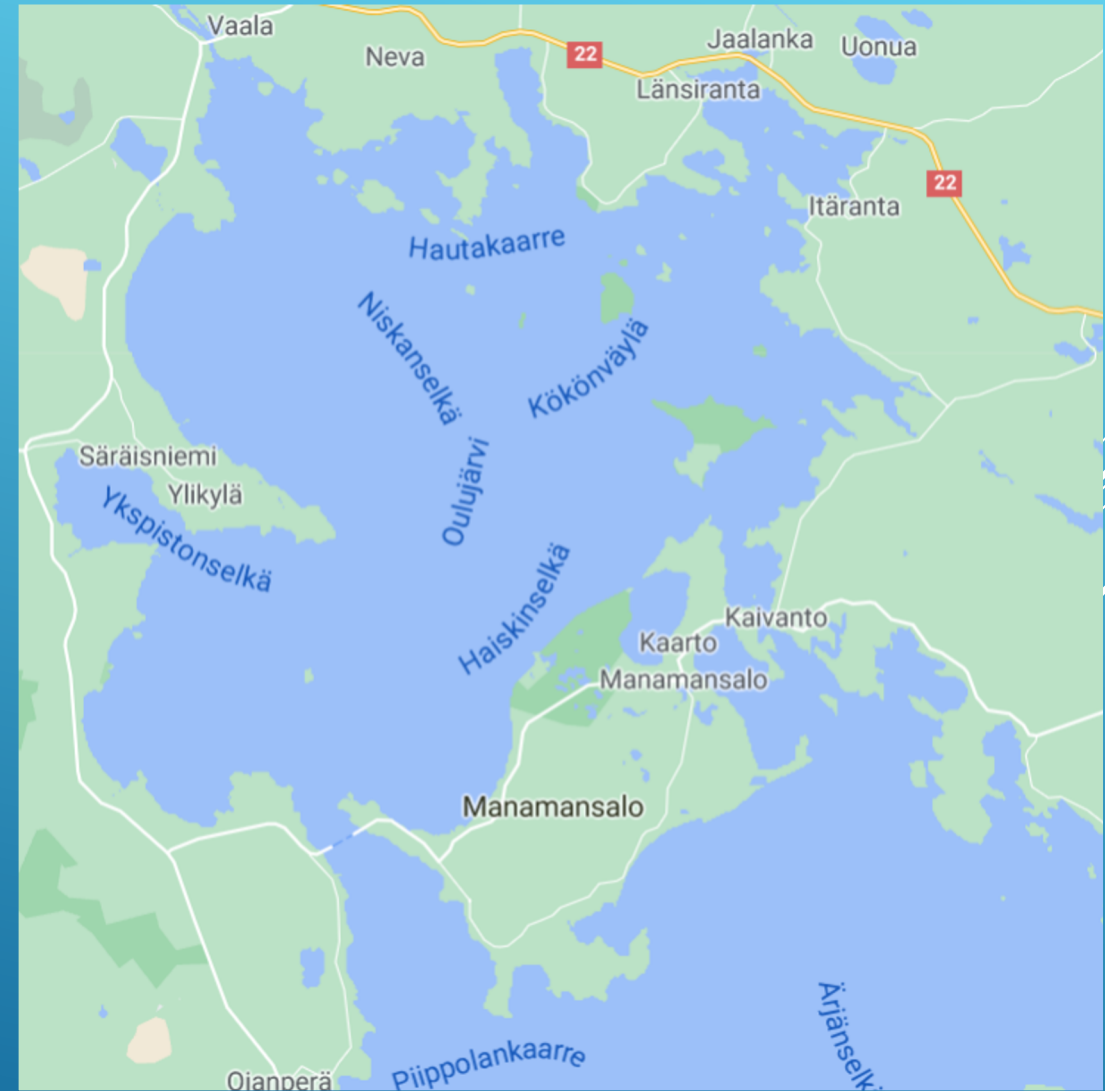


ICE AND SNOW MEASUREMENTS

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APPARENT TRENDS IN ICE CAP TIME

As a result of climate change:

- ice melts earlier than before
- water freezes later
- ice thickness thinner than before

Minimum ice thickness: 23 cm

Maximum ice thickness: 66 cm

Average ice thickness: 42 cm

The largest measured ice thickness:
76 cm (10.4.1985)

	freezing	breaking up of ice	duration of ice cover
1854-2020	18.11	23.5	186
1961-2000	20.11	22.5	183
2000-2020	1.12	12.5	162

WHY IS IT IMPORTANT TO HAVE LONG TERM DATA SERIES ON NATURAL PROCESSES?

Some winters are colder than others, that's why the measured values change every year.

Reliable data is obtained if findings are collected for several years → average



WHAT KIND OF CONSEQUENCES MIGHT THE CHANGES IN SNOW COVER AND LAKE ICE HAVE IN OUR HOME REGION IN THE FUTURE?

Snow protects plants from frost damage in the winter

Some animals need snow during winters

Without snow:

- animals' camouflage will disappear
- Saimaa ringed seal will become extinct
- the birds don't get into the snow nest

Without lake ice:

- winter sports wouldn't be possible, for example skating on lake ice
- harm for certain animal species

SNOW AND ICE MEASUREMENTS IN KAIVANTO, MANAMANSALO

All measurements (cm)	Minimum	Maximum	Average
Snow depth	17	20	18
Snow water equivalent			
Bright ice	6	13	9
Porous ice	18	20	19
Total thickness	26	31	28

SNOW MEASUREMENTS IN MARTINLAHTI, MANAMANSALO

Point 2, land	Minimum	Maximum	Average
Snow depth (cm)	32	35	33
Snow water equivalent (g)	475	575	520

Point 4, lake	Minimum	Maximum	Average
Snow depth (cm)	15	20	17
Snow water equivalent (g)	205	275	240

ICE MEASUREMENTS IN MARTINLAHTI, MANAMANSALO

Measurements (cm)	Point 2 average	Point 3 average
Snow depth	20	21
Bright ice	20	20
Porous ice	25	17
Total thickness	45	37