

## Fishery: A Relation Between Human Being and Sea

Hisashi Kurokura Professor Emeritus of the University of Tokyo

When we visit botanical garden, we are sometimes stimulated appetite by flavor of fruit and flower. Living organisms inspire our internal reactions. Most of such reactions are emotional such as beauty, love, fear and appetite. However, some reactions are more rational such as surprise, intelligent curiosity, old memory and so on. Nowadays, many people make contacts with living organisms in zoo, aquarium and botanical garden. When we compare aquarium with zoo and botanical garden, stimulation we get in aquarium is less emotional and more rational than those from zoo and aquarium. It may be because of discontinuation of space. Human being and fish are separated by glass wall in aquarium, and human beings contact with living organisms only by eyes. Touch, smell, and sound cannot be main tool for contact. Generally, physical contact is prohibited in aquarium. Of course, we cannot eat fish in aquarium. Aquarium satisfies intellectual curiosity in morphology, taxonomy, ecology, behavioristics and environmental sciences. However, several people are stimulated their appetite, and people who love angling can feel movement of muscle of fish, when they look aquatic organisms. Human being can superimpose actual scene with their memory and relive their previous experiences. Assimilation of scientific knowledge and aesthesis in our daily life is important function of zoo, botanical garden and aquarium. We should accept people who are stimulated appetite in aquarium. Modern aquarium should not be dragon palace in sea and it must connect scientific knowledge with life of people. Fisheries and aquaculture are important contact point of aquatic organisms and human being in our society. Introduction of actual status and history of fisheries and aquaculture enhance understanding of aquatic organisms and environment including relation with human being. When we go back to river head of relation between human being and aquatic organisms, there exist aquatic organisms as food. Securement of foods was most important work for ancient people, Livestock were domesticated as food at first. It was a sophistication of hunting. It is said that flooding fisheries was one of the origin of fisheries. Fish were left in horseshoe lake after flooding. Catching such fish is called flooding fisheries. Several people started feeding to the fish in horseshoe lake. There are various origins of aquaculture, though this is a typical case of start of aquaculture. Human beings have accumulated knowledges by farming of aquatic organisms. Fisheries have also provided many biological knowledges to us, though knowledge by aquaculture include detailed information obtained by direct observation by rearing such as metabolism and maturation physiology. Development of fisheries and aquaculture technology means changes of the relation between aquatic environment and ecosystem and human society. Human society have been changed by the development of fisheries and technology.

People in Taichi forms institutional whaling group called "Kuzira-gumi" with development of net whaling method in Edo era in Japan. Development of largescale set net enabled community operation fisheries. Sometimes development of technology provided tragedies to our society. Trolling and purse sein was introduced to Japan in Meiji era. New technologies often made serious social conflict in Japan. Displays of history of fisheries and aquaculture deepen our understanding of aquatic ecosystem and its relation to human society.