## Varroa situation on Åland – 2024/25

NBBC Riga 2025



### Åland – varroa free area

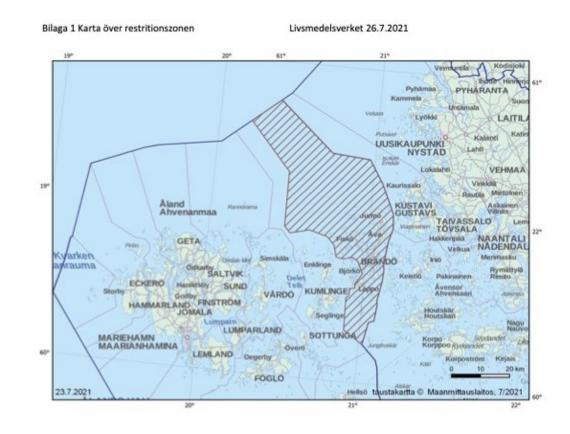
- Åland is a unique place for beekeeping as it is geografically isolated
- Åland has had the status of a varroa-free area since 2013
- Good situation is also with AFB





# Background

- We provide the annual testing of varroa in randomly selected hives and in each of hives in selected areas. Cca. 400 samples each year.
- Outbreak of Varroa in 2021 In the annual testing, infected hives were found.
- All colonies in Brändö have been either destroyed by burning or moved to mainland Finland





### Brändö

- Brändö is an island municipality in the northeast part Åland Islands, Finland.
- · Consists of over 1,200 islands and islets.
- · Population: Approximately 445 people
- · Total area: 1,643.21 km², with 1,540.41 km² being water
- · Only 102,8 km² of land!

apsregering

- The distance between Brändö and mainland Finland is approximately 10km
- There is a ferry connection between Brändö and Kustavi, which is part of mainland Finland.





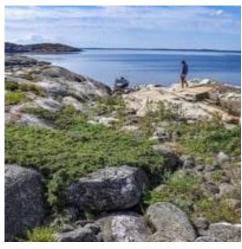




- The honeybee habitats that exist on Brändö are small and fragmented due to the large number of small islands.
- · As agriculture and grazing has decreased some habitats have gone wild and many of the earlier habitats for bees diminished.













## Feed for honeybees in Brändö

- · The available nectar and pollen is very sparse on Brändö
- Most important flowers are dandellion, willow herb, clover, blueberries and heather
- Feed is available only a limited time, from end of april to the end of july

	Släkte	Art	Nektar	Pollen	Månad
Al	Alnus	ssp	0	2	3-4
Alsikeklöver	Trifolium	alexandrinum	3 3		6-8
Asp	Populus	tremula	0 2		4-5
Blåbär	Vaccinium	myrtillus	2 2		5
Blåeld	Echinum	vulgare	3 2		6-8
Brakved	Fragula	alnus	3		6-8
En	Juniperus	communis ssp communis	0 2		5-6
Gran	Picea	abies ssp abies	0		5-6
Gråvide	Salix	cinerea	3		3-4
Gräslök	Allium	schenprasum var schoenp.	hoenp. 3		6
Gulfetknopp	Sedum	acre			6-7
Hallon	Rubus	idaeus	3		6-7
Hassel	Corylus	scoparius	0 2		3-4
Humleblomster	Geum	rivale	2		5-7
Hägg	Prunus	padus ssp padus	2	2	5-6
Hästhov	Tussilago	farfara	2	3	2-5
Lind	Tilia	cordata	3	1	7-8
Lingon	Vaccinium	vitis-idaea	3	1	5-6
Ljung	Calluna	vulgaris	3 1		7-8
Mjölkört	Epilobium	angustifolium	3	3	7-8
Måbär	Ribes	alpinum	2 2		5-6
Odon	Vaccinium	opulus	2 2		5-6
Ogräsmaskros	Taraxaum	sektion Ruderalia	3 3		5-6
Parklind	Tilia	cordata x platyphyllos	3 1		7-8
Päron	Pyros	communis	2 0		4-5
Raps	Brassica	napus var olifera	3	3	5-7
Rödklöver	Trifolium	pratense	3	3	7-9
Rönn	Sorbus	aucuparia var aucuparia	2	3	5-6
Skogslönn	Acer	platanoides	3	2	4-5
Sälg	Salix	caprea var caprea	3	3	4-5
Vildapel	Malus	sylvestris	3	3	5
Vitklöver	Trifolium	repens	3	3	6-9
Vitsippa	Anemone	nemorosa	0	3	4-5
Åkertistel	Cirsium	arvense	3	2	7-9
Älggräs	Filipendula	ulmaria	0	2	7-8



# Virgin Queens

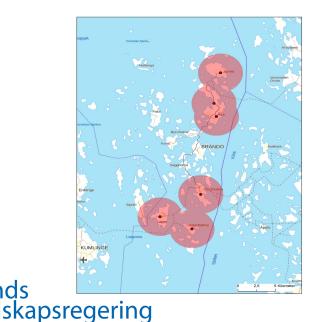
- · 2021 we started with "virgin queens" project
- The project aimed to demonstrate the absence of hidden apiaries and overwintered swarms.





#### 2022

- 2 queens to Jurmo
- 3 queens to Åva
- 2 queens to Torsholma
- 2 queens to Asterholma
- 2 queens to Lappo

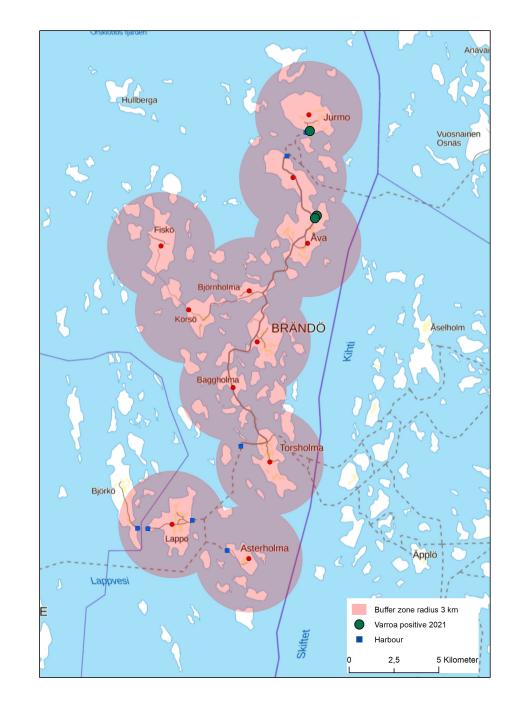


- When installing the mating hive at Asterholma, we noticed bees
- The presence of other bees was confirmed by the mated queen
- Unregistered hives were found and moved to Finland.



#### 2023

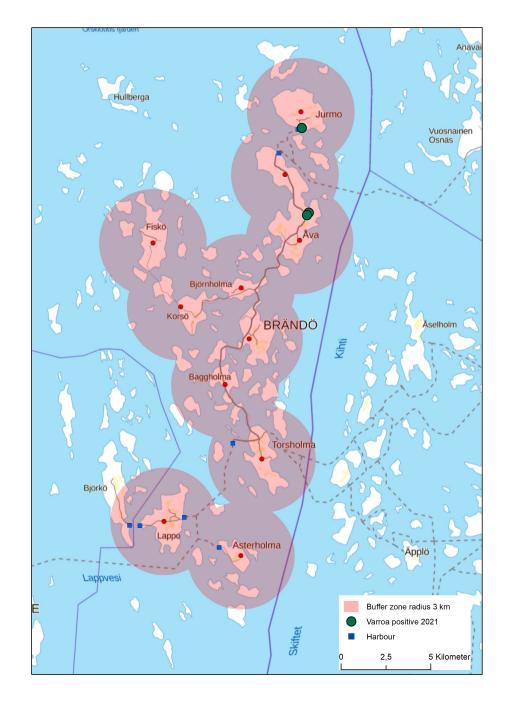
- In 2023, 22 mating hives were placed at 11 locations
- Results no mated queen





#### 2024

- In 2024, 22 mating hives were placed at the same 11 locations as in 2023
- The plan was to confirm the absence of bees at Brändö
- Result we found mated queen at Lappo



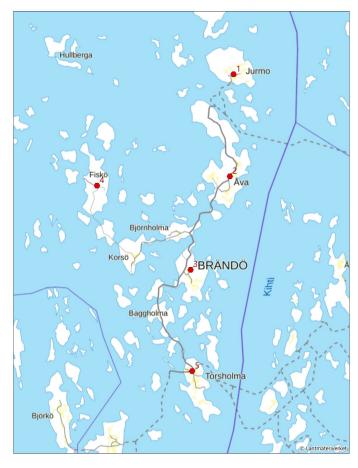


### Sentinel hives – autumn 2024

- The sentinel hives hives that will be under special supervision.
- · In September 2024, 5 sentinel hives were placed at Brändö
- We sent our proposal for the eradication plan to the Unit of Animal Health in SANTE – European Commission.
- · After receiving feedback from the European Commission, we revised the eradication plan.
- It was sent for approval, and we are awaiting a response.
- · We still have a chance to regain the Varroa-free status for Brändö







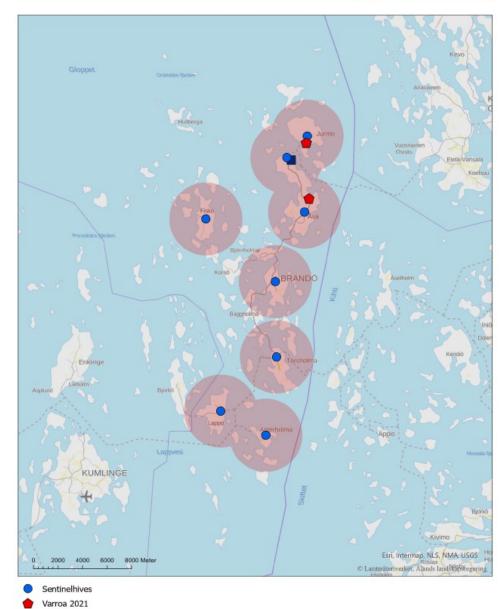


#### Sentinelhives

Harbour from mainland Finland

3km buffertzone







# Testing of sentinels hives

<ul> <li>Summary of the methods</li> <li>Method</li> </ul>		Time	Sampler
Natural Mite Fall	All sentinel hives	Twice a month 1.6-30.9	Beekeeper
Sampling of drone brood	All sentinel hives	June	Authorised inspector
Testing of adult bees	All sentinel hives	July-August	Authorised inspector
Oxalic acid trinkling	All sentinel hives	November	Beekeeper



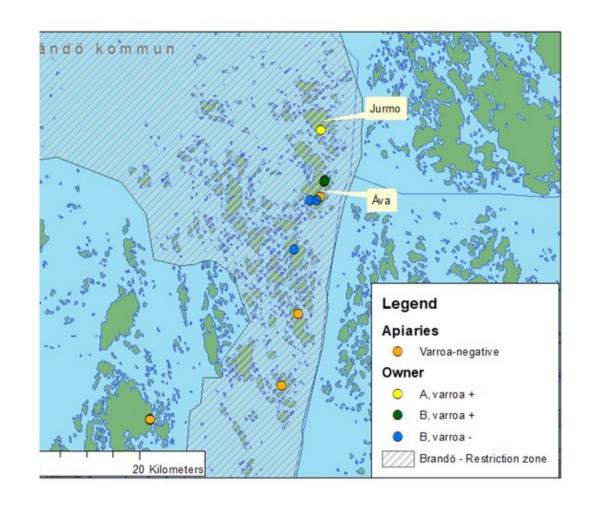
# Mnemosyne butterfly

- The mnemosyne butterfly, or small Apollo butterfly, lives in Brändö
- · Protected throughout Europe.
- It is important that honeybees do not outcompete butterflies but also other native pollinators such as beetles and hoverflies.
- No wild bees on Brändö, but other pollinators are crucial for the environment





- Due to the lack of habitats and the lack of feed, Brändö can not manage a large amount of honeybee colonies.
- Before Varroa 2021 Brändö had 9 honeybee apiaries (maximum 16 colonies).

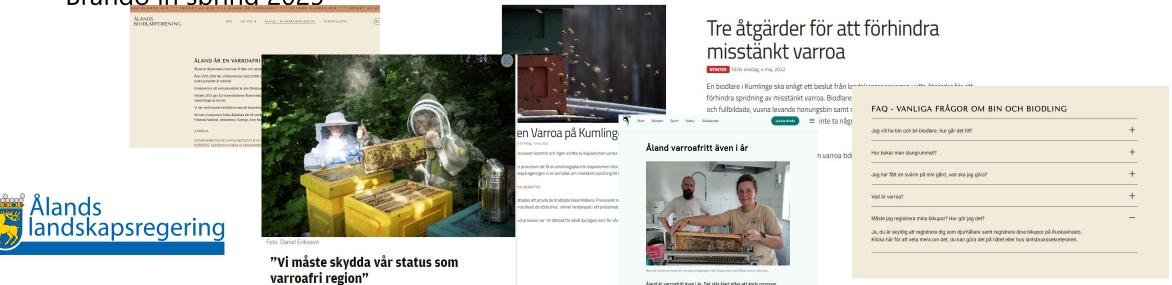




# Communication and sensitization of beekeepers and inhabitants

- · Extensive communication efforts have been conducted
- · Both about registration of colonies and the risk of varrosis
- · Information in the local newspapers and radio every year
- · Informational event at the local beekeeping association
- · The beekeeping association also worked with information campaigns of its own

This work will be continued in the future, starting with a meeting with the inhabitants on Brändö in spring 2025



### Discussion

### Thanks!

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