## **FISHERIES NEWS**

### The Seaside Flavor of Higashidoori

#### October-December 2017

## Squid Fishing

The author went to see how squid was fished in the daytime, and experienced many activities while on board.

### Fish Freshness Keeping Workshop

A workshop about keeping the freshness of Japanese Halibut, Greenling was held.

# Fishery Learning Class

Fifth grade students from Higashidori Elementary School experienced feeding and tagging of a rockfish at the Shiriya Port.

# Why Should Sea Urchin Be Exterminated??

To revive a kelp forest, fishermen exterminated sea urchins from an area where the Isoyake phenomena is wide-spread.

#### White Sea Cucumber??

A white sea cucumber was collected, and appeared on the television. It is said that a white sea cucumber brings a good fortune.



#### Squid Fishing Under Day Light

A squid is normally fished at night, and the scenes of many fishing boats with bright lights floating on the sea is iconic in fishing scenery in Japan. Night squid fishing is costly because it consumes fuel to run the lighting. Contrarily, daylight squid fishing developed around Shimokita is cost effective because it does not need a light source. This time I accompanied squid fishing by a fisherman in Noushi, and tried a freshness keeping activity for squid using a small device called "Ika-Kattyaki" which a professor of Hokkaido university invented. At the crack of dawn, we departed the fishing port for a fishing ground. The captain searched for a good spot using sonar, and dropped the gears into the ocean. At the good spots, many squid were caught and brought on the board while squirting water. The body color of squid turned transparent immediately after its nerve was cut by the device. The author also learned from the captain's wife how to make a sea breeze dried squid. It was so much fun and he learned many things. Most of all the author enjoyed being out on the water.



#### Workshop on freshness keeping ∼To deliver a fresh seafood∼

A workshop on freshness keeping of Japanese Halibut and Japanese Greenling was held at Shitsukari Port on November 22nd. We learned about the freshness keeping methods of the 2 fishes from Mr. Y. Miyabe researcher of Shimokita Food Research Institute. Two methods, "Katsu-zime" which cuts the spine and gills and drains blood from a live fish and "Shinkei-zime" which breaks the spinal cord of the fish using a thin wire, are becoming popular recently to preserve freshness. However the effects of these methods cannot be expected if the methods are not carried out properly. And "Shinkei-zime" method should not be applied to some certain fishes because it worsens the freshness. Although various methods are applied to Japanese Halibut around Japan, two procedures must be followed to maximize the effects of these 2 methods. First is to handle the fish with care to



prevent internal bleeding while processing fish. Second is to drain blood from a live fish in water with optimal temperature (less than 15 °C) and for the optimal length of time (5-10 minutes). For a greenling, "Shinkei-zime" method has proved to worsen the quality of the meat as same as the meat from the fish was not applied any methods. Freshness of greenling is kept longer when "Katsu-zime" method and draining blood are carried out properly. The workshops will be held monthly until February, and we learn about Lantern fish, Spear squid and Masu salmon.







#### Fisheries Class ~School kids learned Fisheries in Higashidori~

Fifth grade students at Higashidori Elementary School learned about fisheries in the village as part of the curriculum of "Higashidori Study" on September 28 at Shiriya Port. Students experienced feeding, tagging and releasing of a rockfish "Kitsune-mebaru" which has been released for years by Shiriya Fishery Cooperative. Students heard about types of fishing, amount of fish landed, and marketing of fishes in Shiriya, and about Funori seaweed. Students looked at a dried kelp storage and fishing boats with a guidance from lecturers. Afterward they fed the rockfish, tagged the fish by cutting a right fin of abdominal fins. Some students said that it was cruel to cut a fin at first. But they could cut the fin after they learned about the objective of releasing fish with missing fins and about the story which fish with missing fins tells us. It was their first time to tag a fish by cutting a fin and they



struggled at first. However they learned the tricks of cutting shortly after cutting their first fish fin and tagged many fish precisely. At the end of the class, students released their tagged fish into the ocean from the port. This fish grows really slow and it takes for 5-10 years up to a marketable size. We hope that the tagged fish captured by a fisherman in the future. The author received messages from the students later that day. They said. "Feeding and tagging fish was very fun and a memorable experience. Thank you very much for teaching us about these." It was also a nice opportunity for us to tell students about what is going on regarding fisheries in the village and give practical experience for biology.







#### Sea Urchin Density Control~Why should we control sea urchin population?~

I was accompanied by the Shiriya Kelp Forest Conservation Group to see extermination of sea urchin which are the cause of Isoyake phenomena. Isoyake is the phenomena of brown algae such as a kelp disappearing due to environmental changes causing types of red algae Corallinales to take place and proliferate. This algae prevent brown algae from growing on it. The red algae also release a chemical component, Dibromomethane, to accelerate the settlement of larval sea urchins, and settled sea urchins graze on anything but prefer brown algae. Sea urchins from Isoyake area are never tasty. A



tasty sea urchin is brought out from the ocean where the balance between the density of sea urchin and brown algae are kept. Therefore the density of a sea urchin should be controlled, and kelp forest should be revived by such means as deploying a kelp rope. This time divers picked up many sea urchins one by one. However they were too many to exterminate. Another method such as deploying traps should be taken into account. Regardless of intensive grazing by sea urchin, kelp on a rope thrown into the water last year grew big.









#### Column "White sea cucumber, brings a good fortune?"

One day in October, the author got a call from Odanosawa Fishery Cooperative saying that a white sea cucumber was collected. The author went to see it immediately after the call with great excitement. And he saw a pure white sea cucumber that was kept in a small basket. It was beautiful. The staff at the cooperative told me that a fisherman collected it because it stood out on the seabed. The sea cucumber caught a TV reporter's eye and it appeared on television. The white sea cucumber was taken to Asamushi Aquarium and has been displayed with a red sea cucumber collected in Noheji. Staff at the aquarium said to please come and look at the red and white lucky charm and wish for a good fortune. He also told me that white sea cucumber was found relatively often because sea cucumber in Aomori is mostly fished by experienced diving fishermen. The author wished on the beautiful white sea cucumber for a good catch of salmon and squid which has been very bad this year.

