## THE UNKNOWN STRONG AND WASTE-FREE FISHING INDUSTRY

OF IWATE

It has been almost 12 years since the Great East Japan Earthquake. The fishing industry in the city of Miyako in Iwate Prefecture reopened just a month after the disaster, helping to fuel the reconstruction effort. We explored the nature and background of the strength of Miyako's fishing industry, which has driven the area's revival.

The waters off Sanriku, the eastern coast of the Tohoku (northeastern Japan) region—where cold and warm ocean currents collide—are home to one of the world's three great fisheries, featuring an immense variety of sea life. The complex coastline calms the waves, making it suitable for aquaculture, and the plentiful gifts of the sea support the livelihoods of the local people.

In March 2011, the Great East Japan Earthquake struck the area. IDOBATA Katsuji—a member of the fisheries association in Miyako City, Iwate Prefecture, which forms part of the Sanriku

Coast—describes his experience of the disaster as follows: "The tsunami inundated Miyako's fish market, almost up to the roof. All our utilities, including water and electricity, were cut off."

Even so, Miyako's fishing industry reopened that April, just a month after the calamity. KANAZAWA Toshiaki, director chairman of the Iwate Prefecture Bottom Trawl Fishery Association, says, "When the quake hit, we were in the middle of unloading a catch at the port. That's why we could quickly escape in our boats offshore before the tsunami arrived, saving both our crew and our boats." The trucks

and forklifts used at the market were also safe because the workers had quickly moved them to high ground.

Another notable reason for the local fishing industry's prompt recovery has been the use of the traditional method of trawling—catching multiple marine species rather than intensive fishing of the few species that are in demand—which had been in practice since well before the earthquake.

ISHIMURA Gakushi, Associate Professor of resource economics at the Iwate University Faculty of Agriculture, says, "In Japan, which has four distinct seasons, and whose geography is characterized by multiple inlets where different currents run up against each other, the ocean environment of coastal fisheries and the species composition of the catch changes easily. That is why Japan, compared









Left: Iwate University Assoc. Professor ISHIMURA Gakushi (center), Musashi University Assoc. Professor ABE Keita (right), and KANAZAWA Kaito (left), a graduate student who comes from a Miyako fishing family and who studies under Ishimura. All three men conduct research on the Sanriku Coast's fishing industry.

Right: SUZUKI Ryota, the "Squid Prince." He says, "My efforts are gradually gaining recognition. Recently, they've been attracting interest from students who will work in fisheries in the future. That makes me so happy."

with other countries, has developed a culinary culture that utilizes an extremely wide variety of marine species." Catching many species together, rather than just targeting the one or the few with a high market value, is a method that commonly leads to a significant loss of catch in other countries because only a limited variety of seafood is ever in high demand. In contrast, when Japanese fishers using their unique trawling and set nets catch a variety of marine species at once, none of the catch goes to waste. It all becomes food and avoids the negative effects of intensive fishing of a limited number of species.

Ishimura showed that the diversification of species in each catch has contributed to the stability of the coastal fishing business. Distributing investments among multiple assets to minimize risk while sustaining returns is a well-known financial engineering theory of portfolio management, and the same thinking applies to fishing as well. Ishimura explains, "Seafood brokers are good at adapting to fluctuations in the kinds and quantities of fish and other sea life that are caught. The local wholesalers in Miyako distribute multiple species to areas where they can fetch a higher price in various ways, such as through being

processed as seafood products or supplied to the market for fresh raw consumption. In other words, prices are maintained by adding diverse economic values to the variety of seafood products. Miyako is an important location thanks to transportation links that connect the coast with the prefectural capital of Morioka inland. That situation has particularly matured the seafood supply chain, and that, I believe, is what contributed to the rapid recovery of the value of landings so soon after the earthquake."

One person who has been instrumental in expanding sales channels for Miyako's seafood since the earthquake is SUZUKI Ryota, the representative director and executive managing director of Kyowa Suisan, a seafood processing company in Miyako. He says, "When I saw how much the earthquake had changed the familiar city and market, I thought that I had to initiate some sort of action." After the disaster, he started presenting himself as the "Squid Prince," sharing information through a blog and various media platforms, and opening up new sales channels through events and the Internet. Suzuki's ideas for thinly sliced squid somen-style noodles in a cup and fried cod became

hit products. Meanwhile, Kyowa Suisan and three other companies in the industry started up Miyako Team Isaribi (*isaribi* referring to the torch used for attracting fish during night fishing). Each member of the group takes care of different processes, from procurement to production, sales, and transactions, while sharing raw ingredients and sales channels. The result has been a tripling of sales compared with the situation before the earthquake.

With demand for food rising worldwide as the global population increases, the sustainable use of ocean resources has become an issue of international importance that has also been addressed by the United Nations' SDGs. Miyako's fishing industry, which forms the foundation of the local economy, employs fishing methods and distribution systems that have held up against changes to the natural environment and resources. That could be an important tool for considering ways of using the world's ocean resources and the economic activity they entail.

Top: An auction at Miyako's fish market. Seafood brokers gather to place bids on the fish and shellfish.

Bottom: Miyako's fish market at the time of the 2011 earthquake. The market was flooded to the roof by the rsunami.



