# Sea Fishing Near Tomakomai Port

**March 2023** 

East Iburi-Hidaka Sea Fishing Operation Safety Fund

#### Introduction

March 2023

Various fishery is run targeting at salmons, trouts, flatfishes, pollacks, horsehair crab, prawns, octopuses with fixed shore nets, gill nets, fishing baskets and fishing boxes in the sea area around Tomakomai port, between the Cape Chikyu-misaki and the Cape Erimo-misaki.

Particularly, in the area along the shore, a lot of fixed shore nets for the purpose of the capture such as a salmon, the trout are installed from the early spring to the early winter.

From October to February, many fishery persons use gill nets to catch a huge amount of pollacks in the offshore sea area from many years ago. It always becomes the main fishery thing.

These days, the fishery management is put in the severer situation due to the decreasing of fishes and aging of the fishery persons etc.

On the other hand, the Tomakomai port has been growing up to the biggest port in Hokkaido since the port opening in 1963. It treats about half of the port freight in Hokkaido.

In such situation, damage of fishing gear of various fishery by these ships occurs a lot every year and suppress fishery management.

We suppose both operation fishing boats and navigation ships deepens understanding to prevent these accidents and thinks that it is necessary to plan the establishment of more effective safety measures.

For all who makes the sea a place of the life, ensuring safety is a top priority problem, and both understanding and mutual concessions are necessary.

We appreciate if you can refer to navigate ships as we gathered the situation of the fishery operation of the sea area concerned.

We would like special cooperation about accident prevention in future.

You can read about the operation situation by the homepage of the Tomakomai Port management union.

https://www.jptmk.com/030business/03cautions.html

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#### I. About fishery around Eastern-Iburi and Hidaka area

Eastern-Iburi and the Hidaka area (Pacific coast in Hokkaido: Cape Chikyu-misaki to Cape Erimo-misaki) has a coastline of about 300 kilometers.

In this area, salmon, flatfishes, pollacks, shrimps, octopus, seaweed such as Konbu etc. and Hokki surf clams are produced.

Many fisheries are used in this area such as:

Fishing nets for Salmon and trout etc.

Gill nets for flatfishes and pollacks etc.

Fishing baskets for horsehair crabs and prawns etc.

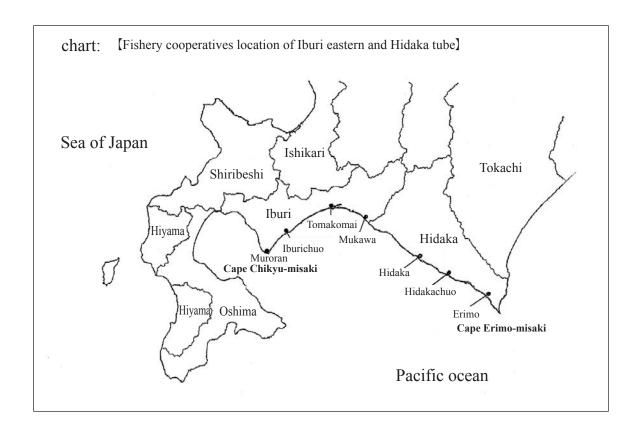
Fishing boxes and fishing nets with fishhook for octopus

Trawl fishing for pollacks

Other original nets for Shishamo-fish and clams and shellfishes

And to increase resources of coastal fishery, various fisheries promotion measures such as fishing ground construction and shellfish seedling migration and release are actively implemented.

There are seven fishermen's cooperative associations (the chart below) with coastal and offshore fishing grounds in the Eastern-Iburi and Hidaka area.



#### **II. Operations**

In this area, salmon with fishing nets, flatfishes and pollacks with gill nets, horsehair crabs and shrimps with fishing baskets, octopus fishing nets with fishhook and fishing methods are used.

## 1. Fishing nets

A net of about 1,000 to 2,000 meters is always installed on the prescribed sea surface. We catch salmons toward the east from the west on spring and toward the west from the east on autumn with this fishing nets.

Cutting accidents occur frequently in Hidaka-Mombetsu area because these fishing nets are offing about 4 nautical miles. Usually the fishing nets should be from the coast (1-2 nautical miles).

You must care in case of navigation in the west of Tomakomai port, there are some fishing nets offing 2 nautical miles from the shore.

#### (1) Operations

#### i. Operating period (note: some difference per fishing area)

Fishing net case are always placed in operating period. The nets are always placed in this period and are pulled off once to two times a day.

Spring: from Mar. 21 to Aug. 20 (Operating from Apr. 6 to Aug.15)

Spring to Autumn: from Apr. 5 to Dec. 20 (Operating from Apr. 20 to Jul.31, Spt.1 to Nov.23)

Autumn: from Jun.1 to Dec. 15 (Operating from Aug.30 to Dec.3)

#### ii. Operating position

Operations are done only in the specified area. The specified area is within 2 nautical miles. Although, 4 nautical miles in Hidaka-Mombetsu area. See Fig. p9 to 11

#### iii. Number of the nets

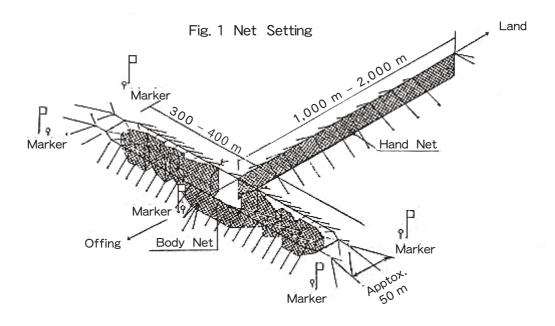
Area	Eastern-Iburi	Hidaka	Total
Spring	3	11	14
Spring to Autumn	-	19	19
Autumn	19	24	43
Total	22	54	76

#### iv. States of the nets

Hand nets (or fence nets) that guides migrating salmon is laid in a direction almost perpendicular to the land, and its length is about 1,000 to 2,000 meters

Capturing nets are laid in parallel with land in the offshore, and its width is about 300 to 400 meters

These nets are tightly installed with net floats, weights, and wire ropes. (Fig. 1)



#### v. Operational indicators

A large fishing gear sign (flag), a light, a radar reflector, etc. are located around the laying net, although every hand net doesn't have the sign. And all signs are not same.

## (2) Accidents

Most of the accidents are cutting nets or broken net systems by ships. Especially occurs in Hidaka-Mombetsu offshore area and there was a cutting accident in April last year.

### (3) Instructions in the navigation

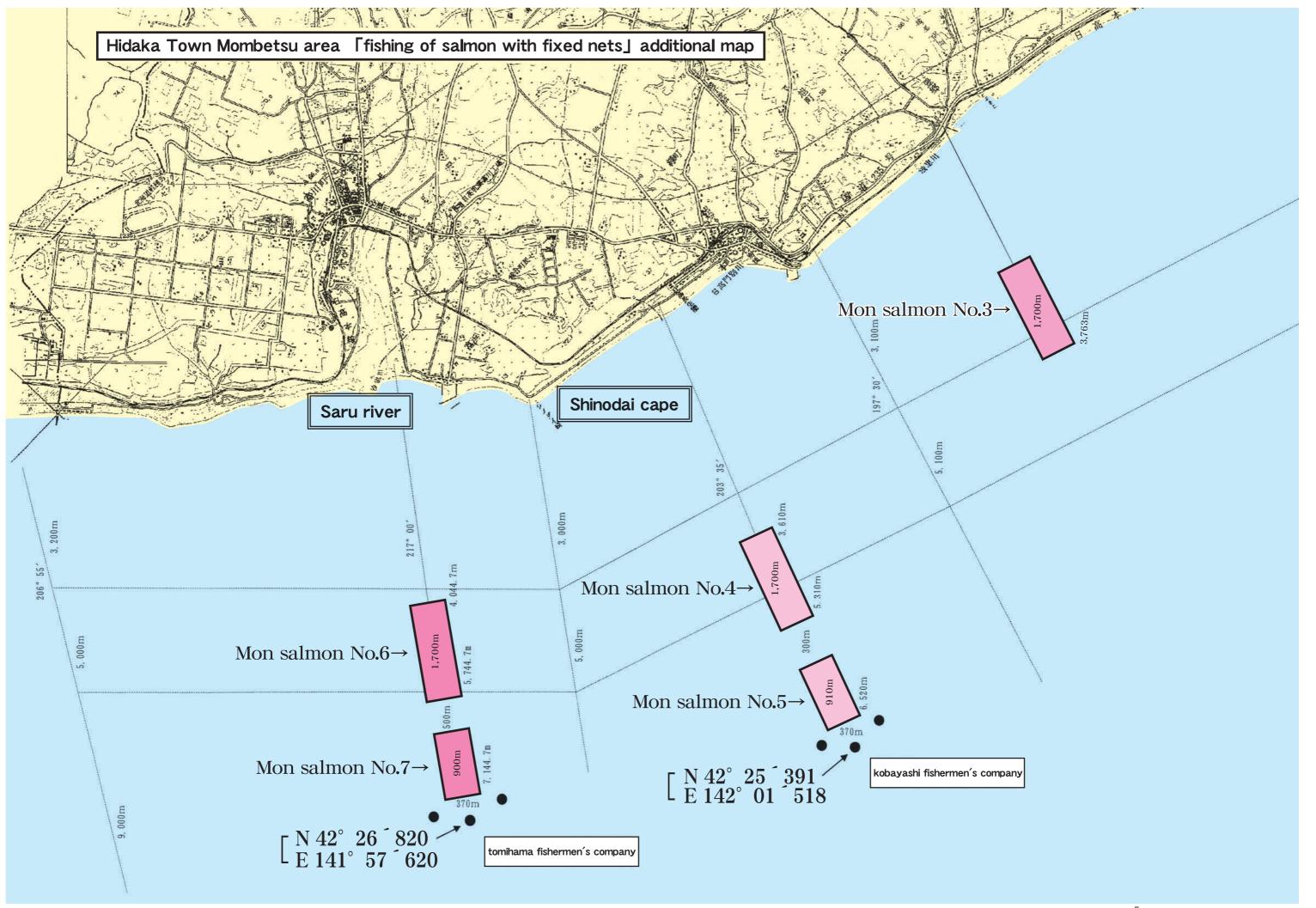
Please sail offshore (more than 3 nautical miles away) since fishing nets are placed near the shore. The net systems are installed continuously and it's very hard to find the net systems. If you need to sail near the shore, you must check them out carefully as much as you can.

If you find these nets during sailing, move your ship to the offshore side since the nets are extended to the land side. In case of auto pilot navigation, please have a special care to them.

Be care with the fishing nets especially in the Hidaka-Mombetsu area when you make a navigation to the east from Tomakomai port.

It's so close to the nets when you make a direction 123 degree from the West Tomakomai Port or about 135 degree from the East Tomakomai port from April to August.

You must pay to fix the net systems when you make an accident and break them. Fishing nets are made of high quality parts to be used for long time. Please make a special care when you sail around the area, we don't want you pay for.



## 2. Fishing nets, baskets, boxes, and octopus fishing

We place fishing gear on the bottom of the sea and set a sign of the mark on the sea surface. It will be done in a concentrated location. And they will be done in similar places.

Please be care of floating balls for tide or connecting wire ropes around these marks on sea surface.

#### (1) Operations

Many kind of fishery is done all through the year around this area. The fishing implements are always laid during an operation period and is raised once a day. It should be there for days without raising if the wave is too high.

Operating positions are on Fig.p9~p11

These nets should be moved for miles for the kind of fishes or operation periods.

The fishing methods, operation periods, number of hours of work, etc. of major fish species are as follows:

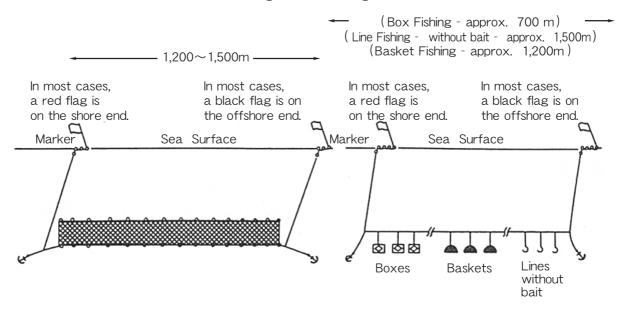
Fish	Methods	Operation season	Peak season	Number of approved boats
Pollacks		Aug. to Mar.	Nov. to Feb.	400
Flatfish		Whole year	May to Jul.	678
			Nov. to Jan.	
Batoidea	Gill nets	Whole year	Apr. To Jul.	342
			Nov. to Feb.	
Hokke		Whole year	Mar. to Sep.	293
Menuke		Whole year	Mar. to Sep.	55
Horsehair crab	Baskets	Jul. to Aug.	Jul. to Aug.	118
		Dec. to Mar.	Jan. to Feb.	
Prawns/Octopus		Mar. to Jan.	Mar. to May	148
			Aug. to Nov.	
Whelk	Original boxnets	Whole year	Apr. To Aug.	417
Octopus	Boxes/Original	Whole year	Jul. to Sep.	321
			Nov. to Mar.	

## (2) Fishing implements

Most of fishing implements are usually sunk in the bottom of the sea.

Fishing gear signs(flag) with floating balls are located around the laying net on the sea surface. (Fig.2)

Fig. 2 Net Setting



### (3) Fishing implements mark

There are some signs stipulated by agreement depending on fish species, but it is not particularly regulated.

Generally, when laying at right angle to the coastline, red flags are used on the land side, black or white flags on the offshore side are displayed on the sea surface. When laying parallel to the coastline, red flags on the west side and black or white flags at the east side are displayed on the sea surface. (Fig.2)

Most of these flags have lights or rador reflectors.

## (4) Accidents

Most of the accidents are cuts or losses of ropes connecting fishing gear signs and floating balls. When the fishing gear signs at both ends disappear, the position of the net becomes unknown and it becomes a big damage.

Recently, the ropes are so durable and cannot be cut, that we may lost whole fishing net systems. There are also accidents which seems to be caused by ship anchors.

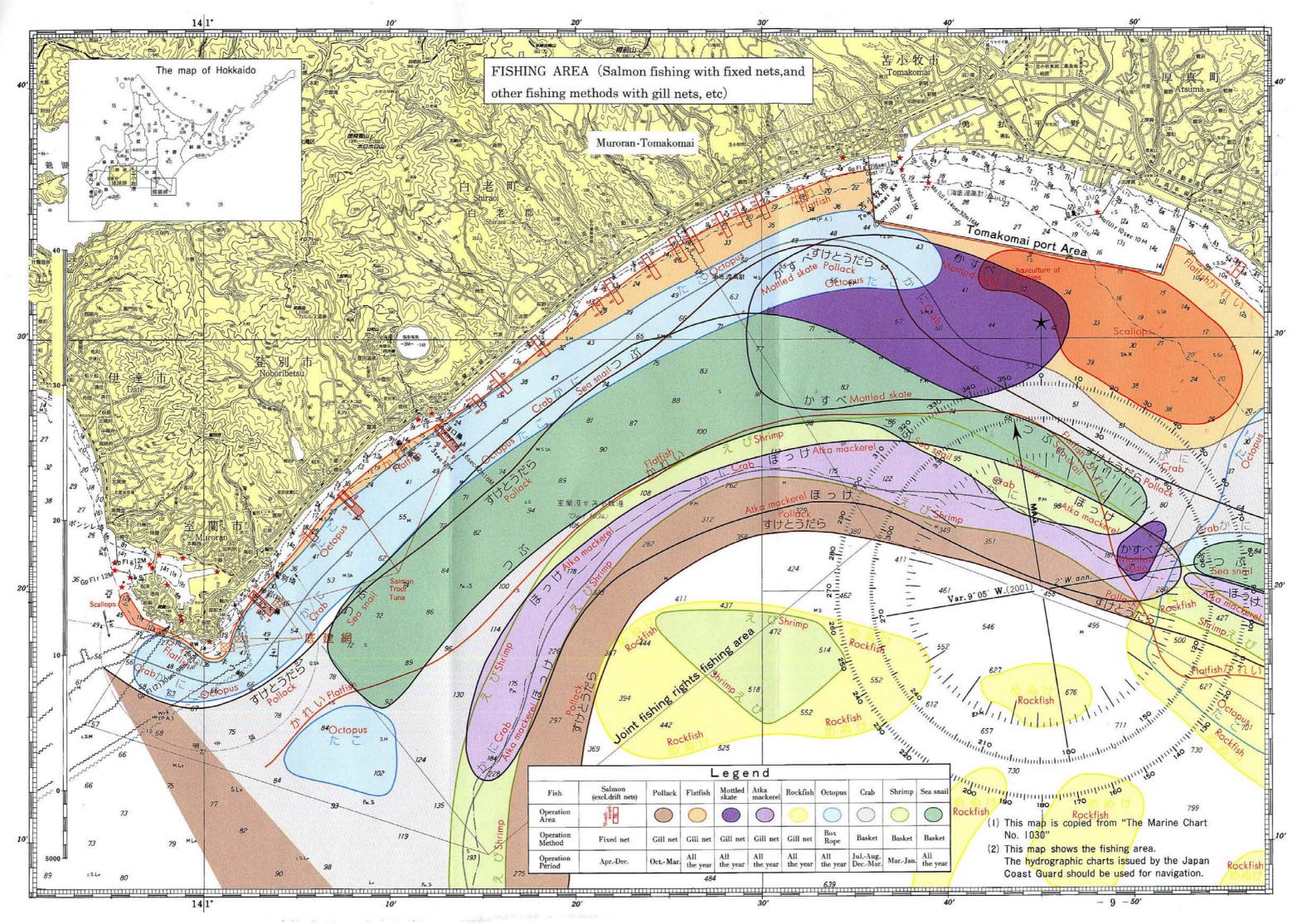
## (5) Caution on navigating ships

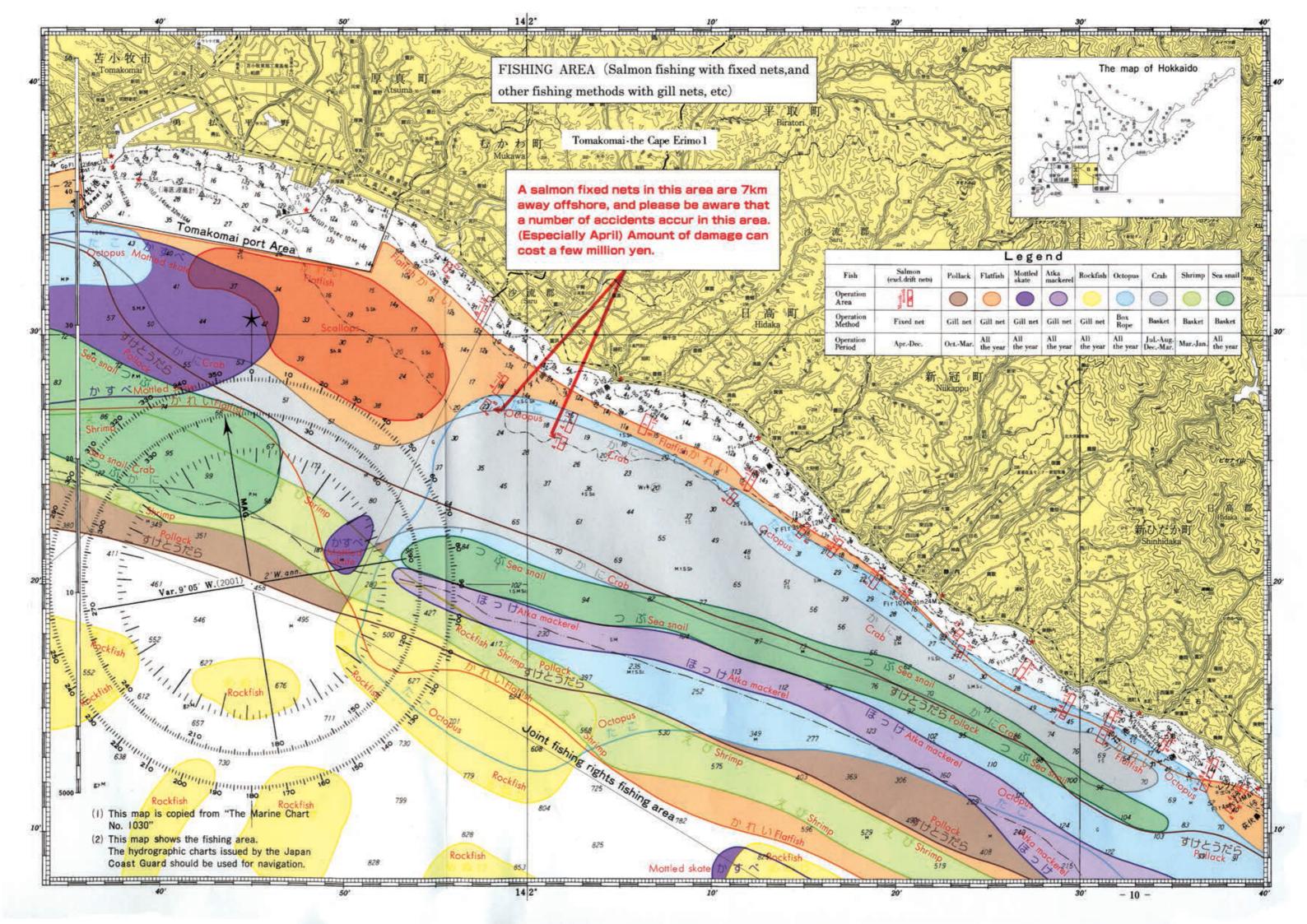
The fishing nets may not be damaged on usual navigation because they are usually laid on the sea floor. But you had better not to navigate this area because so many fishery nets or something are placed around. **Please make special caution on the marks to avoid any accidents** when you navigate this area.

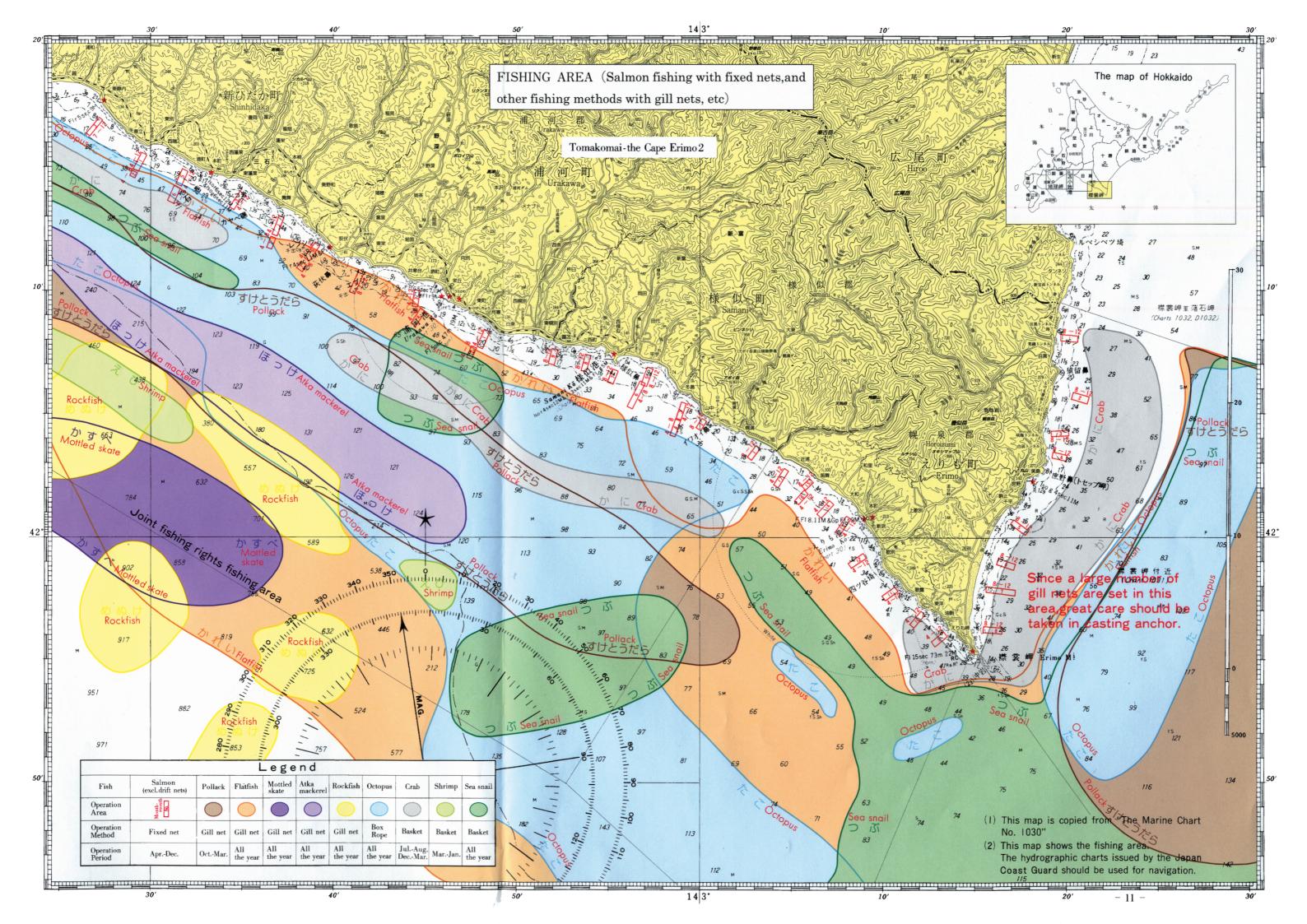
In case of avoiding the marks, please keep sailing on the downstream side as the float is upstream of the tide flow from the sign. You must detour greatly when sailing upstream.

Please be careful when dropping the anchor especially around the shore. Especially, around the cape Erimo-misaki, make a big caution on dropping the anchors because so many fishing nets are in the sea.

For fishing, bottom trawling, dotted netting etc., we omitted the description in this document because the fishing boat and the fishing gear are integrated in operation, such as hanging the fishing gear from the fishing boat or drawing fishing gear with the fishing boat.







## 3. Salmon and trout drift net fishing - small boat (under 30 tons)

This is a one of the major fishery accidents. This fishery nets should be placed near the sea surface to catch salmon and trouts for several kilometers. It's too hard to find these nets because of a heavy fog on the sea in the peak season and some reasons.

However, recently, the number of operations has decreased, and the main fishing grounds are off the east coast of Hokkaido (Nemuro and Kushiro area), and operations in the west of Cape Erimo-misaki are decreasing.

### (1) Operations

#### i. Operation period (scheduled)

From Apr.10 to Jul.7

In early May, when the surface temperature of the sea water reaches 4 to 5 degrees, the fish school appears from the offshore of Muroran to Tomakomai and moves to Hidaka area gradually. In the latter half of June, they gradually move off to Cape Erimo-misaki and to offshore of Kushiro.

The peak period is from mid-May to mid-June where the water temperature will be 7 to 11 degrees. Therefore, the fishing ground will move from the west to the east (from Muroran towards Tomakomai / Erimo) sequentially.

#### ii. Operation time

Departing around noon, choosing a fishing ground, starting the casting net from around 15 o'clock. It takes about one and half an hour. Lift nets start from about 22 to 24 o'clock and end at about 3 to 4 o'clock, but sometimes it may extend to around 7 o'clock. Normally, it takes about 3 to 4 hours. It depends on fishing situation, returning port time is after 3 o'clock

#### iii. Operation area

The operation is carried out targeting at all sea areas. (Fig.p15)

The operation position moves by the situation of the fishing ground of the day.

At the place where various gill nets fishing is done, the drifting net fishing is not carried out.

#### iv. Operation situations

The average length of the net is 5,000 meters (permission is up to 10,000 meters), and the nets are placed about 6 to 7 meters' depth from sea surface. These are density packed in good fishing places. Throwing net is done at the stern and lifting net is done at the bow of the fishing boat. (Fig.3,4)

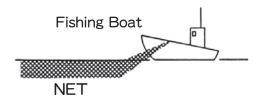
The direction of laying nets is done in a direction almost perpendicular to the tidal current, same as coastline. Net directions are North-northwest between Muroran and Tomakomai, North-northeast between Tomakomai and Erimo and are to be separated from the adjacent net by 900 meters or more. They are not constant because they drift after laying them. (Fig.5)

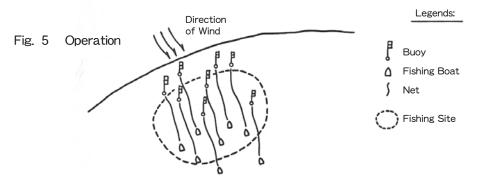
Fishing Boat
NET

**Net Casting** 

Fig. 3

Fig. 4 Net Recovery





#### v. Operation signs

When laying net toward the offshore, a large fishing flag or a red flag ( $1m \times 0.8m$  or more) is placed on the stern when laying on the stern, and on the bow when laying toward the land. There are two red flags and red flash lights on both ends of the net, and one red flag and a white flashing light in the middle between 500 and 800 meters. (Fig.6)

These flash lights can be delivered in one to two nautical miles.

Some radar reflectors are also installed to most of the nets to allow the network to recognize it as a line when viewed on a radar.

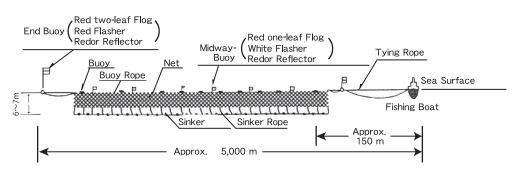


Fig. 6 Net Laying

#### (2) Accidents

Cutting nets accidents have occurred on these areas for many times. Also the main fishing area is eastern Hokkaido these days, but there is concern about the occurrence of accidents such as cutting nets by ships and losing nets in the sea area.

## (3) Caution on navigating ships

To avoid the fishing ground is extremely difficult because the salmon and trout nets are densely laid and so unfindable.

Especially, it's extremely difficult to avoid under adverse conditions such as nighttime and heavy fog, please do not sail on fishing grounds that are operating as much as possible. If you should navigate in the fishing area, please strictly observe the watch and sail

with full attention. Please make special care when you use automatic navigation.

Detour greatly in front of the fishing boat if you find a fishing boat throwing nets (around 15 to 19 o'clock), the net will extend in the stern direction. (Fig.7)

And detour greatly behind the stern if you find them lifting nets (around 22 to 4 o'clock), the nets will extend in the front of the boats. (Fig.8)

When you find the net, you must avoid them and navigate your ship to the place where a red light or fishing boats are. (Fig.9)

According to the Article 36 of the Maritime Collision Prevention Law, if you find a ship that approaches the net laid at night, **fishing boats will indicate the direction in which the net is laid** with a search light etc. Please avoid navigating them. (Fig.10)

Be careful to operate your ship because there are following nets also after avoid one net in the fishing grounds.

Fishing boats in operation are often are connected with the nets, so you can't even make a free navigation. Please **detour greatly as soon as possible** if you find them.

Fig.7 At Net Casting

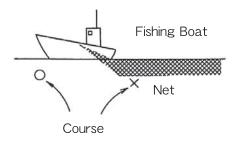


Fig.8 At Net Recovery

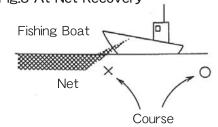


Fig. 9

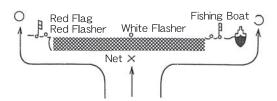
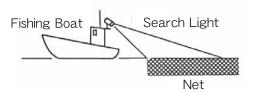
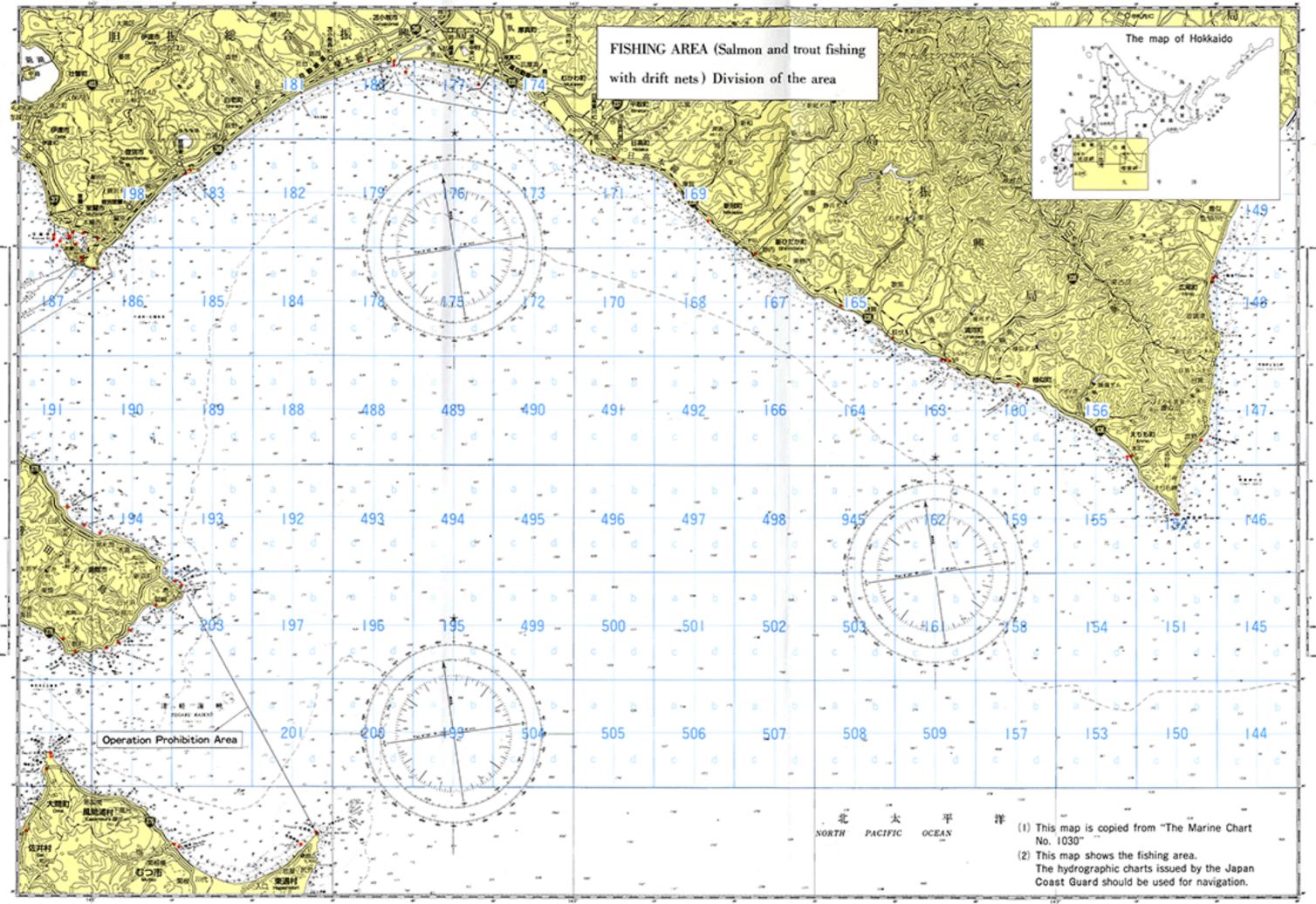


Fig. 10





#### III. Status grasp and fishing implements damage payment business of the ship

The system for maritime accidents and safety communication so far provided sea status information and the like to ships and aimed for quick search operation when marine accidents occurred. Furthermore, in response to the need for a ship and coastal station to automatically transmit and receive information such as ship name, position, course, speed etc. to prevent collision, Automatic Identification System (AIS) has been mandated for ships designated by laws and regulations.

With the cooperation of the Hidaka Fishery Radio Station, our association will grasp the ship from the cape Chikyu-misaki to the cape Erimo-misaki and accumulate the data since 2010. These data are used for safety measures business.

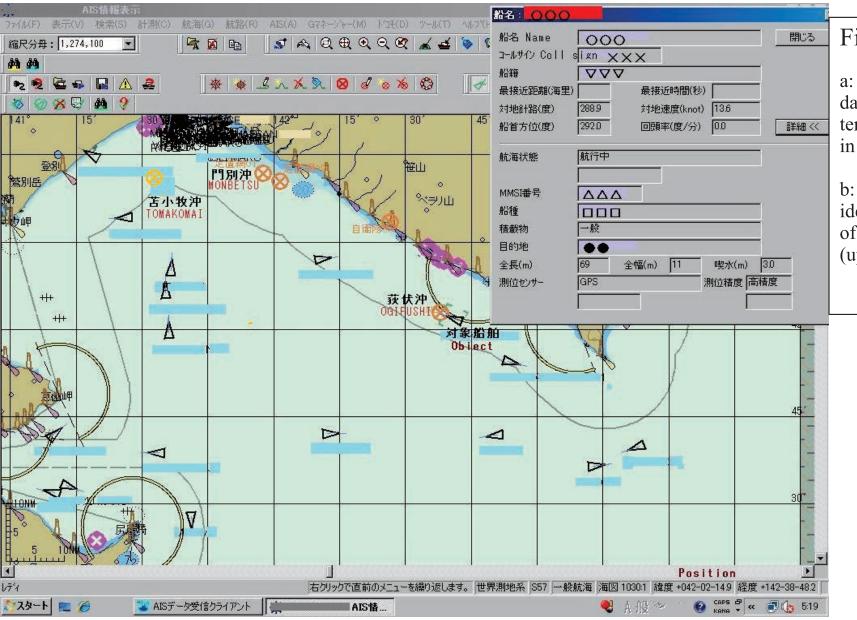
We will improve our system to grasp movement of every ship more from 2017.

We are engaged in projects to compensate for fishing gear damage such as business to secure operational safety of coastal fishery from ship entering and leaving Tomakomai port and disconnection and loss of fishing gear caused by ship navigation.

For fishing gear damage, we have been providing relief funds for the damage of 412 cases in 2011. In recent years, although there is a decreasing trend, there are still applications for more than 250 fishing gear damage.

Particularly, in 2017 and 2018, more than 300 cases of fishery tools damage, and in 2022, there were more than 300 cases.

We analyze ship movements and will make every effort to make fishermen or fishery persons to raise awareness and calling attention to reduce damages.



## Figure 1

a: data from the terminal of AIS in HFTS

b: identifying data of vessel (upper right)

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# List of Damage Value and Benefit Value of Fishing Category and Fishery Association in 2020

[Period 2020'1.1~2020'12.31]

Unit: JPY

Association Name		D		Fisheries Difference													
		Division	Pollack Gill Net	Flatfish Gill Net	Paciffic cod Gill Net	Mottled Skata Gill Net	Atka Mackerel Gill Net	Thornhead Gill Net	Ocean Perch Gill Net	herring Gill Net	Shrimp Octopus Basket	Crab Basket	Sea Snail Basket	Octopus Box	Octopus Line	Others Gill Net	Total
N. 1. 21. 4		Events	2		1				1		6						10
	Noboribetsu Branch	Application Value	40,650		21,979				22,485		82,083						167,197
		Supply Value	24,390		16,484				16,864		53,490						111,228
		Events	1								13						14
	Kojyohama	Application Value	20,295								211,273						231,568
		Supply Value	15,221								129,379						144,600
		Events	11	15	38	2	2				84	2	2				156
	Shiraoi	Application Value	227,040	238,437	533,240	24,570	23,463				902,657	23,503	19,102				1,992,012
	Branch	Supply Value	168,140	179,982	414,915	19,656	18,160				686,254	17,628	14,326				1,519,061
, , ,	D. I.	Events	14	15	39	2	2		1		103	2	2				180
Iburichuo— Cooperative	Association	Application Value	287,985	238,437	555,219	24,570	23,463		22,485		1,196,013	23,503	19,102				2,390,777
		Supply Value	207,751	179,982	431,399	19,656	18,160		16,864		869,123	17,628	14,326				1,774,889
		Events	4	28		2	3		3		7	20	19			1	87
Tomakomai Cooperative	i—Fisheries e Association	Application Value	38,891	442,128		25,156	42,117		60,094		141,157	273,694	222,081			11,157	1,256,475
Cooperative	7 RSSOCIATION	Supply Value	27,975	346,777		20,081	31,939		44,067		105,165	216,032	171,098			8,874	972,008
		Events		2							2		2		3		9
Hidaka – Fis	sheries e Association	Application Value		67,220							60,192		67,220		31,806		226,438
Cooperative	7155001411011	Supply Value		36,972							29,820		32,846		16,932		116,570
		Events						7			3		4		3		17
Hidakachuo Cooperative	Fisheries Association	Application Value						151,706			46,134		60,192		41,181		299,213
	21000010111	Supply Value						81,248			25,065		32,816		19,620		158,749
		Events	18	45	39	4	5	7	4		115	22	27		6	1	293
То	otal	Application Value	326,876	747,785	555,219	49,726	65,580	151,706	82,579		1,443,496	297,197	368,595		72,987	11,157	4,172,903
		Supply Value	235,726	563,731	431,399	39,737	50,099	81,248	60,931		1,029,173	233,660	251,086		36,552	8,874	3,022,216

# List of Damage Value and Benefit Value of Fishing Category and Fishery Association in 2021

[Period 2021'1.1~2021'12.31]

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Association Name		Division		Fisheries Difference												
		Division	Pollack Gill Net	Flatfish Gill Net	Paciffic cod Gill Net	Mottled Skata Gill Net	Atka Mackerel Gill Net	Sandfish Gill Net	Shrimp Octopus Basket	Crab Basket	Sea Snail Basket	Octopus Line		Salmon fishing nets	Total	
	N-1	Events	1		1				10						12	
	Noboribetsu Branch	Application Value	26,829		23,574				146,711						197,114	
		Supply Value	16,097		17,681				91,089						124,867	
		Events						1	8		1				10	
	Kojyohama	Application Value						16,375	122,292		14,391				153,058	
		Supply Value						12,281	73,374		8,635				94,290	
		Events	5	8	41	6			58	14	3				135	
	Shiraoi	Application Value	122,881	139,817	553,960	70,179			660,211	170,461	37,398				1,754,907	
	Branch	Supply Value	86,080	106,078	428,245	56,142			502,995	132,455	29,919				1,341,914	
	D. 1	Events	6	8	42	6		1	76	14	4				157	
Iburichuo – Cooperative	Fisheries Association	Application Value	149,710	139,817	577,534	70,179		16,375	929,214	170,461	51,789				2,105,079	
		Supply Value	102,177	106,078	445,926	56,142		12,281	667,458	132,455	38,554				1,561,071	
		Events	4	29			2		10	2	1				48	
Tomakomai	Higheries Association	Application Value	42,201	360,325			16,945		209,143	25,871	5,243				659,728	
Cooperative	Association	Supply Value	32,534	278,182			11,987		154,994	19,147	4,194				501,038	
		Events		2					7		3			1	13	
Hidaka-Fis	sheries Association	Application Value		67,220					229,744		56,170			169,743	522,877	
Cooperative	ASSOCIATION	Supply Value		36,972					125,660		28,831			50,920	242,383	
		Events		2	2				17		10	10			41	
Hidakachuc		Application		44,132	44,132				386,804		146,980	129,174			751,222	
Cooperative	e Association	Value Supply		23,608	23,608				207.083		79,810	63,608			397,717	
		Value Events	10	41	44	6	2	1	110	16	18	· ·		1	259	
То	otal	Application Value	191,911	611,494	621,666	70,179	16,945	16,375	1,754,905	196,332	260,182	129,174		169,743	4,038,906	
		Supply Value	134,711	444,840	469,534	56,142	11.987	12,281	1,155,195	151,602	151,389	63,608		50,920	2,702,209	

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# List of Damage Value and Benefit Value of Fishing Category and Fishery Association in 2022

[Period 2022'1.1~2022'12.31]

Unit: JPY

Association Name		Di iii	Fisheries Difference												
Associati	Division	Pollack Gill Net	Flatfish Gill Net	Paciffic cod Gill Net	Mottled Skata Gill Net	Atka Mackerel Gill Net	Thornhead Gill Net	Ocean Perch Gill Net	Herring Gill Net	Shrimp Octopus Basket	Crab Basket	Sea Snail Basket	Octopus Line	Total	
	Noboribetsu	Events	2		1				1		12	2	7		25
	Branch	Application Value	42,085		20,703				33,594		180,715	28,588	98,323		404,008
		Supply Value	31,564		15,527				20,156		116,822	22,156	76,946		283,171
		Events	1								8		23		32
	Kojyohama	Application Value	21,583								116,007		311,190		448,780
		Supply Value	12,950								79,823		248,954		341,727
		Events	7	9	38	4	6				44	7	3		118
	Shiraoi Branch	Application Value	182,347	128,700	680,795	52,473	87,560				600,255	100,219	35,975		1,868,324
	Dianen	Supply Value	117,482	96,360	519,539	39,356	69,238				385,258	78,179	28,107		1,333,519
Iburichuo—	Fisheries	Events	10	9	39	4	6		1		64	9	33		175
	Association	Application Value	246,015	128,700	701,498	52,473	87,560		33,594		896,977	128,807	445,488		2,721,112
		Supply Value	161,996	96,360	535,066	39,356	69,238		20,156		581,903	100,335	354,007		1,958,417
m 1		Events	13	27	4	6	6			1	7	9	18		91
Tomakomai Cooperative	-Fisheries Association	Application Value	138,147	269,226	51,066	61,359	64,980			6,941	73,889	125,671	190,628		981,907
-		Supply Value	107,164	209,140	39,513	49,042	51,982			5,553	58,560	100,065	140,296		761,315
DI		Events						1	1		6				8
Hidaka—Fis Cooperative	sheries Association	Application Value						40,350	49,500		178,498				268,348
•		Supply Value						16,709	19,561		82,432				118,702
TT* 1 1 1	D. 1	Events						5			10		3	10	28
Hidakachud Cooperative	-Fisheries Association	Application Value						104,963			228,360		44,094	127,150	504,567
		Supply Value						57,730			122,270		23,943	63,160	267,103
		Events	23	36	43	10	12	6	2	1	87	18	54	10	302
То	otal	Application Value	384,162	397,926	752,564	113,832	152,540	145,313	83,094	6,941	1,377,724	254,478	680,210	127,150	4,475,934
		Supply Value	269,160	305,500	574,579	88,398	121,220	74,439	39,717	5,553	845,165	200,400	518,246	63,160	3,105,537

East Iburi-Hidaka Sea Fishing Operation Safety Fund Association

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