

2021

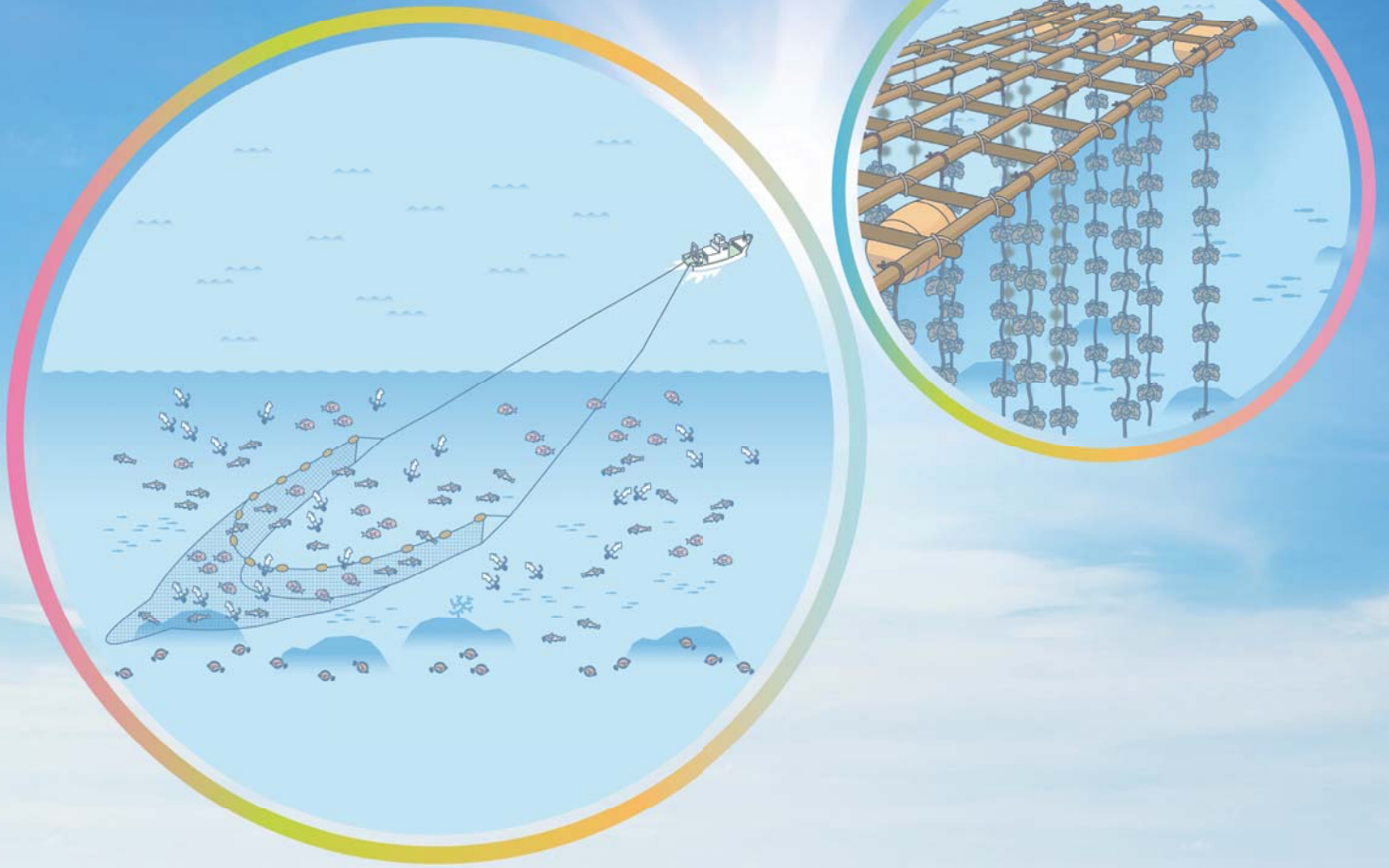
**Shipping and fisheries related
organizations Liaison Council**

Ise Bay

**Information Map of
Fishing Operations**

The Japan Association of Marine Safety

Purpose of the chart of fishing operations conducted in Ise Bay



This fishing operations chart relates to the major fishing operations conducted in **Ise Bay**. It was drafted for the purpose of improving the safety of general vessel navigation in Ise Bay for those involved in maritime trading and fisheries by using this informational chart.

Note, this chart shows the characteristics of the major fishing operations conducted in **Ise Bay**. There are fishing operations being conducted aside from those in this chart, and this chart does not cover all fishing operations.

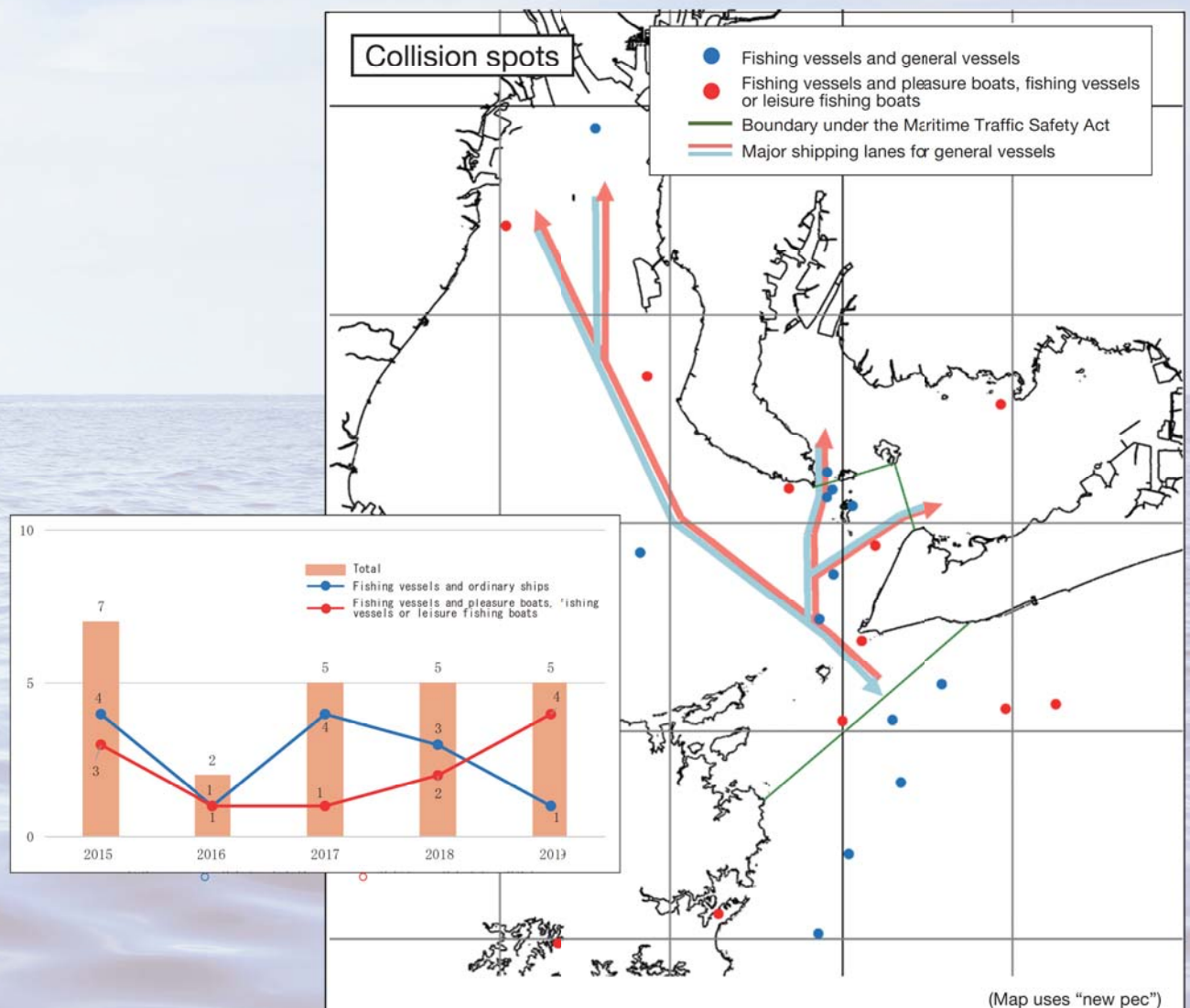
We strongly hope that using this chart will contribute to the safe maritime trading and fisheries activities in this water area.

Maritime accidents involving fishing vessels and general vessels in the Ise Bay

We can see that during the **5 years** period from January 1, 2015 to December 31, 2019 a total of **24** collisions involving fishing vessels have occurred in Ise Bay.*

13 of them were collisions between fishing vessels and general vessels, while 11 collisions were those between fishing vessels and pleasure boats, fishing vessels or leisure fishing boats.

*Source: Japan Coast Guard



Small-scale trawl fishing

Major characteristics during the fishing operations

- Especially, fishing vessels involved in sorting fish or caring for fishing equipment after hauling the net must be cautious because they **may not be able adequately to keep guard**.
- Note that a vessel trawling or hauling the net **cannot be handled flexibly or give way easily** because it may tip over if it is steered abruptly.
- Note that a fishing vessel hauling the net may **go astern** as the wire becomes taut or the net is entangled with an object at the bottom of the sea.
- Note that **a fishing vessel may start to accelerate suddenly soon after hauling the net**.
- Note that **a fishing vessel may start to move suddenly soon after casting a net**.
- **Single-manned fishing vessels** must be cautious, as they may not be able to keep adequate lookout, or maintain sufficient communications etc.

What is small-scale trawl fishing?

Small-scale trawl fishing is a method for catching fish and shellfish from the bottom of the sea by trawling a net at the stern of a boat by ensuring it is in contact with the sea bottom. small-scale trawl fishing is conducted by fishing vessels of less than 15 tons. The fishing period and time zone are different depending on the regions.

Example of fishing method

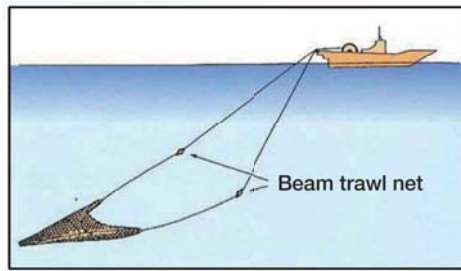
There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of small-scale trawl fishing is characterized by its diversity. By way of example, Aichi Prefecture's fishing methods are described here.

○ Fishing method

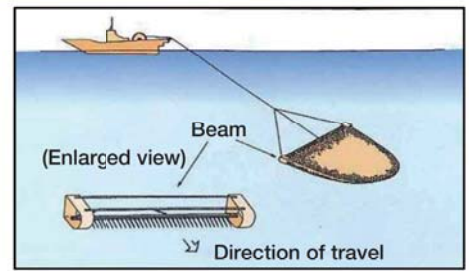
In the trawl net fishing operated in Aichi Prefecture, the main species caught are various types of shrimp, including mantis shrimp, and flatfish etc. Nets are cast from the stern in the order of bag net, then sleeve net, with the trawling of seine nets starting at a depth of 6-8 times of the net. Casting a net takes about 5 to 10 minutes, and trawl and seine nets can be towed about 2.5 to 3 nautical miles an hour. After trawling, the towing rope is transferred to the net roller, and the sleeve and bag nets are hauled-up. It takes about 15 to 20 minutes to haul a net.

Source: Aichi Prefectural Bureau of Agriculture and Fisheries, Fisheries Division

"Chart of Small-scale Trawl Fishing Operations"



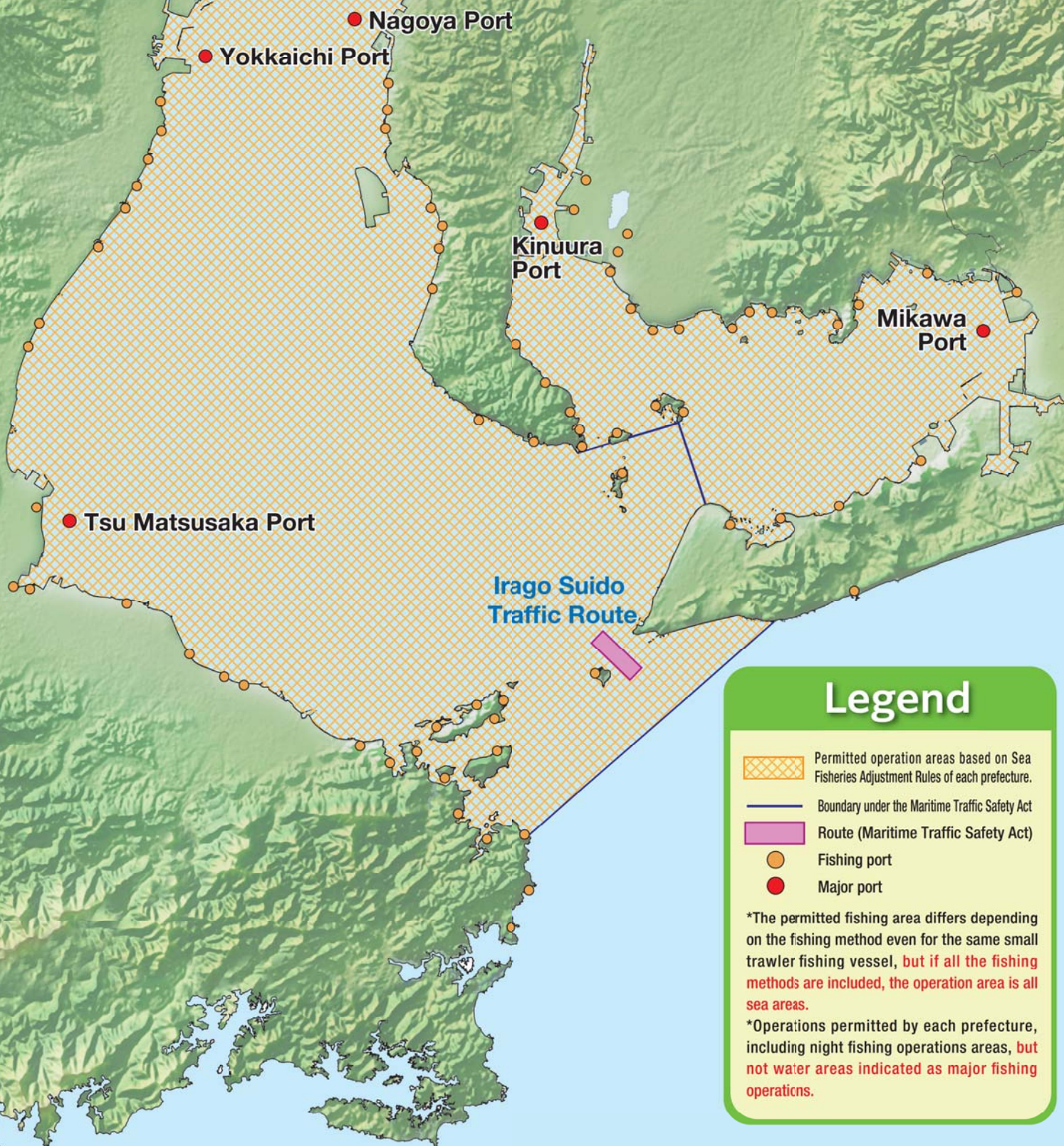
Otter trawl fishing



Beam trawl fishing

E.g. "Otter trawl fishing": fishing grounds at depths of 10 to 40 m
Length from stern to bag net: 80 to 320m

Source: Aichi Prefecture, "Fisheries of Aichi Prefecture" (partially modified)



Legend

- Permitted operation areas based on Sea Fisheries Adjustment Rules of each prefecture.
- Boundary under the Maritime Traffic Safety Act
- Route (Maritime Traffic Safety Act)
- Fishing port
- Major port

*The permitted fishing area differs depending on the fishing method even for the same small trawler fishing vessel, **but if all the fishing methods are included, the operation area is all sea areas.**

*Operations permitted by each prefecture, including night fishing operations areas, **but not water areas indicated as major fishing operations.**

Boat seine fishing

Major characteristics during the fishing operations

- In particular, fishing vessels involved in containing the catch or maintaining fishing equipment after raising the net must be cautious, as they may **not be able adequately to keep lookout**.
- Note that a vessel trawling or hauling the net **cannot be handled flexibly or give way easily** because it may tip over if it is steered abruptly.
- When trawling is done by 2 vessels, a net is extended to the rear of those vessels for about 400 to 500 meters, and so it can be extremely dangerous to navigate between the vessels, or between a vessel and the net. A flag buoy is attached to the back end of the net, in addition to day shapes (2 cones) that are displayed during operation.

What is boat seine fishing?

Boat seine fishing mainly consists of two net boats and one fish finder (Transport vessel) operating as a fleet, trawling fish near the surface or in midwater with a net between the stern of a pair of net vessels. Boat seine fishing in Ise Bay is mainly conducted by trawling fishing vessels of less than 20 tons. The fishing period and time zone are different depending on the regions.

Fishing method

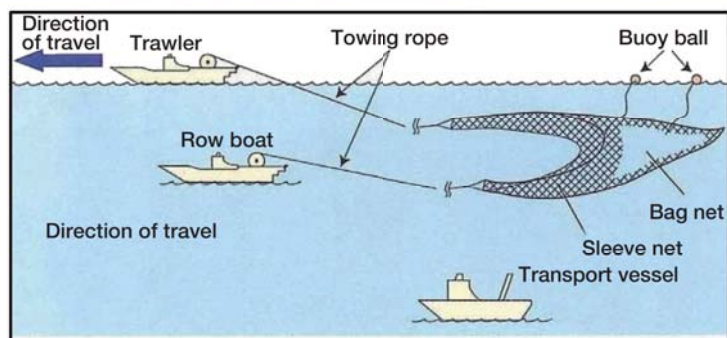
There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of boat seine fishing is characterized by its diversity. By way of example, Aichi Prefecture's fishing methods are described here.

○ Fishing method

In Aichi Prefecture, the main species caught in purse seine fishing is Japanese sand lance and sardines. When casting nets, two vessels carry a single run of fishing gear, and following the instructions of the fish finder, move forward to cast the buoy for the bag net, before casting the bag net from the stern. As soon as the bag net is thrown in, both vessels deploy in a figure of eight motion while casting the sleeve net, once complete, the towing rope is cast. It takes about 5 to 10 minutes to cast a net.

The seine net is trawled in the same direction as the current for about 1 to 1.5 hours, before the net is hauled with both vessels bow to bow, with the catch is stored in the transport vessel.

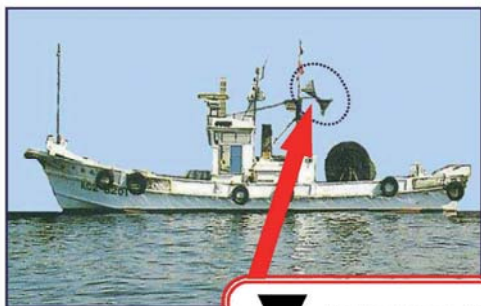
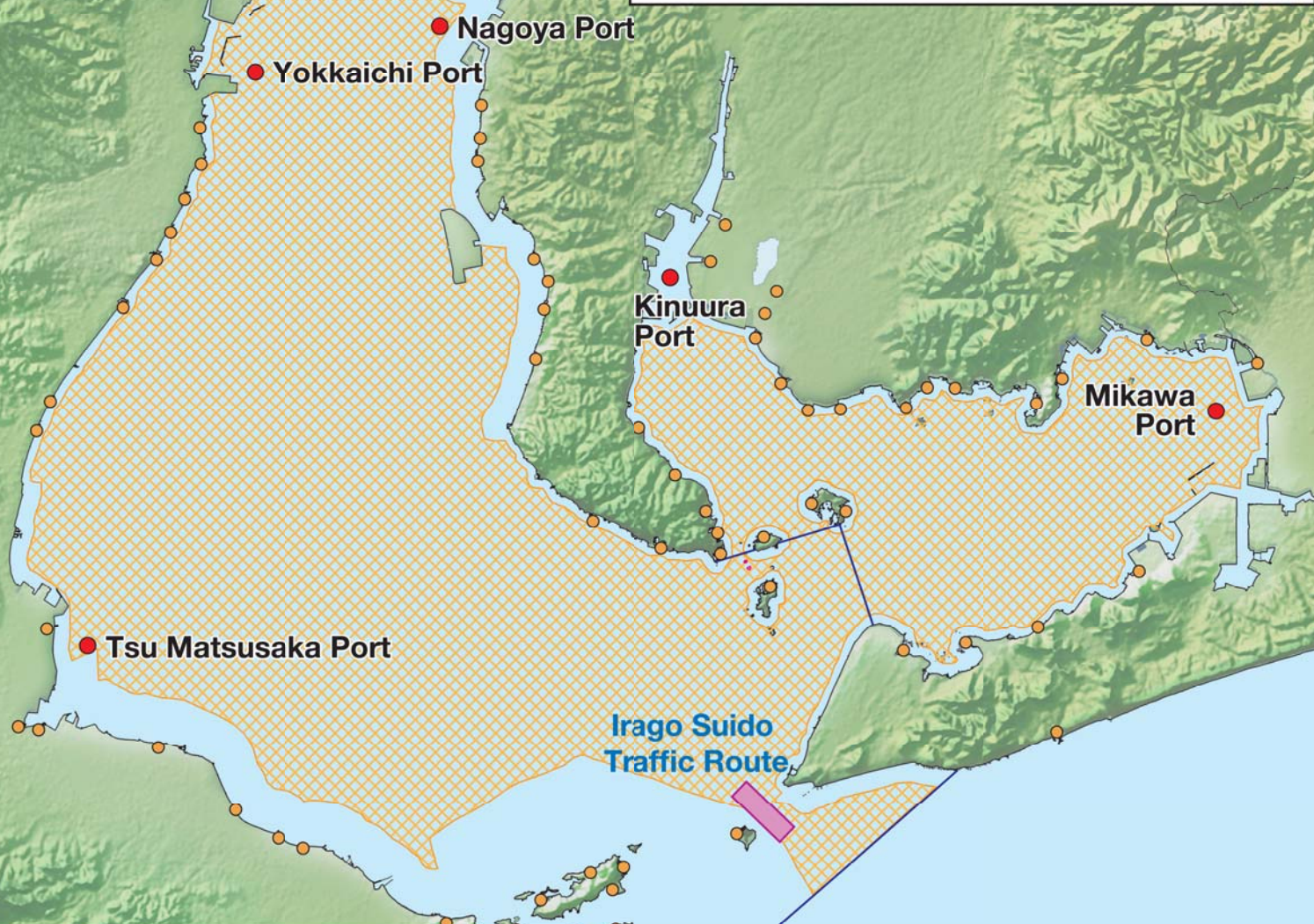
"Chart of Boat Seine Fishing Ground"



E.g. "Purse seine": fishing ground at depths of 10 to 30m (main fishing ground is 15m)

Length from stern to bag net: 400m (300m net + 100m rope)






Source: Aichi Prefecture, "Fisheries of Aichi Prefecture" (partially modified)



During operation, day shapes (2 cones) are displayed

Source: Fourth Regional Coast Guard Headquarters, "Ise Bay and Mikawa Bay" Maritime Traffic Guidebook

Legend

-  Maritime Traffic Safety Law Boundaries in Major Operational Areas of Each Prefecture
-  Boundary under the Maritime Traffic Safety Act
-  Route (Maritime Traffic Safety Act)
-  Fishing port
-  Major port

Gill net fishing

Major characteristics during the fishing operations

- Especially fishing vessels involved in sorting fish or caring for fishing equipment after hauling the net must be cautious because they **may not be able adequately to keep guard**.
- Note that a vessel casting or hauling a net **cannot be handled flexibly or give way easily** because it may capsize if steered abruptly.
- Note that a fishing vessel casting or hauling a net may **go astern** if the net is entangled with an object at the bottom of the sea.
- Give way very carefully because the net **has buoys at its both ends or at certain intervals**.
- **The length, height and casting depth vary** depending on the regions and the target fish species.
- Fishing vessels are equipped with **yellow rotating lights** or the like in addition to the navigation lights, which can be used for keeping guard.

What is gill net fishing?

Gill net fishing is the technique of setting a belt-like net to block where fish are swimming, and to let them swim into the net or be entangled in it. Some nets are fixed with an anchor, while others are not fixed and are swept along the sea surface or seabed by the current.

In Ise Bay, gill net fishing is often conducted by fishing vessels of less than 5 tons. The fishing period and time zone are different depending on the regions.

Example of fishing method

There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of gill net fishing is characterized by its diversity. By way of example, the manual method used in Mie Prefecture is described here.

○ Fishing method (gill net)

In the bottom gill net fishing operated in Mie Prefecture, the main species fished are flatfish and flathead. The nets are cast from a (large) buoy in a counterclockwise direction, and after the fish are surrounded, the bottom is struck with a weight to frighten the fish and catch them. It usually takes about 5 minutes to cast a net, about 20 minutes to catch, and about 30 minutes to haul a net. The number of nets cast per day is usually 9 to 10, and the operation hours are from 6:00 a.m. to around 6:00 p.m.

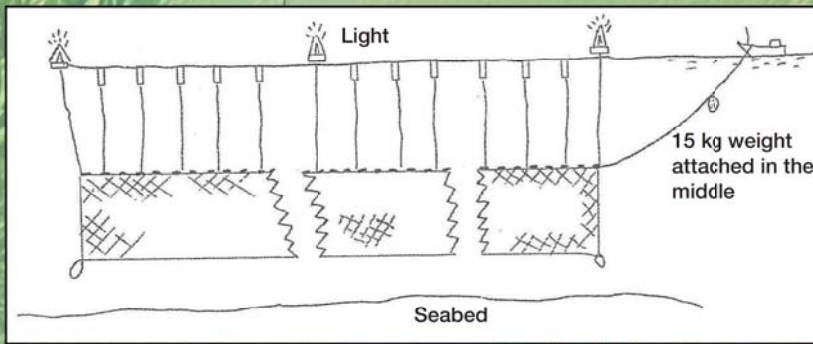
Source: Fisheries Resource Management Division, Agriculture, Forestry and Fisheries Department, Mie Prefecture (some charts have been modified)

○ Fishing method (drift gill net)

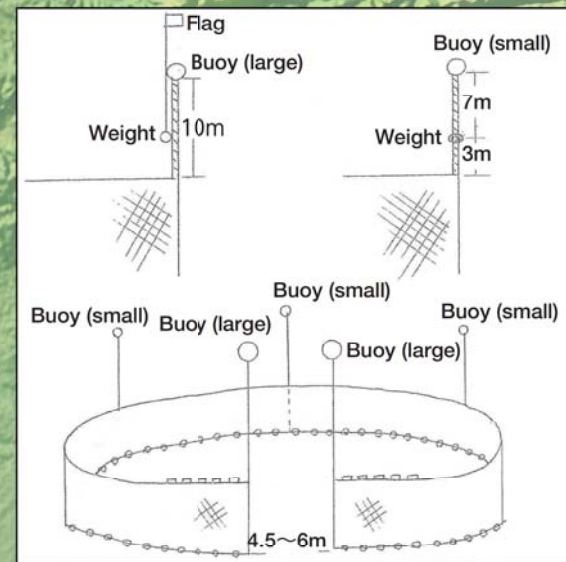
The fishing gear used in the Spanish mackerel drift net fishing in Mie Prefecture consists of within 750 m line, with the first casting at the beginning of the day. The nets are cast from the port side while moving backward with the bow facing the tide. It takes about 30 minutes to cast a net, and after drifting for 4 to 5 hours, the net is hauled. The net is hauled from the port side while the boat is moving forward at a low speed toward the tide. It takes about two to three hours in summer, and about four hours in autumn to haul a net. There are an average of two operations per night (one in the middle of the night and one in the morning).

Source: Fisheries Resource Management Division, Agriculture, Forestry and Fisheries Department, Mie Prefecture (some charts have been modified)

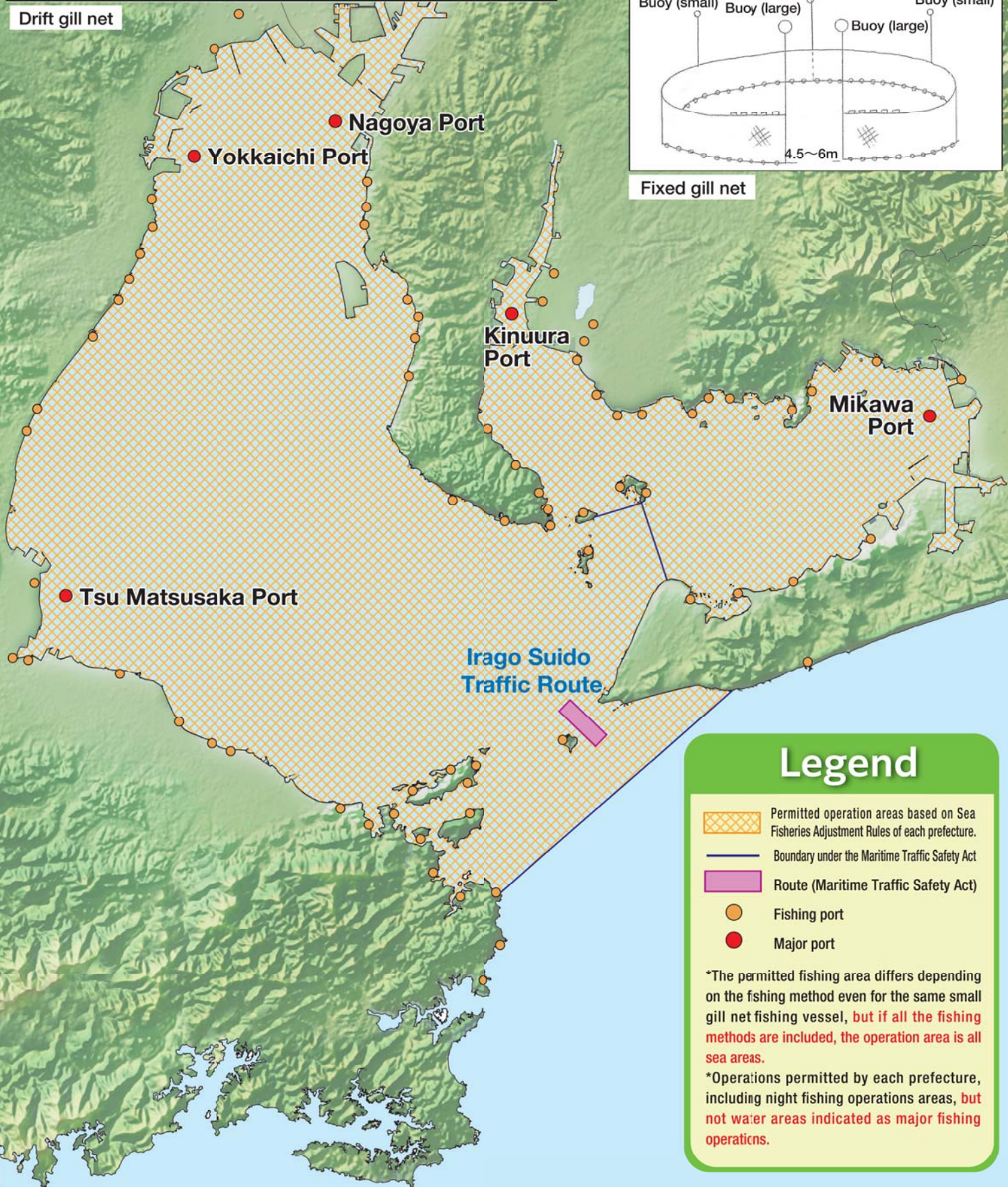
"Chart of Gill Net Fishing Ground"



Drift gill net



Fixed gill net



Legend

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- Boundary under the Maritime Traffic Safety Act
- Route (Maritime Traffic Safety Act)
- Fishing port
- Major port

*The permitted fishing area differs depending on the fishing method even for the same small gill net fishing vessel, **but if all the fishing methods are included, the operation area is all sea areas.**

*Operations permitted by each prefecture, including night fishing operations areas, **but not water areas indicated as major fishing operations.**

Line fishing

Major characteristics during the fishing operations

- There are a lot of small fishing boats in operation, and so caution must be taken, particularly during hauling of nets as it may be difficult to keep sufficient lookout.
- Many fishing vessels are equipped with yellow rotating lights and such, in addition to their navigation lights etc., which also can be used as a guide for lookout.

What is line fishing?

In line fishing, in addition to single-line fishing with the fishing rod, there are other fishing methods, such as towing multiple fishing lines lowered from a boat, and catching fish by hand with a fishing line and hook, with methods differing depending on the target species and region.

In the line fishing in Ise Bay, the line fishing period and time zone vary depending on the region.

Source: Aichi Prefectural Bureau of Agriculture and Fisheries, Fisheries Division; Mie Prefectural Federation of Fisheries Cooperative Associations Website

Example of fishing method

There are various fishing methods, and even within the same type, there are differences from prefecture to prefecture or area to area. The concept of the line fishing is characterized by its diversity. By way of example, the manual method used in Mie Prefecture is described here.

○ Fishing method

In Mie Prefecture's tow-rope fishing, a pole is extended from the boat with a fishing line and hook attached to the end, which is then towed along the surface to catch bonito, mahi-mahi, Japanese amberjack, and other fish.

Source: Fisheries Resource Management Division, Agriculture, Forestry and Fisheries Department, Mie Prefecture

"Chart of Fishing Ground"



Tow-rope fishing

Nagoya Port

Yokkaichi Port






Kinuura Port

Mikawa Port

Tsu Matsusaka Port

Irago Suido
Traffic Route

Legend

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-  Fishing port
-  Major port

*As a free fishing, the operating area is the entire sea area.

* An operating sea area including nighttime operations, but does not indicate major operating sea areas.

Longline fishing

Major characteristics during the fishing operations

- There are a lot of small fishing boats in operation, and so caution must be taken, particularly during hauling of nets as **it may be difficult to keep sufficient lookout**.
- Note, that a fishing vessel casting and raising a net may **go astern** as the line becomes taut, or the net is entangled with an object at the bottom of the sea.
- Give way with caution **as the main line has buoys attached at both ends or at equal intervals**.
- Many fishing vessels are equipped with **yellow rotating lights and such**, in addition to their navigation lights etc., which also can be used as a guide for lookout.

What is longline fishing?

Longline fishing is a method of catching fish, crabs and conger eel by attaching many hooks and baskets to a single main line.

In the longline fishing in Ise bay, the fishing period and time zone varies depending on the region.

Example of fishing method

There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of longline fishing is characterized by its diversity. By way of example, the manual method used in Mie Prefecture is described here.

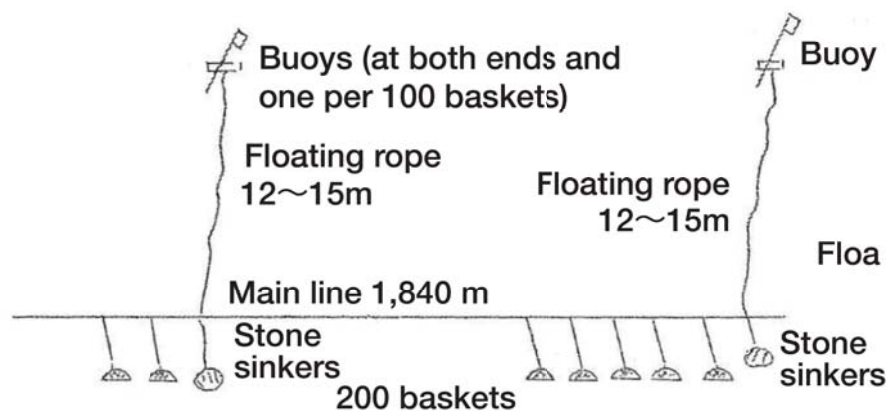
○ Fishing method

In the longline basket fishing operated in Mie Prefecture, 200 baskets are connected to a main line, and sunk to the seabed to catch blue swimming crabs, striped shore crabs, and octopuses, etc.

The operation takes place about three times during the night from sunset to sunrise, with the baskets cast in from the rising tide in the direction of the outgoing tide. The fishing ground is located in the Ise Bay area, and operations are conducted in the sea area where the bottom sediment is sandy mud and the water depth is 10 to 15 meters.

Source: Fisheries Resource Management Division, Agriculture, Forestry and Fisheries Department, Mie Prefecture (some charts have been modified)

"Chart of Longline Fishing Ground"



Legend

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* An operating sea area including nighttime operations, but does not indicate major operating sea areas.

Aquaculture

Major characteristics during the fishing operations

- It is necessary to be careful about the fishing vessels which are engaged in operation because they may not be able to keep guard sufficiently
- Note that if a ship navigates close to an operating fishing vessel at a high speed, it could **capsize or incur an accident due to waves generated by the wake.**
- As **anchor ropes may be extended radially** from aquaculture areas, it is necessary to navigate while maintaining an adequate distance.
- Some surrounding aquaculture areas may be marked with **yellow light buoys** or the like, to identify their presence.
- It is necessary to be cautious around aquaculture areas, as they may **be in places difficult to see** by general vessels.

What is aquaculture?

Aquaculture is a method of harvesting seaweed and seafood such as laver by growing them on rafts and other equipment. The aquaculture industry in Ise Bay is focused mainly on seaweed cultivation, and near the mouth of the bay, wakame seaweed is cultivated. In Mie Prefecture, oyster and pearl farming is carried out in the coves at the mouth of Ise Bay.






The aquaculture is conducted within demarcated fishing rights.

In Aichi Prefecture, there are two types of Nori seaweed cultivation: pole fence cultivation and floating cultivation, which take place from autumn to winter. Nori cultivation in Mie Prefecture involves the cultivation of kuro-nori (black laver), which is used for roasted Nori seaweed, and the cultivation of aosa-nori, which is used for tsukudani (food boiled down in soy sauce), from around September to April.

"Chart of Aquaculture Ground"



Legend

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-  Boundary under the Maritime Traffic Safety Act
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-  Fishing port
-  Major port

Dial “118” in case of emergency at sea.

By dialing “118,” you can make an emergency call to the Japan Coast Guard.

In the following cases, please dial “118” and describe “what has happened,” “when it has happened” and “where it has happened” calmly and concisely.

○If you encountered or witnessed an accident causing injury or death at sea

○If you found an unidentified vessel ○If you found oil spill

○If you received information on contraband business, illegal migration, etc.

You can make an emergency call via a fixed-line phone, mobile phone, PHS, maritime phone, etc.

Links to the maritime and safety information

Maritime safety information, Japan Coast Guard



You can access the maritime safety information, maritime weather information, etc.

<https://www6.kaiho.mlit.go.jp/>

Navigation safety information, Hydrographic and Oceanographic Department, 4th Regional Coast Guard Headquarters



Navigation safety information such as the status of seaweed nets and fixed nets in the coastal waters of Aichi and Mie Prefectures and their surrounding areas is available here.

https://www1.kaiho.mlit.go.jp/KAN4/koukai/koukai_index.html

Nautical disaster hazard map, Japan Transport Safety Board



You can access the information on nautical disasters such as the nationwide nautical disaster case examples, hazard case examples, etc.

<http://jtsb.mlit.go.jp/hazardmap/>

Navigation safety information, ISE WAN Vessel Traffic Service Center



Information on navigational safety around the Irago Suido Traffic Route is available here.

<https://www6.kaiho.mlit.go.jp/isewan/>

Contact us

The Japan Association of Marine Safety TEL:03-3502-2231

U R L : <https://www.nikkaibo.or.jp/>

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