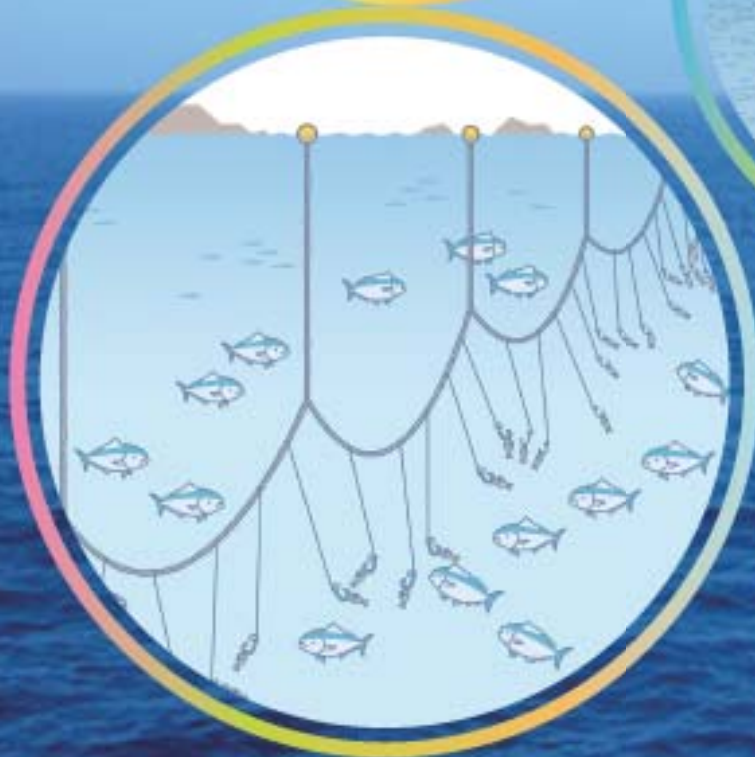
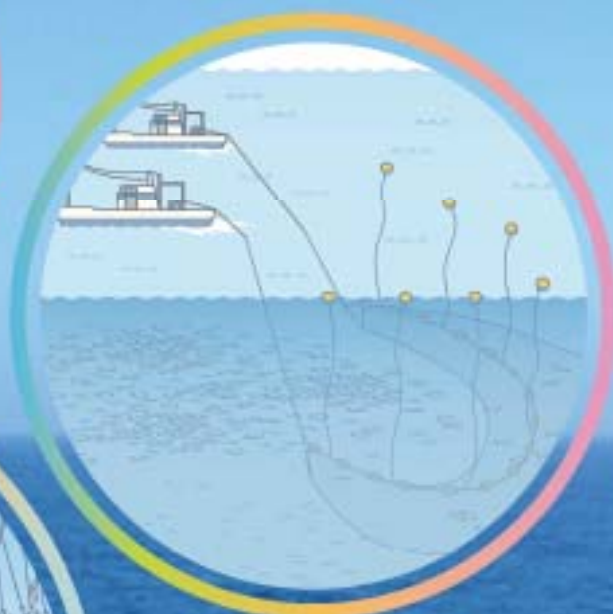
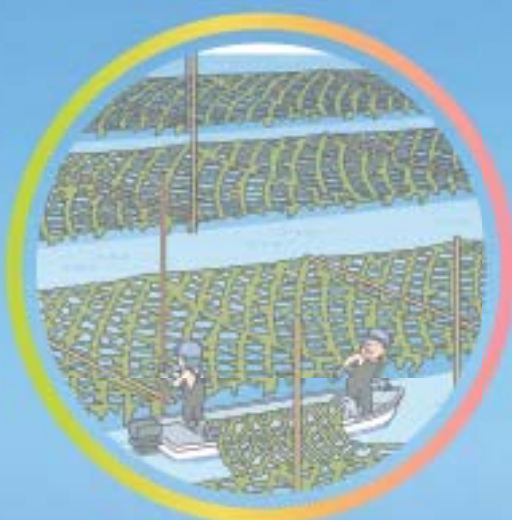


2020

Shipping and fisheries related organizations Liaison Council

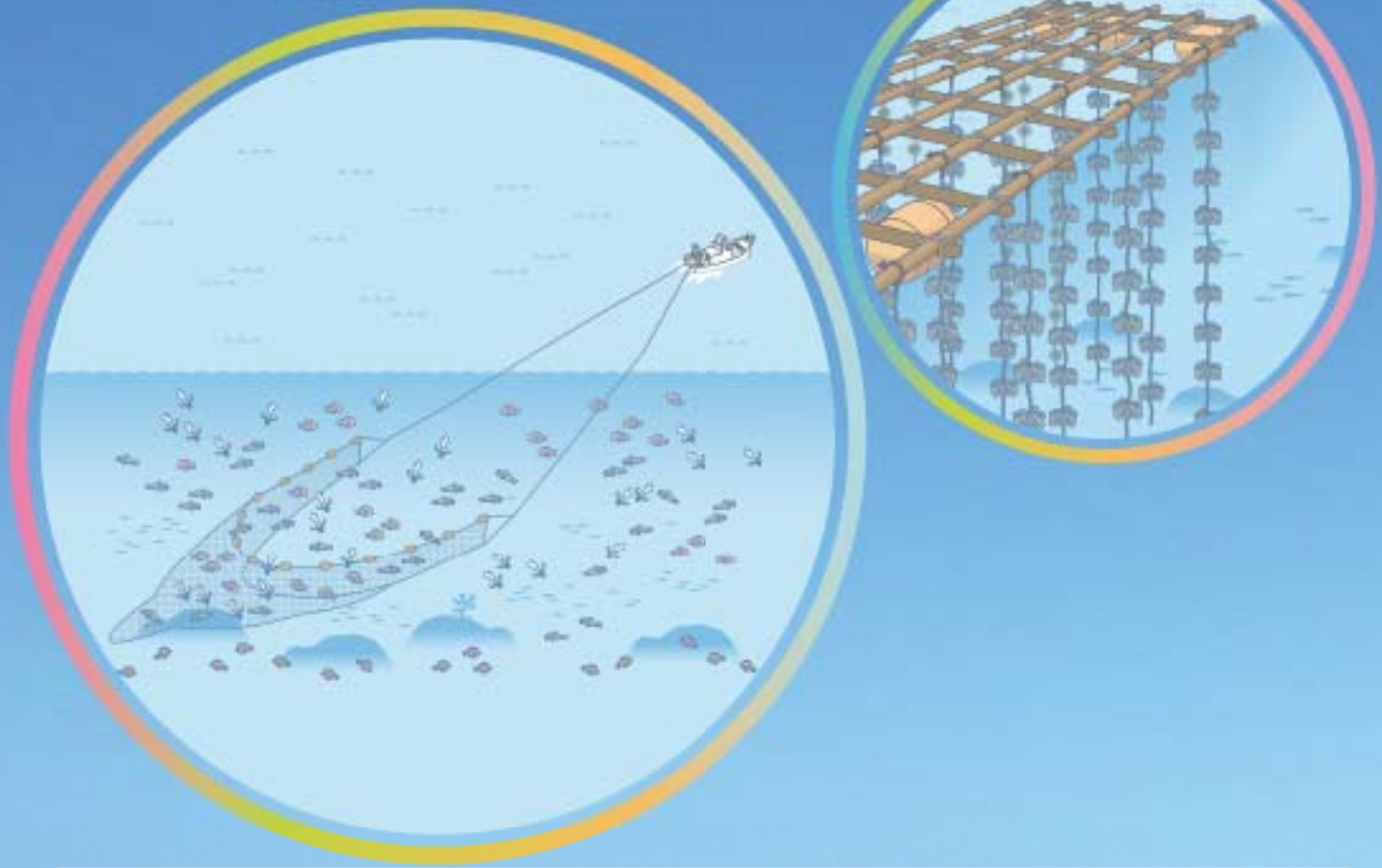
# The chart of fishing operations conducted in the eastern water area (the south side of the Osaka Bay) of the Seto Inland Sea



The Japan Association of Marine Safety



## Purpose of the chart of fishing operations conducted in the eastern water area (the south side of the Osaka Bay) of the Seto Inland Sea



This chart concerns the major fishing operations conducted in the Seto Inland Sea (under the Maritime Traffic Safety Act). It was drafted for the purpose of improving the safety of ship navigation in the Seto Inland Sea by those related to maritime trading and fisheries using this informational chart.

Note that this chart shows the characteristics of the major fishing operations conducted in the eastern water area (the south side of the Osaka Bay) of the Seto Inland Sea. Fishing operations are being conducted in the water area, but not all of them are covered by this chart.

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



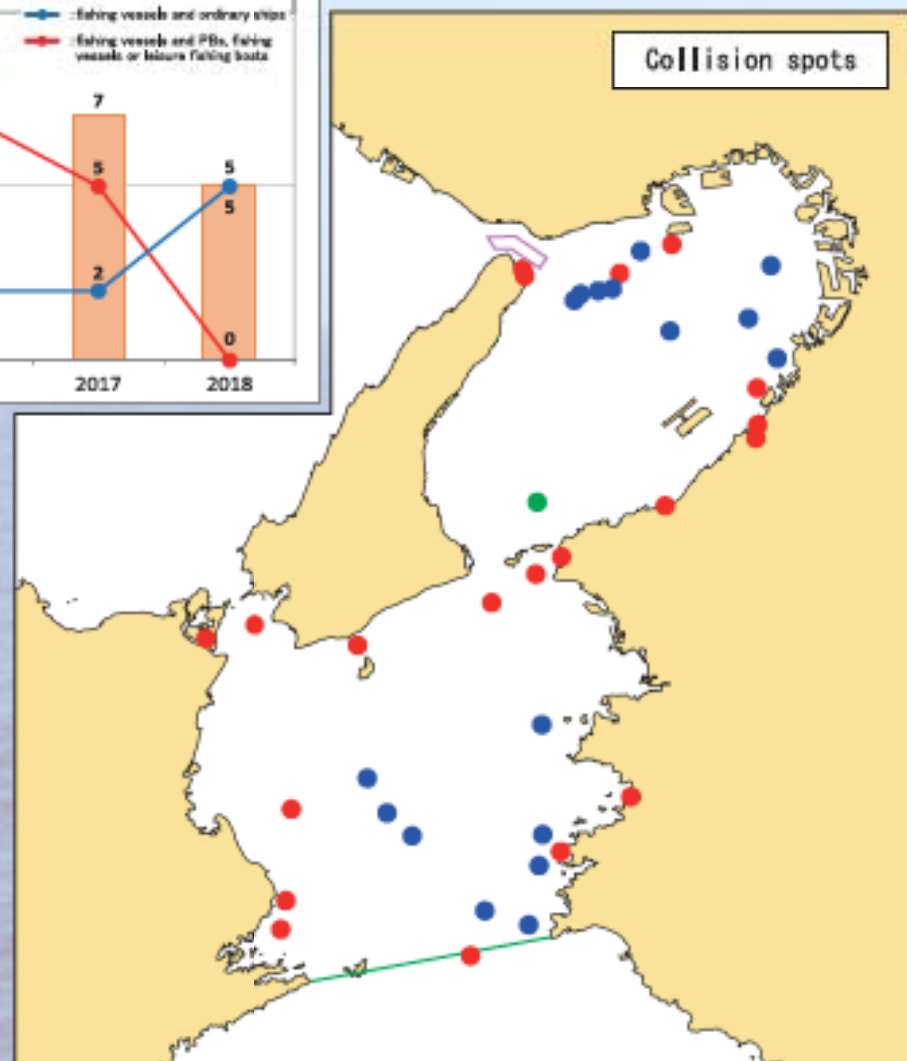
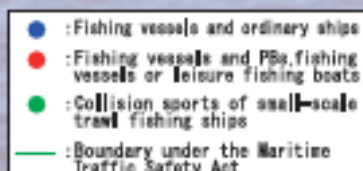
## Maritime accidents involving fishing vessels and ordinary ships in the eastern water area (the south side of the Osaka Bay) of the Seto Inland Sea

We can see that during the 5 years period from January 1, 2014 to December 31, 2018, a total of 39 collisions involving fishing vessels have occurred in the eastern (the south side of the Osaka Bay) of the Seto Inland Sea.

17 of them were collisions between fishing vessels and ordinary ships, while 20 collisions were those between fishing vessels and pleasure boats (PBs), fishing vessels or leisure fishing boats.<sup>※1</sup>

Also, in December 2018, a small-sized danish trawler turtled in the middle of fishing operation on the north side of Tomogashima, resulting in a serious marine disaster with casualties (The investigation is underway as the danish trawler may have had a collision with a large-sized cargo carrier).<sup>※2</sup>

※1 The information on marine collisions occurring in the eastern water area (the south side of the Osaka Bay) of the Seto Inland Sea extracted from the document provided by the 5th Regional Maritime Safety Headquarters.  
※2 A survey conducted by the Japan Association of Marine Safety (public interest incorporated association)





# Small-Scale Trawl Fishing

## Major characteristics during the fishing operations

- Especially, fishing vessels involved in sorting fish or caring for fishing equipment after lifting the net needs must be cautious because **they may not be able adequately to keep guard**.
- Note that a vessel trawling or lifting 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 lifting 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 move suddenly soon after casting a net**.
- Note that a fishing vessel may start **to accelerate suddenly soon after lifting the net**.
- **Also a one-manned fishing vessel** must be cautious because it may not adequately keep guard or establish sound communications or the like.

## 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. On the south side of the Osaka Bay, small-scale trawl fishing is carried out by fishing vessels of less than ten tons. The fishing period and time zone are different depending on the regions.

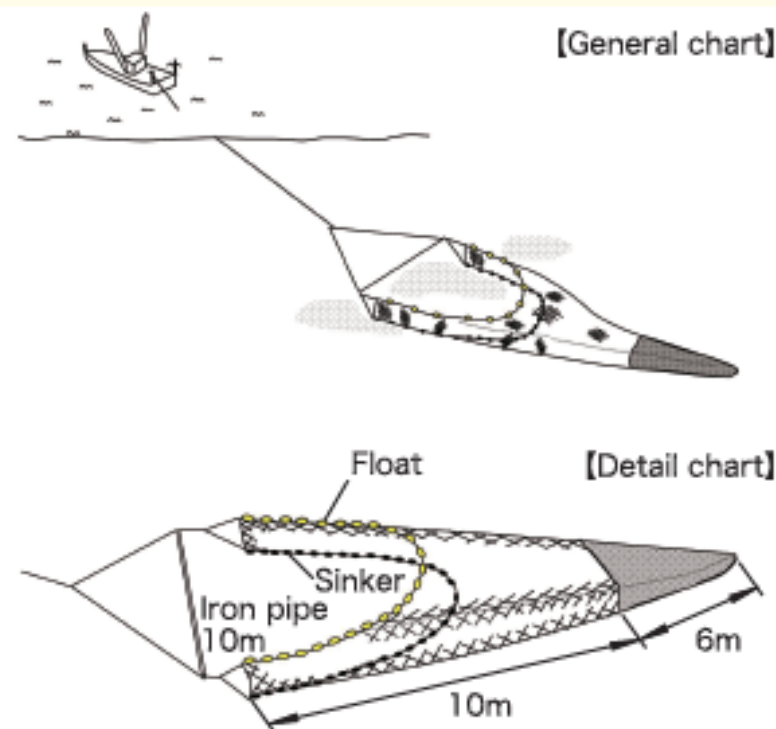
## Example of fishing method

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, Osaka Prefecture's fishing method is described here.

### ○Fishing method

The shrimp trawling (hauling fishery, category 2) is a fishing technique mainly used for capturing shrimp, flatfish, white-spotted conger, and others. A fishing net (approx. 10m or less) is trailed from both sides and the aft peak of a fishing boat to capture benthic fish and seafood.

Source: Fisheries Section, Environment, Agriculture, Forestry and Fisheries Division, Osaka Prefecture





# Boat Seine Fishing

## Major characteristics during the fishing operation

- Especially, fishing vessels involved in sorting fish or caring for fishing equipment after lifting the net needs must be cautious because they **may not be able adequately to keep guard**.
- Note that a vessel trawling or lifting the net **cannot be handled flexibly or give way easily** because it may tip over if it is steered abruptly.
- If the net trawling is being done by 2 vessels, **it is very dangerous to navigate between those vessels or between a vessel and the net** because the net is extended to the rear of those vessels. It is necessary to use caution because buoys may be attached at the net opening and **buoys with large flags may be attached at the rear end of the net**.
- The distance of 2 vessels trawling a net **varies depending on the fishing methods**. For instance, in case of the fishing of Japanese sand lances, it is approx. 80 to 150m, while in case of the fishing of whitebaits, it is approx. 200 to 300m. Many fishing boats are involved in the fishing operation by raising **red and green flags** in addition to navigation lamps and the like. The net and net end have orange floats which can be used keeping guard.
- **In the case of the fishing of sand lances using boat seine, whose season is from late February to early March, it is necessary to be especially careful because fishing boats pass mainly near the Akashi Strait** water route from sunrise into the morning.

## What is Boat Seine Fishing?

Boat seine fishing is carried out by trawling the net from the vessel or trawling the net at the stern of one or two vessels to catch fish from the surface and medium layers. Boat seine fishing on the south side of Osaka Bay is carried out by trawling mainly by fishing vessels of less than ten. The season and time zone vary depending on the areas

## Fishing method examples

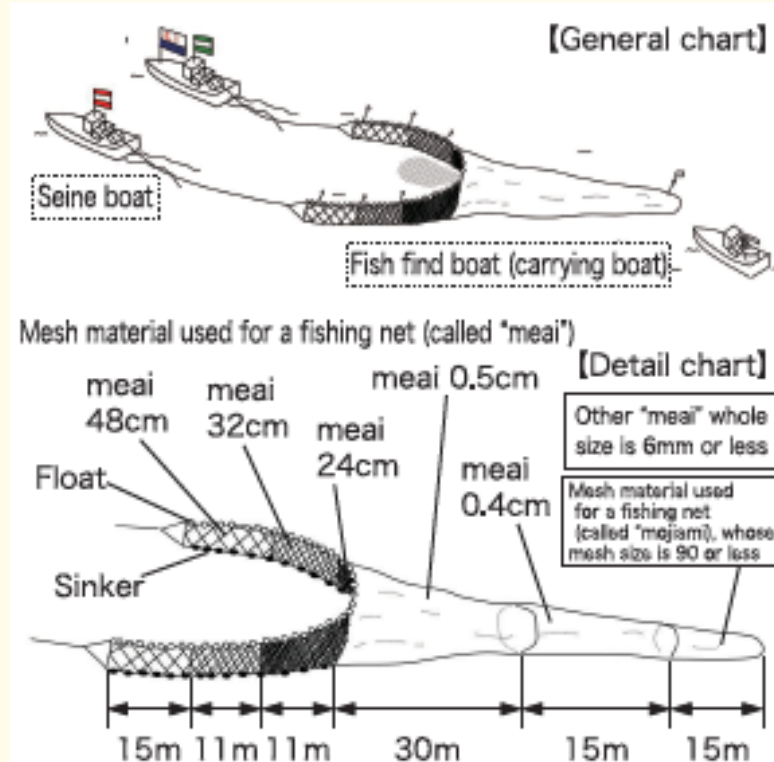
There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of boat seine fishing is characterized by its diversity. By way of example, Osaka Prefecture's fishing method is described here.

### ○Fishing method

The engine-driven boat seine sandeel fishery and engine-driven boat seine sardine fishery are fishing techniques used for capturing fish by casting a net from 2 fishing boats and trailing it for a certain period of time to surround a large shoal of fishes and catch them into the net. One fishing session lasts about 40 to 60 minutes. Fishes are transferred to a carrying boat and then carried to the port.

Source: Fisheries Section, Environment, Agriculture, Forestry and Fisheries Division, Osaka Prefecture

※The length of the net is about 450m





# Gill net Fishing

## Major characteristics during the fishing operations

- Normally, the net is placed in a **north-south direction** so that it receives the tidal stream laterally. However, depending on the locations, it may be placed in an **east-west direction**.
- Especially a fishing vessel involved in the sorting of caught fishes or caring for fishing equipment after lifting the net needs to use caution because it may **not adequately keep guard**.
- Note that a vessel casting or lifting 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 casting and lifting the net may **go astern** as the wire becomes taut or 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 fishery is a fishing technique of setting the belt-like net to block the place where fish are swimming and let them swim into the net or be entangled in it.

On the south side of Osaka Bay, the gill net fishing is often carried out by fishing vessels of less than five tons. The fishing period and time zone are different depending on the regions.

## Fishing method examples

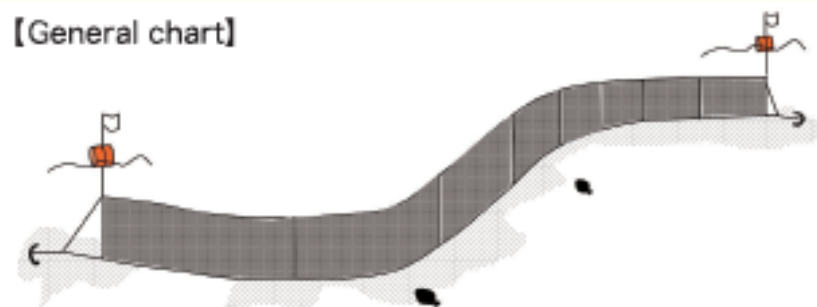
There are various fishing methods. Even if the type is the same, it differs from prefecture to prefecture or area to area. The concept of gill net fishing is characterized by its diversity. By way of example, Osaka Prefecture's fishing method is described here.

### ○Fishing method

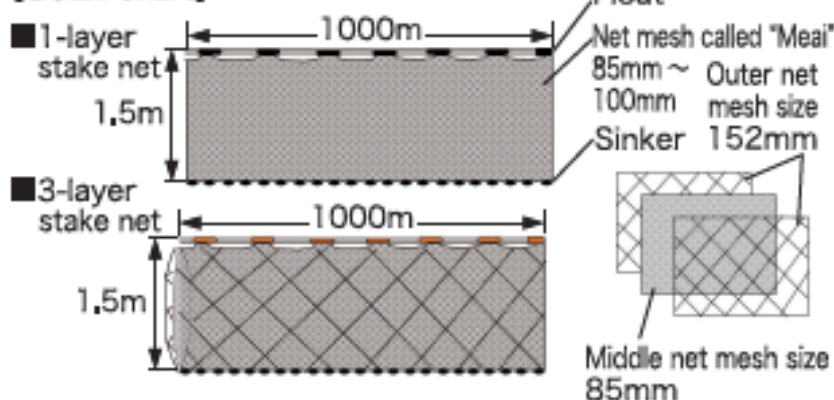
1-layer stake net or 3-layer stake net is placed by fixing both its ends with anchors to block swimming fishes. Depending on the type of fishes to be captured, the shapes and mesh sizes of the net differ.

Source: Fisheries Section, Environment, Agriculture, Forestry and Fisheries Division, Osaka Prefecture

【General chart】



【Detail chart】





# Drift Gill net Fishing

## Major characteristics during the fishing operations

- Normally, the net is placed in a **north-south direction** so that it receives the tidal stream laterally. However, depending on the locations, it may be placed in an **east-west direction**.
- Especially a fishing vessel involved in the sorting of caught fishes or caring for fishing equipment after lifting the net needs to use caution because it may **not adequately keep guard**.
- Note that a vessel casting or lifting 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 casting and lifting the net may **go astern** as the wire becomes taut or 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.
- The north (east) side of the seine is indicated by a red lamp and the south (west) side is indicated by a green lamp. Also, they may be indicated only by **a plural number of white flash lamps**.

## What is Drift Gill net Fishing?

The drift gill net fishery is a fishing technique used for capturing fish by drifting a band of net to block swimming fishes to let them be trapped or tangled into the meshes.

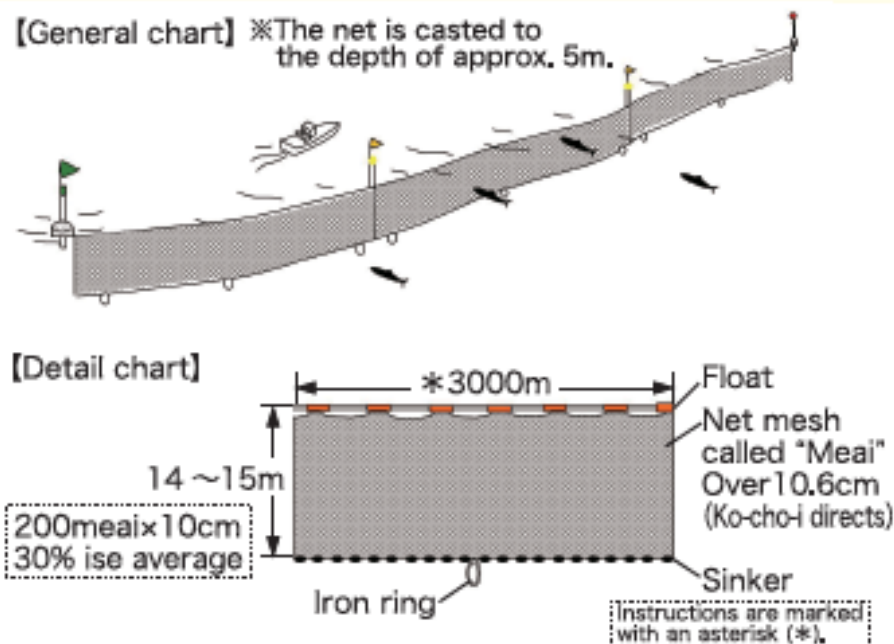
## Fishing method examples

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, Osaka Prefecture's fishing method is described here.

### ○Fishing method

The drift gill (1-layer) net fishery is a fishing technique used for capturing the Japanese Spanish mackerel by casting a net into the sea area at sunset, where fish may pass, drifting it for approx. one hour and then hauling it.

Source: Fisheries Section, Environment, Agriculture, Forestry and Fisheries Division, Osaka Prefecture





# Longline Fishing

## Major characteristics during the fishing operations

- Especially a fishing vessel involved in the sorting of caught fishes or caring for fishing equipment after lifting the net needs to use caution because it may **not adequately keep guard**.
- Note that a vessel casting or lifting 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 casting and lifting the net may **go astern** as the wire becomes taut or the net is entangled with an object at the bottom of the sea.
- Give way very carefully because **the stem line has buoys attached at its both ends or at equal intervals**.
- 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 Longline Fishing?

A number of longlines are attached to a single stem line and hooks are attached to the end of those longlines to catch fish. On the south side Osaka-bay, the longline fishing period and time zone are different depending on the regions.

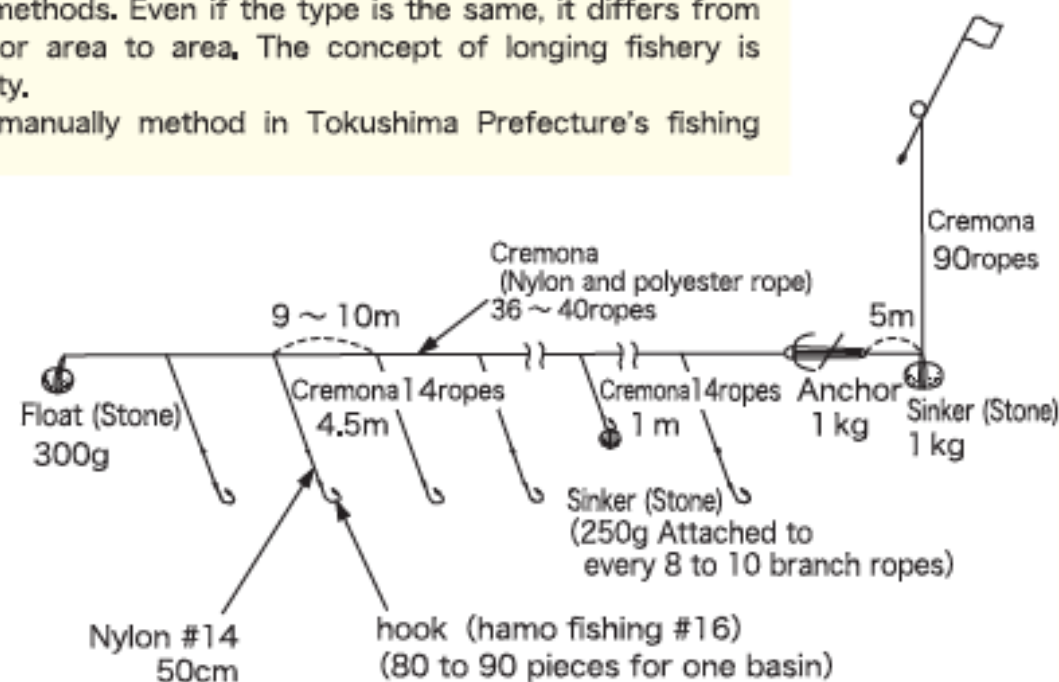
## Example of fishing method

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 longline fishery is characterized by its diversity.

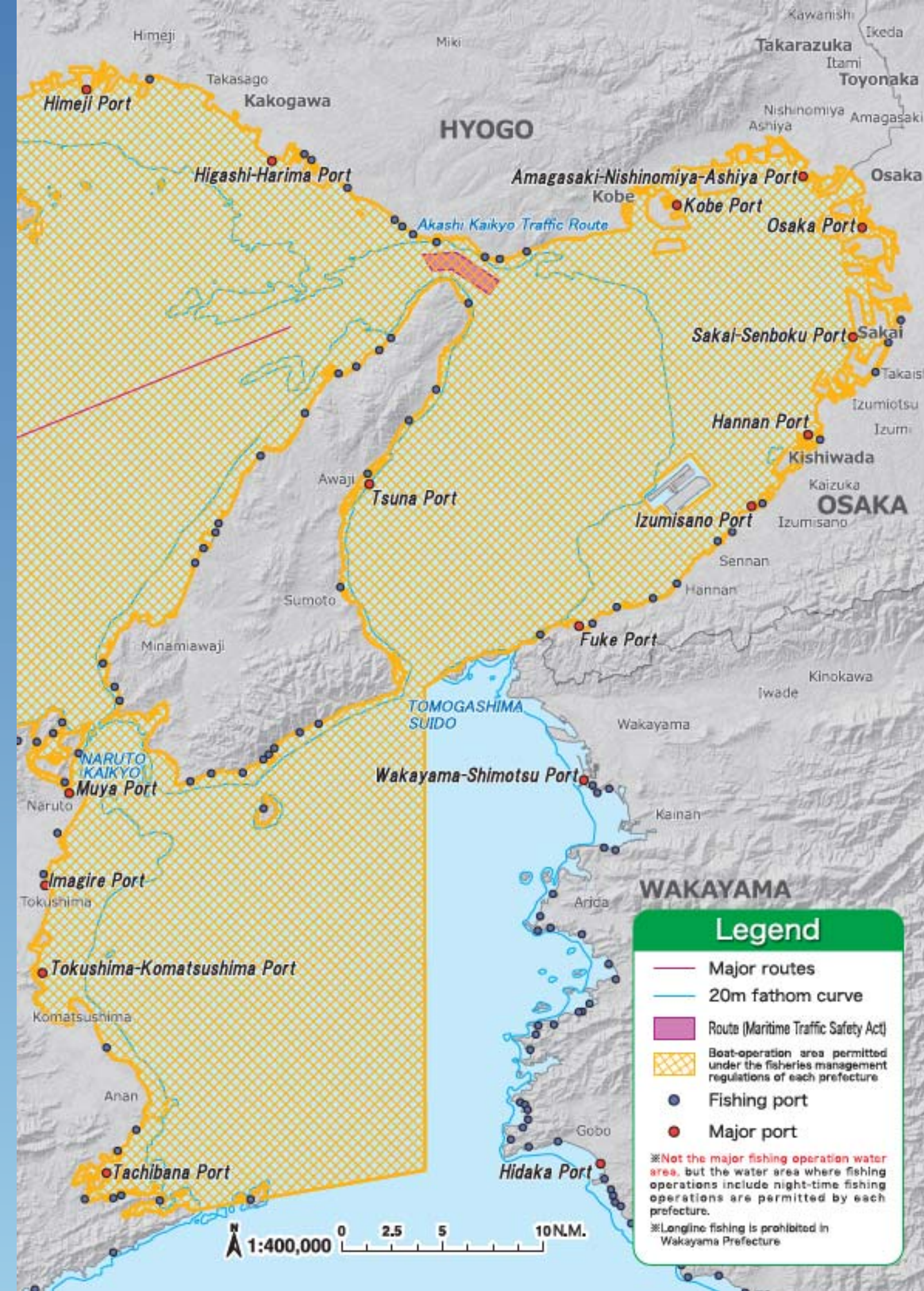
By way of example, the manually method in Tokushima Prefecture's fishing method is described here.

### ○Fishing method

Longline fishing (or deep drop bottom fishing) is a fishing technique used for capturing fish by sinking ropes accompanied by 80 to 90 hooks into a sand or sand-gravel sea area, whose depth is 60m to 100m, at intervals of 9m to 10m.



Source: Fisheries Section,  
Agriculture, Forestry and  
Fisheries Division, Tokushima Prefecture





# Marine Culture

## 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 closely to the operating fishing vessel at a high speed, it **may tip over or incur an accident due to the ship waves**.
- **As anchor cables may be extended radially** from a farm, it is necessary to navigate by maintaining an adequate distance.
- Some surrounding marine culture area may be equipped with **yellow light buoys** or the like to mark their presence.
- It is necessary to be careful about the marine cultures because they **may hardly viewed** from ordinary ships.

## What is Marine Culture?

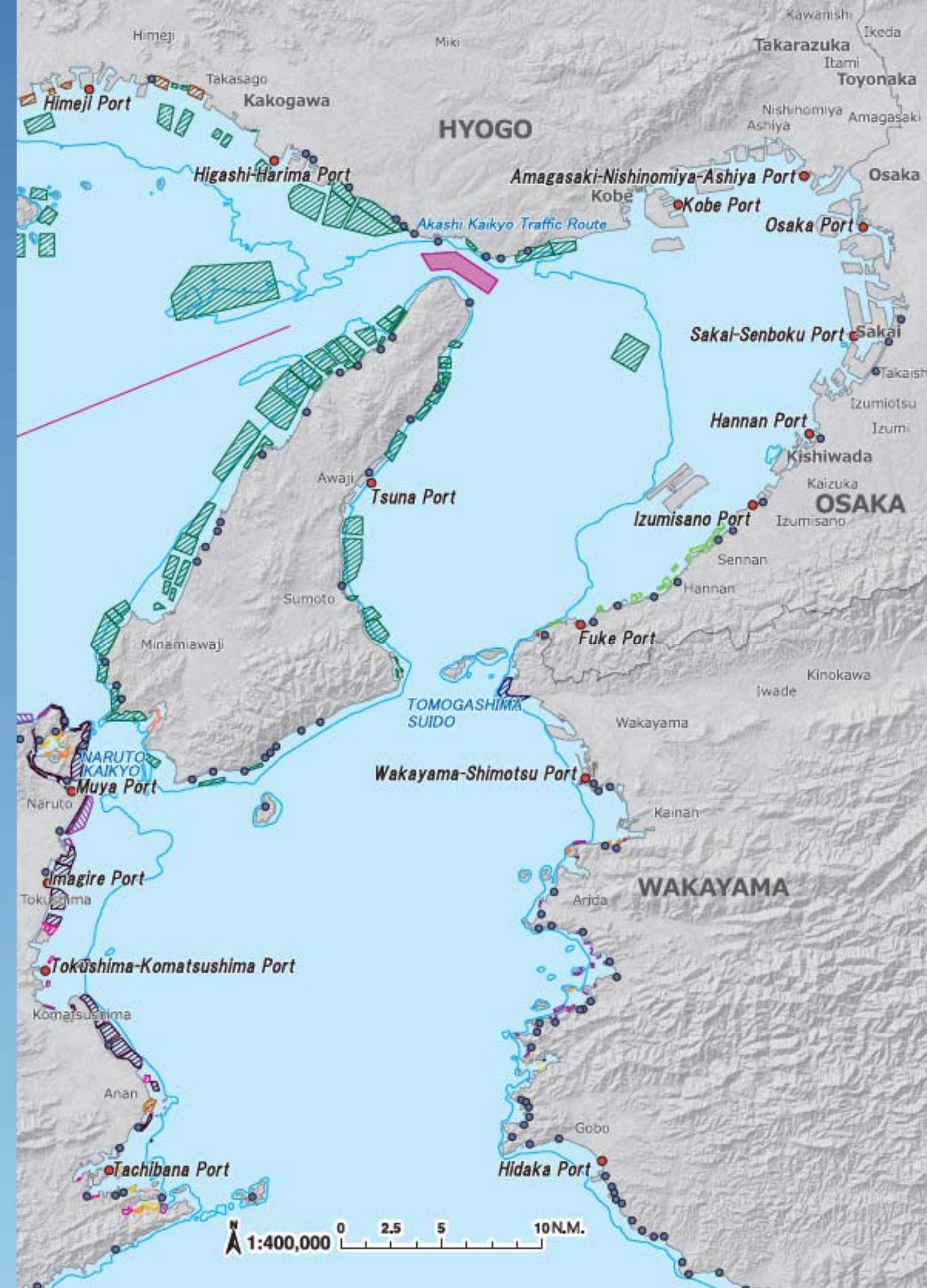
On the south side of the Osaka Bay, the cultivation of fish and seafood is implemented in various seasons and time zones depending on the areas.

For instance, in Hyogo Prefecture, algae (edible seaweeds, brown seaweeds, etc.), (hanging-down type) shellfish (oysters, clams, etc.) and fish (mackerels, *fugu*, etc.) are being cultivated. As for the cultivation of algae, edible seaweeds are cultivated from September to May of the next year by extending, floating and drifting seaweed nets over the sea surface, while brown seaweeds are cultivated from September to June of the next year by using the long-lining method, i.e. by extending ropes with standard threads over the sea surface.

## Legend

- Major routes
- 20m fathom curve
- Route (Maritime Traffic Safety Act)
- Fishing port
- Major port
- Hyogo Prefecture**
  - algae (edible seaweeds, brown seaweeds, etc.)※
  - fish (mackerels, *fugu*, etc.)※
  - shellfish (oysters, clams, etc.)※
- Osaka Prefecture**
  - edible seaweeds, brown seaweeds, tangle(weed), oysters
  - young yellowtail, sea bream
- Tokushima Prefecture, Wakayama Prefecture**
  - edible seaweeds
  - brown seaweeds
  - oysters
  - abalone
  - pearl oysters
  - algae
  - Fishes in small net-cages

※In the farms of Hyogo Prefecture, sea products are classified only into algae, fish and shellfish. They are not subclassified.  
 ※Created based on the fishing rights partition data of the marine context display system regarding some farming areas.





## 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.

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

#### Navigation safety information, Hydrographic and Oceanographic Department, 5th Regional Coast Guard Headquarters



You can access the navigation safety information such as the information on stationary fishing gear in the coastal water area of each prefecture / Osaka, Hyogo (except the Sea of Japan side) Wakayama, Tokushima and Kochi.

<https://www1.kaiho.mlit.go.jp/KAN5/tuho/tuho2.htm>

#### 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, OSAKA WAN Vessel Traffic Service Center



You can access the navigation safety information such as the information on fisheries in the Akashi Strait.

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

#### Fishing operation information, Osaka-bay Ship's Navigation Support Council



You can get floating trawl net fishing overview and drift net fishing information (You need pre-register to use drift net fishing information)

<http://www.unkousupport.com/main.php>

### Contact us

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

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

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