

# Eisbericht Nr. 4

## Amtsblatt des BSH

Jahrgang 95

Nr. 4

Thursday, 02.12.2021

1

### Übersicht

In der nördlichen Bottenwiek liegt dünnes, ebenes Eis in den Schären und weiter außerhalb Neueis. In der südlichen Bottenwiek, Norra Kvarken und der nördlichen Bottensee befindet sich Neueis und örtlich dünnes, ebenes Eis in Schären und geschützten Buchten. Entlang der finnischen Küste und vereinzelt entlang der schwedischen Küste findet sich Neueis in der südlichen Bottensee. Im Finnischen Meerbusen sowie im Mälarsee und im Väinameri hat Neueisbildung in küstennahen Gebieten 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 northern Sea of Bothnia, there is new ice and at places thin level ice in the archipelagoes and sheltered bays. Along the Finnish coast and in places along the Swedish coast, new ice is present in the southern Sea of Bothnia. New ice formation has started in coastal areas of the Gulf of Finland as well as in Lake Mälaren and Väinameri.

### 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 Simprundet – north of Malören – Oulu-1 and west of Raahe. In the southern Bay of Bothnia,

there is new ice or thin level ice in the archipelagoes.  
New ice formation and ice growth is expected the coming days.

### Norra Kvarken

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

Some new ice formation and ice growth is expected the coming days.

### Sea of Bothnia

On upper Ångermanälven and at places in the northern bay of Bothnia, there is thin level ice. New ice is present in sheltered places in the northern Sea of Bothnia, in the southern Sea of Bothnia

along the Finnish coast and at places along the Swedish coast.  
Some new ice formation is expected the coming days.

### 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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### Eisankünfte / Ice Information

Telefon: +49 (0) 381 4563 -780  
Telefax: +49 (0) 381 4563 -949  
E-Mail: [ice@bsh.de](mailto:ice@bsh.de)

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**Gulf of Finland**

New ice formation has started in the eastern Gulf of Finland from St. Petersburg and up to the longitude of the dike and the northern Bay of Vyborg. New ice is present at places in the Finnish archipelagos and along the Estonian coast. At 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. Some new ice formation is expected the coming days.

**Gulf of Riga**

New ice formation has started in sheltered bays around Väinameri.

Ice formation will continue the coming days.

**Northern Baltic**

Ice formation has started in the western part and sheltered bays of Lake Mälaren.

Ice formation will continue the coming days.

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.
	Lake Saimaa and Saimaa Canal	1300 dwt	II	04.12.
<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 tomorrow 3.12.

**CALYPSO** and **METEOR** will start assisting in the Lake Saimaa and Saimaa Canal during week 48.

**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, 02.12.2021**

Kunda, port and bay	2000
Moonsund	1000

**Finland, 02.12.2021**

Roeyttae – Etukari	5142
Etukari – Ristinmatala	4041
Ajos – Ristinmatala	4041
Ristinmatala – Kemi 2	4041
Kemi 2 – Kemi 1	4041
Kemi 2 – Ulkokrunni – Virpiniemi	5142
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, 02.12.2021**

Port of St. Petersburg	3000
St. Petersburg – E-point island Kotlin	5000
Vyborg, port and bay	5000

**Sweden, 01.12.2021**

Karlsborg – Maloeren	5242
Luleå – Bjoernklack	5242
Sandgroenn fairway	5142

Roedkallen – Norstroemsgrund	4041
Haraholmen – Nygrån	5142
Umeå – Vaektaren	5041
Ångermanaelven north Sandoe Bridge	5242
Ångermanaelven south Sandoe Bridge	4242
Haernoesand – Haernoen	3241
Sundsvall – Draghaellan	5142
Koeping – Kvicksund	4041
Västerås – Grönsö	4041