

# Eisbericht Nr. 79

## Amtsblatt des BSH

Jahrgang 97

Nr. 79

Thursday, 07.03.2024

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### Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 70 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Norden zumeist 30–70 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes Eis, das teilweise schwer zu passieren ist. Weiter südlich kommt meist sehr lockeres Eis vor. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See liegt im Westen 10–40 cm dickes, sehr dichtes Eis. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb kommt im Osten meist offenes Wasser vor. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Im Norden treibt nördlich von 60°10'N meist sehr dichtes, 10–35 cm dickes Eis und im Südosten kommt offenes Wasser vor. Im Rigaischen Meerbusen kommt im Nordosten zu 35 cm dickes, morsches Festeis vor. Auf See treibt im Norden entlang der Küste sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Kalmar örtlich dünnes Eis vor, teilweise aber auch bis 30 cm dickes Festeis.

### Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 70 cm thick in the north and up to 50 cm thick in the south. At sea in the north, there is mostly 30–70 cm thick, very close, ridged and rafted ice that is difficult to force at places. Further south there is mostly very open ice. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea in the west there is 10–40 cm thick, very close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 55cm thick in the east and up to 30 cm thick in the west. Outside the eastern coast there is mainly open water. Level ice or fast ice covers large parts of the Archipelago Sea. There is up to 55 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the northern part there is very close, 10–35 cm thick drift ice north of 60°10'N and in the southeast there is mostly open water at sea. In the Gulf of Riga there is up to 35 cm thick rotten fast ice in the northeast and very close ice is present off the coast in the north. Else thin ice is present at places, but also up to 30cm thick fast ice, in the Mälaren, Vänern, Norwegian fjords and along the Swedish coast north of Kalmar.

### Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 40–70 cm thick in the north and up to 25–50 cm thick in the south. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raahe lighthouse. At sea north of about 64°20'N in the east and 64°50'N in the west there is mostly

30–70 cm thick, ridged and rafted ice; the field is difficult to force at places. Further south there is mostly 10-35cm thick very open ice.

Continuous light frost to moderate frost with weak winds from mostly northerly directions are expected until Monday. New ice formation will take

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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

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place and a mostly southwards ice drift is ex-

### The Quark

There is 35–60 cm thick fast ice in the Vaasa archipelago out to Ensten. Farther out open ice and new ice, but also regions with close ice. Along the Swedish coast there is up to 40 cm thick fast ice. Off the Swedish coast, there is a 15-20nm wide

### Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–55 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 15–40 cm thick fast ice. Off the coast in the east there is mostly new ice. Off the western coast, north of about 62°45' N there is very close, 10–40

### Archipelago Sea and Åland Sea

In the Archipelago Sea there is 25–50 cm thick fast ice in the inner archipelago of the Finnish coast. Mostly 10–30 cm thick, fast ice or level ice with some cracks is present in the outer archipelagos to

### Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice. Along the outer Swedish coast there is 5–15 cm thick fast ice or thin level ice.

### Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–40 cm thick in the west and up to 60 cm thick in the east. In the Vyborg Bay there is 35-45cm thick fast ice and in the Bjerkesund there is 20–45 cm thick fast ice; very close ice is present in both entrances. From St. Petersburg to the longitude of lighthouse Tolbucin there is 40–50 cm thick fast ice. Off the northern fast ice there is 10–25 cm thick drift ice of varying concentrations in

### Gulf of Riga

In Väinameri there is 25–35 cm thick rotten fast ice near the coasts and very close, 10–30 cm thick ice at sea with some areas of open water. Off the south coast of Saaremaa there is close to very close, 5–20 cm thick ice. In the Bay of Pärnu, there is 20–40 cm thick rotten fast ice to about the line

### Central Baltic

5-15cm thick ice of varying concentrations is present in sheltered areas along the Swedish coast north of Kalmar.

### Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays is thin level ice or fast ice notably near Tønsberg, Kragerø, Svinesund, and Drammensfjord.

### Swedish Lakes

In Lake Vänern 5–20 cm thick fast ice is present in places at the coasts. In the Dalbosjön there is 5–

pected.

region with 15–50 cm thick, rafted and ridged, very close ice. Else at sea there is mostly very open ice. With continuous light frost and only weak winds new ice formation is expected until Monday.

cm thick ice.

Until Monday light frost is expected with the possibility of temperatures above 0°C at places during the day. The winds will be mostly weak and new ice formation will take place.

the Åland Islands. In the Åland Sea there is 5–20 cm thick fast or level ice in bays along the coast. With light frost a variable mostly light breeze new ice formation is expected during the next days.

With temperatures around 0 °C no larger changes are expected.

the west and in the east there is 10–35 cm thick, close to very close ice reaching out to about the line Kalbådgrund– Gogland – Seskar and further east to Stirsudden. In the southeastern part there is mostly new ice at sea. In Lake Saimaa there is 30–50 cm thick ice.

With light frost and weak winds, some new ice will form during the next days.

Lindi – Tahkuranna and further out, up to the line Sorgu shoal – Rannametsa, there is very close ice changing to open ice in the east.

With light frost and weak winds, some new ice will form during the next days.

With temperatures around but often also above 0 °C ice melt is expected, especially in the southern regions.

With temperatures mostly above 0 °C some ice melt is expected the next days..

20 cm thick, very close drift ice in the northwestern part. Else it is practically ice free at sea.

With temperatures around 0 °C no larger change is expected.

Dr. J. Holfort

***As International Women's Day is public holiday in Mecklenburg-Vorpommern the next Amtsblatt will be issued on Monday.***

### Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Estonia</b>	Pärnu	1800 kW	1B (Lloyd's)	27.01.
	Kunda and Sillamäe	1200 kW	II (Lloyd's)	04.02.
<b>Finland</b>	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super (2000 t)/ IA (2000 t)	27.02.
	Vaasa	2000 dwt	IA	10.01.
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Pori, Rauma	2000 dwt	I	06.03.
	Kaskinen and Kristiinankaupunki	2000 dwt	IB	06.03.
	Uusikaupunki	2000 dwt	IB	06.03.
	Eckerö, Maarianhamina and Langnäs	2000 dwt	II	13.01.
	Naantali and Turku	2000 dwt	I	23.01.
	Mussalo	2000 dwt	IB	29.01.
	Helsinki and Sköldvik	2000 dwt	I	29.01.
	Koverhar, Lappohja, Inkoo and Kantvik	2000 dwt	I	13.01.
	Taalintehdas and Förby	2000 dwt	IB	17.02.
	Hanko	2000 dwt	II	13.01.
	Loviisa, Kotka and Hamina	2000 dwt	IB	29.01.
	Lake Saimaa	2000 dwt	IA	08.01.
Saimaa Canal	2000 dwt	IA	08.01.	
<b>Russia</b>	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	30.12.
	Primorsk	-	Ice 1	01.02.
	Ust-Luga	-	Ice 1	29.12.
<b>Sweden</b>	Karlsborg	4000 dwt	IA (2000 t)	14.01.
	Lulea, Haraholmen and Skelleftehamn	4000 dwt	IA	14.01.
	Rundvik, Husum and Örensköldsvik	2000 dwt	IA	19.02.
	Holmsund	2000 dwt	IA	17.02.
	Angermanälven	2000 dwt	IA	17.02.
	Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär, Norrsundet, Gävle, Skutskär and Öregrund	2000 dwt	IC	26.02.

Härnösand, Söråker and Sundsvall	2000 dwt	IB	26.02.
Hargshamn	2000 dwt	IC	04.01.
Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
Kappelskär and Nynäshamn	2000 dwt	II	04.01.
Köping and Västerås	2000 dwt	IC	26.02.
Balsta	2000 dwt	IC	26.02.
Stockholm and Södertälje	2000 dwt	II	04.01.
Trollhätte Canal and Göta Älv	2000 dwt	II	23.02.
Vänern	2000 dwt	IC	26.02.

### Estonia

**Icebreaker:** EVA-316 assists to the port of Pärnu. BOTNICA assists to the ports of Kunda and Sillamäe.

### Finland/Sweden

The traffic separation schemes in the Lake Vänern are temporarily out of use from 12 January due to ice conditions.

The transit traffic west of Holmöarna is temporarily prohibited.

Öregrundsgrepen: Transit traffic for low powered vessels is not recommended.

The traffic separation schemes in the Quark are temporarily out of use from 20 December due to ice conditions.

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:** YMER, ODEN, FREJ, POLARIS, SISU, KONTIO and URHO assist in the Bay of Bothnia. OTSO assist in the southern Bay of Bothnia. ATLE, FENNICA and BRAGE VIKING assist in the Quark. ZEUS and CALYPSO assist in to the Finnish coast of Sea of Bothnia. VOIMA and NORDICA assist the Gulf of Finland. ALE assists in the Vänern.

### Norway

Kilsfjorden (Kragerø) and Hellefjorden (Kragerø): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (08.01.24)

### Russia

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga. Barge towed by tug not allowed to navigate in ice.

**Icebreakers:** Several icebreakers assist vessels to the port of St. Petersburg, Vyborg, Vysotsk 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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## Finland, 06.03.2024

Röyttä – Etukari	8546	Ensten – Vaasa lighthouse	4356
Etukari – Ristinmatala	7476	Vaasa lighthouse – Norrskär	4356
Ajos – Ristinmatala	7476	Sea area SW of Norrskär	4876
Ristinmatala – Kemi 2	5476	Kaskinen – Sälgrund	8446
Kemi 2 – Kemi 1	5476	Sea area off Sälgrund	7356
Sea area SW of Kemi 1	5476	High sea from N to latitude Yttergrund	1306
Kemi 2 – Ulkokrunni – Virpiniemi	7476	Pori harb. to line Pori lighth. – Säppi	7366
Oulu harbours – Kattilankalla	8446	Sea W of line Pori lighthouse – Säppi	2326
Kattilankalla – Oulu 1	7476	High sea betw. lat. Yttergrund a. Rauma	2326
Sea area SW of Oulu 1	5476	Rauma, Harbour – Kylmäpihlaja	8846
High Sea N of the latitude of Marjaniemi	5476	Kylmäpihlaja – Rauma lighthouse	1306
Raahe harbour – Heikinkari	8446	Sea area W of Rauma lighthouse	1306
Heikinkari – Raahe lighthouse	6856	The high sea S of the latitude of Rauma	1306
Raahe lighthouse – Nahkiainen	5476	Uusikaupunki harbour – Kirsta	8846
Latitude Marjaniemi – Ulkokalla, Sea	5476	Kirsta – Isokari	7756
Rahja harbour – Välimatala	7456	Isokari – Sandbäck	1306
Vaelimatala to line Ulkokalla – Ykskivi	4356	Sea area off Sandbäck	1306
Sea betw. lat. of Ulkokalla – Pietarsaari	4376	Sea area N of Sälskär	1005
Ykspihlaja – Repskär	7476	Naantali and Turku – Rajakari	8846
Repskär – Kokkola lighthouse	5476	Rajakari – Lövskär	8846
Sea area off Kokkola lighthouse	2326	Lövskär – Korra	8846
Pietarsaari – Kallan	8446	Korra – Isokari	3726
Sea area off Kallan	2326	Lövskär – Berghamn	8346
Sea lat. Pietarsaari – NE Nordvalen	2326	Berghamn – Stora Sottunga	5146
Sea area ENE of Nordvalen	3836	Stora Sottunga – Ledskär	8746
Sea area Nordvalen to W of Norrskär	5876	Lövskär – Grisselborg	7346
Vaskiluoto – Ensten	8356	Grisselborg – Norparskär	5346
		Hanko – Vitgrund	8342

Vitgrund – Utö	3145	Öregrundsgrepen	8346
Koverhar – Hästö Busö	8346	Hallstavik – Svartklubben	8346
Inkoo a. Kantvik – sea area Porkkala	7356	Trälhavet – Furusund – Kapellskär	1006
Sea area at Porkkala	1206	Stockholm – Trälhavet – Klövholmen	1006
Helsinki harbours – Harmaja	7356	Klövholmen – Sandhamn	1006
Harmaja – Helsinki lighthouse	5356	Trollharan – Langgarn	1006
Fairway Helsinki – Porkkala – Rönnskär	5356	Köping – Kvicksund	8344
Vuosaari harbour – Eestiluoto	5356	Västerås – Grönsö	8344
Eestiluoto – Helsinki lighthouse	5356	Grönsö – Södertälje	8344
Porvoo harbours – Varlax	7356	Stockholm – Södertälje	8344
Varlax – Porvoo lighthouse	5356	Södertälje – Fifong	4234
Porvoo lighthouse – Kalbådagrund	1206	Norrköping – Hargökalv	1000
Valko Harbour – Täktarn	7346	Västervik – Marsholmen – Idö	4232
Archipelago fairway Boistö – Glosholm	5356	Fairway through Lurö archipelago	3356
Archipelago fairway Glosholm–Helsinki	7356	Fairway to Gruvön	8346
Kotka – Viikari	8346	Fairway to Karlstad	8346
Viikari – Orregrund	5356	Fairway to Kristinehamn	8346
Orregrund – Tiiskeri	5356	Fairway to Otterbäcken	8346
Tiiskeri – Kalbådagrund	5356		
Hamina – Suurmusta	8446	<b>Estonia, 07.03.2024</b>	
Suurmusta – Merikari	7346	Paernu, port and bay	7475
Merikari – Kaunissaari	5346	Moonsund	7343

**Sweden, 06.03.2024**

Karlsborg – Malören	8546
Sea area off Malören	5576
Luleå – Björnklack	8546
Björnklack – Farstugrunden	5576
E and SE of Farstugrunden	5576
Sandgrönn fairway	8546
Rödkallen – Norströmsgrund	5456
Haraholmen – Nygrån	8546
Sea area off Nygrån	5456
Skelleftehamn – Gåsören	8446
Sea area off Gåsören	5456
Sea area off Bjuröklubb	3426
NE of Nordvalen	3426
SW of Nordvalen	3426
Western Quark (W of Holmöarna)	5476
Umeå – Väktaren	5476
SE of Väktaren	5476
NE and SE of Sydostbrotten	3426
Fairway to Husum	5476
Örnsköldsvik – Hörnskatan	8446
Hörnskatan – Skagsudde	8446
Sea area off Skagsudde	5476
Fairway W of Ulvöarna	8446
Sea area E of Ulvöarna	5476
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	8444
Sea area off Härnön	1302
Sundsvall – Draghällan	4436
Draghällan – Åstholmsudde	1306
Off Åstholmsudde and Brämön	1306
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sandarne – Hällgrund	8346
Ljusnefjärden – Störjungfrun	8346
Gävle – Eggegrund	8346

**Russian Federation, 07.03.2024**

Port of St. Petersburg	89//
St. Petersburg – E-point island Kotlin	89//
E-point Kotlin – long. lighth. Tolbukhin	53//
Lighth. Tolbukhin – lighth. –Šepelevskij	10//
Lighthouse Šepelevskij – island Sescar	10//
Island Sescar – Island Sommers	23//
Vyborg, port and bay	89//
Island Vichrevoj – Island Sommers	53//
Strait Bjerkesund	89//
E-point Bol'šoj Ber'ozovyj – Šepelevskij	53//
Appr. Luga bay – line Moš.-Šepel.	10//