

# Eisbericht Nr. 11 Amtsblatt des BSH

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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 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 to close 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. Off Raahe there is thin level ice and at further out at sea there is thin open ice. Temperatures will decrease slowly and with light to moderate frost so ice formation and growth is expected. Together with a light southwesterly ice drift the ice area will expand slightly but the overall ice situation will not change very much.

### 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 northeasterly winds some 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 mostly light frost some ice formation is expected at the coast.

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH) www.bsh.de/eis www.bsh.de/ice

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#### **Northern Baltic**

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

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With expected light 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 and the ice will drift towards west to southwest.

## **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 mostly light frost further new ice formation is expected.

Dr. J.Holfort

#### **Restrictions to Navigation**

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

#### 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 and ALE assist in the Bay of Bothnia.

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## **Baltic Sea Ice Code**

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

Finland,	29.11.2023
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Röyttä – Etukari	8745
Etukari – Ristinmatala	5145
Ajos – Ristinmatala	5145
Ristinmatala – Kemi 2	3135
Kemi 2 – Kemi 1	3135
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	4145
High Sea N of the latitude of Marjaniemi	4145
Raahe harbour – Heikinkari	4041
Heikinkari – Raahe lighthouse	3032
Raahe lighthouse – Nahkiainen	3021
Latitude Marjaniemi – Ulkokalla, Sea	3132
Rahja harbour – Välimatala	3011
Ykspihlaja – Repskär	4041
Vaskiluoto – Ensten	5142
Ensten – Vaasa lighthouse	2021
Inkoo a. Kantvik – sea area Porkkala	4041

# Sweden, 29.11.2023

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Karlsborg – Malören	8346
Sea area off Malören	3122
Luleå – Björnklack	8346
Björnklack – Farstugrunden	4236
Sandgrönn fairway	4236
Rödkallen – Norströmsgrund	3226
Haraholmen – Nygrån	3226
Sea area off Nygrån	3226
Skelleftehamn – Gåsören	4232
Sea area off Gåsören	4232
Örnsköldsvik – Hörnskaten	5142
Ångermanälven north Sandö Bridge	5144
Ångermanälven south Sandö Bridge	4044
Gävle – Eggegrund	4041
Köping – Kvicksund	4041
Fairway to Karlstad	4041
Fairway to Kristinehamn	4041