

Summary Report

Survey on shark consumption habits and attitudes in
Hong Kong 2009/2010



BLOOM Association Hong Kong

August 2015

HO, Ka Yan Kathleen

SHEA, Kwok Ho Stan.

Copyright: The contents of this report are solely the property of BLOOM Association Hong Kong and cannot be reproduced without the permission of the authors. To contact the authors, please email stanleyshea@bloomassociation.org

Acknowledgements

Many people have come together to make this survey and resulting report possible.

The authors would like to thank **ADM Capital Foundation** for their generosity in providing funding and technical support to the survey, for their time and valuable advice offered to us at each stage of the survey, and most of all for their longstanding support to BLOOM.

Gratitude is owed to **The Pew Charitable Trusts**, for giving the opportunity for the production of this report.

To the irreplaceable Ms. Claire Nouvian, Founder of BLOOM Association, we are hugely grateful, for initiating the idea and proposal for such a survey.

In particular, Ms. Isabel Jarret and her incredible capacity to perform miracles -- the project would not have been possible without her. Thank you.

From the **Social Sciences Research Centre of The University of Hong Kong (HKUSSRC)**, Professor John Bacon-Shone and his team, Ms. Linda Cho and Mr. Kelvin Ng, were instrumental in the successful completion of the survey, the survey report, and the resulting press conference held on 12th April 2011. To them and all the HKUSSRC staff involved in this project -- administrative or otherwise -- the authors are extremely thankful.

In addition, the authors must thank the **FleishmanHillard Hong Kong** team, Mr. Purry Chiu and Ms. Carol Yeung, as well as the venue provider, **Loong Toh Yuen of the Hullet House**, for their valuable assistance in making possible the 12th April 2011 press conference.

The authors must also thank Dr. Allen To and Ms. Shadow Sin, and in particular, Ms. Alena Rossini, for their suggestions and recommendations provided to the design of the initial survey questionnaire. Thank you also to Ms. Alisa Ho, for creating the beautiful illustration on the cover.

Last but not least, the authors would like to thank all colleagues and friends who have supported BLOOM throughout this initiative.

SURVEY HIGHLIGHTS

The sociological study into Hong Kong citizens' consumption habits and attitudes regarding shark's fin and shark-related products commissioned by BLOOM and conducted by the Social Sciences Research Centre of The University of Hong Kong (HKUSSRC), is one of the largest surveys of shark-related consumption in Hong Kong ever carried out. Over 1,000 telephone interviews were successfully completed over a two-month period from 15th December 2009 to 8th January 2010 in Hong Kong.

Consumption patterns

70% of the surveyed had consumed shark fin soup in a restaurant **at least once** between Jan 2009 and Jan 2010. Up to 88% had eaten shark fin at least once in their lifetime. However, about a third of the total respondents also said their frequency of consumption had decreased over the past five years. Over half confessed that their **consumption had stayed the same**.

Pages 7 - 8

Time and place matter

Weddings were by far the most frequently named occasion (almost 90%) for eating shark fin soup in restaurants. Eighty six percent of the time, shark fin soup was served as part of a set menu, and not ordered separately. The dish is almost always consumed in a restaurant and near 60% had never eaten sharks fin at home.

Pages 9 - 10

Majority accepts no-fin banquets

Contrary to popular belief about cultural expectations, 78.4% of respondents said that it was either very acceptable or acceptable to not include shark fin soup in wedding banquets, and 38.8% said having the dish in corporate banquets was either not so important or not important at all.

Pages 11 - 12

Faulty perceptions

Nearly half of the people described sharks as **scary and threatening**. Over 3/4 said they saw **the movie Jaws** and near half agreed that the movie influenced their perception of sharks. Almost 40% were completely unaware of the practice of shark finning. Some believed that sharks can continue to survive after being finned.

Pages 13-15

Change is in the air

Despite other misperceptions about sharks, there is a widespread cognizance (88.9%) that shark populations worldwide are in decline. Most people professed that they are uncomfortable with eating endangered fish, and 87.9% showed **support** for the HK government to **prohibit** the sale of products that involve **killing any endangered species**.

Pages 16 - 17

INTRODUCTION

No, the shark in an updated *Jaws* could not be the villain; it would have to be written as the victim, for, worldwide, sharks are much more the oppressed than the oppressors (Benchley 1995).

***Peter Benchley 1995, Oceans in Peril
Author of "Jaws", the original novel***

Appetite for shark fin soup in the Chinese population has gained an infamous reputation. For many years, it has fueled an industry slaughtering an estimated average of 100 million sharks per year (Worm et al., 2013). In Hong Kong, the reported value of shark fins imported from 1998 to 2014 averaged USD 267 million (C&SD, 2015).

Numerous shark conservation groups have directed campaigns at consumers of shark fin soup, under the rationale that reduced consumption can and will ultimately lead to decreased killing.

By rule of tradition, shark fin soup is one of the core components of celebration banquets, and especially wedding banquets, among the Chinese. Shark fin

soup must be included as one of the twelve courses of a typical Chinese banquet, or else the host may seem parsimonious or unwelcoming. The practice has been sanctioned by custom for over a thousand years in Chinese communities and assumed by many as irreplaceable; however, research to find out how Chinese people actually feel about this controversial dish is scarce and scattered. Hong Kong, being the one of the largest trade hubs of the global shark fin trade and a city where the custom of eating shark fin soup is known to manifest, is an excellent site for such a study.

Research into the science behind shark conservation has been gaining traction

Shark Slang

In the 70s, the economic boom drove Hong Kong's demand for shark fin skywards, as the practice of having "shark fin mixed in rice" gained popularity among the working class with the sudden affluence. This practice eventually became an expression, incorporated into Cantonese slang to describe a person who is very wealthy: *he's having shark fin mixed in rice everyday!* Although the practice itself did not last, the association of shark fin dishes with wealth is clearly demonstrated.

in recent years. As sharks take center stage in international discussions on wildlife protection, there have been many initiatives to understand the biological traits that determine species and stock vulnerability to existing fishing practices, and analysis of trade routes and patterns to identify key suppliers and destinations in trades involving Hong Kong. With limited research into the social context of why, where and how shark fin is consumed, however, conservation campaigns lack an important source of reference for how these campaigns should be directed. A sociological survey that communicates directly with consumers corrects previous assumptions by discovering the true opinion and demand for shark fin at the source of the demand.

This study, commissioned by BLOOM and conducted by the Social Sciences Research Centre of The University of Hong Kong (HKUSSRC), is one of the largest surveys of shark consumption ever carried out. The aim was to generate quantifiable data on how Hong Kong people, as consumers, truly felt about eating shark fin and shark related products, as well as about other issues surrounding shark conservation. The study also generated data on the frequency of shark fin consumption, as well as on occasions that were most popular for eating shark fin soup, and

the reasons behind present patterns in consumption. Results of the survey were highly telling of the attitude of consumers in Hong Kong (see pages 22 - 23 for implications of key findings). Perhaps the most important revelation from this study is the intention and readiness of Hong Kong people to support shark conservation, through both changing individual consumption behaviours and calling for government action.

The survey has also identified Hong Kong people's reluctance to consume any endangered species — not only among sharks — suggesting that the underlying problem in promoting sustainable consumer behaviour is not in the awareness for the need, but in the ability among the general public to identify which foods involve the killing of endangered species, and which do not.

Observing the success of this Hong Kong survey, it is recommended that the survey is repeated in mainland China, one of the world's largest consumers of shark fin. This will not only shed light on the real attitudes for shark fin that is felt at the consumer level, but will also help the local government and relevant NGOs gear up for future shark conservation work, enabling strategies to be more accurately directed.

METHODOLOGY

Over 1,000 telephone interviews were successfully completed by the HKUSSRC over a two-month period from 15th December 2009 to 8th January 2010 in Hong Kong. The interviews were carried out in Cantonese, English, or Putonghua. Interview questions were standardized by a pre-designed questionnaire.

Questionnaire design

To initiate the process of survey design, four focus groups were set up for consultation and to help explore observable habits in the consumption of shark fin and other shark-related products in Hong Kong. Each group represented specific segments of the public, including elders, wedding planners and restaurant managers, housewives, and secretaries (with experience of organizing corporate events).

Based on the outcomes from the discussions of the 4 focus groups, a questionnaire of 69 multiple choice, close ended, and open ended questions was put together in a combined effort by BLOOM and the HKUSSRC. Apart from 5 questions relating to the personal information of interviewees, all remaining questions were designed around four distinct categories: habits, knowledge, perception and attitudes.

These translated into questions that surrounded the topics of:

- a. Frequency of and occasions for consuming shark fin and other shark-related products,
- b. Feelings towards eating shark fin soup,
- c. Willingness for to limit personal shark fin consumption and acceptability of reduced consumption in social contexts,
- d. Understanding of conservation issues surrounding shark consumption,
- e. Perception of existing shark conservation efforts (e.g. by Hong Kong government, NGOs, etc), and
- f. Support for increased government effort on issues of shark and marine conservation.

The questions were designed in both English and Chinese. Options of 'don't know', 'can't remember', and 'no opinion' were made available to respondents who may feel uncomfortable with answering the listed questions, or if they did not understand what was asked (Converse and Presser 1986, De Vaus 2002). The option of 'others (please specify)' was also offered for unprecedented answers and to specify a set of substantive choices (De Vaus 2002, Krosnick and Presser 2010).

Questions with an assigned five-point rating scale (i.e. strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, and strongly disagree) were used to evaluate the level of importance and interviewees' agreement according to the statements made (Likert 1932, Clason and Dormody 1994, Gliem and Gliem 2003). Statements with both positive and negative dimensions were also used in the questionnaire to detect a respondent's tendency to acquiesce, or providing affirmative responses to the statements regardless of the question content (Winkler et al. 1982, Ross et al. 1995).

Interview sampling

The entire survey process, from sampling through to results analysis, was conducted and overseen by the HKUSSRC.

Random sampling of interviewees was drawn and generated from the latest English residential directory at the time. Each number was tried, and if unanswered, was tried at least 3 times before being classified as a 'non-contact' case. This method yielded a total of 1,029 successful, computer-assisted telephone interviews.

Respondents were all Hong Kong citizens, who were adults of age 18 or above. There were representatives of

Quality Control

"All SSRC interviewers were well trained in a standardized approach prior to the commencement of the survey. Experienced interviewers fluent in Cantonese, Putonghua and English conducted all interviews.

The SSRC engaged in quality assurance for each stage of the survey to ensure satisfactory standards of performance. The SSRC supervisors checked at least 5% of the questionnaires completed by each interviewer independently."

(HKUSSRC, 2010)

various ages, levels of education and occupations.

In view of the demographic distribution differences between the current survey and the actual Hong Kong population, weighting was applied to gender and age group in order to make the results more representative of the general population according to the C&SD (2011) demographic data.

KEY FINDINGS

I. CONSUMPTION PATTERNS

1. Shark fin soup is by far the most common way that shark is consumed compared to other shark related products.

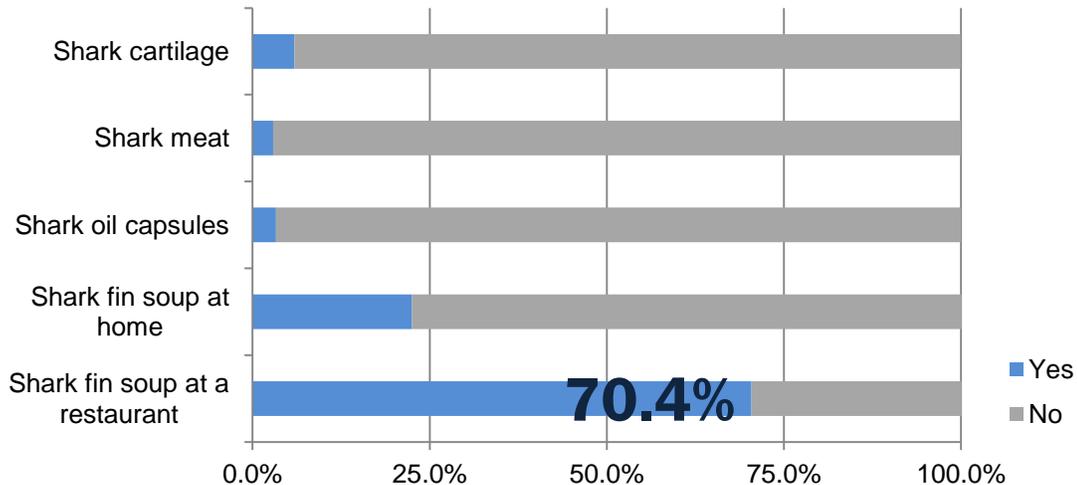


Figure 1.1 - Consumption of different shark-related products at least once in the 12-month period to January 2010

Shark is consumable in several forms in Hong Kong. Shark cartilage, shark meat, shark oil capsules, and shark fin soup are the most persistent ways that people may knowingly consume shark-related products in the market.

About 70% of the respondents had consumed shark in one form or another at least once within the one-year surveyed period. Notably, most people had consumed shark products in the form of shark fin soup at restaurants.

2. Tradition and taste were the greatest reasons for eating shark fin soup.

Several reasons have been quoted for the consumption of shark fin soup. Cohering to popular belief, most respondent answered "Tradition of being a dish in a big occasion" as either a very important or an important reason for eating the dish. Surprisingly, 64.1% said that "Social status" was either not so important or not important at all.

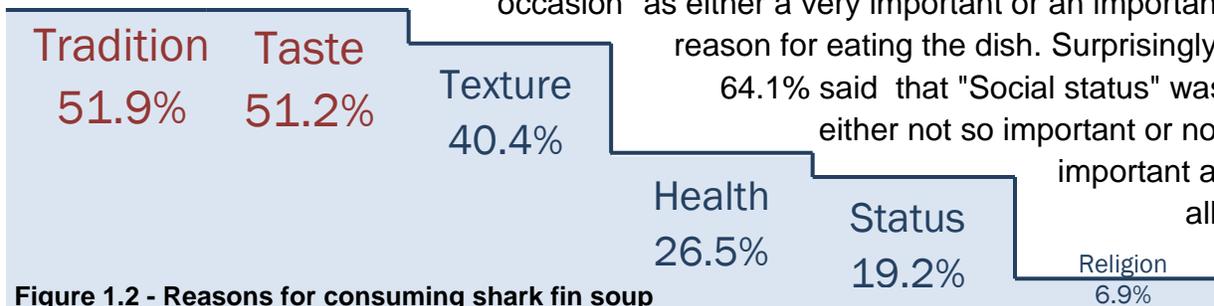


Figure 1.2 - Reasons for consuming shark fin soup

3. Despite high consumption, frequency of eating shark fin soup is declining.

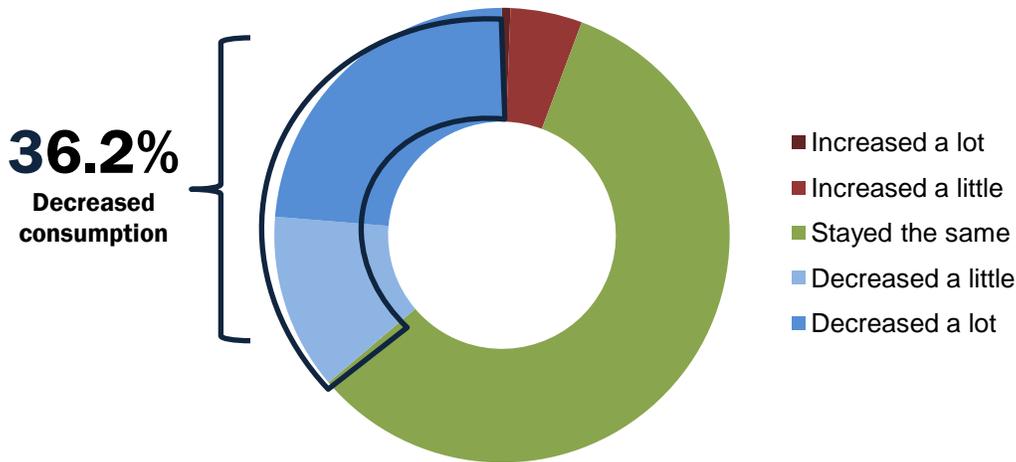


Figure 1.3 - Frequency of consuming shark fin soup over the past 5 years

Just over half (58.1%) of the people surveyed expressed that, over the past 5 years, the frequency of their shark fin soup consumption has remained the same. However, as displayed in the blue shades above, consumption has decreased either a little or a lot for 36.2% of respondents.

Only 5.7% expressed an increase in consumption. These were mostly clerks with monthly personal income of HKD\$40,000 or above. Of these respondents, 42.3% said availability of shark fin at restaurants was the reason for their increased consumption. Less than a third reckoned the cost of shark fin factored a role in their behaviour.

4. Both "cost of shark fin soup" and "environmental concerns" influenced reduced consumptions.

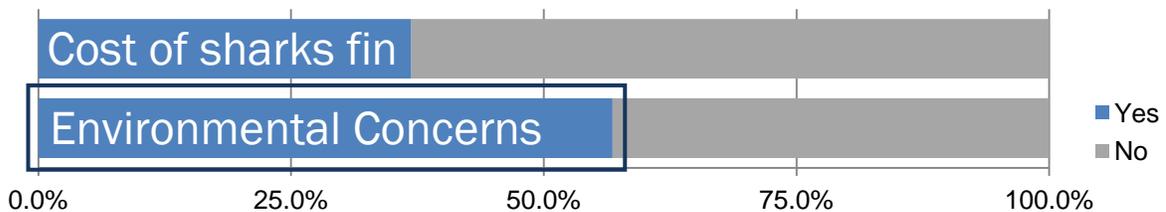


Figure 1.4 - Reported reasons for decreasing shark fin soup consumption

Shark fin soup has traditionally been associated with lavish banquets and extravagance. Hence, it is not surprising that decreased consumption is reportedly associated with the cost of the dish. Notably, the more popular reason behind eating shark fin soup less frequently is environmental concerns, which is the reason given by over half (56.8%) of the respondents. **At present, there is no research into the trends and changes in retail prices of shark fin and shark fin soup.**

II. TIME AND PLACE MATTER

1. Shark fin soup is significantly more often consumed in restaurants than at home.

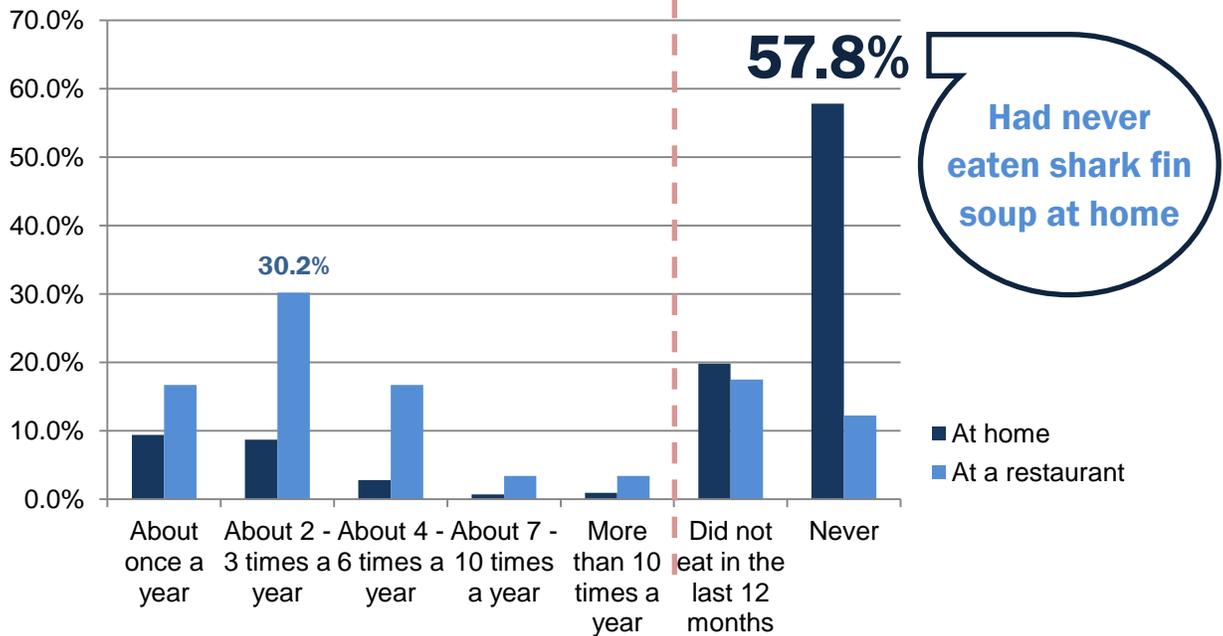


Figure 2.1 - Comparing frequency of shark fin soup consumption at home and at a restaurant in the 12-month period to January 2010

As demonstrated in figure 1.1, the consumption of shark fin soup at a restaurant far surpasses consumption of any other shark product. Figure 2.1 further places the spotlight on how frequently shark fin soup is eaten in a restaurant compared with eaten at home. Close to one third of the respondents (30.2%) had reported to have eaten shark fin soup at restaurants two to three times within the survey period.

Shark fin soup is very rarely consumed at home, possibly due to the complicated processes involved in preparation. Over half (57.8%) of the respondents had never once consumed shark fin soup at home.

Steps to cook shark fin soup at home

Shark fin is mostly sold

- dried and skinned,
- dried and with skin, or
- ready-made.

Dried shark fin must always be hydrated by soaking overnight before any method of cooking.

After skinning, cleaning, and soaking, the fin is often then cooked in a broth of chicken, prawn, crab, ham, eggs and mushrooms. The fin itself is tasteless.

The entire process may take more than 10 hours.

2. Wedding banquets were by far the most frequently named occasion for eating shark fin soup.

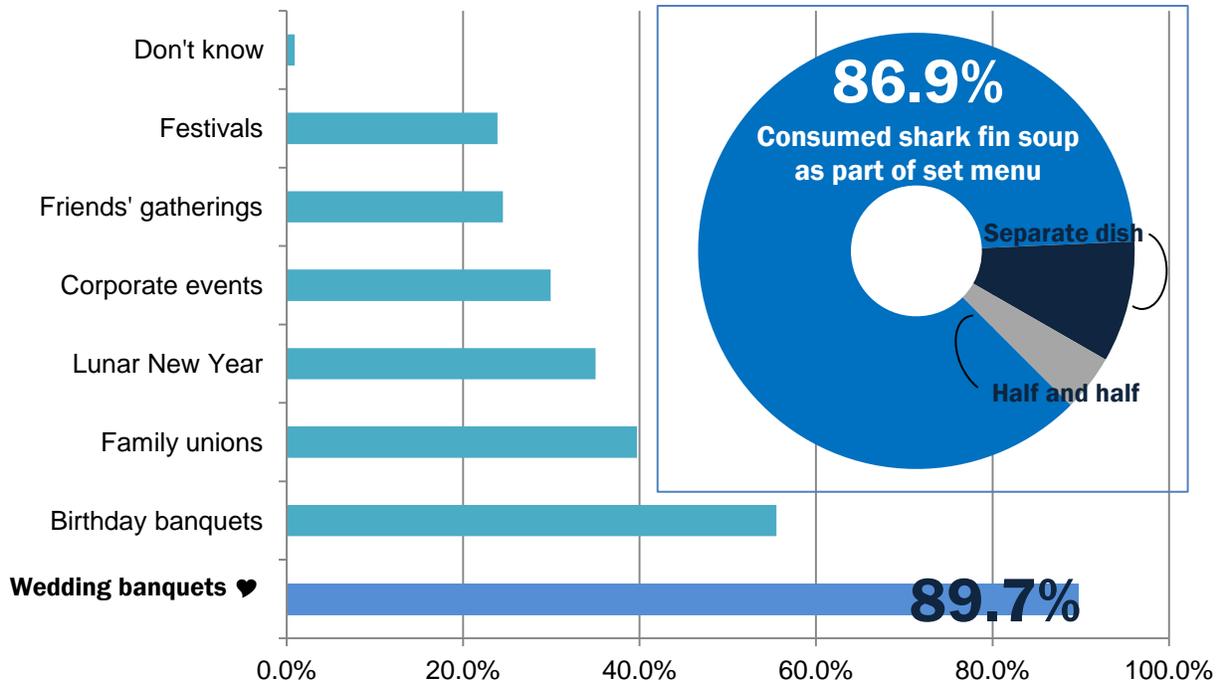


Figure 2.2 - Shark fin soup is mostly consumed at wedding banquets and as part of a set menu

Note: results for the category "Never" are excluded from this analysis.

In line with the tendency for consumption of shark fin soup at restaurants rather than at home (see figure 2.1), the most common occasion for eating the dish is found to be in wedding banquets. In second place are birthday banquets, as declared by 55.5% of the respondents. Results for all other surveyed occasions fell below 40%.

These results also coincide with our finding that 86.9% of the time, shark fin soup is encountered in meals as part of a set menu, and rarely ordered as a separate dish. Set banquet menus are customarily provided by hotels and restaurants for special occasions, for the convenience of their customers. Although these menus are available for all kinds of banquets, they are almost always offered and used in wedding events.

A Chinese banquet menu will commonly include:

- ✓ **Groupers, wrasses and other reef food fish species**
Many popular species are already threatened or endangered
- ✓ **Crustaceans (lobster, prawn, crab)**
- ✓ **Abalone**
- ✓ **Bêche-de-mer Hong Kong handles more than 50% of the global trade**
- ✓ **Scallops**

Many other marine species are also being overexploited to provide for our foods. Please think twice before ordering your next plate of seafood.

III. MAJORITY ACCEPTS NO-FIN BANQUETS

1. Contrary to common perception, shark fin soup is not an indispensable element of Hong Kong wedding culture.



Figure 3.1 - Acceptability of not including shark fin soup in wedding

Acceptability for substituting shark fin soup with other dishes at wedding banquets is as high as 78.4%. Furthermore, 38.8% of respondents also found it either "Not so important" or "Not important at all" to leave out shark fin soup from corporate banquets, and only 30.1% thought it was "Important" or "Very important".

It is not known whether or not any existing hotels or restaurants offer no-fin set menus for banquet occasions. Without these options, consumers are hindered from choosing the sustainable option, even if they are conscientious.

2. Most people disagree that shark fin alone tastes good.

While about half of the respondents agreed that shark fin soup is a delicious dish, 61.1% are also aware that, without the soup, **shark fin alone is tasteless**. Flavour of the dish comes from the many other ingredients used in to make the broth. This awareness may have contributed to the willingness for shark fin to be substituted with other foods.

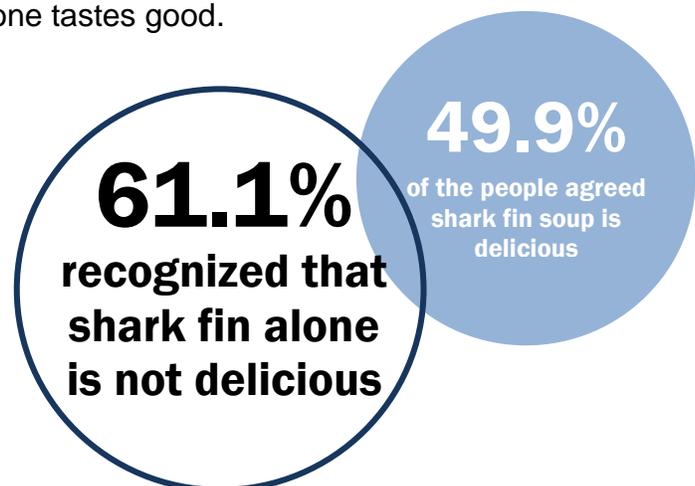


Figure 3.2 - Tastiness of shark fin soup versus shark fin on its own

3. Several substitutes to shark fin soup in banquets are deemed viable.

Yes!

42.8% have once thought of substitutes to replace shark fin soup in menus

Figure 3.3 - Consideration for a substitute dish to shark fin soup on menus

When asked about whether or not respondents have once thought of substitute dishes to replace shark fin soup, 42.8% had actually responded with "Yes".

Reportedly "Acceptable" or "Very Acceptable" substitutes to shark fin soup:

- ✓ fish maw (79.0% of respondents),
- ✓ Bêche-de-mer (73.2%)
- ✓ vegetarian shark fin (61.2%)
- ✓ Chinese caterpillar fungus stew (59.7%)
- ✓ bird's nest (58.7%)

Sustainability of Shark Fin Subs

Some foods currently used to substitute shark fin soup in weddings are also tied with various conservation concerns. Consumers should take care in selecting their substitutes to avoid putting other species at risk.

FISH MAW

Extraction of the fish bladder to produce fish maw has led to fish species becoming threatened, such as the Chinese Bahaba (*Bahaba taipingensis*) and Totoaba (*Totoaba macdonaldi*).

The Chinese Bahaba, once popular in the fish maw trade, is believed to be the first commercial marine species on record driven to near extinction due to overharvesting (Sadovy & Cheung, 2003). Today, occasional catches are sold for up to HKD 3 million per individual.

IUCN Status: Critically Endangered
CITES Appendix I

Totoaba produces some of the most ludicrous fish maw pieces. The high price of fish maw famously drove the totoaba onto Appendix II of CITES as early as 1975. Methods used in capturing totoaba has led to its neighbour, the vaquita (*Phocoena sinus*), also becoming critically endangered (Rojas-Bracho, 2008).

SEA CUCMBERS

50% of global trades will come through Hong Kong.

Declining trends in traded volumes suggest depletion in wild stocks.

SWALLOW'S NEST and CHINESE CATERPILLAR FUNGUS

These non-seafood substitutes are also regarded by Chinese and other cultures as precious foods.

Overexploitation has led the Chinese Caterpillar Fungus populations to decline in the wild.

Extraction methods of swallow's nest, although relatively sustainable, have also led to animal welfare concerns.

Suggested options

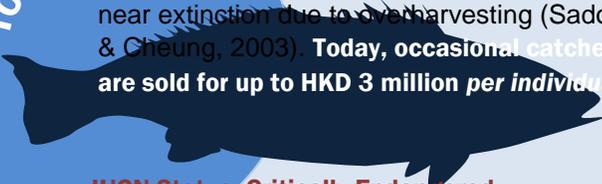
Shark fin-like:

- ✓ Vegetarian shark fin
- ✓ Vermicelli

Other foods:

- ✓ Soups and broths
- ✓ Dishes made with Sustainable Seafood

FISH MAW:
TOTOABA



IV. FAULTY PERCEPTIONS

1. Generally, more people see sharks as scary or threatening rather than attractive animals.

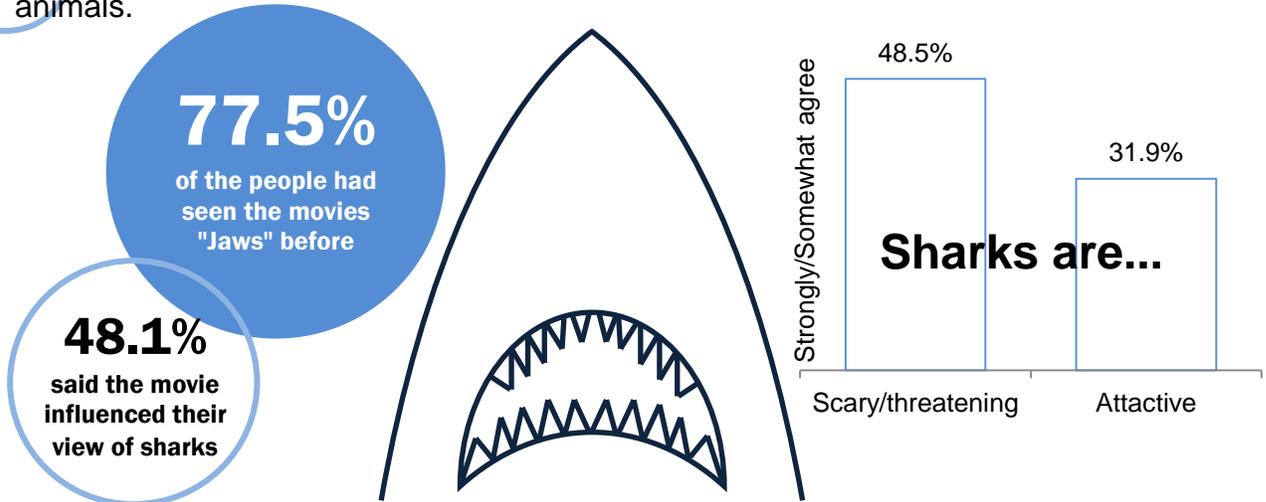


Figure 4.1 - On the common perceptions of sharks

Portrayal of sharks in the media has to an extent influenced public perception of the animal. More people agree that sharks are "scary/threatening" rather than "attractive", although disparity in opinions is slightly lower than expected.

2. Knowledge on factors influencing shark vulnerability is uncommon.

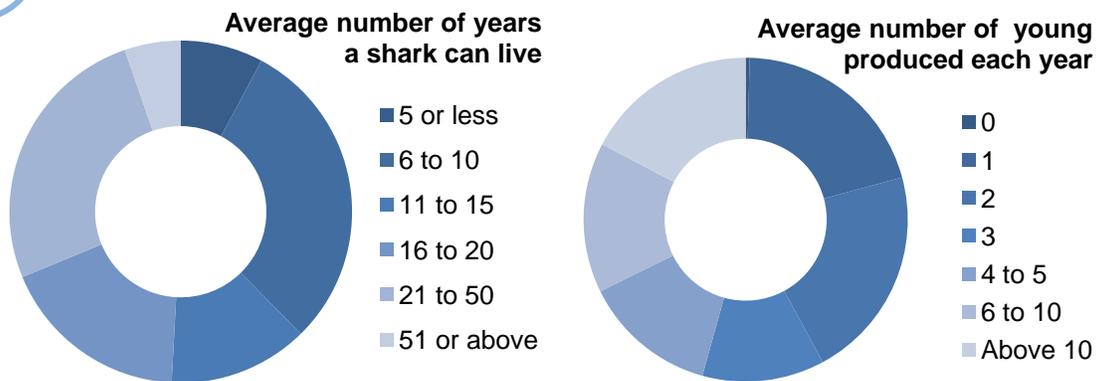


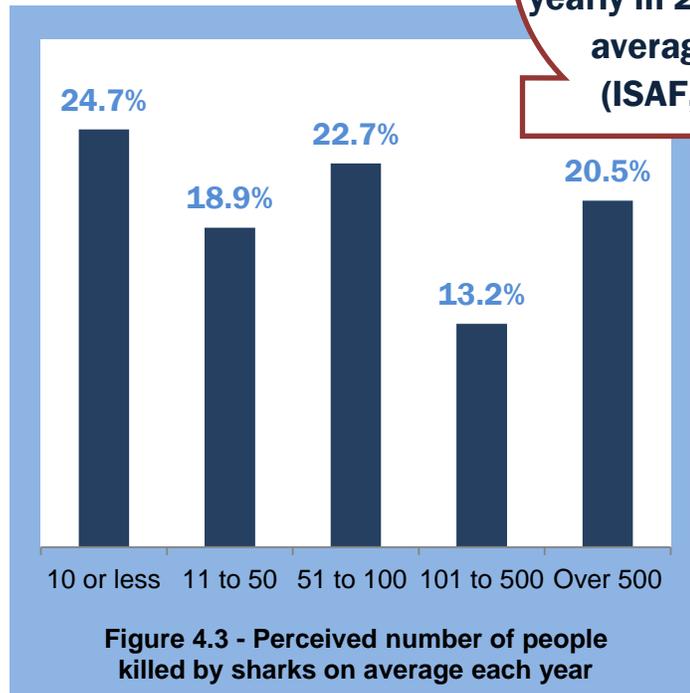
Figure 4.2 - Basic shark facts: perceived average lifespan and number of young of sharks

On the topics of shark lifespan and number of young produced each year on average, both factors directly influencing vulnerability of sharks to fishing pressures, there is little consensus. Answers were relatively variable. Note: percentages do not include results for respondents answering "Don't know".

3. Number of fatal shark attack cases is grossly overestimated.

Participants were asked how many people in the world they thought had died from a shark attack on average each year. Answers were relatively evenly distributed across all choices provided, suggesting a lack of common knowledge on the issue.

In addition, the number of fatal shark attacks in the previous year was hugely overestimated, with the mean guess at over 34 thousand. In reality, the number of people who reportedly died from shark attacks between 2005 and 2014 averaged at only 6 people each year (ISAF, 2015).



FACT:
Actual number of unprovoked fatal shark attack cases yearly in 2005 - 2014 averaged at 6 (ISAF, 2015)

On the other hand, the number of sharks killed by humans each year is grossly underestimated, with the mean guess at around 2.1 million sharks. However, the scientific estimates of the number of sharks traded annually worldwide lies somewhere between 26 and 73 million (Clarke et al., 2006).

Who Thought What?

Higher educated respondents agreed **shark populations are in decline.**

Younger respondents disagreed.

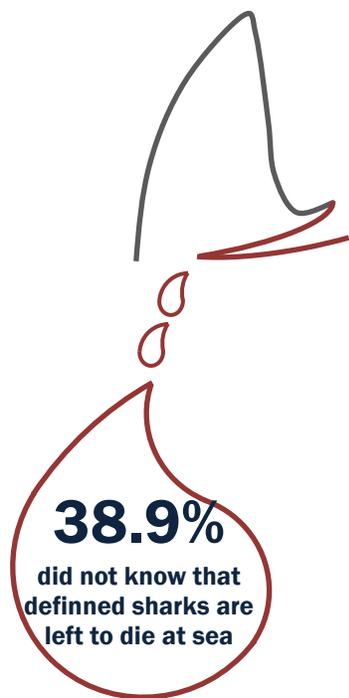


Respondents with monthly income of HKD\$40,000 or above were more likely to disagree with **descriptions of sharks as scary/threatening.**

Figure 4.4 - Demographic correlations with shark knowledge and perceptions

Perception that shark populations are in decline increased with educational level and decreased with age. Furthermore, fewer respondents with monthly income of over HKD\$40,000 agreed with descriptions of sharks as scary or threatening, but agreement increased with education levels. Interestingly, a relatively higher proportion of female respondents and students agreed that sharks are vulnerable or endangered.

The importance of education in directing knowledge and perception of shark and shark conservation issues is highlighted.



4. Awareness for shark finning practices is low.

A significant portion of the respondents had no knowledge of the practice of shark finning -- removing the fins of shark at sea and disposing the body back into the water, where the shark is left to die. More surprisingly, **9% of the people believed that fins of sharks can grow back after being cut off** (2% answered maybe), and **16.7% believed that sharks can survive without their fins** (4.4% answered maybe).

While these figures may seem small, it reflects a worrying lack in basic knowledge regarding shark biology, and even common sense.

5. Knowledge of shark finning is mostly learned through TV programmes, and rarely in schools.

Figure 4.4 - Awareness of shark finning practices

TV programmes (42.7%), TV news (42.7%) and newspapers (38.8%) were clearly the dominant channels through which respondents learned about the practice of shark finning. Only 17.8% professed to learning about shark finning through websites, suggesting a potential for social media platforms to be made use of.

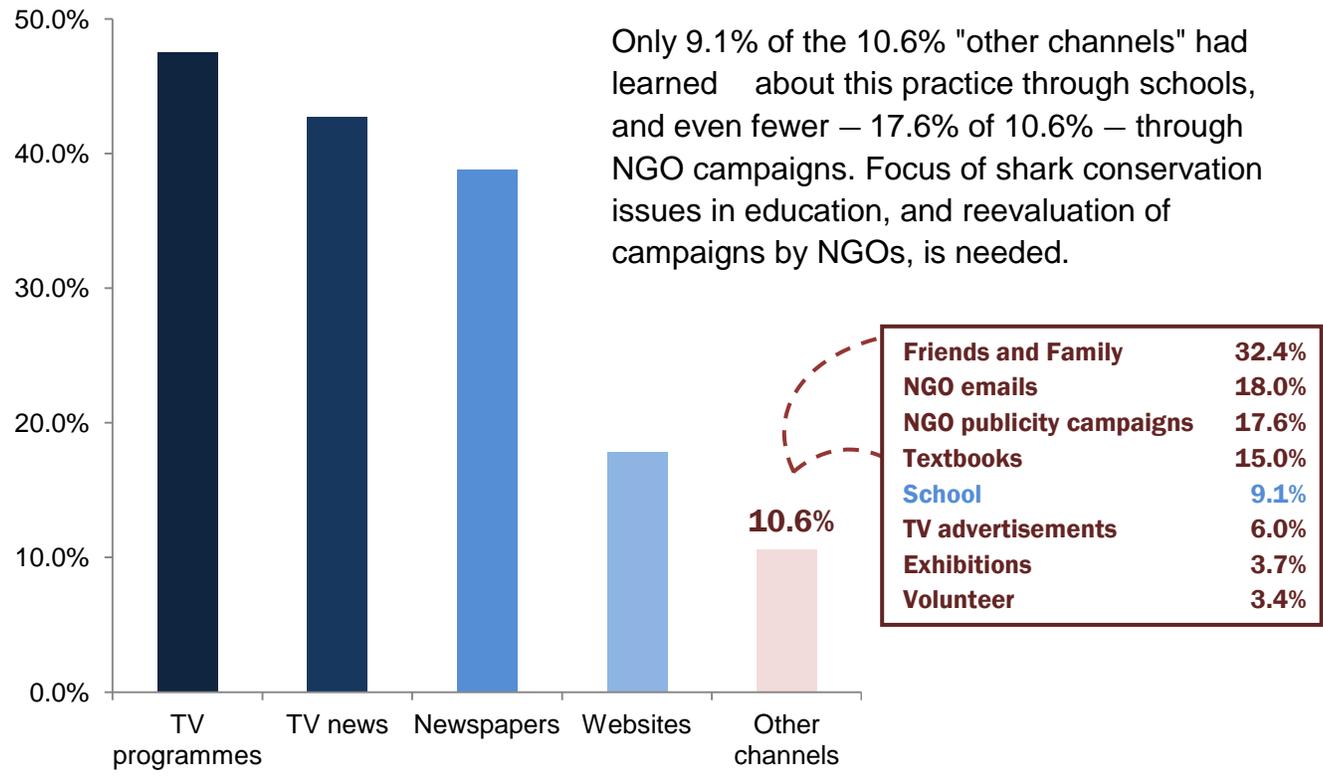


Figure 4.5 - Channels from which respondents learn about shark finning

V. CHANGE IS IN THE AIR

1. Despite some faulty perceptions, there is also a general feeling for the vulnerability of shark populations worldwide.

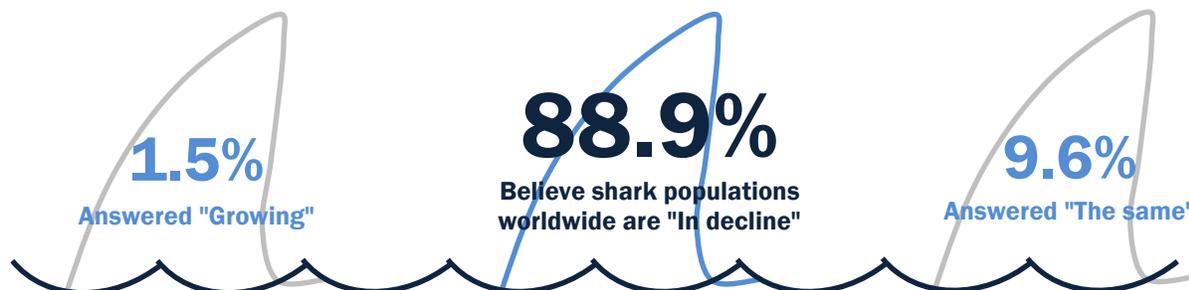


Figure 5.1 - Perceived population status of shark populations

Most respondents expressed concern for the vulnerability or fragility of the shark population. As many as 88.9% of the respondents believe that shark populations around the world are in decline. Furthermore, 80% believed that shark populations are vulnerable or endangered.

In addition to this awareness for shark vulnerability, **66.5% of respondents are either "Not so comfortable" or "Not comfortable at all" about eating endangered fish.** It is thus reasonable to believe that most individuals participating in this survey had a relatively high conscientiousness for the need for shark conservation, and a low preference for consuming shark fin and other shark-related products. The question is, whether or not consumers are aware of which species are endangered.

80%
either strongly or
somewhat agree that
shark populations are
vulnerable/
endangered

Wildly Ignorant

A comprehensive, global survey of all shark stocks worldwide is yet to be found possible, hence at present there is little evidence to show numerically and accurately population sizes of ALL shark species in the wild. This is problematic for conservation work, because we cannot determine the health and status of GLOBAL populations - whether they are stable or diminishing - without knowing their population censuses. While various clues, such as decreasing catch sizes, shifting shark fishing grounds, diminishing catches of large individuals, and adjustment of market prices in shark fins, may combine to indicate that wild shark populations worldwide are in decline, what we truly need is **for more researches on local and regional shark stocks to be conducted, so that combined, a global picture of shark populations may be derived.**

2. Support shown for government action in the conservation of shark and other



Figure 5.2 - Support for HK government to prohibit sales of products involving the deaths of endangered species

What was perhaps slightly surprising is the level of support shown towards government taking action for shark conservation, particularly in regulating the trade of shark fin and other endangered species.

This concern extended beyond for just shark species. Up to 87.9% of respondents showed support for prohibiting the sale of products that involve killing **endangered species**, whether of sharks or of other animals.

THE (ALMOST) **A to Z** Threatened & Endangered Species Food and Medicine in Hong Kong

Most Hong Kong people are uncomfortable with eating endangered species, but few are aware of the many threatened and endangered species of plants and animals that are traded, sold, and consumed in Hong Kong.

- atlantic bluefin tuna (EN) brown sea cucumber (EN) chinese bahaba (CR) giant grouper (VU)
- golden coin turtle (CR) great seahorse (VU) hong kong grouper (EN) incense tree (VU)
- japanese eel (EN) japanese spiky sea cucumber (EN) monitor lizards (various)
- mobula (various) napoleon wrasse (EN) orchids (various) pangolin (various) manta ray (various-VU)
- squaretail coral grouper (VU) spotted seahorse (VU) southern bluefin tuna (CR)
- totoaba (CR) three-spot seahorse (VU)

IUCN Red List of Threatened Species of Flora and Fauna // Least concern (LC) --> Near Threatened (NT) --> Vulnerable (VU) --> Endangered (EN) --> Critically Endangered (CR) --> Extinct in the Wild (EW) --> Extinct (EX)

IMPLICATIONS

SOCIAL SIGNIFICANCE

The survey results confirm some beliefs about the way shark is consumed by Hong Kong people. Most apparent is the necessity for a social context for shark-related products to be consumed, often in the form of shark fin soup.

Preference for shark products other than shark fin soup is relatively low. Although these products - shark cartilage, shark meat, and shark oil capsules - are just as easily obtainable from retail stores, they are not one tenth as popularly consumed as shark fin soup.

There is a possibility that some products of shark meat is unknowingly consumed as a part of other foods, such as in fishballs, and in these cases consumption will not be reported thus not accounted for in this survey. However, considering shifting practices in the use of shark meat in local recipes, the possibility of such cases are believed to be negligible, although further research on such inconspicuous uses of shark as food is suggested.

More notable is the significance of shark fin soup consumption at restaurants compared to at home. Cost and complicated cooking procedures are possible reasons for the lack of appeal

for eating shark fin soup at home, yet a more convincing explanation is that eating shark fin soup is a social gesture or a manifestation of local custom.

In alignment with local traditions, shark fin soup is most popularly eaten during wedding and birthday banquets. The dominance of shark fin soup being consumed as part of a set menu rather than ordered as a separate dish is also clearly observable. Chinese banquets are typically held with a 12-course preset menu, in which one of the dishes will most certainly be shark fin soup. Ordered separately, the dish is a relatively expensive option, and reportedly few people will order it on its own for even a gathering with friends.

When asked for the reasons behind **continuing** eating shark fin soup, most of the respondents answered it was because having this dish in big occasions was a matter of tradition. Contrary to common belief, very few professed that social status was a reason for eating shark fin soup. Leaving aside the possibility of an unwillingness to quote this unsavoury reason of social status for consuming such a controversial dish, these results suggest that, rather than purely for having 'face', adherence to traditional norms and celebratory occasions give the strongest reason for individuals to keep eating shark fin soup.

Combined, the above analysis gives evidence to the necessity of a specific

social context and a reason for celebration, for eating shark fin soup. Consumption continues for reasons of habit and customs taken for granted. This rationale, while age-old, indicates a possibility for change through the introduction of new norms in customary practice. With this information, **three** courses of action are derived to aid this momentum of growing interest in conservation concerns attached to the consumption of shark fin, as explained below.

ACTION #1: NO-FIN SUBSTITUTES

Observing the frequency of shark fins consumed at banquets and social events, hotels and restaurants can effectively contribute to changing local consumption habits, by offering substitute dishes to shark fins.

Apart from tradition, almost just as many respondents answered that the taste of shark fin soup was also a reason for their continued consumption. This finding holds promise for the feasibility of using shark fin substitutes. Shark fin itself is rather bland. The taste of the dish comes not from the actual fins, but from the other ingredients used for concocting the soup, which are rich in taste and stewed for

long hours to optimize flavour. Substituting the shark fin for other foods, such as vegetarian shark fin, will not compromise the soup's taste, but can relieve the threats to shark survival associated with this celebratory dish.

Indeed, support for using various substitute dishes, including vegetarian shark fin (61.2% of the 42.8% who have once thought of substituting shark fin soup in banquets), was already encouragingly high among survey respondents. Furthermore, the perceived importance of shark fin soup has already been diminishing. Up to 78.4% of those surveyed say that banquets without shark fin are either "acceptable" or "very acceptable". Over a third of respondents have also decreased their consumption of shark fin in the previous 5 years, half of whom cited "environmental concerns" as the reason behind decreased consumption.

One further challenge to identifying no-fin substitutes is the ecological impacts of the substitutes themselves.

One further challenge to identifying no-fin substitutes to be aware of is the conservation statuses or ecological impacts of the substitutes themselves. Some commonly chosen substitutes are also threatening the survival of other plant and animal species. Fish maw, for instance, are associated with unsustainable fishing methods targeting the totoaba, which have driven the totoaba, and its neighbour, the vaquita, to the brink of extinction.

Despite the cultural significance of eating shark fin soup as a tradition, these survey results indicate that a large proportion of Hong Kong people are ready to face the sustainability issues associated with shark fins and to adopt new attitudes that favour an approach for shark conservation, even if it means adjusting their adherence to traditions.

Most banquet menus are preset with shark fin soup included, which presents a barrier towards the avoidance of shark fins.

Results of this survey shows that most people, given the choice, will not order shark fin separately. Consumption of shark fin at banquets is hence passive, and mostly only taken when the dish is part of a set menu. With this knowledge, it puts hotels and restaurants in a unique position to promote the reduction of Hong Kong's overall consumption, by offer their customers menus with no-fin dishes to substitute the shark fin soup, providing banquet hosts with the option of making a conscientious consumer choice.

ACTION #2: PUBLIC EDUCATION

Readiness for change must also be supported by the knowledge of how to change. For instance, as mentioned

above, some of the options voted most acceptable for substituting shark fin soup, including fish maw and sea cucumber, are options that come with their own sustainability issues.

Education for the public to gain a holistic view of marine conservation issues is more valuable than the linear notion of simply not eating sharks.

The vast majority of the respondents were able to recognize the general vulnerability of shark populations worldwide, presumably owing to the increased efforts to promote shark conservation topics in recent years. Specific knowledge on the factors jeopardizing the survival of sharks, however, is weak. Almost half of the respondents reported that Steven Spielberg's movie, *Jaws*, which portrayed sharks as terrifying, man-eating monsters, had influenced individual perceptions on sharks. This misperception is echoed in the widespread over-estimation of the number of fatal shark attack cases each year.

On the contrary, many people were not aware of the core reasons behind the vulnerability of sharks to existing fishing pressures. A small portion of respondents even thought that sharks can continue to survive without fins, or that their fins can grow back after being cut off. These results illustrate how little the general public of Hong Kong understand about sharks, and how

Hotels and restaurants stand in a unique position to offer banquet hosts the option to make a conscientious consumer choice.

foreign the animal is to the common Hongkonger.

Education may be directed towards the aim of making not only the issue of shark conservation, but also the animal itself, more familiar to Hong Kong's general public. Building a more positive image for sharks is instrumental in promoting the need to conserve them.

Apart from helping Hong Kong people in getting to know sharks better, recognition how individuals may contribute to the protection of sharks, and other marine resources, as well as the impact each person can have as the ultimate consumers, are also necessary to elicit a will to conserve.

A deeper level of understanding for both shark and general marine conservation is crucial to initiate a pervasive and sustained change in attitudes towards sustainable use of marine resources.

ACTION #3: ENGAGE MAIN PLAYERS

Even when consumers understand how they may alter their choices to support the sustainability of sharks, they are powerless to act if sustainable options are not available on the market.

Results show how little people understand about sharks, and how foreign the animal is to the general Hongkonger.

The survey results indicate the ability of the Hong Kong government, banquet caterers (such as hotels and restaurants) and banquet hosts to provide informed and environmentally-conscientious consumer options.

Government: respondents have shown explicit support for the Hong Kong government to prohibit the sale of products that involve killing endangered species of all plants and animals. As a free market economy, intervention in business activities by the government is an unusual request for Hong Kong, possibly implying that local concern for the endangered species trade is quite high.

The distinction between prohibiting sales of products of endangered species and banning imports of shark fin (as supported by some) should here be highlighted. While prohibiting the sale of products killing endangered species can be justified, a complete ban on imports of shark fin indiscriminant of species may be unwise. **The goal is sustainability.** It is possible to continue the shark fin trade at sustainable levels using humane fishing methods, through which the precious Chinese tradition and the livelihoods of shark fin suppliers, traders, wholesalers and retailers can be preserved. In the case of endangered species, however, sustainable exploitation is no longer

feasible, and the only way for the survival of the species to be sustained is to cease all killing of them.

The most feasible path of action for the government would be to enhance regulation and monitoring capacities of the products being imported into Hong Kong, ensuring that only products from sustainable sources enter the local market, and that products belonging to species for which trade is prohibited do not enter the market illegally. To take this a step further, the government may also engage with fisheries and traders from source countries to initiate a collaboration that supports sustainable trade.

Banquet caterers: Hotels and restaurants are in a position to truly change the way shark fin soup is consumed by the majority. Most people come across shark fin soup because it is served in wedding banquets, where the menu items are set by the hosts, whom in turn are advised by the hotel and restaurant event managers. As aforementioned, providing *sustainable* or *no-fin* banquet menus gives customers both the incentive and the means to remove shark fin soup from their parties, thus reducing consumption for all their guests.

At the other end, banquet caterers are perhaps the greatest customers of shark

fin retailers and wholesalers. Just as they have the responsibility to ensure the quality of the foods they source, they may also take their quality control a step further, to ensure that their shark fin are not sourced from countries known to be engaged in illegal trading activities and irresponsible shark fisheries practices.

Company event organizers: Apart from educating the general public, other key consumers of shark fin should also be actively engaged to induce a change in habit. Corporate banquets were reportedly an occasion for shark fin consumption for 29.9% of the respondents. As these events, such as Annual Dinners, Christmas parties and Chinese New Year gatherings, are usually held regularly each year, there is a great potential for shark fin consumption to be reduced through commitment by companies, and enforcement by companies' event organizers,

To demonstrate their determination and support, companies may take a corporate pledge to eliminate shark fin soup from all corporate events. Companies committed to this will also set an example for others to follow.

No-fin banquet menus give customers both incentive and means to reduce shark fin consumption.

Most feasible path of government action: enhance regulation and monitoring capacities for Hong Kong's imports.

CONCLUSIONS

*"Have you ever thought about
The day when our ocean disappears,
Leaving no traces of the wondrous blue
And hustling sound of waves.*

*There is no more time to spare,
Saving our keepers in despair.
Out in the sea they fumble with no more
Strength to fight."*

*Lyrics from "Voice",
Written by Cuckoopella, 2015*

It appears that initiative to protect sharks and other endangered animals is already present among a large proportion of the survey respondents. For most, the willingness to reduce consumption of shark fin soup appears well established. The next step for shark conservation work in Hong Kong is to open up the city's capacity to support the changing consumer attitudes in practice. This includes, providing sustainable consumer choices that substitute shark fin soup at hotels and restaurants, educating consumers to understand the impact of their choices on the marine environment, and engaging with those who control the availability of sustainable options to the end consumers and limit the infiltration of illegal shark fins into the market, such as the local government and banquet caterers and hosts. Where commitment to abstain from shark fin is made, such as in individual companies, they should also be publicly announced, helping to create a society-wide trend of reducing shark fin consumption.

Shark fin consumption has been a tradition of the Chinese culture for thousands of years. The enhanced capacity of humans to capture sharks around the world, and improving economic status, has pushed this tradition beyond sustainable practice. The ready availability of shark fin and its widespread consumption has taken away the feature of shark fin soup as being a prized, prestigious and previous dish. Many forget that the continuity of the shark fin as it is known by tradition can only be preserved through upholding of its special status, and moreover, the continued survival of sharks.

The goal is sustainability. Consumers may continue to enjoy this Chinese delicacy, only if sharks will continue to exist. The discovery of sustainable shark fisheries and consumption practices is crucial to the continuity of both the animal and the tradition.

References

- Benchley, P. (1995). *Ocean planet: Writings and images of the sea*. J. Gradwohl (Ed). New York: H.N. Abrams, Inc. and the Times Mirror Magazines, Inc. in association with the Smithsonian Institution
- Census and Statistic Department (C&SD). (2015) Aquaculture fisheries statistics The Government of the Hong Kong Special Administrative Region
- Census and Statistic Department (C&SD). (2011) Hong Kong statistics *The Government of the Hong Kong Special Administrative Region*
- Clarke, S., McAllister, M.K., Milner-Gulland, E.J., Kirkwood, G.P., Michielsens, C., Agnew, D., Pikitch, E.K., Nakano, H., Shivji, M.S. (2006). Global estimates of shark catches using trade records from commercial markets. *Ecology Letters*, **9**, 1115-1126.
- Clason, D.L. & Dormody, T.J. (1994). Analyzing Data Measured by Individual Likert-Type Items. *Journal of Agricultural Education*, **35(4)**, 31-35.
- Converse, J.M. & Presser, S. (1986). *Survey Questions: Handcrafting the standardized questionnaire Series: Quantitative Applications in the Social Sciences*. California: SAGE Publications Inc.
- De Vaus, D.A. (2002). *Surveys in Social Research*. 5th edn. Allen & Unwin, Australia.
- Gliem, J.A. & Gliem, R. (2003). *Calculating, Interpreting, And Reporting Cronbach's Alpha Reliability Coefficient For Likert-Type Scales*. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, The Ohio State University, Columbus, OH.
- Interntaional Shark Attack File (ISAF) (2015) Statistics for the world locations with the highest shark attack activity (2005 – 2014) Retrieved from World Wide Web: <http://www.flmnh.ufl.edu/fish/sharks/statistics/statsw.htm>
- Krosnick, J.A. & Presser, S. (2010). Question and Questionnaire Design. In: *The Handbook of Survey Research (2nd Edition)*. (ed. Marsden, P.V. & Wright, J.D.). Emerald Group Publishing Ltd., Bingley, UK, pp. 263-314.
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, **140**, 1-55.
- Ross, C.K., Steward, C.A. & Sinacore, J.M. (1995). A comparative study of seven measures of patient satisfactioThe psychology of acquiescence: An interpretation of research evidence. In: *Response set in personality assessment* (ed. Berg, I.A.). Aldine, Chicago, pp. 115-145.
- Rojas-Bracho, L., Reeves, R. R., Jaramillo-Legorreta, A. & Taylor, B. L. (2008) Phocoena sinus The IUCN Red List of Threatened Species 2008: <http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T17028A6735464.en> Downloaded on 14 October 2015
- Sadovy, Y. & Cheung, W. L. (2003) Near extinction of a highly fecund fish: the one that nearly got away Fish and Fisheries, **4(1)**, 86 – 99
- Social Sciences Research Centre, The University of Hong Kong (HKUSSRC) (2010) Survey on consumption habits of shark fins and shark-related products in mainland China and Hong Kong Report submission May 2010 164 pp. *Unpublished*
- Worm, B., Davis, B., Kettmer, L., Ward-Paige, C.A., Chapman, D., Heithaus, M. R., Kessel, S. T. & Gruber, S. H. (2013). Global catches, exploitation rates, and rebuilding options for sharks. *Marine Policy*, **40**, 194-204.
- Winkler, J.D., Kanouse, D.E. & Ware, J.E. (1982). Controlling for acquiescence response set in scale development. *Journal of Applied Psychology*, **67(5)**, 555-561.