



# Eisbericht Nr. 14

## Amtsblatt des BSH

Jahrgang 95

Nr. 14

Thursday, 16.12.2021

1

### Übersicht

In der nördlichen Bottenwiek liegt in den Schären Festeis und weiter außerhalb sehr dichtes Eis und Neueis. In der südlichen Bottenwiek und Norra Kvarken liegt in den Schären dünnes, ebenes Eis, im Osten örtlich auch Festeis, sowie Neueis. Entlang der Küsten der Bottensee, dem Schärenmeer und der Ålandsee liegt dünnes ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt entlang der Nordküste dünnes, ebenes Eis oder Neueis und im Osten zumeist dünnes, ebenes Eis oder Festeis. Im Rigaischen Meerbusen befindet sich dünnes, ebenes Eis und Neueis im Moonsund und in der Pärnubucht. Neueis und seltener dünnes, ebenes Eis kommt örtlich in der nördlichen Ostsee, den Haffgebieten der südöstlichen Ostsee, dem Skagerrak und dem Vänern vor.

### Overview

In the northern Bay of Bothnia, there is fast ice in the archipelagos, and very close ice and new ice further out. In the southern Bay of Bothnia and Norra Kvarken, there is thin level ice, in the east also fast ice at places, and new ice in the archipelagos. Along the coasts of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is thin level ice or new ice. In the Gulf of Finland, thin level ice or new ice is present along the northern coast. Thin level ice or fast ice is present in the eastern part. In the Gulf of Riga, there is thin level ice and new ice in Moonsund and Pärnu Bay. New ice and rarely thin level ice occurs at places in the northern Baltic, in the lagoons of the southeastern Baltic, in the Skagerrak and Lake Vänern.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 15–30 cm thick fast ice. Further out in the east, there is 5–25 cm thick, very close ice to the line Malören – Kemi-1 – Kattilankalla. Rafting occurs at places, and at the ice edge, there is a thin brash ice barrier. Off the fast ice in the west, there

are areas of 5–15 cm ice of varying concentration from very open ice to very close ice. In the southern Bay of Bothnia, there is thin level ice or 10–20 cm thick fast ice in the archipelagos and new ice. No larger changes are expected the coming day. The ice drift will be to the east/southeast.

### Norra Kvarken

In the archipelagos off Vaasa, there is 5–25 cm thick fast ice and new ice at places further out. Along the Swedish coast and around Holmöarna, there is mostly thin level ice and open water further

out. Some ice melt will occur the coming days. Ice drift will be to the east/southeast.

### 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)

© BSH - Alle Rechte vorbehalten  
 Nachdruck, auch auszugsweise, verboten

### Eisankünfte / Ice Information

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

© BSH - All rights reserved  
 Reproduction in whole or in part prohibited

**Sea of Bothnia**

On upper Ångermanälven, there is 10–20 cm fast ice. At places in the northern Sea of Bothnia and along the Finnish coast, there is thin level ice.

Else, there is new ice along the coast. Some ice melt is expected the coming days.

**Archipelago and Åland Sea**

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

Some ice melt is expected the coming days.

**Gulf of Finland**

From St. Petersburg to Kotlin and north of Kotlin, there is 5–15 cm thick, very close ice. In the Bay of Vyborg, there is 10–15 cm fast ice in the top and very close, partly rafted nilas farther out. In the Bjerkesund, there is very close, partly rafted nilas. In the archipelagoes of the northern coast, there is thin level ice in the east and new ice in the west. Along the southern coast, there is new ice in a few

places. In the northern lake Saimaa, there is 10–20 cm thick level ice and new ice. In the southern Lake Saimaa and Saimaa Canal, 5–20 cm thick broken ice occurs.

Especially in the western part, ice melt is expected the coming days. The ice will drift to the east/southeast.

**Gulf of Riga**

In Moonsund and nearby shallow bays, there is very close, 5–10 cm thick nilas. Cracks and leads occur at places, and on the fairways, there is open water in the north and very open drift ice in the

south. In Pärnu Bay, there is very close, 5-15 cm thick nilas. Cracks and leads occur at places. Some ice melt is expected the coming days.

**Northern Baltic**

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

Swedish coast. The ice is melting the coming days.

**Southeastern Baltic**

In the Curonian Lagoon and Vistula Lagoon, new ice is present.

The ice is melting the coming days.

**Swedish Lakes**

New ice and thin level ice are present in sheltered bays of Lake Vänern.

The ice is melting the coming days.

**Skagerrak**

Almost ice free.

Dr. W. Aldenhoff

### Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Estonia</b>	<b>Pärnu</b>	<b>1600 kW</b>	<b>1C</b>	<b>17.12.</b>
<b>Finland</b>	Tornio, Kemi and Oulu	2000 dwt	I	11.12.
	Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	II	08.12.
	Raahe	2000 dwt	I	11.12.
	Northern Lake Saimaa	2000 dwt	II	08.12.
	Southern Lake Saimaa and Saimaa Canal	2000 dwt	II	11.12.
<b>Sweden</b>	Haraholmen and Skelleftehamn	2000 dwt	II	04.12.
	Karlsborg and Luleå	2000 dwt	IC	11.12.
	Ångermanälven	1300/2000 dwt	IC/II	04.12.
	Köping and Västerås	1300/2000 dwt	IC/II	06.12.

### Information of the Icebreaker Services

#### Estonia

**Icebreaker:** EVA-316 assists to the port of Pärnu.

#### 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, KONTIO, FREJ and YMER assist in the Bay of Bothnia. PROTECTOR and CALYPSO assist in the northern Lake Saimaa. METEOR assists in the southern Lake Saimaa and the Saimaa Canal.

#### Russia

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

**Icebreakers:** Several icebreakers assist vessels to the port of Vyborg, Vysotsk, Primorsk, Ust-Luga and St. Petersburg.

## 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>
--	--

**Estonia, 16.12.2021**

Paernu, port and bay	5283
Moonsund	3181

**Finland, 14.12.2021**

Roeyttae – Etukari	8346
Etukari – Ristinmatala	5756
Ajos – Ristinmatala	5756
Ristinmatala – Kemi 2	5746
Kemi 2 – Kemi 1	5746
Sea area SW of Kemi 1	4246
Kemi 2 – Ulkokrunni – Virpiniemi	8346
Oulu harbours – Kattilankalla	8346
Kattilankalla – Oulu 1	4746
Sea area SW of Oulu 1	1006
Raahe harbour – Heikinkari	4746
Heikinkari – Raahe lighthouse	4126
Raahe lighthouse – Nahkiainen	0//6
Rahja harbour – Välimatala	2015
Vaelimatala to line Ulkokalla – Ykskivi	0//5
Ykspihlaja – Repsaer	5745
Repskaer – Kokkola lighthouse	2005
Sea area off Kokkola lighthouse	0//5
Pietarsaari – Kallan	1105
Vaskiluoto – Ensten	5245
Ensten – Vaasa lighthouse	0//5
Vaasa lighthouse – Norrskaer	0//5
Kaskinen – Sälgrund	5242
Rauma, Harbour – Kylmäpihlaja	5142

Kylmäpihlaja – Rauma lighthouse	1000
Uusikaupunki harbour – Kirsta	5142
Naantali and Turku – Rajakari	1000
Koverhar – Hästö Busö	4001
Inkoo a. Kantvik – sea area Porkkala	3001
Helsinki harbours – Harmaja	2001
Valko Harbour – Täktarn	5142
Kotka – Viikari	2001
Hamina – Suurmusta	5142
Suurmusta – Merikari	1002

**Russian Federation, 16.12.2021**

Port of St. Petersburg	51/2
St. Petersburg – E-point island Kotlin	51/2
E-point Kotlin – long. lighth. Tolbukhin	2000
Vyborg, port and bay	82/2
Island Vichrevoj – Island Sommers	51/2
Strait Bjerkesund	51/2

**Sweden, 16.12.2021**

Karlsborg – Maloeren	8346
Luleå – Bjoernklack	8346
Bjoernklack – Farstugrunden	5376
Sandgroenn fairway	8346
Roedkallen – Norstroemsgrund	2226
Haraholmen – Nygrån	8346
Sea area off Nygrån	2226
Skelleftehamn – Gåsoeren	5246
Sea area off Gåsoeren	1206

Sea area off Bjuroeklubb	1201
Western Quark (W of Holmoearna)	5142
Umeå – Vaektaren	1201
Fairway to Husum	4041
Oernskoeldsvik – Hoernskaten	5142
Hoernskaten – Skagsudde	4041
Ångermanaelven north Sandoe Bridge	8344
Ångermanaelven south Sandoe Bridge	8344
Haernoessand – Haernoen	5244
Sundsvall – Draghaellan	5142
Draghaellan – Åstholmsudde	5041
Hudiksvallfjaerden	4041
Iggesund – Agoe	5041
Sandarne – Haellgrund	5041
Gaeve – Eggegrund	4041
Hallstavik – Svartklubben	5041
Keoping – Kvicksund	5144
Västerås – Grönsö	5144
Stockholm – Södertälje	5144
Norrköping – Hargökalv	5041
Fairway to Karlstad	5142
Fairway to Kristinehamn	5041