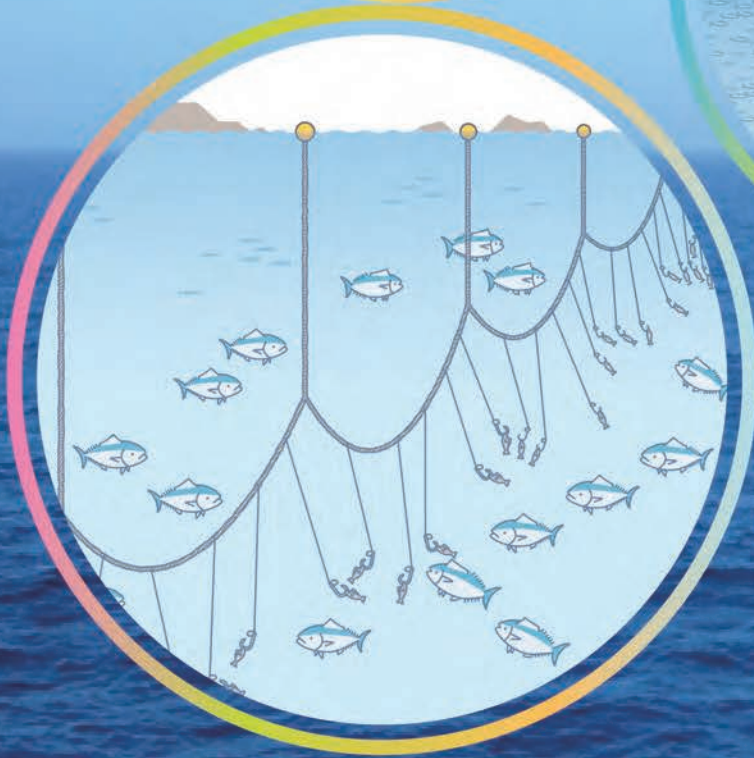
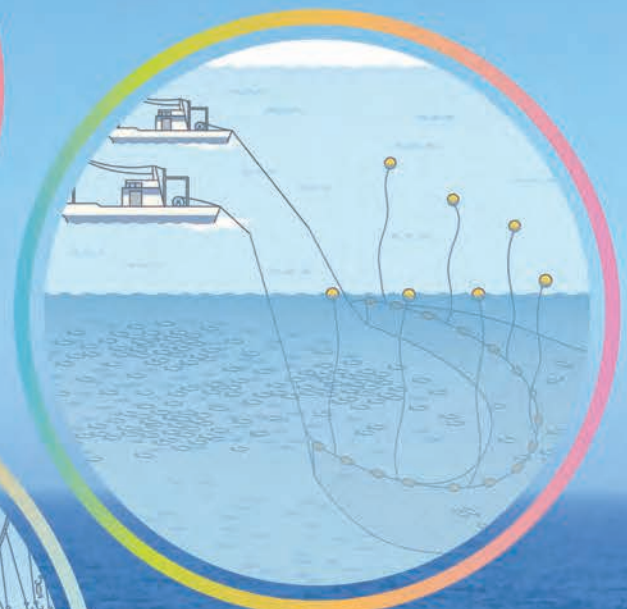
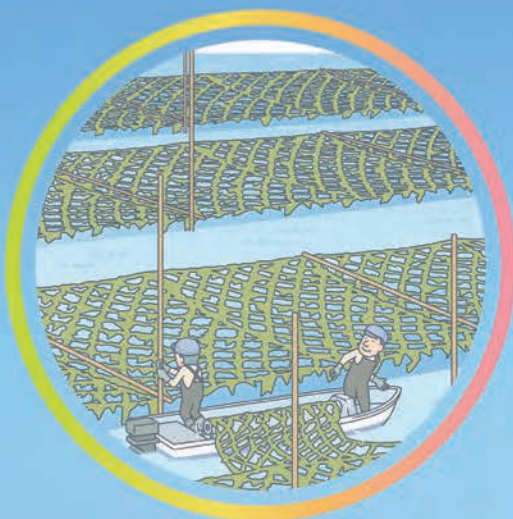
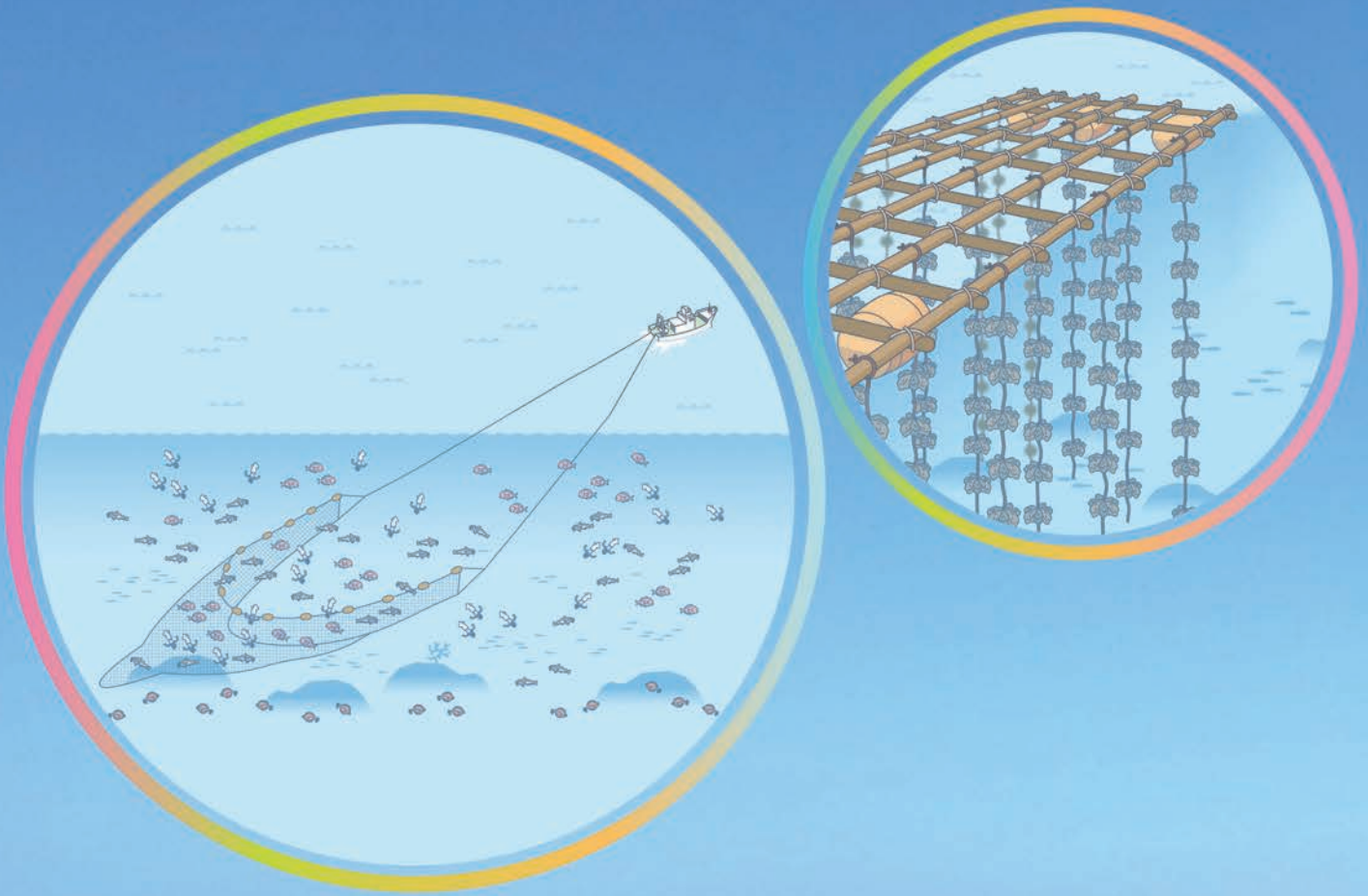


Western area of the Seto Inland Sea Fishery Information Map



The Japan Association of Marine Safety

The purpose of this map



This map concerns the major fisheries conducted in the western area of the Seto Inland Sea where the Maritime Traffic Safety Act applies and allows those parties involved in maritime trading and fisheries to improve the safety of ship navigation in the area.

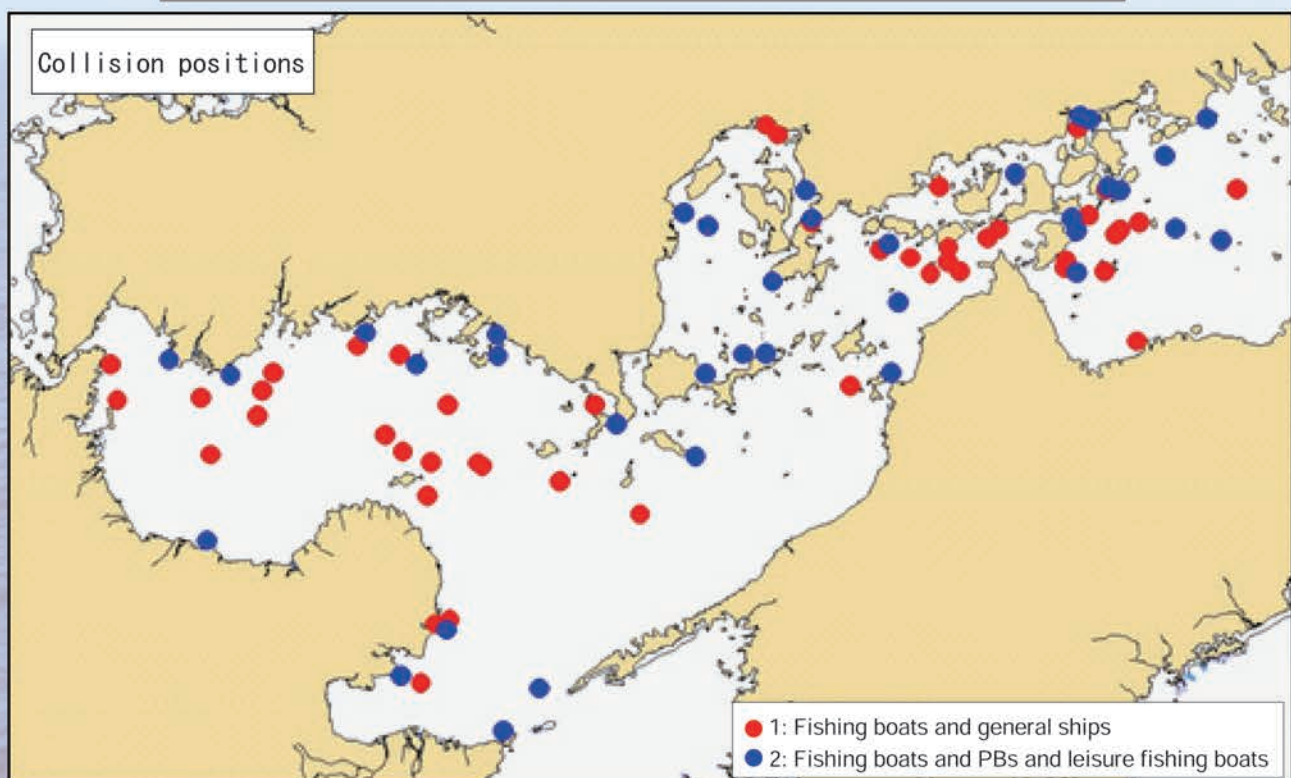
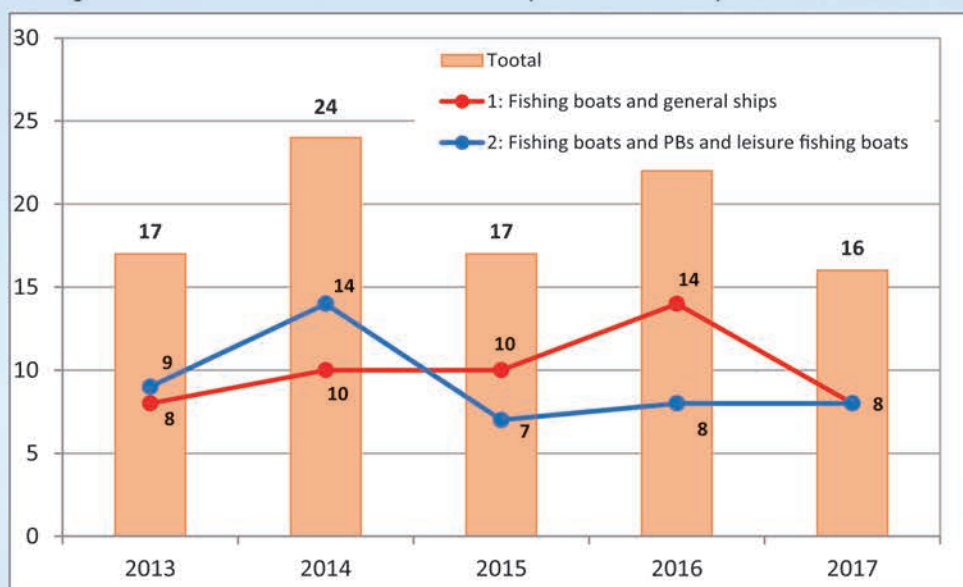
This map only shows the major characteristic of the fisheries in the area. Therefore, it is important to note that there are other fishery operations in this area that not shown in this map. We strongly hope that using this map will contribute to the safe maritime trading and fisheries activities in the area.

Accidents between Fishing boats and General ships in the western area of the Seto Inland Sea

We can see that total 96 collisions involving fishing boats have occurred during the period from January 1st, 2013 to December 31st, 2017.*

50 of them were collisions between fishing boats and General ships, while 46 collisions were those between fishing boats and pleasure boats (PBs), fishing boats or leisure fishing boats.

* Maritime Safety Division, Maritime Traffic Department, Japan Coast Guard



Small-Scale Trawl Fishery

Major characteristics during the fishery

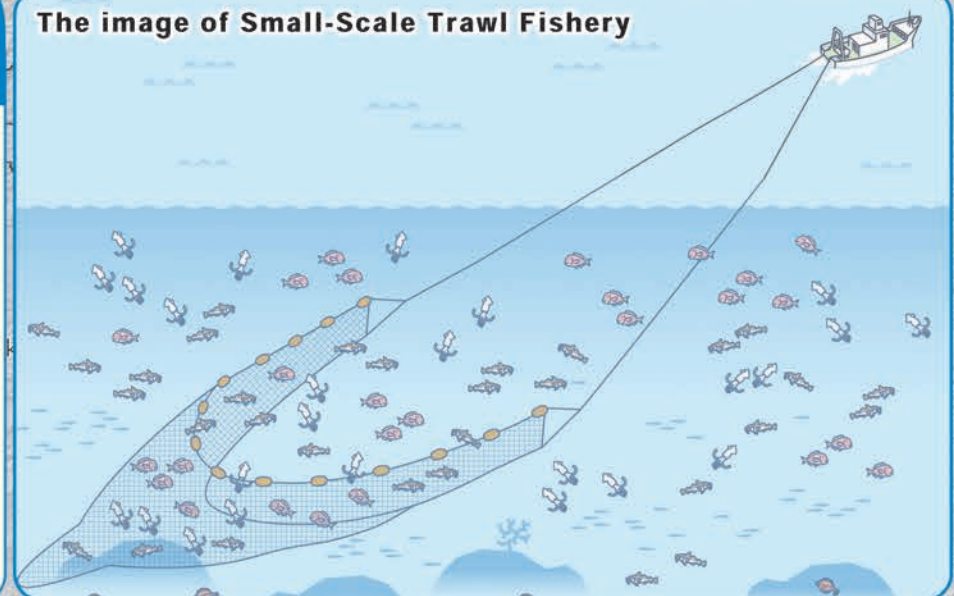
- The fishing boat pulling a net **may not be able to keep sharp lookout**.
- The fishing boat trawling or pulling a net **cannot be steered flexibly or give way easily** because it may tip over if it is steered abruptly.
- The fishing boat pulling a net **may go astern** as the net is entangled with an object at the sea bottom.
- The fishing boat may **start to move suddenly soon after casting a net**.
- The fishing boat may **start to accelerate suddenly soon after pulling a net**.
- Many fishing boats are equipped with **yellow or other colored flashing lights** in addition to the navigation lights.

What is Small-Scale Trawl Fishery?

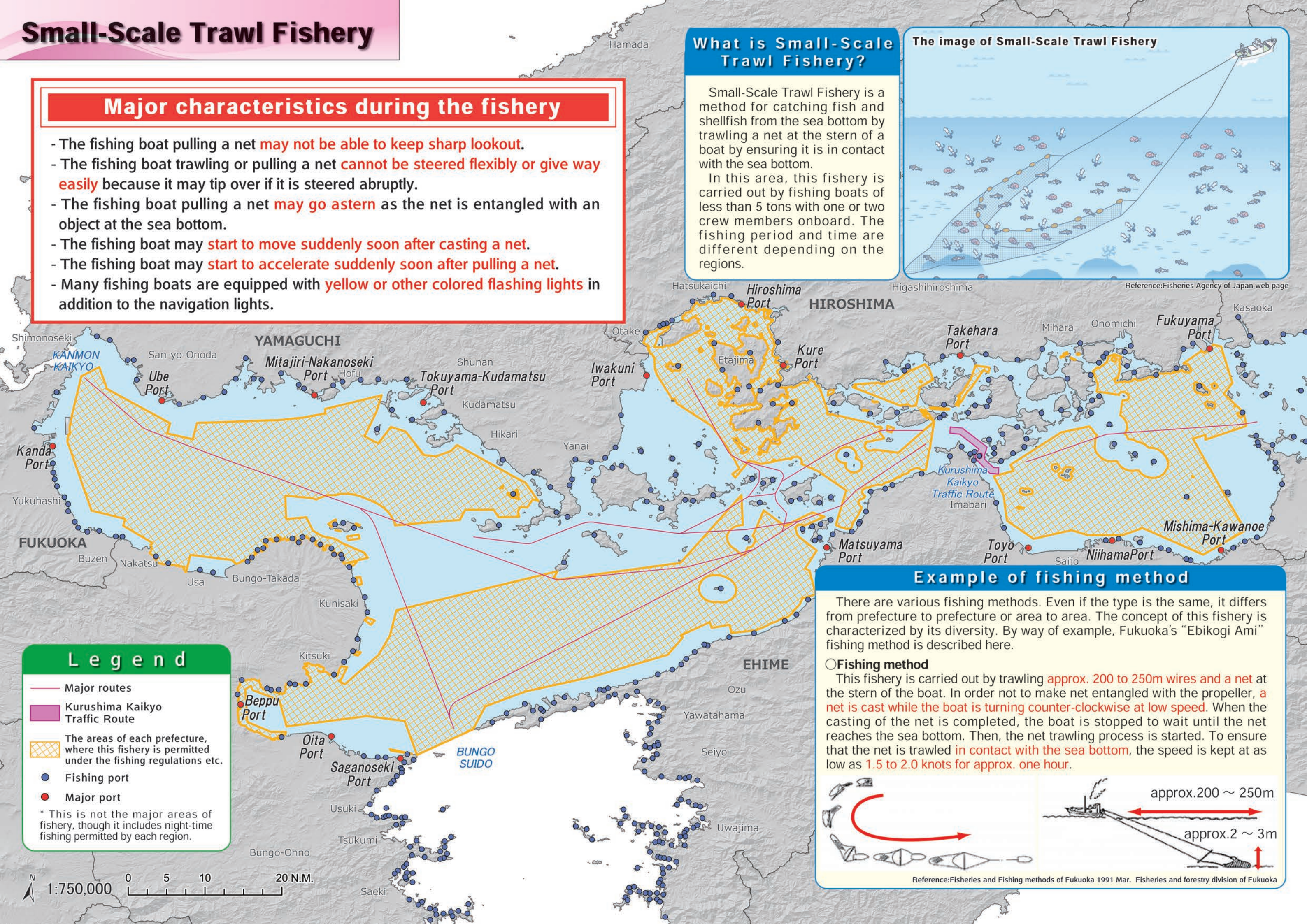
Small-Scale Trawl Fishery is a method for catching fish and shellfish from the sea bottom by trawling a net at the stern of a boat by ensuring it is in contact with the sea bottom.

In this area, this fishery is carried out by fishing boats of less than 5 tons with one or two crew members onboard. The fishing period and time are different depending on the regions.

The image of Small-Scale Trawl Fishery



Reference: Fisheries Agency of Japan web page

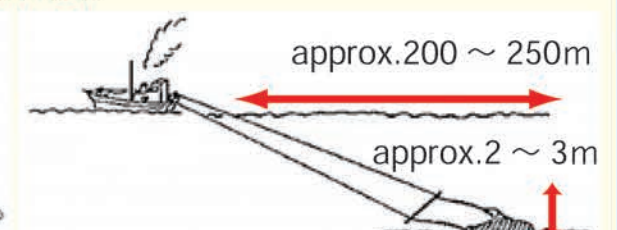
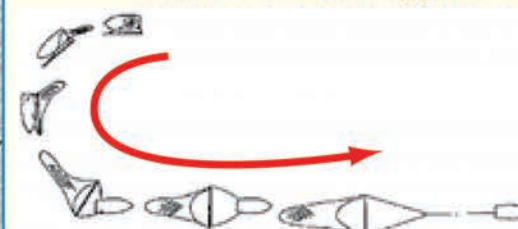


Example of fishing method

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 this fishery is characterized by its diversity. By way of example, Fukuoka's "Ebikogi Ami" fishing method is described here.

○Fishing method

This fishery is carried out by trawling **approx. 200 to 250m wires** and a net at the stern of the boat. In order not to make net entangled with the propeller, **a net is cast while the boat is turning counter-clockwise at low speed**. When the casting of the net is completed, the boat is stopped to wait until the net reaches the sea bottom. Then, the net trawling process is started. To ensure that the net is trawled **in contact with the sea bottom**, the speed is kept at as low as **1.5 to 2.0 knots** for **approx. one hour**.



Reference: Fisheries and Fishing methods of Fukuoka 1991 Mar. Fisheries and forestry division of Fukuoka

Boat Seine Fishery

Major characteristics during the fishery

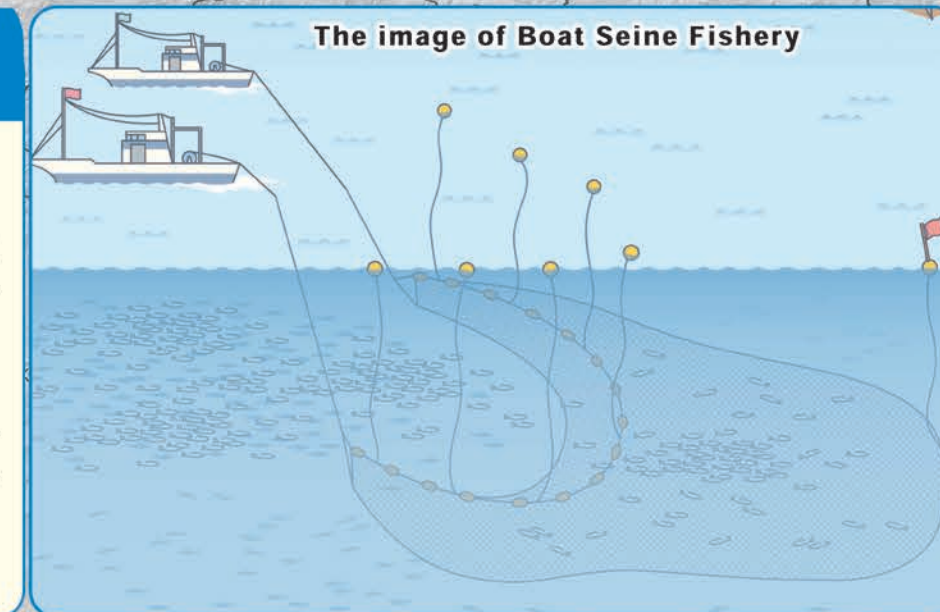
- The fishing boat pulling a net **may not be able to keep sharp lookout**.
- The fishing boat trawling or pulling a net **cannot be steered flexibly or give way easily** because it may tip over if it is steered abruptly.
- If the net-trawling is being done by two boats, it is **very dangerous to navigate between them**.
- Buoys may be attached **above the net opening**. Also, buoys with flags may be attached **above the rear end of the net**. It is **very dangerous to navigate between the fishing boat and the buoys**.
- Many fishing boats are equipped with **yellow or other colored flashing lights** in addition to the navigation lights.

What is Boat Seine Fishery?

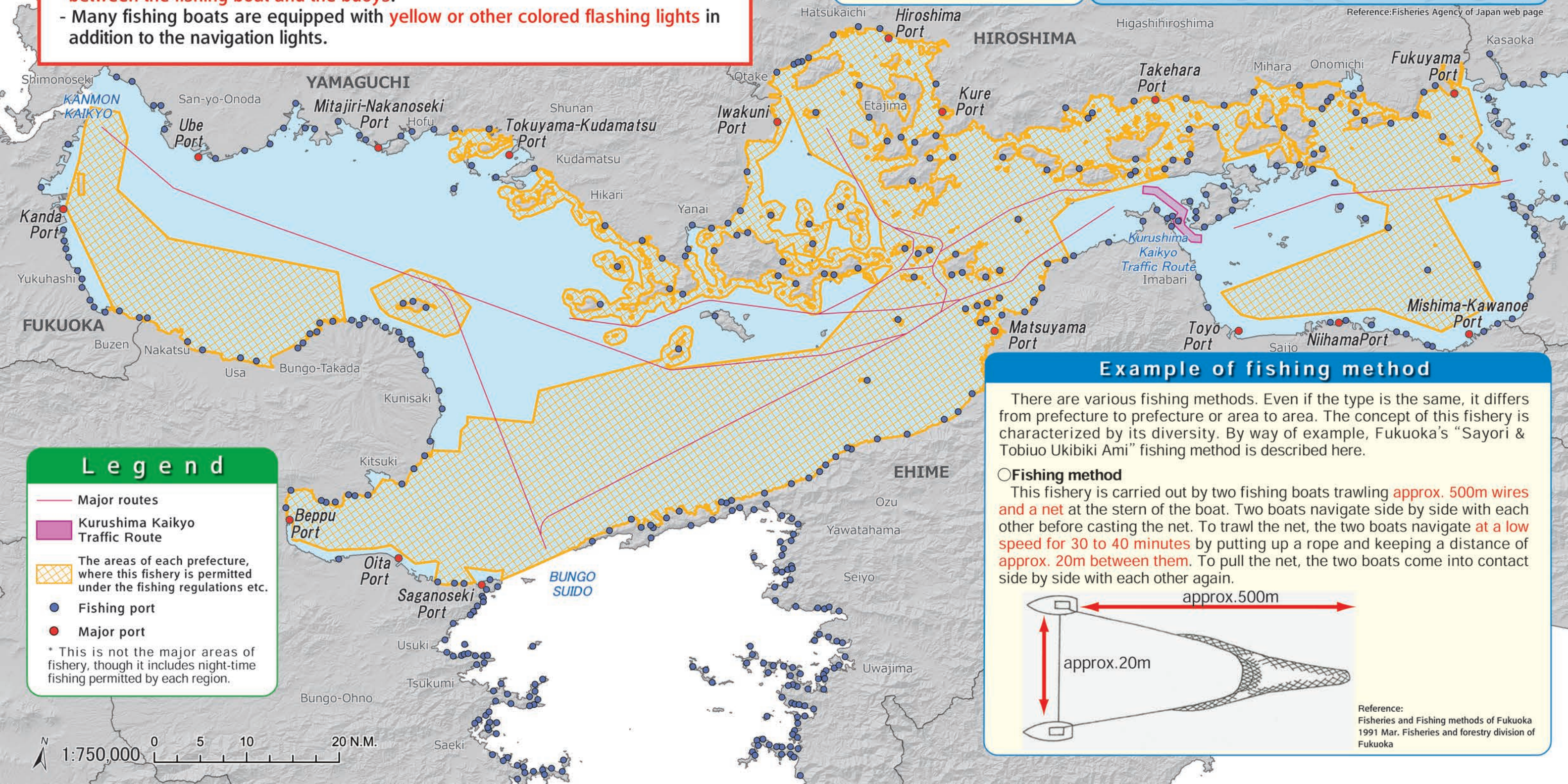
Boat Seine Fishery is a method for catching fish from the surface and medium layers by pulling the net to the boat or trawling the net at the stern of one or two boats.

This fishery is often carried out in this area by two fishing boats of 3 to 10 tons with one or two crew members onboard. The fishing period and time are different depending on the regions.

The image of Boat Seine Fishery



Reference: Fisheries Agency of Japan web page



Legend

- Major routes
- Kurushima Kaikyo Traffic Route
- The areas of each prefecture, where this fishery is permitted under the fishing regulations etc.
- Fishing port
- Major port

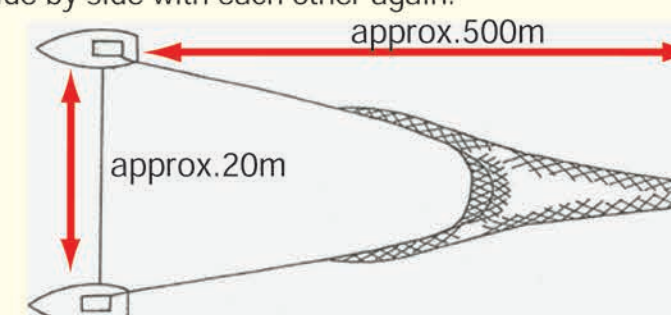
* This is not the major areas of fishery, though it includes night-time fishing permitted by each region.

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 this fishery is characterized by its diversity. By way of example, Fukuoka's "Sayori & Tobiuo Ukibiki Ami" fishing method is described here.

○Fishing method

This fishery is carried out by two fishing boats trawling **approx. 500m wires and a net** at the stern of the boat. Two boats navigate side by side with each other before casting the net. To trawl the net, the two boats navigate **at a low speed for 30 to 40 minutes** by putting up a rope and keeping a distance of **approx. 20m between them**. To pull the net, the two boats come into contact side by side with each other again.



Reference:
Fisheries and Fishing methods of Fukuoka
1991 Mar. Fisheries and forestry division of Fukuoka

Gill Net Fishery

Major characteristics during the fishery

- The fishing boat pulling a net **may not be able to keep sharp lookout**.
- The fishing boat casting or pulling a net **cannot be steered flexibly or give way easily** because it may tip over if it is steered abruptly.
- The fishing boat casting and pulling a net **may go astern** as the net is entangled with an object at the sea bottom.
- Navigate very carefully because the net has buoys **at its both ends or at certain intervals**.
- **The length, height and casting depth vary** depending on regions or target fish species.
- Many fishing boats are equipped with **yellow or other colored flashing lights** in addition to the navigation lights.

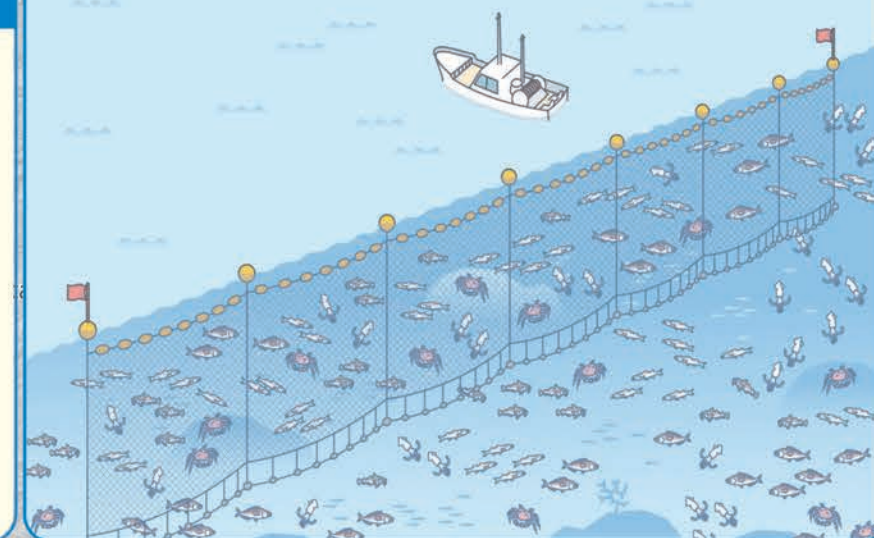
What is Gill Net Fishery?

A belt-like net is set to block the place where fish are swimming to let them swim into the net or be entangled in it. The net is fixed with anchors or allowed to float over the sea water.

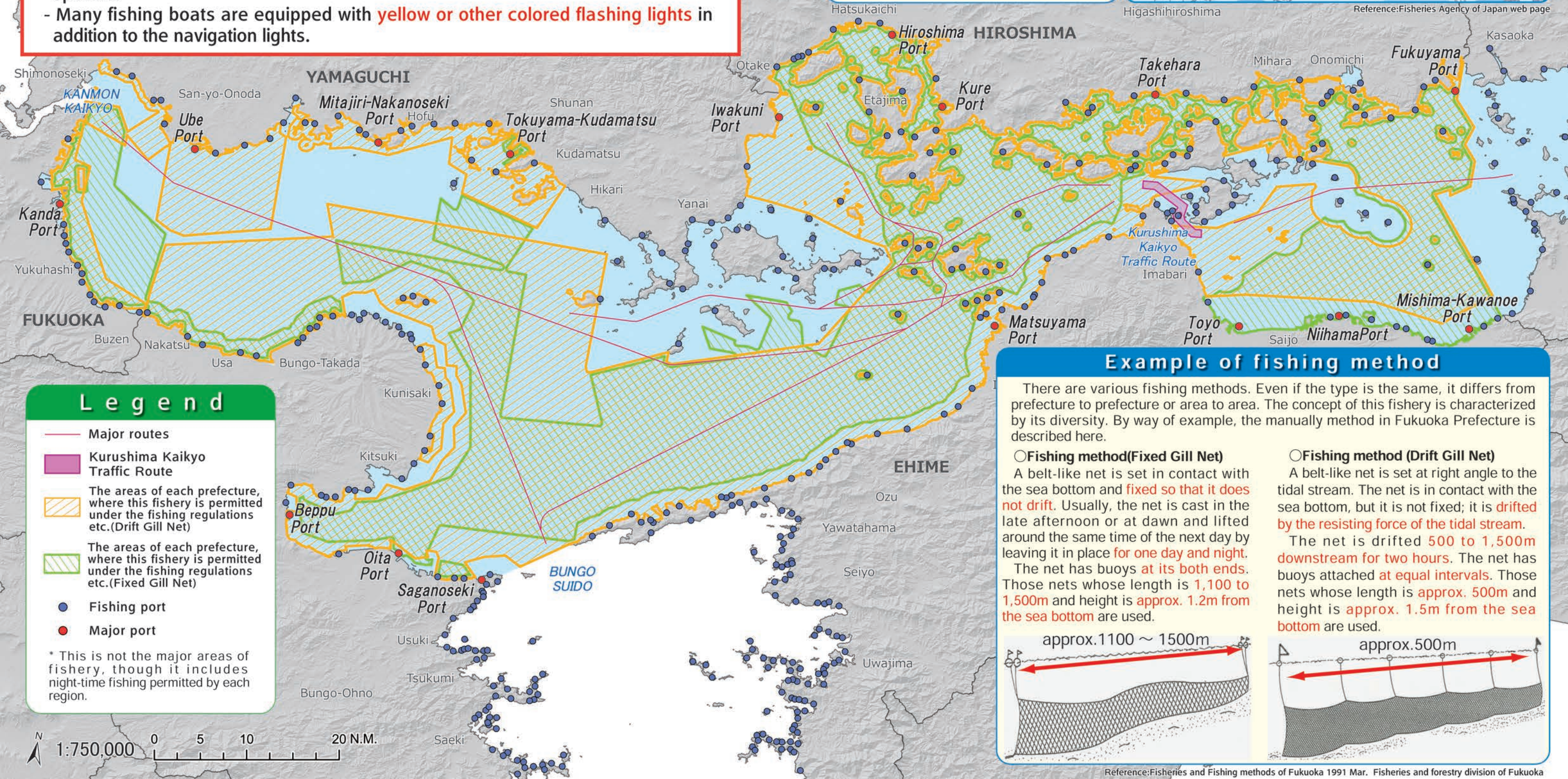
In this area, this fishery is often carried out by four to five fishing boats (i.e. two trawling boats and two or three ancillary boats) of less than 5 tons with one or two crew members onboard each boat.

The fishing period and time are different depending on the regions.

The image of Gill Net Fishery



Reference: Fisheries Agency of Japan web page



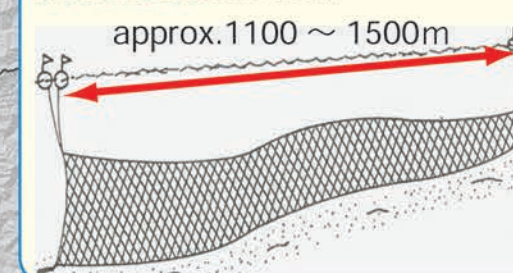
Example of fishing method

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 this fishery is characterized by its diversity. By way of example, the manually method in Fukuoka Prefecture is described here.

○Fishing method(Fixed Gill Net)

A belt-like net is set in contact with the sea bottom and **fixed so that it does not drift**. Usually, the net is cast in the late afternoon or at dawn and lifted around the same time of the next day by leaving it in place **for one day and night**.

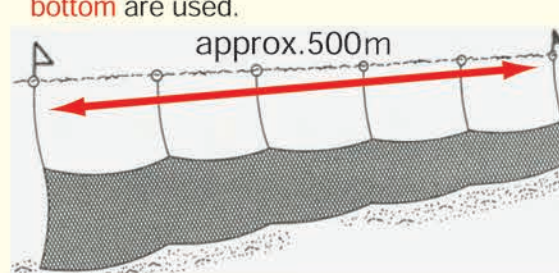
The net has buoys **at its both ends**. Those nets whose length is **1,100 to 1,500m** and height is **approx. 1.2m from the sea bottom** are used.



○Fishing method (Drift Gill Net)

A belt-like net is set at right angle to the tidal stream. The net is in contact with the sea bottom, but it is not fixed; it is **drifted by the resisting force of the tidal stream**.

The net is drifted **500 to 1,500m downstream for two hours**. The net has buoys attached **at equal intervals**. Those nets whose length is **approx. 500m** and height is **approx. 1.5m from the sea bottom** are used.



Reference: Fisheries and Fishing methods of Fukuoka 1991 Mar. Fisheries and forestry division of Fukuoka

Surrounding Seine Fishery

Major characteristics during the fishery

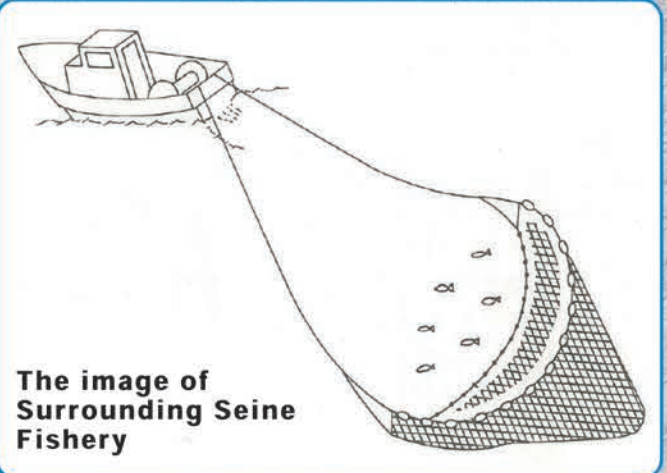
- The fishing boat pulling a net **may not be able to keep sharp lookout.**
- The fishing boat trawling or pulling a net **cannot be steered flexibly or give way easily** because it may tip over if it is steered abruptly.
- The fishing boat pulling a net **may go astern** as the net is entangled with an object at the sea bottom.
- If the net-trawling is being done by two boats, it is **very dangerous to navigate between them.**
- Many fishing boats are equipped with **yellow or other colored flashing lights** in addition to the navigation lights.

What is Surrounding Seine Fishery?

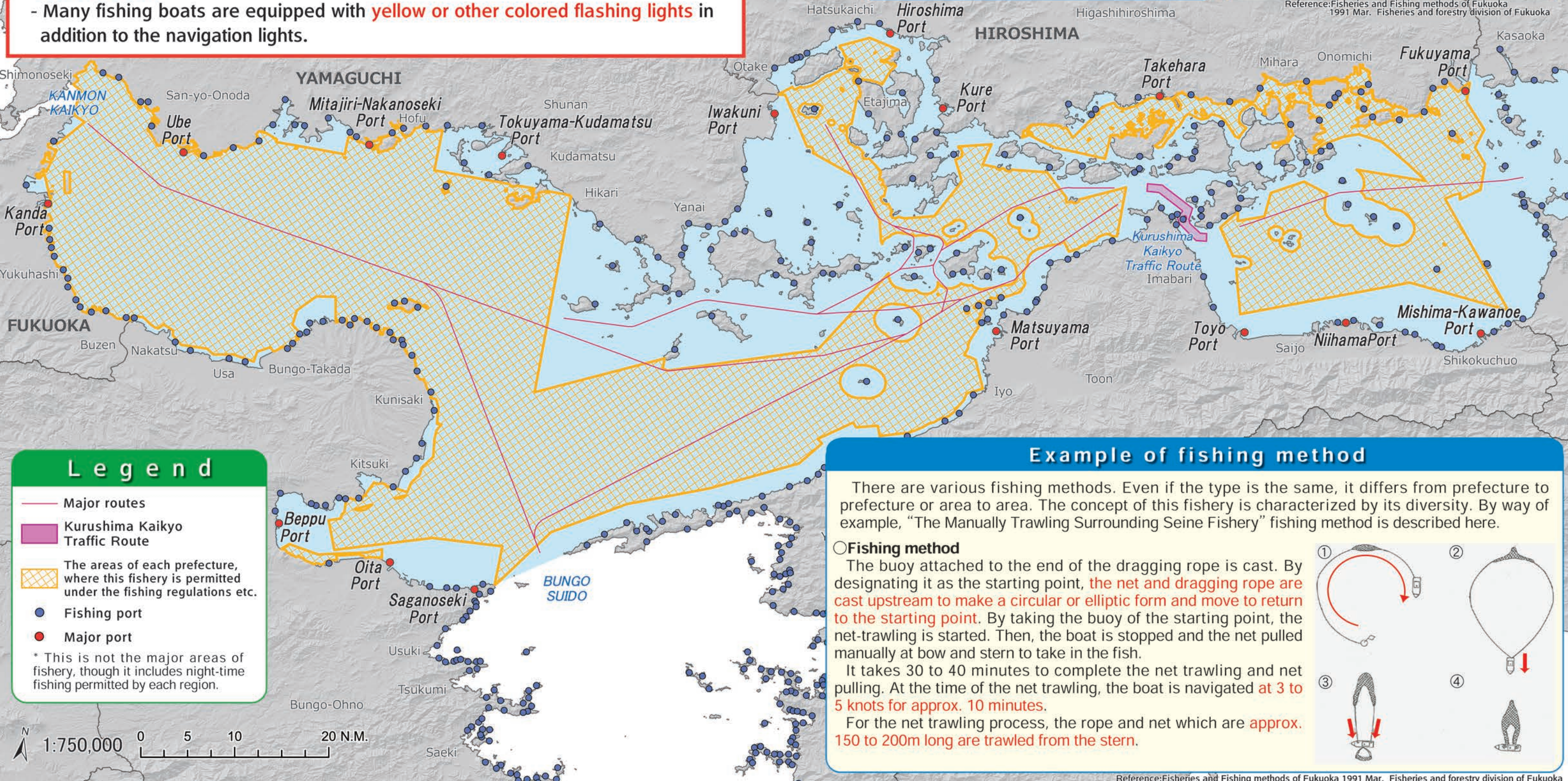
Surrounding Seine Fishery is a method for catching fish and shellfish by trawling a net whose center bulges like a towel and the trawling rope bound to its both ends is used to make a surrounding shape.

In this area, this fishery is often carried out by a fishing boat of 3 to 5 tons. One or two crew members are onboard the boat.

The fishing period and time are different depending on the regions.



Reference: Fisheries and Fishing methods of Fukuoka 1991 Mar. Fisheries and forestry division of Fukuoka



Legend

- Major routes
- Kurushima Kaikyo Traffic Route
- The areas of each prefecture, where this fishery is permitted under the fishing regulations etc.
- Fishing port
- Major port

* This is not the major areas of fishery, though it includes night-time fishing permitted by each region.

Example of fishing method

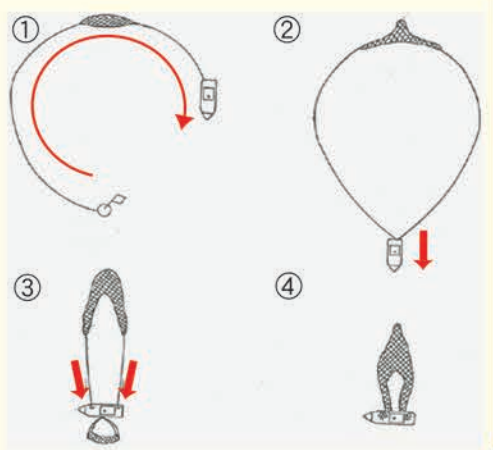
There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of this fishery is characterized by its diversity. By way of example, "The Manually Trawling Surrounding Seine Fishery" fishing method is described here.

Fishing method

The buoy attached to the end of the dragging rope is cast. By designating it as the starting point, **the net and dragging rope are cast upstream to make a circular or elliptic form and move to return to the starting point.** By taking the buoy of the starting point, the net-trawling is started. Then, the boat is stopped and the net pulled manually at bow and stern to take in the fish.

It takes 30 to 40 minutes to complete the net trawling and net pulling. At the time of the net trawling, the boat is navigated **at 3 to 5 knots for approx. 10 minutes.**

For the net trawling process, the rope and net which are **approx. 150 to 200m long are trawled from the stern.**



Reference: Fisheries and Fishing methods of Fukuoka 1991 Mar. Fisheries and forestry division of Fukuoka

Longline Fishery

Major characteristics during the fishery

- The fishing boat pulling a rope **may not be able to keep sharp lookout**.
- The fishing boat casting or pulling a rope **cannot be steered flexibly or give way easily** because it may tip over if it is steered abruptly.
- The fishing boat pulling a rope **may go astern** as the rope is entangled with an object at the sea bottom.
- Navigate very carefully because the stem rope has buoys attached **at its both ends or at equal intervals**.
- **The length of the rope and the presence of middle buoys vary** depend on regions or target fish species.
- Many fishing boats are equipped with **yellow or other colored flashing lights** in addition to the navigation lights.

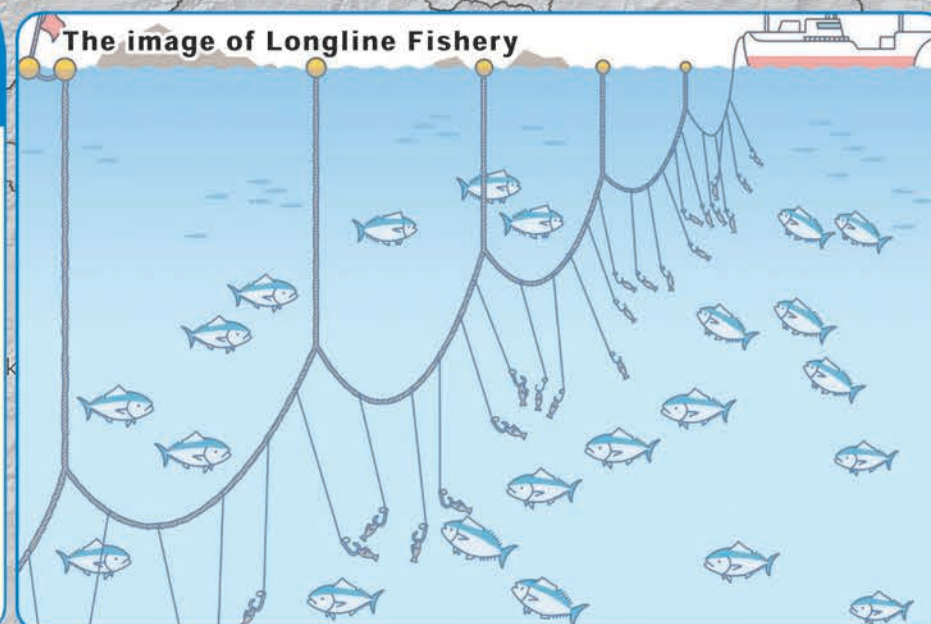
What is Longline Fishery?

A number of longlines are attached to a single stem rope and hooks are attached to the end of those longlines to catch fish.

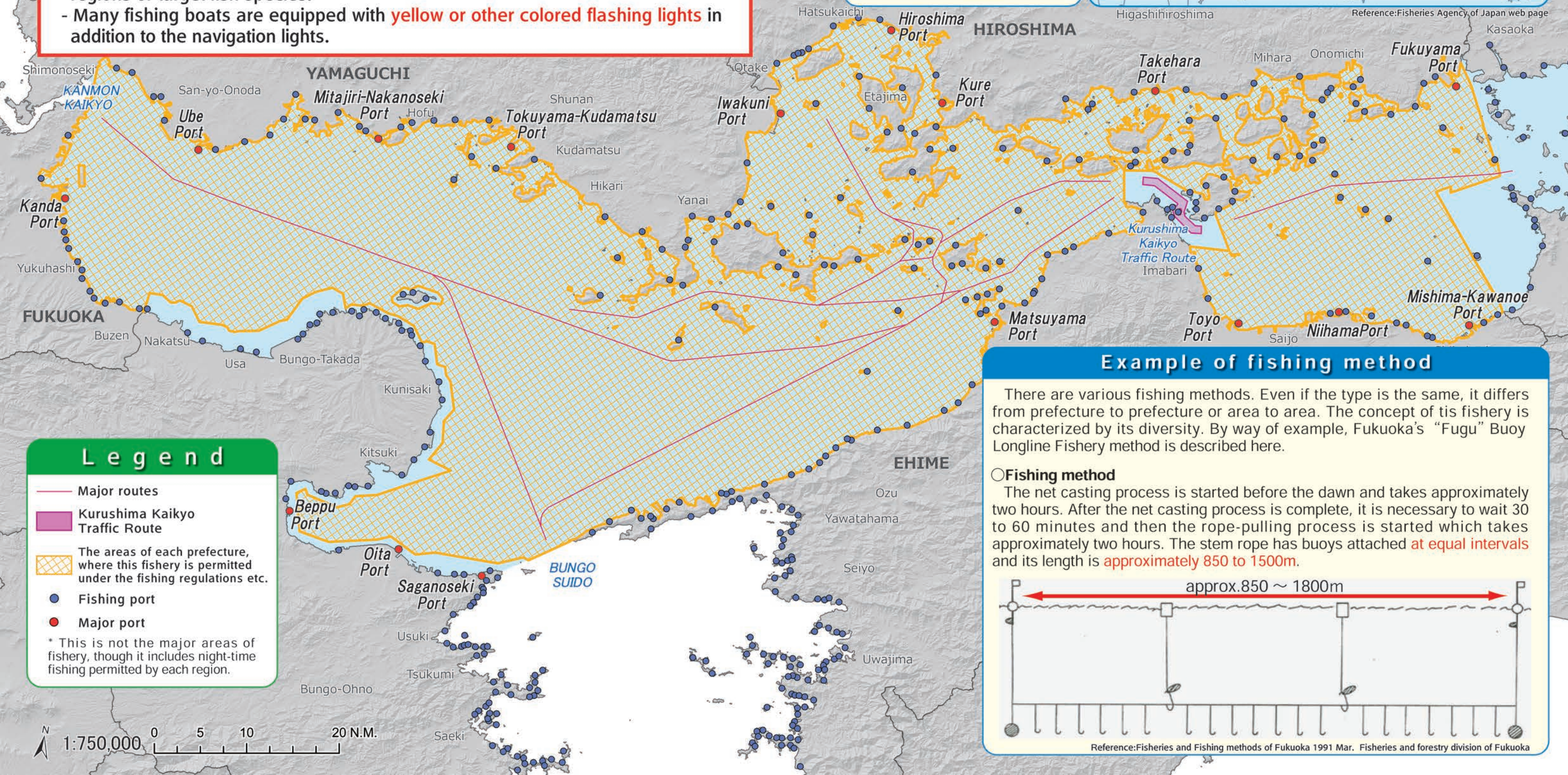
In this area, this fishery is carried out mainly by the fishing boats of 5 to 20 tons with two to seven crew members onboard.

The fishing period and time are different depending on the regions.

The image of Longline Fishery



Reference: Fisheries Agency of Japan web page

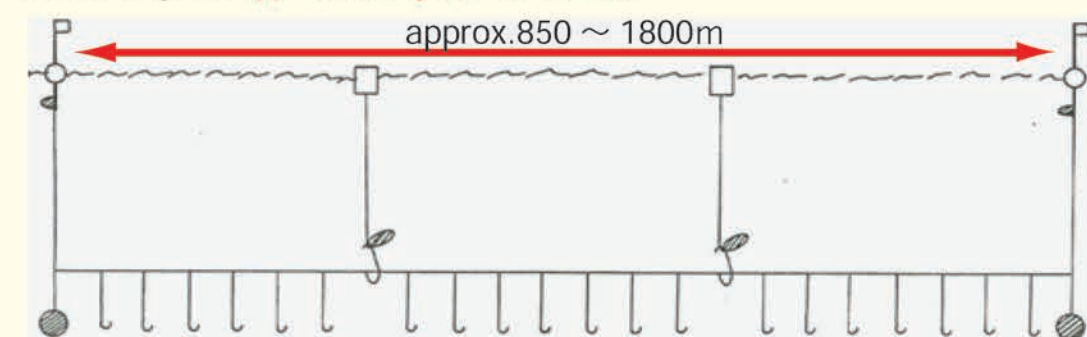


Example of fishing method

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 this fishery is characterized by its diversity. By way of example, Fukuoka's "Fugu" Buoy Longline Fishery method is described here.

Fishing method

The net casting process is started before the dawn and takes approximately two hours. After the net casting process is complete, it is necessary to wait 30 to 60 minutes and then the rope-pulling process is started which takes approximately two hours. The stem rope has buoys attached **at equal intervals** and its length is **approximately 850 to 1500m**.



Reference: Fisheries and Fishing methods of Fukuoka 1991 Mar. Fisheries and forestry division of Fukuoka

Farming Fishery

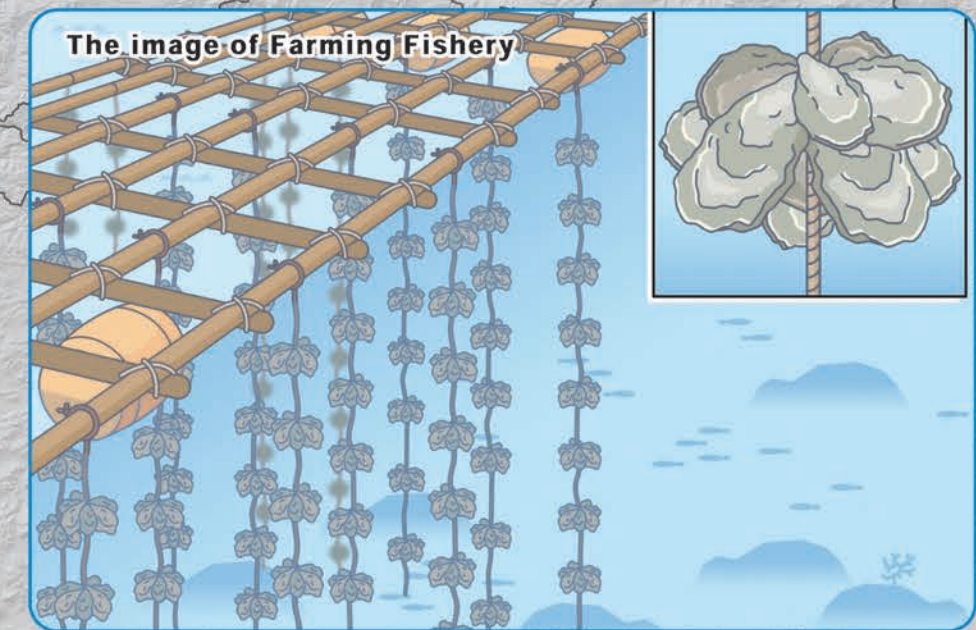
Major characteristics during the fishery

- The fishing boat which are engaged in hauling in the fish and shellfish **may not be able to keep sharp lookout.**
- The fishing boat towing a raft **cannot be steered flexibly or give way easily** because it may tip over if it is steered abruptly.
- The fishing boat may haul in the fish and shellfish using a crane. If a ship navigates closely at a high speed, it **may tip over or incur an accident due to the ship waves.**
- Some rafts may be equipped with **yellow light buoys or the like** to mark their presence.

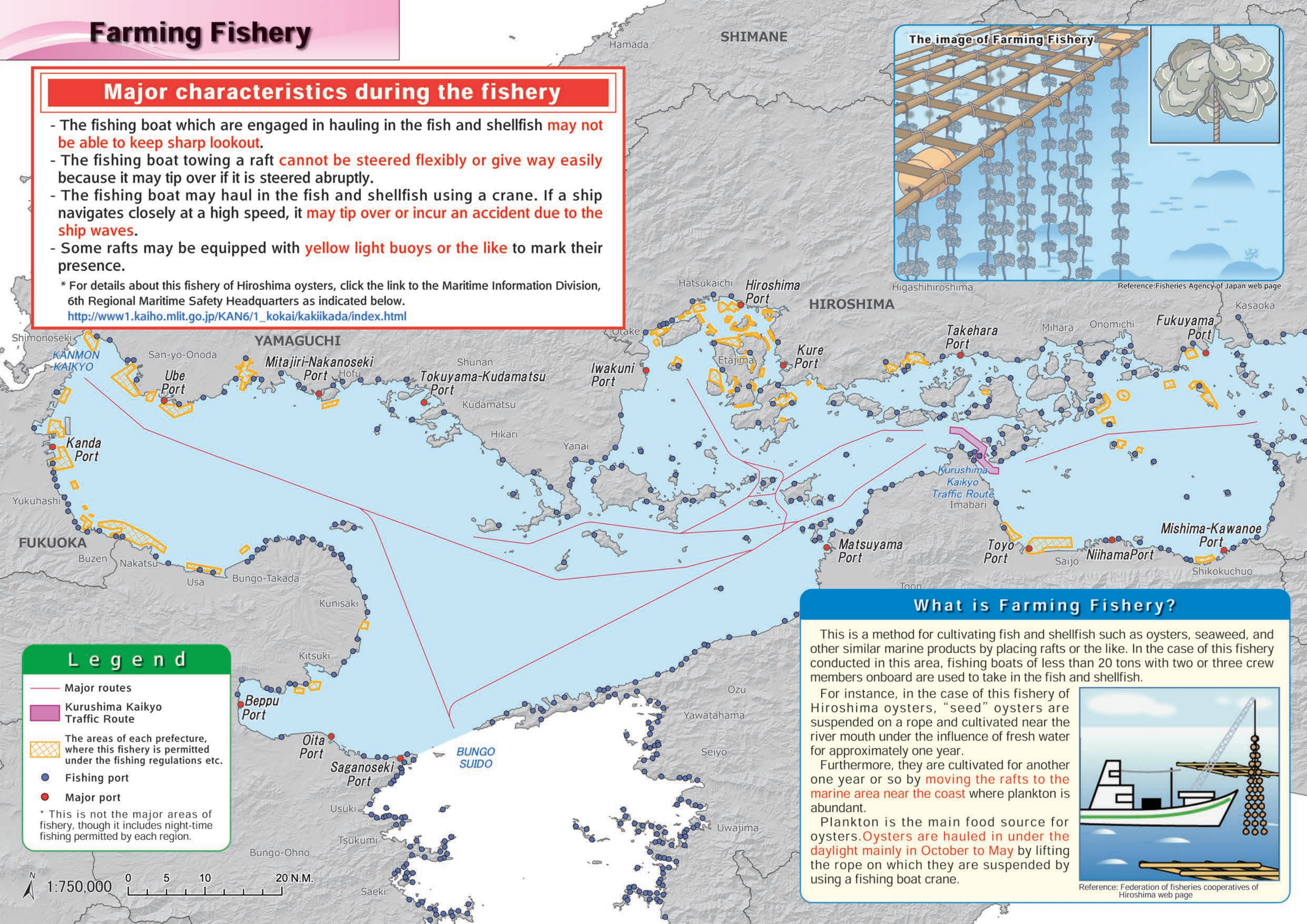
* For details about this fishery of Hiroshima oysters, click the link to the Maritime Information Division, 6th Regional Maritime Safety Headquarters as indicated below.

http://www1.kaiho.mlit.go.jp/KAN6/1_kokai/kakiikada/index.html

The image of Farming Fishery



Reference: Fisheries Agency of Japan web page



Legend

- Major routes
- Kurushima Kaikyo Traffic Route
- The areas of each prefecture, where this fishery is permitted under the fishing regulations etc.
- Fishing port
- Major port

* This is not the major areas of fishery, though it includes night-time fishing permitted by each region.

1:750,000 0 5 10 20 N.M.

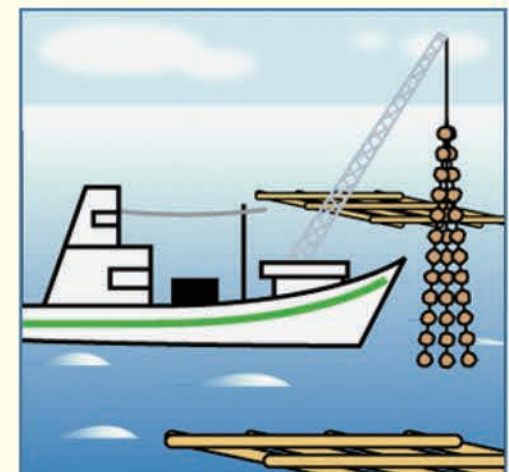
What is Farming Fishery?

This is a method for cultivating fish and shellfish such as oysters, seaweed, and other similar marine products by placing rafts or the like. In the case of this fishery conducted in this area, fishing boats of less than 20 tons with two or three crew members onboard are used to take in the fish and shellfish.

For instance, in the case of this fishery of Hiroshima oysters, "seed" oysters are suspended on a rope and cultivated near the river mouth under the influence of fresh water for approximately one year.

Furthermore, they are cultivated for another one year or so by **moving the rafts to the marine area near the coast** where plankton is abundant.

Plankton is the main food source for oysters. **Oysters are hauled in under the daylight mainly in October to May** by lifting the rope on which they are suspended by using a fishing boat crane.



Reference: Federation of fisheries cooperatives of Hiroshima web page

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 oil spill
- If you found an unidentified vessel
- 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

Hydrographic and Oceanographic Department web page

Japan Coast Guard



You can access the navigational warning, notice to mariners, etc.

<http://www.kaiho.mlit.go.jp/info/mics/index.htm>

Japan-Marine Accident Risk and Safety Information System (J-MARISIS)

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/>

Contact us

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

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

Please download this map from the following URL.

