

# “Education of Life” in Aquariums: The Case of Aquamarine Fukushima

Risa Murai<sup>1</sup>, Yuko Murayama<sup>1</sup>, Takeshi Furukawa<sup>1</sup>  
<sup>1</sup>Aquamarine Fukushima, Japan

**ABSTRACT:** The Aquamarine Fukushima’s philosophy is "The Oceans and What They Say about Our Future on Earth". While the basic policy of our educational activities is to promote "Favorable relationship between people and the ocean", we emphasize environmental education as an important concept. Therefore, we have developed the "JANOME Beach" which is the world's largest touch pool, a biotope called "BIOBIO Kappa Village" which reproduced the environment of the waterside, and a child experiencing hall called "Aquamarine Egg". Nature-based experience opportunities for visitors have been increased with these facilities, and we have been focusing more on to the “Education of Life” since then. In the present day, many of the common nature-based experiences are no longer available by various restrictions and constraints. In the Aquamarine Fukushima, kids can enter barefoot into the water, chase prawns and Japanese killifish, and touch starfish and sea urchins. They can also eat the fish they caught by themselves. It is also possible to observe the birth of living creatures, how dead organisms are foraged by scavengers, and how animals decay and return into the soil. For children who will be responsible for the next generation, we believe that these rich nature-based experiences play an important role in deepening their understanding of harmonious relationship with nature.

## INTRODUCTION

The aquarium is facility where educational activities are conducted to promote environmental conservation, serving as a place to think about the relationships between nature and humans. Through trial and error, each institution conducts a wide range of tasks to determine what and how to provide entertainment to the visitors who are expecting fun and comfort. Here at Aquamarine Fukushima, we have continued to strengthen functions to experience nature to develop the next environmentally friendly generation using “sustainability” and “education of life” as the pillars of our educational activities based on the principle of “The Oceans and What They Say about Our Future on Earth.”

## TOUCH AND EXPERIENCE

One of the reinforced functions as part of our nature experience is our world’s largest outdoor hands-on facility. First, we constructed the “BIOBIO Kappa Village,” a biotope that reproduces the environment of the waterside of the village including streams and swamps, in the area adjacent to the building. Visitors can enter the streams and follow and interact with freshwater organisms such as Japanese rice fish and frogs. The facility is outdoors, so it is also possible to experience the four seasons of the year through the visible organisms such as dragonflies and families of Indian spot-billed ducks. Next, we built an extension of the “JANOME Beach,” a touch pool located outside of the biotope that reproduces the seaside nature of the shore, tideland, and beach. Visitors can get barefoot and touch seaside creatures such as starfish and sea

cucumber. You’ll also see children chasing after or running away from the large striped mullet that approach them in the water.



Fig. 1. JANOME Beach



Fig. 2. BIOBIO Kappa Village

These facilities are provided not only for the visitors, but also as a place to implement educational programs for school groups. The space can be used to host hands-on training as an “entrance to nature” for students who can learn how to catch organisms, study their natural habitats and measures suitable for each of the habitats.

## VIEW AND EXPERIENCE

Here at Aquamarine Fukushima, we celebrated our 10th anniversary by constructing the “Aquamarine Egg” children’s experience hall in 2010. The facility features a wide range of exhibitions to explain and display the various means that the organisms have learned to survive, and introduces various organisms of the world, ranging from amphibians that have evolved from fish, to mammals. At the exhibitions you can see a wide range of natural events, including sharks and squids developing inside their eggs, the miracle of the birth of organisms (Fig.4), frog corpses returning back into the ground (Fig.5), *Nassarius livescens* feeding on dead fish and what happens when organisms die.



Fig. 3. The “Touch creatures of the sea” educational program conducted at JANOME Beach



Fig. 4. Exhibition of *Chiloscylidium punctatum* eggs



Fig. 5. Exhibition of *Rana catesbeiana* corpses  
These two exhibitions introduce the natural

phenomena of life based on the theme of “birth and death.”

## EAT AND EXPERIENCE

A fishing exhibit was constructed at “Aquamarine Egg,” where visitors can experience fishing for horse mackerel and silver salmon. Unlike other leisure facilities, the fishing exhibit at Aquamarine Fukushima has several rules. The first rule is that you must eat whatever fish you catch. You are also forbidden from releasing any fish that you catch. In other words, it is not simply an experience to enjoy fishing as you can only catch as many fish as you can eat. Visitors can then experience preparing the fish that they caught, as children can experience using a knife for the first time. We often hear people say that they feel sorry for the fish when removing the head, but this serves an opportunity to think about the meals that you eat everyday. In Japan, there is a custom to say “*itadakimasu*” (an expression of gratitude) before each meal, and this is meant to educate people about the importance of receiving the life of other organisms and to not leave any food on your plate as a sign of respect. Experience the way of living in nature by preparing and eating the food that you catch.



Fig. 6. Cooking experience

## CONCLUSION

Up until recently, these types of experiences with nature were commonplace on an everyday basis. However, due to various limitations and restrictions in our modern age such as environmental problems and social trends, these experiences have gradually disappeared. That is why we believe it is our responsibility to play an important role in teaching the next generation of children about the education of life and deepen their understanding of symbiosis with nature and the use of sustainable resources through various experiences at the aquarium.