

Be the Solution, Not the Problem

Sustainable Seafood Programme at Ocean Park - Hong Kong

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OCEAN PARK | HONG KONG

Global fisheries are declining and many commercially important fish have been fished out.

As one of the top ten seafood consumers in the world, Hong Kong plays a key role in becoming part of the solution. With a 580,000 gallon aquarium displaying over 250 species, Ocean Park is the best place to make this happen. In September 2009, Ocean Park launched the Sustainable Seafood Programme for students in Hong Kong.

The Atoll Reef Aquarium.



“Who ate seafood yesterday?”. When our education specialist questioned some secondary school students in the Sustainable Seafood Programme, 18 out of 20 raised their hands. People in Hong Kong love seafood, including the “well-known” (notorious, we would say) shark fin soup, steamed grouper, Filet-O-Fish and sushi. According to the report of the Food and Agriculture Organization of the United Nations (FAO), every single person in Hong Kong consumed an average of 62 kilograms of seafood in 2005. That is 3.6 times higher than the global average, making Hong Kong the third largest per capita consumer of seafood in Asia and the tenth largest in the world. Interestingly, only 10% to 15% of the total seafood consumed in Hong Kong is caught in Hong Kong waters (WWF Hong Kong 2008).

Seafood consumption by Hong Kong people has a significant impact on the global fisheries. Therefore, it is crucial to make Hong Kong people aware of the current fishery problems and persuade them to consume seafood in a responsible way. To this avail, Ocean Park launched its Sustainable Seafood Programme in September 2009.

The Sustainable Seafood Programme

THEME

To enjoy delicious seafood not only now but in the future, we should start supporting sustainable fishery today!

OBJECTIVES

After joining the programme, students will:

- Learn the relationship between the eating culture of Hong Kong people and sustainable fishery
- Understand the impacts of different fishing methods
- Rethink how humans should treat marine resources
- Learn what sustainable seafood is and promote the concept to other park visitors

TARGET AUDIENCE

High school students (aged 15 to 17 years)

CLASS SIZE

20 students

CLASS DURATION

2 hours

PROGRAMME FLOW

Introduction – Fish biology – Fishery problem – What consumers can do – Promote sustainable seafood to visitors – Conclusion

UNDERSTANDING THE FISHERY PROBLEM FROM DIFFERENT PERSPECTIVES

In the programme, we facilitate students understanding of the fishery problem by exploring differing perspectives on the issue by different stakeholders. We hereby aim to provide them with a broader view of the problem. High school students, equipped with analytical and critical thinking skills, can see the problem from different angles and make their own, informed choices. To make this happen, we collaborated with different parties to obtain resources, including: the governmental Agriculture, Fisheries and Conservation Department (HKSAR), two green groups (WWF Hong Kong and Hong Kong Shark Foundation), an ex-fisherman (who now is an aquarist at Ocean Park) and also the general public (our park visitors).

Students observing a real shark egg in the behind-the-scenes area.



1. Scientists

Our educators teach students basic fish biology, focussing on coral reef fish and sharks. We visit the Atoll Reef Aquarium and its behind-the-scenes area so that students can see the different (sizes of fish), relate them to their daily consumption pattern (e.g. groupers) and understand that the growth rates of most commercial fish are lower than the rates at which they are harvested.

2. Fishermen

We show students a video interview of a former fisherman named Fai who shares his point of view on the ocean and fishery in the past and today. Fai grew up on a fishing boat and had fished with his family since he was five years old. The sea was very clean back then and he enjoyed swimming in the typhoon shelter where they moored their boat. However, the sea is much dirtier now and both the size and variety of fish in Hong Kong has decreased significantly. He witnessed the over-use of hi-tech fishing equipments and non-selective fishing methods. Fai urges consumers to reject eating endangered seafood species.



3. Conservationists

Students learn about the negative impacts on the ecosystem due to over-fishing (e.g. bluefin tunas) and the use of non-selective fishing methods such as trawling (e.g. shrimps). We also emphasize the problem of shark finning by showing students an awarded documentary film called “Fin”, produced by the Hong Kong Shark Foundation (HKSF), discuss the problem with them afterwards. The documentary includes a real scene at the shark fin market and highlights the crucial role of sharks in the ecosystem and the wasteful production process of shark finning. We then introduce the students to the local seafood guide produced by WWF Hong Kong. We teach them how to use the seafood guide and highlight some “avoid” species including sharks (global), shrimps (China) and bluefin tunas (global).

WWF Seafood Guide

The WWF Seafood Guide consists of three categories, namely: “Recommended”, “Think Twice” and “Avoid”. “Recommended” species are sustainable seafood while “avoid” species are caught or farmed in an ecologically unfriendly way and fisheries are not well managed. “Think Twice” species are in-between. For more information on sustainable seafood visit www.wwf.org.hk/seafood

4. Shark fin sellers

The interviews in the documentary reveal that many sellers have a general misunderstanding about sharks. For instance, some sellers believe that sharks, like other fish, reproduce at a fast rate, while others claim that swimmers will be bitten and all “good fish” will be eaten by sharks if we don’t kill them. Nevertheless, one seller believes that humans might have caught too many sharks and that their numbers are decreasing.

5. Students

We ask students to suggest ways to solve the problem of fishery decline. The solutions they gave us included: law enforcement and stricter fishing regulations, the setting up of marine reserves, the prohibition of fishing and the consumption of endangered species. These suggestions, however, most often adversely affect fishermen’s livelihood – either directly or indirectly.

Educator acting as a fisherman representative to discuss with the students who act as government officials on the fishery problem.



Next a role-play activity follows. Our educator acts as a fisherman representative while the students act as government officials trying to convince the fisherman to follow their suggestions. Throughout the conversation with the “fisherman”, students are encouraged to think see the issue from another perspective and consider the consequences their suggestions have for the fishermen, who are the very important stakeholders of the fishery problem. The students hereby experience the conflict of interest between the government (and also green groups) and fishermen. This exercise makes students aware of the importance of involving different stakeholders in solving the fishery problem.

6. Park visitors

Having developed a better understanding the fishery problem and being encouraged to see the issue from different points of view, we now invite the students to approach park visitors and promote sustainable seafood. During this promotion, the students discover how much the general public knows (or does not know) about sustainable seafood and they also experience participating in conservation action. The impact of this vivid experience and direct involvement is very powerful indeed. Subsequently, students find it easier and are more willing to promote and apply conservation behaviour in their daily lives.

PROGRAMME EVALUATION

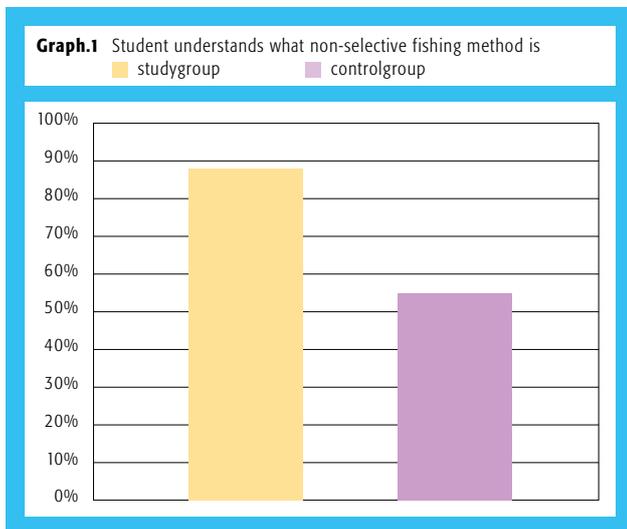
The evaluation on the programme content has been on-going in order to add in more update issues about sustainable seafood from time to time. We collected much positive feedback from the teachers. Additionally, we wanted to know if our programmes can lead to attitude and behavioural changes. A survey on student learning outcomes was conducted in January 2010 with the first group of students that joined the programme in October 2009. Our preliminary study was set up as follows:

Methodology

Short questionnaires were distributed amongst two groups of students: 20 students who did not join the programme as a control group; 19 students who joined the programme three months ago as a study group. The questionnaire included a multiple-choice question to test knowledge on the fishery problem; and a scale of one to six to test their attitude towards ocean protection and behaviour on seafood consumption. There was also an open-ended question to let them share their thoughts on sustainable seafood.

Results and Discussion

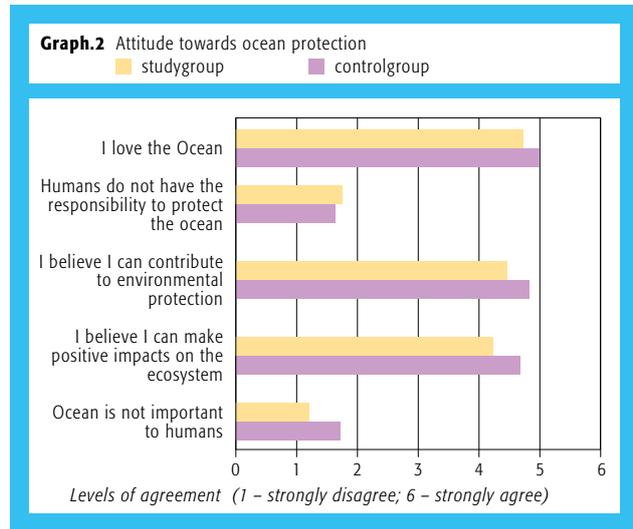
A. Knowledge gained



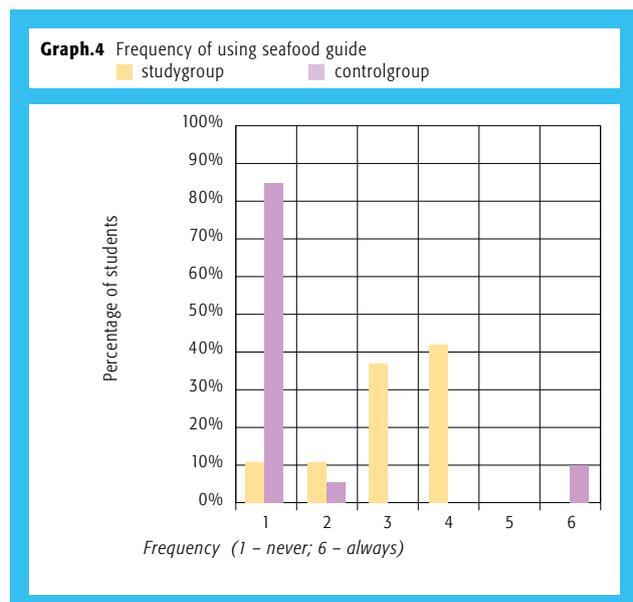
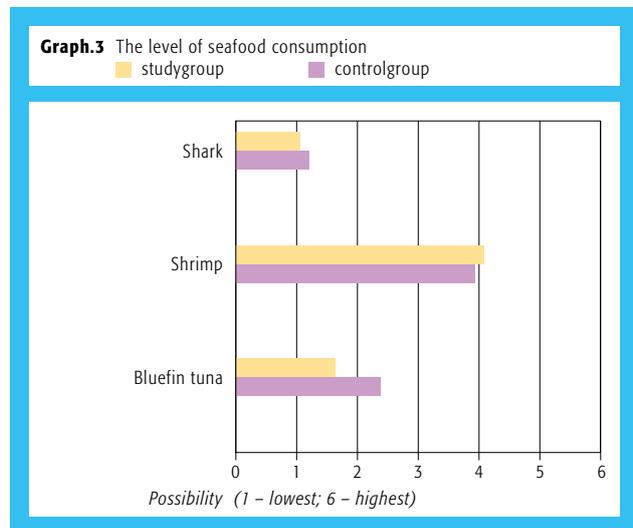
There is a significant positive difference in the result suggesting a gain in knowledge, even after three months.

B. Attitude change

The results in graph.2 show no significant change. We will need to conduct a pre- and post- study on the same group of students to find out the real attitude change after joining the programme.



C. Behavioural change



The consumption of bluefin tuna is significantly lower for the study group than the control group. The frequency of using WWF's Seafood Guide is also higher



for the study group. However, shrimp consumption is still high, while there is no significant difference between the two groups as to shark consumption. Shark fin soup and shrimps are an important part of eating culture in Hong Kong, while bluefin tuna is not (although some Japanese restaurants increasingly promote bluefin tuna). The study shows that we can lead to behaviour change after this two-hour programme, but more efforts are needed to change culture and habits.

With regard to the much higher consumption of shrimp amongst the study group in comparison to shark: shark fin is a delicacy that is not consumed frequently but shrimp is commonly used in local traditional dishes. In addition, students may already know that sharks are endangered through media coverage, but they may be unaware of the negative impact on the environment of shrimp trawling and farming.

D. Sharing thoughts on sustainable seafood

No one in the control group had input while 63% in the test group wrote feelings on sustainable seafood and showed supportive attitudes towards this issue. Below some of their responses:

- Promote sustainable seafood at school and in restaurants
- Educate the public on sustainable seafood
- Fishermen should actively be involved in fishery protection
- The government should extend the fishing moratorium period and limit the number of fishing vessels.

- Everyone is responsible for protecting the ocean and should avoid eating threatened species
- Sustainable fishing methods are very important

BE THE SOLUTION, NOT THE PROBLEM!

This programme was a good start in promoting sustainable seafood to students in Hong Kong. Through the programme, more than 230 students now know that we, people in Hong Kong, are most likely worsening the fishery problem. Fortunately, we can become part of the solution if we actively support and promote sustainable seafood. The programme provides concrete alternatives for students to choose from. We look forward to seeing their keen participation in conserving valuable ocean resources for our future.

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ACKNOWLEDGEMENTS REFERENCES

Ms. Suzanne Gendron, Executive Director, Ocean Park Hong Kong; Aquarium Department of Ocean Park Hong Kong and all other supporting departments; Agriculture, Fisheries and Conservation Department; HKSAR; Hong Kong Shark Foundation; WWF Hong Kong.

WWF Hong Kong. 2008. *Sustainable Seafood Guidebook*. Hong Kong: WWF Hong Kong.

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