



# Eisbericht Nr. 5

## Amtsblatt des BSH

Jahrgang 95

Nr. 5

Friday, 03.12.2021

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### Übersicht

In der nördlichen Bottenwiek liegt dünnes, ebenes Eis in den Schären und weiter außerhalb Neueis. In der südlichen Bottenwiek, Norra Kvarken und der Bottensee befindet sich Neueis und örtlich dünnes, ebenes Eis in Schären und geschützten Buchten. Im Finnischen Meerbusen liegt Neueis ganz im Osten, entlang der nördlichen Küste und vereinzelt entlang der südlichen Küste. Im Rigaischen Meerbusen befindet sich Neueis in geschützten Bereichen im Nordosten. Eisbildung hat im Schärenmeer, der Ålandsee, dem Mälarsee, dem Vänern und vereinzelt entlang der schwedischen Küste in der nördlichen Ostsee eingesetzt.

### Overview

In the northern Bay of Bothnia, there is thin level ice in the archipelagoes and new ice further out. In the southern Bay of Bothnia, Norra Kvarken and the Sea of Bothnia, there is new ice and, at places, thin level ice in the archipelagoes and sheltered bays. In the Gulf of Finland, new ice is present in the easternmost part, along the northern coast and at places along the southern coast. Ice formation has started in the Archipelago Sea, Åland Sea, Lake Mälaren, Lake Vänern and at places along the Swedish coast of the northern Baltic.

### Bay of Bothnia

In the northern Bay of Bothnia, there is thin level ice in the archipelagoes and off the Finnish coast to Ulkokrunni. Further out, there is drifting new ice to Nygrån – Rödkallen and Malören – North of Kemi-1 – Holma as well as of Raahe. From Oulu-1 to Raahe, there is a band of close, 3-8 cm thick drift ice. Of the level ice in the west, there are small

areas with very close, 3–8 cm thick drift ice. In the southern Bay of Bothnia, there is new ice along the Swedish coast and thin level ice with new ice further out along the Finnish coast.

New ice formation and ice growth is expected the coming days. The ice will drift westwards.

### Norra Kvarken

Thin level ice is present in the inner archipelagoes at the Finnish coast. Else, new ice occurs in bays

and archipelagoes.

New ice formation is expected over the weekend.

### Sea of Bothnia

On upper Ångermanälven and at places in the northern bay of Bothnia, there is thin level ice. Else, there is new ice along the coast in the north-

ern and southern Sea of Bothnia.

New ice formation is expected over the weekend.

### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

[www.bsh.de/eis](http://www.bsh.de/eis)

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**Archipelago and Åland Sea**

New ice is present in sheltered places in the Archipelago and Åland Sea.

Over the weekend ice formation will continue.

**Gulf of Finland**

New ice is present from St. Petersburg and up to Krasnaya Gorka, in the Bay of Vyborg and in places along the Finnish coast. New ice formation has started in some bays along the southern coast. In the northern lake Saimaa, there is thin level ice at

places and new ice. In the southern Lake Saimaa and Saimaa Canal, new ice occurs at places. Ice formation and ice growth will continue over the weekend.

**Gulf of Riga**

New ice is present in coastal areas of Väinameri. Ice formation has started along the northwestern

shore of Pärnu Bay. Ice formation will continue over the weekend.

**Northern Baltic**

In Lake Mälaren, thin level ice is present in the westernmost part and some sheltered bays. Else, there is some new ice in Lake Mälaren and shel-

tered bays along the coast. Ice formation will continue over the weekend.

**Swedish Lakes**

Ice formation has also started along the western shore of Lake Vänern and will continue over the

weekend.

Dr. W. Aldenhoff

### Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Finland</b>	Tornio, Kemi and Oulu	2000 dwt	II	04.12.
	Raahe, Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	II	08.02.
	Lake Saimaa and Saimaa Canal	1300 dwt	II	04.12.
	Northern Lake Saimaa	2000 dwt	II	08.12.
<b>Sweden</b>	Karlsborg, Luleå, Haraholmen and Skelleftehamn	2000 dwt	II	04.12.
	Ångermanälven	1300/2000 dwt	IC/II	04.12.
	Köping and Västerås	1300/2000 dwt	IC/II	06.12.

### Information of the Icebreaker Services

#### 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 78. 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:

**OTSO** is heading for the Bay of Bothnia.

**CALYPSO** assists in the Lake Saimaa and Saimaa Canal.

#### Russia

There are restrictions for small crafts going to Vysotsk, Vyborg, St. Petersburg, Ust-Luga and Primorsk.

## 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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**Estonia, 03.12.2021**

Kunda, port and bay	1000
Paernu, port and bay	1000
Moonsund	1000

**Finland, 03.12.2021**

Roeyttae – Etukari	5142
Etukari – Ristinmatala	5142
Ajos – Ristinmatala	4041
Ristinmatala – Kemi 2	4041
Kemi 2 – Kemi 1	4041
Kemi 2 – Ulkokrunni – Virpiniemi	4142
Oulu harbours – Kattilankalla	5142
Kattilankalla – Oulu 1	5141
Sea area SW of Oulu 1	4041
Raahe harbour – Heikinkari	5141
Heikinkari – Raahe lighthouse	4041
Rahja harbour – Välimatala	4041
Pietarsaari – Kallan	4041
Vaskiluoto – Ensten	5141

**Russian Federation, 03.12.2021**

Port of St. Petersburg	50/1
St. Petersburg – E-point island Kotlin	50/1
E-point Kotlin – long. lighth. Tolbuhkin	2000
Vyborg, port and bay	50/1

**Sweden, 03.12.2021**

Karlsborg – Maloeren	5242
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Luleå – Bjoernklack	5242
Sandgroenn fairway	5132
Roedkallen – Norstroemsgrund	4041
Haraholmen – Nygrån	4041
Skelleftehamn – Gåsoeren	4041
Sea area off Gåsoeren	4041
Sea area off Bjueroeklubb	4041
Umeå – Vaektaren	5041
Oernskoeldsvik – Hoernskaten	4041
Ångermanaelven north Sandoe Bridge	5242
Ångermanaelven south Sandoe Bridge	4242
Haernoessand – Haernoen	4142
Sundsvall – Draghaellan	5142
Hudiksvallfjaerden	4041
Iggesund – Agoe	4041
Gaevle – Eggegrund	4041
Koeping – Kviksund	5142
Västerås – Grönsö	5142
Fairway to Karlstad	5041
Fairway to Kristinehamn	5041