

EXCELLENT SEAFOOD OF JAPAN



JAPAN SEAFOOD EXPORT PROMOTION ASSOCIATION

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Introduction

Japanese food culture, interwoven with the fishery

Surrounded by healthy seas with abundant marine resources, Japan is blessed with highly productive brackish waters and tides. Its land lies north and south, and with distinct four seasons, offers a wide variety of marine products from regions across the country. “Seafood eating culture”, however, does not simply mean that the people eat a lot of seafood. Instead, the culture is developed by fishing technologies; experts capable of evaluating fish quality; tools such as special fish knife; various kinds of foods created by using a wide diversity of cooking methods; and advanced processing and preservation technologies. “Seafood eating culture” includes the wisdom and the knowledge that has been handed down from generation to generation. For further development of its food culture, Japan is set to communicate to the world its seafood culture, developed throughout the country’s history, through exports of marine products.

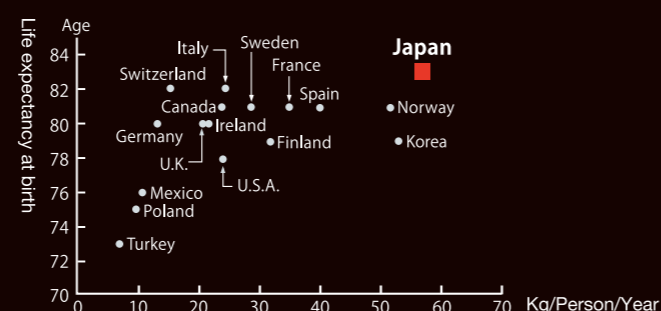
Japan is recovering smoothly from the disasters of the Great East Japan Earthquake

Catches have recovered to 68% of that of the previous year of the disaster. Fishing ports will resume full operations by the end of fiscal 2015. As of July 2014, fishing boats recovered to 88% of the previous level, while wakame seaweeds farming was operating at about 90% of the pre-quake level during the 2013 fishing season. Meanwhile, strict standards were set up with respect to the nuclear accident that followed the earthquake disaster. In November 2013, an IAEA investigation concluded that the safety of commercial marine products was ensured.

Seafood eating culture contributes to longer lives

Seafood and seaweed provide a rich supply of calcium, minerals, vitamins, and other nutrients. Specifically, DHA and EPA contained in unsaturated fatty acids in fish are said to make the blood fluent and clean, help prevent blood clots, as well as improve brain functions for memory and learning capabilities and prevent dementia. In addition, the development of Japanese custom of eating raw fish by catching them fresh is said to help make Japan one of the countries with the longest life expectancies in the world through taking raw enzymes and nutrition in them.

Per capita annual supply of seafood



The above graph shows that countries with a greater supply of fish and shellfish tend to enjoy longer average life expectancies.



SUSHI—a typical style of eating food raw—is now one of the most common words in the world

Surrounded by seas rich in fresh fish and shellfish, Japan has seen the development of a variety of recipe using fresh seafood. Today, the custom of eating raw marine products is deep rooted in the Japanese culture. In the Edo period, *nigirizushi* (sushi shaped by hand) was born as techniques were developed to improve the preservation of food and draw out its original deliciousness. Sushi is one of the best ways of eating seafood—something that Japanese are proud of in today's world. You can enjoy the Japanese culture of eating raw food based on advanced preservation technology.

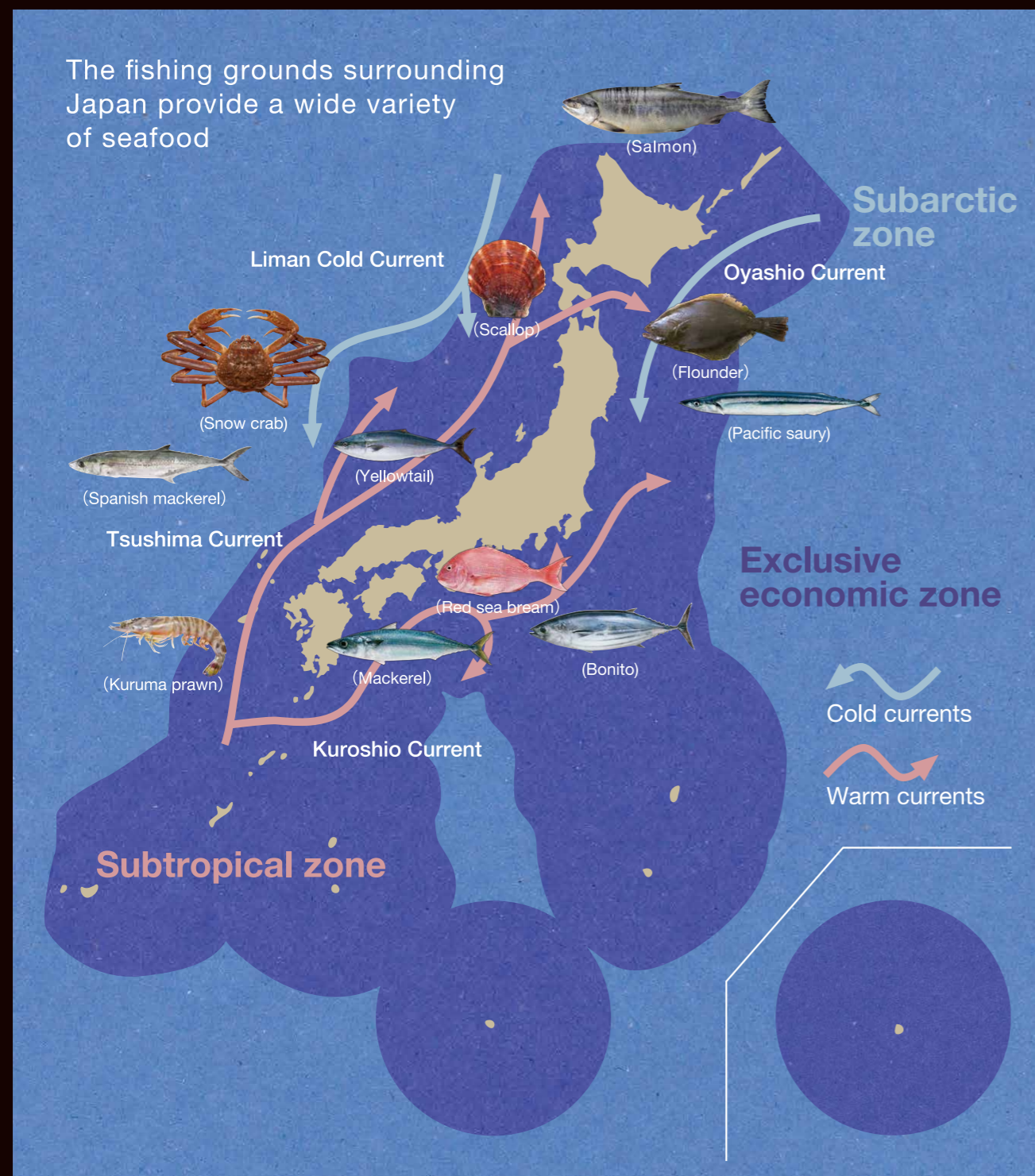
Variety

The amazingly wide variety of seafood species in each season

Lying north and south, Japan is rich in marine resources as warm currents meet cold currents in its exclusive economic zone, and because there are distinct, changing seasons.



The fishing grounds surrounding Japan provide a wide variety of seafood



Rich fishing grounds are formed where warm currents meet cold current, And the world's 6th largest fishing ground

An extensive exclusive economic zone

Composed of over six thousand islands, many of which spread far and wide, Japan enjoys an extensive exclusive economic zone (EEZ) relative to its land area. The northwest waters of Pacific Ocean, which includes Japan's EEZ, are the most productive waters, representing 24% of the world's annual catch.

Rich fishing grounds are formed where warm currents meet cold

Cold-water and warm-water fish abound as warm and cold currents meet near Japan. The tide patterns formed by the collision of two sea currents attract numerous fish as large quantities of plankton live in the tide.

Fish from season to season

Some fish move actively in warmer seasons, and others store fat in their bodies in cold seasons. Seafood change in taste according to the season. Thus, you can appreciate the best taste when fish are

SPRING



Katsuo (Bonito): Hatsu-Gatsuo, caught in spring and early summer, is valued as a seasonal fish.



Hotate (scallop): Most delicious in winter and spring before the spawning season, especially, around March.

SUMMER



Kanpachi (amberjack): Summer fish living in warm waters in the main island and the south.



Aji (horse mackerel): Fatty and tasty in summer, popularly enjoyed in Japanese homes.

AUTUMN



Saba (mackerel): Mackerel caught in autumn is fattier, and loved nationwide because of its great taste. Sashimi (raw slices) of "just harvested" fresh mackerel is a delicacy too.



Sake (chum salmon): Young salmon migrate to the sea where they mature, and return to the rivers in autumn to spawn.

WINTER



Hirame (flounder): In particular, winter season flounder, so-called "Kanbirame" in January and February, is rich in fat with a light and exquisite taste.



Buri (yellowtail): Gains weight with firm meat in preparation for the spawning time in spring, and has a special taste in winter.

Quality

High-quality fresh fish are delivered promptly

Japanese, with the custom of eating raw fish, have extraordinary preferences for fresh and delicious fish. In the following description, we introduce ways of obtaining fresh fish and the processes of delivering fish in a fresh condition.

To supply high-quality fish

Traditional ways to avoid damaging fish

Fish are caught by using different fishing methods, depending on the kind of fish and the area of fishing. Fishermen select the most appropriate fishing method, adjust net mesh sizes to prevent excess catches, and catch in a fish- and environmentally-friendly method. In particular, in inshore fisheries, conventional fishing methods are still being used, including set net fishery which catches fish by inducing them into a net.



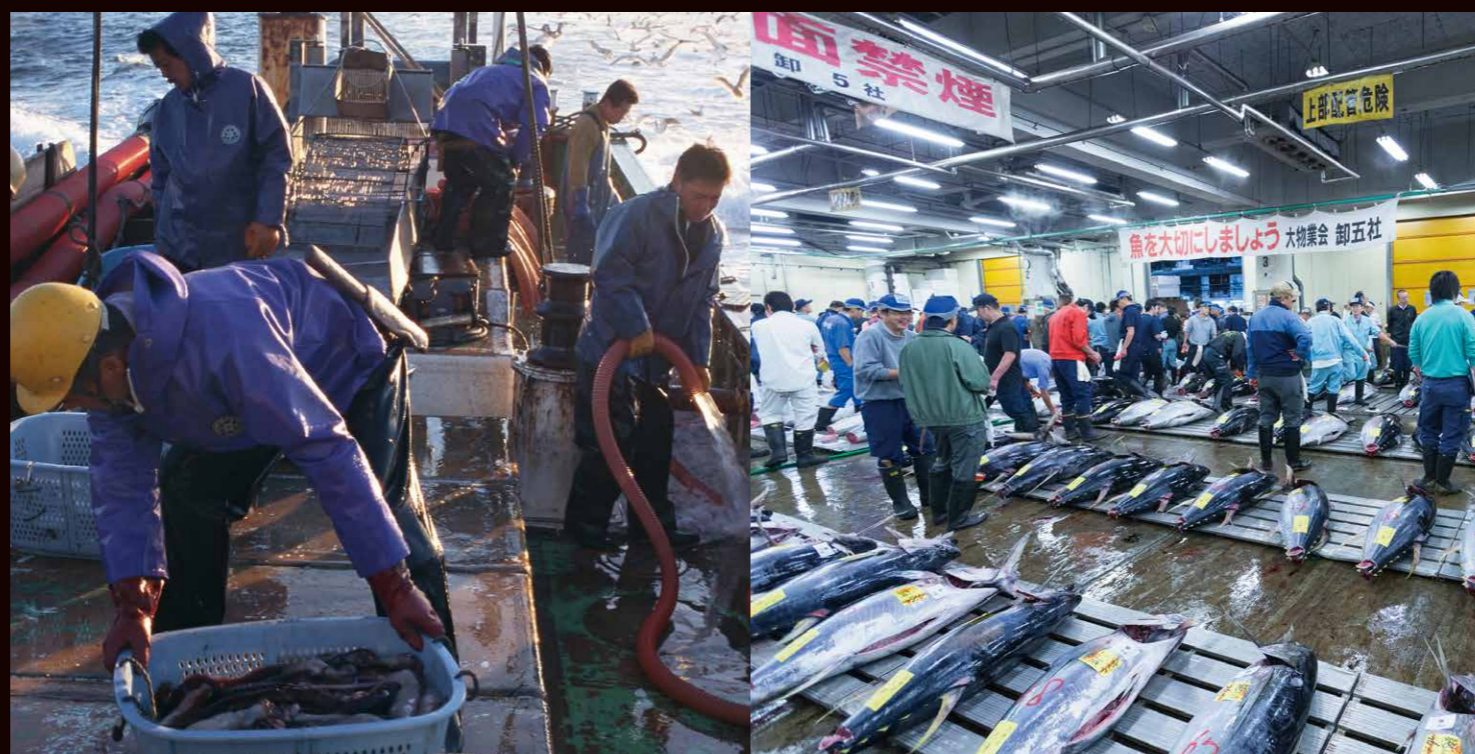
Line fishery

Catching fish using fishing lines protects fish from damage.



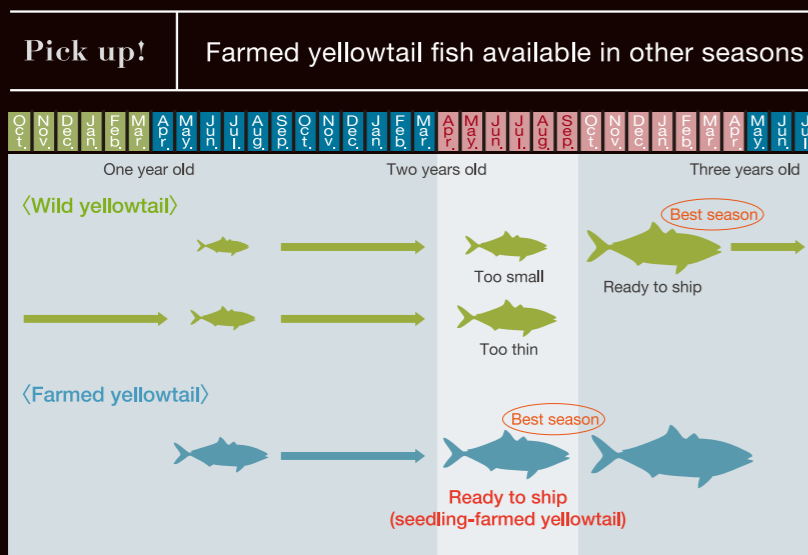
Set net fishery

With this method, migratory fish are induced into a net.



Farmed fish can compete with wild fish

Farmed fish were once considered inferior in quality to natural fish for their specific oily odor and other reasons. In recent years, however, farmed fish are being more appreciated as technological advancement has improved their taste and safety.



It is now possible to set the growth cycle of yellowtail fish earlier by six months by artificially extracting eggs from the fish, enabling the marketing of delicious and fatty farmed yellowtail fish in spring and early summer, when the wild yellowtail fish is otherwise scarcely available on the market. In addition, the quality of fish meat is improved by using feed designed to prevent excess fat in the finishing process, while the freshness of the fish is maintained through full temperature control and by quick kill and quick chill. These techniques ensure that farmed yellowtail fish is equal in quality with wild yellowtail.



Wild yellowtail available in spring and summer: The meat quality degenerates after spawning

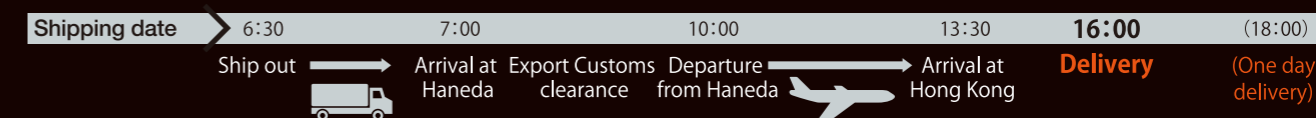


Farmed yellowtail in spring and summer: Fatty and in season

Transportation networks available to deliver fresh products quickly

Furnished with cold storages and other relevant facilities and complete with roads from market to airport, wholesale markets can carry foods quickly while maintaining their original freshness. For example, wholesalers are able to deliver fresh products from Tsukiji Market, located in the Tokyo metropolitan area, to Hong Kong during the same day to enable customers there to enjoy sushi as if they were in Japan.

Example of transportation | Fresh fish delivered from the Tsukiji Market for Hong Kong



Advanced technology maintains freshness and original taste

To maintain the freshness of foods as long as possible, wholesale markets are introducing most advanced technologies, such as the "sea snow" system, which keeps fish fresh at a temperature below 0°C during transit, without damaging the products, and a cold-insulation container equipped with a cooling function to achieve a seamless cool chain.



Safety

Processed seafood products are delicious and convenient

Japanese have long enjoyed eating a wide variety of processed seafood products. With a long-term preservation property, processed seafood is used for many recipes for their taste and convenience. Here are some typical products:

Not only long-term preservation property, other attractive features

Processed seafood products contain marine products as the main raw material. Their greatest advantage is that they can improve the preservative property of marine products, which are otherwise difficult to preserve for a long period. They improve the taste of materials themselves, as well as their palatability when seasoning is added. In addition, the fact that they can be used for cooking directly without being prepared has a great appeal for busy modern people.

Secrets of safety and deliciousness

Most of seafood processing plants are located near the sea. For this reason, they can produce high-quality products by using fresh raw materials.

Pick up!

How marine products are processed

Japanese seafood processing plants nationwide offer high-quality products by their infallible quality management. For example, factories around Hachinohe port, Hachinohe, Aomori Prefecture, which is well-known across the country for its squid and mackerel landing, are furnished with an integrated process from procurement to processing and seasoning to packaging, and conduct the inspection of unfinished and finished products in order to offer safe products.



Inspection and freezing

Squid fresh from purchase is frozen instantly after inspection and preserved with its freshness retained.



Sampling inspection

Conducting periodic sampling inspections, e.g. bacteria inspection, of unfinished products on the processing line.



Kamaboko



Chikuwa



Katsuobushi

Hoshi-Konbu



Saba-miso



Aji-no-hiraki



Mentaiko



Chirimenjako



Katsuo-no-tataki



Shime-saba

Dried seafood

Some seafood are dried by removing their moisture and further dried after or without being washed.

[Katsuobushi]

A bonito is cut into blocks and dried by heating.

[Hoshi-konbu]

Kelps are dried in the sun on pebbles laid over a drying place.

Surimi seafood

Fish surimi mixed with other ingredients and cooked

[Kamaboko]

Fish surimi formed in to semicircular shape on a small wooden plate and steamed.

[Chikuwa]

Fish surimi, formed cylindrically around a skewer and roasted.

Dried seafood

Salted-dried seafood. They are also called "salted and dried" seafood.

[Aji-no-hiraki]

Salted-dried, open cut horse mackerel.

[Chirimenjako]

Boiled in saltwater and dried fry of sardine.

Seasoned seafood

Seafood processed after adding seasonings or spices.

[Saba miso]

Home-style cuisine of mackerel, simmered in miso and other seasonings.

[Mentaiko]

Spicy seasoned pollock roe.

Frozen seafood

Seafood, frozen after processing and/or cooking.

[Shimesaba]

Mackerel filleted and marinated in vinegar sauce.

[Katsuo-no-tataki]

Loin part of Bonito, roasted only on surface.

Sustainability

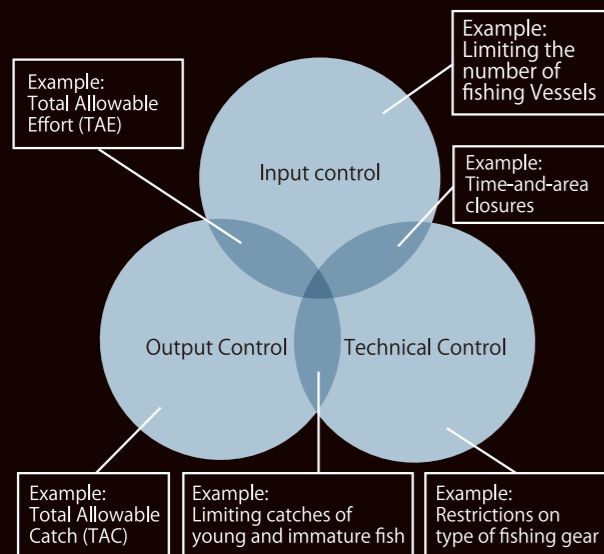
Resource management for the future

Resources are limited even in the richest environment. To maintain marine resources and utilize them in a sustainable manner, we have been carrying out activities to limit catches and increase stock level of marine resources.

Multiple measures against overfishing

In our resource management, three main groups of measures are taken. The first group is intended to limit the size and number of fishing boats (input control). The second group is aimed at preventing the catch of young fish by measures including widening the mesh of nets (technical control). The third is to set maximum limits on catches for the purpose of restricting fishing activities (output control). These measures are taken in combination to protect fishery resources.

Correlation diagram of three resource control approaches



Japanese-invented eco label system

In December 2007, Japanese-invented eco label scheme “Marine Eco-Label Japan” was established. This new scheme is expected to arouse an interest among both fishing industry and consumers in the preservation of resources and the ecosystem.



Efforts to increase stock level of marine resources

For the purpose of preserving rich fishery and enabling the sustainable use of resources, various efforts are made, including the release of fry into rivers and the sea, together with the preservation of seaweed beds and other environments for growing fish.

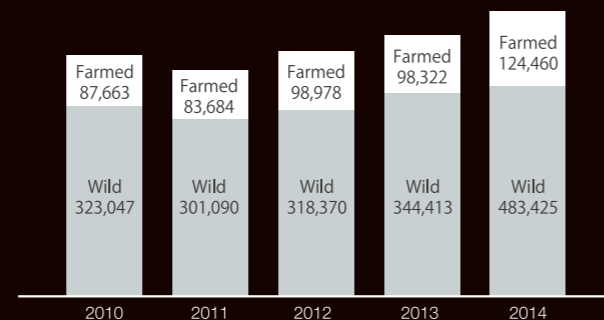
Pick up!

Young scallops released into the sea in Hokkaido

The seabed ranching and dredge cultivation (‘Jimaki” fishery) is undertaken in Hokkaido. After one year cultivation, scallops are released into the sea and grown on the seabed for four years. In this cultivation, the fishing area is divided into four sections and one year old scallops are released into one section each year and caught in 4 years, so that harvest from one section can be ensured every year. This system was given an MSC certificate in May 2013 for its full resource management— “Catch-and-grow fisheries”

Scallop catch in Hokkaido

(April-March in tons)



Scallop catches for the last five years have been increasing successfully.

Releasing young scallops



Large scallops

