskär** 1974–1999; **Skobbholm**, SE part 2007; **Slätholm** (HS-83); **Munkholma** 1987; **Granholm** 1964–2007. – The red flowered morph (occasionally called f. *rubra* Rchb. or f. *purpurea* Koch) is much more common than the yellow flowered morph (f. *sambucina*). In some smaller populations only, red flowered specimens occur. – Specimens of this orchid may not be taken with their



Fig. 46. Red flowered *Dactylorhiza sambucina* at Nåtö Biological Station. The yellow flowers belong to *Ficaria verna*. Photo: CAH, June 16, 2010.

tubers without the permission of the Alandian Government authorities. – Fig. 46.

D. incarnata subsp. *cruenta* – VU – **Nåtö** 2003 – This taxon was reported by Petäinen (2003; photo by S. Pasivaara sent by e-mail to the authors). The taxon was, however, most probably photographed somewhere else, e.g., in Mariehamn where this taxon occurs. The photographer was not sure about the locality and thus we were not able to trace the locality of the photo.

D. maculata subsp. *maculata* – p.l. S Nåtö c. 1975 (MH-76) – *rr*, *st pc* – Mesic and moist spruce and mixed woods, poor fens. – **S Nåtö**, Västerskog (MH-76; uncertain determination); at Lastklubbsvägen SE of Svärtesnabba 2007; Västerbergen 2015; **Senskär** 2015 (SIL-15). – Senskär is not a typical locality for this taxon.

D. maculata subsp. *fuchsii* – NT – p.l. Nåtö 1902 (H) – *st r*, *st pc-cpp* – Deciduous woods, mesic and moist meadows, rich fens. – **N** and **S Nåtö**, numerous localities 1964–2019; **Senskär** 1973–2015; **Idholm** (AP-15), 2015; **Skobbholm**, SE part 2007; **Slätholm** (HS-83); **Granholm** (AP-15). – Due to good maintenance of the former

wooded meadow area of the Nature Reserve in NE Nåtö, this subspecies has become very abundant there. – Fig. 47.

Orchis mascula – PrÅ, NT – p.l. Granholm 1902 (H) – st r; pcc-cpp – Dry and mesic meadows, deciduous woods. – **N Nåtö**, several small and large stands in the central part of the wooded meadow area c. 1967–2019, the first stand comprising six flowering plants c. 1967; the largest stands, growing from the *Sesleria* meadow at Idviken to Själskatsudden, comprise several thousand of flowering plants at the beginning of the 21st century; one flowering plant 1970 at Finngräfet 1970–

Fig. 47. *Dactylorhiza maculata* subsp. *fuchsii*. Nåtö Island.

Photo: CAH, July 1, 2012.



Fig. 48. *Orchis mascula*. Lemland, Herröskatan. Photo: HV, July 26, 2007.

71, eight flowering plants in 1979, about ten every year since; a small stand 40 m N of Björklund 1980–2018; one plant 20 m N of NBS small cottage 2004, 24 in flower 2008, dozens in 2009; approx. 200 flowering specimens 2015–2019; **S Nåtö**, Lastklubb, some ten plants 1904 (AP-15); a few plants at Lastklubb 1964; a few plants at the E margin of Lastklubbsåkern 1964; at the N and E margins of Lastklubbsåkern 1975; one small stand NE of the E end of Lastklubb 1975; one small stand 150 m NNE of Lastklubb 1975; one plant 150 m W of the SW end of Lastklubbsåkern 1975; 196 flowering plants in the area of Lastklubb 1990 (Ranta 1991); two plants cultivated at Nåtö kiosk 2011; **Senskär**, one plant 2001, several 2004 (Thomas Kuusela, pers. comm. 2004); 2015; **Idholm** 1964–2015; the population was estimated at approx. 40 000 plants in 1991 (Ranta 1992); **Ekskär** (AP-15); **Slätskär** 1976; **Getskär** 1904 (H); **Granholm** 1902(H); 1981; 33 flowering plants 1990 (Ranta 1991), not found in 2007. – Fig. 48.

Corallorrhiza trifida – p.l. Korsö 1919 (H) – *r, pc* – Moist spruce woods. – **N Nåtö**, three flowering plants in moist spruce wood at the Nature Trail in Själskats norra stycke 1971; **Jungfruskär** 1939 (H); **Korsö** 1919 (H).

Iris pseudacorus – p.l. Nåtö 1930 (H) – *st r, st pc-st cp* – Lakeshores, ponds, rock-pools, ditches, wet depressions. – **N Nåtö**, on an earth mound N of the former cattle shed of NBS 1995–2019; in a wet depression 100 m SE of NBS 1998; at the seashore W of NBS 2007; in the ditch 120 m S of NBS 2007; Vidkärr 2007; between Nygård and Norrbacka 2007; **S Nåtö**, Vintervägen's wet depression 2007–2018; in the pond area for natural fish spawning S of Hemviken 2018; **Inre Korsö** 1999–2015; **Slätskär** 2015; **Getskär** 2015.

Crocus vernus – Ornamental plant. – **N Nåtö**, garden escape at NBS 1997.

Hemerocallis fulva – Ornamental plant. – **N Nåtö**, garden escape on the garden refuse dump at NBS c. 2000–2019.

Allium schoenoprasum – p.l. Nåtö 1902 (H) – *fq, pc-cpp* – Rock fissures, dry and rock meadows. – In the whole area 1964–2019.

A. ursinum – PrÅ – *rr, pcc* – Deciduous woods. – **N Nåtö**, a small stand on the garden refuse dump at NBS 2006, increasing and covering several square metres in 2015 (Häggström et al. 2016); the stand was still larger in 2019; Nåtö W 2015 (probably the same locality); **S Nåtö**, cultivated at Svärtesnabba in the SE part of the island, according to Mrs. Marita Andersson (pers. comm. 2007); SE part of Nåtö Island about 300 m NW of Svärtesnabba, according to architect Inga Kåhre-Maury (pers. comm. 2014), 2016 (Häggström et al. 2016); Västerbergen 2015 (SIL-15); **Sköbbholm**, according to MA Kjell Johansson (pers. comm. 2015). – This species was first seen at NBS in 2006. It was most probably introduced recently with mowing equipment from Ramsholmen W of Mariehamn where huge stands of the species occur. The mowing machines etc. were cleaned in Nåtö and the refuse was thrown on the dump. – Häggström et al. 2016.

A. oleraceum – p.l. Granholm 1905 (H) – *st r-p, st pc-cpp* – Dry and mesic meadows, deciduous woods, roadsides, gardens. – **N** and **S Nåtö**, nu-

merous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997; **Idholm** 1997–2015; **Inre Kalvskär** (AP-15); **Eskskär** 2000 (H); **Slätskär** 1977–2015; **roadbank** between Tunngrund and Skobbholmen 2007; **Sköbbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007. – Two chromosome races occur. The tetraploid race ($2n = 32$) is rare and it has with certainty been found only in N Nåtö near NBS, whereas the pentaploid race ($2n = 40$) is in absolute majority in the study area and in the Åland Islands as a whole (Åström & Häggström 2004, Häggström & Åström 2005, Åström et al. 2015). – Fig. 49.

A. scorodoprasum – p.l. Nåtö 1903 (H) – *st r-p, pc-cpp* – Mesic meadows, deciduous woods. – **N Nåtö**, several stands around NBS 1964–2019; **S Nåtö**, Harskatan 1975/1976 (MH-76); Rosklev 1975/1976 (MH-76); at the outflow brook from Hemviken 50 m S of the lake 1997; slope at the main road 40 m NNW of Svedlandet 2002; at the ruin of Östergård 2005; at the main road 250 m SW of Södergård 2005; roadside N of Harskatsåkern 2007; Söderäng 2007; at Mellangård 2009; Västerbergen 2015; **Inre Kläppen** 2009; **Rödgrund** 2007; **Idholm** 2011–2015; **Korsö** 1990; **Vattskär** 1973; **Slätskär** 1975; **Granholm** 2007.



Fig. 49. A flower head with bulbils of the pentaploid chromosome race of *Allium oleraceum*. Flowers in blossom are bent down. Six flowers developing into fruits are upright. Nåtö.
Photo: CAH, August 13, 2001.

A. vineale – NT – p.l. Nåtö 1906 (H) – *st r, pc-st cp* – Rock, dry and mesic meadows, former cereal fields. – **N Nåtö**, several stands around NBS 1968–2019; in the former field S of the former stable of NBS in the 1980s to 2000; Ormdalsklint 1995; 7 plants in the hazel grove at Själskatsudden 1999 (H); roadsides at the main road between NBS and Norrbacka 2007; **S Nåtö**, westernmost end of Västeråker 1968 (H); Söderåker 1968; Lastklubbsåkern 1969; 150 m SE of Björklund 1984 (H); at the SW margin of Hemåker 1995; at the main road 250 m SW of Södergård 2005; at Mellangård 2009; at Övergård 2007; **Granholm** 2007.

A. vineale var. *purpureum* H. P. G. Koch – p.l. Nåtö 1906 – *rr*; ? – **Nåtö** 1909 (cf. Häggström & Åström 2003). – This variety has not been seen in Nåtö since 1909 when at least 30 specimens were collected by Nandor Johansson (H, KUO, OULU, TMP, TUR, TURA).

Narcissus poëticus – Ornamental plant. – **S Nåtö**, ruderal on the roadside at the car park of Harskatan 1997–2007.

Convallaria majalis – p.l. (AP-15) – *st fq, sp-cpp* – Deciduous and mixed woods. – **N** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 2015; **Idholm** 1997; **Inre Kalvskär** (AP-15); **Jungfruskär** 1996–2015; **Inre Korsö** 1999–2015; **Eskskär** 1998; **Slätskär** 1999–2015; **Getskär** 2015; **Alggrund** 2007; **Tunngrund** 2007; **Skobbholms** 2007; **Nåtö Munkholm** 1981; **Slätholm** (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slätholm** 1981; **Granholm** 2007.

Polygonatum multiflorum – p.l. Nåtö 1902 (H) – *st fq-fq, sp-cp* – Deciduous woods, meadows, even in small skerries. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, between Övergård and Österåker 1995; 200 m S of Södergård 1995; the N margin of Västeråker 1995; at the SE shore of Hemviken 2007; Harskata 2015; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1977–2015; **Idholm** 1978; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär**, SW point 1975/1976 (MH-76); **Eskskär** (AP-15); **Slätskär** 1974; **Mellangrund** 2007; **Alggrund** 2007; **Ormgård** 1972–1974 (RC-76); **Gräsgrund** 2007; **Tunngrund** 2007; **Skobbholms** 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 2007.



Fig. 50. *Polygonatum multiflorum*, Pargas, Houtskär, Jungfruskär. Photo: KN, May 29, 1981.

83); **Granholm** 2007; **Skrakgrund** 1972–1974 (RC-76). – Fig. 50.

P. odoratum – p.l. (AP-15) – *p-st fq, st pc-st cp* – Stony dry meadows on rocky ground, lax deciduous woods. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, at Harskatsåkern 1975/1976 (MH-76); central spruce wood of Västerskog 1975/1976 (MH-76); 600 m SSE of Övergård 1986; 100–200 m E of Hemviken 1995; Harskatan 2007–2015; Västerbergen 2015; E of the pond area for natural fish spawning S of Hemviken 2018; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1977; **Senskärsgrund** 1972; **Rackargrund** 1974; **Idholm** 1978; **Inre Kalvskär** (AP-15); **Inre Korsö** 2015; skerries S of **Inre Korsö** 2015, **Eskskär** 1998; **Slätskär** 1999; **Getskär** 2015; **Östra Börtskär** 2015; **Skobbholms** 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 2007.

Maianthemum bifolium – p.l. (AP-15) – *p-st fq, pc-st cp* – Deciduous, mixed and spruce woods. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 2008; Rödgrund 2007; Senskär 2015; Idholm 1978–2015; Inre Kalvskär (AP-15); Jungfruskär 1996; Inre Korsö 1999; Korsö 1999–2015; Eskskär (AP-15); Slätskär 1978–2015; Getskär 2015; Skobbholm (AP-15); Slätholm (HS-83); Granholm 1981.

Ornithogalum umbellatum – Ornamental plant. – N Nåtö, garden escape at NBS 1964–2007.

***Othocallis siberica* (Scilla s.)** – Ornamental plant. – N Nåtö, cp-cpp as garden escape in the meadow on the E side of the main building of NBS 1964–2019.

Muscari botryoides – Ornamental plant. – N Nåtö, an old garden plant in the meadow S of NBS main building 1964–2019.

Puschkinia scilloides – Ornamental plant. – N Nåtö, garden escape at NBS 1997.

***Sparganium natans* (S. minimum)** – p.l. Nåtö (CTZ-47) – *r, st cp-cpp* – Ponds, rock-pools, fens. – Nåtö (CTZ-47); N Nåtö, Vidkärr 2007; in the wet fen Gärsins kärr about 100 m S of Nygård 2012; S Nåtö, at the SE shore of Hemviken 2007; Eskskär, fen on the W part 1995; Slätskär 1973; Orrskär 1974.

***Sparganium* sp.** – *rr, pc* – Rock-pool. – Måsskär 1987.

Typha latifolia – p.l. S Nåtö (CTZ-47) – *r-st r, sp-cpp* – Lakes, ponds, rock-pools, ditches. – N Nåtö, in the ditch S of NBS 2007; Fiskarudden 2007; S Nåtö, moist patch in former field S of Tegelvik 1995; fen on clear-cut area between Övergård and Österåker 1995; N, E and SE quagmire shores of Hemviken 1995; 50 m SW of the SE bay of Hemviken 1995–2018; road ditch in Västerskog 1995; road ditch at the main road at Båtsmans 1995; W shore of Hemviken 2005; Fjärdskär (Håkan Slotte, in letter 1984); Måsskär 1987, Getskär 2015.

T. angustifolia – p.l. S Nåtö & Slätskär (CTZ-47) – *r, sp-cpp* – Lakes, ponds, rock-pools, ditches. – S Nåtö, Hemviken (CTZ-47); road ditch in Västerskog 1995; Eskskär, NW part 1995 (H); Slätskär, N pond (CTZ-47). – Fig. 51.

Juncus effusus – p.l. S Nåtö 1968 – *st r, st pc-cp* – Moist meadows, fens, ditches. – N Nåtö, road ditch 50–90 m E–SE of NBS 1995 (H); Nåtö E 2015; S Nåtö, numerous localities 1968–2018; Rödgrund 2007; Inre Korsö 2015; Jungfruskär, in a small fen on the N part 1996; Getskär 2015; Skobbholm 2007; Granholm 2007.

J. conglomeratus – p.l. Östra Börtskär 1972 – *st r, st pc-cp* – Moist meadows, fens, ditches. – N Nåtö, Nåtö E 2015; S Nåtö, numerous localities 1980–2018; Rödgrund 2007; Idholm 2015; Korsö 1990; Östra Börtskär 1973; Granholm 2007.

J. compressus – p.l. Nåtö 1931 (H) – *st r, st pc* – Footpaths, roadsides, rock fissures in skerries. – N Nåtö, at the roadside and in the ditch 50–90 m E–SE of NBS 1995 (H); at the path by the boathouse of NBS 2007; S Nåtö, seashore W of Harstsåkern 1975/1976 (MH-76); Senskärsgrund 1970; Fjärdskär 1973; Korsö 2015; Jungfruskär 1975/1976 (MH-76); Granholm 2007. – Probably overlooked.

Fig. 51. *Typha angustifolia*, Esbo, Esboviken. Photo: KN, September 19, 1991.



J. gerardii – p.l. (UB-36) – *fqq, sp-cpp* – Seashore meadows. – In the whole area 1964–2019.

J. bufonius – p.l. N Nåtö 1953 (H) – *st r, st pc-sp* – Moist depressions on cart tracks and footpaths, roadsides, seashore meadows. – N Nåtö, roadside at NBS 1973; former field S of NBS 1986; road ditch 70 m E of NBS 1995; seashore meadow N of Norrbacka E of the road 1995 (H); seashore meadow at Idviken 1995; seashore at Knäckgraven 2002; SW of Ormdalssläten 2007; S Nåtö, at Grönviken 1975/1976 (MH-76); on moist path 100 m ESE of Södergård 1980; E of the pond area for natural fish spawning S of Hemviken 2018; Slätskär 1977; Skobbholme 2007; Granholm 2007.

J. ranarius – p.l. Nåtö 1930 (H) – *rr, st cp* – Seashores. – Nåtö, seashore meadow 1936 (OULU); N Nåtö, seashore meadow N of Norrbacka E of the road 1995.

J. bulbosus – *rr, ?* – Lakes, ponds, rock-pools, ditches. – Nåtö, shore 1931 (H).

Fig. 52. *Luzula campestris*. Hangö, Tvärminne. Photo: KN, June 26, 1987.



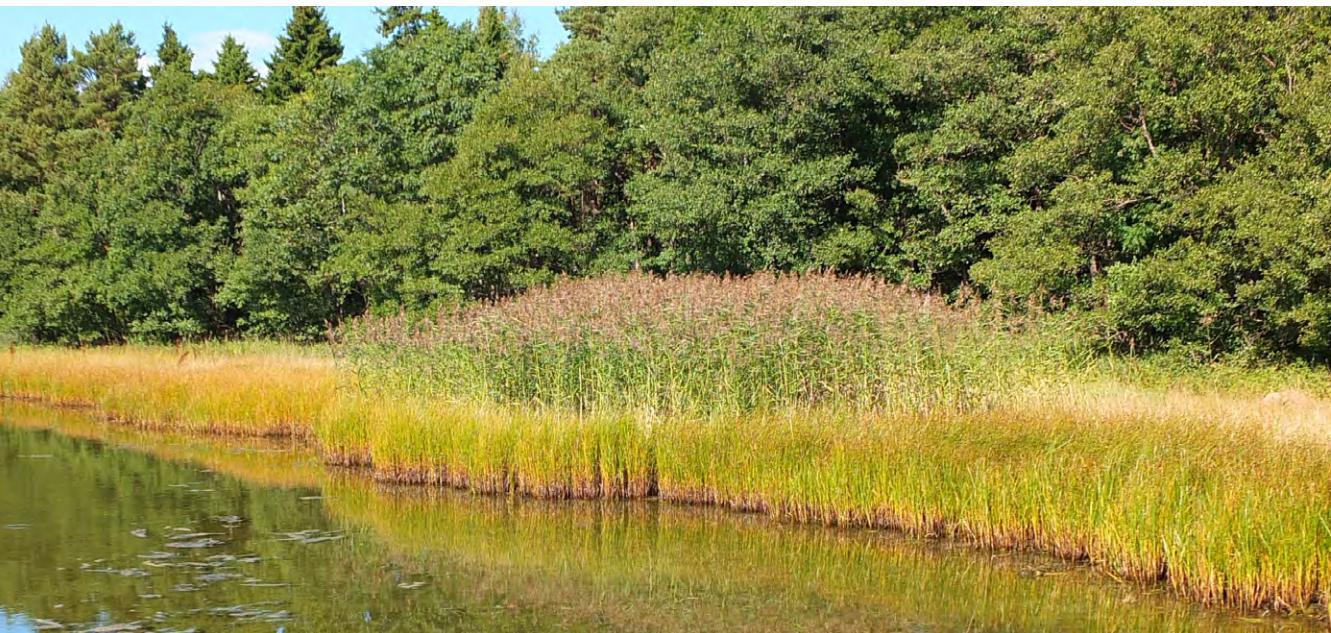
J. alpinoarticulatus subsp. ***rariflorus*** (subsp. *nodulosus*) – *rr, ?* – Seashores, rich fens. – **Granholm** 1904 (H).

J. articulatus s.lat. – p.l. Nåtö 1931 (H) – *p, st pc-sp* – Seashores, lakeshores, moist depressions, ditches, etc. – N Nåtö, seashore meadow at Idviken 1994; road ditch 50–90 m E-SE of NBS 1995 (H); seashore meadow between Nåtö and Inre Kläppen 1995 (H); the *Sesleria* meadow at Idviken 1997; S Nåtö, at Hemviken 1900 (H); seashore 600 m SSE of Övergård 1986; in a rock-pool at the kiosk 200 m SW of Södergård 2005; **Idholm** 2011; **Slätskär** 1953 (H); **Gripen** (UB-37, map); **Skobbholme** 2007; **Nåtö Munkholm** (UB-37, map); **Nåtö Slätholm** (UB-37, map); **Lemböte Slätholm** (AP-61); **Granholm** 1953 (H); **Krokgrund** (RC-76); **Starrgrund** (RC-76). – Most, if not all of the finds belong to var. *articulatus*.

J. articulatus var. ***hylandri*** – p.l. Slätholm 1931 (H) – *r, sp* – Seashores. – Nåtö 1938 (H); N Nåtö, the *Sesleria* meadow at Idviken 1983 (H); **Slätskär** 1953 (H); **Slätholm** 1931 (H); **Granholm** 2007.

Luzula campestris – p.l. Nåtö 1911 (H) – *p-st fq, st pc-st cp* – Dry and mesic meadows. – N Nåtö, at NBS 1964–2019; 50 m NE of Norrbacka 1968; central part of the wooded meadow area 1971; at Finngräftet 1971; the *Sesleria* meadow at Idviken 1978; at the Nature Trail N of Björklund 2002; on the rocky area 70 m ESE of NBS 2002; Nåtö W & E 2015; S Nåtö, NW of Österåker 1965; between Västergård and Berggård 1966; Rosklev 1975/1976 (MH-76); N margin of Västeråker 1995; roadside at the main road 250 m SW of Södergård 1995; Harskatan 2007; at Harskatsåkern 2007; Västerbergen 2015; Harskata 2015; **Rödgrund** (AP-15); **Senskär** 1997–2015; **Ljusskär** 1974; **Idholm** 1978–2015, **Inre Kalvskär** (AP-15); **Jungfruskär** 1927 (H); **Esk-skär** 1967; **Måsskär** 1987; **Slätskär** 1977; **Orr-skär** 1974; **Slätholm** (HS-83); **Granholm** 2007. – Fig. 52.

L. multiflora – p.l. (AP-15) – *p, pc-sp* – Mesic meadows, deciduous and mixed woods. – N Nåtö, S of Norrbacka 1970; central part of the wooded meadow area in the 1967; 50–100 m NE of Norrbacka 1971; at Finngräftet 1979; the *Sesle-*



ria meadow at Idviken 1979; 100 M SE of Kummeludden 2007; Nåtö W & E 2015; **S Nåtö**, westernmost end of Västeråker 1968; SW of Hemviken 1975/1976 (MH-76); S of Tegelvik 1995; at Övergård 1995; 80 m SE of Övergård 1995 (H); in Västerskog 400 m W of Södergård 1995; W of Hemviken 2005; Harskatan 2007–2015; Västerbergen 2015; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1918 (H), 2015; **Inre Kalvskär** (AP-15); **Eskskär** 1964; **Slätskär** 1975–2015; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

L. pallescens – p.l. N Nåtö 1974 (H) – r, pc – Deciduous and mixed woods, gravel roads. – N Nåtö, 350 m E of Norrbacka 1974 (H); N of NBS 1995 (H); **S Nåtö**, Rosklev 1975/1976 (MH-76); Slätskär 1975; **Granholm** 1982 (H).

L. pilosa – p.l. (AP-15) – p-st fq, st pc-cpp – Deciduous, mixed and coniferous woods. – N Nåtö and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Senskär** 1997–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1999–2015; **Korsö** 1990–2015; **Slätskär** 1999–2015; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Bolboschoenus maritimus – p.l. S Nåtö 1901 (H) – fq, st pc-cp – Seashores in shallow water. – In the whole area 1964–2019. – Fig. 53.

Fig. 53. The sea club-rush *Bolboschoenus maritimus* forms a dense border in the shallow water along the seashore at Bergö in Lemland Järsö. A stand of *Phragmites australis* grows between the club-rush and the wood, comprising chiefly of black alder. Photo: CAH, August 25, 2013.

Schoenoplectus tabernaemontani – p.l. numerous localities 1937–1940 (RC-76) – st fq, sp-cpp – Seashores in shallow water, lakes, ponds. – N Nåtö, Idviken 1964–2019; between Nåtö and Inre Kläppen 1995; at Fiskarudden 2007; in the bay W of Fiskarudden 2007; Nåtö E 2015; S Nåtö, Hemviken (CTZ-47); W of Harskatsåkern 1975/1976 (MH-76); Harskatan 2007; Västerbergen 2015; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskärsgrund** 1972; **Idholm** 2011–2015; **Korsö** 2015; **Eskskär**, W shore 1998; **Slätskär**, SW narrow bay 1994; **Getskär** 1973–2015; **Gripen** (UB-37, map); **Algrund** (UB-37, map); **Mellangrund** (UB-37, map); **Ormgrund** 1937–1940 (RC-76); **Tärngrund** 1972–1974 (RC-76); **Gräsgrund** 1943–1951 (RC-76); N Stengrund 2007; S Stengrund 1972–1974 (RC-76); **Skobbholm** 2007; Nåtö Slätholm (UB-37, map); Lemböte Slätholm (AP-61); **Granholm** 2007; **Krokgrund** 1972–1974 (RC-76); **Starrgrund** 1972–1974 (RC-76); **islet V** 1972–1974 (RC-76); **islet VI** 1968–1970 (RC-76).

Blysmus compressus – EN – rr, ? – Seashore meadows, rich fens. – **Idholm** 1957 (H).

Blysmopsis rufa (*Blysmus rufus*) – VU – p.l. Slätskär 1901 – r, st pc? – Seashores. – **Nåtö**, 1942 (H); **S Nåtö**, NW of Österåkersgrund 1965 (H); **Korsö** 1927 (H); **Slätskär** 1939 (H); **Granholm** (AP-61).

Eriophorum angustifolium – p.l. N Nåtö 1964 – p, pcc-st cp – Fens, fen meadows, rock-pools. – **N Nåtö**, in the *Sesleria* meadow at Idviken 2007–2019; **S Nåtö**, rock-pool between SW Hemviken and Harskatan 1984 (H); fen on rocky area 100 m SW of Söderäng 1995; fen in Västerskog 50 m S of Rosklev 1995; SW of Hemviken 2007; **Rackargrund** 1974; **Fjärdskär** 1972; **Jungfruskär**, rock-pool mire 1996; **Inre Korsö** 1973; **Eskskär**, mire on NW part 1998; rock-pool on NW rocks 1998; **Vattskär** 1973; **Måsskär** 1994; **Slätskär** 1977–2015; **Orrskär** 1974.

E. vaginatum – p.l. **Eskskär** 1931 (H) – st r, st pc-st cp – Bogs, rock-pools. – **N Nåtö**, 100 m WNW of Fiskarudden 2007; **S Nåtö**, 100 m SW of Söderäng 1995; 450 m W of Södergård 1995; mire in Västerskog 150 m S of Rosklev 2007; Västerbergen 2007–2015; **Inre Korsö**, E part 1975/1976 (MH-76), 2015; **Korsö** 1990; **Eskskär** 1931 (H); **Vattskär** 1973; **Måsskär** 1987; **Östra Börtskär** 2015; **Orrskär** 1974. – Fig. 54.

Eleocharis quinqueflora – p.l. Nåtö & Slätholm (AP-15) – rr, sp? – Seashore meadows, wet meadows, rich fens. – **Nåtö** 1936 (H); **N Nåtö**, wet meadow spot between flat rocks SW of Ormdalssläten 1988–2019; seashore meadow E of Själkatsudden 2010; **Slätholm** (HS-83).

E. parvula – p.l. Nåtö 1908 (H) – r, sp? – On soft bottom in the sea. – **N Nåtö**, at Knäckgraven 2008–2018; **S Nåtö**, S of Österåkersgrund 1980 (H); SE of Övergård 1995; at Rosklev 2007; Harskatan 2007; **Skobbholm**, SE and NW shores 2007. – Overlooked.

E. palustris – p.l. (CTZ-47) – r, ? – Seashores, lakeshores, ponds, ditches. – **Nåtö** (CTZ-47); **Inre Kalvskär** (CTZ-47); **Getskär** (CTZ-47). – Overlooked.

E. mamillata – p.l. Nåtö 1931 (H) – st r, st pc-st cp – Rock-pools. – **Nåtö** 1931 (H); **N Nåtö**,

Nåtö W 2015 (SIL-15); **S Nåtö**, Harskata 2015 (SIL-15); **Rackargrund** 1974; **Fjärdskär** 1973; **Måsskär** 1986 (H); **Slätskär** 1980 (H); **Getskär** 1973; **Östra Börtskär** 1973; **Orrskär** 1974. – The finds in Nåtö by SIL-15 may be wrongly determined, because this taxon is growing in rock-pools on small rocky skerries, but not in larger wooded islands.

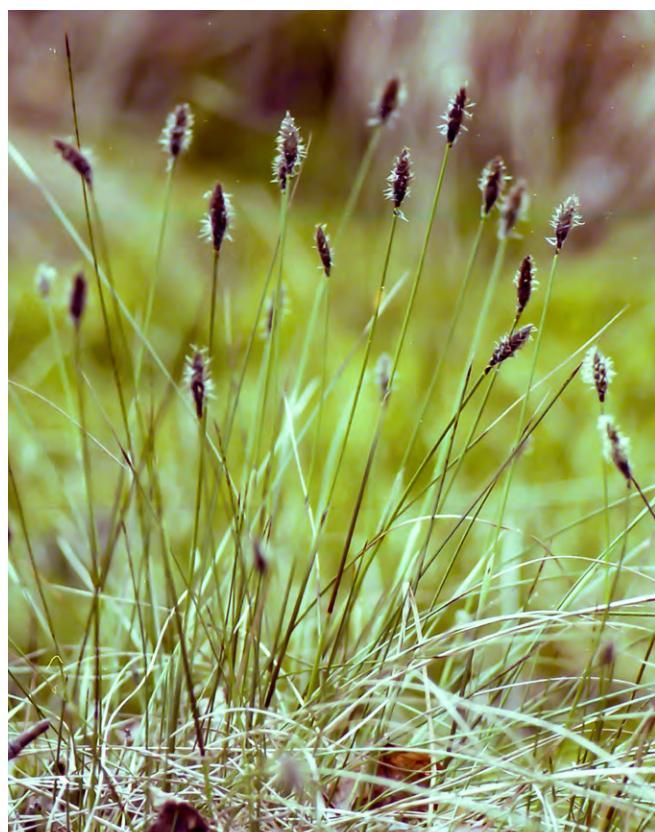
E. uniglumis – p.l. Nåtö 1902 (H) – fqq, sp-cpp – Seashores. – In the whole area 1964–2019.

E. uniglumis var. *fennica*, most plants are of this variety.

E. uniglumis var. *vestergrenii* – r?, cp – Nåtö 1980 (H); **S Nåtö** 1995 (H); **Måsskär** 1980 (H).

Carex diandra – p.l. Slätskär & Granholm 1931 (H) – rr, ? – Fens. – **S Nåtö**, Harskata 2015; **Slätskär** 1931 (H) – 1948 (H, OULU); **Granholm** 1931 (H).

Fig. 54. *Eriophorum vaginatum*. Ingå, Barösund, Svartö. Photo: KN, May 18, 1980.



C. spicata – p.l. Nåtö 1926 (H) – *p-st fq, pcc-sp* – Dry and mesic meadows, lax deciduous woods, roadsides. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 1995; Senskär 1997–2015; Ljusskär 1974; Rackargrund 1974; Jungfruskär 1974 (uncertain determination); Ormgrund 1972–1974 (RC-76); Tunngrund 1931–1951 (RC-76); Skobbholm 2007; Slätholm (HS-83); Lemböte Slätholm, at the SE shore 1981 (H); Granholm 2007.

C. muricata – p.l. Idholm & Slätholm 1907 (H) – *p, pcc-sp* – Dry and mesic meadows, roadsides. – N Nåtö, 60 m NE of Nygård 1967; 200 m E of Nygård 1971; in a hazel stand 170 m E of Norrbacka 1971; at NBS 2002; Nåtö W 2015; S Nåtö, roadside 170 m SE of Övergård 1986; roadside 100 m SE of Övergård 1995; roadside in Västerskog 400 m W of Södergård 1995 (H); Rödgrund 2007; Senskär 1997; Idholm 1978–2015; Jungfruskär 1996; Eskskär 1998; Vattskär 1973; Slätskär 1977; Skobbholm 2007; Slätholm 1931 (OULU); Lemböte Munkholm 1981 (H); Granholm 2007. – *Carex muricata* sensu Palmgren (1915–1917) comprises both *C. spicata* and *C. muricata*. We found one or both of the species in all of the islands mentioned by Palmgren, with the exception of two islands we did not study, viz. Inre Kalvskär (AP-15) and Yttre Kalvskär (AP-15).

Fig. 55. *Carex elongata*. Ingå, Barösund, Orslandet. Photo: KN, June 12, 1984.



C. arenaria – NT – Sand dunes. – Nåtö 1935 (H). – As Nåtö lacks suitable habitats for *C. arenaria*, the information on the label of this voucher is most probably erroneous.

C. disticha – p.l. Skobbholm 1905 (H) – *st r, sp-cp* – Moist and wet meadows, ditches. – N Nåtö, at the boathouses 1964–2007; S of the W part of Kläppsundet 1995; at Övergård 1995; at the road to Björklund 2002; in the small wet fen c. 200 m NE of Nygård 2009; at the road to Inre Kläppen 2009; Nåtö W & E 2015; S Nåtö, Klubben 1969; in moist depression at Mellangård 1980; road ditch at Berggård 1995; Nyäng 1995; road ditch at the main road 250 m SW of Södergård 1995; moist meadow S of Hemviken 1997–2018; between the main road and Hemviken 250 m SW of Södergård 2005; Rosklev 2007; Västerbergen 2015; Harskata 2015; Inre Kläppen 2009; Rödgrund 2007; Slätskär 1966; Skobbholm 1905 (H); Slätholm (AP-15); Granholm 2007.

C. leporina (*C. ovalis*) – p.l. (AP-15) – *st fq, pc-sp* – Moist, mesic and rock meadows, cart tracks, roadsides. – N Nåtö, at Idviken 1994; meadows among the rocks between NBS and the boathouses 1995; seashore meadow between Nåtö and Inre Kläppen 1995; the *Sesleria* meadow at Idviken 1997; rock meadows in the central part of the wooded meadow area 2007; Nåtö E 2015; S Nåtö, numerous localities 1980–2018; Rödgrund 2007; Senskär 1997–2015; Idholm 1997;



Fig. 56. *Carex pseudocyperus* at the water edge of the small lake Stallhagsträsk in Finström Grelsby. Photo: CAH, August 24, 2013.

Inre Kalvskär (AP-15); **Jungfruskär** (AP-15); **Inre Korsö**, E part 1975/1976 (MH-76); **Eskskär** (AP-15); **Måsskär** 1987; **Slätskär** 1975; **Skobholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

C. echinata – p.l. Nåtö 1926 (OULU) – *r*; *pc-sp* – Moist depressions in coniferous woods, wood-ed fens. – Nåtö 1926 (OULU); S Nåtö, in moist depression between SW Hemviken and Harskatan 1984 (H); at the margin of fen pool 250 m E of Övergård 1987 (H); in a small mire in Väster-skog 1996; in small fen depressions on Västerbergen 2007; SE of Rosklev 2007; Västerbergen 2015; Harskata 2015; **Korsö** 2015; **Jungfruskär**, in a small fen on the N part 1996; **Slätskär** 1975–2015.

C. dioica – p.l. Slätskär & Granholm (AP-15) – *r*; *pcc?* – Fen meadows, rich fens. – N Nåtö, the Sesleria meadow at Idviken 1964–1995; Nåtö E 2015; **Slätskär** (AP-15); **Granholm** (AP-15).

C. elongata – p.l. Slätskär 1901 (H) – *st r*; *pc-st cp* – Fens, moist depressions in deciduous woods. – N Nåtö Vidkärr 2007; fen at the Nature trail 50 m

SE of Vidkärr 2009–2019; in the wet fen Gårsins kärr about 100 m S of Nygård 2012; Nåtö E 2015; S Nåtö, 350 m NE of Övergård 1971; at the edge of small fen 250 m E of Övergård 1987 (H); at SE shore of Hemviken 2007; **Senskär**, fen on the central part 1997–2015; **Eskskär** 1945 (H); **Slätskär** 1904 (H).. – Fig. 55.

C. glareosa – NT – *rr*; *pcc* – Seashore meadows. – Nåtö 1903 (H); N Nåtö, in the seashore meadow between Nåtö and Inre Kläppen 1964 (H), still seen in 1966, but not since. – This taxon seems to have disappeared from many of its localities in the Åland Islands during the last decades.

C. mackenziei – *rr*; ? – Wet shore meadows. – S Nåtö, shore of Hemviken 1931 (H). Carlsson et al. (2011).

C. canescens – p.l. Nåtö 1902 (H) – *st fq*, *st pc-sp* – Fens, rock-pools, wet depressions on rocks. – N Nåtö, Ormdalsklint 1995; Nåtö E 2015; S Nåtö, numerous localities 1970–2018; **Senskär** 2015; **Ljusskär** 1974; **Idholm**, moist depression on the central rocky area 1997; **Fjärdskär** 1973; **Jungfruskär**, fen and rock-pool mire 1996; **Inre Korsö** 1973; **Korsö** 1990–2015; **Eskskär**, rock-pool mire on NW 1998; **Vattskär** 1973; **Måsskär** 1987; **Slätskär** 1977; **Getskär** 1973–2015; **Östra Börtskär** 2015; **Orrskär** 1974; **Granholm** 2007.

C. canescens × **mackenziei** – p.l. S Nåtö 1900 (H) – *rr*; ? – Wet shore meadows. – S Nåtö, shore of Hemviken 1901–1945 (H); **Eskskär** 1901–1903 (H). Carlsson et al. (2011).

C. brunnescens coll.– *rr*; ? – Dry meadows, dry and moist woods, on footpaths. – **Korsö** 2015.

C. brunnescens var. **brunnescens** – *rr*, ? – **Getskär** 2015.

C. hirta – p.l. S Nåtö 1964 (H) – *rr-r*; *pcc-st cp* – Sandy meadows, roadsides. – N Nåtö, 20 m N of the Sesleria meadow at Idviken 1971; S Nåtö, mid part of Nyäng 1995; S part of Söderäng 2007; at the gravel road SE of Hemviken 2018.

C. lasiocarpa – p.l. Slätskär 1901 (H) – *rr*; *st pc* – Fens. – **Slätskär** 1977–2015.

C. pseudocyperus – *rr*; *pc* – Fens, ditches – S Nåtö, in the pond area for natural fish spawning S of Hemviken 2018. – Fig. 56.

C. rostrata – p.l. Slätskär 1972 – *r, sp-st cp* – Poor fens, moist depressions. – **S Nåtö**, poor fen 150 m S of Rosklev 2007, Västerbergen 2015; in the pond area for natural fish spawning S of Hemviken 2018; **Jungfruskär**, rock-pool mire 1996; **Måsskär** 1987; **Slätskär** 1973.

C. rostrata × vesicaria – *rr, cp?* – Poor fens. – **Ärskär** 1970 (H).

C. vesicaria – p.l. Nåtö 1932 (H) – *p, st pc-cp* – Fens, ditches. – **N Nåtö**, 1987; fen 70 m NE of the *Sesleria* meadow at Idviken 1995; the *Sesleria* meadow at Idviken 2006; Vidkärr 2007; fen between Nygård and Norrbacka 2007; in the small wet fen c. 200 m NE of Nygård 2009; fen at the Nature trail 50 m SE of Vidkärr 2009; at the road to Inre Kläppen 2009; Nåtö W & E 2015; **S Nåtö**, westernmost end of Västeråker 1968; fen between Övergård and Österåker 1995; road ditch at the main road 300–400 m SW of Söderåker 1995; fen in Västerskog 400 m W of Söderåker 1995; fen E of the main road NE of Harskatsåkern 2002; Harskatan 2007–2019; Västerbergen 2015; in the pond area for natural fish spawning S of Hemviken 2018; **Inre Kläppen** 2008; **Senskär**, fen on the central part 1997; fen at the E shore 1997–2015; **Idholm** 1978; **Jungfruskär**, fen on the N part 1996; **Inre Korsö** 1999–2015; **Korsö** 2015; **Ärskär** 1970 (H); **Eskskär**, fen on W part 1995; **Slätskär** 1975.

C. capillaris – p.l. (AP-15) – *st r, pcc-st pc* – Rich fen meadows, rich fens. – **N Nåtö**, 200 m E of Nygård 1964 (H); 220 m E of Norrbacka 1964–1971; the *Sesleria* meadow at Idviken 1964–1990; 50–100 m NE of Norrbacka 1964–1971; three separate small stands between Norrbacka and Skarpbacka in the late 1960s; SW of Ormdalssläten 2002; Nåtö E 2015; **S Nåtö**, the *Sesleria* meadow on the SW shore of Hemviken in the 1960s; **Rödgrund** (AP-15); **Eskskär** (AP-15); **Slätskär** 1972; **Orrskär** 1974; **Skobholme** (AP-15); **Slätholm** (HS-83); **Granholm** 1939 (H)

C. flacca – p.l. Nåtö & Slätskär (AP-15) – *st r, pc-cpp* – Moist and mesic meadows, rich fen meadows, rich fens. – **N Nåtö**, the *Sesleria* meadow at Idviken 1964–1997; 150 m SW of Nygård 1965 (H); 50 m N of the *Sesleria* meadow at Idviken 1965; N of Finngräftet 1978; 50 m W of Knäckgraven 2002; at the spruce wood 100 m

NNE of Själkskatsudden 2002; at the footpath SW of Nygård 100 m E of NBS 2006; **S Nåtö**, at Österåker 1965 (H); **Slätskär** 1931 (H), 2015; **Granholm** 2007.

C. panicea – p.l. (AP-15) – *st fq, st pc-cp* – Moist and seashore meadows, rich fens and rich fen meadows. – **N Nåtö**, central part of the wooded meadow area 1964–2007; the *Sesleria* meadow at Idviken 1964–2019; 50–100 m NE of Norrbacka 1971; at Finngräftet 1979; meadow S of Fiskarudden 1986; moist parts on the rock area E of Själkskatsudden 1995; Fiskarudden 2002; **S Nåtö**, NW of Österåker 1965; between Västergård and Berggård 1966; westernmost end of Västeråker 1968; 200 m SE of Övergård 1986; in Västerskog 50 m E of Nordqvist's cottage 1995; road ditch at the main road 200 m SW of Söderåker 1995; S of Hemviken 1997; at Övergård 2007; E of the pond area for natural fish spawning S of Hemviken 2018; **Inre Kläppen** 2008; **Rödgrund** 2007;

Fig. 57. *Carex distans*. Nåtö Island. Photo: KN, August 23, 1989.



Senskär 1997; **Rackargrund** 1974; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Inre Korsö** 2015; **Jungfruskär** 1938 (H); **Eskskär** 1995 (H); **Måsskär** 1987; **Slätskär** 1977–2015; **Getskär** 1973–2015; **Orrskär** 1974; **Skobholma** 2007; **Slätholm** (HS-83); **Granholm** 2007.

C. vaginata – rr, ? – Moist meadows, fens. – **Nåtö** 1938 (H).

C. distans – p.l. Slätholm 1886 (H) – p-st fq, pc-sp – Seashore meadows. – N **Nåtö**, at Ormdalsläten 1964; between Nåtö and Inre Kläppen 1995; at Idviken 1995; between the boathouses 2007; S **Nåtö**, at Hemviken 1901; Lastklubb 1964 (H); Harskatan 2007; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1952 (OULU); **Jungfruskär** 2015; **Gripen** (UB-37, map); **Alggrund** (UB-37, map); **Mellangrund** (UB-37, map); **Ormgrund** 1943–1951 (RC-76); **Lillnotsgrund** (UB-37, map); **Tärngrund** 1943–51 (RC-76); **Gräsgrund** 2007; **Tungrund** 2007; **Skobholma** (UB-37, map); **Nåtö Munkholm** (UB-37, map); **Nåtö Slätholm** (UB-37, map); **Lemböte Slätholm** (AP-61); **Skobholma** 2007; **Granholm** 1939 (H); **Blockgrund** 1972–1974 (RC-76); **Krokgrund** 1972–1974 (RC-76); **Skrakgrund** 1972–1974 (RC-76); **Starrgrund** 1972–1974 (RC-76); **islet V** 1972–1974 (RC-76); **islet VII** 1963–1965 (RC-76). – The species seems to be lacking in the western part of study area.. – Fig. 57.

Fig. 58. *Carex extensa*. Finström, Bastö. Photo: KN, July 9, 1983.



Krokgrund 1972–1974 (RC-76); **Skrakgrund** 1972–1974 (RC-76); **Starrgrund** 1943–51 (RC-76). – Fig. 57.

C. extensa – NT – p.l. Slätholm 1886 (H) – st fq, pc-sp – Seashore meadows. – N **Nåtö**, at Idviken 1994; Själksatsudden 1994; N of the boathouses 2005; 100 m W of Fiskarudden 2007; S **Nåtö**, S shore SW of Lastklubb 1964 (H); **Rödgrund** 2007; **Gripen** (UB-37, map); **Vigg-grund** (UB-37, map); **Alggrund** (UB-38, map); **Mellangrund** (UB-37, map); **Ormgrund** 1937–1940 (RC-76); **Lillnotsgrund** (UB-37, map); **Tärngrund** 1963–1965 (RC-76); **Gräsgrund** 1972–1974 (RC-76); N **Stengrund** (UB-36); **Tungrund** 1972–1974 (RC-76); **Skobholma**, NE rocky point N of the roadbank 2007; **Nåtö Munkholm** (UB-37, map); **Slätholm** (Håkan Slotte, in letter 1984); **Nåtö Slätholm** (UB-37, map); **Lemböte Slätholm** (AP-61); **Skobholma** 2007; **Granholm** 1939 (H); **Blockgrund** 1972–1974 (RC-76); **Krokgrund** 1972–1974 (RC-76); **Skrakgrund** 1972–1974 (RC-76); **Starrgrund** 1972–1974 (RC-76); **islet V** 1972–1974 (RC-76); **islet VII** 1963–1965 (RC-76). – The species seems to be lacking in the western part of study area.. – Fig. 58.

C. hostiana – PrÅ*, EN – rr, ? – Rich fens, rich fen meadows. – **Nåtö**, moist meadow 1930 (H); S **Nåtö**, SW of Hemviken (MH-76, uncertain determination).

C. flava – p.l. (AP-15) – r, pc – Moist meadows, rich fens. – **Eskskär**, fen margin on the W part 1995 (H); **Slätholm** (HS-83); **Granholm** (AP-15).

C. flava × viridula – p.l. Eskskär 1901 (H) – rr, ? – Moist meadows, rich fens. – **Eskskär** 1907 (H); Ärtskär 1901 (H).

C. demissa – NT – p.l. Slätskär 1906 (H) – r, pcc-st pc – Moist meadows, fens, ditches. – N **Nåtö**, 200 m SE of Nygård 1988 (H); Nåtö E 2015; S **Nåtö**, 270 m E of Övergård 1972 (H); ditch at the road to Lastklubb 450 m SSE of Övergård 1986; Rosklev 2007; **Slätskär** 1906 (H).

C. viridula s.lat. – p.l. (AP-15) – st r, pc – Fens, seashores, moist depressions. – **Eskskär** (AP-15); **Inre Kalvskär** (AP-15); **Slätskär** 1973; **Orrskär** 1974; **Slätholm** (AP-15); **Granholm** (AP-15).

C. viridula subsp. *viridula* – p.l. N Nåtö 1964 – r, pc – Fens, seashores, moist depressions. – N **Nåtö**, in the *Sesleria* meadow at Idviken 1964; Ormdalsklint 1995; near Ormdalssläten 2007; S **Nåtö**, at Lastklubbsvägen at Svärtesnabba 2007; Västerbergen 2015; Harskata 2015; **Senskär** 1981 (H), 2015.

C. viridula var. *pulchella* – p.l. Slätskär & Lemböte-Slätholm (AP-61) – r, pc – Seashore meadows. – N **Nåtö**, Nåtö E 2015; **Rödgrund** 2007; **Slätskär** (AP-61); **Lemböte Slätholm** (AP-61); **Granholm** 2007.

C. pallescens – p.l. (AP-15) – p, st pc-cp – Mesic meadows, lax deciduous woods. – N and S **Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Eskskär** 1971; **Slätskär** 1978–2015; **Skobbholms** 2007; **Slätholm** (HS-83); **Granholm** 2007.

C. digitata – p.l. Slätholm 1907 (H) – p, st pc-cp – Deciduous, mixed and spruce woods. – N and S **Nåtö**, numerous localities 1964–2019; **Senskär** 2015; **Idholm** 1997–2015; **Inre Korsö** 1999–2015; **Jungfruskär** 1996; **Skobbholms** 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 2007.

C. ornithopoda – PrÅ*, EN – p.l. Nåtö 1911 (H, OULU) – rr-r, pcc-st pc – Dry and mesic meadows, lax deciduous woods. – N **Nåtö**, 100 m NE

of Norrbacka 1966–1979, more than 10 plants 1995, two plants 2004; on the edge of the ditch at Bergbo, one plant 1995–2004; dry meadow 50 m SW of Bergbo 1996–2007; at the footpath W of Bergbo, approx. 10 plants 2004, one plant seen 2018; several plants at the upper margin of the *Sesleria* meadow at Idviken 2002–2019; one plant at the Nature Trail 250 m ENE of Norrbacka 2004 (Thomas Kuusela, pers. comm.). – Fig. 59.

C. caryophyllea – VU – p.l. Nåtö 1901 (H) – st r-p, pc-cp – Dry meadows. – N **Nåtö**, 70 m N of Björklund 1966 (H); SW of Finngräftet 1971; E slope of Skarpbacka 1974 (H); the *Sesleria* meadow at Idviken 1978; 100 m N of Själksatsudden 1990s – 2019; E of Själksatsudden 2006; 100 m SE of NBS 2007; at the footpath W of Bergbo 2018; S **Nåtö**, between Västergård and Berggård 1966; Harskatan 2007; **Inre Kläppen** 1987; **Idholm** 1964; **Jungfruskär** 1939 (H); **Skobbholms** 1941 (H); **Slätholm** (HS-83); **Granholm** 1938 (H). – Fig. 60.

C. pilulifera – p.l. Nåtö 1901 (H) – st r-p, pc-sp – Dry and rock meadows. – N **Nåtö**, SW of Finngräftet 1967; 50–100 m NE of Norrbacka 1978; central part of the wooded meadow area 1979; rocky area 400–500 m NE of Nygård 2007;

▼ Fig. 59. The small tussock of *Carex ornithopoda* is almost hidden among other plants, such as *Carex digitata*, *Hepatica nobilis* and *Anemone ranunculoides*. Nåtö Island. Photo: CAH, May 20, 2018.





▲ Fig. 60. *Carex caryophyllea* is quite easy to recognise when flowering. Later in the season it is hardly ever observed. Nåtö Island. Photo: CAH, May 20, 2018.

Nåtö W & E 2015; S Nåtö, numerous localities 1964–2007; Rödgrund (AP-15); Idholm 1997–2015; Inre Kalvskär (AP-15); Skobbholm (AP-15); Slätholm (AP-15); Granholm 2007.

C. paupercula (*C. magellanica* subsp. *irrigua*) – p.l. Slätskär 1939 (H) – rr, ? – Rock-pool mires. – Slätskär 1943 (H), 2015.

C. hartmaniorum (*C. hartmanii*) – PrÅ*, EN – rr, st pc – Mesic and moist meadows. – S Nåtö, moist meadow 50 m SW of SE Hemviken 1997.

▼ Fig. 62. *Carex elata* subsp. *elata* growing on a seashore meadow. Lemland, Järsö. Photo: CAH, June 19, 2010.



▲ Fig. 61. *Carex hartmaniorum*. Finström, Bamböle, Skabbö. Photo: CAH, October 17, 2018.

The locality was in the state of being overgrown with *Picea abies* (Häggström 2003b). – Fig. 61.

C. elata subsp. *elata* – p.l. Slätskär 1939 (H) – st r, pc-st pc – Wet fens, ponds, eutrophic lakes. – N Nåtö, between Nygård and Norrbacka 2007; Väderkärr 2007; in the moist depression about 80 m N of NBS 2019; S Nåtö, 400 m SSE of Övergård 1964 (H); Västerskog, two localities (MH-76, uncertain determination); 100 m E of S Hemviken 1995 (H); 250 m NE of Övergård 2007; Eskskär 1995 (H); Slätskär 1977–2015. – Fig. 62.



C. cespitosa – p.l. N Nåtö 1971 (H) – *rr, st pc* – Fens, ditches. – **N Nåtö**, fen depression at Vidkärr 2007, Nåtö E 2015.

C. nigra subsp. **nigra** – p.l. (AP-15) – *fq, st pc-cp* – Seashore and moist meadows, fens, ditches, rock-pools, etc. – In the whole area 1964–2019.

C. nigra subsp. **juncella** – p.l. Nåtö 1908 (H) – *st r, pc-sp* – Fens. – **N Nåtö** Vidkärr 2007; Fiskarudden 2007; at the road to Inre Kläppen 2009; **S Nåtö**, numerous localities 1995–2015; **Idholm** 2011; **Jungfruskär** 1973; **Måsskär** 1987; **Esk-skär** 1995 (H); **Granholm** 2007.

C. acuta – p.l. Slätskär 1945 (H) – *rr, ?* – Rich fens, quagmires. – **Slätskär** 1977.

C. pulicaris – VU – p.l. (AP-15) – *st r, pc-st cp* – Rich fen meadows, rich fens. – **N Nåtö**, the *Sesleria* meadow at Idviken 1964–2007; 50–100 m NE of Norrbacka 1968; at Finngräftet 1979; W of Ormdalssläten 1995–2018; **S Nåtö**, the *Sesleria* meadow at SW shore of Hemviken in the 1960s; E of Övergård Nåtö in the 1970s; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Slätskär** (AP-15); **Skobholms** (AP-15); **Slätholm** (AP-15); **Granholm** 1939 (H). – The frequency of this species has declined during the last decades. – Fig. 63.

Schedonorus cf. **giganteus** × **pratensis** (*Festuca* cf. *gigantea* × *pratensis*) – *rr, pcc* – Lax deciduous wood. – **N Nåtö**, bouldery slope 50 m S of Skarpbacka, one plant 1964.

S. pratensis (*Festuca p.*) – p.l. Nåtö 1902 (H) – *r, sp* – Mesic meadows, hay fields, roadsides. – **N Nåtö**, central part of the wooded meadow area 1964; 50–100m NE of Norrbacka in 1968; Norråker 1969; Norrbackasläten 1986; at NBS 1994–2006; **S Nåtö**, between Västergård and Berggård 1966; cultivated in SW Hemåker 1995; **Granholm** (AP-15).

S. arundinaceus (*Festuca arundinacea*, *F. elatior*) – p.l. 1902 (H) – *fq-fqq, st pc-st cp* – Seashores. – In the whole area 1964–2019.

Festuca rubra – p.l. Nåtö 1902 (H) – *fqq, st pc-cpp* – Dry, mesic and seashore meadows, roadsides. – In the whole area 1964–2019. – Cultivated ecotypes are found on lawns at houses and summer cottages. These were overlooked by us.

F. ovina – p.l. (AP-15) – *fqq, st pc-cpp* – Dry and rock meadows. – In the whole area 1964–2019.

F. stricta subsp. **trachyphylla** (*F. trachyphylla*, *F. brevipila*) – *rr, pc* – Lawns, roadsides. – **S Nåtö**, at Mellangård 2007; **Skobholms**, on the meadow outside Rothberg's house 2007. – Overlooked.

Lolium perenne – p.l. Nåtö 1902 (H) – *r, sp-cpp* – Lawns, roadsides, hay fields. – **N Nåtö**, field 1938 (H); **N Nåtö**, sown with lawn seed at NBS c. 1972, since then steadily spreading; Nåtö W 2015; **S Nåtö**, between Västergård and Berggård 1966; **Rödgrund**, roadside 2007; **Senskär** 2015; **Skobholms** 2007; **Granholm** 2007. – Probably more frequent, as the species is commonly cultivated as a lawn grass.

L. multiflorum – *rr, sp* – Roadsides and other ruderal sites. – **N Nåtö**, at footpaths between the boathouses and Västergård 1964. Not seen since.

Fig. 63. *Carex pulicaris*. Sweden, Gotland, Anga. Photo: KN, June 19, 1989.



Poa annua – p.l. N Nåtö 1964 – *st r, st pc-cpp* – Footpaths, roadsides, etc. – N and S Nåtö, numerous localities, especially along footpaths and roads 1964–2019; **Inre Kläppen** 2008; **Rödgrund**, roadside 2007; **Senskär** 2015; **Jungfruskär**, SW point 1975/1976 (MH-76); **Skobbholm** 2007; **Granholm** 2007; **Krokgrund** 1972–1974 (RC-76); **islet V** 1972–1974 (RC-76).

P. trivialis – p.l. Nåtö 1907 (H) – *st fq, st pc-sp* – Mesic, moist and shore meadows, fens. – N and S Nåtö, numerous localities 1964–2019; **Senskär** 1997; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Jungfruskär** 1974; **Eskskär** 1971; **Slätskär** 1977; **Mellangrund** 2007; **Algrund** (UB-36); **Ormgrund** (UB-36); **Tunngrund** (RC-76); **Skobbholm** 2007; **Slätholm** (AP-15); **Granholm** 2007.

P. pratensis – p.l. (AP-15) – *st fq, st pc-st cp* – Dry and mesic meadows, roadsides. – N and S Nåtö,

Fig. 64. *Poa compressa*. Helsingfors, South Harbour. Photo: KN, July 3, 2016.



numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Inre Korsö** 2015; **Korsö** 1990; **Eskskär** 1998; **Vattskär** 1973; **Slätskär** 1978–2015; **Getskär** 2015; **Orrskär** 1974; **Mellangrund** 2007; **Algrund** 2007; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007. – *Poa pratensis* sensu Palmgren (1915–1917) comprises the species *P. pratensis* s. str., *P. angustifolia* and *P. alpigena*, and thus his observations listed above may be solely of one or two of the latter species, or include them.

P. angustifolia – p.l. S Nåtö 1938 (H) – *p, pc-cp* – Mesic and dry meadows, roadsides, former hay fields. – N Nåtö, at NBS 1993–2007; former hay meadow E of NBS 1993; S Nåtö, numerous localities 1971–2007; **Rödgrund** 2007; **Senskär** 1975; **Jungfruskär** 1996; **Eskskär**, rock meadow at the NW bay 1998; **Måsskär** 1987; **Slätskär** 1999; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007. – Probably overlooked. Palmgren (1915–1917) included this taxon in *P. pratensis*.

P. humilis (*P. subcaerulea*) – p.l. Granholm 1904 (H) – *st r, sp-cp* – Seashore meadows. – N Nåtö, at Idviken 1985–2019; Knäckgraven 1995; S Nåtö, roadside at the kiosk 200 m SW of Södergård 2005; **Jungfruskär** 1938 (H); **Slätskär** (AP-61); **Gripen** (UB-37, map); **Skobbholm** (UB-37, map); **Lemböte Slätholm** (UB-37, map); **Granholm** (UB-38, map). – Overlooked.

P. alpigena – p.l. N Nåtö 1997 – *rr, pc* – Moist meadows. – N Nåtö, by the footpath between NBS and the boathouses 1997–2007; the *Sesleria* meadow at Idviken 1997. – Probably overlooked.

P. compressa – p.l. Nåtö, Idholm & Skobbholm 1902 (H) – *p, st pc-cp* – Dry and rock meadows. – N Nåtö, at the Nature Trail S of Ormdalsslätten 2008; S Nåtö, 50 m NW of Österåker 1980 (H); between Övergård and Österåker 1995; N part of Söderäng 1995; Nyäng 1995; S of Hemviken 1997; SW part of Västerbergen 2007; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1975; **Idholm** 1997; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 1983; **Slätholm** (HS-83); **Granholm** 2007. – Fig. 64.

P. palustris – p.l. Nåtö & Skobbholm 1902 (H) – *r-st r, pc* – Dry and mesic meadows. – Nåtö 1902 (H); N Nåtö, 100 m S of Fiskarudden 2007; Idholm 1964 (cf. *palustris*); Senskär 1997; Slätskär 1975 (cf. *palustris*), 2015; **roadbank** between Törngrund and Tunngrund 2007; Skobbholm 1902 (H). – Overlooked.

P. nemoralis – p.l. (AP-15) – *st fq-fq, st pc-cp* – Deciduous woods, mesic meadows. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 2008; Rödgrund 2007; Senskär 1997–2015; Idholm 1997–2015; Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Jungfruskär 1996–2015; Inre Korsö 2015; Korsö 1927 (H); Eskskär 1995; Slätskär 1999; Algrund 2007; **roadbank** between Törngrund and Tunngrund 2007; Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; Skobbholm 2007; Slätholm (HS-83); Lemböte Slätholm 1981; Granholm 2007.

Puccinellia distans (*P. distans* subsp. *distans*) – *rr*; ? – Mesic and moist meadows. – Nåtö 1931, 1932 (H).

P. capillaris (*P. distans* subsp. *borealis*, *P. retroflexa*) – p.l. Nåtö 1931 (H) – *fqq, pc-sp* – Fissures in seashore rocks, seashore meadows. – In the whole area 1964–2018.

Fig. 65. *Dactylis glomerata* subsp. *lobata*. Jomala, Djurvik.
Photo: CAH, June 23, 2013.



Dactylis glomerata subsp. *glomerata* – p.l. Nåtö 1902 (H) – *st fq-fq, pc-cp* – Mesic meadows, lax deciduous woods, roadsides, former hay fields, etc. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 2008; Rödgrund 2007; Senskär 1997–2015; Idholm 1978; Jungfruskär 1996; Korsö 2015; Eskskär 1995; Slätskär 1999–2015; Orrskär 1974; Algrund 2007; **roadbank** between Törngrund and Tunngrund 2007; Tunngrund 1972–1974 (RC-76); **roadbank** between Tunngrund and Skobbholm 2007; Skobbholm 2007; Nåtö Munkholm 1981; Slätholm (HS-83); Nåtö Slätholm 1981; Lemböte Slätholm 1981; Starrgrund 1963–1970 (RC-76); Granholm 2007.

D. glomerata subsp. *lobata* (*D. glomerata* subsp. *ovata*, *D. aschersoniana*) – *rr, pcc* – N Nåtö, at the nature trail approx. 100 m NE of Nygård 2012. – Fig. 65.

Cynosurus cristatus – p.l. Nåtö & Skobbholm (AP-15) – *r-st r, st pc-st cp* – Dry and mesic meadows, especially on footpaths. – N Nåtö, at NBS 1964–2019; 50 m NE of Norrbacka 1968; Skarpbacka 1995; E of Själkskatsudden 2002; on the footpath in the central part of the wooded meadow area 2007; at the Nature Trail from the main road via Björklund to Idviken and further on 2008; Nåtö W & E 2015; S Nåtö, NW of Österåker 1965; between Västergård and Berggård 1966; Rosklev 2007; Inre Kläppen 2009; Skobbholm (AP-15).

Briza media – NT – p.l. Nåtö 1902 (H) – *st fq, st pc-cp* – Mesic and moist meadows, fen meadows, rich fens. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 2009; Rödgrund 2007; Senskär 1997–2015; Idholm 1997; Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Fjärdskär 1972; Eskskär (AP-15); Slätskär 1975; Orrskär 1974; Skobbholm, SE part 2007; Nåtö Munkholm 1981; Slätholm (HS-83); Nåtö Slätholm 1981; Lemböte Slätholm 1981; Granholm 2007.

Sesleria uliginosa (*S. caerulea*) – NT – p.l. (AP-15) – *p, pc-st cp* – Mesic and moist meadows, fen meadows, rich fens. – N Nåtö, at NBS 1964–2019; the Sesleria meadow at Idviken 1964–2019; at Finngräftet 1967; 50–100 m NE of Norrbacka 1971; 100 m SE of NBS 1995; Nåtö E 2015; S



Fig. 66. Two Swedish botanists taking photographs of *Melica picta* in Lemböte Granholm. Photo: CAH, June 11, 2014.

Nåtö, westernmost end of Västeråker 1968; 250 m SE of Övergård 1995; S of Hemviken 1997; Harskata 2015; **Inre Kläppen** 2008; **Rödgrund** (AP-15); **Senskär** 1997–2015; **Idholm** 1975; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1975/1976 (MH-76); **Ekskär** (AP-15); **Slätskär** (AP-15); **Skobbholme**, meadow at the road on the E part 1983; NW shore 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 1981.

Melica nutans – p.l. (AP-15) – st fq, st pc-cpp – Deciduous woods, mesic meadows. – N and S **Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1997–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996–2015; **Inre Korsö** 1975/1976 (MH-76), 2015; **Ekskär** 1998; **Slätskär** 1999–2015; **Getskär** 2015; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Tunngrund** 1972–1974 (RC-76); **Skobbholme** 2007; **Slätholm** (HS-83); **Granholm** 2007.

M. picta – PrÅ, NT – p.l. **Granholm** 1931 (TURA) – st r, pc-cpp – Deciduous woods, mesic meadows. – N **Nåtö**, NE point, 25 m S of the sauna, 1984–2004; **Senskär**, two small stands 1991–1997; **Skobbholme**, NE part in the 1980s; **Nåtö Slätholm** 1981 (H); **Lemböte Slätholm** 1981 (H); **Nåtö Munkholm** 1981 (H); **Granholm**, several stands all over the island 1981–2019. – Häggström (1985, 1986b). – Fig. 66.

Glyceria fluitans – p.l. **Nåtö** (CTZ-47) – r, sp-cp – Fens, pools, ditches. – N **Nåtö**, 100 m N of Idviken 1995; Vidkärr 2007; in the small wet fen c. 200 m NE of Nygård 2009; **Nåtö** E 2015; S **Nåtö**, between Övergård and Österåker 1995; 100 m E of S end of Hemviken; 400 m WSW of Söderåker 1995; in Västerskog 1996; 50 m SE of Hemviken 1997; at the SE shore of Hemviken 2007–2018; 100 m S of Hemviken 2007; on moist cart track E of Harskatsåkern 2007; Västerbergen 2015, Harskata 2015.

Bromus secalinus – VU – p.l. N **Nåtö** 1983 (H) – rr, pcc – Cereal field weed. – N **Nåtö**, among sown wheat and rye on the ramp of the former stable of NBS 1983 (H); seeds from Gotland, Sweden, sown at NBS 1995, a few culms developed in 1996.

B. hordeaceus – p.l. (AP-15) – st fq, pc-cpp – Dry and rock meadows, roadsides. – N **Nåtö**, at NBS 1964–2019; rock meadows 100 m SE of NBS 1964–2019; between Norrbacka and Inre Kläppen 1997; **Nåtö** W & E 2015; S **Nåtö**, Nyäng 1995; Harskatan 2007; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Ekskär** (AP-15); **Slätskär** (AP-15); **Mellangrund** 2007; **roadbank** between Tunngrund and Skobbholme 2007; **Skobbholme** 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 2007.

Brachypodium sylvaticum – p.l. Nåtö 1902 (H) – rr; pc-cpp – Deciduous woods. – Nåtö 1902 (H); N Nåtö, hazel stand between Norrbacka and Nygård 1964–2002 (Hæggström & Skytén 1996); the locality was destroyed in 2006 when a house was built next to it; Idholm 1964–2015.

B. pinnatum – p.l. Nåtö 1922 (H) – r; pc-cpp – Deciduous woods, mesic meadows. – N Nåtö, at Bergbo 50 m S of Nygård 1964–2006; S Nåtö, two stands on the road verge 50–70 m NW of the kiosk 200 m SW of Södergård 2007; Idholm 1964–2015; Slätholm (HS-83); Granholm, roadsides 2007.

Leymus arenarius – p.l. Nåtö 1902 (H) – p, pc-st cp – Sandy and gravelly seashores. – Nåtö 1902 (H); S Nåtö, SW bouldery seashore of Västerbergen 1995; roadside at the fish farm 2010; Harskata 2015; Rödgrund (UB-37, map); Senskärsgrund 1970; Fjärdskär 1973; Jungfruskär 1996; islet E of Jungfruskär 2015; Inre Korsö 1975/1976 (MH-76); islets S of Inre Korsö 2015; Korsö 2015; Vattskär 1973; Slätskär 1976; Getskär 1973–2015; Östra Börtskär 1973–2015; Orrskär 1974; Nåtö Slätholm (UB-37, map); Skrakgrund (UB-37, map); islet VII (RC-76).

Elymus caninus – p.l. (AP-15) – p, pc-st cp – Deciduous woods. – N and S Nåtö, numerous localities, except the W coniferous wood part, 1964–2019; Inre Kläppen 2009; Senskär 1975; Idholm 1997–2015; Jungfruskär 1996–2015; Inre Korsö 2015; Eskskär 1995; Slätskär 1978;

roadbank between Törngrund and Tunngrund 2007; Slätholm (HS-83); Granholm 2007.

Elytrigia repens (*Elymus r.*) – p.l. (AP-15) – fqq, pc-cpp – Mesic and seashore meadows, former hay fields, roadsides. – In the whole area 1964–2019.

Triticum aestivum – Cultivated cereal. – N Nåtö, cultivated until 1965 at Västergård; sown together with rye on the ramp of the former stable of NBS 1983 (H).

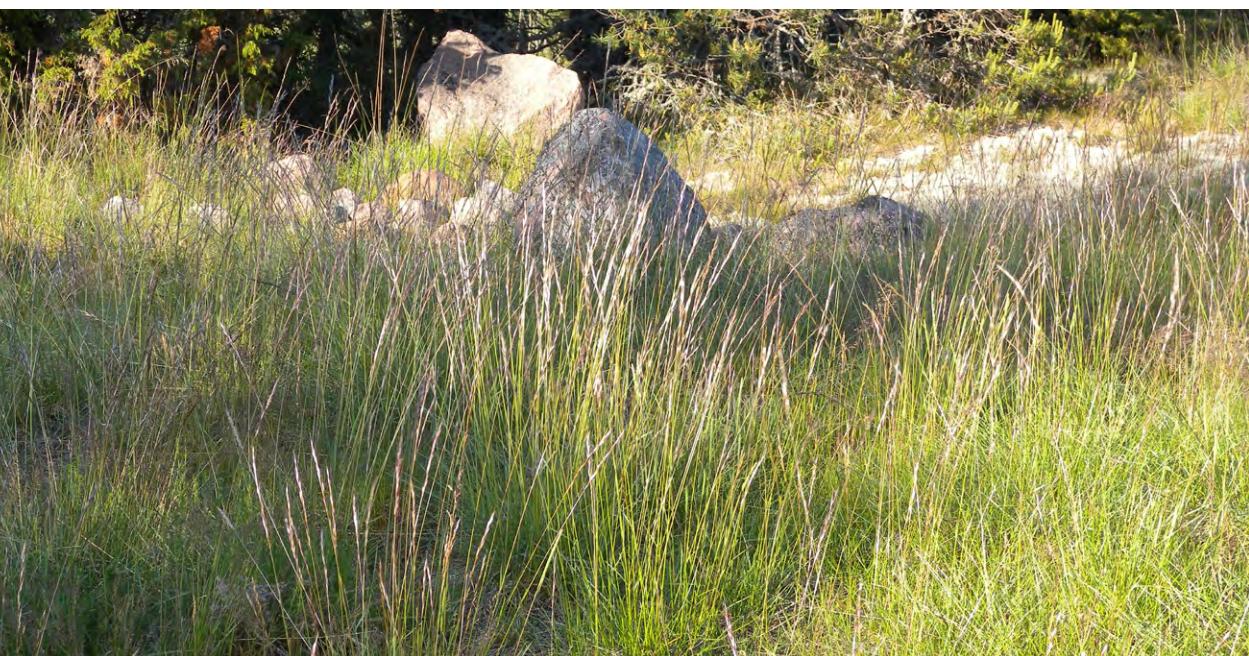
Secale cereale – Cultivated cereal. – N Nåtö, roadside at NBS 1973.

Hordeum vulgare – Cultivated cereal. – Sen-skär, on burnt spot 1977.

Avena sativa – Cultivated cereal – N Nåtö, sown on burnt spots in the central wooded meadow area in the 1970s.

Avenula pubescens – p.l. (AP-15) – p-st fq, st pc-cp – Dry and mesic meadows. – N Nåtö, at NBS 1964–2019; SW of Finngräftet 1967; 50–100 m NE of Norrbacka 1967; S of Norrbacka 1970; central part of the wooded meadow area 1971; dry meadow on Ormdalsklint 1995; at the nature trail 50 m NE of Idviken 2008; Nåtö W & E 2015; S Nåtö, NW of Österåker 1965; between Västergård and Berggård 1966; Västeråker 200 m W of Södergård 1968; westernmost end

Fig. 67. A dense stand of *Helictochloa pratensis*. Eckerö, Storbys. Photo: CAH, June 20, 2010.



of Västeråker 1974; Harskatan 1975/1976 (MH-76); W of Harskatsåkern 1975/1976 (MH-76); Rosklev 1975/1976 (MH-76); at Tegelvik 1995; 250 m SE of Övergård 1995; Söderäng 1995; S of Hemviken 1997; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1997; **Senskärsgrund** 1972; **Idholm** 1997; **Inre Kalvskär** (AP-15); **Jungfruskär** 1996; **Vattskär** 1973; **Eskskär** 1998; **Måsskär** 1987; **Slätskär** 1999; **Getskär** 2015; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Skobbholm** 2007; **Slätholm** (HS-83); **Nåtö** **Slätholm** 1981; **Granholm** 2007.

Helictochloa pratensis (*Avenula p.*) – NT – p.l. Nåtö 1902 (H) – p, pc-sp – Dry meadows. – N **Nåtö**, at NBS 1964–2019; SW of Finngräftet 1967; central wooded meadow area 200 m E of Nygård 1971; 50 m NE of Norrbacka 1971; 100 m NE of Själskatsudden 1985; Ormdalsklint 1995; S **Nåtö**, 100 m E of Södergård 1964 (H); 200 m E of Södergård 1964 (H); NW of Österåker 1965; between Västergård and Berggård 1966; E of the outflow brook from Hemviken 1974; at Mellangård 1980 (H); 200 m SE of Björklund 1984; 100 m E of Södergård 1995; roadside 100 m SW of Södergård 1995; W of Österåker 2007; Söderäng 2007; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1977; **Idholm** 1978; **Inre Kalvskär** (AP-15); **Eskskär** (AP-15); **Slätskär** (AP-15); **Skobbholm**, SE part 2007; **Gripen** 1965 (H); **roadbank** between Tunngrund and Skobbholm 2007; **Slätholm** (HS-83); **Lemböte** **Slätholm** 1981; **Granholm** 2007. – Fig. 67.

Arrhenatherum elatius – p.l. Idholm 1902 (H) – st fq, pcc-cp – Seashore meadows, deciduous stands at seashores, roadsides. – N **Nåtö**, at Ormdalssläten 1964; in a hazel stand 200 m E of Nygård 1971; at the boathouses 1995; 3 m N of the small cottage of NBS 1997; Nåtö E 2015; **Rödgrund** 2007; **Senskär** 1997–2015; **Ljusskär** 1974; **Idholm** 1997–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996–2015; **Inre Korsö**, S shore 1975/1976 (MH-76), 2015; **Eskskär** 1998; **Vattskär** 1973; **Måsskär** 1987; **Slätskär** 1977; **Getskär** 1973–2015; **skerry N of Getskär** 2015; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Deschampsia cespitosa – p.l. Nåtö 1902 (H) – st fq, st pc-st cp – Mesic and moist meadows, wet depressions in woods – N and S **Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Senskär** 1997; **Idholm** 2011–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Eskskär** (AP-15); **Slätskär** 1977; **Getskär** 1973; **Skobbholm** 2007; **Slätholm** (AP-15); **Granholm** 1981.

D. bottnica – p.l. Slätskär & Orrskär 1901 (H) – fq, st pc-st cp – Stony seashores. – N **Nåtö**, S of Fiskarudden 2007; Nåtö E 2015; S **Nåtö**, seashore W of Harskatsåkern 1975/1976 (MH-76); seashore at Grönviken 1975/1976 (MH-76); SW bouldery seashore of Västerbergen 1995; **Rödgrund** 2007; **Senskär** 1997–2015; **Senskärsgrund** 1972; **Ljusskär** 1974; **Rackargrund** 1974; **Idholm** 2011–2015; **Fjärdskär** 1973; **Jungfruskär** 1996–2015; **Inre Korsö** 1999–2015; **skerries S of Inre Korsö** 2015; **Korsö**

Fig. 68. *Deschampsia bottnica*. Vårdö, Sandö, Vattungsrevet.
Photo: CAH, August 11, 2010.



2015; **Eskskär** 1980 (H); **Slätskär** 1976; **Getskär** 1973; **Östra Börtskär** 1972; **Orrskär** 1974; **Mittgrund** 1968–1970 (RC-76); **Gräsgrund** 1963–1965 (RC-76); **Tunngrund** 1937–1940 (RC-76); **Granholm** (AP-61); **Blockgrund** 1968–1970 (RC-76); **Skrakgrund** (UB-36); **Starrgrund** 1943–1951 (RC-76); **Vettagrund** 1972–1974 (RC-76); **islet VII** 1972–1974 (RC-76). – Fig. 68.

D. bottnica × cespitosa – p.l. Nåtö, Slätskär & Orrskär 1901 (H) – *r*; ? – Stony seashores. – **Nåtö** 1901 (H); **Jungfruskär** 1939 (H); **Slätskär** 1932 (H); **Orrskär** 1901 (H). – Overlooked.

Avenella flexuosa (*Deschampsia f.*) – p.l. (AP-15) – *fq-fqq, st pc-cpp* – Rock and dry meadows, spruce woods. – In the whole area 1964–2019.

Hierochloë odorata subsp. *baltica* – p.l. (AP-15) – *st r, sp-st cp* – Wet seashore meadows. – **Rödgrund** (AP-15); **Idholm** (AP-15); **Eskskär** 1998; **Slätskär** 1975; **Skobholms**, SE shore 2007; **Lemböte Slätholm** (AP-61); **Granholm** (AP-61). – Fig. 69.

H. australis – ?, ? – Dry and mesic coniferous and lax deciduous woods – **Slätskär** (SIL-15), most probably wrongly determined.

Anthoxanthum odoratum – p.l. (AP-15) – *st fq-fq, sp-cp* – Rock, dry and mesic meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1997–2015; **Ljusskär** 1974; **Rackargrund** 1974; **Idholm** 1997; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1974, 2015; **Inre Korsö** 2015; **Eskskär** 1998; **Vattskär** 1973; **Slätskär** 1999–2015; **Getskär** 1973; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **roadbank** between **Tunngrund** and **Skobholms** 2007; **Skobholms** (AP-15); 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 2007.

Holcus mollis – p.l. S Nåtö 1970 (H) – *rr, st cp* – Roadsides, field margins. – S Nåtö, at westernmost end of Västeråker 1970–1995 (wrongly determined as *Trisetum flavescens* in Häggström 1977); **Granholm**, roadside on the SW part 2007.

Agrostis canina – p.l. Nåtö 1902 (H) – *r, pc-st pc* – Fens, fen meadows, rock-pool mires. – N Nåtö 1988; Nåtö E 2015; **Senskär** 2015; **Jungfruskär**,

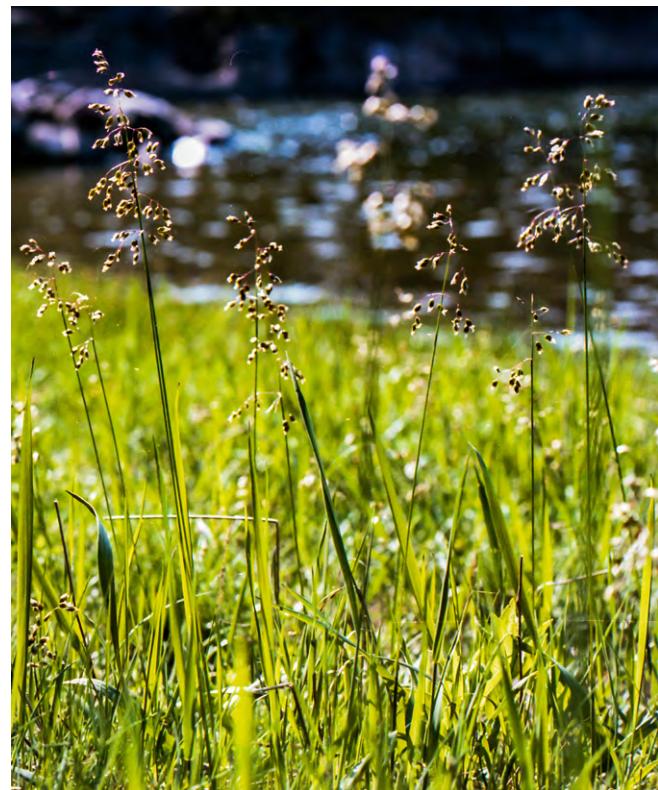


Fig. 69. *Hierochloë odorata* subsp. *baltica*. Ingå, Barösund, Svartö. Photo: KN, May 31, 1981.

rock-pool mire on the central rocky area 1996; **Eskskär**, mire on the NW part 1995 (H).

A. vinealis – p.l. Nåtö 1932 (H) – *p-st fq, st pc-sp* – Rock meadows, rock fissures. – N Nåtö, N of the windmill of NBS 1983; Ormdalsklint 1995 (H); central wooded meadow area 2007; Fiskarudden 2007; Nåtö E 2015; S Nåtö, at Tegelvik 1995; E of Hemviken 1995; in Västerskog 1995; NE of Hemviken 1995; S of Hemviken 1997; SE of Vintervägen 2007; between Söderäng and Hemviken 2007; Västerbergen 2007; **Rödgrund** 2007; **Senskär** 1997; **Rackargrund** 1974; **Idholm** 1997; **Jungfruskär** 1996; **Inre Korsö** (MH-76, uncertain determination); **islets S of Inre Korsö** 2015; **Eskskär** 1998; **Halvbådan** 1967; **Slätskär** 1977; **Getskär** 1973–2015; **Östra Börtskär** 1973–2015; **Skobholms** 2007; **Granholm** 2007. – Partly overlooked.

A. capillaris – p.l. (AP-15) – *fq, st pc-cpp* – Dry and mesic meadows. – In the whole area 1964–2019.

A. capillaris × *gigantea* – rr, pc – Mesic meadows. – **Ljusskär** 1974.

A. capillaris × *stolonifera* – rr, ? – Seashore meadows. – **Idholm** 1902 (H).

A. gigantea – p.l. Nåtö 1906 (H) – st fq, pc-sp – Mesic and seashore meadows, roadsides. – N and S Nåtö, numerous localities 1964–2019; **Fjärdskär** 1973; **Jungfruskär**, stony seashore meadow on SE part 1996; **Inre Korsö** 1973; **Eskskär**, seashore meadows of NW and SW bays 1995; **Slätskär** 1977; **roadbank** between Törngrund and Tunngrund 2007; **Tärngrund** 1972–1974 (RC-76); **Gräsgrund** 2007; **N Stengrund** 1972–1974 (RC-76); **Tunogrund** 1972–1974 (RC-76); **Skobbholm** 2007; **Granholm** 2007; **Krokgrund** 1972–1974 (RC-76); **Skrakgrund** 1972–1974 (RC-76); **Starrgrund** 1968–1970 (RC-76); **islet V** 1968–1970 (RC-76). – Probably partly overlooked. – Fig. 70.

A. stolonifera – p.l. Nåtö 1906 (H) – fqq, st pc, cpp – Seashore and fen meadows, rock-pool margins, rock fissures. – In the whole area 1964–2019.

Fig. 70. *Agrostis gigantea*. Finström, Godby, Ingböle. Photo: CAH, July 19, 2010.



Calamagrostis epigejos – p.l. (AP-15) – fq, st pc-cpp – Dry stony meadows, heath-like meadows, often among junipers, roadsides, sandy shores. – In the whole area 1964–2019.

C. canescens – p.l. S Nåtö 1984 (H) – r, cp – Fen meadows, ditches. – **S Nåtö**, wet depression at Vintervägen 2007; wet depression 250 m NE of Övergård 2007; Rosklev 2007; **Korsö** 2015.

C. neglecta (*C. stricta*) – p.l. Eskskär 1932 (H) – st r, pc-st cp – Seashore and fen meadows. – N Nåtö, seashore between Nåtö and Inre Kläppen 1995; **S Nåtö**, several stands around Hemvikens 1980–2007; Grönviken at Rosklev 2007; Västerbergen 2015; Harskata 2015; **Idholm** 2015; **Eskskär** 1995; **Slätskär** (AP-61); **Lemböte Slätholm** (AP-61); **Granholm** (AP-61).

Phleum pratense – p.l. N Nåtö 1970 – st r, pc-st cp – Dry and mesic meadows, hay fields, roadsides. – N and S Nåtö, numerous localities 1970–2019; **Skobbholm** 2007; **Granholm** 2007. – Overlooked.

Alopecurus pratensis – p.l. N and S Nåtö 1964 – p, st pc-cp – Hay fields, mesic meadows, roadsides. – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** 2007; **Jungfruskär** 1974; **Korsö** 1990; **Getskär** 2015; **roadbank** between Törngrund and Tunngrund 2007; **Skobbholm** 2007; **Granholm** 2007. – Probably overlooked.

A. arundinaceus – p.l. Nåtö 1902 (H) – st fq, sp-cp – Seashores. – **N Nåtö**, at the boathouses 1964–2019; between Nåtö and Inre Kläppen 1995; NW of Fiskarudden 2002; seashore N of Ormsdalssläten 2007; Nåtö E 2015; **S Nåtö**, numerous localities 1976–2018; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997; **Idholm** 1964–2015; **Eskskär** 1995; **Jungfruskär** 1996–2015; **Inre Korsö** 1983–2015; **Måsskär** 1987; **Slätskär** 1999–2015; **Getskär** 2015; **Östra Börtskär** 1972–2015; **Algrund** (UB-36); **roadbank** between Törngrund and Tunngrund 2007; **Ormgrund** 1972–1974 (RC-76); **Gräsgrund** 2007; **Tunogrund** 2007; **Skobbholm** 2007; **Nåtö Munkholm** (UB-37, map); **Nåtö Slätholm** (UB-37, map); **Lemböte Slätholm** (UB-37, map); **Granholm** 2007.

A. arundinaceus × *geniculatus* – rr, ? – Moist meadows. – **Nåtö** 1902 (H, OULU).

A. arundinaceus × *pratensis* – rr; ? – Seashore meadows. – **S Nåtö**, SW shore 1950 (H).

A. geniculatus – p.l. Nåtö 1934 (H) – r; pc-st pc – Fens, wet depressions on rocks and cart tracks, rock-pools. – **N Nåtö**, W of Finngräfet 1964; fen N of Norrbacka 1995 (H); wet depressions between Nygård and Björklund 1995; the *Sesleria* meadow at Idviken 1995; wet depressions on the rocky area 100 m SE of NBS 2002; Fiskarudden 2007; seashore rock at Knäckgraven 2007; at the road to Inre Kläppen 2008; Nåtö E 2015; **S Nåtö**, Västerbergen 2015; **Senskär**, rock-pool on NW rocks 1997–2015; **Idholm** 2015; **Granholm** 2007. – Probably overlooked.

A. aequalis – p.l. Korsö 1902 (H) – r; pc-st pc – Wet depressions on rocks, rock-pools. – **Ljusskär** 1974; **Rackargrund** 1974; **Korsö** 1902 (H); **Måsskär** 1967 (H); **Orrskär** 1974.

A. aequalis × *geniculatus* – rr; ? – Wet depressions on rocks, rock-pools. – **Nåtö** 1902 (H).

Phalaroides arundinacea (*Phalaris a.*) – p.l. Granholm 1910 – fq, sp-cp – Stony and bouldery seashores. – In the whole area 1964–2019.

Fig. 71. *Nardus stricta*. Lemland, Järsö. Foto: CAH, June 19, 2010.



Milium effusum – p.l. Slätholm 1910 (H) – st r; st pc-st cp – Deciduous woods. – **N and S Nåtö**, numerous localities 1964–2019; **Rödgrund** 2007; **Senskär** 1975 (cf. *M. effusum*); **Idholm** 1997–2015; **Eskskär** (AP-15); **Tunngrund** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Phragmites australis – p.l. islet VI (UB-36) – fq, st cp-cpp – Soft bottoms of the sea and seashore meadows, lakes, ponds, ditches, fens. – In the whole area 1964–2019. – The species has become much more frequent since the beginning of the 20th century. The lack of grazing by cattle and the general eutrophication of the Baltic Sea are the main reasons for the expansion of the species during the last few decades. It was used for thatched roofs and cattle fodder in former days.

Danthonia decumbens – p.l. Nåtö 1903 (H) – st fq, pc-sp – Rock and dry meadows. – **N and S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1977; **Ljusskär** 1974; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1975/1976 (MH-76), 2015; **Slätskär** 1977–2015; **Eskskär** (AP-15); **Getskär** 1973; **Orrskär** 1974; **Sköbbholmen** 2007; **Slätholm** (HS-83); **Lemböte** Slätholm 1981; **Granholm** 2007.

Molinia caerulea – p.l. Nåtö & Slätholm (AP-15) – r, st cp – Moist and wet meadows, fen meadows, fens. – **N Nåtö**, the *Sesleria* meadow at Idviken 1997; two tufts at the Nature trail about 200 m NW of Själkatsudden 2012; **S Nåtö**, SE of Hemviken 1995; 100 m S of Hemviken 2007; 250 m NE of Övergård 2007; between Söderäng and Hemviken 2007; **Slätholm** (AP-15).

Nardus stricta – p.l. (AP-15) – p, st pc-sp – Dry, mesic and shore meadows, fen margins. – **N Nåtö** 1987; **S Nåtö**, NW of Österåker 1965; S of Tegelvik 1995; E of Hemviken 200 m S of Södergård 1995; W of Östergård 2007; between Söderäng and Hemviken 2007; at the road on Västerbergen 2007; **Rödgrund** 2007; **Ljusskär** 1974; **Idholm** 1997; **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Korsö** 1990; **Eskskär** (AP-15); **Slätskär** (AP-15); **Skobbholm** (AP-15); **Slätholm** (HS-83); **Granholm** (AP-15). – Fig. 71.

Ceratophyllum demersum – p.l. N Nåtö 1967 (H) – st r, pcc-cp – Eutrophic lakes, brackish water of the Baltic Sea. – **N Nåtö**, in shallow seawater at the shore 300 m NE of Norrbacka 1967 (H); abundant in the sea at the boathouses 2002–2019; at Knäckgraven 2008; **S Nåtö**, Harskatan 2007; rather abundant on the W shore of lake Hemviken 2013; **Rödgrund**, in shallow seawa-

Fig. 72. *Ceratophyllum demersum* in shallow water. Lemland, Järsö Bergö. Photo: CAH, August 25, 2013.



Fig. 73. *Papaver rhoeas* growing on a mound of cultivated field soil in Jomala, Södersunda. Photo: CAH, July 23, 2015.

ter on the W shore 1995; **Gräsgrund** 2007; **Lemböte** **Slätholm** 2011; **Granholm**, in shallow seawater on the W and NE shores 2007. – Currently spreading in the study area. – Fig. 72.

Papaver somniferum – rr, pcc – Ornamental and occasional garden escape and ruderal plant. – **N Nåtö**, cultivated at NBS 1995; **Granholm**, one specimen at a roadside 1981 (H). – Häggström (2019a).

P. rhoeas – r, pcc – Cereal field weed, ruderal habitats. – **N** and **S Nåtö**, roadsides at the main road 1986; **Granholm**, roadside at the main road 1982. – Häggström (2019a). – Fig. 73.

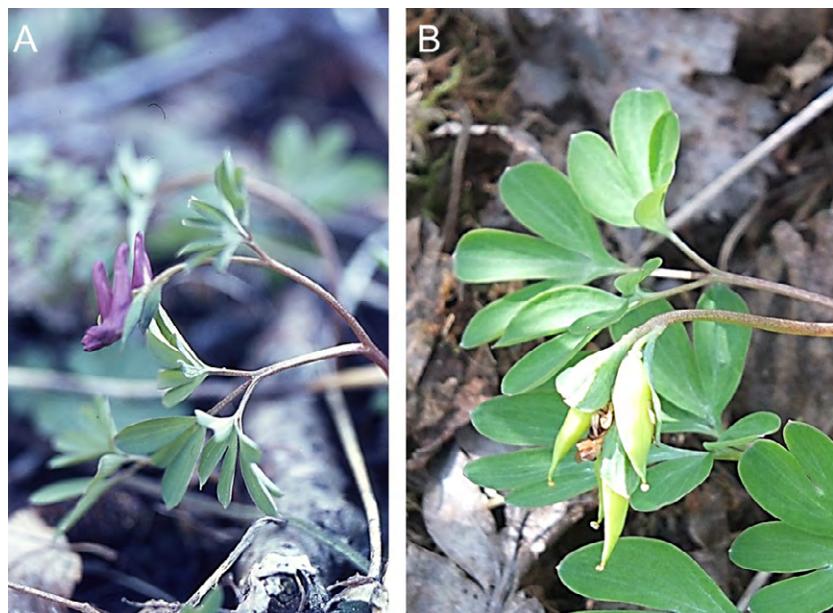
P. dubium – NT – rr, pcc – Cereal field weed, ruderal habitats. – **S Nåtö**, roadside at the house at Svärtesnabba 2007. – Häggström (2019a).

P. lasiothrix (*P. pseudoorientale*) – rr, pcc – Garden ornamental and occasional garden escape and ruderal plant – **S Nåtö**, one plant on a soil mound at the gravel road SE of Hemviken 2018. – Häggström (2019a).

Fig. 74. *Corydalis intermedia* is one of the early flowering species.

A. Flowering specimen in Nåtö, Inre Kläppen. Photo: CAH, May 3, 1967.

B. Specimen with ripe seeds at NBS. Photo: CAH, May 3, 2016.



Chelidonium majus – p.l. N Nåtö 2006 – r; pc – Shady rock ledges, roadsides, gardens. – N Nåtö, on an earth mound at the boathouses 2006; Nåtö W 2015; about 30 m N of NBS 2016; **roadbank** between Tunngrund and Skobbholm 2007; **Granholm** 2007. – The species appeared in the early 2000s in the Nåtö area.

Corydalis intermedia – p.l. N Nåtö 1967 (H) & Inre Kläppen 1967 (H) – r; pcc-cp – Deciduous woods, meadows. – N Nåtö, several separate small stands W and N of NBS 1974–2019; between Norrbacka and Inre Kläppen 1967–2003; at the shore E of Själkskatsudden 2007; **Inre Kläppen**, at the NW bay 1967–1974; at the footpath 1974; **Yttre Kläppen**, SE shore in the 1960s; **Rödgrund** 1974. – Fig. 74 A–B.

C. solidia – p.l. (AP-15) – p-st fq, sp-cpp – Deciduous, mixed and luxuriant spruce woods, meadows. – N Nåtö, numerous localities 1964–2019; **S Nåtö**, at the seashore E of Övergård in the 1960s; 300 m ESE of Övergård 1971; 400 m SE of Övergård 1971; Rosklev 1975/1976 (MH-76); at Mellangård 2005; Västerbergen 2015; Harskata 2015; **Inre Kläppen** c. 1970; **Rödgrund** (AP-15); 1974 (H); Senskär 1972–2015; **Idholm** 1964–2015; **Inre Korsö** 2015; **Jungfruskär** 2015; **Ekskär** (AP-15); 1966–1971; **Vattskär** 1973; **Slätskär** (AP-15); 1976–1999; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15). – Two

small stands of a form with white flowers, f. ***albiflora*** Hiit., were observed at NBS 1985–2003.

Fumaria officinalis – p.l. N Nåtö 1974 – rr; pc – Garden and cereal field weed, ruderal plant. – N Nåtö, on an earth mound at the former cattle shed of NBS 1974; former cereal field 1988; roadside N of Norrbacka 2007.

Trollius europaeus – p.l. S Nåtö 1967 (Berit Lönnqvist, pers. comm.) – rr; pcc – Mesic and moist meadows. – N Nåtö, cultivated at NBS in the 1990s; **S Nåtö**, at the edge of westernmost end of Västeråker, six flowering specimens and some seedlings in 1968, five flowering specimens and some seedlings in 1974 and one flowering specimen in 1995. – Häggström (1977).

Actaea spicata – p.l. Granholm 1902 (H) – st r; pcc-st pc – Deciduous woods. – N Nåtö, 30 m N of Norrbacka 1995; a few specimens NW of Fiskarudden 2002; Nåtö E 2015; **S Nåtö**, Harskata 2015; **Jungfruskär** (AP-15); 1974–1998; **Inre Korsö**, at the isthmus towards Jungfruskär 1981 (H); 1999–2015; **Skobbholm**, SE part 2007; **Slätholm** 1911 (H); (HS-83); **Granholm** 1902 (H) – 1939 (H).

Caltha palustris – p.l. (AP-15) – p-st fq, st pc-cpp – Moist and wet seashores, wet meadows, ditches, fens. – N Nåtö, between NBS and the boathouses 1964–2019; in the *Sesleria* meadow at Idvi-

ken 1964–2019; 220 m ENE of Nygård 1967; on the seashore of Ormdalssläten 1995; on the seashore of Idviken 1994–2019; seashore at Knäckgraven 2007; Vidkärr 2007; **S Nåtö**, SW of Hemviken 1975/1976 (MH-76); seashore W of Har-skatsåkern 1975/1976 (MH-76); at Grönviken 1975/1976 (MH-76); 2007; ditch at the main road between Båtsmans and Södergård 1995; Västerbergen 2015; **Rödgrund** 2007; **Senskär** 1972–2015; **Idholm**, (AP-15); N shore 1974–2015; **Yttre Kalvskär** (AP-15); **Jungfruskär**, N–NE shore 1975/1976 (MH-76); **Inre Korsö** 1999–2015; **Ekskär** (AP-15); NW shore 1964–1995; **Slätskär** (AP-15); 1966–2015; **Skobholms** (AP-15); **Slätholm** (AP-15).

Anemone nemorosa – p.l. Nåtö 1902 (H) – *fq, sp-cpp* – Mesic spruce and deciduous woods, wooded and mesic meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008–2009; **Rödgrund** (AP-15); 2007; **Senskär** 1972–2015; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1973–2015; **Inre Korsö**, E part 1975/1976 (MH-76); 2015; **Ekskär** (AP-15); *pcc* in the westernmost part 1971; **Slätskär** (AP-15); 1972–2015; **Algrund** probably introduced, 2007; **Tunngrund** 1931–1950 (RC); 2007; **Skobholms** (AP-15); 1987–2007; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 1981–2007. – Fig. 75.

Fig. 75. *Anemone nemorosa*. Nåtö Island. Photo: HV, July 25, 2007.



A. nemorosa × ranunculoides – p.l. N Nåtö 1981 (H) – *r, pcc-pc* – Deciduous woods. – **N Nåtö**, a small clone at the caged *Taxus* tree at Idviken 1981; the clone diminished during the years and the last specimen was observed in 2007; at Skarpbacka in the early 1980s; one specimen at the Nature Trail 100 m SE of Nygård 2002; **Granholm** 1986–1989 (TUR).

A. ranunculoides – p.l. Nåtö 1902 (H) – *p, sp-cp* – Deciduous woods, wooded and mesic meadows. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö** 1961 (OULU); hazel copse 80 m S of Björklund 1966–1971; **Rödgrund** (AP-15); introduced in the latter part of the 20th century, according to Göran Stenlid; not found in 2007; **Senskär** 1972; **Idholm** (AP-15); 1975–2015; **Skobholms** (AP-15); **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 1981–1989 (TUR).

Hepatica nobilis – p.l. Slätholm 1907 (H) – *st fq, sp-cpp* – Mesic spruce and deciduous woods, wooded and mesic meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 2007; **Senskär** 1972–2015; **Idholm**, (AP-15); 1964–2015; **Jungfruskär** 1974–2015; **Inre Korsö** 1973–2015; **Ekskär** (AP-15); 1964–1997; **Algrund** probably introduced, 2007; **Skobholms** (AP-15); 1987–2007; **Slätholm** (AP-15); (HS-83); Nåtö Slätholm 1981; Lemböte Slätholm 2011; **Granholm** (AP-15); 1981–2007.

Ranunculus polyanthemos – p.l. Nåtö 1901 (TURA) – *p-st fq, pc-sp* – Dry, mesic and wooded meadows. – **N Nåtö**, numerous localities 1964–1995; **S Nåtö**, NW of Österåker 1965; mixed wood 300 m ESE of Övergård 1971; Nyäng 1995; Söderäng 2007; Harskatan 2007; at Lastklubb 2007; **Rödgrund** (AP-15); **Senskär** 2015; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Slätskär** (AP-15); 1975–1978; **Algrund** (UB-36); **Ormgrund** 1972–74 (RC-76); **Skobbholm** (AP-15); 2007; **Slätholm** (AP-15); (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slätholm** 2011; **Granholm** (AP-15); 1981–2007.

R. repens – p.l. Nåtö 1901 (TURA) – *st fq, sp-cp* – Moist and wet shores, meadows, ditches, also a garden weed. – **N** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1973–2015; **Idholm** 2015; **Jungfruskär** 1974–1996; **Inre Korsö** 1973–2015; **Korsö** 1990; **Östra Börtskär** 1972; **Mellangrund** 2007; **Tärngrund** (UB-36); **Tunngrund** 2007; **Skobbholm** 2007; **Granholm** 2007.

R. acris – p.l. Nåtö 1901 (TURA) – *fq, sp-cpp* – Meadows, former hay fields, pastures. – In the whole area 1964–2019.

R. bulbosus – p.l. Nåtö 1895 (VOA) – *p, st pc-st cp* – Dry and rock meadows. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, NW of Österåker 1965; between Västergård and Berggård 1966; mixed wood 300 m ESE of Övergård 1971; 250 m NE of Övergård 2007; at Övergård 2007; between Söderäng and Hemviken 2007; 2015; dry meadow approx. 180 m S of Övergård 2016; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 2007; **Senskär** 1974–1997; **Inre Kalvskär** (AP-15); **Idholm** (AP-15); 1964–1978; **Slätskär** (AP-15); 1948 (OULU); **islet N of Getskär** 2015; **Skobbholm** (AP-15); 1987; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** 1981; **Granholm** (AP-15).

R. elatior (*R. cassubicus* subsp. *elatior*) – p.l. Nåtö (AP-15) – *st r, st pc-st cp* – Deciduous woods, mesic meadows. – **N Nåtö**, at Finngräftet 1964–2019; around Vidkärr 1964–2007; hazel copse between Norrbacka and Nygård 1971; 50 m NE of Norrbacka 1971; between Nygård and Ormdalssläten 1995; **S Nåtö**, approx. 500 m SE of Övergård in the 1980s; 250 m NE of Övergård 2007; **Slätholm** (HS-83). – Fig. 76.

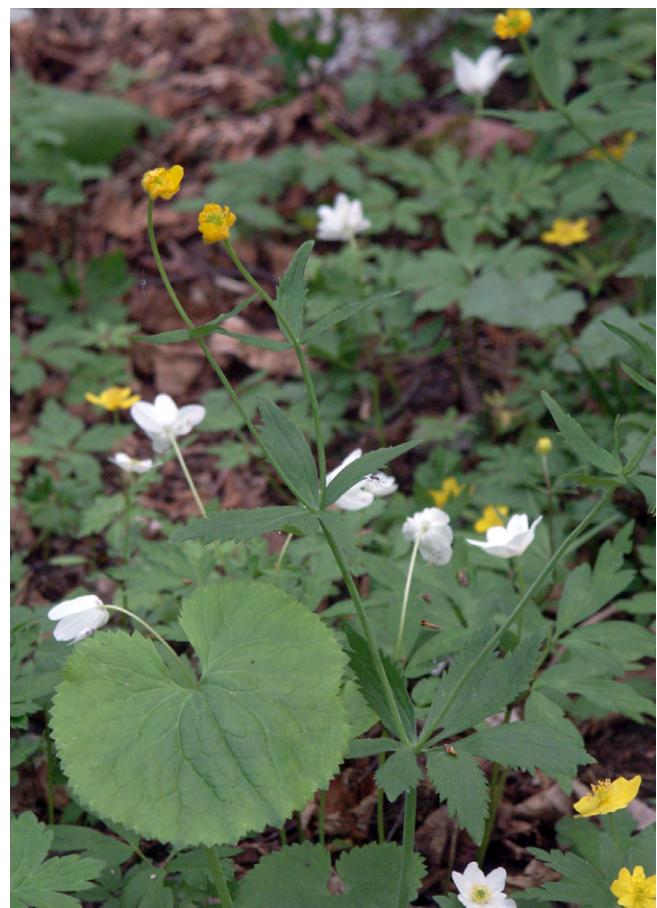
R. auricomus coll. – p.l. (AP-15) – *st fq, pc-cp* – Mesic meadows, deciduous woods. – **N** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 2007; **Senskär** 1972–2015; **Inre Kalvskär** (AP-15); **Idholm** 1964–2011; **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1975/1976 (MH-76); 1999; **Eskskär** (AP-15); 1964–1971; **Slätskär** (AP-15); 1975–1976; **Tunngrund** 1931–1951 (RC-76); **Skobbholm** (AP-15); 2007; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** 2011; **Granholm** (AP-15); 1981–2007. – The *R. auricomus* complex comprises several taxa which we have not tried to distinguish. The following have been reported from the study area:

R. brachyphyllarius (Markl.) Ericsson – **Nåtö** 1951 (Marklund 1961).

R. distendens (Markl.) Ericsson – **Granholm** 1951 (Marklund 1961).

R. palmgrenii (Markl.) Ericsson – **Nåtö** 1947 (Marklund 1961); **Slätholm** 1941 (Marklund 1961).

Fig. 76. *Ranunculus elatior*. Nåtö Island. Photo: HV, July 25, 2007.



R. rotundellus (Markl.) Ericsson – **Nåtö** 1951 (Marklund 1961); **Slätholm** 1941 (Marklund 1961); **Granholm** 1939, 1941 (Marklund 1961).

R. fallax coll. – ? , ? – Mesic meadows, deciduous woods – **S Nåtö**, in a copse at the SW seashore 1993 (OULU). – Probably overlooked.

R. sceleratus – rr, pc – Lakeshores, ditches, on seashore wrack. – **S Nåtö**, road ditch 40 m NW of Södergård 1974 (H); in the pond area for natural fish spawning S of Hemviken 2018.

R. flammula – p.l. Nåtö 1919 (H) – st r-p, st pc-st cp – Ditches, moist and wet depressions on rocks, wet meadows, wet depressions in woods, seashores. – **N** and **S Nåtö**, numerous localities 1964–2019; **Senskär**, in the fen 1973–2015; **Ljusskär** 1974; **Jungfruskär** 1974; **Lemböte** Slätholm 2011; **Granholm** 2007. – Fig. 77.

R. reptans – ?, ? – In shallow water and on shores of oligotrophic lakes – **N Nåtö**, Nåtö E 2015 (SIL-15). – Most probably a wrong determination, because there are no oligotrophic lakes in Nåtö.

R. baudotii (*R. peltatus* subsp. *baudotii*) – p.l. Nåtö 1919 (H) – p, sp-cp – Brackish water. – **N Nåtö**, Idviken 1994; at 1 m depth by the boat-houses 2007; at Knäckgraven 2008; in the bay

Fig. 77. *Ranunculus flammula*. Nåtö Island. Photo: HV, June 21, 2009.



Fig. 78. *Ficaria verna* at NBS. Photo: CAH, April, 30, 2016.

W of Fiskarudden 2007; Nåtö E 2015; **S Nåtö**, S part of Österåkersgrund 1965 (H); at the seashore SE of Övergård 1995; at the seashore of Rosklev 2007; Harskatan 2007; **Rödgrund** 2007; **Ljusskär** 1974; **Inre Korsö** 2015; **Jungfruskär** 1975/1976 (MH-76); abundant in the W sea bay 1996; **Eskskär**, NW sea bay 1995; **Getskär** 1973–2015; **Östra Börtskär** 2015; at the **road-bank** between Törngrund and Tunngrund 2007; **Gräsgrund** 2007; **Granholm** 1954 (H). – Overlooked.

R. aquatilis – p.l. Inre Korsö 1927 (H, OULU) – Lakes, ditches, on wet soil. – **Nåtö** 1936 (OULU); **S Nåtö**, on a wet cart track W of Hemviken 200 m SW of Södergård 1964.

R. aquatilis var. *aquatilis* – r, pc-st pc – Nåtö 1931 (H, TURA); 1932 (H); 1936 (OULU, TUR); 1938 (TURA); 1945 (H); **S Nåtö**, 40 m NW of Södergård 1974 (H); **Inre Korsö** 1927 (H, OULU).

R. aquatilis var. *diffusus* – rr, cpp – **S Nåtö**, Klubben 1930 (TUR); **Idholm** 1945 (H, TUR).

Ficaria verna (*Ranunculus ficaria*) – p.l. Nåtö 1902 (VOA) – p, pc-cpp – Mesic meadows, deciduous woods. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, hazel copse 80 m S of Björklund 1966–1971; at the main road SW of Södergård 1995; Vintervägen 1995; at Mellangård 2005; Västerbergen 2015; **Inre Kläppen**, N part in the 1960s; **Rödgrund** (AP-15); 2013; **Senskär** 1972–2015; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Korsö** 1990; **Skobbholm** (AP-15); 1987–2007; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 1981. – Fig. 78.

Myosurus minimus – p.l. (AP-15) – st r, pc-sp – Dry and rock meadows, roadsides, courtyards. – **N Nåtö**, at NBS 1964–2007; Gärssins backe 1964; roadside at NBS 1973 (H); 150 m N of NBS near Kläppssundet 1974; rocky area SW of Bergbo 1983–2019; at the midsummer pole 1997–2007; **Senskär** 1973–2015; **Yttre Kalvskär** (AP-15); **Skobbholm**, at the house of Rothberg 1981 (H); **Slätskär** (HS-83). – Fig. 79.

Eranthis hyemalis – Ornamental plant. – **N Nåtö**, two specimens as garden escapes at NBS 1997–2000.

Aquilegia vulgaris – Ornamental plant, occasional garden escape. – **N Nåtö**, cultivated at NBS 1964–2019; at the summer cottage 150 m NW of NBS 2007; **Algrund** 2007; **Granholm**, roadside 2007.

Thalictrum flavum – p.l. (AP-15) – st r, st pc-sp – Moist meadows, deciduous woods. – **N Nåtö**, at the road to the N car park of NBS 1964–1987; Vidkärr 1965–2007; moist area 50–70 m N of NBS 2008; most depression 50 m S of Vidkärr 2009; in the small wet fen c. 200 m NE of Nygård 2009; **S Nåtö**, SW of Hemviken 1975/1976 (MH-76); mid part of Nyäng 1995; Harskata 2015; **Senskär** 1975; **Idholm** (AP-15); 1964–2015; **Inre Korsö** 1999; **Slätskär** 2015; **Skobbholm** (AP-15); **Slätholm** (AP-15).

Ribes rubrum coll. – p.l. N Nåtö 1964 – st r, pcc-pc – Deciduous woods, also cultivated for its berries. – **N Nåtö**, at the seashore N of the boathouses 2007; **Korsö** 1990; **Mellangrund** 2007; **roadbank** between Törngrund and Tunngrund 2007; **Ormgrund** 1972–1974 (RC-76); **Tärngrund** 1972–1974 (RC-76); **Gräsgrund** 1972–1974 (RC-76); **Tunngrund** 1972–1974 (RC-76); **Skobbholm** 2007; **Blockgrund** 1972–1974 (RC-76); **Skrakgrund** 1972–1974 (RC-76). – The taxa of red currants may be distinguished only when flowering and they are quite difficult to distinguish even then. We have not studied the red currants in any detail.

R. spicatum subsp. ***spicatum*** – rr?, pc? – Deciduous woods, also cultivated for its berries. – **S Nåtö**, Västerbergen 2015; **Inre Korsö** 2015.

R. × pallidum – rr?, pcc? – Cultivated for its berries, occasionally escaped. – **N Nåtö**, one shrub



Fig. 79. *Myosurus minimus*. Ingå, Barösund, Svartö. Photo: KN, May 21, 1983.

in a hazel at NBS 1964–2019. – Also cultivated at NBS 1997–2019.

R. nigrum – p.l. (AP-15) – st fq, pc-sp – Deciduous woods, bouldery areas in islets, also cultivated for its berries. – **N Nåtö**, 50 m NE of Norrbacka 1967; Nåtö E 2015; **S Nåtö**, deciduous stand 300 m W of Södergård 1995; at Vintervägen 2007; Västerbergen 2015; **Inre Kläppen** 2008; **Rödgrund**, according to Göran Stenlid 2007; **Senskär** 1975; **Rackargrund** 1974; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Fjärdskär** 1972; **Jungfruskär** 1945 (TUR); 1973–1996; **Inre Korsö** 1973–2015; **Korsö** 1990; **Eskskär** (AP-15); **Slätskär** (AP-15); 1931 (H); 1973–2015; **Getskär** (AP-15); 1973; **skerry N of Getskär** 2015; **Östra Börtskär** 1973; **Gripen** 1965 (H); **Gräsgrund** 1972–1974 (RC-76); 2007; **Skobbholm** 2007; **Slätholm** (HS-83); **Blockgrund** 1972–1974 (RC-76); **Granholm** 2007.

R. uva-crispa – p.l. N Nåtö 1964 – r, pcc-pc – Cultivated for its berries, also garden escape. – **N Nåtö**, two shrubs, either cultivated or garden escapes, at NBS 1964–2007; one shrub at the seashore between the boathouses 2007; Nåtö W 2015; **Eskskär** 1966.

R. alpinum – p.l. (AP-15) – *fq-fqq, pc-sp* – Deciduous woods, stony meadows. – In the whole area 1964–2019.

Saxifraga tridactylites – NT – p.l. Nåtö 1900 (TURA) – *st r, pc-st cp* – Rock meadows, rock outcrops. – N Nåtö, rock outcrop immediately SW of Bergbo 1964 (H), 1976; Gärssins backe between Västergård and Björklund 1964–1972 (H), the site was then destroyed; rock outcrop 300 m NE of Nygård c. 1970; W of the midsummer pole 1987–2018; dry meadow next to a former wind mill at the rocky area SW of Bergbo 1994–1997; about 10 plants 20 m W of the small cottage of NBS 1998–2002; rock outcrop 50 m ENE of the *Sesleria* meadow at Idviken 2004; S Nåtö, rock outcrop S of Södergård 1983; rock meadow at Mellangård 2005; Skobholms 1906 (TUR); (AP-15); 1921 (TUR).

S. granulata – NT – p.l. Nåtö 1901 (H, VOA) – *p, pc-cp* – Dry and mesic meadows, rock meadows. – N Nåtö, at NBS 1964–2019; between Västergård and Björklund 1964; W of Skarpbacka 1971; between Norrbacka and Inre Kläppen 1997, Skarpbacka 2007; S Nåtö, between Västergård and Berggård 1966; between Västergård and Östergård 1972 (H); between Björklund and Övergård 1995; Nyäng 1995; roadside in Väster-skog 400 m W of Södergård 1995; at Björklund 2002; at Mellangård 2005; Rödgrund (AP-15); 2013; Senskär 1973–2015; Idholm (AP-15); (Lounamaa 1956); 2015; Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Jungfruskär (AP-15); 2015; Inre Korsö 2015; Eskskär (AP-15); Slätskär (AP-15); 1975–1977; Skobholms 1901 (TURA); (AP-15); 1987; Slätholm (AP-15); (HS-83); Lemböte Slätholm (AP-15); 1981; Granholm (AP-15); 2007. – Fig. 80.

Bergenia cf. *crassifolia* – Ornamental plant. – N Nåtö, cultivated at NBS 1964–2019; S Nåtö, cultivated at the forest edge near the fish farm 2007. – Overlooked.

Bergenia sp. – Ornamental plant. – S Nåtö, garden escape in the wood at Lastklubbsvägen approx. 180 m S of Övergård 2016.

Crassula aquatica – VU – p.l. Ljusskär 1932 (H) – *rr, cp* – Rock-pools. – Ljusskär 1932 (H); Måsskär, SE part 1984 (H).

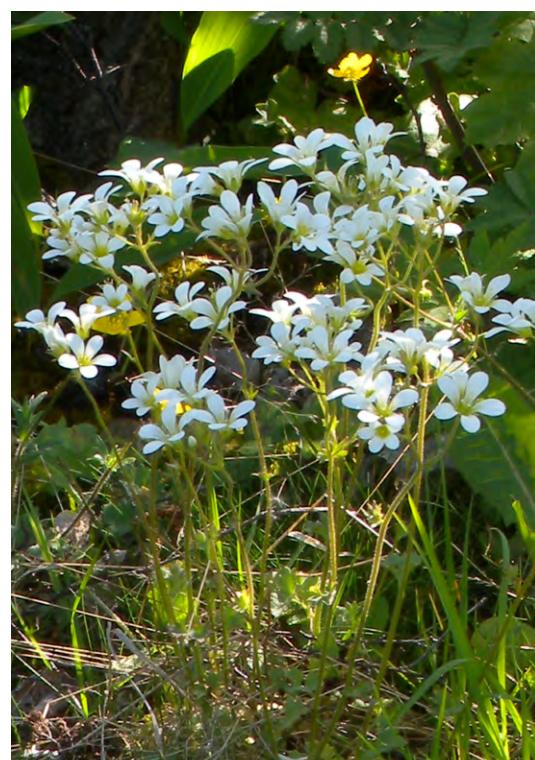
Hylotelephium telephium subsp. *maximum* (*Sedum telephium* subsp. *maximum*) – p.l. (AP-15) – *fqq, pc-cp* – Rock outcrops, rock and dry meadows, dry sandy soil. – In the whole area 1964–2019. – Only subsp. *maximum* occurs as a native plant in the Åland Islands (Hämet-Ahti et al. 1998). The distinguishing morphological characters between subsp. *maximum* and subsp. *ruprechtii* are, however, not always clear-cut in the Ålandian specimens.

Phedimus aizoon (*Sedum a.*) – Ornamental plant – N Nåtö, garden escape on rock outcrop between NBS and the boathouses 1964–2019; on rock outcrop S of the small barn building of NBS 2009.

Petrosedum rupestre (*Sedum r.*) – p.l. Skobholms 1981 (H) – *rr-r, pcc-pc* – Rock outcrops, ornamental plant in gardens. – N Nåtö, a few shoots on a rock outcrop at NBS 1997–2001, not seen later; Mellangrund 2007, probably cultivated; Skobholms, at the roadside at the crossroads to a house on the NE part of the island 1981 (H), probably cultivated, not found in 2007.

Sedum acre – p.l. (AP-15) – *fqq, st pc-cpp* – Rock outcrops, dry meadows, dry sandy soil at roads. – In the whole area 1964–2019.

Fig. 80. *Saxifraga granulata*. Nåtö Island. Photo: CAH, June 9, 2010.



S. sexangulare – p.l. on a small island S of Slätholm 1886 (perhaps Rödgrund?) – *st r-p, st pc-st cp* – Rock meadows, dry meadows, rock outcrops. – N Nåtö, dry meadow between flat rocks approx. 60–80 m NE of the *Sesleria* meadow at Idviken 1964–2019; rock meadow 100 m SE of NBS 1964–2008; a small stand on a rock meadow at NBS from the 1970s to 2001; dry meadow at Själkskatsudden 1995–2007; Nåtö E 2015; S Nåtö, SW part of the island 1952 (TUR); at the path to Övergård 1956 (TUR); 300 m S of Övergård 1964 (H); rock meadow on the S shore 1974; dry meadow 50 m NW of Österåker 1980 (H); rock in the N part of Söderäng 1995; Nyäng 1995; S of Hemviken 1997; **Rödgrund** (AP-15); 1993 (OULU); dry meadow at Stenlid's cottage 2007; rock meadow at the E side of the island 2007; **Senskär** 1977–1997; **Idholm** 1974–1978; **Skobbholme** 1902 (H); 1906 (TUR); (AP-15); SE part 2007; **Slätholm** (AP-15); (HS-83); **Munkholm**, 1927 (H); **Granholm** (AP-15); 2007.

S. album – p.l. (AP-15) – *st fq, st pc-cpp* – Rock outcrops, rock and dry meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 1983 (H); 2007; **Senskär** 1973–2015; **Senskärsgrund** 1972; **Ljusskär** 1974; **Idholm** (AP-15); Lounamaa (1956); 1974–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** (AP-15); 1974–

Fig. 81. *Sedum annuum*. Lemland, Järsö. Photo: CAH, June 19, 2010.



1996; **Slätskär** (AP-15); 1972–2015; **Östra Börtskär** 1972–2015; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholme 2007; **Skobbholme** 1906 (TUR); (AP-15); 1987–2007; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** 1981; **Granholm** (AP-15); 1926 (H); 2007.

S. annuum – p.l. (AP-15) – *p-st fq, pc-st cp* – Rock outcrops. – N Nåtö, at NBS 1964–2019; Fiskarudden 2007; S Nåtö, 300 m S of Övergård 1964 (H); between Övergård and Österåker 1995; the N margin of Västeråker 1995; at the kiosk 200 m SW of Södergård 2005; SW Västerbergen 2007; **Ljusskär** 1974; **Rackargrund** 1974; **Idholm**, (AP-15); 1937 (TUR); 1995–2011; **Inre Kalvskär** (AP-15); **Yttre Kalvskär**, Håkan Slotte (in letter 1984); **Jungfruskär** 1938 (H); **Korsö** 1938–1939 (H); **Ekskär** 1952 (OULU); **Slätskär** 1922 (TURA); 1948 (H); 1977; Håkan Slotte (in letter 1984); **Skobbholme** (AP-15); **Granholm** (AP-15). – Fig. 81.

S. lydium – *rr, pcc* – Rock outcrops, ornamental plant. – N Nåtö, a small stand of vegetative shoots grew on a rock outcrop at NBS 1964–2000, not found since.

Myriophyllum spicatum – *r?, pc?* – N Nåtö, between the boat landing of Norrbacka and Knäckgraven, drifting in the sea 2002; S Nåtö, in the pond area for natural fish spawning S of Hemviken 2018; **Slätholm** (Slotte 1983). – *M. spicatum* seems to be quite rare in the area. It is often difficult to distinguish between it and the more common *M. sibiricum*.

M. sibiricum – p.l. N Nåtö 2002 – *r?, sp?* – Brackish water, eutrophic lakes. – N Nåtö, at NBS 2002; at Knäckgraven 2008; S Nåtö, Harskatan 2007; **Lemböte Slätholm**, on the W seashore 2011. – Overlooked.

Lupinus polyphyllus – Garden escape, cultivated on roadsides. – **Mellangrund** 2004–2007.

Caragana arborescens – Ornamental shrub. – N Nåtö, cultivated at Berggård 1995. – Probably overlooked.

Vicia cracca – p.l. (AP-15) – *fq, st pc-st cp* – Seashore, mesic and roadside meadows. – In the whole area 1964–2019.



Fig. 82. *Vicia lathyroides*. Sund, Bomarsund. Photo: KN, May 25, 1991.

V. villosa – rr; ? – Cereal weed. – Nåtö, in a cultivated field 1907 (TURA), 1919 (H); in a rye field 1922 (TUR).

V. sepium subsp. *sepium* – p.l. (AP-15) – p, st pc-st cp – Mesic meadows, wood margins, roadsides. – N and S Nåtö, numerous localities 1964–2019; Idholm 1978; Getskär 2015; Skobholm 2007; Slätholm (HS-83); Lemböte Slätholm, W side 2011; Granholm 2007.

V. sepium subsp. cf. *montana* – rr, pc – Granholm, three localities 2007.

V. lathyroides – PrÅ*, VU – p.l. Nåtö, Skobbholm & Slätholm 1902 (H, TURA) – r, pc-sp – Dry meadows. – N Nåtö, near Grannans [=NBS] 1956 (TUR); S Nåtö, in the SE part of the village 1952 (TUR); between Västergård and Östergård 1972 (H); at the ruin of Östergård 1995; Skobbholm, dry meadow E of Rothberg's main building 1981 (H); Slätholm (HS-83); Munkholm 1927 (H, VOA). – A voucher specimen in H from N Nåtö near the boat houses, collected by V. J. Llyl

on June 27, 1967 is false. Mr. Llyl was guided by the author CAH that day in Nåtö and not a single plant was collected by Mr. Llyl on that occasion. – There are also some other obviously false collections of Mr. Llyl from other parts of Åland (cf. Häggström 1986a, 2003a, Häggström et al. 2003, Carlsson et al. 2011). – Fig. 82.

***Ervilia sylvatica* (*Vicia s.*)** – p.l. Nåtö & Granholm (AP-15) – r, sp-cp – Deciduous woods. – N Nåtö, central part of the wooded meadow area 1964–2007; in the hazel copse between Nygård and Norrbacka 1971; 50–100 m NE of Norrbacka 1979; spruce wood of Själkats norra stycke 1971; hazel stand at Skarpbacka 1995; deciduous stand 70 m E of Nygård 1995; at Vidkärr 2007; E part of the Nature Reserve 2014–2015; S Nåtö, Harskatan 2007; Granholm 1938 (H, OULU).

***E. hirsuta* (*Vicia h.*)** – p.l. (AP-15) – st r, pc-sp – Dry and rock meadows, field margins. – N Nåtö, in the hazel stand E of NBS 1964; fallow field S of Norrbacka 1969; roadside at NBS 1974; N of the former cattle shed of NBS 1984 (H); about 70 m NW of NBS 2008; S Nåtö, Harskatsåkern 1969; Västeråker 1971 (Silfverberg 1980); at Mellangård 1995; at the ruin of Östergård 1995; at the main road 1995; Västeråker 1995; S of Björklund 2002; 250 m NE of Övergård 2007; Rödgrund 2007; Idholm 1945 (TUR); Slätskär (AP-15); roadbank between Törngrund and Tunngrund 2007; roadbank between Tunngrund and Skobholm 2007; Skobholm 2007; Granholm, two localities 2007.

***Ervum tetraspermum* (*Vicia tetrasperma*)** – p.l. (AP-15) – p, pc-sp – Dry and rock meadows – N Nåtö, at Finngräftet 1964; Norråker 1968; roadside at NBS 1973; N of the former cattle shed of NBS 1988; between NBS and the boathouses 2007; Nåtö W 2015; S Nåtö, 60 m SE of Björklund 1995; between Björklund and Övergård 1995; at the ruin of Östergård 1995; N margin of Västeråker 1995; Nyäng 1995; 250 m NE of Övergård 2007; Rödgrund 2007; Idholm (AP-15); Jungfruskär 1974; Eskskär (AP-15); Slätskär 1947 (VOA); roadbank between Tunngrund and Skobholm 2007; Skobholm 2007; Nåtö Munkholm 1927 (H); Slätholm (HS-83); Lemböte Slätholm, W side 2011; Granholm 2007.

Lathyrus vernus – p.l. Nåtö & Slätholm (AP-15) – *st r; pc-sp* – Deciduous woods. – N Nåtö, central part of the wooded meadow area 1964–2019; 100–150 m SE of Nygård 1964–2007; S of Norrbacka 1970; between Nygård and Norrbacka 1971; Ormdalssläten 1971; 50 m NE of Norrbacka 1979; hazel stand E of Nygård 1985; S Nåtö, spruce wood 400 m SE of Övergård 1971; 300–400 m NE of Övergård 1971; Harskatan 1975/1976 (MH-76); 250 m NE of Övergård 2007; **Idholm** 1978; **Slätholm** (AP-15); **Granholm** 2007.

L. linifolius var. **montanus** – p.l. Eskskär 1907 (H) – *rr; ?* – Mesic meadows, deciduous woods, roadsides. – **Eskskär** 1907 (H). – Fig. 83.

L. pratensis – p.l. (AP-15) – *p-st fq, st pc-st cp* – Mesic meadows, roadsides. – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** (AP-15); **Senskär** 1977–2015; **Idholm** 2011–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 2015; **Eskskär** 1995; **Slätskär** 1978; **Skobbholm** 2007; **Slätholm** (HS-83); **Lemböte Slätholm**, W side 2011; **Granholm** 2007.

L. palustris – p.l. Slätskär 1939 (H) – *r; st pc* – Seashore and fen meadows. – N Nåtö, Nåtö W & E 2015; **Eskskär**, seashore meadow in the NW bay 1964–1998; **Slätskär** 1939 (H); **Granholm**, W shore 2007.

Melilotus albus – *rr; pc* – Ruderal plant on roadsides, in harbours, etc. – **Rödgrund**, N roadbank in the 1980s.

M. officinalis – p.l. Granholm 1971 (H) – *r; pc-sp* – Ruderal plant on roadsides, in harbours, etc. – N Nåtö, roadside 50 m N of the former cattle shed of NBS 1997; **Rödgrund**, N roadbank 1973 (H); S roadbank 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Granholm**, roadside 1971–2007.

Medicago lupulina – p.l. S Nåtö 1901 (H, VOA) – *st r; pc-sp* – Dry meadows, seashore meadows, roadsides, ruderal ground. – N Nåtö, east of the main road 2015; S Nåtö, by Hemviken 1901 (H); at Harskatsåkern 1975/1976 (MH-76); Lastklubb 1997; **Senskär** 2015; **Idholm** 2015; **Slätholm** (HS-83); **Granholm** 1980 (H). – Probably overlooked.



Fig. 83. *Lathyrus linifolius* var. *montanus*. Raseborg, Karis, Manngård. Photo: KN, May 2, 1984.

M. lupulina var. **glanduligera** – *r; st pc* – S Nåtö, at the kiosk 200 m SW of Södergård 2005; seashore meadow at Harskatan 2007; **Skobbholm** 2007; **Granholm**, three localities 2007.

M. lupulina var. **wilddenowiana** – *rr; pc* – **Rödgrund** 2007; **Granholm** 2007.

Trifolium repens – p.l. (AP-15) – *st fq, sp-cp* – Seashore and mesic meadows, lawns, roadsides, etc. – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** 2007; **Senskär** 1977; **Ljusskär** 1974; **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Slätskär** (AP-15); **Mellangrund** 2007; **roadbank** between Törngrund and Tunngrund 2007; **Tunngrund** 1972–1974 (RC-76); **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** (AP-15); **Slätholm** (HS-83); **Lemböte Slätholm**, W side 2011; **Granholm** 2007.

T. hybridum – p.l. Nåtö 1919 (H) – *r; st pc* – Hay fields, roadsides. – N Nåtö, field margin 120 m S of NBS 1995 (H); roadside at NBS 1997; **Skobb-**

holm, at the road Skobbholmsvägen 2007. – No subspecific taxa have been distinguished by us.

T. fragiferum – NT – p.l. S Nåtö 1901 (VOA) – st r-p, st cp-cpp – Seashore meadows. – N Nåtö, seashore meadow between Nåtö and Inre Kläppen 1986 (H); seashore meadow at the boathouses 1994; Själkatsudden 2001–2018; Idviken 2001–2018; seashore W of Fiskarudden 2007; seashore at Knäckgraven 2007; S Nåtö, at the shore of Hemviken 1901 (VOA); Idviken N of Österåkersgrund 1964 (H); W of Harskatsåkern 1975/1976 (MH-76); Harskatan 2007; Inre Kläppen 1994; Senskär 1977–2015; Gripen (UB-37, map); Gräsgrund (UB-36); Skobbholm, NW shore 2007; Lemböte Munkholm (UB-37, map); Nåtö Slätholm (UB-37, map), Lemböte Slätholm (UB-37, map); W shore 2011. – Fig. 84.

T. arvense – p.l. Nåtö 1886 (H) – st r-p, st pc-cp – Dry and mesic meadows, roadsides. – N Nåtö, at NBS 1964–2019; between Västergård and Björklund 1964; S Nåtö, rock meadow 60 m SE of Björklund 1995; at the road to Lastklubb SE of Övergård 1995; rock meadow in Söderäng 1995; dry meadow 100 m E of Söderås 1995; SE point E of Själkatsudden 1995; dry meadow at Mellangård 1995; S of Hemviken 1997; Har-

skatan 2015; Rödgrund 2007; Senskär 1997–2015; Slätskär 1947 (VOA); Tunngrund 1985 (OULU); roadbank between Tunngrund and Skobbholm 2007; Skobbholm 2007; Slätholm (HS-83); Lemböte Slätholm 1981; Munkholm 1927 (VOA); Granholm 2007.

T. pratense – p.l. 1901 (TURA) – p-st fq, st pc-st cp – Mesic and seashore meadows, hay fields, roadsides, etc. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 2008; Rödgrund 2007; Senskär 1997–2015; Idholm 1978; Inre Kalvskär (AP-15); Jungfruskär 1996; Eskskär (AP-15); Slätskär (AP-15); roadbank between Törngrund and Tunngrund 2007; Gräsgrund (UB-36); roadbank between Tunngrund and Skobbholm 2007; Skobbholm 2007; Slätholm (HS-83); Lemböte Slätholm, W shore 2011; Granholm 2007. – No subspecific taxa have been distinguished by us.

T. medium – p.l. Granholm 1902 (H) – p-st fq, st pc-cp – Mesic meadows, lax deciduous woods. – N and S Nåtö, numerous localities 1964–2019; Rödgrund 2007; Idholm 2011–2015; Inre Kalvskär (AP-15); Jungfruskär 1996; Slätskär (AP-15); Mellangrund 2007; roadbank between Törngrund and Tunngrund 2007; roadbank between Tunngrund and Skobbholm 2007; Skobbholm 2007; Slätholm (HS-83); Lemböte Slätholm W side 2011; Granholm 2007.

Lotus corniculatus coll. – p.l. Nåtö 1902 (H) – p, pc-sp – Mesic and dry meadows, rarely in seashore meadows. – N Nåtö, at NBS 1964–2018; between Västergård and Björklund 1964; sandy dry meadow 20 m N of the Sesleria meadow at Idviken 1971; Sesleria meadow at Idviken 1978; at the Nature Trail NE of Björklund 2002; S Nåtö, NW of Österåker 1965; between Västergård and Berggård 1966; at the road to Lastklubb SE of Övergård 1995; roadside at the main road 200 m SW of Söderås 1995; Inre Kläppen 2009; Rödgrund 2007; Korsö, gravelly seashore meadow on the SW point 1967; Skobbholm, seashore meadow at the S shore 2007; Slätholm (HS-83); Lemböte Slätholm 1981; Granholm 2007. – The varieties have been overlooked by us. There are four voucher specimens and three observation which have been assigned to the following varieties:



L. corniculatus var. *alandicus* – Nåtö 1927 (H); S Nåtö 1985 (OULU).

L. corniculatus var. *carnosus* – Nåtö 1934 (KUO); 1945 (H).

L. corniculatus var. *corniculatus* – N Nåtö, Nåtö E 2015.

L. corniculatus var. *maritimus*, N Nåtö, Nåtö W & E 2015.

Anthyllis vulneraria subsp. *vulneraria* – p.l. Nåtö 1895 (VOA) – *r*; *pc-sp* – Dry and rock meadows. – N Nåtö, dry meadow at Själkatsudden 1964–2007; meadow 50 m N of NBS in the 1960s; at NBS 1997; at the Nature Trail about 200 m NW of Själkatsudden 2012; S Nåtö, at Notberg 1907 (TUR, VOA); Klubben 1936 (TUR); between Berggård and Båtsmans 1964 (H); between Västergård and Berggård 1966; NW of Österåker 1965; Slätholm 1956 (KUO). – This species has a seed bank in the soil and it appears suddenly if the soil is disturbed.

Fig. 85. *Polygala vulgaris*. Lemland, Järsö. Photo: CAH, June 19, 2010.



Polygala vulgaris – VU – p.l. Slätholm 1901 (VOA) – *st r-p*, *pc-st cp* – Mesic and dry meadows. – N Nåtö, numerous localities 1964–2019; S Nåtö, Vesterhagen 1930 (TUR); dry meadow W of Österåker 1966, 1973 (H); S edge of Österåker c. 1970; between Övergård and Österåker 1995; roadside and meadow about 80 m SE of Övergård 1995 (H); roadside at Järsövägen 150–200 m SW of Södergård 1995–2005; rock meadow between Söderäng and Hemviken 2007; 100 m S of Hemviken 2007; Rödgrund (AP-15); Idholm 1997; Skobholms 2007; Slätholm (HS-83); Lemböte Slätholm 1981; Granholm, three localities in 2007. – Fig. 85.

P. amarella – VU – p.l. Nåtö 1901 (TURA) – *st r*, *pc-sp* – Moist and fen meadows, rich fens, ditches. – N Nåtö, the *Sesleria* meadow at Idvikten 1964–2019; moist depression 220 m ENE of Nygård 1967; 350 m E of Norrbacka 1974 (H); S Nåtö, ditch at the main road 200 m SW of Södergård 2005; Rödgrund (AP-15); Slätskär 1952 (TUR); Skobholms roadside meadow near the building on the NE part 1987; Slätholm (HS-83); Granholm 1932 (H).

Filipendula vulgaris – p.l. Nåtö 1891 (H) – *fq*, *st pc-cp* – Dry and mesic meadows. – In the whole area 1964–2019.

F. ulmaria – p.l. (AP-15) – *fqq*, *sp-cpp* – Moist and wet meadows, deciduous stands. – In the whole area 1964–2019. – A form with laciniolate leaves, f. *laciniata* Julin (cf. Julin 1958), was found in Idholm 1975 (H).

Rubus chamaemorus – p.l. Ärskär 1970 (H) – *p*, *sp-cp* – Bogs, moist heaths and pine stands. – N Nåtö, Nåtö W 2015; S Nåtö, Västerbergen 1986–2007; Idholm 2015; Fjärdskär 1973; Inre Korsö 1975/1976 (MH-76); Korsö 1990–2015; Ärskär 1970 (H); Vattskär 1973; Måsskär 1987; Slätskär, Högskär (=SE part) in the 1990s, Göran Stenlid (pers. comm.); Getskär 1973–2015; Östra Börtskär 2015; Orrskär 1974.

R. saxatilis – p.l. (AP-15) – *fq*, *st pc-cp* – Coniferous and deciduous woods, dry and mesic meadows, bouldery and stony alder stands at seashores. – N and S Nåtö, numerous localities 1964–2019; Rödgrund 2007; Senskär 1997–2015; Idholm 2011–2015; Inre Kalvskär (AP-15); Ytt-

re Kalvskär (AP-15); **Jungfruskär** 1974; **Inre Korsö** 1975/1976 (MH-76); **Korsö** 1990; **Esk-skär** 1998; **Slätskär** 1999–2015; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

R. idaeus – p.l. (AP-15) – *fqq. st pc-cp* – Open stony areas, clear-cut areas, lax coniferous and deciduous woods, roadsides. – In the whole area 1964–2019.

R. cf. idaeus × saxatilis – *rr, pcc* – Together with the parent species. – **Slätskär** 1972–1977.

R. caesius – p.l. Nåtö 1895 (VOA) – *st fq-fq, st pc-st cp* – Bouldery and stony seashores, roadsides. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008–2009; **Rödgrund** (AP-15); 1983–2007; **Senskär** 1997–2015; **Rackar-grund** 1974; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** 1907 (Kalfskären, H); (AP-15); **Jungfruskär** 1974, 1975/1976 (MH-76); **Eskskär** (AP-15); 1964–1998; **Slätskär** (AP-15); 1974–2015; **Algrund** (UB-36; UB-37, map); **Mellan-grund** 2007; **Gräsgrund** 1963–1974 (RC-76); **Tunngrund** (UB-36); 1963–2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobb-holm** (AP-15); 2007; **Nåtö Munkholm** (UB-37, map); **Slätholm** 1906 (TUR); (AP-15); (HS-83); **Nåtö Slätholm** (UB-37, map); **Lemböte Slätholm** (UB-37, map); **Granholm** (AP-15); 1981–2007; **Blockgrund** 1963–1974 (RC-76);

Fig. 86. *Rubus caesius*. Lemland, Järsö. Photo: CAH, August 25, 2013.



Krokgrund 1963–1974 (RC-76); **Starrgrund** 1963–1974 (RC-76). – Fig. 86.

R. caesius × idaeus – p.l. Slätskär 1907 (VOA) – *p, pcc* – Together with the parent species. – Nåtö (AP-15); 1908 (H, OULU, TUR, TURA); 1919 (H, TUR); 1931 (H); 1933 (VOA); N Nåtö, Nåtö W 2015; **Rödgrund** (AP-15); W part 1996 (TUR); **Idholm** (AP-15); **Yttre Kalvskär** (AP-15); **Eskskär** (AP-15); 1930 (TUR); 1936 (H); **Slätskär** 1907 (VOA); (AP-15); 1973–1975; **Algrund** (UB-36); (UB-37, map); **Mellangrund** (UB-36); (UB-37, map); **Gräsgrund** 1931–1951 (RC-76); 2007; **Tunngrund** (UB-36); (UB-37 map); (RC-76); **Skobbholm** (AP-15); (UB-37, map); 2007; **Nåtö Munkholm** (UB-37, map); **Granholm** (UB-38, map); 2007.

R. caesius × saxatilis – p.l. Nåtö 1908 (H) – *r, ?* – Together with the parent species. – Nåtö 1908, 1919, 1931 (H); (AP-15); 1919, 1947 (TUR); 1933 (VOA); 1938 (TURA); 1952 (OULU); **Idholm** 1924 (TURA); **Slätskär** 1932 (VOA); 1939 (H); 1975 (cf. *R. caesius × saxatilis*).

Rosa spinosissima (*R. pimpinellifolia*) – Ornamental shrub. – N Nåtö, cultivated at NBS 1964–2019; **Skobbholm** 2007. – Overlooked. Two different races occur at NBS, namely the cultivar ‘Staffa’ with filled pink flowers and another undetermined cultivar with white flowers. The cultivar ‘Staffa’ is spreading slowly vegetatively. It was introduced from a plantation at the school in Järsö more than one hundred years ago.

R. cinnamomea (*R. majalis*) – p.l. 1905 (H) – *st fq, pc-cp* – Deciduous woods, stony dry meadows, rock outcrops, roadsides. – N Nåtö, in the hazel stand E of NBS 1964; SW of Ormdalssläten 1964–2019; spruce wood of Själkats norra stycke 1967; SW of Kummeludden 1984; Ormdalssläten 1998; Skarpbacka 2002; at the road to Inre Kläppen 2008; Nåtö E 2015; S Nåtö, westernmost end of Västeråker 1968; mixed wood 300 m SE of Övergård 1968; E of Rosklev 1975/1976 (MH-76); 50 m SE of Södergård 1995; rock outcrop E of Hemviken 1995; S end of Hemviken 1997; W of Östergård 2007; Västerbergen 2015; Harskata 2015; **Rödgrund** (AP-15); E side 1985 (OULU); 2007; **Senskär** 1977; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1974; 1975/1976 (MH-

76); **Inre Korsö** 1975/1976 (MH-76); **Eskskär** (AP-15); 1930 (TUR); 1932 (VOA); 1964–1998; **Vattskär** 1973; **Slätskär** (AP-15); 1931 (H); 1932 (VOA); 1966–2015; **Skobbholm** (AP-15); 2007; **Slätholm** (AP-15); **Lemböte Slätholm** 1981; **Granholm** (AP-15); 1927 (VOA); 1981–2007 (common on the whole island).

R. cinnamomea × mollis – *rr*; *pcc* – Meadow. – **Idholm** 1978.

R. rugosa – Ornamental plant, also on sand, gravel and stone seashores. – **S Nåtö**, cultivated at Mellangård 2009. – Overlooked as an ornamental plant by us.

R. canina – PrÅ, CR – p.l. Nåtö 1901 (TUR) – *st r*; *pcc-pc* – Thickets in meadows, field banks and margins, roadsides, rocky areas. – **N Nåtö**, roadbank between Nåtö and Rödgrund 1980; at NBS 1984 (H); **S Nåtö**, one shrub at an ant hill in Västerskog beneath spruces 1980 (H; it died after the cold winters of 1985 and 1987); at the road 200 m SSE of Övergård 1986; one shrub at Österåker's NW corner 1995, 2002; one shrub at the road through Västerskog 50 m E of Nordqvist's cottage 1995; **Rödgrund**, N of Stenlid's summer house in the 1990s; on the W side of the island 1996 (TUR); one shrub on the S point 2007; **Idholm**, 1947 (H); one shrub at the S shore 2011; **Getskär** 1906 (H); (AP-15); among boulders and rocks on the S part 1990 (H; cf. *canina*); **Slätskär** 1907 (TUR); (AP-15); **Granholm** 1927 (VOA); 1981 (H). – *R. canina* may be difficult to distinguish from *R. vosagiaca* and the two species have not always been correctly determined. Further, *R. canina* shrubs are not very typical for the species in the Åland Islands. – Fig. 87.

R. vosagiaca (*R. dumalis* subsp. *dumalis*) – p.l. Nåtö 1908 (H) – *fq*, *pc-cp* – Meadows, field banks and margins, roadsides, lax deciduous woods. – In the whole area 1964–2019.

R. caesia (*R. dumalis* subsp. *coriifolia*) – p.l. (AP-15) – *st fq*, *pc-sp* – Meadows, field banks and margins, roadsides, lax deciduous woods. – **N and S Nåtö**, numerous localities 1964–2019; **Rödgrund** (AP-15); 2007; **Senskär** 1973–2015; **Idholm** (AP-15); 1978–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1974–2015; **Inre Korsö** 2015; **Eskskär** (AP-15); 1966–1995; **Slätskär**

(AP-15); 1972–2015; **Getskär** 2015; **Orrskär** 1974; **Algrund** 2007; **Mellangrund** (UB-36); **Tunngrund** 2007; **Skobbholm** 2007; **Slätholm** (AP-15); **Granholm** (AP-15); 2007. – Palmgren (1915–1917) distinguished between *R. glauca* (= *R. vosagiaca* of today) and *R. coriifolia* (= *R. caesia* of today). During the 1960s to c. 1980, *R. coriifolia* was included in *R. dumalis* = *R. vosagiaca*. From c. 1980 to 2017, *R. dumalis* comprised two subspecies, namely subsp. *dumalis* and subsp. *coriifolia*. We did not thus always distinguish between the two species of today. Therefore, *R. caesia* may be as frequent and common as *R. vosagiaca*.

R. mollis – p.l. (AP-15) – *p*, *pcc-sp* – Meadows, field banks and margins, roadsides, lax deciduous woods. – **N and S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008–2009; **Rödgrund**, at Stenlid's summer house 1983; on the NW part 2007; **Senskär** 1977; **Eskskär** (AP-

Fig. 87. *Rosa canina*. Typical features of this species are the long pedicels, the backward-curving sepals and a narrow and pointed pistil cushion. Lemland, Norrby. Photo: CAH, July 23, 2007.



15); 1998; **Slätskär** 1972–1978; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** W side 2011; **Skobbholm** 1983–2007; **Granholm** 1981–2007.

– Palmgren (1915–1917) mentions two subspecific taxa from Nåtö, namely subsp. *notoensis* Matss. and subsp. *ovuligera* Matss. determined by the Swedish amateur botanist, Vicar L. P. R. Matsson (1915). However, as Matsson was a so-called splitter, these taxa are of minor significance.

R. mollis × vosagiaca – rr, pcc – Rock meadow. – **Ljusskär** 1974.

R. rubiginosa – S Nåtö cultivated at Nåtö kiosk 2011.

Agrimonia eupatoria – p.l. Skobbholm 1901 (H) – fq, pc-st cp – Dry and mesic meadows, roadsides. – In the whole area 1964–2019.

A. procera – p.l. Nåtö 1918 (H) – p, pcc-st pc – Dry and mesic meadows, lax deciduous woods. – N Nåtö, one plant S of NBS in former garden 1975, disappeared because of mowing; one large plant between NBS and Norrbacka 1998–2007; Nåtö E 2015; S Nåtö, 400 m N of Nåtö sund 1967 (H); 50 m W of Hemviken 1967 (H); Harskatan 1967 (H); at the NE corner of the former field Svedlandet 2002; in the deciduous stands W of Hemviken 300 m SW of Södergård 2005; **Inre Kläppen** 1964 (H); 1973 (H); 1986 (H); **Yttre Kläppen** 1964 (H); **Rödgrund** 1918 (H); on the roadside at the S end 1982 (H); dry meadow S of Stenlid's summer house 1983–2007; **Senskär**; 1944 (H); NW part 1969 (H); 2015; **Rackargrund** 1974 (H); **Idholm** 1919 (H); 2011; **Eskär** 1918, 1919 (H); **Slätskär** 1977 (cf. *procera*); 2015; **Östra Börtskär** 2015; **Skobbholm** 1931 (H).

Geum rivale – p.l. (AP-15) – fq-fqq, st pc-cp – In the whole area 1964–2019. – Fig. 88.

G. rivale × urbanum – p.l. Nåtö 1931 (H) – r; pc – Mesic meadows, lax deciduous woods. – N Nåtö 1931 (H); N Nåtö, at NBS 1987; **Senskär** 1997.

G. urbanum – p.l. (AP-15) – fq, pc-st cp – Dry and mesic meadows, lax deciduous woods. – In the whole area 1964–2019.

Dasiphora fruticosa (*Potentilla f.*) – Ornamental shrub. – N Nåtö, at the summer cottage 150 m

NW of NBS 2007; **S Nåtö**, at the car shed of Mellangård (Mattsson) 2009; **Granholm**, NE part 2007.

Comarum palustre (*Potentilla palustris*) – p.l. Eskskär 1964 – st r-p, st pc-st cp – Fens, lake-shores, rock-pools. – N Nåtö, small fen E of Björklund in the 1970s; Vidkärr 2007; Nåtö E 2015; S Nåtö, fen between Övergård and Österåker 1995; NW quagmire of Hemviken at Södergård 1995; W shore of Hemviken 2002; at the SE shore of Hemviken 2007–2018; SW of Hemviken 2007; Västerbergen 2015; **Inre Kläppen** 2008; **Senskär** 1974–2015; **Idholm** 1974–2015; **Jungfruskär** 1974–1996; **Inre Korsö** 2015; Eskskär 1964–1998; **Vattskär** 1973; **Måsskär** 1987; **Slätskär** 1966–2015; **Getskär** 2015; **Orrskär** 1974; **Lemböte Slätholm**, cultivated in a pond in a garden on the W side 2011.

Argentina anserina subsp. *anserina* (*Potentilla a.*) – p.l. Skobbholm 1886 (H) – fqq, st pc-cpp – Seashore meadows, roadsides, courtyards. – In the whole area 1964–2019.

Fig. 88. *Geum rivale*. Ingå, Barösund, Svartö. Photo: KN, June 7, 1980.



The *Potentilla argentea* complex was formerly treated as comprising of two species *P. argentea* and *P. impolita*. In the field flora of Finland (Hämet-Ahti et al. 1998), the *P. argentea* complex was split into six species. These were later assigned to the status of varieties by Hämet-Ahti et al. (2005). We have not tried to distinguish between these different taxa, only between the traditional taxa *P. argentea* and *P. neglecta*. – Palmgren (1915–1917) did not distinguish between any subspecific taxa in *P. argentea*.

P. argentea – p.l. (AP-15) – *fqq, pc-st cp* – Rock meadows, dry meadows, sandy roadsides and courtyards. – In the whole area 1964–2019.

P. argentea* var. *argentea – The bulk of the specimens with hairless or weakly hairy leaves with green adaxial side seem to belong to this variety.

P. argentea* var. *demissa – N Nåtö, 50 m W of Björklund 1970 (H).

***P. neglecta* coll. (*P. impolita*, *P. argentea* subsp. *impolita*)** – p.l. Nåtö 1938 (H) – *st r, pc* – Rock meadows, dry meadows. S Nåtö, N margin of Västeråker 1995; at Harskatsåkern 2007; Senskär, W meadow 1997; Idholm 1995; Granholm 2007.

P. neglecta* var. *decora – Nåtö 1938 (H); S Nåtö, at the E margin of Hemåker 1966 (H); Inre Kläppen 1933 (H); Senskär 2015; Idholm 1928 (H); Östra Börtskär 2015.

***P. neglecta* var. *neglecta* (var. *incanescens*)** – S Nåtö, about 40 m NW of Södergård in 1980 (H). – This voucher specimen was collected as *P. argentea*. It was determined to *P. neglecta* var. *neglecta* by Anfred Pedersen in 1995.

P. norvegica – *r, pc?* – Weed on roadsides, verges of field ditches and cereal fields, in sand pits and other ruderal sites, occasionally on sandy shores. – N Nåtö, Nåtö E 2015 (SIL-15); S Nåtö, Västerbergen 2015 (SIL-15); Inre Korsö 2015 (SIL-15). – This species is rare in the Åland Islands (Häggström & Häggström 2010). It seems to be a new species in the Nåtö area, if correctly determined.

P. recta – *rr, sp* – Weed in hay fields, roadside ruderal. – N Nåtö, in the fallow field of Norråker 1966 (H) – 1970, not seen since.



Fig. 89. The total known population of *Potentilla subarearia* in Nåtö Island is very small. Photo: CAH, May 21, 2019.

P. crantzii – p.l. (AP-15) – *st fq, pcc-sp* – Dry meadows and rock meadows, roadsides. – N Nåtö, between Västergård and Björklund 1964; at NBS 1995; at Själksatsudden 2002–2007; dry meadow E of Knäckgraven 2007; Nåtö E 2015; S Nåtö, NW of Österåker 1965; between Västergård and Berggård 1966; SE part 1981 (H); at the road S of Harskatsåkern 2004; Harskatan 2007; Rödgrund (AP-15); 1989 (H); Senskär 1972–1973; Ljusskär 1974; Idholm (AP-15); 1948 (H, OULU, TUR); Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Jungfruskär (AP-15); 1938 (H); Ärtskär 1970 (H); Eskskär (AP-15); Måsskär, Håkan Slotte (in letter 1984); Slätskär (AP-15); 1977; Östra Börtskär 1973; Orrskär 1974; Skobbholm (AP-15); Slätholm (AP-15); (HS-83); Nåtö Munkholm 1981 (H); 1987; Granholm (AP-15).

***P. verna* (*P. tabernaemontani*, *P. neumanniana*)** – PrÅ*, CR – p.l. Slätholm 1931 (H) – *r, pcc-st pc* – Dry and rock meadows. – Jungfruskär 1938 (H); Inre Korsö, S shore (MH-76, uncertain de-

termination); **Sköbbholm**, W part (Håkan Slotte, in letter 1984); **Slätholm** 1931 (H); **Granholm**, rock outcrop 60 m W of the old house 1984 (H). – Palmgren (1915–1917) reported *Potentilla minor* from Sköbbholm, Slätholm and Granholm, a taxon which includes *P. verna* and *P. subarenaria*.

P. subarenaria (*P. neumanniana*) – PrÅ, VU – p.l. Sköbbholm 1902 (H) – st r, pc-st cp – Dry and rock meadows. – N Nåtö, dry meadow at Själkatsudden 1976–2019; **Sköbbholm**, NE part 1983–2007; **Slätholm** (HS-83); **Lemböte Slätholm**, at SE shore 1981 (H); **Nåtö Munkholm**, rock outcrop on the E shore 1987; **Lemböte Munkholm**, rock outcrop on the NE part 1981 (H); the locality is now a lawn (Håkan Slotte, in letter 1998); **Granholm** 1919 (H). – Palmgren (1915–1917) reported *Potentilla minor* from Sköbbholm, Slätholm and Granholm, a taxon which includes *P. verna* and *P. subarenaria*. – Fig. 89.

P. erecta – p.l. (AP-15) – st fq, st pc-st cp – Mesic and moist meadows, rich fens. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); (UB-37, map); **Senskar** 1975–1977; **Idholm** (AP-15); 1974–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** (AP-15); (AP-22); 1974–1996; **Inre Korsö** 1973–2015; **Korsö** 1927 (H); 1990–2015; **Ekskär** (AP-15); 1964–1995; **Slätskär** (AP-15); 1972–2015; **Sköbbholm** (AP-15); (UB-37, map); 1987–2007; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** (UB-37, map); 2011; **Granholm** (AP-15); (UB-38, map); 1981–2007.

P. reptans – p.l. Idholm 1904 (H) – st fq, st pc-cpp – Roadsides, dry and mesic meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 2007; **Senskar** 1973–2015; **Idholm** 1904; **Jungfruskär** (AP-15); 1975/1976 (MH-76); 2015; **Slätskär** (AP-15); **Getskär** 1973; **Gripen** (UB-37, map); **Algrund** 2007; **Mellangrund** 2007; **Tunngrund** 1931–1951 (RC-76); **roadbank** between Tunngrund and Sköbbholm 2007; **Sköbbholm** (AP-15); (UB-37, map); 2007; **Nåtö Munkholm** (UB-37, map); **Lemböte Munkholm** (UB-37, map); **Slätholm** (AP-15); **Lemböte Slätholm**, W side 2011; **Granholm** (AP-15); 1918 (H); (UB-38, map); 2007.

Fragaria vesca – p.l. Nåtö & Sköbbholm 1901 (H) – fq, st pc-cpp – Dry and mesic meadows, rock meadows, deciduous woods – In the whole area 1964–2019.

F. vesca × viridis – p.l. Nåtö, Idholm, Sköbbholm & Granholm 1901 (H, OULU, TUR, TURA, VOA) – r, sp – Dry and mesic meadows together with the parent species. – Nåtö 1901–1947 (H) 1922–1947 (TUR); N Nåtö, at the mailboxes S of NBS 1987–2001; **Idholm** 1901 (H, VOA); (AP-15); 1945 (H); **Sköbbholm** 1901 (H, OULU, TUR, TURA); (AP-15); 1947 (H); **Slätholm** (AP-15); 1924 (TUR; TURA); 1926 (H); **Granholm** 1901 (H); (AP-15); 1947 (H). – Exceptionally many voucher specimens of this hybrid were collected in Nåtö and Sköbbholm during the early years of the 20th century.



Fig. 90. *Fragaria viridis*. Nåtö, NBS. Photo: KN, May 25, 1981.

F. viridis – VU – p.l. Nåtö, Idholm, Sköbbholm & Granholm 1901 (H, TURA, VOA) – st r, sp-cp – Dry and mesic meadows, roadside meadows. – N Nåtö, dry meadows at NBS 1964–2019; dry meadow at a flat rock at the nature trail about 240 m NE of Nygård 2016; S Nåtö, about 400 m SE of the small boat harbour 1945 (TUR); at the W corner of Österåker 1964 (H); road verge at the main road 200 m SW of Södergård 1995; road verge at Harskatsåkern 2007; **Rödgrund** (AP-15); **Idholm** 1901 (VOA); (AP-

15); 1924 (TURA); 1974–1978; **Inre Kalvskär** (AP-15); **Skobbholm** 1901–1905 (TURA), (AP-15); **Slätholm** (AP-15); (HS-83); **Granholm** 1901–1938 (H); (AP-15). – Exceptionally many voucher specimens of this species were collected in Nåtö and Skobbholm during the early years of the 20th century. – Fig. 90.

F. ananassa – Cultivated in gardens, occasionally surviving in abandoned gardens. – N Nåtö, in the abandoned vegetable garden of NBS 2003.

The species of the genus *Alchemilla* should preferably be determined in early summer. The species may be untypical and difficult to determine in early spring and during the latter part of the summer and autumn. Therefore, specimens of *Alchemilla* have not always been determined by us beyond the genus level.

Alchemilla glaucescens – p.l. Nåtö 1906 (TUR) – st fq, st pc-sp – Dry and mesic meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 2007; **Senskär** 1972–2015; **Ljusskär** 1974; **Idholm** (AP-15); 1945 (TUR); 1948 (OULU); 1974–1978; **Inre Kalvskär** (AP-15); **Ekskär** (AP-15); **Slät-**

skär (AP-15); 1972–1977; **Orrskär** 1974; **roadbank** between Tungrund and Skobbholm 2007; **Skobbholm** 1987, 2007; **Nåtö Munkholm** 1981; **Slätholm** (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slätholm** 2011; **Granholm** (AP-15); 1981, 2007. – Fig. 91.

A. plicata – NT – p.l. Skobbholm 1907 (H) – r-st r, pc? – Mesic meadows, roadside meadows. – Nåtö (AP-15); 1931 (H); S Nåtö, westernmost end of Västeråker 1968; **Slätskär** 1945 (TUR); 1948 (H); **Slätholm** (HS-83; uncertain determination); **Skobbholm** 1907 (H); **Granholm** 2007.

A. monticola – p.l. Nåtö 1907 (H) – p, pc-sp – Mesic meadows, lax deciduous woods. – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** (AP-15); 2007; **Senskär** 1975; **Idholm** (AP-15); 1918 (H); 1945 (TUR); 1974–1978; **Inre Kalvskär** (AP-15); **Ekskär** (AP-15); **Slätskär** (AP-15); 1945 (TUR); **Skobbholm** 2007; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** 2011; **Granholm** (AP-15); 2007.

Fig. 91. *Alchemilla glaucescens*. Eckerö, Storby, Käringssund.
Photo: EH, June 18, 2009.



A. subcrenata – p.l. S Nåtö 1968 (H) – *rr-r, pc* – Mesic meadows. – N Nåtö, 1968; at the former stable of NBS 2005; Nåtö W 2015; S Nåtö, SW part of Västeråker 1968 (H); Rosklev 2007.

A. acutiloba (*A. vulgaris* s. str.) – p.l. N Nåtö 1964 – *rr, st pc* – Mesic and moist meadows, ditches. – N Nåtö, in the hazel stand E of NBS 1964; **Granholm**, two localities 2007.

A. cf. micans (*A. gracilis*) – *rr, ?* – Mesic meadows. – **Granholm** 2007.

A. filicaulis var. *filicaulis* – p.l. (AP-15) – *st r, pc?* – Mesic meadows. – Nåtö (AP-15); N Nåtö, central part of the wooded meadow area 1964–2007; 50 m NE of Norrbacka 1967–1971; W of Finngräfet 1967–1978; at NBS 1997; S Nåtö, westernmost end of Västeråker 1968; Rödgrund (AP-15); Senskär 1972–1975; Idholm 1945 (TUR); 1948 (OULU); Inre Kalvskär (AP-15); Eskskär (AP-15); Slätskär (AP-15); 1945 (TUR).

A. cf. glomerulans – *rr, pc* – Mesic meadows – N Nåtö, at the former cattle shed of NBS 2001.

A. glabra – p.l. Nåtö (AP-15) – *st r, pcc-st pc* – Moist meadows, ditches, springs. – Nåtö (AP-15); N Nåtö, 50 NE of Norrbacka in 1964; hazel copse between Norrbacka and Nygård 1967; Bergbo 1969; in a ditch 70 m SE of NBS 1995–2002; S Nåtö, westernmost end of Västeråker 1968; in road-side ditches at the main road on SW Nåtö 1995; at the main road 250 m SW of Södergård 2005; Senskär 1972; Idholm (AP-15, uncertain determination); Skobbholm 2007; Lemböte Slätholm 2011; **Granholm** 2007.

A. samuelssonii – NT – p.l. Idholm 1913 (AP-15) – *rr, ?* – Mesic meadows. – **Idholm** 1913 (AP-15); 1918 (H); **Slätskär** 1931 (H).

Malus sylvestris – VU – p.l. Nåtö 1886 (H) – *p, pcc-sp* – Deciduous woods, mesic meadows, field margins. – N and S Nåtö, numerous trees, both old and young 1964–2019; Inre Kläppen 2008; Rödgrund (AP-15); 2007; Senskär 1975–2015; Idholm (AP-15); 1930, 1952 (TUR); 1952 (OULU); 1964–2015; Korsö 2015; Slätskär 1913 (H); Tungrund 1972–1974 (RC-76); 2007; Skobbholm (AP-15); 2007; **Slätholm** 1906 (TUR); 1910, AP (-15); 1924 (TURA); 1926 (H);

(HS-83); **Lemböte Slätholm** 1981; **Granholm** (AP-15); 1927, 1931, 1933, 1941, 1947, 1964 (H); 1981; 1983 (TUR); 2007. – Figs. 92–93.

Figs. 92–93. *Malus sylvestris*. Nåtö Island, NBS. Photos: CAH, May 28 and August 18, 2012.



M. domestica – p.l. Nåtö 1901 (H, TURA) – *st r, pcc-pc* – Cultivated in orchards, garden escape on field margins, roadsides, deciduous woods. – Nåtö 1901, 1931, 1938 (TURA); 1933 (H); N Nåtö, garden escape W of NBS 1964–2019; former field S of Norrbacka 1970; S Nåtö, westernmost end of Västeråker 1968 (H); Klubben 1969; the N margin of Västeråker 1995; Harskatan 2007; Idholm 1924 (TUR); 1974–1978; Korsö 1990; Skobbholm 2007; **Granholm** 1931 (H).

M. domestica* × *sylvestris – p.l. N Nåtö 1964 – *r, pcc* – Deciduous woods, mesic meadows, field margins. – **N Nåtö**, in the wooded meadows area east of NBS 1964–2019; NE of Björklund 2002; **S Nåtö**, at the road to Lastklubb SE of NBS 1994; Rosklev 2007; Harskata 2015; **Inre Kläppen** 2008; **Skobbholm** 2007; **Granholm** 1983 (TUR).

Sorbus aucuparia s.lat. (chiefly subsp. *aucuparia*) var. *aucuparia* – p.l. (AP-15) – *fqq, pcc-pc* – Deciduous and spruce woods, mesic and dry meadows, rocky areas, etc. – In the whole area 1964–2019.

S. aucuparia var. *heteromorpha* – p.l. N Nåtö 1985 (H) – *st r, pcc-st pc* – **N Nåtö**, one tree 20 m N of NBS 1985 (H); one tree 30 m N of NBS 1991 (H); two trees 10–20 m N of NBS 1995–1999, both cut in 1999–2000; **S Nåtö**, two trees at the seashore 200–300 m ENE of Övergård 1987 (H); 1995 (H); **Inre Kläppen** 2008; **Senskär**, two trees 1997; **Idholm**, one tree 2011; **Eskskär**, W part 1995 (H); W part, two trees 1998; **Slätskär**, deciduous stand on the SE part 1990 (H);

Fig. 94. ***Hedlundia hybrida***. Finström, Bastö. Photo: KN, July 5, 1983.



1999; **Getskär**, on the rocks of the E shore 1990 (H); **Skobbholm**, NW shore 2007; **Lemböte Slätholm**, W side 2011. – The leaflet morphology in *Sorbus aucuparia* varies considerably. Only trees with leaflets with at least half of the margin without teeth have been included in var. *heteromorpha* by us.

***Hedlundia hybrida* (*Sorbus h.*)** – p.l. Nåtö 1895 (VOA) – *p-st fq, pcc-sp* – Deciduous and spruce woods, mesic and dry meadows, rocky areas. – **N and S Nåtö**, numerous trees 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); 1983 (H); 1989 (JYV); 2007; **Senskär** 1973; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1973–2015; **Inre Korsö** 2015; **Korsö** 1990; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** (AP-15); 2007; **Slätholm** 1913 (TURA); (AP-15); (HS-83); **Lemböte Slätholm** 2011; **Granholm** (AP-15); 1924 (TURA); 1927, 1931 (H); 2007. – Fig. 94.

Hedlundia hybrida* × *Sorbus aucuparia × – p.l. **Inre Korsö** 1973 – *r, pcc* – Deciduous and mixed woods, field margins. – **Rödgrund**, two trees on the SE part 2007; **Inre Korsö** 1973; **Skobbholm**, at the road Skobbholmsvägen 2007; **Granholm**, S roadbank 2007.

Hedlundia hybrida* × *Scandosorbus intermedia – *rr, pcc* – **N Nåtö**, NE part (Folkesholm) 1939 (TUR).

Scandosorbus intermedia (*Sorbus i.*) – VU – p.l. **Idholm** 1891 (H; uncertain if collected on this island) or Nåtö 1897 (VOA) – **PrÅ, NT – st r, pcc-st pc** – Deciduous woods. – **N Nåtö**, one old tree 150 m NE of Norrbacka 1964–2007; one small tree 50 m NE of Norrbacka 1966; one small tree 220 m ENE of Nygård 1967; a few young trees at the seashore S of Fiskarudden 2000–2018; Nåtö E 2015; **S Nåtö**, one tall tree between Björklund and Övergård 1964–2016, the tree is now dead; one approx. 10-m-high tree N of Verkfladan 1974; at the SE shore of Hemviken 1995; several young trees 200–250 m NE of Övergård 2007; one 4-m-high tree W of Österåker 2007; one sapling approx. 180 m S of Övergård 2016; one sapling at the gravel road SE of Hemviken 2018; **Senskär** 1975; **Idholm** 1891 (H; uncertain locality); (AP-15); 1964–2015; **Eskskär** 1930 (TUR);

Slätskär 1935 (VOA); 1974; **Skobholm**, SE part 2007; **Granholm** 2007. – The tall tree between Björklund and Övergård was measured in 2007: its height was approx. 9 m, its girth at 1,3 m height was 282 cm. This *S. intermedia* is the second thickest measured in Finland (cf. Hæggström & Hæggström 2009). The tall tree on the SW slope of Idholm was measured in 2011: its height was approx. 12 m, its girth at 50 cm height 342 cm. This *S. intermedia* is thus the thickest measured in Finland (cf. Hæggström 2012).

Sorbus s.lat. hybrids (*Hedlundia meinichii* or *H. teodori*) – p.l. S Nåtö 1987 (H) – PrÅ*, CR – rr; pcc – Mixed woods, field margins, roadsides. – **S Nåtö**, a 5–6-m-high tree near the seashore 250 m E of Övergård 1987 (H), 2013; **Rödgrund**, a small tree 5 m N of Stenlid's summer house 2007; a 3-m-high tree in the deciduous stand 50 m S of Stenlid's summer house 2007–2013. – The known Ålandian specimens of the alleged *Hedlundia meinichii* or *H. teodori*, including the three above mentioned specimens, were studied in 2013 by Mr. Joel Levin, University of Lund, Sweden. All twelve samples from Åland analysed by flow cytometry were triploids. The populations on Åland are genetically and morphologically variable and may at least partly consist of sexual hybrids. These populations have probably arisen by multiple independent hybridisation events between *Sorbus aucuparia* and *Hedlundia hybrida* in each location. The DNA markers used differed in the Ålandian populations from all the Scandinavian *H. meinichii* and *H. teodori* samples studied. Thus, the taxonomic position of the Ålandian taxa is not clear. (Levin et al. 2018.) – Hæggström (2007).

Amelanchier spicata – Ornamental shrub. – **Granholm**, cultivated at the SW house 2007.

Cotoneaster integrifolius group (incl. *C. scandinavicus*) – p.l. Idholm 1907 (TURA) – st r, pcc – Dry meadows, rocky areas. – **Nåtö** (AP-15); 1923 (TUR); 1937 (H); 1938 (TURA); 1952 (OULU); **N Nåtö**, one shrub at the Nature Trail 50 m NW of Björklund 1964–2019; one shrub at Fiskarudden 1982; Ormdalsklint 1995; 70 m SW of Nygård 2002; Nåtö E 2015; **S Nåtö**, one shrub in the mixed wood 300 m ESE of Övergård 1971; rock area between Söderäng and Hemviken 1995;

at Lastklubbsvägen 180 m S of Övergård 1996 (H, OULU); one shrub at Lastklubbsvägen 220 m SE of Övergård 2007; **Idholm** (AP-15); 1907 (TURA); 1924, 1930, 1945, 1948 (TUR); 1936, 1938, 1952, 1957 (OULU); 1938, 1942, 1946, 1947, 1948 (H); 1964–1995. – Fig. 95.

C. lucidus – rr, pcc – Ornamental shrub, occasional naturalised garden escape. – **Skobholm**, garden escape on a seashore cliff on the NW shore 2007; **Granholm**, cultivated at the road on the SW part 2007. – This species is one of the new members of the naturalised flora of Åland (Hæggström 2019b).

Crataegus flabellata var. *grayana* – rr, pcc – Ornamental shrub, occasional garden escape. – **Slätskär**, rock crevice at the seashore, 1939, (H). – This species is one of the new members of the naturalised flora of Åland (Hæggström 2019b).

Fig. 95. *Cotoneaster integrifolius*. Helsingfors, Stansvik. Photo: KN, May 22, 1984.



Two domestic species of *Crataegus* has traditionally been recognised in the Åland Islands, viz. *C. rhipidophylla* (*syn. C. curvisepala*) with subsp. / var. *rhipidophylla* and subsp. / var. *lindmanii*, and *C. monogyna* (Hämet-Ahti et al. 1998, 2005). The Dane K. I. Christensen revised the voucher specimens in H in 1997. He found a few taxa not previously recognised in the Nåtö area. The problem to determine the different taxa of this morphologically variable genus is great. A reliable species determination ought to be done with DNA technique, not solely on morphology.

C. rhipidophylla – EN – p.l. Nåtö 1902 (H) – *p*, *pcc-pc* – Deciduous and mixed woods. – N Nåtö, a few trees at NBS 1964–2019; Gärssins backe 1964; hazel copse of NE Ormdalssläten in the 1966; 50–100 m NE of Norrbacka 1967; Själkats norra stycke 1967; the central part of the wooded meadow area 1969; one 4-m-high tree 30 m W of Nygård 1982 (H); at the Nature Trail next to Björklund 1983; at the Nature Trail near Idviken 1995; at the beginning of the Nature Trail 2007;

Fig. 96. *Crataegus rhipidophylla*. Finström, Husö. Photo: KN, July 6, 1983.



Nåtö E 2015; S Nåtö, Västerhagen 1930 (TUR); SE of Övergård 1995; rocky area S of Hemviken 1995; NE of Harskatsåkern at the ditch towards Hemviken 2002; W of Övergård 2007; at the SE shore of Hemviken 2007; between Övergård and Söderäng 2007; Harskatan 2009; Inre Kläppen 2009; Rödgrund 2007; Senskär 1997; Idholm 1978; Slätskär (AP-15); Skobbholm 2007; Nåtö Munkholm 1981 (*cf. rhipidophylla*); Slätholm (HS-83); Granholm 2007. – The bulk of the finds above belong to var. *rhipidophylla*. – Fig. 96.

C. rhipidophylla var. *ronnigeri* (*C. curvisepala* subsp. *lindmanii*) – Many of the *Crataegus* trees in the Nåtö area have been assigned by botanists to this variety. According to K. I. Christensen's determinations of the voucher specimens in H in 1997, one voucher only, collected in the municipality of Finström, belongs to var. *ronnigeri* (as var. *lindmanii*). According to Kasviatlas (Lampinen & Lahti 2019b), three voucher specimens in Jomala, one in Saltvik, one in Mariehamn and the above mentioned one in Finström are assigned to var. *ronnigeri*.

C. monogyna – CR – p.l. 1895 (VOA) – *st r*, *pcc* – Deciduous woods. – N Nåtö, in the hazel copse between Nygård and Norrbacka 1967; at Finngräftet 1967; at Nygård 1983–2016; Fiskarudden 2007; Norrbacka 2007; S Nåtö, Västerbergen 2015, Harskatan 2015; Rödgrund 2007; Senskär 2015; Idholm 2011–2015; Slätholm (HS-83); Granholm 1919 (H, TUR).

C. monogyna × *rhipidophylla* (*C. ×subsphaericæa*) – det. K. I. Christensen 1997 – p.l. Nåtö 1912 (H) – *st r*, *pcc-pc* – Nåtö 1912–1949 (H); N Nåtö, Nåtö W 2015 (*C. monogyna* × *rhipidophylla*); Idholm 1947 (H), Slätskär 1920 (H).

C. monogyna × *rhipidophylla* nothovar. *subsphaericæa* (*C. monogyna* × *rhipidophylla* var. *rhipidophylla*) – det. K. I. Christensen 1997 – N Nåtö 1913–1947 (H).

C. monogyna × *rhipidophylla* nothovar. *domicensis* (Hrabet.-Uhr.) Christensen (*C. monogyna* × *rhipidophylla* var. *ronnigeri*) – det. K. I. Christensen 1997 – N Nåtö, one tall tree at the windmill next to NBS 1984–1985 (H). This tree was observed by us in 1964 and it was still in good condition in 2019.



Fig. 97. Flowers of *Prunus spinosa*. Nåtö Island. Photo: CAH, May 20, 2018.

Crataegus sp. – Deciduous and mixed woods. – **N Nåtö**, at Finngräftet 1968; the central part of the wooded meadow area 1971; Själksatudden 1975; hazel copse 50 m NE of Norrbacka 1979; **S Nåtö**, mixed wood 300 m ESE of Övergård 1968; spruce wood 400 m SE of Övergård 1968; 300–400 m NE of Övergård 1971; **Senskär** 1977; **Idholm** 1978. – *Crataegus* saplings are difficult, or even impossible, to determine with certainty on morphological grounds only.

Prunus spinosa – NT – p.l. Nåtö 1886 (H) – *st r, pcc-st cp* – Dry and rock meadows, seashores. – **N Nåtö**, at the rocky area 150 m SE of NBS in the 1960s and 1970s; two shrubs 100 m N of Själksatudden 2002–2019; **S Nåtö**, a large shrub at Harskatan 1964–2019; a few shrubs at Lastklubb, Lastklubbsåkern and between Lastklubb and Långvarpet in the 1960s; Lastklubbsåkern 2018; S of Österåker in the 1960s; a few shrubs at the margin of Hemåker 100 m S of Björklund until c. 1973; N part of Söderäng 1995; at Övergård 2007; at the brook N of Långvarpet 2018; **Idholm** 1997–2015; **Jungfruskär** 1996; **Skobbholm**, W and E parts 2007; **Slätholm** (HS-83). – Fig. 97.

P. domestica – Cultivated. – **N Nåtö**, in the garden of NBS; **S Nåtö**, cultivated at Västergård. – Probably overlooked.

P. cerasus – Cultivated. – **N Nåtö**, in the garden of NBS. – Overlooked.

P. avium – Cultivated. – **N Nåtö**, one big cultivated tree and several wild saplings at the summer cottage 150 m NW of NBS 2007.

P. padus – p.l. (AP-15) – *fq-fqq, st pc-st cp* – Deciduous woods, seashore woods, at rock margins. – In the whole area 1964–2019.

Pyrus communis – Cultivated – **N Nåtö**, one tree cultivated in the garden of NBS.

Hippophaë rhamnoides – (PrÅ) – p.l. Nåtö 1895 (VOA) – *fqq, sp-cpp* – Stony, gravelly and sandy seashores, roadsides. – In the whole area 1964–2019. – Usually of shrub form, some specimens can grow into small trees (Palmgren 1912). A few up to 6-m-high trees grew at NW Ormdalsläten 2007. – Fruits of sea buckthorn may not be collected without the permission of the Alandian Government authorities in such a way that the branches are broken or crushed.

Rhamnus cathartica – p.l. Nåtö 1895 (VOA) – *p-st fq, pcc-sp* – Deciduous stands, rocky areas. – **N** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1997; **Idholm** 2011; **Inre Kalvskär** (AP-15); **Jungfruskär** 1998; **Eskskär**, several trees 1964–1998; **Slätskär** 1999–2015; **Getskär** 2015; **Östra Börtskär** 1973; **Algrund** 2007; **Skobbholm** 2007; **Nåtö Munkholme** 1981; **Slätholm** (HS-83); **Nåtö Slätholm** 2016; **Granholm** 2007. – The girth of the trunk base in one 7-m-high tree in the nature reserve area of Eskskär was 160 cm in 1998. The trunk was ramified at 20 cm height in two stems, the girth of which at 130 cm height was 94 cm for the western stem and 76 cm for the eastern stem (Karhu 2002). This tree was the thickest *R. cathartica* measured in Finland.

***Frangula alnus* (*Rhamnus frangula*)** – p.l. Lemböte Granholm 1927 (VOA) – *r-st r, pcc* – Mesic and moist woods. – **N Nåtö**, one small tree 150 m SE of Nygård 1964–2007; **S Nåtö**, N part of Harskatan 1975/1976 (MH-76); W of Rosklev 1975/1976 (MH-76); at W part of Grönviken 1975/1976 (MH-76); at the SE shore of Hemviken 1997; Västerbergen 2015; **Rödgrund**, 2008, according to Göran Stenlid; **Idholm** 2015 (SIL-15; perhaps not this species, but *R. cathartica* which was not observed in Idholm by the investigators of Silvestris); **Inre Korsö** 2015; **Eskskär**

1932 (VOA); **Slätskär** 1966; 2015; **Slätholm** (HS-83); **Granholm** 2007. – The girth of a 4-m-high tree at the SE shore of Hemviken was 120 cm at the trunk base in 1997 (Karhu 1998, 2002). The trunk branched in four separate stems. This is the second thickest *R. frangula* measured in Finland. The tree was already in poor condition in 1997 and it was dead in 2007.

Ulmus glabra – PrÅ, VU – p.l. N Nåtö (copy of Braxer 1765) – *st r, sp* – Deciduous woods. – N **Nåtö**, a large tree S of Norrbacka 1964–2016; several trees N of Norrbacka 1964–2019; several trees along the nature trail from Idviken to Ormdalssläten 1964–2019; one tree in the hazel copse 200 m E of Norrbacka 1964–1978; Ormdalssläten 1971; Själkatsudden 1975; hazel copse between Norrbacka and Nygård 1978; 50–100 m E–NE of Nygård 1979; a few small trees in spruce wood 400 m NE of Nygård 2007; S **Nåtö**, hazel copse 80 m S of Björklund 1971; E of Österåker 1975; Västergård 1995; Lastklubb 2007; **Idholm** (AP-15); 1964–2015; **Slätholm** (AP-15); (HS-83), Lemböte Slätholm 2011.

Humulus lupulus – Former cultivated plant, spontaneous also in moist deciduous stands at seashores. – N **Nåtö**, cultivated at NBS 1964–2019; S **Nåtö**, cultivated at Västergård 1964–2007; cultivated at Mellangård 2007. – Only female plants seen in Nåtö.

Urtica dioica – p.l. Nåtö 1931 (H) – *fqq, sp-cpp* – Black alder copses, roadsides, at cattle sheds and stables, on dunghills, garden weed. – In the whole area 1964–2019.

Quercus robur – (PrÅ) – Deciduous woods, also cultivated; cultivated trees in the study area only. – N **Nåtö**, one tree (planted c. 1900) at NBS 1964–2019 (Hæggström 2018); one tree at Björklund 1964–2007; one tree and one sapling at the summer cottage 150 m NW of NBS 2007; one sapling at the Nature Trail next to Björklund 2010; S **Nåtö**, one 14–15-m-high tree at Övergård 2007; several trees planted in the S end of Hemåker and in Söderäng 2007; two about 4-m-high trees S of Söderäng 2016; **Rödgrund**, a few small planted trees 2007; **Algrund**, one small cultivated tree 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 2011. – Wild oaks with a trunk girth of at least 170 cm at 130 cm height, are protected in Åland.

The planted oak at NBS had a girth of 280 cm in 2017 (Hæggström 2018). – Fig. 98.

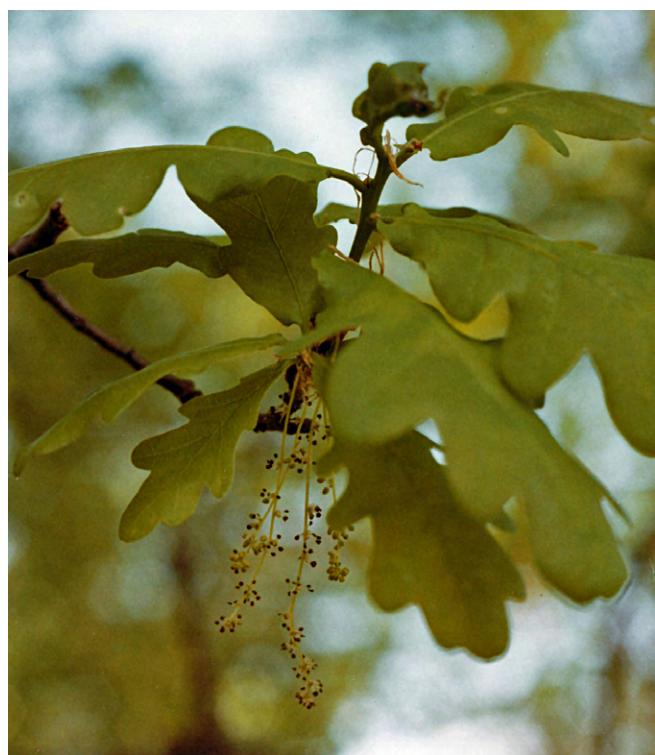
Fagus sylvatica L. – Cultivated in forestry experiment areas and as a park tree in Åland. – **Rödgrund**, one tree originated in Uppsala, Sweden, planted in the 1990s at the summer cottage of Göran Stenlid, 2001; two more planted later, all dead by 2007.

Juglans mandshurica Maxim. – Ornamental park tree – S **Nåtö**, one about 1-m-high sapling in the wood about 200 m S of Övergård 2007. According to Mr. Tor-Olof Styrström (Mariehamn), this tree grew from a seed taken by accident together with *Juglans* leaves from his garden in Mariehamn to Nåtö. The sapling could not be found in 2016. – Hæggström & Hæggström (2009), Hæggström (2019b).

Betula pendula var. *pendula* – p.l. (AP-15) – *fq, st pc-st cp* – Dry and mesic woods. – In the whole area 1964–2019. – Many old trees are pollards. – The copy of Braxer (1765) mentions birch on N and S Nåtö without information of the species.

B. pendula var. *carelica* – *rr, pcc* – N **Nåtö**, one approx. 8-m-high tree 50 m ENE of Norrbacka 1982(H) – 2007.

Fig. 98. *Quercus robur*. Ingå, Barösund, Svartö. Photo: KN, June 6, 1981.



B. pubescens – p.l. (AP-15) – *fq-fqq, st pc-st cp* – Mesic and moist woods, fens. – In the whole area 1964–2019. – A few trees are former pollards. – The copy of Braxer (1765) mentions birch on N and S Nåtö without information of the species.

Alnus glutinosa – p.l. N and S Nåtö (copy of Braxer 1765) – *fqq, sp-cpp* – Mesic and moist woods, especially on seashores. – In the whole area 1964–2019. – Some trees are former pollards.

Corylus avellana – p.l. N Nåtö (copy of Braxer 1765) – *st fq, sp-cpp* – Dry and mesic deciduous woods. – N and S Nåtö, numerous, often dense stands 1964–2019; **Inre Kläppen** 2008–2009; **Rödgrund** 1964–2019; **Senskär** 1964–2015; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1996; **Skobbholm** (AP-15); 2007; **Slätholm** 1903 (H); **Lemböte Slätholm** 2011; **Granholm** (AP-15); 1930 (H); 1981–2007. – The age and size of hazel stools were studied in N Nåtö (Häggström 2000a, 2000b).

Parnassia palustris – p.l. **Slätholm** 1907 (TURA) – *p, pc-sp* – Moist seashore meadows, rich fens. – **Nåtö** 1930 (TUR); 1931 (H); **S Nåtö**, at Grönvik-en 1975/1976 (MH-76); at Tegelvik 1995; Västerbergen 2015; **Rödgrund** (AP-15); (UB-37, map); **Senskär** 1973–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1974; 1975/1976 (MH-76); **Eskskär**, seashore meadow at the NW bay 1973; **Slätskär** (AP-15); 1918, 1931 (H); (AP-61); 1973; **Skobbholm** (AP-15); (UB-37, map); **Slätholm** 1907 (TURA); (AP-15); **Lemböte Slätholm** UB-37, map); (AP-61); **Granholm** (AP-15); (UB-38, map); (AP-61); **Krokgrund** (UB-36); **Skrakgrund** (UB-36).

Oxalis acetosella – p.l. Nåtö & Skobbholm (AP-15) – *p-st fq, pc-cpp* – Deciduous, mixed and spruce woods. – N Nåtö, central part of the wood-ed meadow area 1964–2019; between Nygård and Idviken 1997; S Nåtö, numerous localities 1964–2018; **Jungfruskär** 1996–2015; **Inre Korsö** 1975/1976 (MH-76); 2015; **Korsö** 1990–2015; **Slätskär** 1977–2015; **Skobbholm** (AP-15).

O. stricta ‘Rufa’ (*O. fontana* ‘Rufa’) – Orna-mental plant, occasional garden escape. – **Granholm**, cultivated in a deciduous copse by the road Granholmsvägen 2007.



Fig. 99. *Hypericum hirsutum*. Sweden, Norrtälje, Häverö. Photo: KN, June 9, 1995.

Hypericum hirsutum – p.l. **Slätholm** 1899 (AP-15) – *st r, pc-sp* – Dry stony and bouldery meadows, often among junipers. – **Inre Korsö** 1934 (Eklund 1935); **Stångklubb** 1934 (Eklund 1935); **Ärtskär** 1946 (VOA); **Eskskär** 1901 (AP-15); 1964–1998; **Slätskär** 1901 (AP-15); 1964; **Skobbholm** (Håkan Slotte, in letter 1984); **Slätholm** 1899 (AP-15); (HS-83); **Munkholm** 1925 (Gadolin 1927); 1987; **Granholm** 1910 (H, TURA). – Fig. 99.

H. maculatum – p.l. Nåtö 1914 (H) – *p-st fq, st pc-st cp* – Meadows, lax deciduous woods, road-sides. – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** (AP-15); **Senskär** 1973–2015; **Idholm** (AP-15); 1974–2011; **Inre Kalvskär** (AP-15); **Jungfruskär** 1974–1996; **Inre Korsö** 2015; **Eskskär** (AP-15); 1964–1995; **Slätskär** (AP-15); 1972–1999; **Skobbholm** (AP-15); 1988–2007; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 2007.

H. perforatum – p.l. **Slätholm** 1903 (H) – *fq, st pc-cp* – Rock and dry meadows. – In the whole area 1964–2019.

Viola mirabilis – p.l. 1901 (TURA) – *st r, pc-st cp* – Deciduous woods. – **N Nåtö**, at Ormdalsläten 1964; at Själkskatsudden 1964–2019; hazel stand 140 m ENE of Nygård 1971; hazel stand 60 m E of Nygård 1971; 50–100 m NE of Norrbacka 1979; 150 m E of Nygård 1979; hazel copse between Norrbacka and Nygård in 2007; Nåtö E 2015; **S Nåtö**, N of Verkfladan 1974; 100 m SE of SE Hemviken 1995; Harskatan 2007; at the SE shore of Hemviken 2007; **Idholm** 1909 (TURA); 1964–2015; **Skobbholm** 1901–1902 (TURA); **Slätholm** 1937 (TUR); **Granholm** 1901 (TURA); 1981–2007.

V. rupestris* subsp. *rupestris var. *rupestris* – NT – p.l. Skobbholm 1901 (H) – *r, pcc-pc* – Dry, sandy meadows. – **N Nåtö**, sandy meadow patch next to the *Sesleria* meadow at Idviken 1964–1987; the *Sesleria* meadow at Idviken 1971–1979; dry meadow 150 m N of Idviken 2007; **Skobbholm** 1901 (TURA); 2007; **Granholm** 1982 (H).

V. reichenbachiana – PrÅ*, EN – p.l. N Nåtö 1969 – *r, sp-cp* – Deciduous and mixed woods. – **N Nåtö**, several stands in the hazel copses between Nygård and Idviken 1969–2019; **S Nåtö**, spruce wood 800–900 m SSE of NBS 1969–1982 (H); 1.2 km SSE of NBS 1972; Lastklubb 1990 (Ranta 1991). – Stork (1970, 1971). – Fig. 100.

V. reichenbachiana* × *riviniana – p.l. N Nåtö 1964, but not recognised as this taxon until 1969 – *rr, pcc* – Deciduous wood. – **N Nåtö**, in a hazel stand 80 m E of Nygård, one large specimen (heterosis!) in the sample quadrat Mq 36 (Häggström 1983) together with the parent species from 1964 to the early 1970s; the specimen died back then. – Stork (1971).

V. riviniana – p.l. Nåtö 1901 (TURA) – *fqq, pc-cp* – Deciduous and spruce woods, mesic meadows. – In the whole area 1964–2019.

V. riviniana* × *rupestris – p.l. Skobbholm 1901 (TURA) – *rr*; ? – Dry and mesic meadows. – Nåtö 1902 (H, TURA); **N Nåtö**, NE part 1902 (H); **Skobbholm**, 1901 (H, TURA); E part 1902 (H). – Not searched for by us.

V. canina coll. – p.l. AP-15 – *p-st fq, st pc-st cp* – Dry and mesic meadows, deciduous woods. – According to Palmgren (1915–1917), *V. canina* occurred in the following localities: **Nåtö**; **Rödgrund**; **Idholm**; **Inre Kalvskär**; **Yttre Kalvskär**; **Eskskär**; **Slätskär**; **Skobbholm**; **Slätholm**; **Granholm**. He did not recognise any subspecies. As subsp. *canina* is much more common than subsp. *ruppii*, most, if not all, of his observations was of subsp. *canina*.

V. canina* subsp. *canina – p.l. most probably AP-15; more recent N Nåtö 1964 – *p-st fq, st pc-st cp* – Dry and mesic meadows, deciduous woods. – **N Nåtö**, at NBS 1964–2019; 50 m S of Nygård 1971 (H); between Björklund and Nygård 2007; Nåtö W & E 2015; **S Nåtö**, between Västergård and Berggård 1966; Harskatan 2009; Harskata 2015; **Inre Kläppen** 2008; **Senskär** 1975–2015; **Ljusskär** 1974 (uncertain determination); **Rackargrund** 1974 (uncertain determination); **Idholm** 1974–1978; **Jungfruskär**, 1975/1976 (MH-76, uncertain determination); **Inre Korsö** 2015; **Vattskär** 1973; **Slätskär** 1978; **Orrskär** 1974; **Östra Börtskär** 2015; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Fig. 100. *Viola reichenbachiana*. Nåtö Island. Photo: CAH, May 26, 1977.



V. canina subsp. *ruppii* (subsp. *montana*) – p.l. N Nåtö & Idholm 1964 – st r; pcc-pc – Meadows, deciduous woods. – N Nåtö, at the *Sesleria* meadow at Idviken 1964 (H) – 1978; 50–100 m NE of Norrbacka 1967; deciduous stand 50 m NE of Nygård 1971; 120 m S of Fiskarudden 1983 (H); S Nåtö, NW of Österåker 1965; westernmost end of Västeråker 1974; between Söderäng and Hemviken 2007; Senskär 1973; Idholm 1964 (H); Fjärdskär 1973, Jungfruskär 1974; Eskskär NW part 1998; Getskär 1973.

V. canina × *riviniana* – p.l. Granholm 1901 (H); rr; pcc – Meadows, deciduous woods. – N Nåtö, at the path to Kummeludden 1995; Granholm 1980 (H).

V. stagnina – PrÅ, EN – p.l. Slätholm 1904 (H) – rr; st pc – Fen meadows. – Senskär, in the fen on the central part 1974 (H) – 2015; Slätholm 1904 (H) – 1931 (H, TURA).

V. palustris – p.l. Slätskär and Slätholm (AP-15) – st r; sp-cp – Moist deciduous, mixed and coniferous woods, fens. – N Nåtö, moist depression 220 m ENE of Nygård 1967; Vidkärr 2007; S Nåtö, central spruce wood of Västerskog 1975/1976 (MH-76); Rosklev 2007; Västerbergen 2015; Inre Korsö 1983(H) – 2015; Slätskär, (AP-15); 1990; Slätholm (AP-15).

V. ×fennica (*V. epipsila* × *palustris*, *V. ×ruprechtiana*) – p.l. Nåtö 1948 (TUR) – rr, pc – Moist spruce wood. – Nåtö (written as Nötö), at a pond 1948 (TUR); S Nåtö, Västerbergen 2015 (SIL-15). – This hybrid taxon is, according to Eklund (1934, 1958) very common in the central part of the SW archipelago of Finland, although *V. epipsila* has never been found in the area (cf. Jalas 1980). However, most botanists have not recognised this hybrid in the Åland Islands.

V. tricolor – p.l. N Nåtö 1907 (VOA) – p, pc-cpp – Rock outcrops, rock meadows and dry meadows. – N Nåtö, at the boathouses 1907; between NBS and the boathouses 1964–2019; 150 m W of Norrbacka 1983 (H); Ormdalsklint 1995–2009; Nåtö W & E 2015; S Nåtö, at the kiosk 200 m SW of Södergård 2005; Västerbergen 2015; Harskatan 2015; Rödgrund (AP-15); Idholm, (AP-15); 1964–2015; Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Eskskär (AP-15); 1998;



Fig. 101. *Viola tricolor*. Vårdö, Sandö. Photo: CAH, June 27, 2015.

Halvbådan 1967; Slätskär (AP-15); 1973–1977; Skobbholm 2007; Slätholm (AP-15); (HS-83); Lemböte Slätholm 1981; Granholm (AP-15); 2007. – Fig. 101. – Two varieties are discerned, viz. var. *tricolor* and var. *maritima*. These were not recognised by us. The following observations and a collection of the varieties are available:

V. tricolor var. *tricolor* – N Nåtö Tegelvik 2014; Nåtö W & E 2015; S Nåtö, Västerbergen 2015; Harskatan 2015.

V. tricolor var. *maritima* – Slätholm 1945 (TURA)

V. ×wittrockiana – Ornamental plant, occasional garden escape. – Granholm, cultivated in the terrain at the roadside of Granholmsvägen 2007.

V. arvensis – p.l. (AP-15) – st r, st pc-sp – Weed in gardens and cereal fields, also on roadsides, dry meadows and rock meadows. – N Nåtö, fallow field S of Norrbacka 1969; rock outcrop SW of Bergbo 1974; roadside at NBS 1987; rock meadow at NBS 1997; in a vegetable garden at NBS 1997; Nåtö E 2015; S Nåtö, rock meadow at Söderäng 1995; Nyäng 1995; at the kiosk 200 m SW of Södergård 2005; roadside at Mellangård (Mattsson) 2009; Östra Börtskär 2015; Getskär 2015; Skobbholm (AP-15); Slätholm (AP-15); Granholm 2007.

Salix – This genus has not been studied in detail by us. The species are often difficult to determine, partly because of the obvious hybridisation between different taxa. The following presentation of some of the different taxa found in the Nåtö area is therefore tentative.

Salix pentandra – p.l. Inre Kalvskär, Skobbholm & Granholm (AP-15) – *st r; pc-sp* – Lakeshores, ditches, moist depressions in woods. – **N Nåtö**, 50–100 m NE of Norrbacka 1966; road ditch at the post boxes 50 m SE of NBS 1995–2007; at the road to the boathouses WNW of NBS 1996–2007; Skarpbacka 2007; **S Nåtö**, at the road 200 m S of Övergård 1995; at the N edge of Västeråker 1995; at the main road 200–300 m SW of Södergård 2005; **Rödgrund** 2007; **Inre Kalvskär** (AP-15); **Inre Korsö** 1927 (H); **Ekskär** 1931 (H); **Skobbholm** (AP-15); **Granholm** (AP-15); 2007.

Salix phylicifolia – p.l. **N Nåtö** 1964 – *st r; pc-sp* – Moist woods, ditches. – **N Nåtö**, moist depression 220 m ENE of Nygård 1978 (cf. *phylicifolia*); at Finngräfet 1978; roadside SE of NBS 1988; Nåtö E 2015; **S Nåtö**, moist place S of Hemviken 1997; ditch at the main road 250 m SW of Södergård 2005; roadside near the fish farm 2007; roadside N of Harskatsåkern 2007; **Senskär** 1975; **Jungfruskär** 1974 (*S. cf. phylicifolia*); **Skobbholm**

Fig. 102. *Salix caprea*. Ingå, Barösund, Svartö. Photo: KN, May 3, 1981.



2007; **Lemböte Slätholm** 2011; **Granholm** 2007 (cf. *phylicifolia*).

S. myrsinifolia – p.l. Nåtö & Granholm (AP-15) – *r; pcc* – Moist woods. – **Nåtö** (AP-15); **S Nåtö**, at the road in Västerskog 2007; **Slätholm** (HS-83); **Granholm** (AP-15); 2007.

S. cinerea – p.l. Nåtö etc. (AP-15) – *st r-p; st pc-st cp* – Lakeshores, fens, ditches, roadsides, moist depressions in woods. – **N Nåtö**, moist depressions NW of NBS 1964–2019; Vidkärr 1964–2019; roadside 70 m SE of NBS 1997; **S Nåtö**, numerous localities 1964–2018; **Idholm** (AP-15); 1924 (TUR); **Ekskär** (AP-15); 1931 (H); **Slätskär** (AP-15); 1999–2015; **Skobbholm** (AP-15); 2007; **Slätholm** (HS-83); **Granholm** (AP-15); 2007.

S. cinerea × myrsinifolia – *rr; pcc* – **N Nåtö**, Nåtö W 2015.

S. cf. cinerea × phylicifolia – *rr; pcc* – Moist woods, fen margins, ditches, roadsides. – **S Nåtö**, moist depression on clear-cut area 100 m E of Övergård 1995.

S. aurita – p.l. Skobbholm (AP-15) – *r; pc* – Moist woods, fen margins, ditches. – **N Nåtö** between Idviken and Österåkersgrund 1971 (cf. *aurita*); Nåtö E 2015; **S Nåtö**, at the main road 200 m SW of Södergård 2005; Harskata 2015; **Slätskär** 2015; **Skobbholm** (AP-15).

S. cf. aurita × caprea – *rr; pcc* – Moist woods. – **Slätskär** 1966.

S. aurita × cinerea – *rr; pcc* – Moist woods. – **Slätskär** 1932 (VOA).

S. caprea subsp. *caprea* – p.l. (AP-15) – *p-st fq; pc-sp* – Deciduous and spruce woods, mesic meadows, roadsides, on burnt ground. – **N** and **S Nåtö**, young and old trees in numerous localities 1964–2019; **Senskär**, one tall tree in the central part 1997; 2015; **Ljusskär** 1974; **Yttre Kalvskär** (AP-15); **Jungfruskär**, young trees on a burnt spot and a clear-cut area at the Nature Trail 1996; **Inre Korsö**, 1973; one tall tree in the 1980s; 2015; **Slätskär** (AP-15); 1976; **Getskär** 2015; **Måsskär** 1987; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** (AP-15); 2007; **Slätholm** (HS-83); **Granholm** (AP-15); 2007. – Fig. 102.

S. caprea subsp. *sphacelata* – Nåtö 1901 (H). – This voucher was determined to belong to subsp. *sphacelata* by Berg & Christensen for Flora Nordica in 1992–1996. However, it was not included in Flora Nordica 1 (Berg & Christensen 2000). The voucher from Nåtö comprises of two twigs with, oddly enough, young leaves, collected on July 15, 1901 by F. W. Klingstedt. The older stems are densely tomentose as are the both surfaces of the leaves. The leaf blades are not typical of subsp. *sphacelata*. It is not likely that subsp. *sphacelata*, a subspecies of the Scandinavian mountains and northwestern felds of Finland occurs in Nåtö. As *S. caprea* is a quite variable species which forms hybrids with other species, the voucher specimens may represent some other taxon than subsp. *sphacelata*.

S. caprea subsp. *caprea* × subsp. *sphacelata* rr?, pcc? – Eskskär 1903 (H).

S. caprea × *cinerea* – rr, pcc – Moist woods. – Granholm 2007 (H).

S. repens subsp. *repens* – p.l. Nåtö 1935 – r, st pc – Moist depressions, fens. – N Nåtö, moist depression on the rock outcrop 100 m SE of NBS 1995–2007; at the “pond” 160 m ESE of NBS 1995; S Nåtö, 350 m NE of Övergård 1971; moist depression on rock outcrop 200 m SE of Övergård 1995 (H); roadside at Västerbergen 2007; Slätskär 1935 (VOA); Granholm 2007. – The subspecies *rosmarinifolia* is rare in the Åland Islands (Häggström & Häggström 2010). It has not been found in the Nåtö area, although it has been collected in the island of Gloskär about 2 km SSE of Getskär in 1906 (TUR).

Salix sp. – Slätskär 1973; Orrskär 1974.

Populus tremula – (PrÅ) – p.l. Nåtö 1907 (TUR) – st fq, pc-cpp – Woods, rocky areas. – N and S Nåtö, scattered small stands in numerous localities 1964–2019; Rödgrund 2007; Idholm (AP-15); 1964–2015; Fjärdskär 1973; Jungfruskär, at the Nature Trail 1996; Inre Korsö 2015; Korsö 2015; Eskskär (AP-15); Slätskär (AP-15); 1977; Skobholme 2007; Slätholm (AP-15); (HS-83); Granholm (AP-15); 1981–2007. – The species was partly overlooked by us. – Several of the old poplars of Nåtö were pollarded long ago (before 1950). – Wild aspens, with a trunk girth

of at least 170 cm at 130 cm height, are protected in Åland. Aspens of this size have not been noted in the study area.

P. balsamifera – Ornamental tree. – Slätholm, cultivated (Håkan Slotte, in letter 1984).

Euphorbia peplus – p.l. Nåtö 1934 (H) – rr, st pc – Garden and field weed. – Nåtö 1934 (H); N Nåtö, the vegetable garden of Norrbacka 1964 (H).

Linum catharticum – p.l. Slätholm 1901 (H, VOA) – st fq, pc-cpp – Moist, mesic and dry meadows. – N Nåtö, numerous localities 1964–2019; S Nåtö, NW of Österåker 1965; at Finngräfet 1967; between Västergård and Berggård 1966; 80 m SE of Övergård 1995 (H); between Söderäng and Hemviken 2007; Rödgrund 2007; Senskär, in *Sesleria* meadows on the N and E parts 1997; 2015; Ljusskär 1974; Idholm 1997–2015; Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Jungfruskär 1974; Inre Korsö 2015; Slätskär 1977; Östra Börtskär 1972; Orrskär 1974; Gräsgrund (UB-36); Tunngrund 1931–1951 (RC-76); Skobholme 2007; Slätholm (HS-83); Lemböte Slätholm 1981 (H); Granholm 2007. – Fig. 103.

Fig. 103. *Linum catharticum*. Raseborg, Snappertuna, Lindskär. Photo: KN, July 2, 1980.



Geranium sanguineum – p.l. Slätholm 1906 (TUR) – *p-st fq, sp-cp* – Dry and rock meadows, rock outcrops. – N Nåtö, several small stands at NBS 1964–2019; 200 m S of Fiskarudden 1964; 50–100 m NE of Norrbacka 1971; small stands 150–300 m E–SE of Norrbacka 1979; S Nåtö, numerous localities 1964–2016; Rödgrund 2007; Senskär 2015; Idholm 1995–2015; Inre Kalvskär (AP-15); Fjärdskär 1973; Eskskär 1998; Slätskär 1999–2015; roadbank between Tunngrund and Skobbholm 2007; Skobbholm 2007; Slätholm (HS-83); Nåtö Slätholm 1981; Lemböte Slätholm, W shore 2011; Granholm, two localities 2007. – Fig. 104.

G. sylvaticum – p.l. Nåtö 1901 (H) – *p-st fq, pc-cpp* – Deciduous and mixed woods, moist and mesic meadows, former hay fields. – N and S Nåtö, numerous localities 1964–2019; Inre Kläppen 2008; Rödgrund 2007; Senskär 1997–2015; Idholm 2011–2015; Inre Kalvskär (AP-15); Eskskär 1995; Slätskär 1978–2015; Skobbholm 2007; Slätholm (HS-83); Nåtö Slätholm 1981; Lemböte Slätholm 1981; W shore 2011; Granholm 2007.

Fig. 104. *Geranium sanguineum*. Nåtö Island. Photo: HV, June 14, 2012.



Fig. 105. *Geranium molle*. Mariehamn. Photo: CAH, May 14, 2015.

G. pusillum – p.l. Nåtö 1901 (TURA) – *st r, st pc-st cp* – Dry and rock meadows. – N Nåtö, several stands at NBS 1964–2019; on the rock outcrop 70 m SE of NBS 1964–2018; former field S of NBS 1986; S Nåtö, 50 m N of Övergård 1973 (H); roadside at the main road 250 m SW of Södergård 1995; Rödgrund 1972 (H); Skobbholm (AP-15); Granholm 2007.

G. molle – p.l. Nåtö 1895 (VOA) – *st r, st pc-cp* – Dry and rock meadows. – N Nåtö, dry meadows at NBS 1964–2019; between Västergård and Björklund 1964; roadside at Västergård and Berggård 1995; between Norrbacka and Inre Kläppen 1997; S Nåtö, SW of Övergård 1956 (TUR); 50 m N of Övergård 1973 (H); 60 m SE of Björklund 1995; rock meadow at Mellangård 2005; Idholm 1945 (TUR); Jungfruskär 1939 (H); Skobbholm 1902 (H); Slätholm (HS-83). – Fig. 105.

G. dissectum – EN – p.l. Granholm 1902 (H) – *r-st r, pcc-cp* – Dry and rock meadows, cereal field weed. – N Nåtö, near Grannans (NBS) 1952, 1956 (TUR); wheat field 50 m NE of Västergård 1965 (H); at the tractor shed of Västergård 1966 (H) – 1972 (H); S Nåtö, ruin S of Berggård in the

1960s; at the former barn 100 m SSE of Björklund 1968–2002; at the margin of Västeråker 100 m SSW of Björklund in the 1960s; **Skobholm**, rock meadow 80 m SE of the building on the NE part 1983 (H); **Granholm** 1902 (AP-15). – *Geranium dissectum* has become rarer during the latter part of the 20th and beginning of the 21st centuries. In S Nåtö, at the former barn 100 m SSE of Björklund, there were about 100 plants in 1981, some tens of plants in 1995 and only two specimens in 2002. No observations are known after that in the study area.

G. lucidum – NT – p.l. Nåtö 1901 (TURA) & Slätskär 1901 (H) – p, pc-st cp – Shady rock meadows. – N Nåtö, several small stands at NBS 1964–2019; 50 m S of the boathouses in the 1960s; S Nåtö, Vesterhagen 1930 (TUR); at the lake 1932 (VOA); S of the lake 1957 (TUR); 250 m SSE of Övergård in the 1960s; [Inre or Yttre] Kalvskär 1919 (H); Fjärdskär 1973; Eskskär, two localities on the W part 1998; Jungfruskär 1945 (OULU, TUR); Inre Korsö 1927 (H, TUR); Korsö 1927 (H); Ärtskär 1938 (TURA); Slätskär 1973–2015; Östra Börtskär 2015; Orrskär 1974; Skobholm 1907 (H; TUR, TURA, VOA). – Fig. 106.

G. robertianum – p.l. (AP-15) – fq-fqq, pc-cp – Shady rock meadows, stone ridges in the skerries. – In the whole area 1964–2019.

Erodium cicutarium – rr, pcc – Garden weed, ruderal. – **Granholm**, roadside at the S point 1972 (H).

Lythrum salicaria – p.l. (AP-15) – fqq, st pc-cp – Seashores, wet meadows, fens. – In the whole area 1964–2019.

Circaeа alpina – p.l. Jungfruskär (AP-22) – rr, st pc – Moist mixed woods. – **Jungfruskär** 1966 (H); 1975 1975/1976 (MH-76), not found by us in 1996; Inre Korsö 1999–2015.

Chamaenerion angustifolium (*Epilobium a.*) – p.l. (AP-15) – fq, st pc-cp – Roadsides, dry stony meadows, clear-cut woods. – In the whole area 1964–2019.

Epilobium parviflorum – p.l. N Nåtö 1995 (H) – rr, st pc – Fens, fen meadows, ditches. – N Nåtö, in a ditch at the main road 50–90 m E–SE of NBS

1995(H) – 2016; in the wet depression about 70 m NW of NBS 2019

E. montanum – p.l. (AP-15) – st r-p, pcc-st pc – Shady stony and rocky terrain, roadsides. – N Nåtö, numerous localities 1964–2019; S Nåtö, 60 m SE of Björklund 1995; Rosklev 1995; roadside N of Harskatsåkern 2007; Harskatan 2007–2015; cart track 200 m S of Övergård 2007; Västerbergen 2015; Inre Kläppen 2008; Senskär 1977–2015; Idholm 1978 (cf. *montanum*); Jungfruskär 1996; Korsö 1990; Eskskär 1998; Slätskär 2015; Östra Börtskär 2015; Skobholm 2007; Slätholm (HS-83); Lemböte Slätholm 2011; **Granholm** 2007.

E. collinum – p.l. Nåtö 1902 (H) – st r-p, pc-sp – Dry and rock meadows. – N Nåtö, at Finngräftet 1967; rock meadow 1987; S Nåtö, Västerbergen 2007; Senskär 2015; Ljusskär 1974; Rackargrund 1974; Idholm 1978; Inre Kalvskär (AP-15); Fjärdskär 1973; Jungfruskär 1956 (TUR); 1974 (cf. *collinum*); Slätskär (AP-15); Östra Börtskär 2015; Orrskär 1974.

Fig. 106. *Geranium lucidum*. Nåtö Island. Photo: HV, June 14, 2012.



E. adenocaulon – p.l. Slätholm 1920 (H) – *r*; *pc-st pc* – Ditches, fens. – **N Nåtö**, road ditch at and 120 m S of NBS 1995; west of the main road 2015; **S Nåtö**, quagmire at the NW end of Hemviken 1995; ditch at the road to Lastklubb 400 m SSE of Övergård 1995; ditch at Vintervägen 1997; **Senskär** 2015; **Slätholm** 1920 (H); **Lemböte Slätholm** 2011; **Granholm** 2007. – The species has spread much in the Åland Islands during the latter part of the 20th century and is now fairly frequent.

E. ciliatum – p.l. Nåtö 1947 (H) – *st r*; *pcc-pc* – Ditches, moist depressions, roadsides, rock crevices and rock-pools in the treeless skerries. – **N Nåtö**, in the hazel stand E of NBS 1968; 100 m NNE of Norrbacka 1971; roadside at NBS 1973; at NBS 1985; former field S of NBS 1986; **S Nåtö**, Harskatan 1975/1976 (MH-76); at Grönviken 1975/1976 (MH-76); cart track 200 m S of Övergård 2007; **small skerries S of Inre Korsö** 2015; **Halvbådan** 1967; **Skobbholm** 2007; **Lemböte Slätholm** 2011. – The species has spread

Fig. 107. *Epilobium palustre*. Ingå, Barösund, Svartö. Photo: KN, July 25, 1981.



much in the Åland Islands during the latter part of the 20th century and is now fairly abundant.

E. palustre – p.l. Nåtö 1919 (H) – *r*; *pc-sp* – Fens, wet meadows, ditches. – **N Nåtö**, road ditch 100 m SSE of NBS 1988 (H); **S Nåtö**, quagmire at the NW end of Hemviken 1995 (H); 100 m S of Hemviken 2007; **Östra Börtskär** 1972; **Orrskär** 1974. – Fig. 107.

Acer pseudoplatanus – **S Nåtö**, at the path towards W from Lastklubbsvägen about 180 m S of Övergård 2016. – Introduced with plant material from Mariehamn (Häggström et al 2016).

A. platanoides – (PrÅ) – p.l. (AP-15) – *st r-p*, *pc-cp* – Deciduous woods, meadows. – **N Nåtö**, numerous trees all over the northern part 1964–2019; **S Nåtö**, common in most parts, but the spruce wood of Västerskog and rocky pine stands of Västerbergen 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Idholm** 2015; **Jungfruskär**, NE part 1975/1976 (MH-76); **Slätskär** 2015; **Östra Börtskär** 2015; **Algrund** 2007, probably cultivated; **Skobbholm** 2007; **Slätholm** (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slätholm** 2011; **Granholm** 2007, **islet VII** 1972–1974 (RC-76). – Wild maples with a trunk girth of at least 170 cm at 130 cm height, are protected in Åland. Maples of this size have not been noted in the study area.

Aesculus hippocastanum – Cultivated as an ornamental tree. – **N Nåtö**, one tree at Nygård 1964–2007; **S Nåtö**, one tree between Björklund and Övergård 2007; one 12-m-high tree at Övergård 2007; **Granholm**, one cultivated tree on the NE point 2007; one spontaneous sapling at the SW part 2007. – Häggström (2019b).

Malva alcea – Ornamental plant, occasional garden escape. – **S Nåtö**, at Innerstunas's former house 1974 (H).

M. moschata – Ornamental plant, frequently naturalised on roadsides. – **S Nåtö**, Västerskog, road side 2010; **Granholm**, Westerberg, with both white and pink flowers 2007.

Tilia cordata – PrÅ – **N Nåtö** 1999 (Lampinen & Lahti 2019c). – This species was observed in the northeastern part of the Nature reserve. However, previous or later observations of wild or cultivated *Tilia* trees are not known from Nåtö. There-



Fig. 108. *Helianthemum nummularium*. Finström, Bastö. Photo: KN, July 3, 1983.

fore, we judge that the species determination is wrong (Häggström et al. 2011).

Daphne mezereum – p.l. Jungfruskär (AP-22) – PrÅ – r; pcc-st pc – Deciduous and mixed woods. – S Nåtö, at Långvarpet c. 1965; Harskata 2015; **Jungfruskär** (AP-22); 1973–1996; **Inre Korsö** 1981–2015.

Helianthemum nummularium – NT – p.l. Nåtö 1891 (VOA) – st r; st pc-cp – Dry and mesic meadows. – N Nåtö, at NBS 1964–1997; 400 m NE of Norrbacka 1964 (H); Skarpbacka E slope 1964 (H); 50 m NE of Norrbacka 1971; W of Skarpbacka 1971; Ormdalsklint 1995; at the Nature Trail 50 m NE of Idviken 2008; Nåtö E 2015; S Nåtö, at Harskatsåkern 1975/1976 (MH-76); 40 m SW of Österåker 1980 (H); rock meadow 200 m SE of Övergård 1986; at the road 50 m SE of Övergård 1995; roadside and meadow in a cut area 80 m SE of Övergård 1995 (H); Söderäng 2007; **Idholm** (AP-15); 1978; **Skobholme** (AP-15); **Slätholm** (AP-15); (HS-83); **Lemböte Slät-**

holm 1981; **Lemböte Munkholm**, rock meadow on the NE point 1981 (H); **Granholm** (AP-15); 1983–2007. – Fig. 108.

Sisymbrium officinale – rr; pcc – Weed on roadsides and in courtyards. – N Nåtö, roadside 1988.

Descurainia sophia – p.l. Granholm 1971 – r; pcc-sp – Weed on roadsides and in courtyards. – N Nåtö, roadside at NBS 1973; on the roadbank between Rödgrund and Nåtö 1983 (H); S Nåtö, roadside at Södergård 1973 (H); at the car park of Harskatan 2008; **Granholm** 1971–2007. – This weed is spreading from Mariehamn along the main road to Järsö.

Alliaria petiolata – p.l. Rödgrund 1981 (H) – r; pc – Weed on roadsides, in courtyards and hedges; also spontaneous in deciduous woods in the eastern archipelago of Åland and in the archipelago of the province of Ab. – N Nåtö, cart track between Norrbacka and the boat bridge 1995; on an earth mound at the boathouses 2006; at the road to the boathouses 2007; S Nåtö, at the car shed of Västergård 2005; at the car shed of Mellangård (Mattsson) 2009; **Rödgrund**, roadside at the S point 1981 (H). – The species is a common ruderal plant in Mariehamn. It is spreading along the roads in the Nåtö and Järsö area.

Arabidopsis thaliana – p.l. N Nåtö 1902 – fq, st pc-st cp – Rock outcrops, rock meadows and dry meadows, sandy and gravelly roadsides. – In the whole area 1964–2019.

Isatis tinctoria – p.l. Nåtö 1902 (H) – st r-p, st pc-st cp – Sandy and gravelly seashores, roadbanks. – N Nåtö, roadbank between Nåtö and Rödgrund from the early 1970s to 2009; seashore meadow of N Nåtö next to the roadbank 2004; S Nåtö, on both sides of the roadbank at Harskatan 2004–2009; **Rödgrund**, roadsides at the S point 1981–2009; **Jungfruskär**, S shore 1975/1976 (MH-76); **Eskskär** 1967; **Halvbådan** 1967; **Måsskär** 1987; **Östra Börtskär** 1972; **skerry N of Getskär** 2015 **roadbank** between Törngrund and Tunngrund 2006–2007; **Tunngrund** 2014; **Alggrund** (UB-36).

Myagrum perfoliatum – rr; pcc – Ruderal plant. – **Eskskär**, one plant on a stony seashore on the W part 1932 (H) (Palmgren, M. & A. 1933, Luther 1955).

Bunias orientalis – p.l. Nåtö 1930 (H) – *r, pcc-st pc* – Cereal field weed, roadside ruderal. – Nåtö 1930 (H); **N Nåtö**, one plant at NBS, introduced with soil in the mid-1970s, still left 1997, not any longer 2001; one large plant on waste dump 30 m N of NBS 2008–2010; **S Nåtö**, at the main road to Järsö 2018; **Granholm**, W side of the S roadbank 2002.

Erysimum strictum – p.l. (AP-15) – *st r, pc-st pc* – Gravelly seashores, seashore rock meadows, roadsides. – **S Nåtö**, at the main road to Järsö 2009; **Rödgrund** (AP-15); 2007; **Ekskär** (AP-15); 1985–1998; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2004–2007; **Slätholm** (AP-15); **Granholm** (AP-15); roadsides, three localities 2007.

E. cheiranthoides – p.l. Senskär 1977 – *r, pc* – Cereal field and garden weed, roadsides. – **N Nåtö**, car park of NBS 2004; **S Nåtö**, roadside at the fish farm 2010; at the gravel road SE of Hemviken 2018; **Senskär** 1977; **Granholm**, two roadside localities 2007. – Probably overlooked.

Hesperis matronalis – Ornamental plant. – **Granholm**, garden escape 2007.

Barbarea vulgaris – p.l. S Nåtö 1995 – *r, pcc-pc* – Roadsides. – **S Nåtö**, on an earth mound at Västeråker 1995; **roadbank** between Törngrund and Tunngrund 2004; **Granholm**, W roadbank 2007. – At present spreading along the roads in the Åland Islands.

B. stricta – p.l. Slätholm 1924 (TURA) – *st fq-fq, pc-sp* – Gravelly seashores, roadbanks. – **N Nåtö**, roadbank between Nåtö and Rödgrund 2004; **S Nåtö**, Västerbergen 2015; Harskata 2015; **Rödgrund** 1991 (TUR); **Senskärsgrund** 1972; Ljusskär 1974; **Idholm** 1974–1978; **Fjärdskär** 1973; **Jungfruskär** 1974–2015; **Inre Korsö** 2015; **skerries S of Inre Korsö** 2015; Måsskär 1984; **Getskär** 1973; **skerry N of Getskär** 2015; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **roadbank** between Törngrund and Tunngrund 2007; **Ormgrund** (UB-36); 1968–1974 (RC-76); **Algrund** (UB-36); **Gräsgrund** 1963–1974 (RC-76); **Tunngrund** 1937–1940; 1968–2004; **Slätholm** 1924 (TURA); **Krokgrund** 1963–1974 (RC-76); **Skrakgrund** 1968–1974 (RC-76).

Rorippa sylvestris – *rr, pcc* – Garden and lawn weed. – **N Nåtö**, car park N of NBS 2005. – The species is at present spreading in the Åland Islands.

R. palustris – p.l. Rödgrund 1930 (H) – *rr, pc* – Rock-pools, lake shores, pond shores. – **Rödgrund** 1930 (H); **Getskär** 1973. – Probably overlooked in the smaller islands; typical plant of treeless skerries.

Armoracia rusticana – Cultivated as a spice plant, occasionally on roadsides and ruderal ground. – **S Nåtö**, in the garden at Mellangård 2007.

Cardamine bulbifera (*Dentaria b.*) – p.l. Nåtö 1895 (VOA) – *p-st fq, st pc-st cp* – Deciduous woods, meadows; also in luxuriant spruce woods. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, spruce wood 400 m SE of Övergård 1971; 300 m SSE of Övergård 1995; Harskatan 1995; spruce wood of Västerskog 2007; the former field Klubbåkern 2007; Västerbergen 2015; Harska-

Fig. 109. *Cardamine bulbifera* growing between the doorsteps of the main building of NBS. Photo: CAH, May 28, 2012.



ta 2015; **Inre Kläppen** 2008–2009; **Rödgrund** 1989 (JYV) – 2013; **Senskär** 2015; **Idholm** (AP-15); 1964–2015; **Jungfruskär** 1996–2015; **Inre Korsö** 2015; **Slätskär** 2015; **Skobbholm** 2007; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 1981–2007. – Fig. 109.

C. pratensis coll. – p.l. Granholm (as the island W of Slätholmen) 1907 (H). – *st r-p, pc-sp* – N **Nåtö**, *Sesleria* meadow at Idviken 1964; roadside near NBS 1993 (TUR); seashore meadow E of Knäckgraven 2007; S **Nåtö**, moist meadow SE of Hemviken 2007; **Slätskär** 1972–1977; **Slätholm-Munkholm** (HS-83); **Granholm** 1907 (H).

C. pratensis subsp. *pratensis* – NT – *rr*, ? – meadows, shore meadows – N **Nåtö** 2015 (SIL-15, uncertain determination).

C. pratensis subsp. *paludosa* – p.l. N **Nåtö** 1964 – *st r-p, pc-sp* – Moist and wet meadows, ditches, fens. – N and S **Nåtö**, numerous localities 1964–2019; **Senskär** 1973–2015; **Jungfruskär** 1996; **Slätskär** 1976; **Slätholm** (HS-83).

C. hirsuta – p.l. N **Nåtö** 1902 (H, TURA, VOA) – *fq, pc-cp* – Rock and dry meadows. – N **Nåtö**, numerous localities 1964–2019; S **Nåtö**, 100 m S of Östergård 1995; roadside in Västerskog 400 m WNW of Södergård 1995; 200 m N of Övergård 2007; **Inre Kläppen** 2008; **Rödgrund** (AP-15); **Senskär** 1973–2015; **Rackargrund** 1964 (H) – 1974; **Idholm** 1974–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1939 (H); **Inre Korsö** 2015; **skerries S of Inre Korsö** 2015; **Korsö** 1990; **Eskskär** (AP-15); 1998; **Slätskär** (AP-15); 1976–1999; **Getskär** 1973; **Östra Börtskär** 2015; **Orrskär** 1974; **roadbank** between Törngrund and Tunngrund 2007; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** 2011; **Granholm** 2007.

Turritis glabra (*Arabis* g.) – p.l. Nåtö 1902 (VOA) – *p, pcc-st pc* – Dry and rock meadows, roadsides. – S **Nåtö**, roadside 200 m SSE of Övergård 2007; Västerbergen 2015; **Rödgrund** (AP-15); 2009; **Senskär** 1973–2015; **Idholm** (AP-15); 1964–2015; **Eskskär** (AP-15); 1966–1998; **Slätskär** (AP-15); 1975–2015; **Getskär** 2015; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Skobbholm** 1907 (H); (AP-15); **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15).

Arabis hirsuta – p.l. Nåtö 1895 (VOA) – *st fq, pc-st cp* – Dry and mesic meadows, lax deciduous woods. – N and S **Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 1933 (H); **Rödgrund** (AP-15); 2007; **Senskär** 1972–2015; **Ljusskär** 1974; **Rackargrund** 1964 (H); **Idholm** 1907 (Lemland Idö, TURA); (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** (AP-15); 1996; **Inre Korsö** 2015; **Eskskär** (AP-15); 1964–1998; **Vattskär** 1973; **Slätskär** (AP-15); 1972–1999; **skerry N of Getskär** 2015; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** (AP-15); 2007; **Slätholm** (AP-15); (HS-83); **Lemböte Slätholm** 1981–2011; **Granholm** (AP-15); 2007.

Draba incana – p.l. Nåtö 1881 (H) – *r*, ? – Seashore meadows. – Nåtö 1881 (H); 1887 (H, TURA); 1923 (TUR); **Idholm** 1904 (AP-15); 1924 (TUR); **Slätholm** 1906 (TUR). – Fig. 110.

Fig. 110. *Draba incana*. Ingå, Barösund, Stortruttklobben.
Photo: KN, June 20, 1985.



D. verna (*Erophila v.*) – p.l. N Nåtö & Skobholm 1902 (H) – *p*, *sp-cpp* – Dry and rock meadows, dry sandy roadsides, courtyards. – N **Nåtö**, at NBS 1964–2019; 200 m SSE of Nygård 1997; between Norrbacka and Inre Kläppen 1997; at the road to Inre Kläppen 2008; Nåtö W & E 2015; S **Nåtö**, rock meadow on Söderäng 1995; Nyäng 1995; **Rödgrund** (AP-15); **Idholm** 1964–1978; **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Vattskär** 1973; **Slätskär** (AP-15); 1976; **Skobbholm** 1902 (H); at Rothberg's house 1981 (H); **Slätholm** (HS-83).

Drabellia muralis (*Draba m.*) – NT – p.l. Nåtö, Granholm & Skobholm 1902 (H, TUR, VOA) – *p*, *pc-st cp* – Dry and rock meadows. – N **Nåtö**, at NBS 1964–2019; rock meadows SW of Bergbo 2002; S **Nåtö**, between Västergård and Björklund 1966 (H); between Björklund and Övergård 1995; N part of Söderäng 1995; Nyäng 1995; at Mellangård 2009; **Rödgrund** (AP-15); **Rackargrund** 1964 (H); **Idholm** 1904 (AP-15); 1974–2015; **Eskskär** (AP-15); 1995–1998; **Slätskär** (AP-15); 1999; **skerry N of Getskär** 2015; **Skobbholm** 1902 (H); at Rothberg's house 1981 (H); **Slätholm** 1907 (H, TUR) 1945 (H, TUR); **Granholm** 1902 (H); 2007. – Fig. 111.

Flig. 111. *Drabellia muralis*. Nåtö, NBS. Photo: KN, May 24, 1991.



Cochlearia danica – p.l. Nåtö 1902 (H) – *st r*; *sp-cp* – Rock crevices and fissures, rock meadows by the sea. – Nåtö 1902 (H); N **Nåtö**, Fiskarudden 1964–2002; **Fjärdskär** 1973; **islet at Inre Korsö** 1948 (H); **Måsskär** 1938 (TURA); 1984 (Håkan Slotte, in letter 1984); **Halvbådan** 1967; **Slätskär** 1907 (H, JYV, VOA); 1952 (TUR); **Getskär** 1973; **Orrskär** 1974. – This species occurs most probably in many of the smaller islands and treeless skerries. I may have been overlooked, as it flowers early in the season and wilts before most of the other plants are well developed. – Fig. 112.

Capsella bursa-pastoris – p.l. Nåtö 1964 – *st r*; *st pc-sp* – Roadsides, courtyards, occasionally on rock meadows. – N **Nåtö**, dry meadow at NBS 1964–2019; roadside at NBS 1973; former field S of NBS 1986; roadside N of Norrbacka 2007; Nåtö W & E 2015; S **Nåtö**, roadside at Södergård 1995; in Västeråker 1995; Harskatan 2009; roadside in Västerskog 2010; Västerbergen 2015; **Idholm** 1998; **Granholm** 2007.

Thlaspi arvense – p.l. Granholm 1902 (H) – *st r*; *sp-cp* – Garden and field weed, roadsides, courtyards, also on dry and rock meadows. – N **Nåtö**, on a path in the hazel stand E of NBS 1964; car park of NBS 1974; vegetable garden at NBS 1986; roadside at NBS 1987; roadside N of Norrbacka 2007; S **Nåtö**, rock outcrop between Västergård and Södergård 1980; 60 m SE of Björklund at a former barn 1995; Söderäng 1995; Harskatan 2009; **Rödgrund** 2007; **Senskär**, on a burnt spot 1973–1977; **skerry N of Getskär** 2015; **Granholm** 1902 (H); 2007. – The species has a seed bank in the former cultivated fields.

Nocea caerulescens (*Thlaspi c.*) – p.l. S Nåtö, c. 1980 – *st r*; *sp-cpp* – Roadsides, lawns, occasionally in mesic meadows. – N **Nåtö**, roadside at NBS 2005–2019; meadow at the flag pole and outside the buildings of NBS 2005; S **Nåtö**, roadsides along the main road from 200–250 m SW of Södergård to Harskatan c. 1980–2018 (first observed at Harskatan c. 1980); **roadbank** between Rödgrund and Nåtö 2005; **Rödgrund** 2007; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm**, roadbank near Granholm 2007; **Granholm**, on an earth mound at a cottage on the W part 1981 (H); road side on the

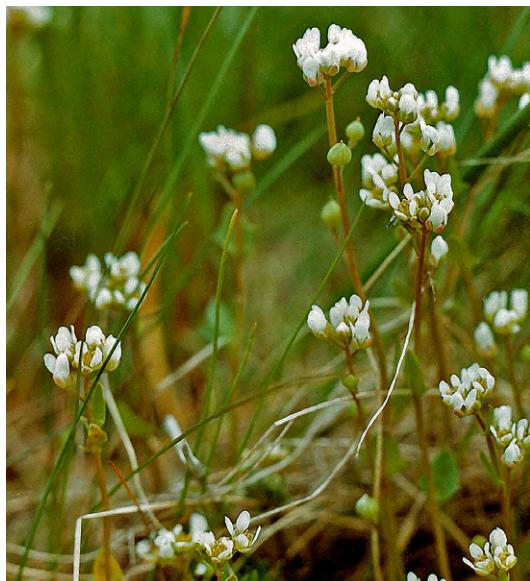


Fig. 112. *Cochlearia danica*. Ingå, Barösund, Stortutklobb.
Photo: KN, May 28, 1983.

SW point 2007. – The species has spread much along the roads of Åland during the last decades (Häggström 2003a).

N. brachypetala (*Thlaspi caerulescens* subsp. *brachypetalum*) – rr?, ? – N Nåtö, Nåtö W 2015 (SIL-15).

Brassica napus subsp. *napus* (subsp. *oleifera*) – rr, pc-st pc – Cultivated for oilseed, also as a roadside weed. – N Nåtö, roadside at Norrbacka 1998; S Nåtö, in the fallow field of Västeråker 1995.

Sinapis arvensis – p.l. Nåtö 1902 (H) – r-st r, pc-cpp – Cereal field weed, occasionally on roadsides and in courtyards. – N Nåtö, on earth mounds along the newly constructed main road at NBS 1973; in the vegetable garden of NBS 1986; roadside at NBS 1987; roadside N of Norrbacka 2007; S Nåtö, burnt area in Harskatsåkern 1964 (H); **Granholm** 2007. – The species has a seed bank in the former cultivated fields. The two varieties, var. *arvensis* and var. *orientalis*, were not distinguished, but in one case.

S. arvensis var. *orientalis* – rr?, pc – S Nåtö, roadside at Harskatan 2008.

Polygonum aviculare – p.l. N Nåtö 1973 – st r, pc-cp – Weed on roadsides, in courtyards, gar-

dens and on sandy dry lawns. – N Nåtö, roadside at NBS 1973–1997 (H); vegetable garden SE of NBS 1986–1997; car park of NBS 2004; roadside N of Norrbacka 2007; disturbed soil on the seashore between the boathouses of NBS and Västergård 2008; S Nåtö, cucumber field in Västeråker 1974 (Silfverberg 1980); gravel road 50 m SE of Södergård 1995; at the kiosk 200 m SW of Södergård 2005; at Mellangård 2007; at Lastklubbsvägen 200 m S of Övergård 2007; roadside at Harskatan 2008; **Senskär**, on a burnt spot 1977; **Skobholmen** 2007. – Overlooked; probably more frequent. We have not tried to distinguish between subsp. *aviculare* and subsp. *neglectum*.

P. boreale – p.l. Orrskär 1901 (H) – sp-st fq, pc-st pc – Sandy and gravelly seashores. – Nåtö 1938 (H); N Nåtö, seashore on the NW part 1967 (H); seashore at Idviken 1994; sandy seashore at Knäckgraven 1995; on a rock at Knäckgraven 2007; **Senskär** 1975; **Senskärsgrund** 1966–1972; **Idholmen** 1947 (H); 2011; **Jungfruskär** 1975/1976 (MH-76); skerry NE of **Jungfruskär** 2015; **Inre Korsö** 1975/1976 (MH-76); **Slät-skär** (AP-61); **Måsskär** 1987; **Orrskär** 1901 (H); **Gräsgrund** 1931–1951 (RC-76); **Blockgrund** 1972–1974 (RC-76); **Starrgrund** 1972–1974 (RC-76); **Vettagrund** 1972–1974 (RC-76). – Overlooked; probably more frequent.

Persicaria minor – p.l. S Nåtö 1930 (H) – rr, cp – Wet depressions, rock-pools, lakeshores. – N Nåtö, at NBS between the windmill and the former cattle shed 1998 (H); in a depression on the rock outcrop N of the former cattle shed of NBS 2009; S Nåtö, at lake Hemviken 1930 (H).

P. lapathifolia – p.l. N Nåtö 1973 – r, st cp-cpp – Weed in fields and gardens, on roadsides and in courtyards. – N Nåtö, roadside at NBS 1973; very abundant in Finngräftet in the mid-1970s and early 1980s when the field was cultivated; in a former cultivated field 100 m SE of NBS 1998; S Nåtö, roadside at Harskatan 2008; **Senskär**, burnt spot 1977; **Granholm**, roadside 2007. – Probably overlooked. The species may have a seed bank in the soil as it appeared in the former field Finngräftet when it was ploughed in the mid-1970s. We have not tried to distinguish between subsp. *lapathifolia* and subsp. *pallida*.

P. maculosa – rr; pc – Weed in cereal fields and gardens. – N Nåtö, on an earth mound at NBS 1988 (H).

P. amphibia – p.l. S Nåtö 1964 (H) – r; st pc-sp – Lakes, ponds, rock-pools; terrestrial modification (mf. *terrestris*) on moist soil along roads, in ditches, etc. – S Nåtö, ditch in Harskatsåkern 1964 (H; terrestrial); N shore of Hemviken S of Södergård 1995 (terrestrial); in Hemviken S of Södergård 1995 (H; aquatic); **Granholm** 2007 (terrestrial).

Bistorta vivipara – p.l. Nåtö etc. (AP-15) – st r; pcc-sp – Moist meadows. – N Nåtö, in the hazel stand E of NBS 1964; Ormdalssläten 1966; 50 m NE of Norrbacka 1971; roadside at NBS 1973; the *Sesleria* meadow at Idviken 1979; Skarpbacka 1995; at Finngräftet 1995; W of Bergbo 2004; central wooded meadow area 2007; S Nåtö, hazel copse 80 m S of Björklund 1964; at Harskatsåkern 1975/1976 (MH-76); **Idholm** (AP-15); **Eskskär** (AP-15); **Slätskär** (AP-15); **Skobbholms** (AP-15); **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15).

Fallopia convolvulus – p.l. Nåtö 1930 (H) – st r; pc-st pc – Weed in cereal fields and gardens, rock meadows. – Nåtö, in a flax field 1930 (H);

Fig. 113. *Fallopia dumetorum*. Ingå, Barösund, Svartö. Photo: KN, July 25, 1981.



N Nåtö, several localities at the road and the car park of NBS 1973–2004; S Nåtö, cucumber field in Västeråker 1974 (Silfverberg 1980); **Senskärgrund** 1970; **Eskskär** 1967; **Halvbådan** 1967; **Getskär** 1973; **Skobbholms**, roadside 2007. – Probably overlooked.

F. dumetorum – p.l. Eskskär 1919 (H) – r; st pc – Deciduous stands, field margins. – N Nåtö, at Ormdalssläten 1964; S Nåtö, at Harskatsåkern 1973 (H); **Eskskär** 1919 (H); 1964–1995; **Jungfruskär** 1956 (TUR); 1974; **Inre Korsö** 2015; **Korsö** 1919 (H); 1990. – Fig. 113.

Rheum rhabarbarum (*R. rhabonticum*) – Cultivated in gardens, also in ruderal sites. – N Nåtö, at NBS 1970's – 2007; roadside at **Mellangrund** 2007. – Overlooked.

Rumex confertus – rr; pcc – Roadsides, waste ground. – **Granholm**, at Westerberg 2007. – The species is currently spreading along the roads of Åland.

R. longifolius – p.l. Nåtö 1906 (H) – p, pc-sp – Roadsides, courtyards, shores. – N Nåtö, former field S of Norrbacka 1970; in the hazel stand E of NBS 1971; roadsides at NBS 1995; on an earth mound at the boathouses 2006; S Nåtö, westernmost end of Västeråker 1968; S of Västergård 1980; roadside in Västerskog 1995; roadside 50 m S of Björklund 2002; at Övergård 2007; roadside near the fish farm 2007; **Rödgrund** 2007; **Senskär** 2015; **Jungfruskär** 1996; **Korsö** 1990; **Gräsgrund** 1931–1951 (RC-76); **Skobbholms** 2007; **Granholm** 2007.

R. crispus – p.l. Nåtö 1906 (H) – fqq, pc-st cp – Stony and rocky seashores, roadsides. – In the whole area 1964–2019. – We have not tried to distinguish between subsp. *crispus* and subsp. *littoreus*. All observations made by Silvestris in 2015 were of subsp. *littoreus*. This subspecies is the most common, especially on seashores.

R. obtusifolius – p.l. Granholm 1981 (H) – r; pc-st pc – Weed on roadsides and in courtyards. – N Nåtö, at Norrbacka 1995; at Finngräftet 1995; at Idviken 1995; S Nåtö, Västerbergen 2015; **Skobbholms** 2007; **Granholm** 2007. – We have not tried to distinguish between the three subspecies occurring in the Åland Islands, viz. *obtusifolius*, *sylvestris* and *transiens*.

R. acetosa – p.l. Nåtö 1907 (H) – *fqq, sp* – Mesic meadows. – In the whole area 1964–2019.

R. thrysiflorus – *rr, pcc* – Roadsides. – **Granholm**, SW part at the main road 2007. – The species is at present spreading along roads in Åland (Häggström 2020a, 2020b). – Fig. 114.

R. acetosella coll. – p.l. Nåtö etc. (AP-15) – *fqq, pc-sp* – Dry and rock meadows, sandy dry roadsides, etc. – In the whole area 1964–2019. – The two subspecies *acetosella* and *tenuifolius* were not distinguished by us before 2002, and subsp. *tenuifolius* was therefore overlooked. The two subspecies seem to be equally frequent in Åland, with subsp. *tenuifolius* chiefly on rock outcrops.

Fig. 114. *Rumex thyrsiflorus*. Hammarland, Lillbolstad. Photo: CAH, July 25, 2015.



Palmgren (1915–1917) did not recognise these two subspecies.

R. acetosella subsp. *acetosella* – N Nåtö, Fiskarudden 2007; Nåtö E 2015; S Nåtö, at the kiosk about 200 m SW of Södergård 2006; at Mellangård 2007; 250 m NE of Övergård 2007; copse about 250 m NE of Övergård 2007; Västerbergen 2015; Harskata 2015; **Rödgrund** 2007; **Senskär** 2015; **Idholm** 2015; **Inre Korsö** 2015; **Slätskär** 2015; **Getskär** 2015; **Östra Börtskär** 2015; **Mellangrund** 2007; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007.

R. acetosella subsp. *tenuifolius* – N Nåtö, rock outcrop by the former cattle shed of NBS 2002; at the summer cottage 150 m NW of NBS 2007; rocky area 400–500 m NE of Nygård 2007; Fiskarudden 2007; Nåtö W & E 2015; S Nåtö, 250 m NE of Övergård 2007; rock outcrop at the kiosk 200 m SW of Södergård 2007; at Mellangård 2007; Västerbergen 2007; at the SE shore of Hemviken 2007; Västerbergen 2015; Harskata 2015; **Inre Kläppen** 2008–2009; **Rödgrund** 2007; **Senskär** 2015; **Idholm** 2011–2015; **Jungfruskär**, Montell (1946); **Inre Korsö** 2015; **Östra Börtskär** 2015; **Slätskär** 2015; **Getskär** 2015; **Skobbholm** 2007; **Granholm** 2007.

Drosera rotundifolia – p.l. Slätskär 1972 – *r, st pc* – Bogs, rock-pool margins. – **Måsskär** 1987; **Slätskär** 1972–2015; **Orrskär** 1974.

Arenaria serpyllifolia – p.l. (AP-15) – *p, pc-st pc* – Dry and rock meadows, roadsides. – N Nåtö, dry meadows at NBS 1964–2019; roadside at NBS 1973; on the bridge of the former stable of NBS 1997; between Norrbacka and Inre Kläppen 1997; Nåtö W & E 2015; S Nåtö, at the barn of Övergård 1973 (H); Östergård 1995; Nyäng 1995; dry meadows at Mellangård 2009; Västerbergen 2007; **Inre Kläppen** 1933 (H); **Idholm** (AP-15) 1974–2015; **Jungfruskär** (AP-15); **Skobbholm** (AP-15); **Slätholm** (AP-15); **Tunngrund** 1985 (OULU); **Granholm** 2007.

Moehringia trinervia – p.l. (AP-15) – *fq, st pc-st cp* – Deciduous and spruce woods, shrubby thickets, even in treeless islets. – In the whole area 1964–2019.

Stellaria media – p.l. Nåtö 1930 (H) – *p, st pc-sp* – Sandy and gravelly seashores (spontaneous seashore race = sr), vegetable gardens, cultivated fields, paths, roadsides, etc. (weed race = wr) – **N Nåtö**, roadside at NBS 1973 (wr); on the roadbank at Norrbacka 1974 (wr); in the hazel stand E of NBS 1981 (wr); sand and gravel shore at Knäckgraven 1995 (sr); on a cart track at Norrbacka 1995 (wr); in vegetable gardens 2002 (wr); on rock meadow at NBS 2002 (sr); **S Nåtö**, hazel copse 80 m S of Björklund 1971 (wr); cucumber field in Västeråker 1974 (Silfverberg 1980) (wr); roadside in Västerskog 400 m W of Södergård 1995 (wr); at Västeråker 1995 (wr); roadside 350 m SSE of Övergård 1995 (wr); Harskatan 2007 (wr); roadside near the fish farm 2010 (wr); Västerbergen 2015; Harskata 2015; **Sen-skär** 2015; **Sen-skärsgrund** 1970 (sr); **Idholm** 2011 (sr); **Inre Korsö** 2015; **Jungfruskär**, W seashore (sr; MH-76); **Eskskär**, NW bay 1964 (sr); **Halvbådan** 1967 (sr); **Måsskär** 1987 (sr); **Ormgrund** 1972–74 (sr; RC-76); **Tunngrund** 1972–74 (sr; RC-76); **Lemböte Slätholm** 2011; **Granholm** 2007 (wr); **Blockgrund** 1972–74 (sr; RC-76). – Probably overlooked.

Fig. 115. *Cerastium semidecandrum*. Hangö, Tvärminne. Photo: KN, June 11, 1985.



S. holostea – p.l. Granholm 1981 (H) – *rr, sp-cp* – Deciduous woods, roadside meadows – **Granholm**, a few stands along the roads on the W part 1981 (H); a few stands along the roads on the NW and N part 2007. – This species is rare in the Åland Islands (Häggström & Häggström 2010). It was probably introduced with soil used on the road verges when roads were built in the late 1970s.

S. graminea – p.l. Nåtö 1902 (H) – *fq, st pc-st cp* – Mesic, dry and rock meadows. – In the whole area 1964–2019.

Cerastium arvense – *rr, st pc* – Meadows, roadsides. – **N Nåtö**, one stand on the roadbank between Nåtö and Rödgrund 2000 (H); not observed since. – The species is spreading along roads in the Åland Islands.

C. fontanum subsp. *vulgare* – p.l. Skobbholm 1902 (H) – *fqq, st pc-st cp* – Dry and mesic meadows, lax deciduous woods. – In the whole area 1964–2019.

C. semidecandrum – p.l. Nåtö 1901 (H) – *p, st pc-sp* – Dry and rock meadows. – **N Nåtö**, dry and rock meadows between NBS and the boat houses 1964–2019; at the former stable of NBS 1964; on rock meadows 100 m ESE of NBS 1997; Nåtö W & E 2015; **S Nåtö**, between Västergård and Östergård 1972 (H); rock meadow N of Östergård 1973 (H); **Rödgrund** (AP-15); 1927 (H); **Sen-skär** 1944 (H); **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Eskskär** (AP-15); **Slätskär** 1902 (JYV); **Skobbholm** 1981 (H); **Slätholm** (AP-15). – The species seems to have disappeared in the smaller islands since the beginning of the 20th century. – Fig. 115.

C. glutinosum – NT – p.l. Skobbholm 1902 (H) – *st r-p, pc-sp* – Dry and rock meadows. – **N Nåtö**, dry and rock meadows between NBS and the boat houses 1964–2007; at the former stable of NBS 1964; between Västergård and Björklund 1964; rock meadow SW of Ormdalssläten 1976–1995; on rock meadows 100–120 m ESE of NBS 1983–2007; Nåtö E 2015; about 80 m NE of Själkskatsudden 2019; **S Nåtö**, about 400 m SE of the boat harbour 1952 (TUR); at Övergård 1956 (TUR); rock meadow 100 m E of Hemviken 1995 (H);

Inre Kläppen 1933 (H); **Rödgrund** 1919 (H); **Idholm** 1939 (VOA); **Slätskär** 1939 (VOA; 1942 (H); **Skobholma** 1902 (AP-15); 1981 (H); **Granholm** 1927 (OULU); 1931 (H). – The species seems to have disappeared in the smaller islands since the beginning of the 20th century.

Sagina nodosa coll. – p.l. Nåtö 1902 (TURA); Skobholma 1902 (H) – *p-st fq, st pc-sp* – Open patches on seashores, dry meadows. – Nåtö 1923 (TUR); N Nåtö, at Finngräftet 1967; 250 m NE of Nygård 1974; at Idviken 1994; seashore meadow between Norrbacka and Inre Kläppen 2001; Nåtö E 2015; **Senskär** 2015; **Senskärsgård** 1970; **Ljusskär** 1974; **Idholm** 1978; **Jungfruskär**, N shore 1975/1976 (MH-76); **Inre Korsö**, E shore 1975/1976 (MH-76); **Slätskär** 1973–1976; **Getskär** 1973; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Mellangrund** (UB-36); **Skobholma** 2007; **rocky islet** at the road next to Skobholma 2007; **Lemböte Slätholm** 1981; **Granholm** 2007; **Skrakgrund** (UB-36). – The different subspecies were not distinguished in the specimens found by us in the localities above.

Fig. 116. *Scleranthus annuus* subsp. *polycarpos*. Ingå, Barösund, Svartö. Photo: KN, July 14, 1981.



S. nodosa subsp. **borealis** – N Nåtö, seashore rock on the NW part 1967 (H); meadow between rocks 150 m N of NBS 1986 (H). – According to Karlsson (2001), a large part of the Nordic *S. nodosa* material cannot be assigned to a specific subspecies, and this regards particularly the seashore populations. However, the two subsp. *borealis* vouchers above were determined to this subspecies by Dr. Thomas Karlsson, Stockholm, in 1999. According to Silvestris observations, subsp. *borealis* was found in three localities in 2015, namely Nåtö E, Senskär and Östra Börtskär. These are included in the list above for *S. nodosa* s.lat.

S. nodosa subsp. **borealis** × subsp. **nodosa** – Nåtö 1919 (H), 1930 (H); **Skobholma** 1902 (H); **Granholm** 1910 (H). – These voucher specimens were determined by Dr. Thomas Karlsson, Stockholm, in 1999.

S. procumbens – p.l. Skobholma 1901 (H) – *fq, pc-sp* – Rock fissures, seashores, bare soil on roadsides and paths, in courtyards. – In the whole area 1964–2019.

S. maritima – EN – p.l. Nåtö 1901 (H) – *rr, pc* – Rock fissures, sandy patches on seashore meadows. – Nåtö, on sandy seashore 1901–1949 (H, TUR, VOA); N Nåtö, sandy seashore SE of the boat bridge of Norrbacka 1987 (uncertain determination).

Scleranthus annuus coll. – p.l. (AP-15) – *st r, st pc* – Nåtö (AP-15); N Nåtö 1998 (OULU); at NBS 1995; S Nåtö, Harskatan 2009; **Inre Kalvskär** (AP-15); **Skobholma** (AP-15).

S. annuus subsp. **annuus** – S Nåtö, Harskatan 2007.

S. annuus subsp. **polycarpos** – p.l. Nåtö 1948 (TUR) – *st r, st pc* – Dry and rock meadows. – N Nåtö, at NBS 1964–2019; SW of Orndalsslättan 1995; 100–120 m ESE of NBS 2002; Nåtö W & E 2015; S Nåtö, 200 m SSE of Björklund 1972 (H); rock meadow at Österåker 1987 (H); on the rock at NE part of Harskatan 2007 (H); **Rödgrund** 2007; **Skobholma** 2007. – Palmgren (1915–1917) did not recognise any subspecies in this taxon. It seems that subsp. *annuus* is rather rare in the Åland Islands (Hæggström & Hæggström 2010). – Fig. 116.

Spergula arvensis subsp. *sativa* – p.l. N Nåkö 1988 – *rr*; *pc* – Garden and field weed, roadsides. – N Nåkö, at NBS 1988, 2002; **Granholm** 2007. – Overlooked. This weed has a seed bank in the former cereal fields.

S. morisonii – p.l. Nåkö 1901 (H) – *st r*; *pc* – Rock outcrops with lax pine stands. – N Nåkö, at Tegelvik 1995; **S Nåkö**, numerous localities 1986–2018; **Korsö** 1990. – Probably overlooked. – Fig. 117.

Spergularia marina (*S. salina*) – p.l. Nåkö 1906 (H) – *st fq-fq*, *pcc-pc* – Salt depressions on seashores, clayey spots on seashores, rock fissures near the seawater edge. – N Nåkö, NW part 1967 (H); salt depression between Nåkö and Inre Kläppen 1986 (H); seashore rock at Idviken 1995; Själkatsudden 2002; seashore NW of NBS 2002; seashore N of Norrbacka 2002; seashore at Knäckgraven 2018; **S Nåkö**, seashore rock at the NE part of Harskatan 2007; **Rödgrund** 2007; **Senskärsgrund** 1970; **Idholm** 2011; **Slätskär** 1977; **Gripen** (UB-37, map); **Vigg-grund** (UB-37, map); **Mittgrund** 1972–1974 (RC-76); **Orngrund** (UB-37, map); **Lillnotsgrund** (UB-37, map); **Tärngrund** 1972–1974 (RC-76); **Gräsgrund** 1972–1974 (RC-76); N **Stengrund** 1972–1974 (RC-76); S **Stengrund** 1937–1940 (RC-76); **Tunngrund** 1937–1940 (RC-76); **Skobholme**, NE rocky point N of the roadbank 2007; Nåkö **Munkholm** (UB-37, map); **Lemböte** **Slätholm** 2011; **Granholm** (UB-38, map); **islet VI** 1968–1970 (RC-76).

S. rubra – p.l. N Nåkö 2004 – *r*; *pc* – Sandy and gravelly roads and courtyards – N Nåkö, car park of NBS 2004; **S Nåkö**, on gravel road 50 m SE of Södergård 1995; at the kiosk 200 m SW of Södergård 2005.

Lychnis flos-cuculi – p.l. N Nåkö 1995 – *rr*; *pc* – Moist meadows. – N Nåkö, seashore meadow 100 m NW of Norrbacka 1995–2002; Nåkö W 2015; **Getskär** 2015.

Viscaria vulgaris (*Lychnis viscaria*) – p.l. (AP-15) – *p*, *st pc-st cp* – Dry and rock meadows, dry soil on steep road verges. – N Nåkö, at Själkatsudden 1964–2007; SW of Skarpbacka 1971; Ormdalsklint 1995; on the rock outcrop N of the former cattle shed of NBS 2003; Skarp-

backa 2007; Nåkö W & E 2015; **S Nåkö**, numerous localities on rock outcrops and dry meadows 1971–2019; **Rödgrund** (AP-15); **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Eskskär** (AP-15); 1995; **Slätskär** (AP-15); 1972–2015; **Skobholme** (AP-15); 2007; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15); 2007.

Agrostemma githago – RE – p.l. Nåkö 1904 (H) – *rr*; ? – Cereal field weed. – Nåkö 1904 and 1931 (H); N Nåkö, seeds from Gotland, Sweden, sown at NBS, flowering in 1995 and 1996. – The latest observations in the Åland Islands were in 1962 in Jomala 300 m W of the church and 2002–2003 in Finström Godby (Häggström & Häggström 2015b).

Silene latifolia subsp. *alba* – *rr*; *pc* – Roadsides, field margins. – **Granholm**, on the roadbank at the SW part 2007.

Fig. 117. *Spergula morisonii*. Ingå, Barösund, Svartö. Photo: KN, May 21, 1983.



S. dioica – p.l. (AP-15) – *fq, st pc-st cp* – Mesic and moist meadows, deciduous woods, especially in black alder stands at seashores. – **N Nåtö**, at NBS 1964–2019; roadside at NBS 1973; former field S of NBS 1986; NE of Norrbacka 1995; between Norrbacka and Inre Kläppen 1997; Nåtö W & E 2015; **S Nåtö**, numerous localities 1968–2019; **Rödgrund** (AP-15); 2007; **Senskär** 1972–2015; **Idholm** (AP-15); 1964–2011; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Inre Korsö** 2015; **Jungfruskär** 1975/1976 (MH-76); 1996–2015; **Eskskär** (AP-15); 1964–1998; **Slätskär** (AP-15); 1966–2015; **Algrund** (UB-36); **Mellangrund** 2007; **roadbank** between Törngrund and Tunngrund 2007; **Ormgrund** 1972–1974 (RC-76); **Gräsgrund** 1972–1974 (RC-76); **Tunngrund** (UB-36); 1943–1974 (RC-76); **Skobbholm** (AP-15); 2007; **Slätholm** (AP-15); (HS-83); **Granholm** 1919 (H); 1981–2007; **Krokgrund** 1963–1974 (RC-76).

Fig. 118. *Silene nutans*. Pargas, Nagu, Haverö. Photo: KN, July 12, 1982.



S. nutans – p.l. Nåtö 1901 – *p, st pc-sp* – Dry and rock meadows. – **N Nåtö**, SW of Skarpbacka 1971; **S Nåtö**, mixed wood 300 m ESE of Övergård 1971; dry meadow 200 m SE of Björklund 1984; rock meadow 300 m ESE of Övergård 1995; 200 m E of Hemviken 1995; Söderäng 2007; E of the pond area for natural fish spawning S of Hemviken 2018; **Rödgrund**, according to Göran Stenlid 2007; **Senskär** 1973–1997; **Idholm** (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); Ärtskär 1968 (H); **Eskskär** (AP-15); **Slätskär** 1911 (VOA); 2015; **Östra Börtskär** 2015; **Skobbholm** (AP-15); 2007; **Slätholm** (AP-15); (HS-83); **Granholm** (AP-15). – Fig. 118.

S. vulgaris subsp. *vulgaris* – p.l. **S Nåtö** 1969 – *rr, st pc* – **S Nåtö**, Lastklubbsåkern 1969; **Lemböte Slätholm**, cultivated in a garden 2011; **Granholm**, W roadbank 2007; S roadbank 2007.

S. uniflora – p.l. **Slätskär** 1902 (H) – *st r, pcc-cp* – Rock fissures, gravel shores. – **N Nåtö**, rock N of the boathouses 1985–2007; **Senskärsgrund** 1972; **Fjärdskär** 1973; **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 2015; **Korsö** 1904 (H); 1990–2015; **Ärtskär** 1938 (TURA); **Eskskär** 1930 (TUR); 1998; **Måsskär**, 1987–1995; **Slätskär** 1902 (H); 2015; **Getskär** 1973–2015; **Orrskär** 1974; **Östra Börtskär** 1973–2015; **Skobbholm** 1931 (H). – More frequent and abundant in the outer islands and skerries.

Dianthus deltoides – NT – p.l. Nåtö 1902 (H) – *st r, st pc-sp* – Dry and mesic meadows. – **Nåtö** 1902 (H); **N Nåtö**, meadow on N Fiskarudden 1986–2007; **S Nåtö**, between Västergård and Berggård 1966; westernmost end of Västeråker 1968; Harskatan 1975/1976 (MH-76); between Västergård and Berggård 1995; at the kiosk 200 m SW of Södergård 2005; Söderäng 2007; E of the pond area for natural fish spawning S of Hemviken 2018; **Rödgrund** 2007; **Inre Kalvskär** (AP-15); **Jungfruskär** 1974; **Slätskär** (AP-15); **Skobbholm** (AP-15); **Slätholm** (AP-15); (HS-83). – The species has declined during the 20th and early 21st centuries.

Chenopodium album coll. – p.l. **N Nåtö** 1964 – *st r, sp* – Weed in cereal fields and gardens, on roadsides, in courtyards, etc. – **N Nåtö**, in the hazel stand E of NBS 1964; on a burnt spot 100 m NNE

of Norrbacka 1964; roadside at NBS 1973; former field S of NBS 1986; car park of NBS 2004; **S Nåtö**, roadside in Västerskog NW of Södergård 1995; at Lastklubbsvägen 200 m SSE of Övergård 2007; at the car park of Harskatan 2008; **Senskär**, on a burnt spot 1977; **Inre Korsö** 2015; **skerry N of Getskär** 2015; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007. – *Chenopodium album* and *C. suecicum* have been overlooked. They are probably more frequent in the area. The two species have only been recognised twice in the Nåtö area.

C. album s. str. – **N Nåtö**, roadside at NBS former cattle shed 1997; roadside N of Norrbacka 2007.

C. cf. suecicum – **N Nåtö**, roadside at NBS former cattle shed 1997; roadside N of Norrbacka 2007.

Blitum bonus-henricus (*Chenopodium b.-h.*) – **NT** – **PrÅ** – **rr**; ? – Old vegetable plant, now ruderal on roadsides and in courtyards. – **Nåtö** 1901 (VOA). – Uotila & Suominen (1976).

Atriplex littoralis – p.l. Måsskär 1971 (H) – **r**; **pc-sp** – Seashore wracks and sandy seashore patches. – **Rödgrund**, one tall plant 2007; **Eskskär**, on wrack in the black alder belt in the SW bay 1985 (H); **Måsskär** 1971 (H); **Slätskär** 1977–1999; **Östra Börtskär** 1972–1974. – The species was very rare before the 1950s due to sheep grazing on seashores and islands. As grazing ceased,

the species became more frequent (Hæggström 2003a; Hæggström & Hæggström 2010).

A. patula – p.l. **Nåtö** 1951 (H) – **rr**; **pc** – Weed on roadsides, in courtyards, also on seashores. – **Nåtö** 1951 (H); **N Nåtö**, at the boat bridge of Norrbacka 1995; roadside at the car park of NBS 1997 (H).

A. prostrata – p.l. **Nåtö** 1931 (H) – **st fq**, **pcc-st**; **pc** – Seashores, often on wrack, also as a weed at cattle sheds, roadsides, etc. – **N Nåtö**, between Idviken and Österåkersgrund 1971; roadside at NBS 1973; at Idviken 1994; seashore E of the roadbank 1995; Själkatsudden 1995; NE of Knäckgraven 2007; **S Nåtö**, Österåkersgrundet 1970 (H); seashore at Harskatsåkern 1975/1976 (MH-76); Harskatan 2007; **Rödgrund** 2007; **Senskär** 1975; **Idholm** 1974–1978; **Jungfruskär** 1975/1976 (MH-76); NW bay 1996; **Inre Korsö** 1975/1976 (MH-76); **Korsö** 1990; **Eskskär** 1995–1998; **Måsskär** 1987; **Slätskär** (AP-61); 1999; **Getskär** 1973; **Östra Börtskär** 1972; **roadbank** between Tönngrund and Tunngrund 2007; **Ormgrund** 1972–1974 (RC-76); **Tärngrund** 1972–1974 (RC-76);

Fig. 119. The reddish colour shows *Salicornia perennans* growing on the shore meadow, a former sound between Nåtö Island and Inre Kläppen. A road to Inre Kläppen was built, strangely enough, with a curve on the left (west) side of the electric pole instead of going straight on the right (east) side of the pole. Photo: CAH, September 4, 1972.



Gräsgrund 1963–2007; **N Stengrund** 1972–1974 (RC-76); **Tunngrund** 2007; **Lemböte Slätholm** 2011; **Granholm** 2007; **Krokgrund** 1968–1974 (RC-76); **Starrgrund** 1968–1970 (RC-76).

A. glabriuscula – *rr, pcc* – Gravelly and sandy seashores. – **S Nåtö**, Österåkersgrund 1970 (H; the voucher specimens are probably this species, according to M. Gustafsson, det. 1990); **skerry N of Getskär** 2015.

A. praecox (*A. longipes* subsp. *praecox*) – *p.l. Nåtö* 1930 (H) – *fqq, pcc-st pc* – Gravelly and sandy seashores. – In the whole area 1966–2015.

A. spp. – Seashores. – **Senskärsgrund** 1972; **Idholm** 1978; **Halvbådan** 1967; **Slätskär**, on wrack in the bay at the SE border of the Nature Reserve 1990. – *Atriplex* species are not always possible to distinguish early or late in the season.

Salicornia perennans (*S. europaea*) – *PrÅ, EN – p.l. Skobbholm* 1886 (H) – *r, sp-cpp* – Salt depressions on seashores. – **N Nåtö**, salt depression in the former sound between Nåtö Island and Inre Kläppen 1972–1995. The locality was destroyed when a road was built through the small salt depression in the winter of 1995–1996; **Skobbholm** 1886 (H); **Slätholm** 1930 (H). – The species has declined in the Åland Islands during the 20th and 21st centuries, partly due to lack of seashore grazing. – Fig. 119.

Montia fontana – *p.l. Inre Korsö* 1927 – *st r, st pc-st cp* – Seashore meadows with seeping water patches. – **N Nåtö**, at Själksatsudden early 1970s to 2015; NW of Norrbacka 1995; at Knäckgraven 1995; on *Fucus* wrack 2018; **Idholm** 1974–1978; **Måsskär** 1987; **Tärngrund** 1972–74 (RC-76); **Granholm** (AP-61); **Krokgrund** 1972–74 (RC-76); **Skrakgrund** 1972–74 (RC-76); **Starrgrund** 1972–74 (RC-76); **islet V** 1972–74 (RC-76); **islet VII** 1972–74 (RC-76). – Overlooked.

Cornus suecica – *p.l. Nåtö* 1937 (H, TUR) – *r, st pc-st cp* – Rock-pool mires, *Sphagnum* carpets in rock depressions, wet spots on seashores. – **N Nåtö** 1937 (H, TUR); **N Nåtö**, seashore between Kummeludden and Fiskarudden in the 1970s; **Esk-skär** 1973; **Måsskär** 1994; **Slätskär** 1977; **Getskär** 1973.

Impatiens glandulifera – Ornamental plant, often garden escape. – **S Nåtö**, cultivated at Andersson's house 150 m N of Övergård 1985 (H), not spread to the vicinity in 2002; not seen any longer in 2016.

Primula veris – *p.l. Nåtö* 1902 (TURA) – *fq-fqq, st cp-cpp* – Meadows, roadside meadows, deciduous woods, rich coniferous woods. – In all islands with lush woods and meadows in the whole area 1964–2019. – *Primula veris* is the landscape flower of the Åland Islands since the 1980s. Fig. 120.

P. farinosa – *EN* – *p.l. Nåtö* 1895 (VOA) – *st r, pcc-cp* – Fen meadows (*Sesleria* meadows), moist shore meadows, rich fens, ditches. – **N Nåtö**, the *Sesleria* meadow at Idviken 1964–2019; moist meadow 50 m NE of the *Sesleria* meadow 2002–2019; at the Nature Trail E of Finngräftet 2004–2019; at the Nature Trail 250 m ENE of Norrbacka 2004–2019; **S Nåtö**, the *Sesleria* meadow at the SW shore of Hemviken in the mid-1960s; **Esk-skär** (AP-15); **Slätskär** (AP-15);

Fig. 120. *Primula veris*. Nåtö Island. Photo: HV, July 25, 2007.



1948 (TUR; **Sköbbholm** 1907 (TURA); (AP-15); **Slätholm** 1910 (TURA); (AP-15); five plants in a ditch (Håkan Slotte, in letter 1984); **Granholm** (AP-15); 1927 (H). – The number of localities and abundance of the species diminished all over Åland during the 20th century because of the general overgrowth of the former well managed meadows and pastures. According to Prof. Göran Stenlid (1919–2015), it grew during the first part of the 20th century at the boat houses in N Nåkö. It almost disappeared from the *Sesleria* meadow at Idviken before the restauration work began in 1985 with continuous yearly mowing and grazing since 1986. Now the stand comprises several hundred flowering plants. A few minor stands have appeared in the managed area during the last two decades. – Fig. 121.

Lysimachia vulgaris – p.l. (AP-15) – *fqq, pc-cpp* – Moist meadows, fens, ditches, lakeshores. – In the whole area 1964–2019.

L. punctata – Ornamental plant. – **S Nåkö**, cultivated at the kiosk 200 m SW of Södergård 2005, probably spreading; at Mellangård 2007; **Granholm**, cultivated at the road on the SW part 2007.

L. nummularia – Ornamental plant. – **N Nåkö**, between the stairs of NBS 2007–2019; **Granholm**, cultivated at the road on the NW and SW parts and spreading to the roadsides 2007.

L. thyrsiflora – p.l. Nåkö 1919 (H) – *st r, pc-cp* – Lakes, fens, ditches and moist depressions. – **N Nåkö**, the *Sesleria* meadow at Idviken 1995; moist spruce wood 450 m NE of Nygård 2007; Vidkärr 2007; Nåkö E 2015; **S Nåkö**, fen 400 m WSW of Södergård 1995; moist deciduous stand SE of westernmost end of Västeråker 1995; fen on Västerbergen 50 m N of Nordqvist's cottage 2007; Rosklev at Grönviken 2007; at the SE shore of Hemviken 2007; **Idholm** 1964; **Ärtskär** 1970 (H); **Getskär** 2015; **Lemböte Slätholm** 2011; **Granholm** 2007.

L. europaea (*Trientalis e.*) – p.l. (AP-15) – *fq, st pc-cp* – Coniferous and deciduous woods, heaths. – **N Nåkö**, 100 m SW of Kummeludden 2007; Nåkö E 2015; **S Nåkö**, roadside in Västerskog 400 m W of Södergård 1995; SE of westernmost end of Västeråker 1995; Rosklev 2007; Västerbergen 2015; Harskata 2015; **Senskär** 1972–2015; **Id-**



Fig. 121. *Primula farinosa*. The blue flowers belong to *Polygonum amarella*. Nåkö Island. Photo: CAH, May 20, 2012.

holm (AP-15); 1964–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Fjärdskär** 1972; **Jungfruskär** 1973–2015; **Inre Korsö** 1973–2015; **Korsö** 1999–2015; **Ärtskär** 1970 (H); **Ekskär** (AP-15); 1964–1971; **Vattskär** 1973; **Slätskär** (AP-15); 1972–2015; **Getskär** 1973–2015; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **Sköbbholm** (AP-15); **Slätholm** (HS-83).

L. maritima (*Glaux m.*) – p.l. (UB-36) – *fqq, pc-cpp* – Seashore meadows, stony seashores. – In the whole area 1964–2019.

L. arvensis (*Anagallis a.*) – *pcc, st pc* – Garden weed. – **N Nåkö**, flowerbed at NBS c. 1970–1988.

Erica tetralix – CR – *rr* – Moist heaths, bogs. – **Slätholm**, on a rock outcrop at the seashore, 1905 (H; Lindberg 1910).

Calluna vulgaris – p.l. (AP-15) – *fq, sp-cpp* – Pine heaths, heath islands, rocky areas. – In the wooded islands 1964–2019.

Rhododendron tomentosum (*Ledum palustre*) – rr, sp – Bogs. – **Korsö** 1990.

Vaccinium oxycoccus – p.l. Orrskär 1974 – rr, st pc – Bogs. – **Måsskär** 1987; **Orrskär**, 1974.

V. uliginosum – p.l. Slätskär 1952 (TUR) – p-st fq, st pc-cpp – Fens and bogs, rock-pool margins, moist depressions on rock outcrops. – N **Nåtö**, Ormdalsklint 1995; moist depression on a rock outcrop 100 m WNW of Fiskarudden 2007; Nåtö E 2015; S **Nåtö**, moist depression on a rock outcrop 200 m SE of Övergård 1995 (H); moist depression 300 m SE of Övergård 1995; moist depression on a rock outcrop 400 m W of Södergård 1995; rock outcrop on the NE shore of Hemviken 1995; 250 m NE of Övergård 2007; at Lastklubbsvägen 50 m NNE of Övergård 2007; between Söderäng and Hemviken 2007; at the SE shore of Hemviken 2007; Västerbergen 2015; Harskata 2015; **Idholm** 1974–2015; **Fjärdskär**

Fig. 122. *Hypopitys hypophegea*. Hangö, Tvarminne. Photo: KN, July 11, 1990.



1972–1973; **Jungfruskär**, at a rock-pool mire on the central rocky area 1996; **Inre Korsö** 1973; 1975/1976 (MH-76); **Eskskär**, 1995; rock-pool mire on NW part 1998; **Måsskär** 1987; **Slätskär** 1952 (TUR); 1972–2015; **Getskär** 1973; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Skobbholme** 2007.

V. vitis-idaea – p.l. Slätskär & Skobbholme (AP-15) – p, pc-sp – Pine and spruce woods, heaths, rock outcrops. – N **Nåtö**, rocky area 400–500 m NE of Nygård 2007; Nåtö E 2015; S **Nåtö**, N part of Harskatan 1975/1976 (MH-76); N of Harskatsåkern 1975/1976 (MH-76); 60 m SE of Björklund 1995; SW edge of Hemåker 1995; Västerbergen 1986–2015; Västerskog 1995–2007; Västerskog SE of Rosklev 2007; Harskata 2015; **Senskär** 1975–2015; **Fjärdskär** 1973; **Jungfruskär** 1974–2015; **Inre Korsö** 1975/1976 (MH-76); 2015; **Korsö** 1990–2015; **Vattskär** 1973; **Måsskär** 1987; **Slätskär** (AP-15); 1978; **Getskär** 2015; **Skobbholme** (AP-15); 2007.

V. myrtillus – p.l. (AP-15) – fqq, pc-cpp – Coniferous woods, moist depressions in woods and on rock outcrops, dry nutrient poor spots in deciduous woods and meadows – In the whole area 1964–2019. – The species fruits poorly in Nåtö Island, while Korsö was known for its good bilberry yield. Since the roe deer became abundant in the Åland Islands from the 1970s onwards, the bilberry shrubs have been eaten back and they are in rather poor condition with an average height of only 10–25 cm.

Hypopitys monotropa (*Monotropa hypopitys* var. *hypopitys*) – p.l. N Nåtö 1965 (H) – st r; pc-st pc – Coniferous woods and mixed woods with pine. – N **Nåtö**, at Idviken 1965 (H); N part of Ormdalssläten 1977 (H); S **Nåtö**, Väterskog 1967 (H); spruce wood 350 m SE of Övergård 1981 (H); Västerbergen 2015; **Jungfruskär**, mixed wood with pine at the SE part 1983 (H); pine and spruce wood on the E part 1996, **Inre Korsö** 2015.

H. hypophegea (*Monotropa hypopitys* var. *hypophegea*) – VU – p.l. N Nåtö 1970s – r; pc-st pc – Deciduous and mixed woods. – N **Nåtö**, deciduous wood at Idviken in the 1970s; hazel stand in Ormdalssläten 1980 (H); mixed wood with dominating spruce 150 m NE of Själkskuddsen 1989 (H); **Getskär** 2015 (SIL-15). – Fig. 122.

Empetrum nigrum s.lat. – p.l. Östra Börtskär 1972 – *p-st fq, sp-cp* – Pine woods, heaths, rocky areas, bogs, rock-pool margins. – Two subspecies occur in the area, subsp. *nigrum* and subsp. *hermaphroditum*. Both subspecies are quite frequent in the Åland Islands, but they may be difficult to distinguish when fruits are not developed, i.e., in dry summers. *E. nigrum* coll. was observed in the following localities: **S Nåtö**, Västerskog, W part near Rosklev 1975/1976 (MH-76); **Ljusskär** 1974; **Fjärdskär** 1973; **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1973; 1975/1976 (MH-76); **Korsö** 1990; **Vattskär** 1973; **Slätskär** 1966–1977; **Getskär** 1973; **Östra Börtskär** 1972–1973; **Orrskär** 1974.

E. nigrum subsp. ***nigrum*** – p.l. **Slätskär** 1973 – *p, sp-cp* – **N Nåtö**, mire 100 m WNW of Fiskarudden 2007; **S Nåtö**, moist depression on rocky area 400 m W of Södergård 1995; mire on rock outcrop between Söderäng and Hemviken 1995; at the margins of small mires on Västerbergen 2007; poor fen margins SE of Rosklev 2007; Västerbergen 2015; **Jungfruskär** 1974–2015; **Inre Korsö** 2015; **Korsö** 1999–2015; **Ekskär** 1973–1998; **Slätskär** 1973; **Getskär** 2015; **Östra Börtskär** 2015; **Måsskär** 1987; **Skobbholm** 2007.

Fig. 123. *Moneses uniflora*. Ingå, Barösund, Svartö. Photo: KN, June 15, 1980.



E. nigrum subsp. ***hermaphroditum*** – p.l. **S Nåtö** 2007 – *r, sp-cp* – **S Nåtö**, at the margins of small mires on Västerbergen 2007; poor fen margins SE of Rosklev 2007; **Slätskär** 2015; **Östra Börtskär** 2015.

Pyrola minor – p.l. **Nåtö** (AP-15) – *st r, pc-st pc* – Mixed woods, coniferous woods, poor meadows. – **Nåtö** (AP-15); **N Nåtö** 1999; **S Nåtö**, Rosklev 1975/1976 (MH-76); meadow between rocks 150 m SE of Björklund 1984 (H); Västerbergen 2015; **Inre Korsö** 2015; **Getskär** 2015; **Granholm** 1981 (cf. *minor*).

P. chlorantha – p.l. **S Nåtö** 1976 – *rr, pc* – Pine and mixed coniferous woods. – **S Nåtö**, Västerskog E of Rosklev 1975/1976 (MH-76); Västerskog 300 m W of the S end of Hemviken 1982.

P. rotundifolia – p.l. **Ekskär, Slätskär & Slätholm** (AP-15) – *r, st pc* – Mixed woods, coniferous woods, often in moist places. – **S Nåtö**, Klubben 1930 (TUR); **Inre Korsö** 1975/1976 (MH-76); **Ekskär** (AP-15); **Slätskär** (AP-15); **Slätholm** (AP-15).

Pyrola sp. – **N Nåtö**, 50 m NE of Norrbacka 1971; spruce wood of Själkats norra stycke 1971.

Orthilia secunda – p.l. **Nåtö & Slätskär** (AP-15) – *st r, st pc* – Coniferous and deciduous woods, poor meadows. – **N Nåtö**, hazel stand 50 m NE of Norrbacka 1979; spruce wood at Själkats norra stycke 1979; **S Nåtö**, spruce wood 400 m SE of Övergård 1971; at Grönviken 1975/1976 (MH-76); meadow between rocks 150 m SE of Björklund 1984 (H); at the road 400 m SE of Övergård 1995, at Harskatsåkern 2007; Västerbergen 2015; **Jungfruskär** (AP-22); NE part 1975/1976 (MH-76); **Inre Korsö** 1975/1976 (MH-76); 1999; **Slätskär** (AP-15); **Getskär** 2015.

Moneses uniflora – p.l. **Nåtö & Slätholm** (AP-15) – *st r, pc-st pc* – Spruce and mixed woods. – **S Nåtö**, S of Österåkersgrund 1965 (H); spruce wood 400 m SE of Övergård 1971; spruce and hazel wood 800 m SE of NBS 1995; **Jungfruskär** 1939 (H); **Inre Korsö** 2015; **Slätskär** 1962 (H); **Getskär** 2015; **Slätholm** (AP-15). – Fig. 123.

Sherardia arvensis – *rr*; ? – Garden weed. – **Nåtö** 1949 (H); **S Nåtö**, weed at Västergård 1938 (H).

Galium boreale – p.l. (AP-15) – *p-st fq, st pc-cpp* – Mesic and dry meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Idholm** 1978–2015; **Senskär** 1997–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1975/1976 (MH-76), 2015; **Eskskär** 1995; **Slätskär** 1999–2015; **Mellangrund** 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Slätholm** (HS-83); Nåtö **Slätholm** 1981; **Lemböte** Slätholm 1981; **Granholm** 2007.

G. uliginosum – p.l. (AP-15) – *p, pc-sp* – Moist and fen meadows, ditches. – N Nåtö, at Finngräftet 1967; *Sesleria* meadow at Idviken 1995; SW of Ormdalssläten 2007; S Nåtö, westernmost end of Västeråker 1968; Klubben 1969; Rosklev 1975/1976 (MH-76); road ditch 250 m SE of Övergård 1995; road ditch 300 m SSE of Övergård 1995(H); Rosklev 2007; **Rödgrund** (AP-15); **Senskär** 1975; **Idholm** (AP-15); **Inre**

Fig. 124. *Galium verum*. Ingå, Barösund, Svartö. Photo: KN, July 9, 2020.



Kalvskär (AP-15); **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1975/1976 (MH-76), 2015; **Eskskär** 1964 (H); **Slätskär** (AP-15); **Slätholm** (HS-83); **Granholm** (AP-15).

G. palustre* subsp. *palustre – p.l. Nåtö 1902 (H) – *fqq, sp-cp* – Moist and wet meadows, wet depressions, ditches, fens, lakeshores. – In the whole area 1964–2019.

G. palustre* subsp. *elongatum – rr, ? – Moist and wet seashore meadows, fens. – N Nåtö, in the small wet fen c. 200 m NE of Nygård 2009; Nåtö E 2015.

G. verum – VU – p.l. (AP-15) – *fq-fqq, st pc-cpp* – Mesic and dry meadows, roadsides. – In the whole area 1964–2019. – Fig. 124.

G. album – p.l. Nåtö 1901 (H) – *st r-p, st pc-st cp* – Mesic meadows, roadsides, hay fields. – N and S Nåtö, numerous localities 1968–2019; **roadbank** between Nåtö and Rödgrund 2007; **Rödgrund** 2007; **Korsö** 1990; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007.

***G. ×pomeranicum* (*G. album* × *verum*)** – p.l. Nåtö 1901 (H) – *r, st pc* – Mesic meadows, roadsides, usually together with the parent species. – N Nåtö, at NBS c. 1970–2019; S Nåtö, westernmost end of Västeråker 1968 (H); Lastklubbsåkern 1969; at Mellangård 2009; **roadbank** between Nåtö and Rödgrund 2007; **Granholm**, roadbank 2007.

G. spurium* subsp. *spurium – rr, ? – Weed mainly in flax fields. – Nåtö, flax field 1930 (H).

G. spurium* subsp. *vaillantii – rr, *pcc* – Weed in cereal fields and gardens, ruderal plant. – N Nåtö, at a footpath in the central part of the wooded meadow area 1964.

G. aparine – p.l. Eskskär 1907 (H) – *st r, sp-cp* – Deciduous woods, roadsides. – N Nåtö, several stands at NBS 1964–2019; at the summer cottage 150 m NW of NBS 2007; Nåtö E 2015; S Nåtö, hazel copse 80 m S of Björklund 1971; roadside in Västerskog 400 m W of Södergård 1995; **Senskär** 2015; **Idholm** 2015; **Inre Korsö** 1999–2015; **Korsö** 2015; **Eskskär** 1998; **Slätskär** 1974–2015; **Slätholm** (AP-15).

Centaurium littorale – p.l. Nåtö 1903 (H) – *fq, pc-st cp* – Seashore meadows, rarely roadsides and ditches. – In the whole area 1964–2019.

C. pulchellum – NT – p.l. Slätholm 1886 (H) – *st fq, pc-sp* – Seashore meadows. – N Nåtö, 180 m N of Norrbacka 1967 (H); seashore at Idviken 1994; between Nåtö and Inre Kläppen 1996; S Nåtö, seashore W of Harskatsåkern 1975/1976 (MH-76); Rödgrund 2007; Senskär 1977–2015; Idholm 2011; Jungfruskär 1996–2015; Eskskär 1995 (H); Slätskär 1977; skerry N of Getskär 2015; Orrskär 1974; Vigg-grund (UB-36); Mittgrund 1972–1974 (RC-76); Algrund (UB-37, map); Mellangrund (UB-37, map); Ormgrund 1972–1974 (RC-76); Lillnotsgrund (UB-37, map); Tärngrund 1972–1974 (RC-76); Gräsgrund 1972–1974 (RC-76); N Stengrund 1972–1974 (RC-76); Tunngrund 1972–1974 (RC-76); Skobbholm (UB-37, map); Nåtö Munkholm (UB-37, map); Slätholm 1886 (H); Lemböte Slätholm (AP-61); Granholm (UB-38, map); Blockgrund 1972–1974 (RC-76); Krokgrund 1972–1974 (RC-76); Skrakgrund 1972–1974 (RC-76); Starrgrund 1972–1974 (RC-76); islet V 1972–1974 (RC-76); islet VII 1972–1974 (RC-76).

Gentianella campestris* var. *suecica – PrÅ, EN – rr; ? – Mesic and dry meadows. – Slätskär (AP-15).

G. amarella* var. *lingulata – PrÅ, EN – p.l. Nåtö 1907 (H) – *r, pcc-pc* – Mesic and dry meadows. – N Nåtö, 350 m E of Norrbacka 1974 (H); Skarpbacka, one specimen 1988; near Idviken, six

specimens 1988, one specimen 1994, 11 specimens 2012; 2 specimens 2016; dry meadow at the nature trail next to a small rock outcrop about 240 m NE of Nygård, 2 specimens 2016–2017; Rödgrund (AP-15); Idholm (AP-15); Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Slätskär (AP-15); Skobbholm 1910 (H); Slätholm, six specimens 1981 (HS-83); Granholm (AP-15).

– This species seems to have disappeared from most of its former localities in the study area during the 20th century. It was observed in very few localities in the Åland Islands during the last decades. – Fig. 125.

G. uliginosa – EN – p.l. Nåtö 1901 (H) – *r, pc-cp* – Seashore meadows. – N Nåtö, at Själksatsudden 1986 (H); rock meadow and seashore meadow 100 m WNW of Norrbacka 1996; Slätholm, 150 specimens 1981, 0 specimens 1982, 50 specimens 1983 (HS-83).

Vincetoxicum hirundinaria – p.l. Korsö 1903 (H) – *fq, pc-cp* – Dry and rock meadows, rock outcrops. – In the whole area 1964–2019.

Vinca minor – Garden plant. – S Nåtö, ruderal on the roadside at the car park of Harskatan 1997–2019

***Buglossoides arvensis* (*Lithospermum arvense*)** – EN – p.l. S Nåtö 1909 (H) – *rr-r, pc* – Weed, ruderal. – N Nåtö, at the car park of NBS 1975; S Nåtö, Västeråker 1909 (H); NW of the cattle shed of Södergård 1969 (H); on a soil mound where a

Fig. 125. *Gentianella amarella* var. *lingulata*. Nåtö Island. Photo: CAH, July 1, 2012.



windmill stood in older days between Björklund and Övergård, 1972 (H).

Echium vulgare – rr, pcc – Ruderal, also ornamental plant. – **Mellangrund** c. 2002–2007, probably introduced. – This species is currently spreading along the roads of Åland (Häggström 2005a, b, Häggström & Häggström 2015a, 2015b).

Anchusa arvensis – rr, pcc – Field and roadside weed. – **Granholm**, roadside at the S point 1972 (H).

Asperugo procumbens – NT – p.l. Nåtö 1927 (H) – rr, sp – Weed, especially on and around dung dumps, rarely on seashores. – **Nåtö** 1949 (H); **S Nåtö**, on the dung dump of Västergård 1964.

Myosotis arvensis – p.l. (AP-15) – st fq, pcc-cp – Dry and rock meadows, weed in fields and gardens, ruderal on roadsides. – **N Nåtö**, at NBS 1964–2019; at Finngräftet 1964; Norråker 1969; roadside at NBS 1973; former field S of NBS 1986; Norrbackasläten 1986; in the car park of NBS 2004; **S Nåtö**, Harskatan 1975/1976 (MH-76); at Harskatsåkern 1975/1976 (MH-76); Rosklev 1975/1976 (MH-76); 60 m SE of Björklund 1995; at the N margin of Västeråker 1995; roadside in Västerskog 400 m W of Södergård 1995; **Rödgrund** 2007; **Senskär**, E and SW seashores 1997–2015; **Idholm** 1964; **Inre Kalvskär** (AP-15); **Jungfruskär** 1974; **Korsö** 1990; **Ekskär** 1971; **Måsskär** 1987; **Slätskär** 1975; **Östra Börtskär** 1972–2015; **Tunngrund** 1972–1974 (RC-76); **roadbank** between Tunngrund and Skobholms 2007; **Skobholms** 2007; **Slätholm** (HS-83); **Granholm** 2007.

M. ramosissima – p.l. Nåtö 1902 (H) – st fq, st pc-cp – Dry and rock meadows. – **N Nåtö**, several stands at NBS 1964–2019; **S Nåtö**, at the N margin of Västeråker 1995; roadside in Västerskog 400 m W of Södergård 1995; roadsides of the main road between Södergård and Harskatan 1995–2007; at Mellangård 2005; at the kiosk 200 m SW of Södergård 2005; **Rödgrund** (AP-15); **Senskär** 1977–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Inre Korsö** 2015; **Ekskär** 1998; **Vattskär** 1973; **Måsskär** 1987; **Slätskär** 1977; **Getskär** 1973; **roadbank** between Törngrund and Tunngrund

2007; **Tunngrund** (UB-36); **Skobholms** 2007; **Slätholm** (HS-83); **Granholm** 1931 (H).

M. stricta – p.l. Nåtö 1902 (H) – r, st pc-st cp – Dry and rock meadows. – **N Nåtö**, on the ramp of the cattle shed of NBS 2004–2019; rock meadow 90 m SE of NBS 2004; dry meadow at Själ-skatsudden 2004; rock meadow at the midsummer pole 2005–2007; **S Nåtö**, on an ant mound between Björklund and Övergård 1972 (H); roadside at Harskatan 2007; **Jungfruskär** (AP-15); **Skobholms** (AP-15).

M. laxa – **Slätskär** 2015 (SIL-15).

M. laxa subsp. *caespitosa* – p.l. Nåtö 1938 (H) – rr, pc-st pc – Wet and fen meadows, lakeshores. – **Nåtö** 1938 (H); **S Nåtö**, at the lake 1906 (H); in a moist depression on a cart track at Södergård 1966 (H); at the outflow brook of Hemviken 1995, in the pond area for natural fish spawning S of Hemviken 2018.

M. laxa subsp. *baltica* – p.l. N rock at Inre Korsö 1948 (OULU) – st r, sp-cp – Seashore meadows. – **N Nåtö** 1988; **S Nåtö**, sandy seashore at Rosklev 2007; **Idholm** 1978; **Jungfruskär**, SE shore 1975/1976 (MH-76); on the N rock at **Inre Korsö** 1948 (OULU); **Ekskär**, seashore on the SW bay 1995; **Trebollan** 1956 (OULU); **Gräsgrund** 2007. – Fig. 126.

Fig. 126. A stand of *Myosotis laxa* subsp. *baltica* growing on a seashore meadow among litter of common reed. Kumlinge, Enklinge Gloskär. Photo: CAH, June 21, 2004.



M. scorpioides – p.l. Jungfruskär 1975/1976 (MH-76) – r, pc-st pc – Seashore meadows, fen meadows. – **N Nåtö**, at Idviken 1994; seashore N of Norrbacka 1995; in the bay NE of Själkatsudden 1995; **Jungfruskär**, SE shore 1975/1976 (MH-76); **Slätskär** 2015.

Convolvulus sepium (*Calystegia sepium* subsp. *sepium*) – p.l. Nåtö 1919 (H) – r-st r, sp-cpp – Seashores, often in reed beds, hedges, occasionally used as an ornamental plant. – **N Nåtö**, in the reed bed S of the boathouses 1964–2019; roadbank between Nåtö and Rödgrund 1997; **S Nåtö**, W side of Harskatan 1975/1976 (MH-76), 2015; a large stand in shrubs and a reed bed at the main road next to Båtsmans 2007; Västerbergen 2015; **Inre Korsö** 1999–2015; **Eskskär**, SW bay 1995; **Skobbholm**, SE seashore 2007.

C. dahuricus (*C. spectabilis*, *C. sepium* subsp. *spectabilis*) – rr, st pc – Ornamental plant, often garden escape. – **Granholm**, N and E parts 2007

C. arvensis – rr, st pc – Meadows, roadsides. – **N Nåtö**, meadow at Nygård 1969 (H).

Cuscuta europaea subsp. *europaea* – p.l. Nåtö 1905 (H) – rr, sp – Roadsides, at cattle sheds and stables, in courtyards and other places with *Urtica dioica*. – **Nåtö** 1905 (H); **S Nåtö**, parasite on *Urtica dioica* at Västergård 1995.

C. europaea subsp. *halophyta* – rr, st pc – Seashore meadows, roadsides, courtyards – **S Nåtö**, 50 m S of Berggård 1988 (H).

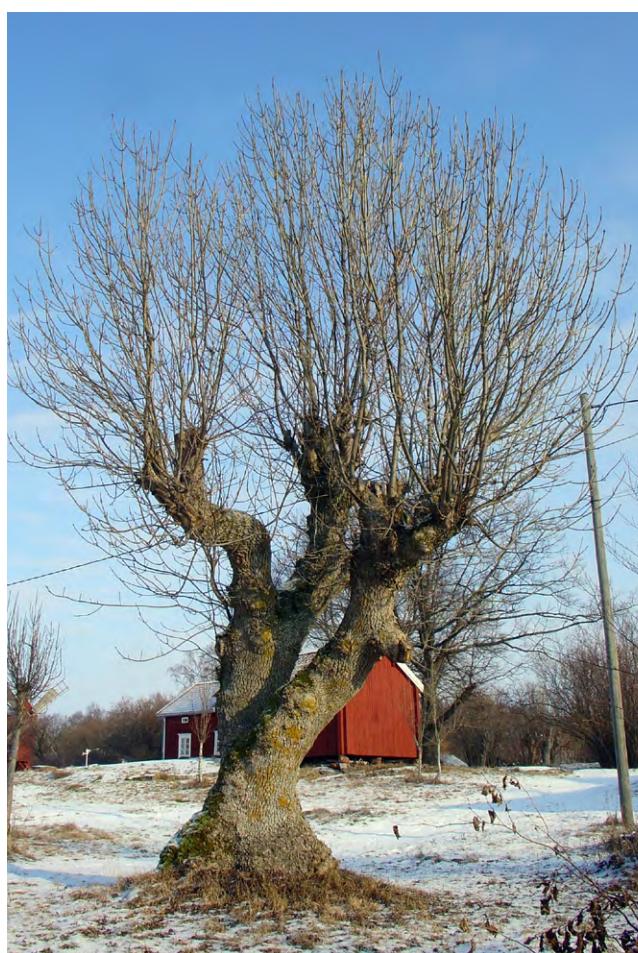
Solanum dulcamara – p.l. Korsö 1919 (H) – p, st pc-sp – Lakeshores, seashores, ditches, ruderal habitats. – **N Nåtö**, moist meadow at NBS 1985 (H); roadbank between Nåtö and Rödgrund 1997; Nåtö E 2015; **S Nåtö**, seashore of Grönviken 1975/1976 (MH-76); ditch 450 m SSE of Övergård 1986; NW and SE quagmire shores of Hemviken 1995 (H); W shore of Hemviken 2005; at the former field Klubbåkern 2007; Västerbergen 2015; Harskata 2015; in the pond area for natural fish spawning S of Hemviken 2018; **Sen-skär** 2015; **Senskärsgrund** 1972; **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1999–2015; **Korsö** 1919 (H); **Slätskär** 1977; **Östra Börtskär** 1972; **Mellangrund** 2007; roadbank between Törngrund and Tunngrund 2007; **Gräsgrund** 2007; **Granholm** 2007.

Fraxinus excelsior – NT – p.l. N and S Nåtö (copy of Braxter 1765) – fqq, pc-cpp – Deciduous woods, wooded meadows. – In the whole area 1964–2019. – The majority of the old ashes were repollarded during the late 20th century and again in the early years of the 21st century. They were badly affected by the ash dieback (*Hymenoscyphus fraxineus*; syn. *H. pseudoalbidus*, *Chalara fraxinea*) in 2008–2010 and several of the old ash trees are now dead. Many young trees were also damaged or are dead. (Häggström 2014.) – Fig.127.

Syringa vulgaris – Ornamental shrub. – **N Nåtö**, cultivated at NBS 1964–2019; **S Nåtö**, cultivated at Västergård and Berggård 1964–2019; cultivated at Mellangård 2007. – Overlooked.

Callitricha hermaphroditica – rr, pcc – On soft bottoms in brackish water bays. – **S Nåtö**, at Harskatan 2007. – Probably overlooked.

Fig. 127. A magnificent ash pollard at NBS. Unfortunately, this tree was affected by the ash dieback, too. Photo: EH, February 2009.



C. palustris – p.l. Nåtö 1931 (H) – *r*; *st pc-sp* – Rock-pools, ponds, moist depressions. – **N Nåtö** 1987; **S Nåtö**, 200 m SE of Södergård 1964 (H); **Rackargrund** 1974; **Östra Börtskär** 1973. – Probably overlooked. The species occurs regularly in rock-pools on small rocky islands.

Linaria vulgaris – p.l. Eskskär 1918 (H) – *st r*; *st pc-sp* – Roadsides, seashores, dry meadows. – **N Nåtö**, roadside at Berggård 1995; roadbank between Rödgrund and Nåtö 1997; Nåtö 2015; **S Nåtö**, roadside at the main road 400 m SW of Södergård 1995; **Idholm** 1997; **Eskskär** 1918 (H); **Slätskär** 1999–2015; **Mellangrund** 2007, **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholme 2007; **Skobbholme** 2007; **Granholm** 2007.

Digitalis purpurea – *rr*; *pcc* – Ornamental plant, also ruderal. – **N Nåtö**, roadbank to Rödgrund 1984 (H); **Granholm**, garden escape at the road on the SW part 2007.

Veronica serpyllifolia – p.l. (AP-15) – *st r*; *pc-st cp* – Dry, mesic and moist meadows, on footpaths and cart tracks, former fields. – **N Nåtö**, 160 m ENE of Nygård 1967; at Finngräftet 1967; former field S of Norrbacka 1970; meadow at NBS 1971–2007; roadside at NBS 1973; former field S of NBS 1986; Norrbackasläten 1986; on the Nature Trail between Nygård and Idviken 1995; on the ramp at the cattle shed of NBS 1996; Nåtö W & E 2015; **S Nåtö**, the N margin of Västeråker 1995; fallow field of Västeråker 1995; Rosklev 1995; lawn at Lastklubb 1997; roadside near the fish farm 2007; 200 m S of Övergård 2007; **Senskär** 1997; **Inre Kalvskär** (AP-15); **Skobbholme** (AP-15); **Slätholm** (AP-15).

V. austriaca subsp. *teucrium* – Ornamental plant. – **N Nåtö**, cultivated at NBS since the 1980s, a few specimens have spread to the dry meadow next to the flowerbed.

V. officinalis – p.l. Nåtö 1902(H) – *fq*, *sp-st cp* – Dry and mesic meadows, deciduous and mixed woods. – In the whole area 1964–2019.

V. chamaedrys – p.l. (AP-15) – *st fq*, *st pc-cp* – Dry and mesic meadows, deciduous woods. – **N** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** (AP-15); **Senskär** 1997–2015; **Idholm** 1978–2015; **Inre Kalvskär**



Fig. 128. *Veronica arvensis*. Ingå, Barösund, Svartö. Photo: KN, May 29, 1982.

(AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Eskskär** 1998; **Inre Korsö** 2015; **Korsö** 1990; **Vattskär** 1973; **Slätskär** 1999–2015; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **Skobbholme** 2007; **Slätholm** (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slätholm** 1981; **Granholm** 2007.

V. scutellata – p.l. Nåtö 1938 (H) – *st r*; *pc-sp* – Ditches, rock-pools, moist depressions, fens. – **N Nåtö**, road ditch 50–90 m E–SE of NBS 1995 (H); rock-pool 100 m E of NBS 1995; moist depression on rock 150 m NE of Själksatsudden 1995; the *Sesleria* meadow at Idviken 1997; **S Nåtö**, fen between Övergård and Österåker 1995; road ditch at the main road 200 m S of Södergård 1995; **Senskär**, fen at the central part 1997; **Idholm** 1978; **Slätskär** 1977; **Getskär** 1973; **Östra Börtskär** 1973; **Granholm** 2007.

V. arvensis – p.l. Skobbholme 1902 (H) – *p*, *pc-st cp* – Mesic, dry and rock meadows, lawns, roadsides. – **N Nåtö**, several stands around NBS 1964–2019; between Västergård and Björklund 1964; roadside at NBS 1973; rock meadow 70 m ESE of NBS 1997; Nåtö W & E 2015; **S Nåtö**, between Västergård and Östergård 1972 (H); rock meadow N of Övergård 1973 (H); 60 m SE of Björklund 1995; rocky area in the N part of Söderäng 1995; at Mellangård 2005; **Rödgrund** 2007; **Senskär** 1997; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Korsö** 1990; **Eskskär** 1998; **Vattskär** 1973; **Slätskär** (AP-15); **Östra Börtskär** 2015; **Skobbholme** 2007; **Slätholm** (HS-83); **Granholm** 2007. – Fig. 128.

V. verna – p.l. Nåtö & Skobbholm 1902 (H) – *st r, pc-sp* – Dry and rock meadows. – N Nåtö, on the ramp to the former cattle shed of NBS 2004–2019; S Nåtö, 100 m E of Södergård 1972 (H); **Rödgrund** (AP-15); **Senskär** 2015; **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Eskskär** (AP-15); **Slätskär** (AP-15); **Skobbholm** 1902 (H); **Granholm** 1931 (H).

V. opaca – p.l. Nåtö 1902 (H) – *rr-r, st cp* – Cereal field and garden weed. – N Nåtö 1902 (H); N Nåtö, Norrbackaåkern 1964; Norrbacka 1964 (H); former fields E and S of NBS 1968–1996; roadside at NBS 1973; on an earth mound on the rock N of the former cattle shed of NBS 2003. – The species has a seed bank in the soil of the former cultivated fields.

V. hederifolia subsp. *hederifolia* – p.l. Nåtö 1901 (H) – *rr, pc-sp* – Dry meadows, gardens, cereal fields. – N Nåtö, 100 m E of NBS 1977 (H); at the former cattle shed of NBS 1980–2019; S Nåtö, 100 m S of Björklund 1972 (H). – Fig. 129.

V. hederifolia subsp. *lucorum* – p.l. Nåtö 1901 (H) – *rr, pc-st pc* – N Nåtö, on a cart track in the hazel stand E of NBS 1964; S Nåtö, Västeråker 1909 (H, OULU); 150 m SE of Björklund 1973 (H).

V. longifolia var. *longifolia* – ?, ? – Lake and river shores and meadows, dry and rock meadows. – This taxon was noted in many islands by Silvestris (2015). However, this inland taxon is not known anywhere in the archipelagos of Finland. The observations by Silvestris (2015) are included in the list of var. *maritima* below.

V. longifolia var. *maritima* – p.l. Slätholm 1886 (H) – *p-st fq, pc-st cp* – Seashore meadows, dry and rock meadows. – N Nåtö, roadside at NBS 1973; Nåtö W & E 2015; S Nåtö, road verge at the main road 250 m S of Södergård 1995; Västerbergen 2015; **Rödgrund** (AP-15); **Lerklubb** 1891 (H); **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1975/1976 (MH-76), 2015; **Korsö** 1990; **Eskskär** 1998; **Måsskär** 1987; **Slätskär** 1977; **Getskär** 1973–2015; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **Slätholm** (HS-83); **Granholm** (AP-15).

V. longifolia var. *maritima* × *spicata* – p.l. Nåtö 1902 (H) – *r, pcc?* – Dry and rock meadows. –

Nåtö 1902 (H); **Idholm** 1907 (H); **Granholm** 2007.

V. spicata – p.l. Slätholm 1886 – *p-st fq, pc-sp* – Dry and rock meadows, rock outcrops. – N Nåtö, 150 m W of Norrbacka 1964–2007; 50 m NE of Norrbacka 1967; roadside at NBS 1973; N of Norrbacka 1995; at the summer cottage 150 m NW of NBS 2007; S Nåtö, 100 m S of Östergård 1995; **Rödgrund** 1997–2007; **Rackargrund** 1974; **Idholm** 1997–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1973 (uncertain determination); **Korsö** 1904 (H); **Slätskär** 1975; **Getskär** 1973; **Skobbholm** SE part 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981 (H); **Munkholm** 1987; **Granholm** 2007.

Plantago major subsp. *major* – p.l. Nåtö 1938 (H) – *p, sp-cp* – Roadsides, roads, cart tracks, footpaths, yards – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** 2007; **Algrund** 2007; **Skobbholm** 2007; **Granholm** 2007. – This subspecies is very common on trampled soil all over the Åland Islands. It was probably overlooked by us.

P. major subsp. *intermedia* (incl. subsp. *winteri* (Geisenh.) W. Ludw.) – p.l. (UB-36) – *fq, st pc- cp* – Seashore meadows. – In the whole area 1964–2019.

P. maritima – p.l. Nåtö 1931 (H) – *fq, pc-st cp* – Seashore meadows. – In the whole area 1964–2019.

Fig. 129. *Veronica hederifolia* subsp. *hederifolia*. Nåtö Island, NBS. Photo: KN, May 26, 1991.



P. media – p.l. (AP-15) – *st r, pc-sp* – Mesic and dry meadows. – **N Nåtö**, at NBS 1964–2019; 50 m NE of Norrbacka 1971; at Finngräftet 1971; S of Fiskarudden 1986, Nåtö W 2015; **S Nåtö**, NW of Österåker 1965; between Västergård and Berggård 1966; Västerskog near Rosklev 1975/1976 (MH-76); at the road SE of Övergård 1995; Nyäng 1995; Harskatan 2007; **Idholm** 1978; **Skobbholma** (AP-15); **Slätholm** (HS-83).

P. lanceolata – p.l. (AP-15) – *st fq, st pc-cp* – Mesic and dry meadows, rock meadows. – **N Nåtö** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997–2015; **Senskärsgrund** 1972; **Ljusskär** 1974; **Idholm** 1977–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Eskskär** 1995; **Slätskär** 1977; **Getskär** 2015; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Skobbholma** 2007; **Nåtö Munkholma** 1981; **Slätholm** (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slät-holm** 1981; **Granholm** 2007.

Hippuris vulgaris – p.l. (CTZ-47) – *st r, st pc-sp* – Fens, lakes, ponds, rock-pools, marshy seashores. – **S Nåtö**, Hemviken and in a rock-pool (CTZ-47); in the pond area for natural fish spawning S of Hemviken 2018; **Inre Korsö** 1999; **Ärtskär** (CTZ-47); **Eskskär**, fen on the NW part 1995 (H); **Måsskär** 1987; **Slätskär** 1977; **Getskär** (CTZ-47), **Orrskär** 1974.

Verbascum thapsus – p.l. **S Nåtö** 1975 (H) – *r-st r, pcc-sp* – Dry and roadside meadows. – **N Nåtö**, one plant on the roadside 50 m SE of NBS 1995; **S Nåtö**, roadsides at the main road at Harskatan 2007; at Lastklubbsvägen NW of Svärtesnabba 2007; **roadbank** between Tunngrund and Skobb-

holm 2007; **Rödgrund**, on the roadbank to Nåtö 2007; **Granholm** 2007. – The species has spread along the new main road and was first observed at Harskatan in 1975. It is one of the most typical roadside plants in the Åland Islands (Häggström 2005a, b).

Scrophularia nodosa – p.l. (AP-15) – *st fq, pc-sp* – Stony meadows, rocky areas, roadsides, seashores. – **N Nåtö**, roadside at NBS 1973; between the boathouses 2007; Nåtö W & E 2015; **S Nåtö**, SW bouldery seashore of Västerbergen 1986; roadside at the main road next at Svedlandet 1995; W shore of Hemviken 2005; at Lastklubbsvägen 200 m S of Övergård 2007; Västerbergen 2015; Harskata 2015; at the gravel road SE of Hemviken 2018; **Inre Kläppen** 2009; **Senskär** 1977–2015; **Ljusskär** 1974; **Rackargrund** 1974; **Idholm** 1978; **Yttre Kalvskär** (AP-15); **Fjärdskär** 1973; **Jungfruskär** 1996; **Inre Korsö** 1999–2015; **skerries S of Inre Korsö** 2015; **Korsö** 1990; **Eskskär** 1998; **Slätskär** 1999–2015; **Getskär** 1973–2015; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholma 2007; **Skobbholma** 2007; **Granholm** 2007.

Pinguicula vulgaris – p.l. (AP-15) – *rr, pcc* – Fen meadows, rich fens. – **N Nåtö**, the *Sesleria* meadow 1965–2019; **S Nåtö**, on a rock with seeping water near the shore E of Övergård in the 1970s. – Fig. 130.

Fig. 130. *Pinguicula vulgaris* and *Drosera rotundifolia*, two carnivorous plants growing together on a moist spot among rocks. Lemland, Järsö. Photo: CAH, June 19, 2010.



Utricularia australis – rr, pc – Lakes, ponds, rock-pools. – S Nåtö, in the pond area for natural fish spawning S of Hemviken 2018.

U. vulgaris – rr, ? – Lakes, ponds. – S Nåtö, Hemviken (CTZ-47); Getskär 2015.

Utricularia sp. – rr, ? – Rock-pools. – Måsskär 1987; Orrskär 1974. – The taxon in rock-pools is often *U. australis*.

Ajuga reptans – Garden ornamental, also ruderal on lawns. – N Nåtö, cultivated and garden escape at the summer cottage 150 m NW of NBS 2007.

Teucrium scordium L. – Moist and wet meadows. – N Nåtö, one plant was unintentionally introduced together with *Herminium monorchis* from Saaremaa (Ösel) in Estonia on the seashore meadow of Idviken in 1990 (Häggström 1992). The single plant grew for a few years, but did not flower. It was seen still in 1994, but disappeared after that.

Scutellaria galericulata – p.l. Slätskär (AP-61) – p, pc-st cp – Seashores, lakeshores, rock-pools, fens, moist and wet depressions. – N Nåtö 1987; S Nåtö, N part of Harskatan 1975/1976 (MH-76); at Grönviken 1975/1976 (MH-76); SW bouldery seashore of Västerbergen 1986; 250 m SE of Övergård 1995; S part of Hemviken 1995; at the SE shore of Hemviken 2007–2018; Västerbergen 2015; Harskata 2015; Senskär 1974; Ljusskär 1974; Idholm 1978–2015; Fjärdskär 1973; Jungfruskär 1975/1976 (MH-76); Inre Korsö 1999–2015; skerries S of Inre Korsö 2015; Eskskär 1995; Vattskär 1973; Slätskär 1977–2015; Getskär 2015; Östra Börtskär 1973–2015; Orrskär 1974; Ormgrund 1972–1974 (RC-76); Gräsgrund 1972–1974 (RC-76); Skrakgrund 1972–1974 (RC-76).

S. hastifolia – p.l. Skobbholm & Slätholm 1906 (H) – p, pc-st cp – Mesic and dry meadows, often among junipers. – N Nåtö, mesic meadow at the E margin of Hemåker 1964 – c. 1972 (the locality was destroyed when a house was built on it); Inre Kläppen, dry meadow 1964 (H); Senskär, among junipers on the W part 1997–2015; Rackargrund 1974; Idholm 1978; Yttre Kalvskär (AP-15); Fjärdskär 1973; Inre Korsö 2015; Jungfruskär 1975/1976 (MH-76); Eskskär 1998; Slätskär 1977; Östra Börtskär 1972–

2015; Skobbholm 1906 (H); Slätholm 1947 (H, OULU); Lemböte Munkholm 1981 (H); Granholm (AP-15). – Fig. 131.

Galeopsis ladanum – NT – rr, ? – Dry meadows, ruderal plant. – On an island next to Nåtö 1902 (H).

G. tetrahit – rr, pc – Ruderal and weed. – Nåtö 1902 (H); N Nåtö, roadside at NBS 1973.

G. bifida – p.l. Nåtö and on rock outside Nåtö 1902 (H) – p-st fq, pc-sp – Seashores, usually on wrack, rock meadows, weed and ruderal in gardens and cereal fields. – N Nåtö, roadside at NBS 1973; on the seashore NE of Norrbacka 1995; on wrack 150–200 m NE of Själkatsudden 1995; seashore E of Själkatsudden 1995; Nåtö E 2015; S Nåtö, seashore W of Harskatsåkern 1975/1976 (MH-76); seashore at Grönviken 1975/1976 (MH-76); rock meadow 450 m W of Södergård 1995; at the car park of Harskatan 2008; Rödgrund 2007; Senskär 2015, Eskskär 1998; Jungfruskär, on wrack in the NW bay 1996; Inre Korsö 2015; Korsö 1990; Måsskär 1987; Slätskär 1999; Getskär 1973–2015; Östra Börtskär 1972–2015; Mellangrund 2007; Ormgrund 1972–

Fig. 131. *Scutellaria hastifolia*. Raseborg, Snappertuna, Bylandet. Photo: KN, June 30, 1985.



1974 (RC-76); **Gräsgrund** 1972–1974 (RC-76); **Tunngrund** 1972–1974 (RC-76); **Skobbholm** 2007; **Granholm** 2007; **Skrakgrund** 1972–1974 (RC-76). – Probably overlooked as this species is common in the Åland Islands (Häggström & Häggström 2010).

Lamium album – p.l. N Nåkö c. 1980 – *r-st r, sp-sp cp* – Hedges, lawns, gardens, roadsides. – **N Nåkö**, at the road between Norrbacka and the boat bridge 1995; on an earth mound between the boathouses 2006; at the path between the main building and the car park of NBS 2007; at the N wall of the main building of NBS 2007; about 30 m N of NBS 2008; **S Nåkö**, roadside 50 m S of Björklund 1997; at Mellangård 2007; roadside at Harskatan 2008; **Korsö** 1990; **Granholm** 2007. – This species appeared in the study area during the last decades of the 20th century.

L. purpureum – p.l. Nåkö 1938 (H) – *r, pc-sp* – Weed and ruderal in cereal fields, gardens, flowerbeds, rock meadows. – **N Nåkö**, several stands at NBS 1964–2019; roadside at NBS 1973; **S** of

Fig. 132. *Stachys sylvatica*. Finström, Bastö. Photo: KN, July 7, 1983.



Bergbo 1974; rock meadows 100 m ESE of NBS 2002–2019; roadside N of Norrbacka 2007; Nåkö W 2015; **S Nåkö**, Västeråker, cucumber field 1974 (Silfverberg 1980); fallow field 1995. – The species has a seed bank in the soil of the former cultivated fields (Silfverberg 1980).

L. hybridum – p.l. N Nåkö 1986 (H) – *r, pc* – Weed in cereal fields, gardens. – **N Nåkö**, rock meadow at NBS 1986 (H); rock meadow with weeds N of the former cattle shed of NBS 2002; **S Nåkö**, on a soil mound at the N margin of Västeråker 1995.

Stachys sylvatica – p.l. Nåkö 1906 (H) – *st r, st pc-sp* – Moist and mesic deciduous stands. – **N Nåkö**, at NBS 1964–2007; 50–100 m NE of Norrbacka 1971; in the central part of the wooded meadow area 1971; at Idviken 1994; at Själksatsudden 1995; Nåkö E 2015; **S Nåkö**, Harskatan 2007–2015; Västerbergen 2015; **Inre Kläppen** 2008; **Rödgrund** 2007; **Idholm** 1978–2015; **Inre Korsö** 2015; **Slätskär** 2015; **Skobbholm** 2007; **Granholm** 2007. – Fig. 132.

S. palustris – p.l. Eskskär 1919 (H) – *p, pc-sp* – Seashores, especially on wrack, also as a weed, e.g., in potato fields. – **N Nåkö**, at Norrbacka 1965; on wrack 50–100 m NE of Själksatsudden 1995; on the point E of Själksatsudden 1995; **S Nåkö**, seashore W of Harskatsåkern 1995; Rosklev at Grönviken 2007; **Rödgrund**, S point 2007; **Jungfruskär** 1975/1976 (MH-76); **Inre Korsö** 1999–2015; **Eskskär** 1919 (H); 1995; **Östra Börtskär** 1972–2015; **Getskär** 2015; **Orrskär** 1974; **Gräsgrund** 1972–1974 (RC-76); **Skobbholm** 2007; **Granholm** (AP-61).

Glechoma hederacea – p.l. Eskskär 1907 (H) – *fq, st pc-cp* – Mesic meadows, lawns, former fields, roadsides, seashores on wrack. – In the whole area 1964–2019.

Prunella vulgaris – p.l. (AP-15) – *st fq, pc-st cp* – Mesic and moist meadows, moist depressions on cart tracks. – **N** and **S Nåkö**, numerous localities 1964–2019; **Rödgrund** 2007; **Senskär** 1997; **Ljusskär** 1974; **Idholm** 1978; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Fjärd-skär** 1973; **Inre Korsö** 2015; **Eskskär** (AP-15); **Slätskär** (HS-83), 2015; **Östra Börtskär** 1973; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Acinos arvensis (*Satureja acinos*) – p.l. Nåtö 1902 (H) – *r, pc-sp* – Dry and rock meadows, rock outcrops. – **N Nåtö**, rock meadow E of Själsskatsudden 1995; **S Nåtö**, on a rock E of the outflow brook from Hemviken 1974; Harskatan 1975/1976 (MH-76); **Eskskär** 1980 (H); **Skobbholm** (AP-15); **Nåtö Munkholm**, rock on the E shore 1981 (H); **Slätholm** (HS-83); **Lemböte Slätholm**, SE shore 1981 (H); **Granholm** 2007.

Clinopodium vulgare (*Satureja vulgaris*) – p.l. Nåtö 1898 (H) – *p-st fq, st pc-st cp* – Dry and mesic meadows, lax deciduous woods. – **N Nåtö**, numerous localities 1964–2019; **S Nåtö**, hazel copse 80 m S of Björklund 1971; 300–400 m NE of Övergård 1971; mesic meadow 50 m SE of Hemviken 1997; between Söderäng and Hemviken 2007; Harskatan 2007; **Rödgrund** 2007; **Senskär** 1997–2015; **Rackargrund** 1974; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Inre Korsö** 2015; **Jungfruskär** 1996; **Eskskär** 1995; **Slätskär** 1938 (H); **Östra Börtskär** 1973; **Skobbholm** 2007; **Nåtö Munkholm** 1981; **Slätholm** (HS-83); **Nåtö Slätholm** 1981; **Lemböte Slätholm** 1981 (H); **Granholm** 2007.

Origanum vulgare – p.l. Nåtö 1886 (H) – *fq, st pc-cp* – Mesic, dry and rock meadows. – In the whole area 1964–2019.

Thymus serpyllum subsp. *serpyllum* var. *ericooides* – *rr, st pc* – Dry meadows, usually on sand. – **Skobbholm**, two small stands at the road next to the house on the NE part (possibly cultivated) 1981 (H), not found in 2007.

Lycopus europaeus – p.l. Nåtö 1906 (H) – *st r, pc-sp* – Fens, fen meadows, wet seashores and lakeshores. – **N Nåtö**, *Sesleria* meadow at Idviken 1964; shore meadow N of Norrbacka 1995, Nåtö E 2015; **S Nåtö**, W shore of Hemviken 2005; SE shore of Hemviken 2007–2018; Västerbergen 2015; **Ljusskär** 1932 (H); **Inre Korsö** 2015; **Eskskär** 1995; **Slätskär** 1975–2015; **Getskär** 2015; **Skrakgrund** 1972–1974 (RC-76). – Probably overlooked.

Mentha arvensis – p.l. N Nåtö 1906 (H) – *st r-p, st pc-cp* – Moist and wet meadows, fens, ditches. – **N and S Nåtö**, numerous localities 1964–2019; **Senskär** 2015; **Ljusskär** 1974; **Inre Korsö**



Fig. 133. *Melampyrum cristatum*. Finström, Husö. Photo: KN, July 6, 1983.

1975/1976 (MH-76); **Eskskär** 1995; **Slätskär** 1977; **Orrskär** 1974; **Skobbholm** 2007. – Probably overlooked.

Melampyrum cristatum – EN – p.l. Idholm 1891 (H; uncertain if collected on this island) or Skobbholm 1901 – *st r, pcc-cp* – Dry and rock meadows. – **N Nåtö**, dry meadow SW of Ormdalsslätten 1965(H), more than 100 specimens in 1995, 1 specimen in 2002; 20–30 specimens in 2007; 4 specimens in 2009; **S Nåtö**, dry meadows on a rocky area S of Hemviken in the 1960s; at a rock E of the outflow brook from Hemviken 1974; **Idholm** 1997; **Slätskär**, SE part 1977; **Skobbholm** 1907 (H); **Slätholm** 1910 (H); **Granholm**, specimens with purple or pale-yellow bracts 2007. – This species has suffered from too thorough and too early haymaking in the central wooded meadow area of Nåtö Island. – Fig. 133.

M. nemorosum – p.l. (AP-15) – *p, st pc-cpp* – Deciduous woods, mesic meadows. – **N and S**

Nåtö, numerous localities 1964–2019; **Idholm** 1978; **Slätskär** 1978; **Algrund** 2007, probably introduced; **Skobbholm** (UB-37, map); **Munkholm** (Gadolin 1926); **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 1919 (H). – Fig. 134.

M. sylvaticum – p.l. (AP-15) – *p, st pc-cpp* – Deciduous and spruce woods. – N and S **Nåtö**, numerous localities 1964–2019; **Senskär** 1977–2015; **Idholm** 1978–2015; **Inre Korsö** 2015; **Jungfruskär** 1996; **Slätskär** 1977; **Skobbholm** (AP-15); **Slätholm** (HS-83); **Granholm** 1981.

M. pratense – p.l. Nåtö 1914 (H) – *p, st pc-cpp* – Deciduous and coniferous woods, dry and heath meadows. – N and S **Nåtö**, numerous localities 1964–2019; **Senskär** 1997–2015; **Idholm** 1978–2015; **Jungfruskär** 1975/1976 (MH-76); **Slät-**

skär 1999–2015; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Euphrasia officinalis coll. – p.l. (AP-15) – *st r, st pc-st cp?* – Dry meadows, roadsides. – **Nåtö** (AP-15); N **Nåtö**, at Finngräftet 1967; S **Nåtö**, NW of Österåker 1965; **Inre Kalvskär** (AP-15); **Esk-skär** (AP-15); **Skobbholm** (AP-15); **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** (AP-15). – Most of Palmgren's (1915–1917) observations were of *E. officinalis* L. (coll.), which according to him, comprised *E. brevipila* Burn. & Gremli and *E. curta* Fr.; these are today regarded as *E. stricta* var. *brevipila* (var. *stricta*) and var. *tenuis* and *E. nemorosa*, respectively (Hämet-Ahti 1998). He distinguished the species *E. tenuis* (Brenner) Wettst., which today is *E. stricta* var. *tenuis* (Hämet-Ahti 1998). – The species of the genus *Euphrasia* have been mostly overlooked by us.

E. stricta var. ***brevipila*** (var. *stricta*) – p.l. Nåtö 1906 (H) – *r, sp* – Roadsides, dry and seashore meadows. – **Nåtö** 1906 (H); S **Nåtö**, roadside at the main road 150 m SW of Södergård 1995 (H); roadside at the main road 250 m SW of Södergård 2005; roadside near the fish farm 2007; at Lastklubbsvägen 200 m S of Övergård 2007; **Granholm** 1939 (H).

E. stricta* var. *tenuis – p.l. (AP-15) – *st r, st pc?* – Nåtö 1931 (H); **Rödgrund** (AP-15); **Inre Kalvskär** (AP-15); **Slätskär** (AP-15); **Skobbholm**, at Rothberg's house 2007; **Slätholm** (AP-15); **Granholm** (AP-61).

E. nemorosa – p.l. Nåtö 1901 (H) – *r, st pc-sp* – Dry and seashore meadows – **Nåtö** 1901 (H) – 1950 (H); N **Nåtö**, meadow at NBS 1973 (H); seashore N of NBS 1976 (H); Nåtö E 2015; S **Nåtö**, at the shore towards Bergö 1906 (H); **Senskär** 2015 **Slätholm** 1947 (H).

***E nemorosa* × *stricta* – rr, ?** – Nåtö 1923 (H)

Odontites vernus – RE – rr, ? – Cereal field weed. – Nåtö 1918 (H)

O. vulgaris – p.l. Granholm 1953 (H) – *r, pc-sp* – Roadsides, ruderal places, seashores. – N **Nåtö**, at the main road next to NBS 1995 (H); S **Nåtö**, SW of Harskatsåkern 1975/1976 (MH-76); **Granholm** 1953 (H).



O. litoralis – p.l. Nåtö 1903 (H) – *st fq, st pc-cp* – Seashore meadows – N Nåtö, between Nåtö and Inre Kläppen 1995; at Idviken 1996; at the boathouses 2007; Nåtö W & E 2015; S Nåtö, Harskatan 1975/1976 (MH-76); SW of Harskatsåkern 1975/1976 (MH-76); 600 m SSE of Övergård 1986; Västerbergen 2015; Rödgrund 2007; Senskär 1977–2015; Senskärsgrund 1972; Idholm 1978–2015; Inre Korsö 2015; Korsö 2015; Jungfruskär, S shore 1975/1976 (MH-76), 2015; Eskskär 1995; Måsskär 1987; skerry N of Getskär 2015; Vigg-grund (UB-37, map); Käringgrund (UB-37, map); Mittgrund 1972–1974 (RC-76); Mellangrund (UB-36); Ormgrund 1972–1974 (RC-76); Lillnotsgrund (UB-36); Gräsgrund 1972–1974 (RC-76); N Stengrund 1972–1974 (RC-76); S Stengrund 2007; Tunngrund 2007; Slätholm 1910 (H); Nåtö Slätholm (UB-37, map); Lemböte Slätholm (AP-61); Skobbholm 2007; Granholm 2007; Blockgrund (UB-36); Krokgrund 1972–1974 (RC-76); Skrakgrund 1972–1974 (RC-76); Starrgrund 1972–1974 (RC-76); Vettagrund 1972–1974 (RC-76); islet V 1972–1974 (RC-76); islet VI 1972–1974 (RC-76); islet VII 1972–1974 (RC-76). – Probably overlooked in the western archipelago.

Pedicularis palustris subsp. *palustris* – *rr*; ? – Fens, moist fen like seashores. – **Granholm** 1964 (H).

Rhinanthus minor s.lat.– p.l. (AP-15) – *str-p, pc-sp* – Dry and mesic meadows. – N Nåtö, meadows on the rocky area 100 m E of NBS 2002; at the Nature Trail next to Björklund 1997; S Nåtö, NW of Österåker 1965; between Västergård and Berggård 1966; Rödgrund (AP-15); Idholm (AP-15); Inre Kalvskär (AP-15); Yttre Kalvskär (AP-15); Eskskär (AP-15); Skobbholm (AP-15); Slätholm (HS-83); **Granholm** 2007. – This species has probably declined during the latter part of the 20th century. Different subspecific taxa were not identified by us.

R. minor cf. subsp. *groenlandicus* × subsp. *minor* – *rr*; ? – Dry and mesic meadows. – Slätskär 1939 (H).

R. angustifolius subsp. *grandiflorus* (var. *aestivalis*; *R. serotinus* subsp. *vernalis*) – p.l. (AP-15) – *p, st cp-cpp* – Seashore meadows, cereal fields, roadsides. – N Nåtö, at the boathouses 1987; be-

Fig. 135. *Lathraea squamaria*, together with *Anemone nemorosa* and *A. ranunculoides*. Jomala, Ramsholmen. Photo: CAH, May 1, 2015.



tween Nåtö and Inre Kläppen 1995; seashore at Idviken 1995–2019; seashore at the bay 100 m W of Fiskarudden 2007; seashore N of Ormsdalssläten 2007; Nåtö W & E 2015; S Nåtö, seashore at Grönviken 1975/1976 (MH-76); **Rödgrund** 2007; **Senskär** 1975–2015; **Jungfruskär** 1975/1976 (MH-76); **Slätskär** 1975; **Getskär** 2015; **Ormgrund** 1972–1974 (RC-76); **Tärngrund** 1972–1974 (RC-76); **Gräsgrund** 1972–1974 (RC-74); **Tunngrund** 1972–1974 (RC-76); **Skobbholm** 2007; **Nåtö Munkholm** (UB-37, map); **Slätholm** (AP-15); **Lemböte Slätholm** (AP-61); **Granholm** 2007; **Blockgrund** 1972–1974 (RC-76); **Krokgrund** 1972–1974 (RC-76); **Skrakholm** 1972–1974 (RC-76); **Starrgrund** 1972–1974 (RC-76); **islet VII** 1972–1974 (RC-76).

Rhinanthus sp. – rr, pc – S Nåtö, westernmost end of Västeråker 1968.

Lathraea squamaria – VU – p.l. Nåtö 1907 (H) – r, pcc-cpp – Deciduous and mixed woods; parasite, chiefly on hazel. – N Nåtö, 100 m SE of Nygård 1964–1980s; between Nygård and Norrbacka 1971; 14 populations, most of them 50–200 m E of Nygård, comprising between 1 and about 400 flowering shoots 1977 (information given by Anders & Margareta Albrecht); at Vidkärr 1981; W of Fiskarudden 2001; at the Nature Trail 100 m NE of Nygård 2007–2019; on the Nature Trail near Idviken 2007–2019; S of Bergbo 2007; S Nåtö, 400 m S of Övergård 1965 (H); between Björklund and Österåkersgrund 1972 (H); 250 m SE of Övergård, 167 flowering shoots 1977 (information given by Anders & Margareta Albrecht); SE Nåtö 1981 (H); 100 m S of Övergård 1982 (H). – Fig. 135.

Campanula patula – p.l. S Nåtö 1969 – rr, pc – Mesic meadows, hay fields. – S Nåtö, Lastklubbsåkern 1969; Rosklev 1974 (H), 1975/1976 (MH-76).

C. persicifolia – p.l. Nåtö 1914 (H) – p, st pc-sp – Mesic meadows, deciduous and mixed woods. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1977–2015; **Idholm** 1978–2015; **Jungfruskär** 1996; **Ekskär** 1997; **Slätskär** (AP-15); **Skobbholm** 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Granholm** 2007.

C. latifolia – p.l. Nåtö 1901 (H) – st r, st pc-cpp – Deciduous woods, roadsides, mesic meadows; also ornamental plant. – N Nåtö, at NBS 1964–2019; SW of Finngräftet 1971; between Norråker and Nygård 1975; 60 m NE of Nygård 1975; at the NW corner of Finngräftet 1975; at the main road next to Norrbacka 1995; Norrbackasläten 1995; at the roadside N of Norrbacka 2007; S Nåtö, at a row of hazels 60 m E of Västergård 1975 (probably the original locality on Nåtö); field margin 130 m W of Södergård 1975; 100 m SW of the former cattle shed of Södergård 1975; at the N shore of Hemviken S of the former cattle shed of Södergård 1975; at the main road S of Harskatåker 1995–2019; at the main road N of Harskatåker 2007; Nåtö W 2015; **Granholm**, cultivated at the road on the SW part 2007. – The species was first observed by one of the farmers of Nåtö before 1890 and it had spread already in the early years of the 20th century to the hazel groves of Nygård (Palmgren 1915–1917). The expansion of the species has continued to this date. – Fig. 136.

Fig. 136. A dense stand of *Campanula latifolia* at NBS. Photo: CAH, July 13, 2009.



C. trachelium – p.l. Nåtö 1902 (H) – *st r-p, pc-cp* – Deciduous woods, mesic meadows. – N and S Nåtö, numerous localities 1964–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Idholm** 1978–2015; **roadbank** between Tungrund and Skobbholm 2007; **Skobbholm** 2007; **Lemböte Munkholm** (Gadolin 1927); **Granholm** 2007.

C. rapunculoides – p.l. S Nåtö 1968 (H) – *rr, sp* – Ornamental plant, garden escape in hedges and on roadsides, very rarely in hay fields. – S Nåtö, hay field of Västeråker 200 m W of Södergård 1968 (H); **Idholm** 2015 (SIL-15), probably wrongly determined; **Granholm**, cultivated in the N part 2007.

C. rotundifolia – p.l. (AP-15) – *p, st pc-st cp* – Mesic and dry meadows, lax deciduous woods. – N and S Nåtö, numerous localities 1964–2019; **Rödgrund** 2007; **Senskär** 1975–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15); **Jungfruskär** 1974; **Slätskär** (AP-15); **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

Fig. 137. *Tripolium pannonicum* subsp. *tripolium* growing between boulders on a seashore. Sottunga, Norra Betesholmen. Photo: CAH, July 20, 2006.



Menyanthes trifoliata – p.l. Ärskär 1970 (H) – *st r, sp-cp* – Fens, rock-pools. – S Nåtö, poor fen on the SW part of Västerbergen 1995; poor fen in Västerskog 150 m S of Rosklev 2007; Västerbergen 2015; **Ärskär**, rock-pool 1970 (H); **Vattskär**, rock-pool 1973; **Måsskär** 1987; **Slätskär**, rock-pool 1977–2015; **Getskär**, rock-pool 1973–2015; **Orrskär**, rock-pool 1974.

Eupatorium cannabinum – p.l. Nåtö 1886 (H) – *r, st pc-cpp* – Seashores. – N Nåtö, among black alders between the boathouses 1986–2007; the locality was covered with wood debris after that; S Nåtö, Österåkersgrund 1964–1973; N of the small building at the shore E of Övergård 1973; **Ljusskär** 1974.

Solidago virgaurea – p.l. Skobbholm & Slätholm (AP-15) – *r, pc-st pc* – Deciduous and mixed woods, rock meadows. – N Nåtö, Själkatsudden 2002; **Fjärdskär** 1972; **Jungfruskär** 1973; **Skobbholm** (AP-15; uncertain record); **Slätholm** (AP-15).

Bellis perennis – Garden and lawn plant. – N Nåtö, cultivated at NBS, escaped into the meadow outside the buildings 1997; lawn between Björklund and Västergård 2002; Nåtö E 2015; S Nåtö, lawn at Lastklubb 1997; **Granholm**, lawn on SW part 2007.

Tripolium pannonicum subsp. *tripolium* (*Aster tripolium*, *Tripolium vulgare*) – p.l. Slätholm 1916 (H) – *fq, pcc-sp* – Seashores. – In the whole area 1964–2019. – Fig. 137.

Erigeron acris – p.l. (AP-15) – *r-st r, st pc-sp* – Dry sandy meadows. – Nåtö (AP-15); **Ärskär** 1968 (H); **Östra Börtskär** 1972–2015; **Orrskär** 1974; **Slätskär** (AP-15); **Granholm** (AP-15).

Filago arvensis – p.l. N Nåtö 1974 – *r, pc-sp* – Roadsides, dry and rock meadows. – N Nåtö, on gravel at Västergård 1974–1978; roadside at the car park N of NBS 1975; roadbank between Nåtö and Rödgrund 1983 (H); S Nåtö, roadbank at Harskatan 1994–2017 (the species could not be found in 2019, probably because it disappeared in 2018 due to the severe draught); **Granholm**, on the roadside 50 m N of the bridge to Rödgrund 1983 (H); roadside at the SW point 2007; at the road Granholmsvägen 2007. – This species appeared two years after the main road was built, from July



Fig. 138. *Tripleurospermum maritimum*. Geta, Västergeta, Havsöra. Photo: CAH, July 31, 2017.

1972 onwards across Nåkö. It has spread along the roads of Åland since the latter part of the 20th century (Häggström & Häggström 2010).

Omalotheca sylvatica (*Gnaphalium sylvaticum*) – p.l. Senskär 1975 (cf. *sylvatica*) – r, pc – Mixed and coniferous woods, roadsides, heath meadows. – **N Nåkö**, N of the former cattle shed of NBS 2001; **S Nåkö**, at the kiosk 200 m SW of Södergård 2005; **Senskär** 1975 (cf. *sylvatica*).

Gnaphalium uliginosum – p.l. N Nåkö 1973 – r, pc-st pc – Moist depressions on cart tracks, roadsides. – **N Nåkö**, roadside at NBS 1973; former field S of NBS 1986; **S Nåkö**, moist depression on cart track at the SW margin of Hemåker 1980 (H); at Lastklubbsvägen 200 m S of Övergård 2007; **Granholm** 2007.

Antennaria dioica – NT – p.l. (AP-15) – r, st pc-st cp – Dry and rock meadows, heath meadows. – **N Nåkö**, rocky area 100 m SE of NBS 1995; rock SW of Knäckgraven 1995; Skarpbacka 2002; dry meadow SW of Ormdalssläten 2002; rocky area E of Själksatsudden 2002–2019; Nåkö E 2015; **Rödgrund** (AP-15); **Idholm** (AP-15); **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Slätskär** (AP-15);

Sköbbholm (AP-15); **Slätholm** (HS-83); **Granholm** 2007. – The species become rarer during the latter part of the 20th century and the beginning of the 21st century.

Pentanema salicinum (*Inula salicina*) – p.l. Granholm 1905 (H) – st r, sp-cp – Mesic and moist meadows. – **N Nåkö**, at NBS 1964–2019; 200 m SW of Fiskarudden c. 1970; 300–350 m NE of Nygård in the 1970s; at the boathouse of Norrbacka 1975; Villes öjen 1995; roadside at NBS 1973; the *Sesleria* meadow at Idviken 1997; N of Ormdalssläten 2007; Nåkö E 2015; **S Nåkö**, moist meadow 50 m SE of Hemviken 1997; at the main road 250 m SW of Södergård 2005; **Inre Kläppen** 2008; **Rödgrund** 2007; **Idholm** 1997–2015; **Sköbbholm** 2007; **Slätholm** (HS-83); **Lemböte Slätholm** 1981; **Munkholm** 1930 (H); **Granholm** 1983–2007.

Bidens tripartita – rr, st pc – Ditches, lakeshores, moist ground. – **Granholm**, roadside at the SW part 2007.

Achillea ptarmica – p.l. N Nåkö 1964 – st r, st pc-st cp – Shore meadows, roadsides, cart tracks, ditches. – **N Nåkö**, in the *Sesleria* meadow at Idviken 1964; 50 m NE of Norrbacka 1968; in the car park of NBS 1974; Norrbackasläten, W part 1986; roadsides at NBS 1995 (H); at the boathouse of NBS 2007; seashore at Knäckgraven 2007, Nåkö E 2015; **S Nåkö**, numerous localities 1965–2019; **Idholm** 2011; **Sköbbholm** 2007; **Nåkö Slätholm**, meadow at the isthmus to Munkholm 1981 (H); **Granholm** 2007.

A. millefolium – p.l. Nåkö 1902 (H) – fq, sp-cpp – Mesic and dry meadows, roadsides. – In the whole area 1964–2019.

A. millefolium* f. *rosea (Desf.) E. L. Rand & Redfield – p.l. S Nåkö 2005 – r?, pcc-pc – **S Nåkö**, roadside 250 m SW of Södergård 2005; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Sköbbholm 2007; **Granholm** 2007. – This form with reddish violet flowers was not always recognised and its frequency is thus uncertain.

Tripleurospermum maritimum – p.l. Gräsgrund & Skräkgärd 1937–1940 (RC-76) – fq, pc-st cp – Seashore rocks, stony and gravelly seashores. – In the whole area 1966–2019. – Fig. 138.

T. inodorum – p.l. Ormgrund 1972–1974 (RC-76) & N Nåtö 1973 – *st r-p, sp* – Cereal field weed, ruderal on roadsides. – **N Nåtö**, former field S of NBS 1986; Norrbackasläten 1986; roadside 50 m E of NBS 1995; on the ramp to the former stable of NBS 1997; in the car park of NBS 2004; **S Nåtö**, former field 70 m SE of Södergård 1995; Nyäng 1995; fallow field in Västeråker 1995; roadside in Västerskog 400 m W of Södergård 1995; at the main road 200–300 m SW of Södergård 2005; roadside near the fish farm 2007; at the car park of Harskatan 2008; at Södergård's former cattle shed 2018; **Rödgrund** 2007; **Senskär**, on a burnt spot 1977; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007.

Matricaria discoidea (*M. matricarioides*) – p.l. N Nåtö 1973 – *st r, st pc-sp* – Roadsides and other ruderal habitats. – **N Nåtö**, at the main road next to NBS 1973–1987; **S Nåtö**, gravel road 50 m SE of Södergård 1995; at the kiosk 200 m SW of Södergård 2005; at Mellangård 2007; **Skobbholm** 2007; **Granholm** 2007.

Tanacetum vulgare – p.l. (AP-15) – *fqq, st pc-cp* – Stony and gravelly seashores, seashore rocks, roadsides. – In the whole area 1964–2019.

T. parthenium – p.l. N Nåtö 2006 – *rr, pc* – Ornamental plant, occasional garden escape and ruderal. – **N Nåtö**, on soil mound at the boathouses 2006; **Granholm**, garden escape at roadside 2007.

Leucanthemum vulgare – p.l. (AP-15) – *st r, pc-st cp* – Dry, mesic and roadside meadows, lax deciduous woods. – **N** and **S Nåtö**, numerous localities 1964–2019; **Rödgrund** 2007; **Idholm** 1978; **Skobbholm** (AP-15); **Slätholm** (HS-83); **Granholm** 2007.

Artemisia vulgaris var. *vulgaris* – p.l. Rödgrund 1930 (H) – *st r, st pc-st cp* – Roadsides and other ruderal habitats, seashores. – **N Nåtö**, roadsides at NBS 1995 (H); roadside N of NBS 1997; at the boathouses 2007; Nåtö W & E 2015; **S Nåtö**, roadsides along the main road from Västeråker to Harskatsåkern 1995; roadside at the fish farm 2007; roadside at Mellangård (Mattsson) 2009; roadside at Harskatan 2008; **Rödgrund**, roadside

2007; **Senskär** 1977; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007. – The variety *coarctata* has not been observed in the study area.

A. absinthium – *rr, pcc* – Roadsides, courtyards; old medicinal plant. – **Granholm**, roadside 2007

A. campestris – p.l. (AP-15) – *st r, pcc-cp* – Rock meadows, rocks. – **N Nåtö**, about 60 plants on the seashore rock next to the summer cottage 150 m NW of NBS 2007; about 10 plants on rock meadow E of Själkatsudden 2002, Nåtö E 2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Östra Börtskär** 1973–2015; one plant on the **roadbank** SE of Tunngrund 2007; **Granholm** (AP-15).

Tussilago farfara – p.l. N and S Nåtö 1967 – *st r-p, st pc-st cp* – Moist woods, ditches, roadsides, also as a weed in fields and gardens. – **N Nåtö**, at Finngräftet 1967; roadside at NBS 1987; in former field 120 m S of NBS 1995; at the car park N of NBS 1997; Nåtö W & E 2015; **S Nåtö**, numer-

Fig. 139. *Senecio sylvaticus*. Raseborg, Snappertuna, Lindskär.
Photo: KN, July 7, 1981.



ous localities 1967–2019; **Rödgrund** 2007; **Idholm**, on a burnt spot 1997; **Korsö** 2015; **Inre Korsö** 2015; **Östra Börtskär** 2015; **Getskär** 1973–2015; **Mellangrund** 2007; **Skobbholm** 2007; **Granholm** 2007.

Senecio sylvaticus – p.l. Slätskär 1930 (H) – *p-st fq, st pc-st cp* – Rocks, clear-cut woods. – **N Nåtö**, roadside at NBS 1973; Fiskarudden 2007; rocky area 400–500 m NE of Nygård 2007, Nåtö E 2015; **S Nåtö**, Numerous localities c. 1975–2019; **Senskär** 2015; **Idholm** 1997–2015; **Jungfruskär** 1996; **Korsö** 2015; **Inre Korsö** 1975/1976 (MH-76); **Eskskär** 1998; **Vattskär** 1973; **Halvbådan** 1967; **Måsskär** 1987; Slätskär 1977–2015; **Getskär** 1973–2015; **Östra Börtskär** 1973; **Orrskär** 1974. – Fig. 139.

S. viscosus – p.l. **N** and **S Nåtö** 1973 (H) – *st r-p, st pc-cpp* – Roadsides and other ruderal habitats, also on sandy a gravelly seashores and seashore rocks. – **N Nåtö**, roadside at NBS 1973; roadbank at Norrbacka 1974–1987; roadbank between Nåtö and Rödgrund 1997; at the boathouses 2007; Nåtö E 2015; **S Nåtö**, roadsides at the main road at Harskatan 1973–2008; partly cut wood W of Hemviken, cpp 2005; at Mellangård 2007; roadside near the fish farm 2010; sandy seashore at Rosklev 2007; Västerbergen 2015; **Rödgrund**, roadsides and on the rock in NE 1997–2007; **Inre Korsö** 2015; **Getskär** 2015; **roadbank** between Törngrund and Tunngrund 2007, **Tunngrund** 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007. – This species is spreading very fast along new roads. The main road was built across Nåtö from July 1972 onwards and *S. viscosus* was found already in 1973 in both N and S Nåtö. The species is also spreading to the terrain next to roads, e.g., seashore rocks (Häggström 2003a).

S. vulgaris – p.l. **N Nåtö** 1974 – *st r, st pc-sp* – Rock meadows, gardens, fields, roadsides and other ruderal habitats. – **N Nåtö**, roadbank at Norrbacka 1974; former field S of NBS 1986; rock meadow N of NBS 2002; Fiskarudden 2007; **S Nåtö**, fallow field of Västeråker 1995; at the kiosk 200 m SW of Söderåker 2005; roadside at the fish farm 2010; **Jungfruskär** 1975/1976 (MH-76); **Skobbholm** 2007; **Granholm** 2007. – Overlooked.

Carlina vulgaris – PrÅ, VU – p.l. Nåtö 1901 (H) – *r, pcc-pc* – Dry and mesic meadows. – **N Nåtö**, 150 m SE of NBS 1964; one specimen at the footpath 100 m SW of Nygård 1974; **S Nåtö**, the NW shore meadow of Hemviken 1964; 100 m WSW of Berggård 1967 (H); **Inre Kalvskär** (AP-15, uncertain record). – This species has probably disappeared from the Nåtö area since no records are known after 1974.

Arctium tomentosum – *rr, ?* – Roadsides, ruderal habitats. – **N Nåtö**, Nåtö E 2015 (SIL-15), probably wrongly determined.

A. minus – p.l. **N Nåtö** 1919 (H) – *r, pc* – Roadsides, ruderal habitats. – **Nåtö** 1931 (H); **N Nåtö**, Nygård 1919 (H); **S Nåtö**, at Söderåker's former cattle shed 2018; **roadbank** between Törngrund and Tunngrund 2007; **Granholm** 2007.

A. nemorosum – EN – p.l. **S Nåtö** 1906 (H) – *st r, pcc-sp* – Moist, shady deciduous woods, roadsides. – **N Nåtö**, deciduous stand at the shore of Ormdalssläten 1968 (H); at Själkskatsudden

Fig. 140. *Arctium nemorosum*. Sweden, Skåne, Stenshuvud, Hällvik. Photo: KN, August 24, 1996.



in the 1960s; at the car park of NBS 1995 (H); three plants on the roadside at Norrbacka 1997; roadside N of Norrbacka 2007, Norrbacka, road verge at the main road Järsövägen about 40 m S of the main building 2016; **S Nåtö**, at Hemviken S of Södergård c. 1970; N part of Harskatan 1975/1976 (MH-76); SW of Hemviken 1997; W of Hemviken 2005; at Harskatsåkern 2007; at Södergård's former cattle shed 2018; E of the pond area for natural fish spawning S of Hemviken 2018; **Inre Kalvskär** (AP-15); **Eskskär**, numerous plants 1964–1998. – Fig. 140.

Carduus crispus – p.l. N Nåtö 1987 – r, pcc-pc – Roadsides, ruderal habitats. – **N Nåtö**, at NBS 1987–2002; Nåtö W 2015; **S Nåtö**, Harskata 2015; **Rödgrund**, N roadbank 2004–2007; **Skobbholm** 2007; **Granholm**, S roadbank 2004–2007.

Cirsium vulgare – p.l. (UB-36) – fq, pc-sp – Roadsides, clear cut woods, burnt ground, dry gravelly meadows on islets. – Numerous localities 1964–2019. – Fig. 141.

Fig. 141. *Cirsium vulgare*. Ingå, Barösund, Svartö. Photo: KN, August 7, 1982.



C. heterophyllum (*C. helenioides*) – p.l. (AP-15) – st r, pc-sp – Moist meadows, ditches. – **S Nåtö**, Lastklubbsåkern 1969; Rosklev 1995; **Jungfruskär** 1974, not found 1996; **Slätskär** 1978; **Skobbholm** 2007; **Slätholm** (AP-15); **Granholm** 1981.

C. palustre – p.l. (AP-15) – p-st fq, pc-st cp – Fen and moist meadows, ditches. – **N Nåtö**, in the *Sesleria* meadow at Idviken 1995; between Norrbacka and Inre Kläppen 1997; E of Själkatsudden 2006; 50 m NE of the *Sesleria* meadow at Idviken 2008; Nåtö W & E 2015; **S Nåtö**, at Harskatsåkern 1975/1976 (MH-76); fen meadow 250 m SE of Östergård 1995; fen 400 m WSW of Södergård 1995; moist meadow at the S end of Hemviken 1997; moist meadow 50 m SE of Hemviken 2007; moist meadow SW of Hemviken 2007; Rosklev 2007; Västerbergen 2015; Harskata 2015; Senskär 1997–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Ljusskär** 1974; **Jungfruskär** 1996; **Eskskär** 1995; **Vattskär** 1973; **Måsskär** 1987; **Slätskär** 1999–2015; **Östra Börtskär** 1972; **Orrskär** 1974; **Skobbholm** 2007; **Slätholm** (HS-83).

C. arvense – p.l. Krokgrund 1943–1951 (RC-76) – st fq, sp-cpp – Cereal field weed, ruderal on roadsides, seashores. – **N** and **S Nåtö**, numerous localities 1964–2019; **Rödgrund** 2007; **Senskär** 1997–2015; **Ljusskär** 1974; **Rackargrund** 1974; **Idholm** 1978; **Fjärdskär** 1973; **Jungfruskär** 1996; **skerry E of Jungfruskär** 2015; **Korsö** 1990–2015; **Inre Korsö** 2015; **Eskskär** 1995; **Slätskär** 1977; **Östra Börtskär** 1973–2015; **Getskär** 2015; **Orrskär** 1974; **Skobbholm** 2007; **Granholm** 2007; **Krokgrund** 1943–1951 (RC-76). – The majority of the observations of var. *arvense*.

C. arvense var. *maritimum* – Seashores, harbours, ruderal places. – **S Nåtö**, SW boulder seashore of Västerbergen 2007; at Södergård's former cattle shed 2018; **Mellangrund** 2007; **Skobbholm** 2007; **Granholm** 2007. – Overlooked by us before 2007.

Centaurea jacea – p.l. (AP-15) – st fq, sp-cp – Mesic and dry meadows, roadsides. – **N** and **S Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1997–2015; **Idholm** 1978–2015; **Inre Kalvskär** (AP-15);



Fig. 142. *Sonchus arvensis* var. *maritimus*. Ingå, Barösund, Svartö. Photo: KN, July 13, 1980.

Yttre Kalvskär (AP-15); **Jungfruskär** 1996; **Eskskär** 1995; **Slätskär** 1978; **Östra Börtskär** 1972; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Nåtö Munkholm** (UB-37, map); **Lemböte Munkholm** 1981; **Slätholm** (HS-83); **Nåtö Slätholm** (UB-37, map); **Lemböte Slätholm** 1981; **Krokgrund** (UB-37, map); **Granholm** 2007.

C. jacea × phrygia – *rr, pc* – Mesic meadows. – **S Nåtö**, westernmost end of Västeråker, former hay field together with the parent species 1967 (H) (Häggström 1977).

C. phrygia – *rr, st cp* – Mesic meadows. – **S Nåtö**, westernmost end of Västeråker, former hay field together with the parent species 1967–1995 (Häggström 1977).

Scorzoneroides autumnalis (*Leontodon a.*) – p.l. Nåtö 1907 (H) – *fq-fqq, pc-cpp* – Dry, mesic and seashore meadows, roadsides, lawns. – In the whole area 1964–2019.

Tragopogon pratensis – p.l. N Nåtö 1997 – *r, pcc* – Roadsides, mesic meadows. – **N Nåtö**, at NBS, two flowering plants 1997, one flowering plant 2003; **S Nåtö**, at Mellangård 2009; **Rödgrund**, N roadbank 2004–2007; **roadbank** between Törngrund and Tunngrund 2007; **Granholm**, S roadbank 2007. – One of the most typical roadside plants of Åland (Häggström 2005a, b), currently spreading to roadsides in the Nåtö area.

Sonchus asper subsp. **asper** – p.l. N Nåtö 1973 – *rr-r, pc* – Garden and field weed, ruderal plant. – **N Nåtö**, roadside at NBS 1973; on the seashore at the boat bridge of Norrbacka 1974.

S. asper subsp. **asper** var. **asper** – *rr, pcc* – **N Nåtö**, in the garden in the former field SE of the former stable of NBS 1987; **S Nåtö**, at Mellangård 2007.

S. asper subsp. **asper** var. **pungens** – *rr, pcc* – **Granholm**, at the road Granholmsvägen 2007

S. oleraceus var. **oleraceus** – *rr, pcc* – Garden and field weed, ruderal plant. – **Granholm**, NW point 2007.

S. arvensis var. **arvensis** – *rr, pc* – Garden and field weed, ruderal plant. – **N Nåtö**, on a waste mound 8 m ESE of Norrbacka 1967; **Rödgrund** 2007. – Probably overlooked.

S. arvensis var. **maritimus** – p.l. Nåtö 1919 (H) – *fqq, st pc-st cp* – Stony and gravelly seashores, seashore meadows. – In the whole area 1964–2019. – Fig. 142.

Lactuca muralis (*Mycelis m.*) – p.l. Nåtö (AP-15) – *st fq, pc-st cp* – Deciduous, mixed and spruce woods. – **N Nåtö**, at NBS 1986–2007; at the main road next to Norrbacka 1974; N of Norrbacka 1995; at the summer cottage 150 m NW of NBS 2007; Nåtö W & E 2015; **S Nåtö**, numerous localities c. 1975–2019; **Inre Kläppen** 2009; **Rödgrund** 2007; **Senskär** 1975–2015; **Jungfruskär** 1996; **Inre Korsö** 1975/1976 (MH-76), 2015; **Korsö** 1990; **Eskskär** 1995; **Slätskär** 2015; **Getskär** 2015; **Östra Börtskär** 2015; **Tunngrund** 2007; **Skobbholm** 2007; **Granholm** 2007.

Taraxacum spp. – p.l. Nåtö & Skobholm 1907 (AP-10) – *fqq, pc-st cp* – Moist, mesic and dry meadows, lawns, roadsides, etc. – In the whole area 1964–2019. – The different species of *Taraxacum* were not determined by us, except in very few cases (see below).

Taraxacum sect. Palustria

T. balticum – p.l. (AP-15) – *p-st fq, sp?* – Seashores. – Nåtö (AP-15); N Nåtö, seashore meadow at Idviken 1994–2019; seashore E of Själ-skatsudden 1997; Själ-skatsudden 2002; Röd-grund (AP-15); Idholm (AP-15); Inre Korsö 1975/1976 (MH-76); Eskskär, W seashore 1998; Slätskär (AP-61); Vigg-grund (UB-36); Kärringgrund (UB-37, map); Ormgrund (UB-36); Lillnortsgrund (UB-37, map); Skobholm 2007; Nåtö Munkholm (UB-37, map); Slätholm (AP-15); Lemböte Slätholm (AP-61); Granholm (AP-61); Skrakgrund (UB-36); Starrgrund (UB-36). – Overlooked by us.

T. sueicum (= *T. palustre*) – p.l. Nåtö & Slätholm (AP-15) – *r, pc* – Fen meadows. – Nåtö (AP-15); N Nåtö, the *Sesleria* meadow at Idviken 1964–2007; 50 m ENE of the *Sesleria* meadow at Idviken 2002–2007; Slätholm (AP-15).

Taraxacum sect. Erythrosperma – p.l. Nåtö 1907 (AP-10) – *r, st pc* – Dry meadows. – N Nåtö, at NBS 1964–2019.

T. laetum – Nåtö 1907 (AP-10); Inre Kalvskär (AP-15).

T. limbatum (*T. obscurans*) – Nåtö 1907 (AP-10); (AP-15).

T. rubicundum – Nåtö 1907 (AP-10); (AP-15); Slätholm (AP-15).

Taraxacum sect. Naevosa

T. praestans – p.l. (AP-15) – *r, ?* – Mesic meadows, lax deciduous woods. – Nåtö (AP-15); Inre Kalvskär (AP-15); Slätholm (AP-15).

T. maculigerum – p.l. (AP-15) – *st r, pc?* – Mesic meadows, lax deciduous woods. – Nåtö (AP-15); N Nåtö, central part of the wooded meadow area 1987; Eskskär (AP-15); Slätskär (AP-15); Slätholm (AP-15); Granholm (AP-15).

Taraxacum sect. Borea

T. mucronatum – Nåtö 1907 (AP-10).

T. penicilliforme – Skobholm 1908 (AP-10).

Taraxacum sect. Macrodonta

T. tenebricans – Nåtö 1907 (AP-10).

Taraxacum sect. Taraxacum

T. stenoglossum (*T. dahlstedtii*) – Nåtö 1907 (AP-10).

T. kjellmanii – Nåtö 1907 (AP-10).

Lapsana communis – p.l. N Nåtö 1969 – *st r, pc-sp* – Garden and cereal field weed, also a ruderal plant on roadsides. – N Nåtö, Norråker 1969; roadside at NBS 1973; on an earth mound at the former cattle shed 1974; vegetable garden in former cereal field S of the former stable of NBS 1997 at the road to the boat houses 2007; S Nåtö, roadside 60 m SE of Björklund 1995; roadside at the main road 200 m SW of Södergård 1995; W of Hemviken 2005; at Harskatsåkern 2007–2015; at the car shed of Mellangård (Mattsson) 2009; roadside at the fish farm 2010; at Södergård's former cattle shed 2018; at the gravel road SE of

Fig. 143. *Lapsana communis*. Ingå, Barösund, Svartö. Photo: KN, July 7, 1979.



Hemviken 2018; **Rödgrund** 2007; **roadbank** between Törngrund and Tunngrund 2007; **Tunngrund** 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007.—Fig. 143.

Crepis paludosa – rr?, ? – Rich fens, fen meadows, moist meadows. – **Nåtö**, seashore meadow 1931 (H); N **Nåtö**, fen in hazel rich deciduous stand between Nygård and Norrbacka 1964; S **Nåtö**, between Hemviken and Harskatsåkern 1975/1976 (MH-76); Rosklev 1975/1976 (MH-76); these two finds have not been verified later.

C. praemorsa – PrÅ*, EN – p.l. Nåtö 1886 (H) – rr; ? – Mesic and moist meadows. – **Nåtö** 1886–1947 (H); 1933 (OULU); S **Nåtö**, meadow at Hemviken 1932 (H). – The species has most probably disappeared. It has declined very strongly in Åland during the 20th century and it is known from one locality only in the Åland Islands from the 1960s onwards (Häggström & Häggström 2010).

C. tectorum – p.l. (AP-15) – r; pc – Rock outcrops, rock meadows. – **Nåtö** 1931 (H); **Rödgrund** (AP-15); **Idholm** (AP-15); **Jungfruskär**, rock at the harbour bay 1996; **Granholm** (AP-15). – Probably overlooked.

Hieracium spp. – p.l. Nåtö 1907 (H) – p, pc-sp – Woods, meadows, roadsides, etc. – N and S **Nåtö**, numerous localities 1964–2019; **Senskär** 1975; **Idholm** 1978; **Jungfruskär** 1996; **Inre Korsö**, 1975/1976 (MH-76); **Eskskär** 1968; **Vattskär** 1973; **Slätskär** 1999; **Getskär** 1973; **roadbank** between Törngrund and Tunngrund 2007; **Granholm** 1981. – The species of *Hieracium* were not determined by us, with the exception of *H. umbellatum*. Some specimens have been assigned to groups (see below). The whole genus was mostly overlooked by us.

Hieracium sect. *Umbellata*

H. umbellatum – p.l. N **Nåtö** 1964 – st fq, pc-sp – Dry and rock meadows, rock outcrops, roadsides. – N **Nåtö**, at NBS 1964–2019; S of Bergbo 1974; on the roadbank between Nåtö and Rödgrund 1997; Nåtö W & E 2015; S **Nåtö**, numerous localities c. 1975–2019; **Inre Kläppen** 2008; **Senskär** 1997; **Idholm** 1964–2015; **Ljusskär** 1974; **Fjärdskär** 1973; **Jungfruskär**, rock at the

harbour bay 1996; **Inre Korsö** 1975/1976 (MH-76), 2015; **Korsö** 1999–2015; **Eskskär** 1998; **Måsskär** 1987; **Slätskär** 1977–2015; **Getskär** 1973–2015; **Östra Börtskär** 1973–2015; **Orrskär** 1974; **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Lemböte Slätholm** 1981; **Granholm** 2007.—Fig. 144.

Hieracium sect. *Tridentata* (sect. *Rigida*) – r; pc – S **Nåtö**, 250 m NE of Övergård 2007; roadside near the fish farm 2007; Harskatan 2007.

Hieracium sect. *Hieracium* (sect. *Sylvatica*) – r?, pc – N **Nåtö**, 50 m S of Kummeludden 2007; S **Nåtö**, Harskatan 1975/1976 (MH-76); **Korsö** 2015.

Hieracium sect. *Vulgata* – p.l. Nåtö 1907 (H) – p, pc-sp – **Nåtö** 1907 (H); N **Nåtö**, dry meadow E of Knäckgraven 2007; SW of Ormdalsslätten 2007; spruce wood 400–500 m NE of Nygård 2007; Fiskarudden 2007; S **Nåtö**, Västerskog SE of Rosklev 2007; Harskatan 2007; 100 m S of Hemviken 2007, Västerbergen 2015; Harskata 2015; **Inre Kläppen** 2009; **Rödgrund** 2007; **Idholm** 2015; **Senskär** 1977; **Slätskär** 2015; **Skobbholm** 2007; **Granholm** 2007.

Fig. 144. *Hieracium umbellatum*. Ingå, Barösund, Svartö. Photo: KN, August 16, 1980.



Pilosella officinarum (incl. *P. peleteriana*) – p.l. (AP-15) – *st fq, sp-cpp* – Dry meadows, roadsides. – N **Nåtö**, in the central wooded meadow area 1971; 50 m NE of Norrbacka 1971; SW of Finngräftet 1971; SW of Ormdalssläten 2007; Nåtö E 2015; S **Nåtö**, numerous localities 1965–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1977; **Ljusskär** 1974; **Idholm** 1997–2015; **Inre Korsö** 1973; **Inre Kalvskär** (AP-15); **Jungfruskär** (AP-15); **Eskskär** (AP-15); **Slätskär** (AP-15); **roadbank** between Törngrund and Tunngrund 2007; **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007.

P. lactucella – p.l. N Nåtö 1995 – *r, pc* – Dry and rock meadows. – N **Nåtö**, dry meadow on the rock area 100 m SE of NBS 1995; dry meadow N of Idviken 1995; rock meadow E of Knäckgraven 2007.

P. cymosa coll. – p.l. N Nåtö 1995 – *st r, sp-cp* – Dry meadows, roadsides. – N **Nåtö**, roadbank

Fig. 145. *Viburnum opulus*. Eckerö, Storby, Käringsund. Photo: EH, June 18, 2009.



between Nåtö and Rödgrund 1995; dry meadow E of Knäckgraven 2007; at the nature trail about 200 m NW of Själksatsudden 2012; S **Nåtö**, road verges at the main road between Södergård and Harskatan 2007; roadside near the fish farm 2007; **Rödgrund** 2007; **Idholm** 1997, **roadbank** between Tunngrund and Skobbholm 2007; **Skobbholm** 2007; **Granholm** 2007. – The different species in this complex were not distinguished by us.

Viburnum opulus – p.l. (AP-15) – *st fq, pcc-sp* – Deciduous woods. – N and S **Nåtö**, numerous localities 1964–2019; **Inre Kläppen** 2008; **Rödgrund** 2007; **Senskär** 1977–2015; **Idholm** 1997–2015; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1999–2015; **Eskskär** 1998; **Vattskär** 1973; **Slätskär** 1999–2015; **Getskär** 1973; **Östra Börtskär** 1972–2015; **Skobbholm** 2007; **Slätholm** (HS-83); **Granholm** 2007. – Fig. 145.

Adoxa moschatellina – p.l. Nåtö & Granholm (AP-15) – *st r, pc-st cp* – Deciduous and spruce woods. – N **Nåtö**, numerous localities 1964–2019; S **Nåtö**, hazel copse 80 m S of Björklund 1971; mixed wood 300 m ESE of Övergård 1971; spruce wood 400 m SE of Övergård 1971; spruce wood in the SE part 1981 (H); **Idholm** 1978; **Slätholm** (Håkan Slotte, in letter 1984); **Granholm** (AP-15). – Fig. 146.

Sambucus nigra – Ornamental shrub. – **Inre Kläppen**, at Danielsson's cottage 2009; **Granholm**, cultivated at the NE part 2007.

Linnaea borealis – p.l. S Nåtö 1964 – *st r, pcc-sp* – Spruce woods. – N **Nåtö**, Själksats norra stycke 1967; S **Nåtö**, mixed wood 300 m ESE of Övergård 1964; N part of Harskatan 1975/1976 (MH-76); **Jungfruskär** 1975/1976 (MH-76), 2015; **Inre Korsö** 1975/1976 (MH-76), 2015; **Ärtskär**, W part 1970 (H).

Lonicera xylosteum – p.l. (AP-15) – *st r-p, pcc-sp* – Deciduous woods. – N **Nåtö**, SW of Ormdalssläten 1985; at Fiskarudden 1997–2007; at the Nature Trail N of Själksatsudden 2006–2019; at the boat houses 2007; Ormdalssläten 2007; Nåtö W & E 2015; S **Nåtö**, at Övergård 1995; 250 m NE of Övergård 2007; W of Österåker 2007, Västerbergen & Harskata 2015; S of Hemviken 2018; **Inre Kläppen** 2009; **Rödgrund** 2007;



Fig. 146. *Adoxa moschatellina*. Nåtö Island. Photo: CAH, May 2, 2015.

Senskär 1975–2015; Idholm 1997–2015; Eskskär 1995; Slätskär 1999–2015; Skobbholm 2007; Slätholm (HS-83); Nåtö Slätholm 1981; Granholm 2007.

L. caprifolium – Ornamental plant, occasional garden escape. – N Nåtö, cultivated at NBS from the 1970s to 2019; a small escaped stand at the rock outcrop between NBS small cottage and the boat houses 2007–2019; Inre Kläppen, garden escape 2008.

L. periclymenum – Ornamental plant, occasional garden escape. – S Nåtö, cultivated at Mellangård 2009.

Valerianella locusta – NT – p.l. Slätholm 1901 (H) – p, pcc-cp – Dry and rock meadows, chiefly close to seashores. – N Nåtö, dry seashore and rock meadow at the SE point E of Själksudden 2006–2019; rock meadow at the Nature Trail at Själksudden 2006–2019, Nåtö W & E 2015; S Nåtö, rock meadow on the E shore 500 m SE of Övergård 1964; next to Östergård 1973 (H); roadside and ditch at the main road 200 m SW of Södergård 1995 (H); Rödgrund, dry meadow in front of Stenlid's cottage 1995–2007; Senskär 1969–2015; Rackargrund 1964 (H); Yttre Kalvskär (AP-15); Korsö 1990; Eskskär 1948 (OULU); Korsö 1990; Slätskär 1931 (H); Skobbholm (AP-15); Slätholm 1936 (H, OULU); Granholm 2007. – Fig. 147.

Valeriana officinalis – p.l. (AP-15) – fqq, st pc-cp – Stony seashores, seashore and moist meadows. – In the whole area 1964–2019.

V. sambucifolia subsp. *sambucifolia* – rr, ? – Moist woods and meadows. – Idholm 1928 (H); Getskär 2015 (SIL-15).

V. sambucifolia subsp. *salina* – p.l. Eskskär 1964 – p, pc-sp – Stony seashores, rock crevices. – N Nåtö, seashore NE of Norrbacka 1995; Nåtö E 2015; S Nåtö, Västerbergen 2015; Senskär 2015; Idholm 2015; Jungfruskär 2015; Korsö 2015; Inre Korsö 1999–2015; skerry E of Inre Korsö 2015; Eskskär 1964; Måsskär 1987; Slätskär 1999–2015; Getskär 2015; skerry N of Getskär 2015; Östra Börtskär 1973; Orrskär 1974. – Probably overlooked. This taxon is quite common on seashores, especially in small rocky islands.

Knautia arvensis – p.l. Rödgrund 1997 – r, pcc-cp – Mesic and roadside meadows. – N Nåtö, one plant on the N roadbank 2006–2007; Rödgrund, roadsides 1997–2007; Granholm 2007. – The species is fairly common in the large mainland islands of Åland, but lacking in the smaller islands. It is slowly spreading along the main road into the Nåtö area.

Fig. 147. *Valerianella locusta*. Sweden, Öland, Solliden. Photo: KN, June 8, 1991.



Sanicula europaea – p.l. Nåtö 1886 (H) – *st r, sp-st cp* – Luxuriant deciduous and spruce woods. – **N and S Nåtö**, numerous localities 1964–2019; **Rödgrund** 2009; **Idholm** 1978; **Slätskär** 2015; **Skobbholm** (AP-15); **Slätholm** (HS-83); **Granholm** 2007. – Fig. 148.

Anthriscus sylvestris – p.l. (AP-15) – *fq, sp-cpp* – Mesic and dry meadows, roadsides, former fields, lax deciduous woods. – In the whole area 1964–2019.

Myrrhis odorata – *rr, pc* – Former spice plant in gardens, roadsides. – **Granholm**, SW roadbank at the bridge in the 1980s.

Pimpinella saxifraga – p.l. (AP-15) – *st fq, pc-cp* – Mesic and dry meadows, roadsides. – **N Nåtö**, at NBS 1964–2016; SW of Finngräftet 1967; roadbank at NBS 1973; at Idviken 1994; 100 m E of Själskatudden 1995; 50 m S of Fiskarudden 2007; Nåtö E 2015; **S Nåtö**, numerous localities 1964–2015; **Rödgrund** (AP-15); **Idholm** 1978; **Inre Kalvskär** (AP-15); **Yttre Kalvskär** (AP-15); **Jungfruskär** 1996; **Inre Korsö** 1973–2015; **Ekskär** (AP-15); **Slätskär** 1973; **Östra Börtskär** 1972–2015; **Orrskär** 1974; **roadbank between Törngrund and Tunngrund** 2007; **roadbank between Tunngrund and Skobbholm** 2007; **Skobbholm** (UB-37, map); **Slätholm** (HS-83); **Granholm** 2007.

Aegopodium podagraria – p.l. S Nåtö 1967 – *st r-p, sp-cpp* – Garden weed, roadsides, deciduous woods. – **N Nåtö**, at NBS c. 1973–2019; Nåtö W & E 2015; **S Nåtö**, westernmost end of Västeråker 1967–1995; roadside at Berggård 1995; S of Björklund 2002; between the main road and Hemviken 250 m SW of Södergård 2005; roadside near the fish farm 2007; the former field Klubbåkern 2007; at the car park of Harskatan 2009; at Södergård's former cattle shed 2018; **Rödgrund**, roadside 2007; **Inre Korsö** 2015; **Mellangrund** 2007; **Skobbholm** 2007; **Lemböte** 1981; **Slätholm** 1981; **Granholm**, two localities 2007. – *Aegopodium podagraria* was introduced with soil to the path between the main building of NBS and the car park in c. 1973 when the new main road was built. The species has since increased its numbers from a few shoots at the path to hundreds of shoots on dozens of square metres. It is now invading the *Corylus* stand south of the path.

Aethusa cynapium var. *agrestis* – *rr, pcc* – Garden weed, ruderal. – **Granholm**, on soil dump between the main road and the tennis court 1981 (H).

Fig. 148. *Sanicula europaea*, growing together with *Anemone nemorosa* and *Oxalis acetosella*. Sund, Kastelholm, at Tjudnästräsk. Photo: CAH, June 26, 2010.



Carum carvi – p.l. (AP-15) – *r, sp* – Mesic meadows, seashore meadows. – N Nåtö, seashore meadow at the boathouses 1964–2007 (the stand disappeared because of too much car traffic on the seashore meadow); in the hazel stand E of NBS 1964; S Nåtö, between Västergård and Berggård 1966; Harskatan 1975/1976 (MH-76); Rödgrund (AP-15); Jungfruskär (AP-15); Skobbholm (AP-15).

Selinum carvifolia – p.l. Slätholm 1900 (H) – *st fq, pc-sp* – Stony and gravelly seashore meadows, rarely in lax deciduous woods. – N Nåtö, seashore meadow at the point E of Själskatsudden 1997; at Fiskarudden 2007; seashore N of Ormalssläten 2007; Rödgrund 2007; Senskär 2015; Eskskär 1980; Slätskär 1909 (H, TURA); Gripen (UB-37, map); Algrund 2007; roadbank between Törngrund and Tunngrund 2007; Tärngrund 1972–1974 (RC-76); Gräsgrund 2007; S Stengrund 2007; Tunngrund 1972–1974 (RC-76); Skobbholm 2007; Nåtö Munkholm (UB-37, map); Nåtö Slätholm (UB-37, map); Lemböte Slätholm, W shore 2011; Granholm 2007; Blockgrund 1972–1974 (RC-76); Krokgrund 1972–1974 (RC-76); Skrakgrund 1972–1974 (RC-76); Starrgrund 1972–1974 (RC-76); islet VII 1972–1974 (RC-76). – *Selinum carvifolia* has an irregular distribution in the Åland Islands (Häggström & Häggström 2010). It is quite common along the seashores in the archipelago north of Nåtö Island, e.g., in Slätholm and Granholm and the islets around them.

Angelica sylvestris – p.l. (AP-15) – *fq-fqq, pc-st cp* – Moist, mesic and seashore meadows, deciduous and mixed woods. – In the whole area 1964–2019.

A. archangelica* subsp. *littoralis – p.l. Nåtö 1902 (TURA) – *fqq, pc-sp* – Seashores. – In the whole area 1964–2019.

Peucedanum palustre – p.l. Nåtö 1945 (TURA) – *r, st pc* – Fens, rock-pools, wet meadows. – N Nåtö, Nåtö W & E 2015; S Nåtö, Västerbergen 2015; Harskatan 2015; Senskär 2015; Eskskär, fen on the W part 1996; rock-pool fen on the NW rocks 1998; Måsskär 1987; Slätskär 1977–2015; Orrskär 1974.

***Heracleum sphondylium* subsp. *sibiricum* (*H. sibiricum*)** – p.l. (AP-15) – *st fq, st pc-cp* – Mesic meadows, former hay fields, lax deciduous woods, roadsides, etc. – N and S Nåtö, numerous localities 1964–2019; Rödgrund 2007; Senskär 1997–2015; Idholm 1978; Inre Kalvskär (AP-15); Jungfruskär 1996; Eskskär (AP-15); Slätskär 1978; 2015; Gripen (UB-37, map); Algrund 2007; Tunngrund 1972–1974 (RC-76); Skobbholm 2007; Nåtö Munkholm 1981; Lemböte Munkholm (UB-37, map); Nåtö Slätholm (UB-37, map); Lemböte Slätholm 2011; Granholm 2007; Krokgrund 1972–1974 (RC-76);

Laserpitium latifolium – p.l. Lemböte Granholm 1903 (H) – *st r, pcc-cpp* – Deciduous woods, dry and mesic meadows. – N Nåtö, numerous localities 1964–2019; S Nåtö, Harskatan 1964–2019; 50 m SE of Hemviken 1997; S of Hemviken 1997; Rödgrund 2009; Idholm 2015; Eskskär, one plant on the SE shore 1980 (H); Slätskär 1999; Skobbholm 2007; Granholm, W, N and E parts 2007. – Fig. 149.

Fig. 149. *Laserpitium latifolium*. Finström, Husö. Photo: KN, July 6, 1983.



References

- ÅFS 17/1964: Landskapslag om Nåtö naturskyddsområde. — Ålands författningssamling 1964 nr:o 17: 69.
- ÅFS 25/1985: Ålands landskapsstyrelses beslut om avsättande av Nåtö – Jungfruskär naturreservat i Lemlands kommun. — Ålands författningssamling 1985 nr 25: 97–99.
- ÅFS 47/1992: Ålands landskapsstyrelses beslut om avsättande av Nåtö – Jungfruskär naturreservat i Lemlands kommun. — Ålands författningssamling 1992 nr 47: 131–134.
- ÅFS 13/2005: Ålands landskapsregerings beslut om utökning av Nåtö – Jungfruskär naturreservat i Lemlands kommun och Mariehamns stad. — Ålands författningssamling 2005 nr 13: 29–42.
- ÅFS 4/2016: Ålands landskapsregerings beslut om en forteckning över de områden som omfattas av nätverket Natura 2000. — Ålands författningssamling 2016 nr 4: 18–56.
- Åström, H. & Hæggström, C.-A. 2004: Generative reproduction in *Allium oleraceum* L. — *Annales Botanici Fennici* 41: 1–14.
- Åström, H., Hæggström, C.-A. & Hæggström, E. 2015: Geographical distribution of *Allium oleraceum* cytotypes in Finland and Sweden. — *Nordic Journal of Botany* 33: 120–125. (doi.org/10.1111/njb.00521. 6 pp. + Supplementary material (Table 1), 8 pp. Article first published online: 31 October 2014.)
- Berg, T. & Christensen, K. I. 2000: *Salix caprea*. — In: Jonsell, B. (ed.), *Flora Nordica* 156–158. The Bergius Foundation, The Royal Swedish Academy of Sciences, Stockholm.
- Braxer, C. 1765: Beskrifning öfver Nåtö By, belägen uti Lemlands sockn på Åland. (Lantmäterikarta och beskrivning) [Description of the village Nåtö in the municipality of Lemland, Åland. (Cadastral map with descriptions.)] — Ålands Landskapsarkiv, Mariehamn. (Copy of the map seen at the homestead Västergård in Nåtö, 1960s. The cadastral maps were drawn by hand and one or more copies of the original were made. The original and the copy may not be identical.)
- Carlsson, R., von Numers, M. & Hæggström, C.-A. 2011: Carex mackenziei and C. canescens × mackenziei in the Åland Islands, SW Finland. — *Memoranda Soc. Fauna Flora Fennica* 87: 75–79.
- Cedercreutz, C. 1947: Die Gefäßpflanzenvegetation der Seen Ålands. — *Acta Botanica Fennica* 38: 1–79, 8 tab.
- Collander, R. 1976: Växtinvandring och succession i en miniatyrskärgård vid Åland. [Immigration and succession of vascular plants in a miniature archipelago at Åland.] — Licentiatavhandling, Botaniska institutionen vid Helsingfors universitet, 163 s. + app. (Stored at the Viikki Campus Library).
- Eklund, O. 1934: Was ist eigentlich *Viola "epipsila × palustris"*? — *Memoranda Soc. Fauna Flora Fennica* 10: 35–40.
- Eklund, O. 1935: *Hypericum hirsutum* L., eine in lebhafter Ausbreitung begriffene Art. — *Memoranda Soc. Fauna Flora Fennica* 11: 97–114.
- Eklund, O. 1958: Die Gefäßpflanzenflora beiderseits Skiftet im Schärenarchipel Südwestfinnländs. Kirchspiele Korpo, Houtskär, Nagu, Inö, Brändö, Kumlinge, Sottunga und Kökar. — Bidrag till Känndom af Finlands Natur och Folk 101: 1–327, 85 maps.
- Gadolin, A. W. 1927: Några floristiska observationer från trakten kring Lemströms kanal på Åland (1925). — *Memoranda Soc. Fauna Flora Fennica* 2: 61–64.
- Hæggström, C.-A. 1977: Ett fynd av *Trollius europaeus* (Ranunculaceae) och *Centaurea phrygia* (Asteraceae) på Åland. (Abstract: *Trollius europaeus* and *Centaurea phrygia* recorded from the Åland islands, southwestern Finland.) — *Memoranda Soc. Fauna Flora Fennica* 53: 1–8.
- Hæggström, C.-A. 1983: Vegetation and soil of the wooded meadows in Nåtö, Åland. — *Acta Bot. Fennica* 120: 1–66.
- Hæggström, C.-A. 1985: Finns tuvslok, *Melica picta*, i Sverige? (Abstract: Is *Melica picta* present in Sweden?) — *Svensk Bot. Tidskr.* 79: 33–37.
- Hæggström, C.-A. 1986a: Ahvenanmaan kämmeköistä. [About the orchids of the Åland Islands.] — *Orkidealehti* 19: 56–69.
- Hæggström, C.-A. 1986b: *Melica picta* in the Åland Islands, SW Finland. — *Memoranda Soc. Fauna Flora Fennica* 62: 5–16.
- Hæggström, C.-A. 1992: Mesikämmekän (*Herminium monorchis*) siirtoistutuksista Ahvenanmaalla. (Summary: Reintroduction of the Musk Orchid (*Herminium monorchis*) in the Åland Islands, SW Finland.) — *Lutukka* 8: 35–38.
- Hæggström, C.-A. 1994a: Marjakuusi (*Taxus baccata*). (Abstract: The yew (*Taxus baccata*)) — *Sorbifolia* 25: 7–19.
- Hæggström, C.-A. 1994b: Does *Platanthera bifolia* subsp. *bifolia* (Orchidaceae) occur in Finland? — *Ann. Bot. Fennici* 31: 215–221.
- Hæggström, C.-A. 1995: Valkolehdokin muuntelusta Suomessa. [Variation in *Platanthera bifolia* in Finland.] — *Orkidealehti* 28: 69–74.
- Hæggström, C.-A. 1996: Nåtö Biological Station. — *Memoranda Soc. Fauna Flora Fennica* 72: 227–235.
- Hæggström, C.-A. 2000a: The age and size of hazel (*Corylus avellana* L.) stools of Nåtö island, Åland Islands, SW Finland. — In: Agnolletti, M. & Anderson, S. (eds.), *Methods and Approaches in Forest History*: 67–77. CAB International.
- Hæggström, C.-A. 2000b: Pähkinäpensaiden (*Corylus avellana*) ikä ja koko Nåtön saarella Ahvenanmaalla. (Abstract: The age and size of hazel (*Corylus avellana* L.) stools on Nåtö island, Åland Islands, SW Finland.) — *Sorbifolia* 31: 51–59.
- Hæggström, C.-A. 2003a: Flora i förändring: nya kärlväxter på Åland. [Change in the flora: new vascular plant species in the Åland Islands.] — *Nordenskiöld-samfundets tidskrift* 62: 93–110.
- Hæggström, C.-A. 2003b: *Carex hartmannii* in Finland. — *Memoranda Soc. Fauna Flora Fennica* 79: 61–67.
- Hæggström, C.-A. 2005a: Landsvägskanterna – tillflyktsplatser för ängsfloran. [Road sides – havens for the meadow flora.] — *Nordenskiöld-samfundets tidskrift* 64: 55–78.
- Hæggström, C.-A. 2005b: På landsvägskanterna lever ängsväxterna kvar. [The meadow plants live on at the road sides.] — *Finlands Natur* 64 (4): 22–25.
- Hæggström, C.-A. 2007: Kaunopihlaja (*Sorbus meinichii* s.lat.) Suomessa. (*Sorbus meinichii* s.lat. in Finland.) — *Sorbifolia* 38: 147–169.
- Hæggström, C.-A. 2012: Ennätyspaksu ruotsinpihlaja Ahvenanmaalla. [Record thick Swedish whitebeam in Åland.] — *Sorbifolia* 43(1): 44–45.
- Hæggström, C.-A. 2014: Saarnensurma (*Hymenoscyphus pseudoalbidus*) Ahvenanmaalla. (Ash dieback (*Hymenoscyphus pseudoalbidus*) in the Åland Islands, SW Finland.) — *Sorbifolia* 45(1): 30–36.
- Hæggström, C.-A. 2018: Tammen paksuuskasvu ja ikä. (The girth increment and age in the pedunculate oak.) — *Sorbifolia* 49(2): 71–74.
- Hæggström, C.-A. 2019a: The genus Papaver in the Åland Islands, SW Finland. — *Memoranda Soc. Fauna Flora Fennica* 94: 100–112.

- Häggström, C.-A. 2019b: Istutettujen puuvartisten kasvien levämisen luontoon, lähiinä Ahvenanmaalla. (Spontaneous dispersal of some cultivated ligneous plants, especially in the Åland Islands.) — *Sorbifolia* 50(2): 61–82.
- Häggström, C.-A. 2020a: Rumex thrysiflorus in the Åland Islands, SW Finland. — *Memoranda Soc. Fauna Flora Fennica* 96: 48–56.
- Häggström, C.-A. 2020b: Tulisuolaheinä Ahvenanmaalla. [Rumex thrysiflorus in the Åland Islands.] — *Lutukka* 36: 57–61. [Download pdf](#)
- Häggström, C.-A. & Åström, H. 2003: Hietalaukka (*Allium vineale* L.) Suomessa. (The crow garlic (*Allium vineale*) in Finland.) — *Lutukka* 19: 39–49.
- Häggström, C.-A. & Åström, H. 2005: Allium oleraceum (Alliaceae) in Finland: distribution, habitats and accompanying vascular plant species. — *Memoranda Soc. Fauna Flora Fennica* 81: 1–18.
- Häggström, C.-A., Carlsson, R. & Johansson, P. 2003: Ruderals around an abandoned wood chipping plant in Åland, SW Finland. — *Memoranda Soc. Fauna Flora Fennica* 79: 1–6.
- Häggström, C.-A. & Häggström, E. 2009: Paksuja ja harvinaisia istutettuja ja luonnonvaraisia puita Ahvenanmaalla ja Helsingissä. (Large specimens of rare cultivated and native trees in the Åland Islands and Helsinki, S Finland.) — *Sorbifolia* 40(1): 5–14.
- Häggström, C.-A. & Häggström, E. 2010: Ålands Flora, 2:a omarb. uppl. (Summary – The Flora of Åland. 2nd rev. ed.) — 528 pp. Ekenäs Tryckeri, Ekenäs.
- Häggström, C.-A. & Häggström, E. 2015a: Echium vulgare (Boraginaceae) in the Åland Islands. — *Memoranda Soc. Fauna Flora Fennica* 91: 1–8.
- Häggström, C.-A. & Häggström, E. 2015b: Ruderals and weeds in Godby, Åland Islands, SW Finland. — *Memoranda Soc. Fauna Flora Fennica* 91: 21–32.
- Häggström, C.-A., Häggström, E. & Carlsson, R. 2011: Metsähelmuus Ahvenanmaalla. (Small-leaved Lime in the Åland Islands, SW Finland.) — *Sorbifolia* 42(3): 99–109.
- Häggström, C.-A., Häggström, E., Carlsson, R. & von Numers, M.: 2016: Allium ursinum (Alliaceae) in Finland. — *Memoranda Soc. Fauna Flora Fennica* 92: 54–78.
- Häggström, C.-A. & Koistinen, M. 1999: Ålands fridlysta växter. [The protected plants in the Åland Islands.] — 76 pp. Ålands Landskapsstyrelse, Mariehamn.
- Häggström, C.-A. & Skytén, R. 1996: Flowering and individual survival of a population of the grass *Brachypodium sylvaticum* in Nätö, Åland Islands, SW Finland. — *Ann. Bot. Fennici* 33: 1–10.
- Häggström, E. 1983: Nätö biologiska station. — *Ålands Natur & Miljö* 1983(3): 28–30. Mariehamn.
- Håkanson, M. 1976: Nätö naturreservat. Del 1A: Västerskogen, Inre Korsö, Jungfruskär. [Nätö Nature Reserve. Part 1A: Västerskogen, Inre Korsö, Jungfruskär.] — 166 s., 8 app., 3 maps (Examensarbete för jägmästarexamen, Skogshögskolan, Stockholm.) (Duplicated report, stored e.g. in the library of the Nätö Biological Station.)
- Hämet-Ahti, L., Suominen, J., Ulvinen, T. and Uotila, P. (eds.) 1998: Retkeilykasvio (Field Flora of Finland), Ed. 4. — 656 pp. Finnish Museum of Natural History, Botanical Museum, Helsinki.
- Hämet-Ahti, L., Kurtto, A., Lampinen, R., Piirainen, M., Suominen, J., Ulvinen, T. and Uotila, P. & Väre, H. 2005: Lisäksiä ja korjauksia Retkeilykasvion neljänteenv painokseen. [Additions and corrections to the fourth edition of Retkeilykasvio (Field Flora of Finland).] — *Lutukka* 21: 41–85.
- Index Herbariorum 2021: <http://sweetgum.nybg.org/science/ih/> (January 27, 2021.)
- Jalas, J. 1980: Viola palustris L. – Suo-orvokki. — In: Jalas, J. (ed.), *Suuri Kasvikirja III*: 124–127. Otava, Helsinki.
- Julin, E. 1958: On a laciniate-leaved form of *Filipendula ulmaria* (L.) Maxim. — *Svensk Bot. Tidskr.* 52: 193–195.
- Karhu, N. 1998: Vihreät jättäläiset, Suomen paksuimmat puut – seurantatuloksia. (The thickest trees in Finland – a monitoring report.) — *Sorbifolia* 29: 17–32.
- Karhu, N. 2002: Vihreät jättäläiset, Suomen paksuimmat puut – seurantatuloksia 2. (The thickest trees in Finland – a monitoring report, part II.) — *Sorbifolia* 33: 65–80.
- Karlsson, T. 2001: *Sagina nodosa*. — In: Jonsell, B. (ed.), *Flora Nordica* 2: 160–163. The Bergius Foundation, The Royal Swedish Academy of Sciences, Stockholm.
- Kulves, H. 1980: Skyddad natur på Åland. [Protected nature in Åland.] — 92 pp. Ålands Landskapsstyrelse, Mariehamn.
- Kulves, H. 2004: Skyddad natur på Åland – ett arv att värna. [Protected nature in Åland – a heritage to defend.] — 272 pp. PQR Kulturnatur, Mariehamn.
- Kurtto, A., Lampinen, R., Piirainen, M. & Uotila, P. 2019: Checklist of the vascular plants of Finland. *Suomen putkilokasvien luettelo*. — *Norrlinia* 34: 1–206.
- Lampinen, R. & Lahti, T. 2019a: Kasviatlas 2018. — Helsingin yliopisto, Luonontieteellinen keskuskmuseo, Helsinki. koivu.luomus.fi/kasviatlas/
- Lampinen, R. & Lahti, T. 2019b: Kasviatlas 2018. — Helsingin yliopisto, Luonontieteellinen keskuskmuseo, Helsinki. koivu.luomus.fi/kasviatlas/spk_provincedata.php
- Lampinen, R. & Lahti, T. 2019c: Kasviatlas 2018. — Helsingin yliopisto, Luonontieteellinen keskuskmuseo, Helsinki. koivu.luomus.fi/kasviatlas/spk_kunta_kasvi.php
- Levin, J., Fay, M.F., Pellicer, J. & Hedrén, M. 2018: Multiple independent origins of intermediate species between *Sorbus aucuparia* and *S. hybrida* (Rosaceae) in the Baltic region. — *Nordic Journal of Botany* 36(12): 1–19. (2018: doi.org/10.1111/njb.02035)
- Lindberg, H. 1910: Erica tetralix på Åland. — *Meddelanden Soc. Fauna Flora Fennica* 36: 29.
- Lounamaa, J. 1956: Trace elements in plants growing wild on different rocks in Finland. — *Ann. Bot. Soc. Vanamo* 29(4): 1–196.
- Luther, H. 1955: Laderaumkehricht als Quelle hydrochor verbreiteter Diasporen. — *Acta Soc. Fauna Flora Fennica* 72(14): 1–18.
- Marklund, G. 1961: Der Ranunculus auricomus -Komplex in Finnland I. Diagnosen und Fundortslisten einiger Sippen des *R. auricomus* L. coll. (s.str.). — *Flora Fennica* 3: 1–128, 94 plates.
- Matsson, L. P. R. 1915: Översikt af de nordeuropeiska formerna af *Rosa mollis* Sm. [A survey of the northern European forms of *Rosa mollis* Sm.] — *Svensk Bot. Tidskr.* 9: 30–72.
- Montell, J. 1946: Växtdformer från Åland. [Plant forms from Åland.] — *Memoranda Soc. Fauna Flora Fennica* 22: 189–193.
- Ölander, A. 1905: Kartbeskrifning öfver Nätö bys alla egör i Lemlands socken Ålands härad samt Åbo och Björneborgs län. [Map description of all property of the village of Nätö in Lemland, Åland. (Cadastral map with descriptions.)] — Map archives of the Survey Office of Åbo och Björneborgs län, Åbo.
- Palmgren, A. 1910: Bidrag till kännedomen om Ålands vegetation och flora. I. Taraxaca. [Contribution to the knowledge of the flora of Åland. I. Taraxaca.] — *Acta Societatis pro Fauna et Flora Fennica* 34(1): 1–53, 12 pl.

- Palmgren, A. 1912: Hippophaës rhamnoides auf Åland. — Acta Societas pro Fauna et Flora Fennica 36(3): 1–188, 10 pl., 1 map.
- Palmgren, A. 1915–1917: Studier öfver löfängsområdena på Åland. Ett bidrag till kännedomen om vegetationen och floran på torr och på frisk kalkhaltig grund. I–III. [Studies of the wooded meadow areas in Åland. A contribution to the knowledge of the vegetation and flora on dry and mesic calcareous soil. I–III.] — Acta Soc. Fauna Flora Fennica 42(1): 1–634, 2 pl., 2 maps, 16 tables. — (AP-15) is Part II of this publication. It deals with the different wooded meadow species (taxa) sensu Palmgren. The part II was published in 1915 and it comprises the pages 171–474 of the total publication.
- Palmgren, A. 1922: Zur Kenntnis des Florencharakters des Nadelwaldes. Eine pflanzengeographische Studie aus dem Gebiet Ålands. — Acta Forestalia Fennica 22(2): 1–114, 1 map.
- Palmgren, A. 1925: Die Artenzahl als pflanzengeographischer Charakter sowie der Zufall und die sekuläre Landhebung als pflanzengeographische Faktoren. Ein pflanzengeographischer Entwurf, basiert auf Material aus dem åländischen Schärenarchipel. — Acta Botanica Fennica 1(1): 1–142, 1 map.
- Palmgren, A. 1961: Studier över havsstrandens vegetation och flora på Åland. I. Vegetationen. — Acta Botanica Fennica 61: 1–268.
- Palmgren, M. & A. 1933: Myagrum perfoliatum L. funnen i Finland. [Myagrum perfoliatum L. found in Finland.] — Memoranda Soc. Fauna Flora Fennica 8: 254–256.
- Petäinen, A. 2003: Vanamon retki Ahvenanmaalle 5.–8.6.2003. [The excursion by Vanamo to the Åland Islands, June 5–8, 2003.] — Luonnon Tutkija 107: 145–151.
- Ranta, P. 1991: Ålands hotade kärväxter – kartering, skydd och vård. Årsrapport 1990. [The endangered plants of Åland – mapping, protection and care. Annual report 1990.] — 110 pp. Metsätähti Ab, Helsingfors. (Copy of report to the Nature Conservancy Authorities in Mariehamn.)
- Ranta, P. 1992: Ålands hotade kärväxter – kartering, skydd och vård. Årsrapport 1991. [The endangered plants of Åland – mapping, protection and care. Annual report 1990.] — 161 pp. Metsätähti Ab, Helsingfors. (Copy of report to the Nature Conservancy Authorities in Mariehamn.)
- Rytäri, T., Reinikainen, M., Häggström, C.-A., Hakalisto, S., Hallman, J., Kanerva, T., Kulmala, P., Lampinen, J., Pirainen, M., Rautiainen, V.-P., Rintanen, T. & Vainio, O. 2019: Putkilokasvit / Vascular plants Tracheophyta. — In: Hyvärinen, E., Juslén, A., Kempainen, E., Uddström, A. & Liukko, U.-M. (eds.), Suomen lajien uhanalaisuuus – Punainen kirja 2019. The 2019 Red List of Finnish Species, pp. 182–202. Ympäristöministeriö & Suomen ympäristökeskus / Ministry of the Environment & Finnish Environment Institute, Helsinki.
- Silvestris 2015: Arter och biotoper på sex Natura 2000-områden på Åland. Bilaga 3, tabell 5: Kärväxter (2015), pp. 11–44. — Silvestris naturinventering ab. (Report sent to the Nature Conservancy Authorities of Åland)
- Silfverberg, K. 1980: Växtligheten på nedlagda åkrar i Lemland. [The vegetation of disused cultivated field in Lemland.] — Norden-skiöld-samfundets tidskrift 40: 48–68.
- Slotte, H. 1983: Vegetationens förändring på Slätholm, Åland. En jämförelse mellan lövängsfloran åren 1907–14 – 1981–83. [The transformation of the vegetation in Slätholm, Åland. A comparison between the wooded meadow flora between the years 1907–1914 and 1981–1983.] — Uppsats inom kursen "Projektarbete och informationsteknik" vid Uppsala Universitet. 8 s. (Duplicated copy.)
- Stork, A. 1970: Viola reichenbachiana Jord. discovered on Åland (Ålandia, Finland). — Svensk Bot. Tidskr. 64: 194–196.
- Stork, A. 1971: Viola reichenbachiana Jord. on Åland – chromosome counts. — Svensk Bot. Tidskr. 65: 226–228.
- Uutila, P. & Suominen, J. 1976: The Chenopodium species in Finland, their occurrence and means of immigration. — Ann. Bot. Fennici 13: 1–25.

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