

# Eisbericht Nr. 10

## Amtsblatt des BSH

Jahrgang 97

Nr. 10

Tuesday, 28.11.2023

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### Übersicht

In der nördlichen Bottenwiek befindet sich den Schären bis 30 cm dickes Festeis oder ebenes Eis; weiter außerhalb treibt bis zu 15cm dickes, meist lockeres Eis. Weiter im Süden kommt, bis in die Boddensee hinein, an den Küsten Neueis vor. Auch in einigen geschützten Stellen des Schärenmeers, im Rigaischen Meerbusen und Finnischen Meerbusen kommt Neueis vor.

### Overview

In the northern Bay of Bothnia there is up to 30 cm thick fast ice or level ice in the archipelagos and up to 15cm thick, mostly open ice is drifting further out. Further south there is new ice in places along the coast down to the sea of Bothnia. New ice is present also in sheltered places in the Archipelago Sea, the Gulf of Riga and the Gulf of Finland.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia there is up to 30 cm thick fast ice or level ice. Further out in the northwest there is a mix of thin level ice and up to 15cm thick very open to close ice extending to about Nygrån, Rödkallen and Malören, In the northeast there is first 2-10cm thick level ice and later 5-15cm thick open ice out to

about 23°40'E. Further south there is thin level and new ice along the coast and ice formation in places farther out. At sea outside Raahe there is new ice. As only light frost is expected ice formation will continue at a slow pace and with a fresh to strong breeze out of the northeast the ice will continue to drift southwestwards.

### The Quark

New ice and thin level ice is present in bays along the coasts and in the Vaasa archipelago. Farther out ice formation in places and very open ice outside the southeastern coast.

With light frost and a fresh northeasterly breeze new ice formation will occur and the ice will drift towards the southeast.

### Sea of Bothnia

New ice can be found in bays along the whole Finnish coast, to a lesser extent also along the Swedish coast. At places there is new ice formation further out. On the Ångermanälven there is

3–10 cm thick level ice on the upper part and new is present in the lower part. With light frost some ice formation is expected at the coast.

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)  
[www.bsh.de/eis](http://www.bsh.de/eis)  
[www.bsh.de/ice](http://www.bsh.de/ice)

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**Northern Baltic**

In Lake Mälaren new ice is present in the western part.

With expected light frost, inland also moderate frost, some new ice formation is anticipated.

**Archipelago Sea**

In some sheltered bays there is new ice. With near coast temperatures below freezing some

ice formation is expected there.

**Gulf of Finland**

Thin ice, new ice and ice formation in Lake Saimaa. New ice is present in the top of Vyborg Bay and from Kotlin to St. Peterburg.

With near coast temperatures below freezing some ice formation is expected.

**Gulf of Riga**

Some new ice is present in bays in Väinameri and the Bay of Pärnu.

With near coast temperatures below freezing some ice formation is expected.

**Swedish Lakes**

New ice is present in some sheltered areas of northern Lake Vänern.

With light to moderate frost further new ice formation is expected.

Dr. J.Holfort

**Restrictions to Navigation**

	<b>Harbour/District</b>	<b>At least dwt/hp/kW</b>	<b>Ice Class</b>	<b>Begin</b>
<b>Finland</b>	Tornio, Kemi and Oulu	2000 dwt	II	22.11.
	Lake Saimaa	<b>2000 dwt</b>	<b>II</b>	<b>02.12.</b>
	Saimaa Canal	<b>2000 dwt</b>	<b>II</b>	<b>02.12.</b>
<b>Sweden</b>	Karlsborg, Lulea and Haraholmen	2000 dwt	II	21.11.
	Karlsborg and Lulea	<b>2000 dwt</b>	<b>I</b>	<b>02.12.</b>
	Skelleftehamn	<b>2000 dwt</b>	<b>II</b>	<b>02.12.</b>
	Angermanälven	<b>1300/2000 dwt</b>	<b>IC/II</b>	<b>29.11.</b>
	Köping	<b>1300/2000 dwt</b>	<b>IC/II</b>	<b>02.12.</b>

**Finland/Sweden**

Vessels bound for Gulf of Bothnia ports in which assistance restrictions apply, shall when passing latitude 60° 00' N report their nationality, name, destination, ETA and speed to ICE INFO on VHF channel 82. This report can also be given directly by telephone to +46 10 492 7600.

Vessels bound for Finnish or Swedish ports with assistance restrictions in the Quark or the Bay of Bothnia shall, 20 nautical miles before Nordvalen Lighthouse (63° 32.15' N 20° 46.60' E), report in accordance with the instructions for winter navigation to Bothnia VTS on VHF channel 67.

**Icebreakers:** KONTIO assists in the Bay of Bothnia.

## Baltic Sea Ice Code

<p>First number:</p> <p><b>A<sub>B</sub> Amount and arrangements of sea ice</b></p> <p>0 Ice free</p> <p>1 Open water – concentration less than 1/10</p> <p>2 Very open ice - concentration 1/10 to 3/10</p> <p>3 Open ice – concentration 4/10 to 6/10</p> <p>4 Close ice – concentration 7/10 to 8/10</p> <p>5 Very close ice – concentration 9/10 to 9+/10</p> <p>6 Compact ice, including consolidated ice – concentration 10/10</p> <p>7 Fast ice with drift ice outside</p> <p>8 Fast ice</p> <p>9 Lead in very close or compact drift ice or along the fast ice edge</p> <p>/ Unable to report</p> <p>Third number:</p> <p><b>T<sub>B</sub> Topography or form of ice</b></p> <p>0 Pancake ice, ice cakes, brash ice – less than 20 m across</p> <p>1 Small ice floes – 20 to 100 m across</p> <p>2 Medium ice floes – 100 to 500 m</p> <p>3 Big ice floes – 500 to 2000 m across</p> <p>4 Vast or giant ice floes – more than 2000 m across – or level ice</p> <p>5 Rafted ice</p> <p>6 Compact slush or shuga, or compacted brash ice</p> <p>7 Hummocked or ridged ice</p> <p>8 Thaw holes or many puddles on the ice</p> <p>9 Rotten ice</p> <p>/ No information or unable to report</p>	<p>Second number:</p> <p><b>S<sub>B</sub> Stage of ice development</b></p> <p>0 New ice or dark nilas (less than 5 cm thick)</p> <p>1 Light nilas (5 - 10 cm thick) or ice rind</p> <p>2 Grey ice (10 - 15 cm thick)</p> <p>3 Grey-white ice (15 - 30 cm thick)</p> <p>4 White ice, first stage (30 - 50 cm thick)</p> <p>5 White ice, second stage (50 - 70 cm thick)</p> <p>6 Medium first year ice (70 - 120 cm thick)</p> <p>7 Ice predominantly thinner than 15 cm with some thicker ice</p> <p>8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice</p> <p>9 Ice predominantly thicker than 30 cm with some thinner ice</p> <p>/ No information or unable to report</p> <p>Fourth number:</p> <p><b>K<sub>B</sub> Navigation conditions in ice</b></p> <p>0 Navigation unobscured</p> <p>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</p> <p>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</p> <p>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</p> <p>4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</p> <p>5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</p> <p>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</p> <p>7 Icebreaker assistance can only be given to vessels after special permission</p> <p>8 Navigation temporarily closed</p> <p>9 Navigation has ceased</p> <p>/ Unknown</p>
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## Finland, 27.11.2023

Röyttä – Etukari	8745
Etukari – Ristinmatala	5145
Ajos – Ristinmatala	5145
Ristinmatala – Kemi 2	5145
Kemi 2 – Kemi 1	5145
Sea area SW of Kemi 1	3125
Kemi 2 – Ulkokrunni – Virpiniemi	5145
Oulu harbours – Kattilankalla	8745
Kattilankalla – Oulu 1	5145
Sea area SW of Oulu 1	5145
High Sea N of the latitude of Marjaniemi	3125
Raahe harbour – Heikinkari	4041
Heikinkari – Raahe lighthouse	4041
Raahe lighthouse – Nahkiainen	3021
Latitude Marjaniemi – Ulkokalla, Sea	3122
Rahja harbour – Välimatala	3011
Ykspihlaja – Repskär	3011
Vaskiluoto – Ensten	5041
Ensten – Vaasa lighthouse	2001
Inkoo a. Kantvik – sea area Porkkala	4041

## Sweden, 27.11.2023

Karlsborg – Malören	8346
Luleå – Björnklack	8346
Björnklack – Farstugrunden	3226
Sandgrönn fairway	4046
Rödkallen – Norströmsgrund	3226
Haraholmen – Nygrån	3226
Sea area off Nygrån	3226
Skelleftehamn – Gåsören	2121
Sea area off Gåsören	2121
Örnsköldsvik – Hörnskatan	4041
Ångermanälven north Sandö Bridge	4041
Ångermanälven south Sandö Bridge	4041
Gävle – Eggegrund	4041
Köping – Kvicksund	4041