



First-tier Chinese Cities Sustainable Fishery Consumption Behavior Survey Report

2019



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- **Summary of Project Performance**
- Summary of Aquatic Consumers' Situation
- Future Work Instruction and Advice

02 Report Content

- Consumption Behavioral Habits
- Perceptions of Fishery
- Media Contact Habits
- High-potential Consumer Portraits

Reading Instruction - Report Glossary

Aquatic Product

- Includes marine products and freshwater products;
- Includes fresh and processed animal products.

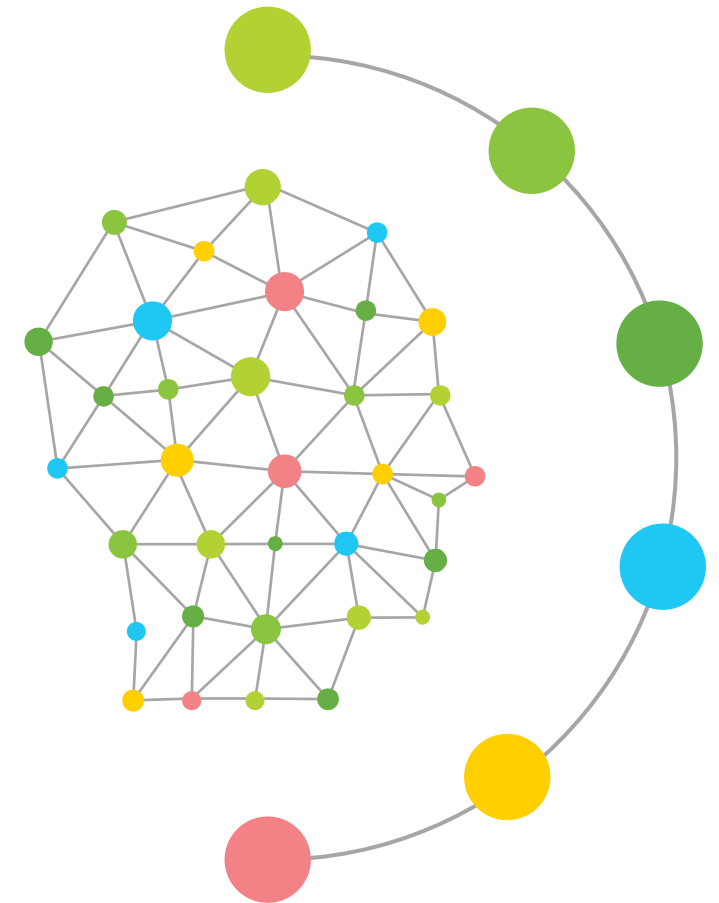
High-Potential Consumer

A consumer is classed as a high-potential consumer for the promotion of sustainable fishery if he/she meets the following three conditions:

- Supports the sustainable development of fishery: highly willing and relatively willing;
- Prefers sustainable fishery products: highly willing and relatively willing;
- Promotes sustainable fishery: highly willing and relatively willing.

TGI (Target Group Index)

- $TGI = \left[\frac{\text{Proportion of Group with a Specific Feature Among Target Groups}}{\text{Proportion of Groups with the Same Feature Among All Groups}} \right] \times 100$
- If the TGI equals 100, it indicates the average level; if the TGI is larger than 100, the feature is more significant; if the TGI is smaller than 100, the feature is weaker.
- For example, females occupy 30% of the target group, and the TGI is 120. Despite the small proportion of females among the target group, the over-100 TGI indicates that the proportion is higher than that among all groups. Hence, the female feature is more significant among the target group than all groups.



Project Background



Aquatic Consumption Habits

Understands the consumption scenarios, channels, frequencies, and the number of consumers, as well as goals, valued factors, influential factors and other consumption-driven factors.

Perception of Sustainable Fishery

Understands the consumer perception of the concept and various detailed content about sustainable fishery, and the willingness to support sustainable fishery.

Media Contact Habits

Understands the daily online and offline media contact habits of consumers and media forms that they think effective for the promotion of sustainable fishery.

High-Potential Consumer Portraits

Understands which aquatic consumers should be considered as key promotion targets and their key characteristics.



Project Performance - Quantitative Execution



Sample Source

- **Channel:** iClick survey platform of iResearch (small proportion of under-18s, and about the normal proportion for other attributes such as gender and income)
- **Method:** Fixedly targeting Beijing, Shanghai, Guangzhou, Shenzhen and Hangzhou, with random sampling of questionnaires
- **Sample conditions:** Aged 18 - 45 and who have consumed aquatic products over the past year

Execution Performance

- **Sample quantity:** Filtered, cleaned, and collected 2,556 valid questionnaires among a total of 5,608 participating consumers
- **City quota:** 511 for Beijing, 542 for Shanghai, 499 for Guangzhou, 485 for Shenzhen, and 519 for Hangzhou; all quantities with statistical significance
- **Under a 95% confidence level, the overall sample error is ±1.7%**

Project Performance - Qualitative Execution

Meeting room



Sample Source

- **Execution cities:** Beijing, Shanghai, Guangzhou, Hangzhou
- **Consumer invitation:** Random phone invitation from each city's sample database
- **Sample conditions:** Aged 18 - 45 and who have consumed aquatic products every week over the past year — stricter conditions than those of quantitative questionnaires to guarantee more representative data
- **Sample quota:** Including different genders, age groups, marital statuses, income levels, and industries (including typical industries in each city)

Execution Performance

- **Execution method:** Traditional materialized research method — Focus Group for information collection
- **Execution quantity:** Total of four focus groups and 32 consumers interviewed; each group in Beijing, Shanghai, Guangzhou and Hangzhou; eight people in each group which lasts for two hours
- **Execution quota:** **Gender** - 16 males and 16 females; **Age** - five 18-25 years old, nine 26-30 years old, seven 31-35 years old, five 36-40 years old, and six 41-45 years old; **Marital status** - 11 unmarried, 5 married without children, and 16 married with children; **Family income** - evenly distributed from 15,000 - 50,000 and in each typical **industry**

Monitor room





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Aquatic Consumption Behavior Summary

Around 60% of consumers cook at home and 40% consume aquatic products at restaurants; over 60% of the purchase occurs offline in both scenarios.

Consumption scenario	58.4% Purchase fresh products or processed products and cook at home		41.6% Consume cooked food at diners	
Online and offline ratio	36.8% Purchase online	63.2% Purchase offline	32.3% online purchase - delivery	67.7% Offline purchase - eat in
	Preference for offline purchase due to freshness by visual hints and convenience		Offline purchase due to concerns about freshness and taste of food	
Consumption channel	Mainly channels with relatively fast delivery such as Fresh Hema, Daojia JD, and Miss Fresh	Mainly supermarket channels such as aquatic supermarkets, general supermarkets, and fresh food supermarkets	Mainly two food delivery giants including Meituan and Eleme	Mainly seafood diners, seafood stalls, and buffets
Consumption category	Mostly fish (83.4%) and shrimps (82.6%)		Mostly fish (62.7%) and shellfish (61.4%)	
Consuming aquatic products in diners that are difficult to cook at home				



Aquatic Consumption Behavior Summary

Most consumers spend CNY 101 - 300 per purchase and typically 1-3 times a week.

Consumers (90.8%) who pay attention to marine and freshwater products show significantly higher interest in catching and cultivation.

Marine/ Freshwater products	Preferring marine products over freshwater products mainly because freshwater products do have the same kind of taste as marine products		
	9.2% Accepts both marine and freshwater products	90.8% Prefers marine products over freshwater products	
Consumption amount	Overall	Seafoods	Freshwater products
	Average ¥236.8	Average ¥320.7	Average ¥230.2
	Money spent on aquatic products each time is mostly in the range of CNY 101 - 300		
Consumption frequency	On average 7.9 times each month	On average 9.1 times each month	On average 9.9 times each month
	Frequency of aquatic product consumption is one to three times each week		
Cultivated/ Caught	51.1% Cares about whether aquatic products are cultivated or caught	95.3% Cares about whether aquatic products are cultivated or caught	92.4% Cares about whether aquatic products are cultivated or caught
	79.2% Prefers caught	79.0% Prefers caught	56.7% Prefers caught



Aquatic Consumption Driving Factor Summary

Aquatic products are consumed for their healthiness and taste but attention is also paid to the freshness and safety

Consumers are easily influenced by internet key opinion leaders (KOLs) in nutrition, health and food, and by recommendations when choosing aquatic products in restaurants

Purpose of aquatic consumption

The purpose of consuming aquatic products is for the nutrition/healthiness (71.7%) and tastiness/cooking methods (69.7%).

Concerning factors of aquatic consumption

Aquatic consumers pay most attention to the freshness (80.2) and safety (72.4) when purchasing aquatic products.

Influence factors of restaurant consumption

Restaurant recommendations (69.5%) is the main factor that influences consumers when choosing aquatic products.

Influence from Internet KOLs

92.8% of consumers are influenced by Internet KOLs when choosing and consuming aquatic products, with KOLs in nutrition and health (66.6%) and food (64.6) have the strongest influence.



Fishery Perception Summary

Consumer perception of the proportion of aquaculture is significantly lower than the actual level. They are more aware of the harm of over/illegal fishing than the potential harm of aquaculture.

Yield perception	52.3% Consumer-perceived average proportion of aquaculture	47.7% Consumer-perceived average proportion of capture fishery
	Actually 76.1%	Actually 23.9%
Potential harm perception	81.7% Aware of the potential harm of aquaculture	96.6% Aware of the harm of over/illegal fishing
	28.1% of consumers are unaware of the harm of illegal use of chemicals	28.6% of consumers are unaware of the importance of catching only the matured and freeing the young fish
	43.4% of consumers are unaware of the importance of proper use of fishery medicines	34.3% of consumers are unaware of the harm of dense fishing nets on fishery resources
	25.9% of consumers are unaware of the importance of the water quality of the cultivation area	34.8% of consumers are unaware of the importance of limiting the amount of fishing
	24.0% of consumers are unaware of the importance of the density of cultivated aquatic products	24.9% of consumers are unaware of the relationship between forbidden fishing areas and fishery resource protection

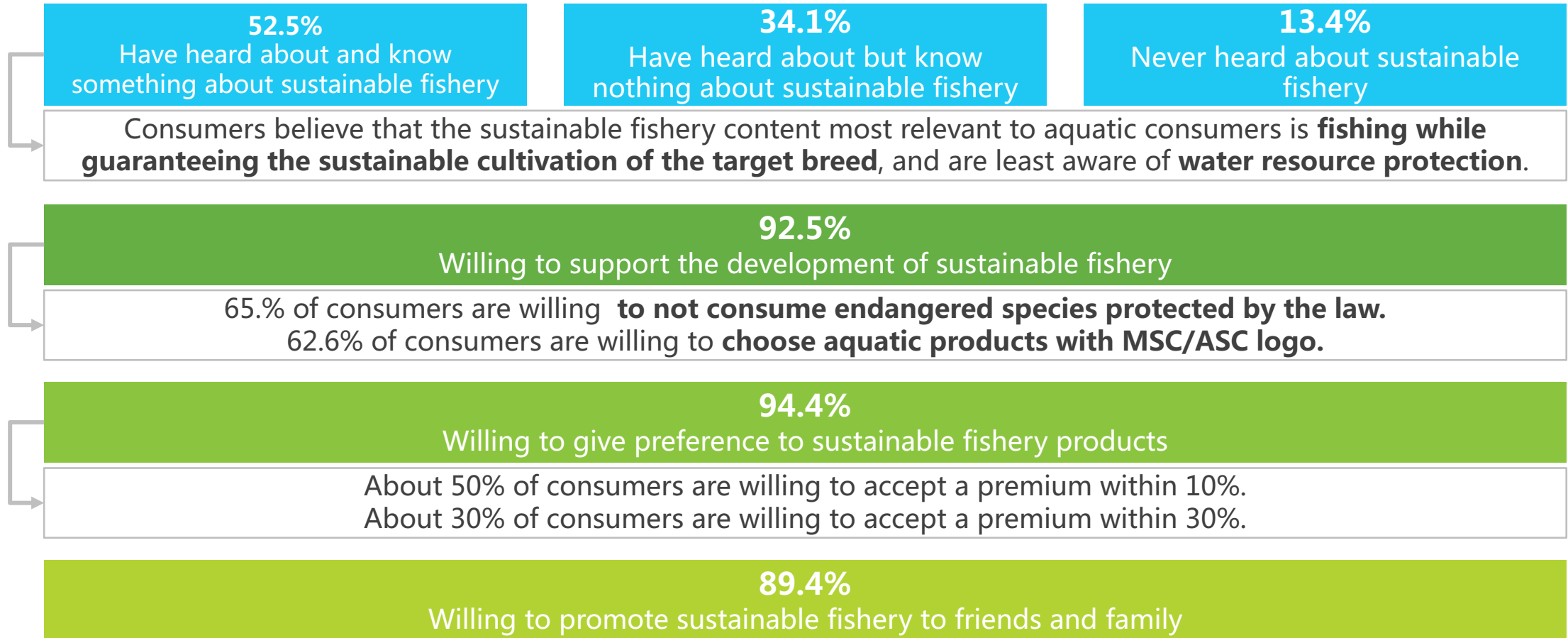
The top three perceived marine pollutants are heavy metal, organic waste water, and solid waste.
The top three least perceived marine pollutants are waste heat, atmospheric particulates, and strong acid and base.

*Actual proportion data of cultivation fishery and caught fishery comes from "2018 China Fishery Statistics Yearbook".



Sustainable Fishery Perception Summary

Consumer perception of sustainable fishery needs to be changed, but willingness to support it is high.





Media Contact Habit Summary

Consumers believe that videos are an effective way to promote sustainable fishery, and the offline activity that they are most willing to participate in is outdoor activities.

Content related to consumers' needs can be most useful when promoting the ads, with quality audiovisual effect and advertising copy further enhancing the ads.

Information channel

Online promotion on WeChat and news information apps

The most frequently used online information channels are WeChat (76.6%) and news information apps (65.1%), with news information being the most effective promotion form for consumers.

Offline ads on the inside and outside of buildings

The most frequently used offline information channels are inside and outside building advertising (60.9%), TV advertising (59.5%), and transit advertising (59.5%).

Promotion form

Video advertising - the most effective

Videos are the advertising form that can most easily draw consumers' attention and are also the most accepted media form for sustainable fishery.

Scenario-based offline activities - more popular

Offline commonwealth activities for sustainable fishery that consumers are most willing to participate are *outdoor activities such as leisure fishing* and *aquariums/lectures*.

Ad content

Associated advertising and consumption needs for consumer resonance

Elements that can best attract consumers to the ads are those which are related to consumers' needs, product attractiveness is the most effective amongst these.

Quality audiovisual effect and advertising copy for enhanced ads

The second element that attracts consumers to the ads is content favored by consumers, with quality audiovisual effects and copy being the most favored.



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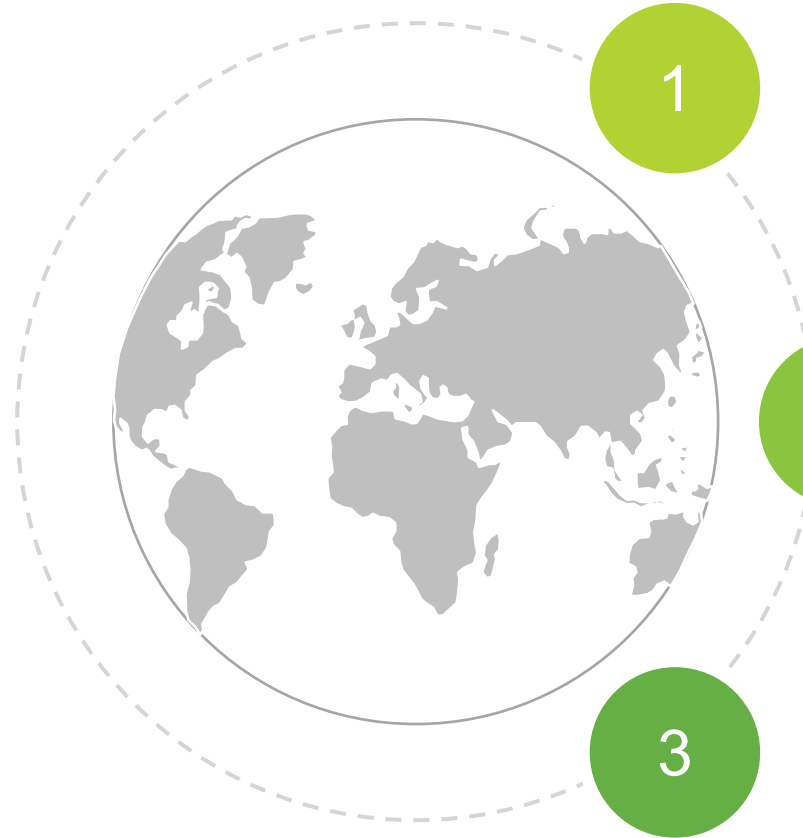
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Sustainable Fishery Advice - Country Level



Strengthening the control of fishing off seasons

- *Strengthen the control of fishing off seasons. The density of fishing nets is crucial, in a way that young fish can pass through. The old and mature fish cannot all be caught and die out. — Beijing, Mr. Li, aged 34*
- *The monitoring strength of the government should be improved. For example, some fish during the fishing off season can still be found on the market. — Shanghai, Mr. Gao, aged 35*

Consideration for fishermen's benefits

- *The fishing off season is long. Apart from fishing off, the living of fishermen should be considered. The government cannot suspend small-scale fishing companies but keep the large ones. Considerations should be given in all aspects. — Beijing, Mr. Xie, aged 44*
- *Despite the consumption volume, if the local economic structure is not changed, fishermen's lives will always be the same because they belong to the first link of the industry chain. The prices have gone up, but fishermen's income has not. The money has gone to brand owners. — Beijing, Mr. Li, aged 34*

Impartial and strict law enforcement

- *Where does the extra money paid for sustainable fishery go? Authorities should explain that to people. — Hangzhou, Mr. Li, aged 41*
- *Strict law enforcement. Many chemical enterprises do not meet the eco-friendly standards but yet still discharge chemicals. Inspections should be increased and stronger punishments are needed. — Shanghai, Mr. Zhu, aged 30*
- *The national legislation should be stricter and ban illegal fishing. — Shanghai, Mr. Chen, aged 41*



Sustainable Fishery Advice - Industry Level

1

Industry standards established for water quality, fishing net density, and fish product processing

- *Fish that are bought should be traceable and the water quality should reach a certain level so that consumers can be rest assured. But in most cases, such standards are not met. — Shanghai, Mr. Chen, aged 41*
- *I'm against fishing without leaving offspring. I often go to the beach, and I can see that the fishing nets of those small fishing boats catch everything they can. They would rather catch the baby crabs and sell them to others to be ground into power for calcium tablets. And like baby silvery pomfrets, what for? — Shanghai, Mr. Chen, aged 41*
- *Standards should be established so that harmful substances are not added during fish processing or certain quality control is enforced. — Beijing, Mr. Xie, aged 44*

2

Proper handling of operational wastes such as putrefactions, waste water, and garbages

- *Dead fish certainly exist in cultivation. Many of them are directly discharged along with water after they have gone rotten. Such fish should be gathered and buried to reduce pollution. — Hangzhou, Mr. Li, aged 41*
- *Many fishing boats that go fishing in international waters perform processing while fishing, and wastes are directly discharged in the water, polluting the sea. — Beijing, Mr. Xie, aged 44*
- *Waste water of the boats, feces of the seamen, and household wastes all cause pollution. — Guangzhou, Mr. Zhang, aged 24*

3

Establishment of organizations and supervision departments for sustainable fishery

- *A dedicated department should be established for sustainable fishery which should have dedicated personnel managing it. Each province and each city has such specialized talents. Be it the East China Sea, South China Sea, or any other sea, all coastal cities should join in to establish such an organization. — Hangzhou, Mr. Li, aged 41*
- *I think establishment of a supervision department will be helpful. Supervision is crucial, and then the process should be popularized to us civilians. — Hangzhou, Mr. Wang, aged 24*



Sustainable Fishery Advice - Consumer Level



Banning the consumption of illegal aquatic products

- *I like eating rare species. But if I'm clearly told that certain species are protected and it's illegal to eat them, I won't eat them. If you don't tell me that, I will eat them as long as you sell them. In that case, It is not my fault as I did not know. — Shanghai, Mr. Chen, aged 41*

Attention and care for marine ecological environment

- *Do not litter in to the ocean when on vacation. When I was visiting Thailand, white trash was floating on the ocean surface and creating pollution because it can't be degraded. — Beijing, Mr. Liu, aged 38*
- *Protect animals, protect fisheries, and protect the marine environment. — Shanghai, Ms. Chen, aged 42*

Promotion of sustainable fishery

- *If I see links that warn people about certain fish species becoming endangered, I will share on my WeChat Moments. — Shanghai, Ms. Chen, aged 24*
- *If I see stuff in WeChat Moments and I'm touched by it, I will share it. — Hangzhou, Ms. Yang, aged 37*
- *It should be appealed. Through Weibo, Moments, or word of mouth, such stakes should be explained to people around us. — Shanghai, Mr. Yao, aged 33*



WHAT Can Commonwealth Organizations Do

Raising awareness of the fact that everybody counts in promoting and supporting sustainable fishery

- *I don't want to share on WeChat Moments because no one will respond. Even the government does not promote that, I alone can't do much. — Hangzhou, Ms. Yuan, aged 33*
- *The government needs to popularize it. We won't make much difference. — Hangzhou, Ms. Fang, aged 30*
- *Decrease the use of plastic bags, and use recycled bags instead. I don't think there's much else I can do. I don't live near the sea and I don't fish. — Hangzhou, Ms. Fang, aged 30*
- *I don't think I can do much. I live too far from the sea. — Hangzhou, Ms. Gong, aged 25*

Enhanced promotion and popularization of sustainable fishery knowledge so that consumers understand the meaning of it

- *How can I promote sustainable fishery when I don't even know what kind of concept that is? Are fish products from sustainable fishery fresher, safer or what? News has been promoting the benefits of sustainable fishery and that concept has been incepted. I will certainly support it and promote it to friends and family. — Hangzhou, Mr. Li, aged 41*
- *I won't necessarily give preference to sustainable fishery. I don't quite understand its meaning. We eat green food because it's good for our health. What is sustainable fishery? Does it mean products have a better taste and does it benefit fisheries? — Shanghai, Ms. Chen, aged 24*
- *Maybe we have more or less done something related to sustainable fishery. But when talking about the concept, we don't quite understand it. For example, when people go fishing, they keep the large fish and free the small ones. That's an act for sustainable fishery, but if you ask them what this is, they wouldn't know. — Hangzhou, Ms. Gong, aged 25*

Guidance to reasonable consumption

- ✓ Invite nutrition, health and food Internet KOLs to promote sustainable fishery, and appeal to restaurants to use and recommend sustainable fishery products.
- ✓ Set freshness and safety as the selling points of sustainable fishery products to attract consumers.



HOW to Effectively Promote Sustainable Fishery

Ad delivery in densely populated areas

- *Jiao Tong Zhi Sheng has the most listeners. I listen to it during the morning and evening peak hours. I think it is suitable that this radio advertises sustainable fishery. During the Spring Festival travel season, 1.3 billion people are on the road. They can't be getting on the train immediately after arriving at the station, so this period of time is excellent for promotion. — Hangzhou, Mr. Li, aged 41*
- *Densely populated areas will have good promotion effect, such as train stations, department stores, and supermarkets. — Hangzhou, Mr. Zhou, aged 30*

Video ads with little compulsivity for better effect

- *People at the cinema are often focused on the ads before a movie starts. — Beijing, Mr. Liu, aged 38*
- *Elevator advertising can best grasp people's soft spots. When people wait for elevators or when there's no signal in the elevator, they have to stare at the screen for the time being. This has really good effect and deepens their understanding; after all you have to watch them every day for some 20 days a month. — Shanghai, Mr. Chen, aged 41*

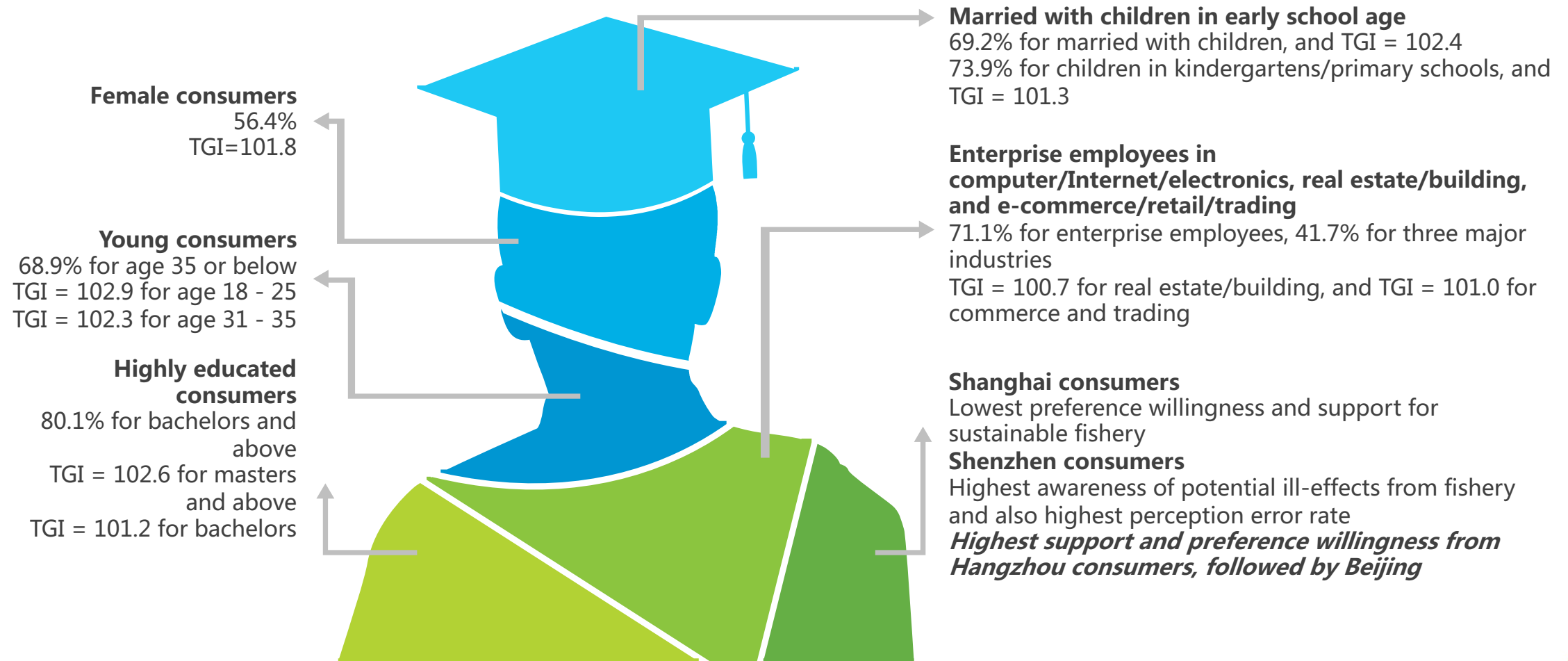
Long-term promotion from an early stage

- *Promotion needs to be long-term instead of periodical. Starting with kids, promotions can be shown at school gates for parents to watch while waiting for their children. Besides, with the concept ingrained in children's minds, they will naturally support sustainable fishery when they grow up. — Shanghai, Mr. Yao, aged 33*
- *Promotion brochures should be placed at schools, especially kindergartens and primary schools. Because kids will have the awareness if you teach them when they are very young. To really achieve public benefits, long-term visual clues and understanding are essential. People won't remember it if they only see it once or twice. — Guangzhou, Ms. Wen, aged 39*



WHO Are the Key Promotion Targets

Percentage indicates the population base, and TGI indicates the promotion quality in the group.





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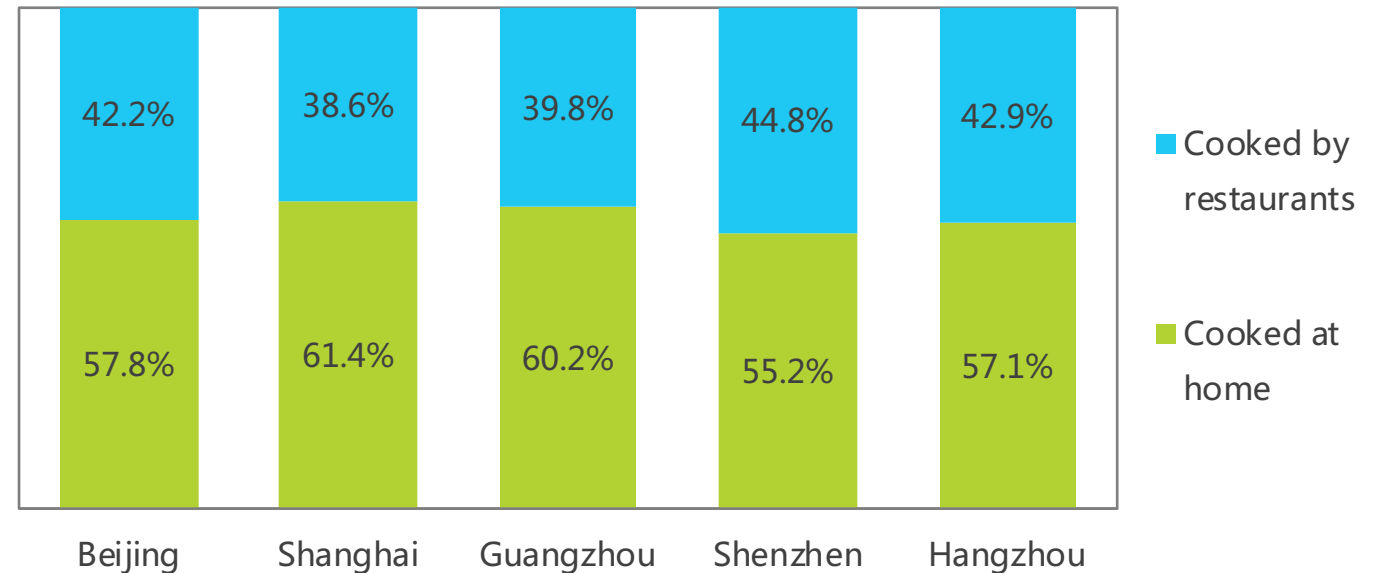
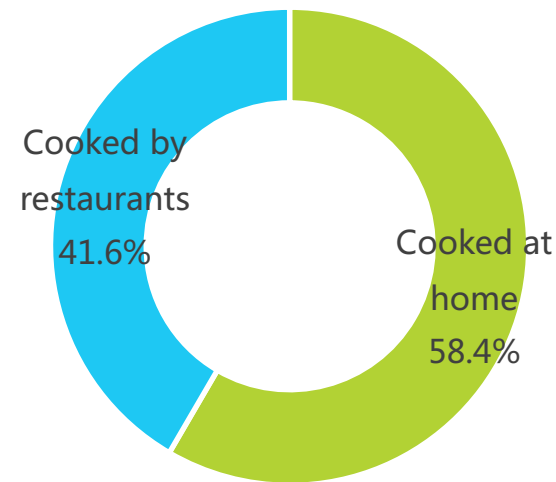


Aquatic Product Consumption Scenarios

Aquatic Products Are Largely Cooked at Home

- Aquatic products are largely cooked at home, making up to 58.4% of the total. All citizens prefer to cook aquatic products at home.
- This figure is even higher in Shanghai and Guangzhou, which is over 60%, compared with only 55.2% in Shenzhen.

Aquatic Product Consumption Scenarios



Question: When you consume aquatic products, what are the proportions in terms of the following scenarios?
Sample amount: Total N = 2556, Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519.

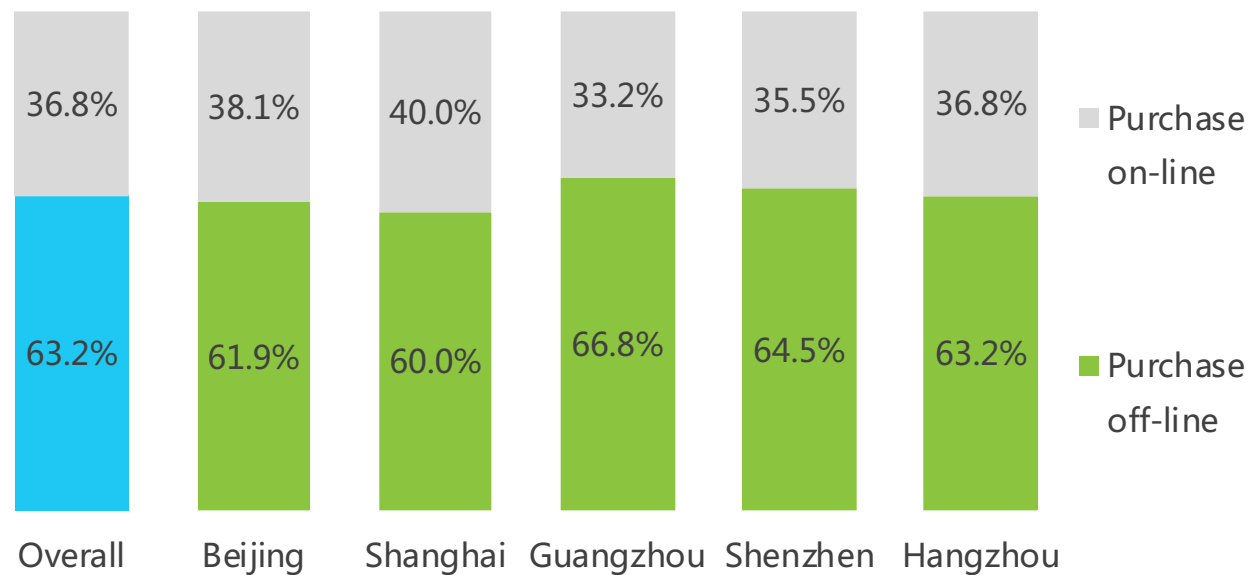


Consumption Channels — Ratio of Online Purchase to Offline Purchase When Aquatic Products Are Cooked at Home

Consumers Prefer Offline Purchase When Aquatic Products Are Cooked at Home

- When aquatic products are cooked at home, 63.2% of consumers choose offline purchase, which is convenient and ensures product freshness.
- However, compared with those in Guangzhou and Shenzhen, more consumers purchase aquatic products online in Shanghai and Beijing.

Ratio of Online Purchase to Offline Purchase When Aquatic Products Are Cooked at Home



Why do consumers prefer offline purchase?

Fresh & observable

- *I can buy live products offline. When I buy the so-called live products online, I usually only get the dead ones instead. — Beijing, Mr. Lu, aged 26*
- *I will not usually buy them online, because I need to observe the freshness. You know, fresh fish and shrimps taste better. If I buy them online, I may get dead ones instead. — Hangzhou, Mr. Li, aged 41*

Close to home & convenient

- *Our family buy them offline, because a food market is situated near our house. Besides, there is a Jingshen Seafood Market several kilometers south of where we live. So for us it is convenient to buy aquatic products offline. — Beijing, Mr. Li, aged 34*
- *I usually buy them at Fresh Hema near my house. It is convenient. — Shanghai, Ms. Li, aged 28*

Question: What are the proportions of online purchase and offline purchase if you cook aquatic products at home?
Sample amount: Total N = 2538, Beijing N = 505, Shanghai N = 537, Guangzhou N = 499, Shenzhen N = 480, and Hangzhou N = 517.

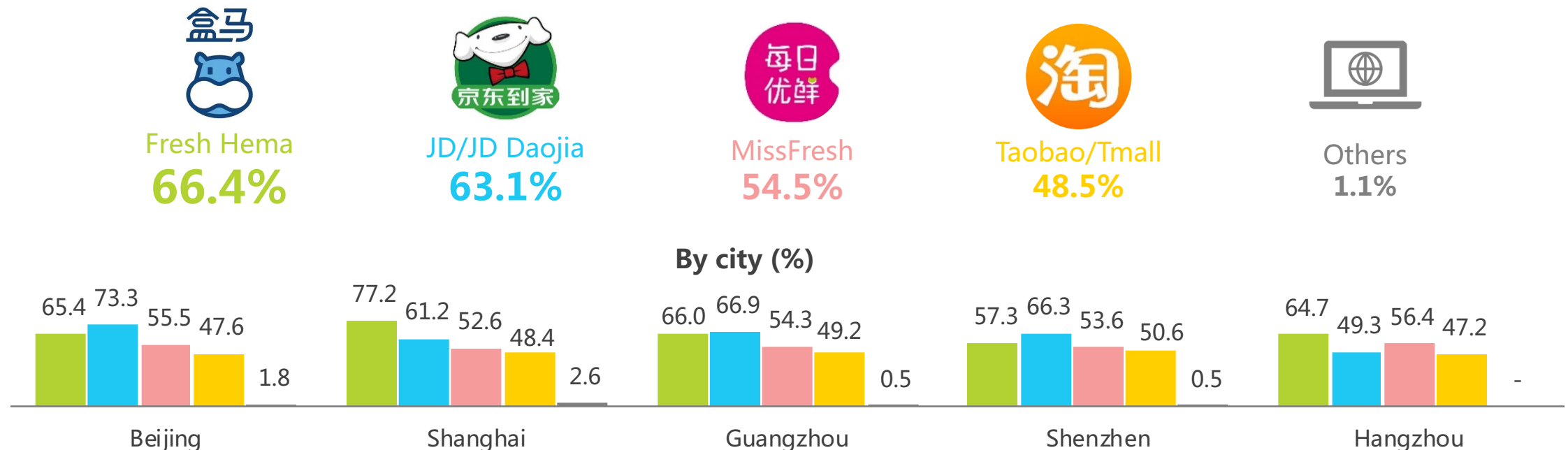


Consumption Channels — Online Purchase When Aquatic Products Are Cooked at Home

E-Commerce Channels with Quick Shipping Are Preferred for Online Purchase When Aquatic Products Are Cooked at Home

- The most frequently used online purchase channels include Fresh Hema, JD Daojia, MissFresh, and other e-commerce channels with quick shipping.
- The most frequently used channel in different cities varies depending on the locality of the channel.** For example, consumers in Shanghai and Hangzhou mainly use Fresh Hema that belongs to Alibaba Group. In Hangzhou, the usage of JD/JD Daojia is even lower than that of MissFresh. However, in Beijing, Guangzhou, and Shenzhen, most consumers use JD/JD Daojia.

Online Purchase Channels for Consumers When Aquatic Products Are Cooked at Home



Question: Which online channel do you usually choose if you cook aquatic products at home?

Sample amount: Total N = 2239, Beijing N = 454, Shanghai N = 492, Guangzhou N = 435, Shenzhen N = 433, and Hangzhou N = 479.



Consumption Channels — Offline Purchase When Aquatic Products Are Cooked at Home

Supermarkets Are Preferred for Offline Purchase When Aquatic Products Are Cooked at Home

- The most frequently used offline purchase channels include fish supermarkets, general stores, fresh food supermarkets, and other supermarkets.
- **The most frequently used offline channel varies depending on cities.** For example, consumers in Beijing prefer general stores, those in Shanghai prefer food markets, community service stations, and organic markets, those in Guangzhou and Hangzhou prefer fish markets and fish supermarkets, and those in Shenzhen prefer fresh food supermarkets and fresh food convenience stores.

Offline Purchase Channels for Consumers When Aquatic Products Are Cooked at Home



Fish markets
/supermarkets
65.8%



General stores
65.3%

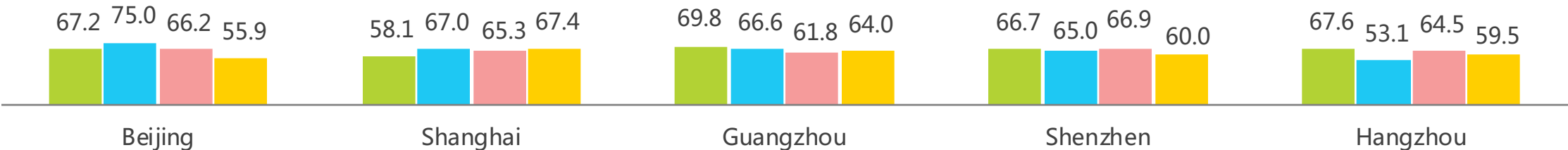


Fresh food supermarkets
/convenience stores
64.9%



Food markets/community service
stations/organic markets
48.5%

By city (%)



Question: Which offline channel do you usually choose if you cook aquatic products at home?
Sample amount: Total N = 2516, Beijing N = 503, Shanghai N = 528, Guangzhou N = 497, Shenzhen N = 472, and Hangzhou N = 516.

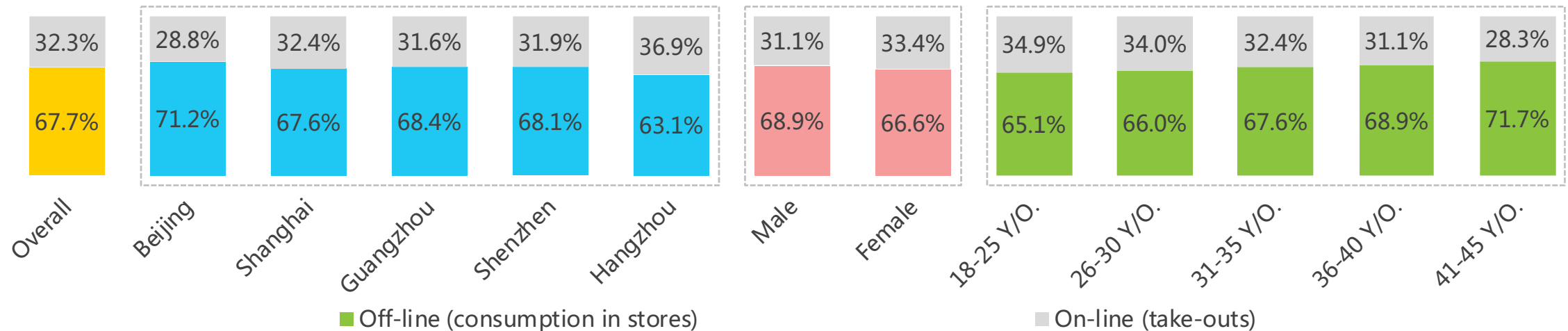


Consumption Channels — Ratio of Online Purchase to Offline Purchase When Aquatic Products Are Cooked by Restaurants

Consumers Prefer Offline Purchase When Aquatic Products Are Cooked by Restaurants

- 67.7% of consumers prefer offline purchase, due to worries over receiving stale take-outs that have an unpleasant taste
- Based on the statistics, more consumers in Beijing prefer offline purchase than those in other cities, and more males tend to go to restaurants for consumption than females. In addition, **the offline purchase group grows larger as group members age**.

Ratio of Online Purchase to Offline Purchase When Aquatic Products Are Cooked by Restaurants



Why do consumers tend to avoid take-outs?

Worries over receiving stale food that has an unpleasant taste

- *I do not order aquatic product take-outs in case they are cooked a long time after death. They would be unpleasant to taste. Fresh ones are better. — Beijing, Ms. Li, aged 34*
- *Take-outs are not fresh and do not taste as good. I am unable to check the freshness of the products being cooked. — Shanghai, Mr. Chen, aged 41*
- *Freshness, that's the main concern. It may be a while before I receive my take-outs, which could affect the taste. Furthermore, I am worried about receiving food that does not meet the described quality. — Guangzhou, Mr. Xie, aged 36*

Question: If you consume aquatic products that are cooked by restaurants, what are the proportions of your online purchase to offline purchase?

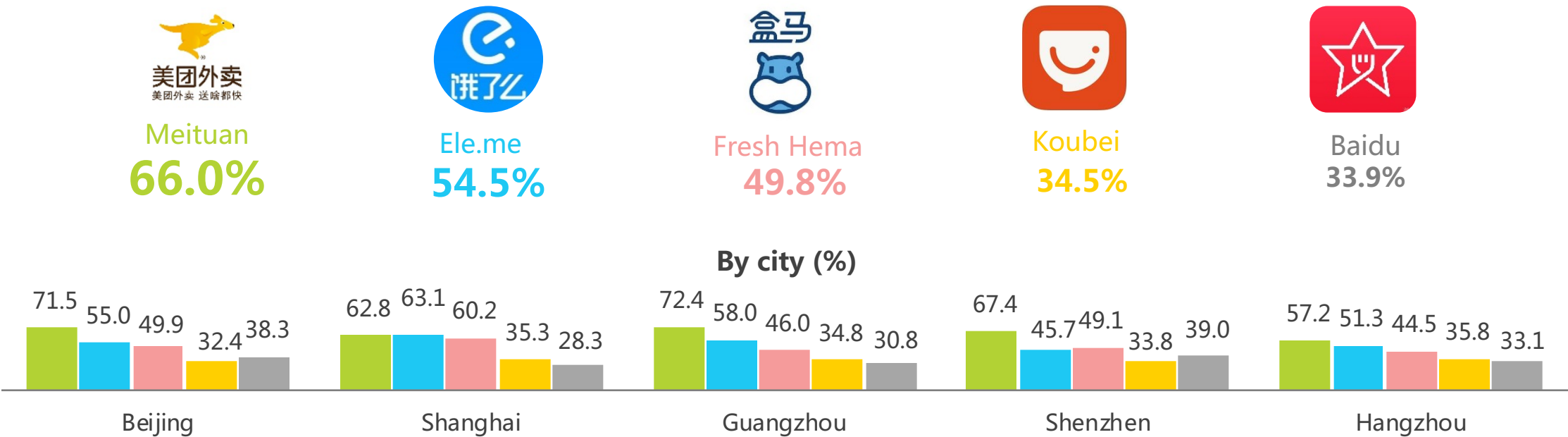
Sample amount: Total N = 2495, Beijing N = 500, Shanghai N = 518, Guangzhou N = 494, Shenzhen N = 469, Hangzhou N = 514, males N = 1116, females N = 1379, people aged 18 to 25 N = 228, people aged 26 to 30 N = 720, people aged 31 to 35 N = 767, people aged 36 to 40 N = 492, and people aged 41 to 45 N = 288.



Take-out Industry Giants Are Preferred for Online Purchase When Aquatic Products Are Cooked by Restaurants

- The most frequently used online purchase channels include Meituan and Ele.me. The usage of Fresh Hema is higher than that of Koubei and Baidu .
- Similar to the previous scenario, where aquatic products cooked at home were purchased online, **the most frequently used online purchase channel in this scenario varies depending on the locality of the channel.** For example, Meituan users outnumber Ele.me users in most cities except for Shanghai, which houses the headquarter of Ele.me. In addition, the gap is narrower between Meituan and Ele.me in Hangzhou than in Beijing, Guangzhou, and Shanghai, because Ele.me belongs to Alibaba Group.

Online Purchase Channels for Consumers When Aquatic Products Are Cooked by Restaurants



Question: Which online channel do you usually choose when you consume aquatic products cooked by restaurants?
Sample amount: Total N = 2103, Beijing N = 407, Shanghai N = 417, Guangzhou N = 402, Shenzhen N = 405, and Hangzhou N = 472.

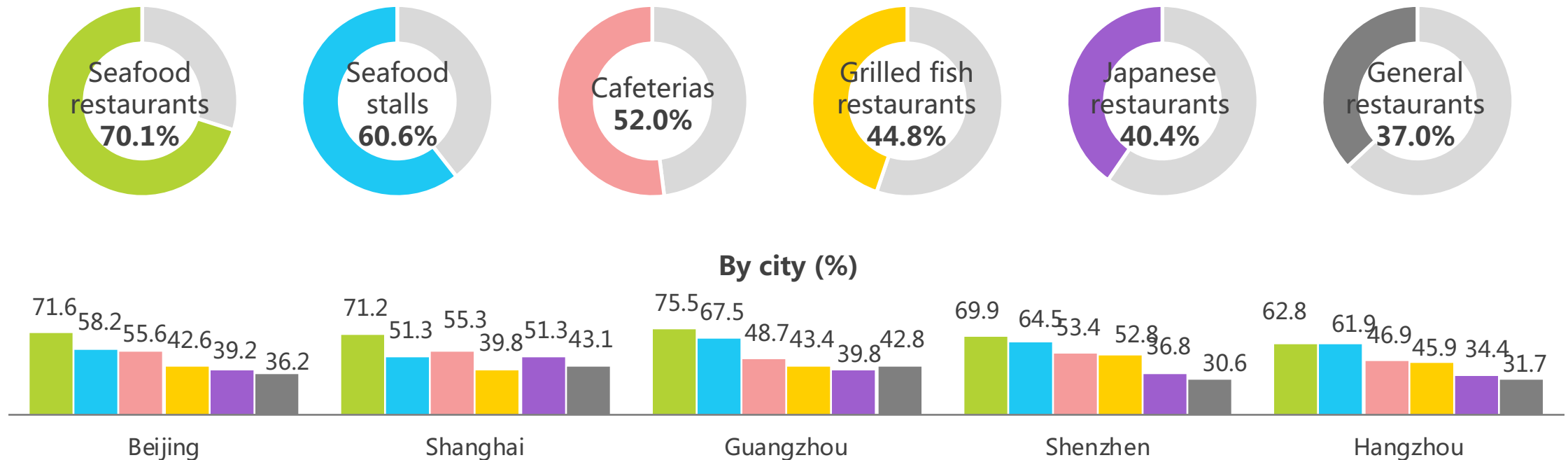


Consumption Channels — Offline Purchase When Aquatic Products Are Cooked by Restaurants

Seafood Restaurants Are Preferred for Offline Purchase When Aquatic Products Are Cooked by Restaurants

- The most frequently visited restaurants for offline purchase are seafood restaurants and seafood stalls. Seafood restaurants are mostly welcomed in all cities.
- Different from those in other cities, more consumers in Shanghai prefer cafeterias than stalls. In addition, fewer middle-class consumers in Shanghai go to seafood stalls and grilled fish restaurants than their counterparts in other cities. However, visits to Japanese restaurants in Shanghai are higher than those in other cities.

Offline Purchase Channels for Consumers When Aquatic Products Are Cooked by Restaurants



Question: Which offline channel do you usually choose when you consume aquatic products cooked by restaurants?

Sample amount: Total N = 2492, Beijing N = 500, Shanghai N = 517, Guangzhou N = 493, Shenzhen N = 468, and Hangzhou N = 514.

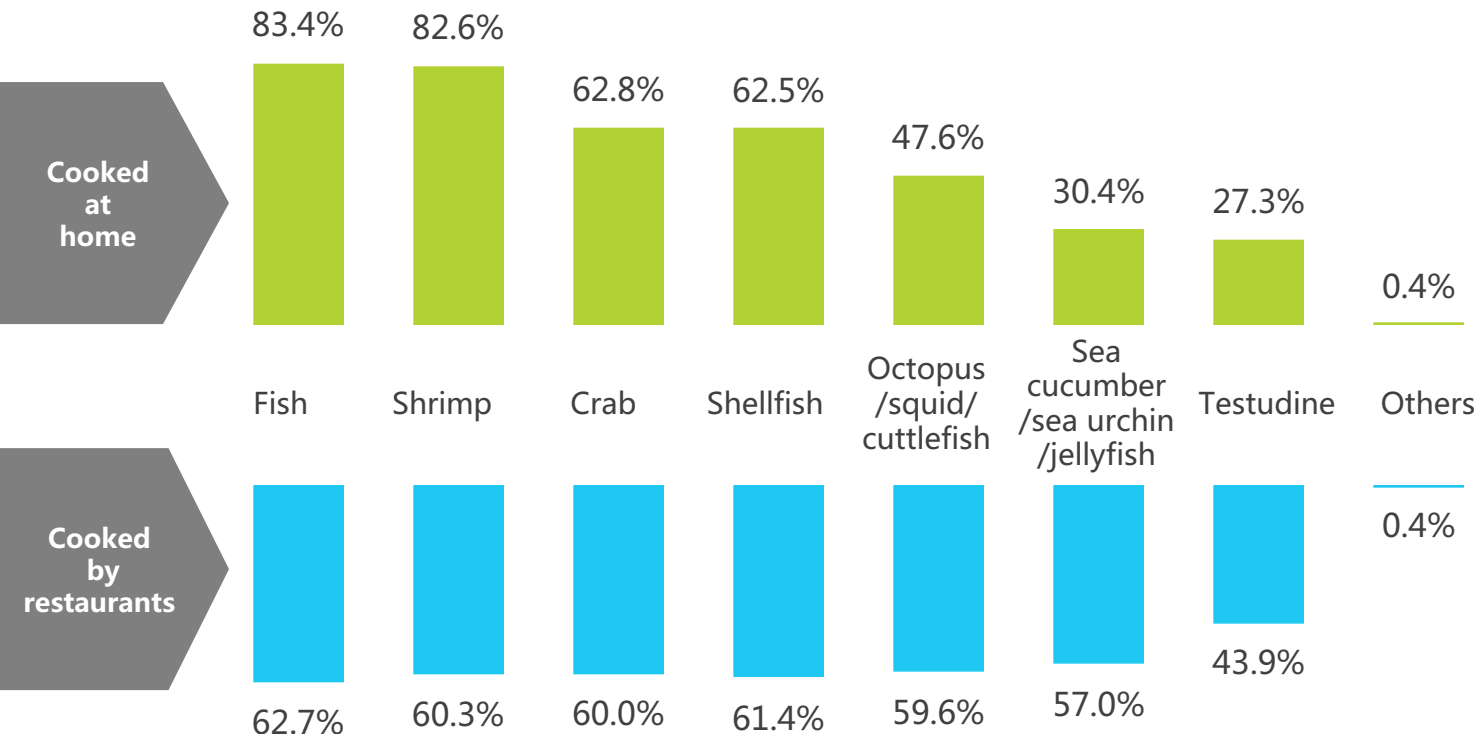


Aquatic Product Consumption Regarding Categories

Fish Are the Most Commonly Consumed Aquatic Products Both at Home and in Restaurants

- Fish are the most commonly consumed aquatic products both at home and in restaurants. In addition, shrimps are more welcomed at home while shellfish are more welcomed at restaurants.
- Compared with cooking at home, consumers tend to order products rarely available or products that need complicated processing and are difficult to cook well when they go to restaurants. Based on statistics, consumers tend to cook fish, shrimps, crabs, and shellfish at home, while ordering octopus, squids, cuttlefishes, sea cucumbers, sea urchins, jellyfishes, and testudines at restaurants.

Aquatic Product Consumption Regarding Categories



What are the differences between cooking at home and consumption at restaurants?

Complicated processing

- When I am not at home, I will eat products that are hard to cook well. — Beijing, Mr. Lu, aged 26
- At home, I just scald the foods and I am not good at frying. So I will definitely order delicious dishes at restaurants. — Guangzhou, Ms. Wu, aged 29
- At restaurants, I like to eat foods that require complicated processing, something I am not confident doing myself. — Guangzhou, Mr. Xie, aged 36

Special flavors

- I do not have many ingredients at home, so I cannot replicate all flavors of the dishes made by restaurants. — Guangzhou, Mr. Huang, aged 42
- Fish cooked at home is not as delicate compared to when it is cooked at restaurants. — Hangzhou, Mr. Li, aged 41

Eat what you cannot buy at restaurants

- I will order products that are rarely available in markets. — Hangzhou, Ms. Yuan, aged 33
- I usually buy bred basses, but those at restaurants are said to be wild-capture. — Hangzhou, Ms. Fang, aged 30

Question: Which of the following aquatic product categories do you usually consume?
Sample amount: Cooking at home N = 2538 and consumption at restaurants N = 2495.

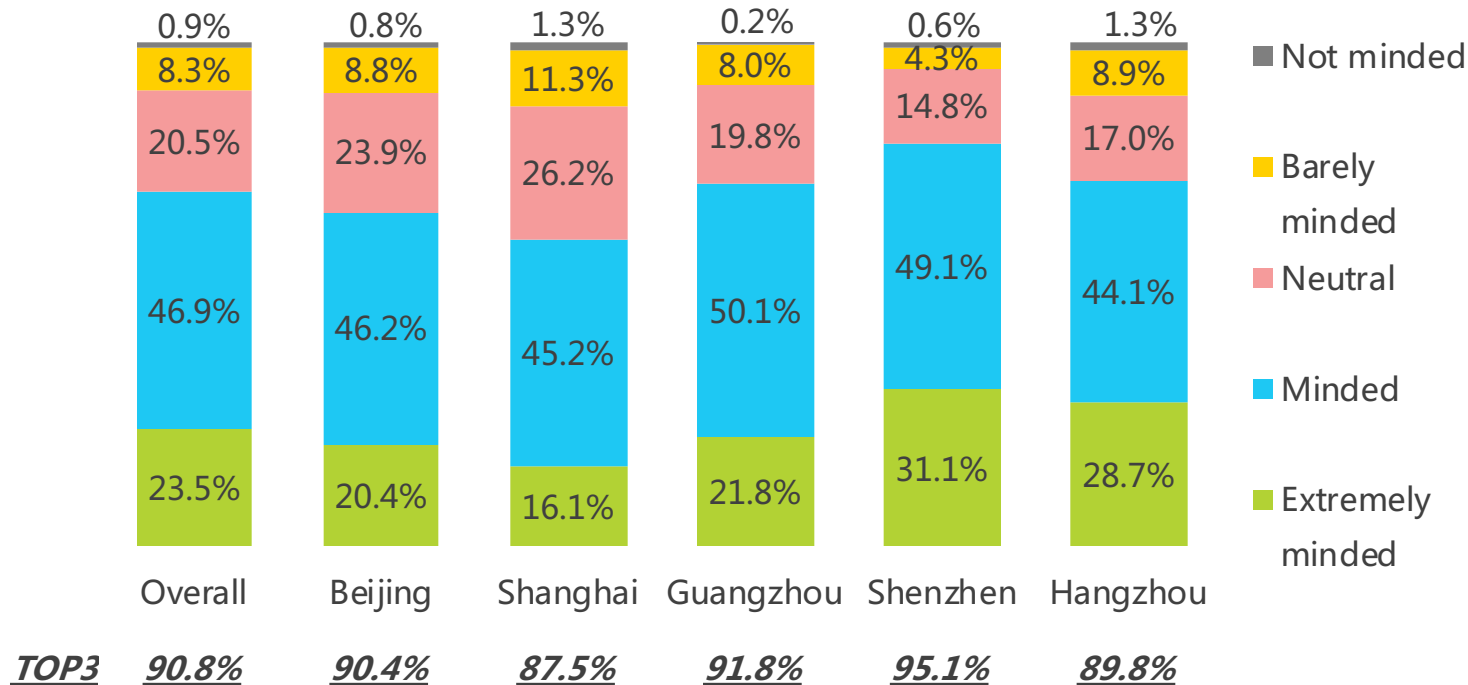


Mindedness of Aquatic Product Source

Most People Care about Whether the Purchased Products Come from the Ocean or Freshwater

- Statistics show that 90.8% of people pay attention to whether the purchased aquatic products come from the ocean or freshwater, and nearly a quarter of people pay extreme attention to the product source.
- Among them, Shenzhen consumers care the most while Shanghai consumers care the least.

Mindedness of Aquatic Product Source



Why do consumers care about the aquatic product source?

Delicate

- Freshwater fish are not delicate enough except for a handful of them like coilia nasus. People who love seafood would find freshwater fish less tasty. — Shanghai, Mr. Chen, aged 41
- 90% will be seafoods. I think seafoods are cleaner and more delicate. — Shanghai, Mr. Gao, aged 35
- 90%, I eat seafood. I think those from rivers have a flavor of silt. — Hangzhou, Ms. Yang, aged 37

Tasty

- The flesh of seafoods is denser than that of freshwater products. — Guangzhou, Ms. Wu, aged 29

Question: Do you mind whether the purchased products come from the ocean or freshwater?

Sample amount: Total N = 2556, Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519, males N = 1139, and females N = 1417.



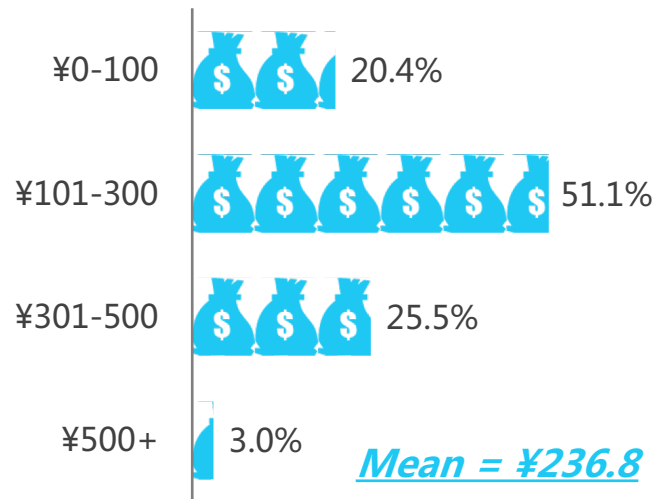
Aquatic Product Consumption Amount

Price of Each Consumption of Aquatic Products Ranges from 101 to 300 RMB in General

- If the price of each consumption is higher than 500 RMB, consumers who care about the aquatic product source outnumber those who do not care.
- Among those who care about the product source, consumers pay much more per purchase **for seafood** (320.7 RMB) than **freshwater products** (230.2 RMB) because seafood is more expensive.

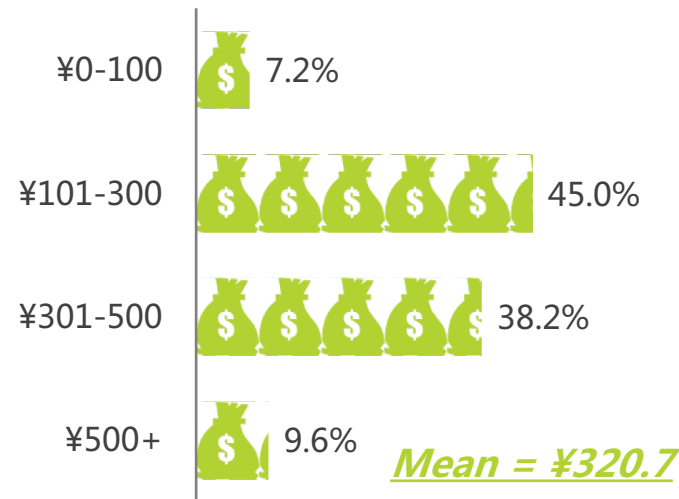
Consumers Who Do Not Care about the Aquatic Product Source

Overall consumption amount

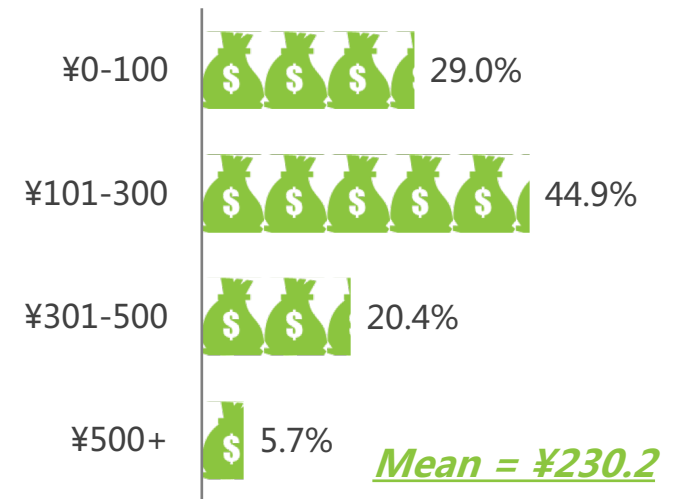


Consumers Who Care about the Aquatic Product Source

Seafood consumption amount



Freshwater product consumption amount

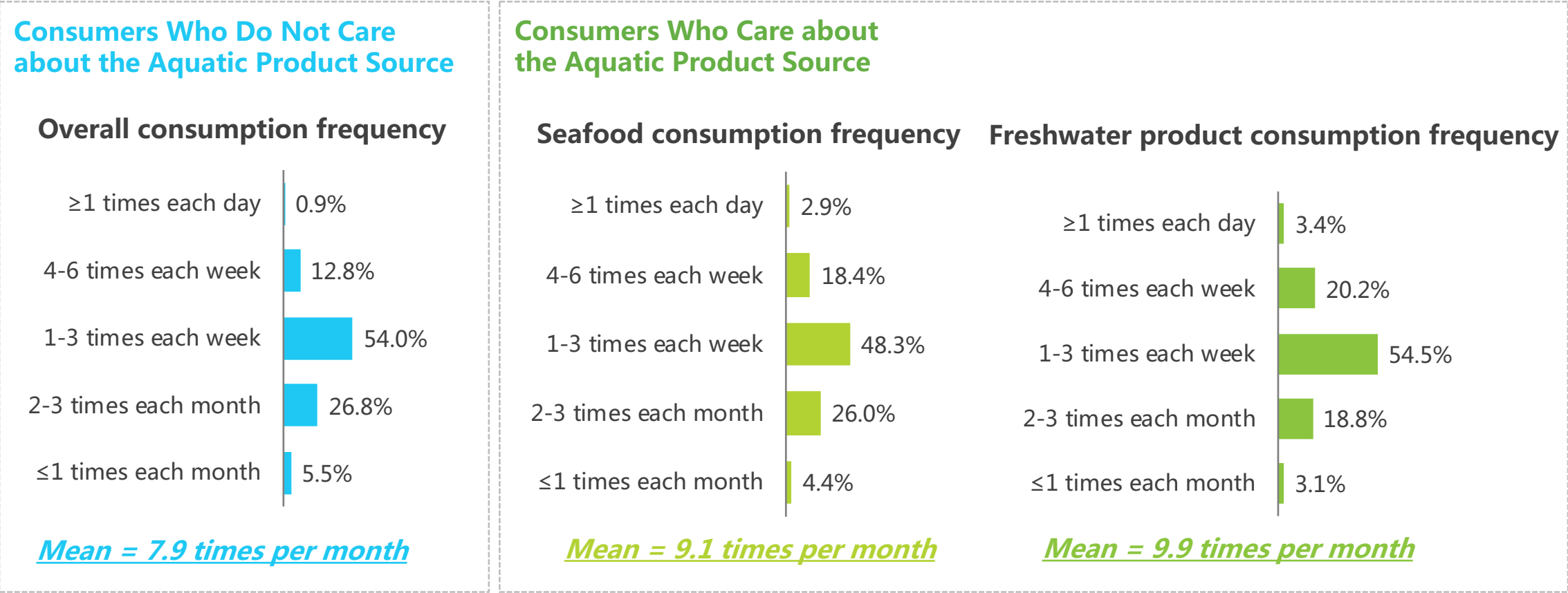


Question: What is the average amount for your consumption of aquatic products each time?
Sample amount: Total N = 235, seafoods N = 2321, and freshwater products N = 2321.



Aquatic Product Consumption Generally Occurs One to Three Times per Week

- If the frequency is higher, consumers who care about the aquatic product source outnumber those who do not care.
- Among those who care about the product source, consumers **purchase freshwater products more frequently than seafood.**



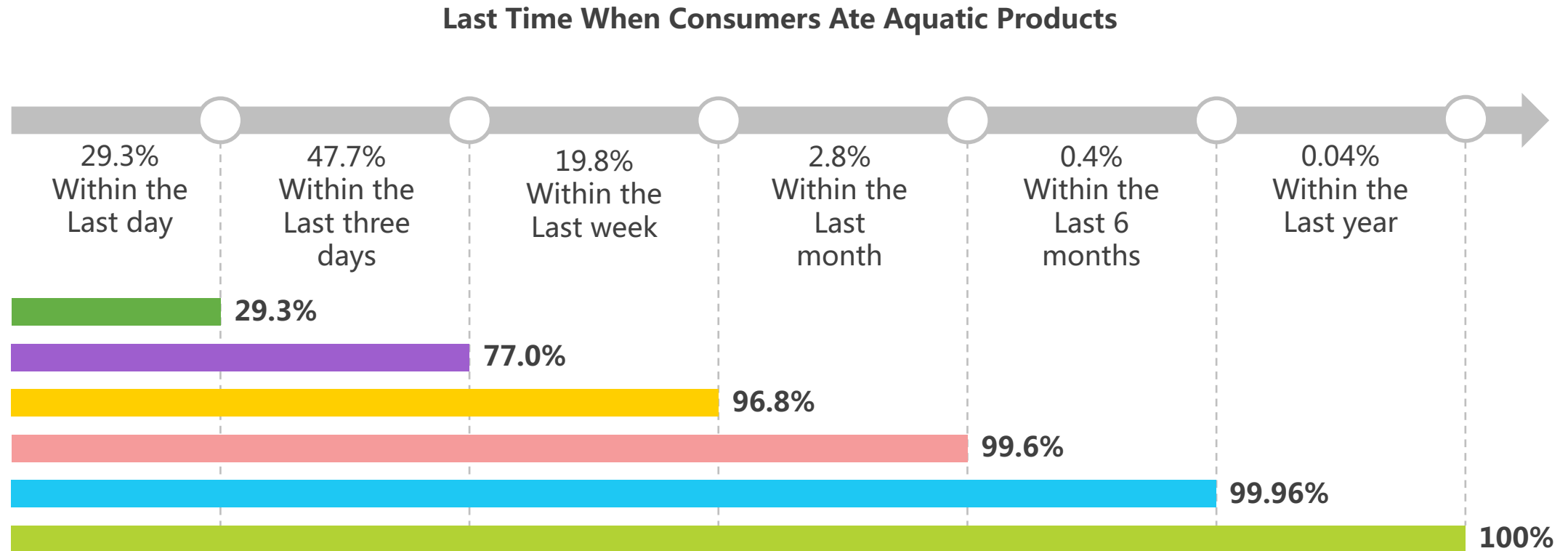
Question: What is the frequency for you to consume aquatic products?
Sample amount: Total N = 235, seafoods N = 2321, and freshwater products N = 2321.



Last Time When Consumers Ate Aquatic Products

Most Consumers Have Eaten Aquatic Products Within the Last Week

- Due to the high consumption frequency, 96.8% consumers have eaten aquatic products within the last week. The interval is short.



Question: When was the last time you ate aquatic products?
Sample amount: N = 2556.

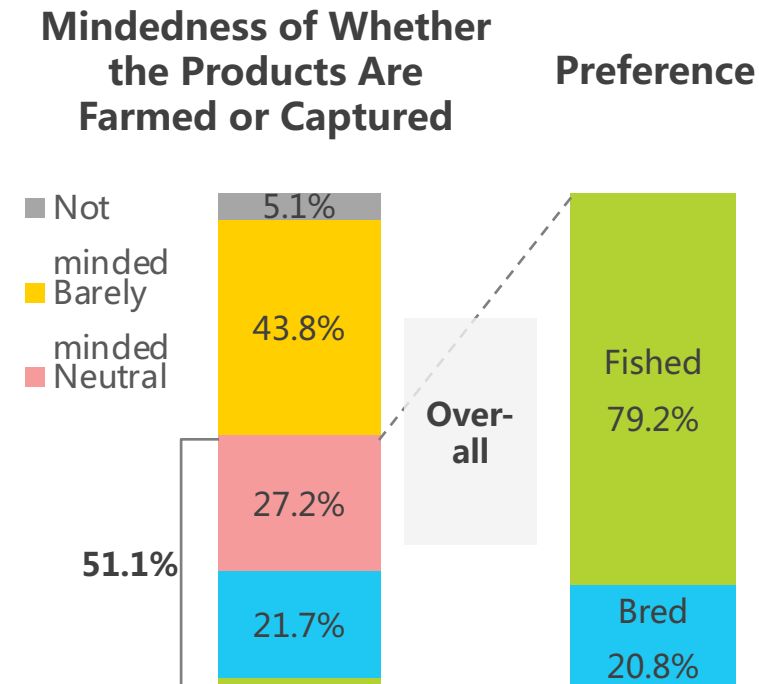


Mindedness of Whether the Products Are Farmed or Wild Captured

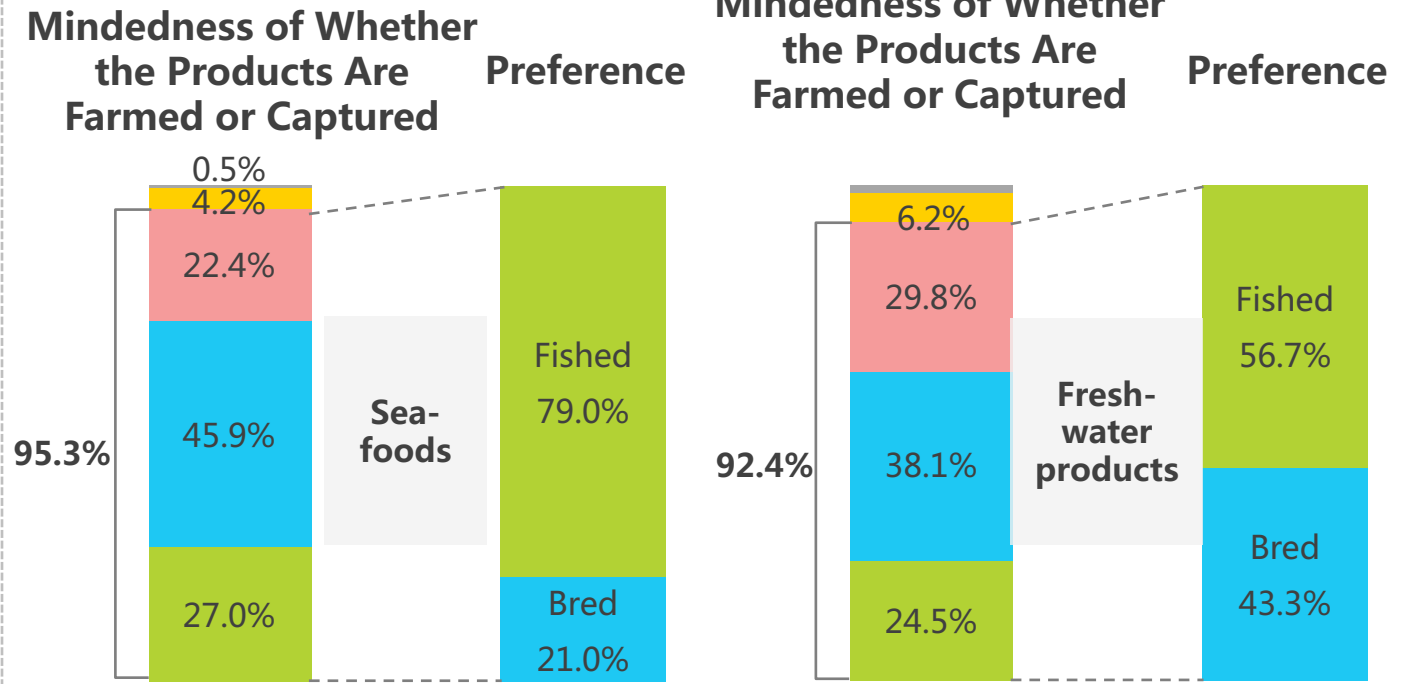
Large Proportions of Consumers Prefer Wild Captured Products

- Consumers who care about the aquatic product source also tend to mind whether the products are farmed or captured
- Among those who care about whether the products are farmed or captured, most consumers prefer captured products.
- Among those who care about the product source, compared with purchasing freshwater products, **consumers pay more attention to whether the products are farmed or captured when they purchase seafoods**, and more consumers prefer captured products.

Consumers Who Do Not Care about the Aquatic Product Source



Consumers Who Care about the Aquatic Product Source



Question: Do you mind whether the purchased products are bred or fished? When you purchase aquatic products, do you prefer bred ones or fished ones?

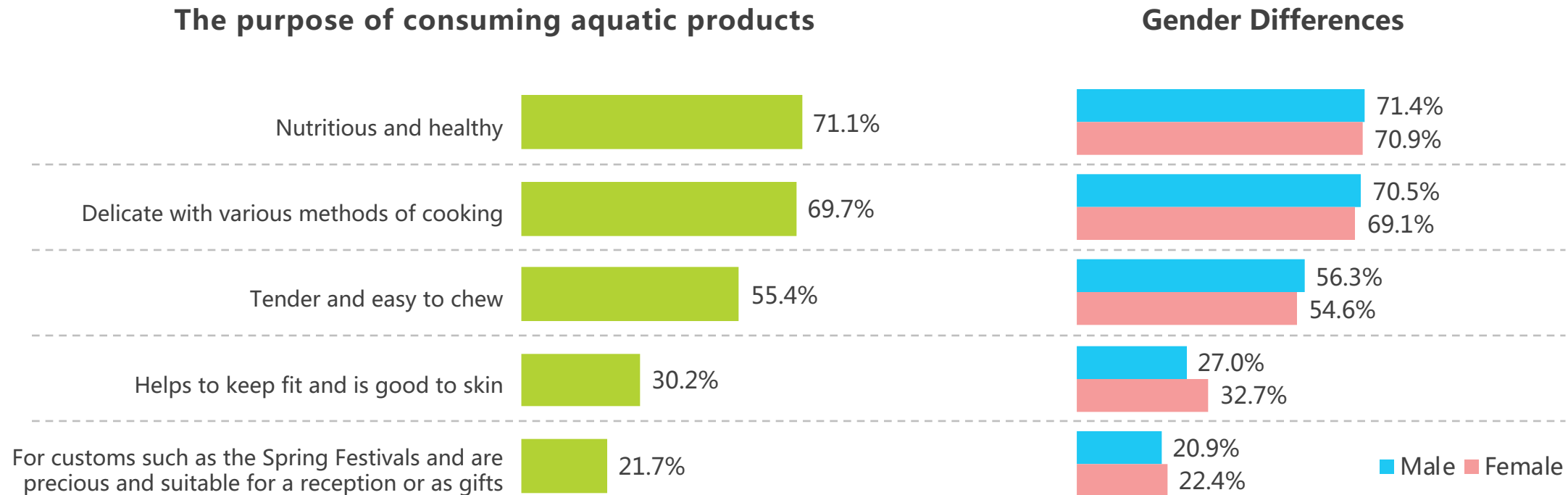
Sample amount: Total mindedness N = 235, total preference N = 120; mindedness on seafoods N = 2321, preference of seafoods N = 2212; mindedness on freshwater products N = 2321, preference of freshwater products N = 2144.



Purposes of Eating Aquatic Products — By Gender

Consumers Eat Aquatic Products Mainly for Nutrition and Taste

- Statistics show that 71.1% of consumers eat aquatic products for **nutrition and health** whereas 69.7% of consumers eat them due to their **good taste which results from various cooking methods**.
- Females who eat aquatic products for the purpose of **keeping fit and having good skin** significantly outnumber male counterparts. There is no noticeable gap between the numbers of females and males in terms of other purposes.



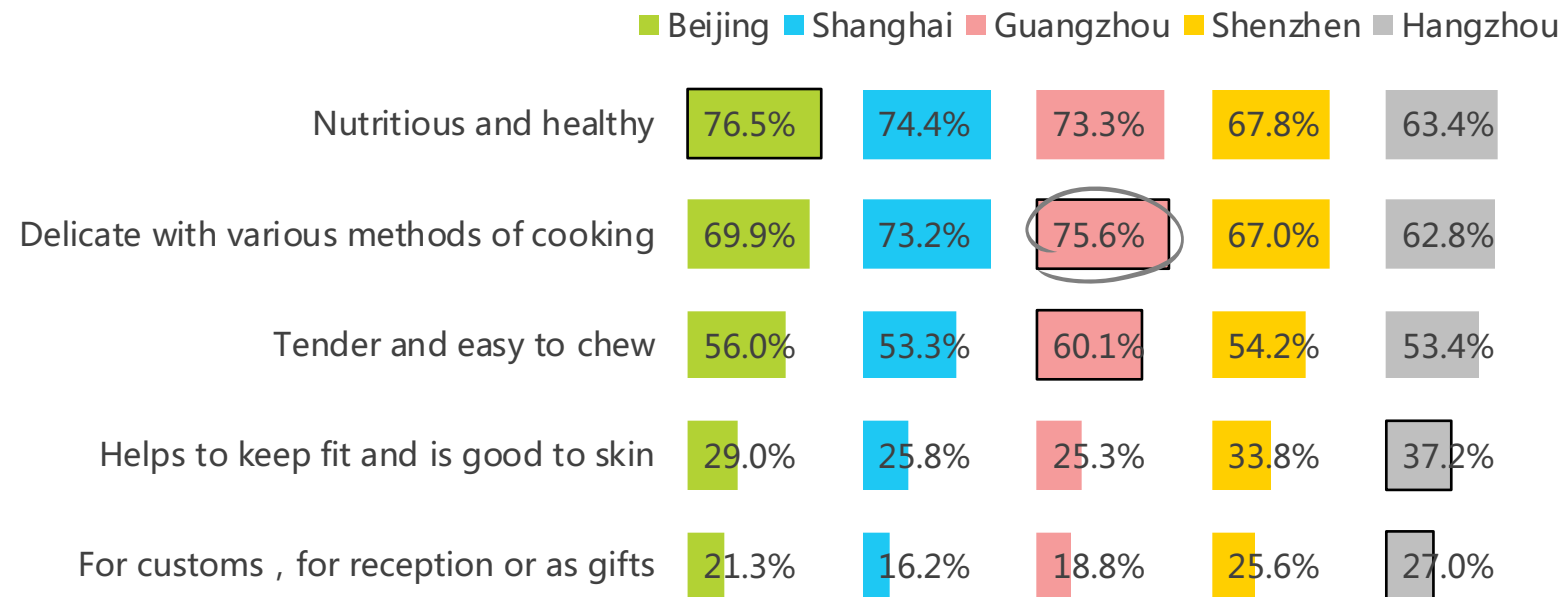


Purposes of Eating Aquatic Products — By City

Consumers in Guangzhou Aim at Taste While Consumers in Other Cities Aim at Nutrition

- Consumers in Guangzhou eat aquatic products for their **delicate taste** which results from various cooking methods. In other cities, consumers eat aquatic products for **nutrition and health**.
- Horizontal comparison shows that consumers who eat aquatic products for **health** and for **good taste and tender flesh** account for the largest proportion in Beijing and Guangzhou respectively.

Purposes of Eating Aquatic Products in Different Cities



Consumers eat aquatic products for nutrition, taste, and other purposes.

- *Each type of flesh has its own flavor. It tastes different than pork, beef, or chicken. It has simple protein structures, thus easy to digest and uptake. It is also rich in unsaturated fatty acids. Especially, for the elderly or those whose teeth are not in good condition, fish and tofus are much better than beef or other meat that is difficult to chew. — Beijing, Mr. Xie, aged 44*
- *It is nutritious and good for our brain. It is easily available, convenient to cook, and pleasant to taste. Besides, there are many different types so I can eat many different flavors. — Guangzhou, Ms. Wen, aged 39*

*The circle marks out prominent data from vertical comparison, and the black boxes mark out prominent data from horizontal comparison.

Question: What are the purposes for you to eat aquatic products?

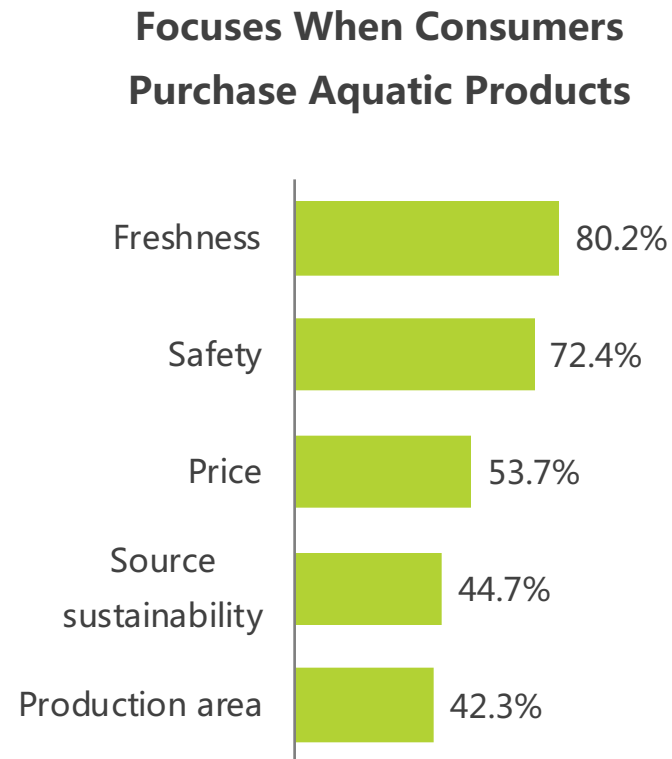
Sample amount: Total N = 2556, Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519.



Focuses When Consumers Purchase Aquatic Products

Consumers Focus on Freshness and Safety the Most When They Purchase Aquatic Products

- When purchasing aquatic products, 80.2% of consumers focus on the **freshness**, 72.4% on the **safety**, 53.7% on the **price**, and **44.7% on the source sustainability**.



Freshness

- Freshness. If shrimps do not jump, they are about to die. — Beijing, Ms. Zhang, aged 28*

Safety

- I will not buy hairtails from the East China Sea for fear of contamination by the Fukushima nuclear plant. Hairtails from far-away South America are fine. — Hangzhou, Ms. Fang, aged 30*

Price

- I usually compare the price of aquatic products in stores of the same level, like Fresh Hema and Century Lianhua. If the product price is slightly higher yet still affordable, I will choose the same store. — Hangzhou, Mr. Zhou, aged 30*

source sustainability

- Jiangyin is famous for its aquatic products, which contain coilia nasus and tenualosa reevesii. Once there was a leader who visited a village in Jiangyin, but not a single coilia nasus was caught. That was due to the poor water quality. — Shanghai, Mr. Gao, aged 35*
- Coilia nasus and epinephelinae from the Yangtze River are well-known for their flavor, but are hardly available now due to excessive fishing. — Beijing, Mr. Xie, aged 44*

Production area

- I care about the production area. For example, local hairtails differ from Zhoushan hairtails a lot. — Hangzhou, Ms. Gong, aged 25*

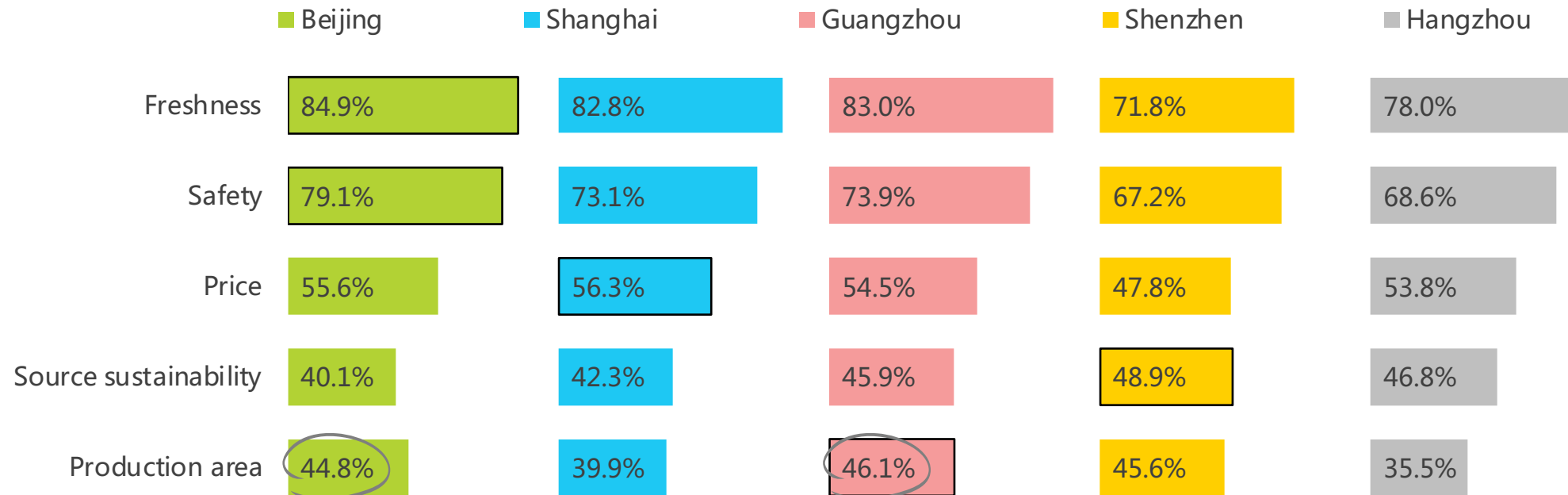


Focuses When Consumers Purchase Aquatic Products in Different Cities

Consumers in Shenzhen Focus on the source sustainability the Most

- Consumers in Beijing and Guangzhou focus more on the production area than on the source sustainability.
- The proportion of **Shenzhen consumers who focus most on the source sustainability is the highest**, with that of Hangzhou ranking the second and that of Beijing the lowest.

Focuses When Consumers Purchase Aquatic Products



*The circle marks out prominent data from vertical comparison, and the black boxes mark out prominent data from horizontal comparison.

Question: Which factors will you focus on when you purchase aquatic products?

Sample amount: Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519.

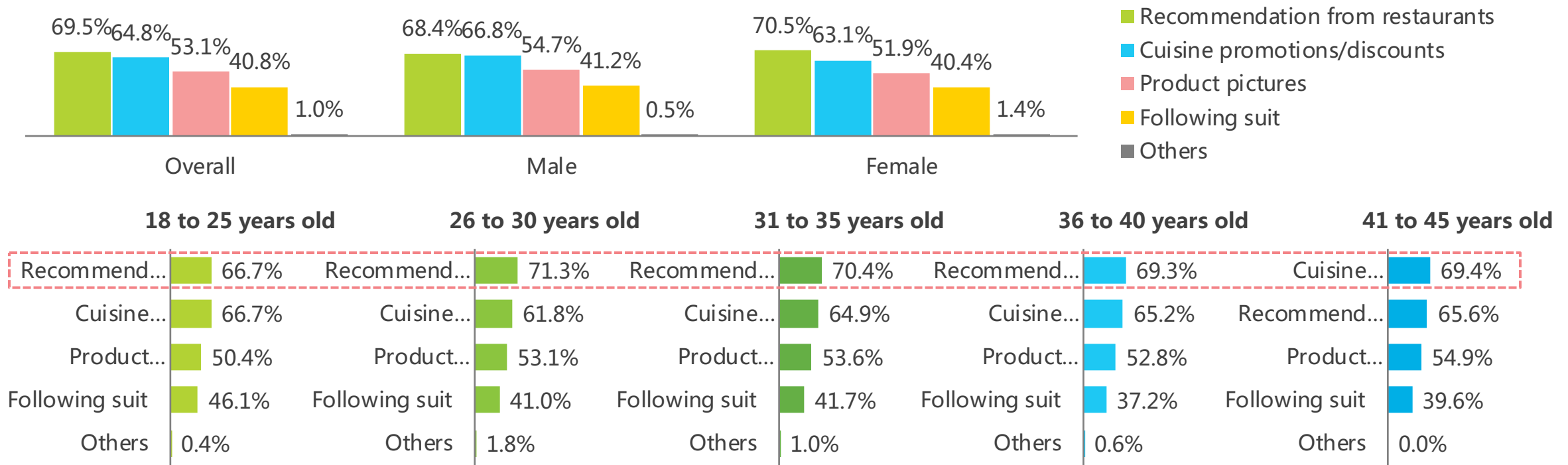


Factors Influencing Consumers' Selection of Aquatic Products at Restaurants

Recommendations from Restaurants Influence Consumers the Most

- Females are more easily influenced by **restaurant recommendations** than males, with the proportion being 70.5% and 68.5% respectively.
- Consumers aged 41 to 45 tend to be attracted more by **cuisine promotions or discounts**.
- Influence factors for consumers in other age groups are in the same order: restaurant recommendations > cuisine promotions/discounts > product pictures > following suit.

Factors Influencing Consumers' Selection of Aquatic Products at Restaurants



Question: Which factors will influence your selection of aquatic products at restaurants?

Sample amount: Total N = 2495, males N = 1116, females N = 1379, people aged 18 to 25 N = 228, people aged 26 to 30 N = 720, people aged 31 to 35 N = 767, people aged 36 to 40 N = 492, and people aged 41 to 45 N = 288.

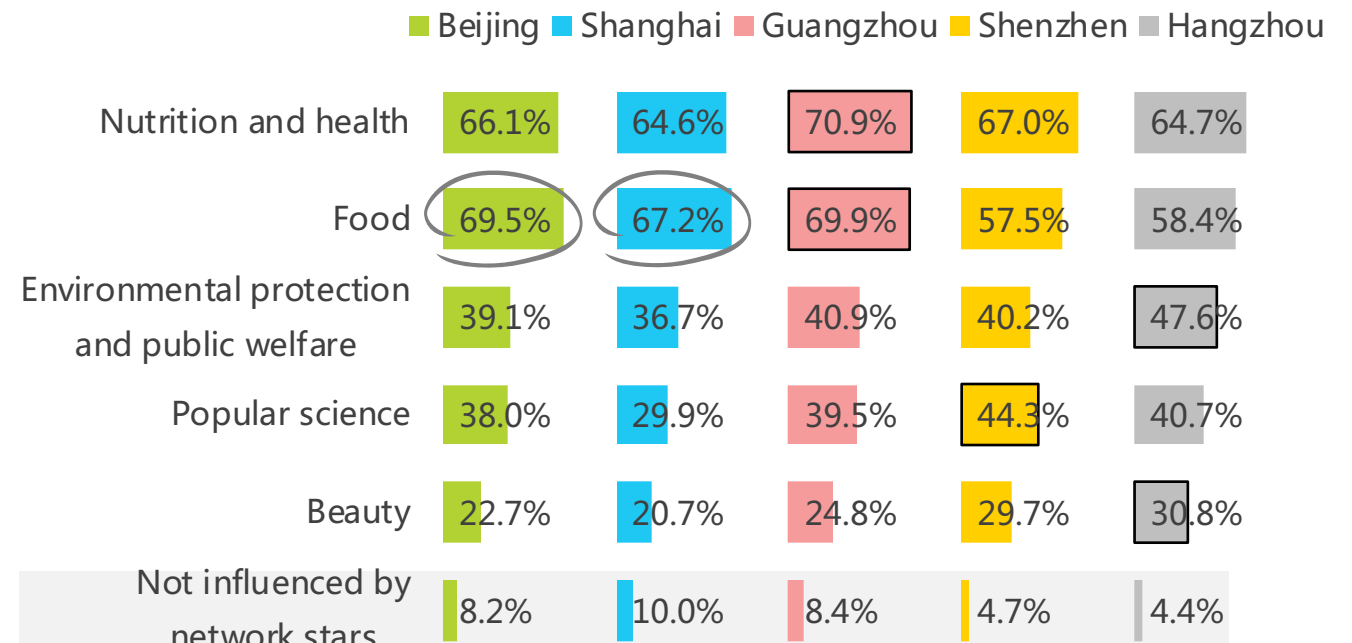
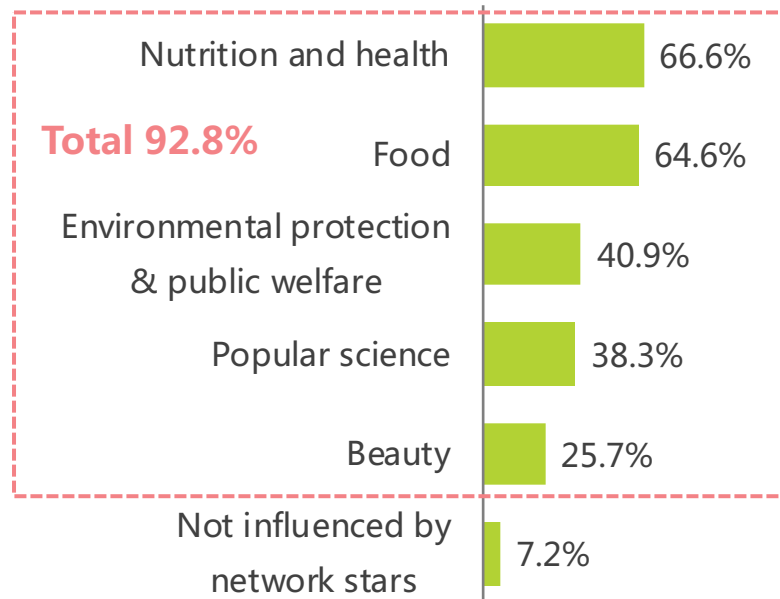


Factors Influencing Consumers' Selection of Aquatic Products at Restaurants — Network Stars

Consumers May Be Influenced by Health and Cuisine Network Stars

- Statistics show that 92.8% of aquatic product consumers will be influenced by network stars. This proportion is the highest in Hangzhou.
- Health** and **cuisine** network stars influence consumers the most.
- In Beijing and Shanghai, consumers tend to be influenced most by **cuisine** stars,, while consumers in Guangzhou, Shenzhen, and Hangzhou tend to be influenced most by **health** stars.
- In addition, **consumers in Hangzhou are more easily influenced by environmental protection and public welfare network stars than those in other cities.**

Network Stars Influencing Consumers' Selection of Aquatic Products



*The circle marks out prominent data from vertical comparison, and the black boxes mark out prominent data from horizontal comparison.

Question: Which types of network stars will influence your selection of aquatic products?
Sample amount: Total N = 2556, Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519.



Contents

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- Media Contact Habits
- High-potential Consumer Portraits

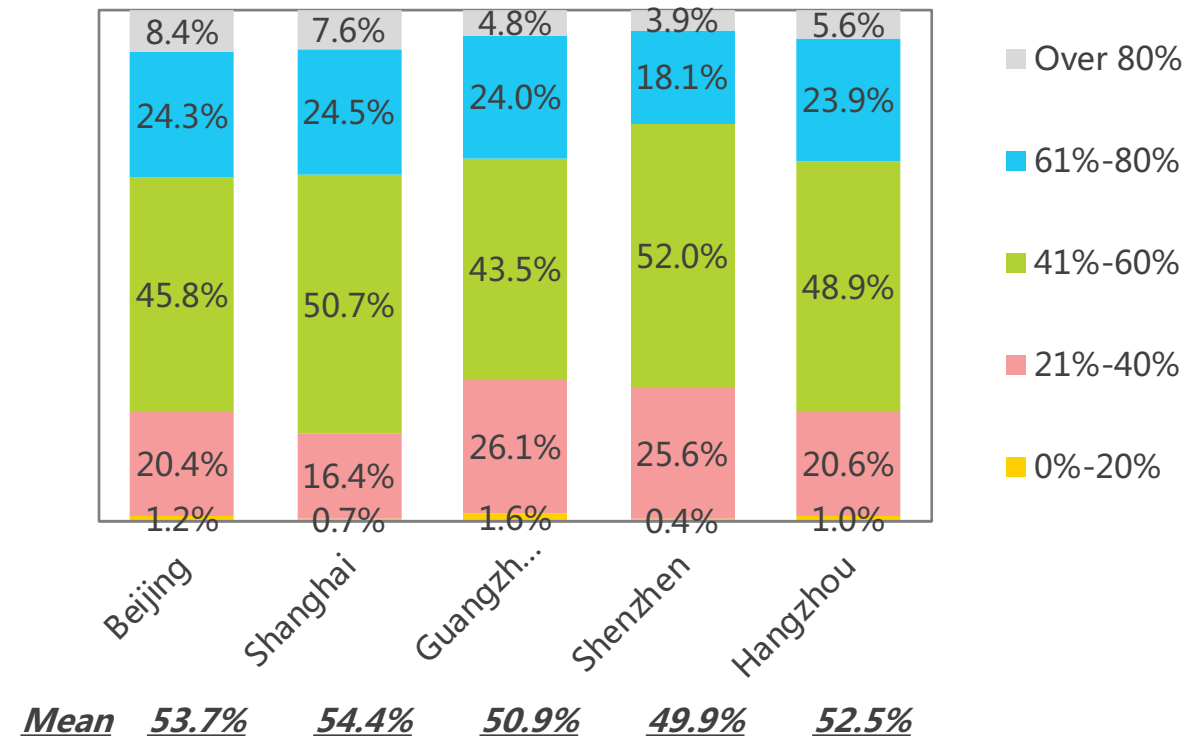
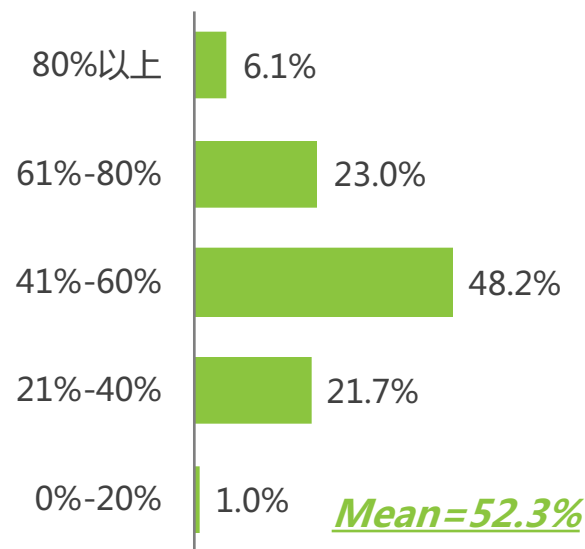


Fisheries Output

Consumers Greatly Underestimate the Actual Aquaculture Output

- In 2018, fishing output accounted for 23.9% of the total fishery output in China, and aquaculture output accounted for 76.1% of the total, a year-on-year growth of 2.4%.
- However, **a large number of consumers thought that aquaculture output only accounted for 41% to 60% (52.3% on average) of the total**, which was significantly lower than the actual proportion.
- Consumers in Guangzhou and Shenzhen underestimate the actual aquaculture output the most.

Awareness of Consumers on Aquaculture Output



Note: Aquatic product data in 2018 is extracted from the China Fishery Year Book 2018.

Question: Aquatic products are either fished or bred. What do you think is the ratio of aquaculture output to the overall fisheries output in China?

Sample amount: Total N = 2556, Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519.



Fisheries Output — Comments from Consumers

Why Do Some Consumers Overestimate the Aquaculture Output?

Belief that Much Wild Species Are Endangered

- *I think many wild species are already extinct. So most available aquatic products are bred ones, only 25% of them are fished. — Guangzhou, Ms. Wen, aged 39*
- *China has too many mouths to feed. Daily consumption of fish and other meat is now a routine. Maybe wild species have long been eaten up. So most aquatic products must be bred ones. — Hangzhou, Mr. Zhou, aged 30*

Judgment from Consumption Experience

- *Local seafood and freshwater products are all bred ones because people here usually cannot afford to purchase wild species. — Hangzhou, Mr. Li, aged 41*

Knowledge from Relatives or Friends in Fisheries

- *My husband comes from near the ocean. In his hometown, few people now go fishing. They usually circle out an area using nets to breed aquatic products. — Hangzhou, Ms. Yang, aged 37*
- *95% of aquatic products are bred ones. My grandfather breeds Chinese softshell turtles yet advertises that he sells wild ones. — Hangzhou, Ms. Yuan, aged 33*

Why Do Some Consumers Overestimate the Fishing Output?

Knowledge About the Large Population in China and Distant Water Fishing

- *I think fished products account for 80%, because China has a large population and Chinese fishermen go fishing all over the world. — Beijing, Mr. Xie, aged 44*
- *Less than 10% of aquatic products are bred ones, I think. It must be much cheaper and easier to catch wild ones than to breed them. I remember seeing a report that said products from overseas fishing occupied 60% to 70% of the Chinese seafood market. Chinese oceanic ships will go to South America for fishing. You know, China has a large population yet the resources are limited. It definitely needs overseas products to feed those seafood-lovers. — Shanghai, Mr. Chen, aged 41*

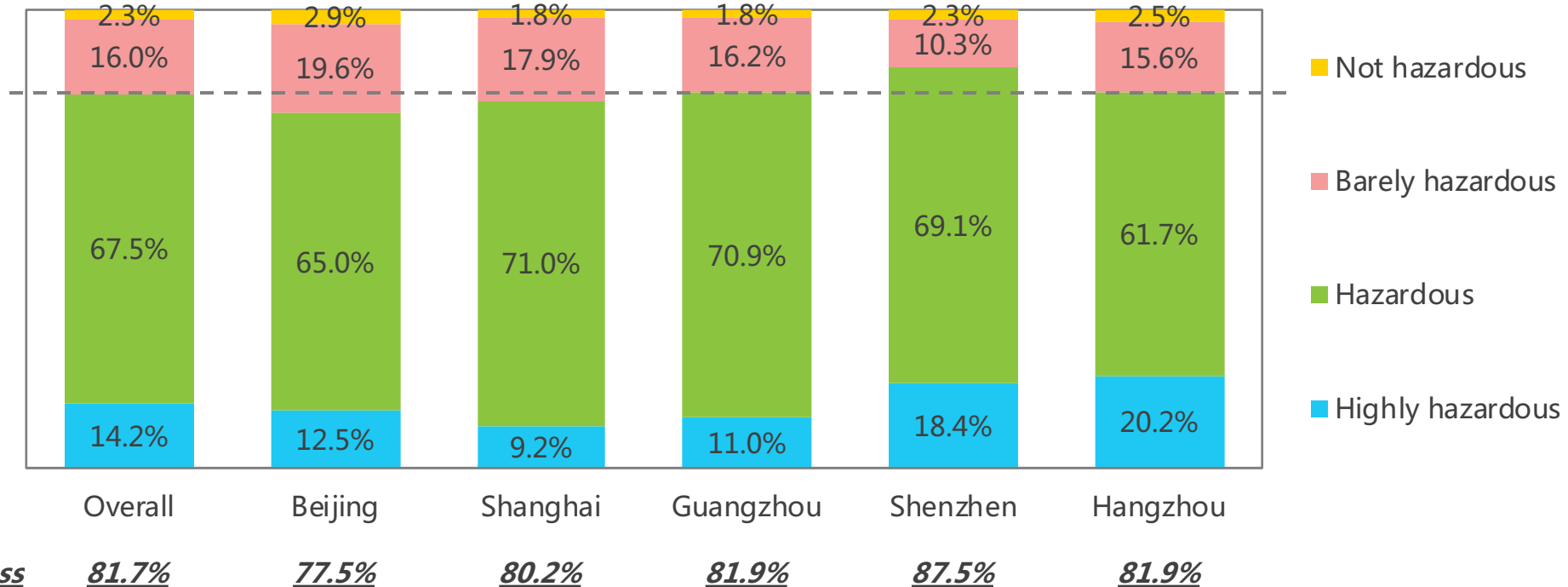


Potential Harms of Aquaculture

Most Consumers Confirm Potential Ill-Effects of Aquaculture

- Statistics show that 81.7% of consumers confirm ill-effects resulting from aquaculture. This proportion is the lowest in Beijing and the highest in Shenzhen.

Awareness of Consumers on Potential Ill-Effects of Aquaculture



Question: Do you think aquaculture will cause harm to the ocean environment?

Sample amount: Total awareness N = 2556, Beijing awareness N = 511, Shanghai awareness N = 542, Guangzhou awareness N = 499, Shenzhen awareness N = 485, Hangzhou awareness N = 519.



Potential Harms of Aquaculture

39.0% of Consumers Hold Incorrect Knowledge About Specific Ill-effects

- 71.9% of consumers are aware that *using chemicals against the rules and emitting aquacultural wastewater will pollute the water.*
- 56.6% of consumers are aware that *using aquaculture medicine according the national rules and strictly implementing withdrawal periods will ensure safe products that do not contain medicine residues.*
- However, **nearly 40% of consumers hold incorrect knowledge about the ill-effects of aquaculture.** Among them, 25.9% do not know that *the water quality of the aquaculture area will influence product safety*, and 24% do not know that *high product density in the aquaculture area will pollute the water.* Consumers in Hangzhou are most likely to hold false knowledge.

Statements Deemed to Be True by Consumers Who Confirm Ill-Effects of Aquaculture

	Overall	Beijing	Shanghai	Guangzhou	Shenzhen	Hangzhou
Using illegal chemicals and emitting aquacultural wastewater will pollute the water.	71.9%	72.5%	72.6%	71.1%	71.9%	71.1%
Using aquaculture medicine according the national rules and strictly implementing withdrawal periods will ensure safe products without medicine residues.	56.6%	60.6%	52.9%	57.9%	57.8%	54.1%
The water quality of the aquaculture area will not influence product quality and safety.	25.9%	24.5%	20.9%	27.4%	26.2%	30.8%
Product density is not correlated with water pollution in the aquaculture area.	24.0%	18.9%	17.5%	26.7%	25.9%	31.1%
<i>False rate</i>	<i>39.0%</i>	<i>34.3%</i>	<i>30.6%</i>	<i>42.3%</i>	<i>43.2%</i>	<i>44.5%</i>

*Statements in red are false. If any of them are selected, the answer will be deemed false.

Question: Which of the following statements do you think are true regarding aquaculture?

Sample amount: Total answers N = 2089, Beijing answers N = 396, Shanghai answers N = 435, Guangzhou answers N = 409, Shenzhen answers N = 424, and Hangzhou answers N = 425.

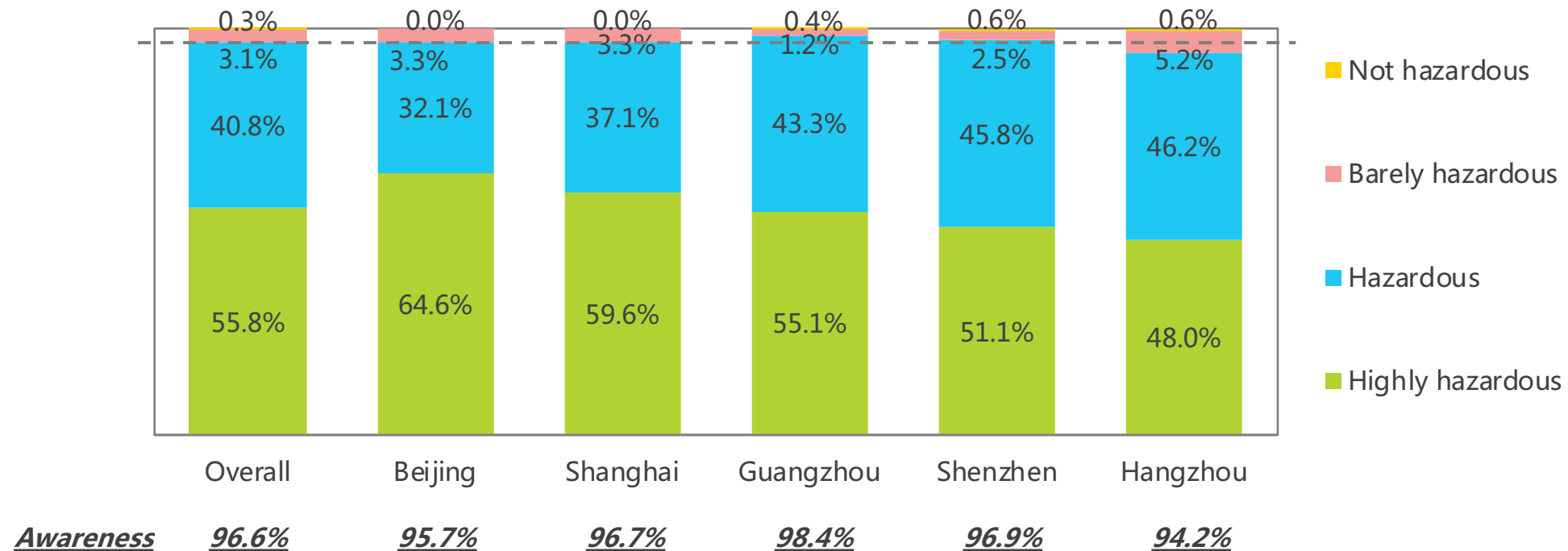


Potential Harms of Fishing

Consumers Hold Higher Awareness on the Ill-Effects of Excessive and Illegal Fishing

- Compared with 81.7% of consumers who **confirm ill-effects harms of aquaculture**, 96.6% of consumers confirm ill-effects of excessive and illegal fishing.
- Consumers in Hangzhou have the lowest awareness of ill-effects of excessive and illegal fishing. Consumers in Shenzhen are highly aware of ill-effects of both fishing and aquaculture.

Awareness of Consumers of the Ill-Effects of Excessive and Illegal Fishing



Question: Do you think excessive and illegal fishing will cause harm to the ocean environment?

Sample amount: Total awareness N = 2556, Beijing awareness N = 511, Shanghai awareness N = 542, Guangzhou awareness N = 499, Shenzhen awareness N = 485, Hangzhou awareness N = 519.



Potential Harms of Fishing

24.9% of Consumers Misunderstand Specific Ill-Effects

- 71.4% of consumers are aware that *releasing small fish during fishing helps to recover fishery resources*.
- 65.7% of consumers are aware that *adopting fishing nets with larger holes helps to protect fishery resources, and that fishery resources may become exhausted if no fishing limits exist*.
- However, **24.9% of consumers do not know that *fishing outside closed areas helps to protect fishery resources***. Consumers in Shenzhen are most likely to hold false knowledge.

Statements Deemed to Be True by Consumers Who Confirm the Ill-Effects of Excessive and Illegal Fishing

	Overall	Beijing	Shanghai	Guangzhou	Shenzhen	Hangzhou
Releasing small ones during fishing helps to recover fishery resources.	71.4%	77.1%	72.1%	74.5%	66.6%	66.3%
Adopting fishing nets with larger holes helps to protect fishery resources.	65.7%	70.2%	64.7%	66.6%	58.1%	68.7%
Fishery resources may become exhausted if no fishing limits exist.	65.2%	70.6%	67.9%	61.9%	61.9%	63.2%
<i>Fishing outside closed areas ensures personnel safety and is not resulted from fishery resource protection.</i>	24.9%	23.1%	21.6%	24.0%	28.5%	27.8%
<u>False rate</u>	<u>24.9%</u>	<u>23.1%</u>	<u>21.6%</u>	<u>24.0%</u>	<u>28.5%</u>	<u>27.8%</u>

*The statement in red is false. If this statement is selected, the answer will be deemed false.

Question: Which of the following statements do you think are true regarding fishing?

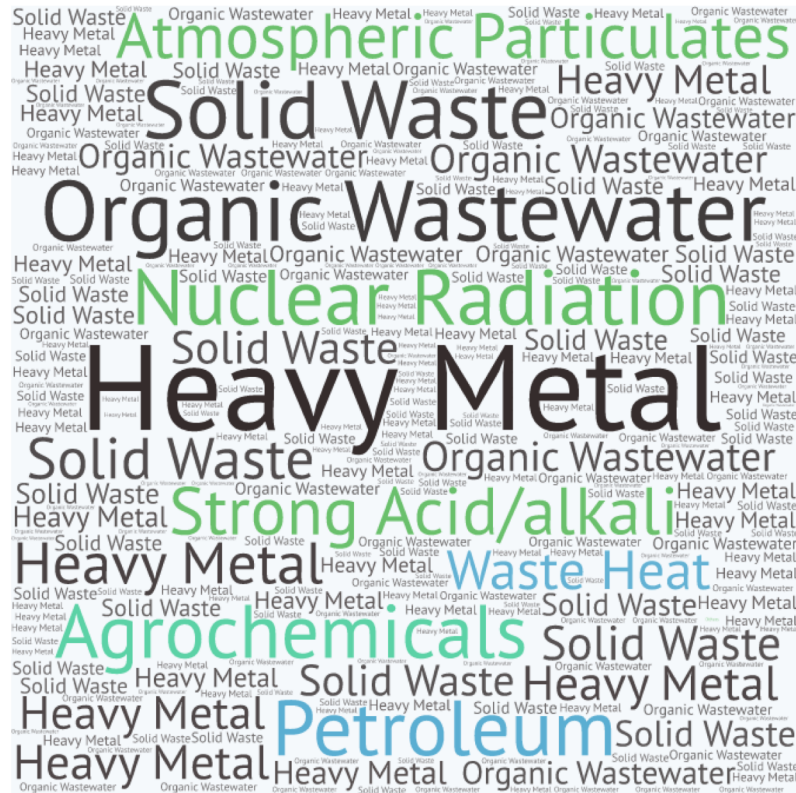
Sample amount: Total answers N = 2468, Beijing answers N = 494, Shanghai answers N = 524, Guangzhou answers N = 491, Shenzhen answers N = 470, and Hangzhou answers N = 489.



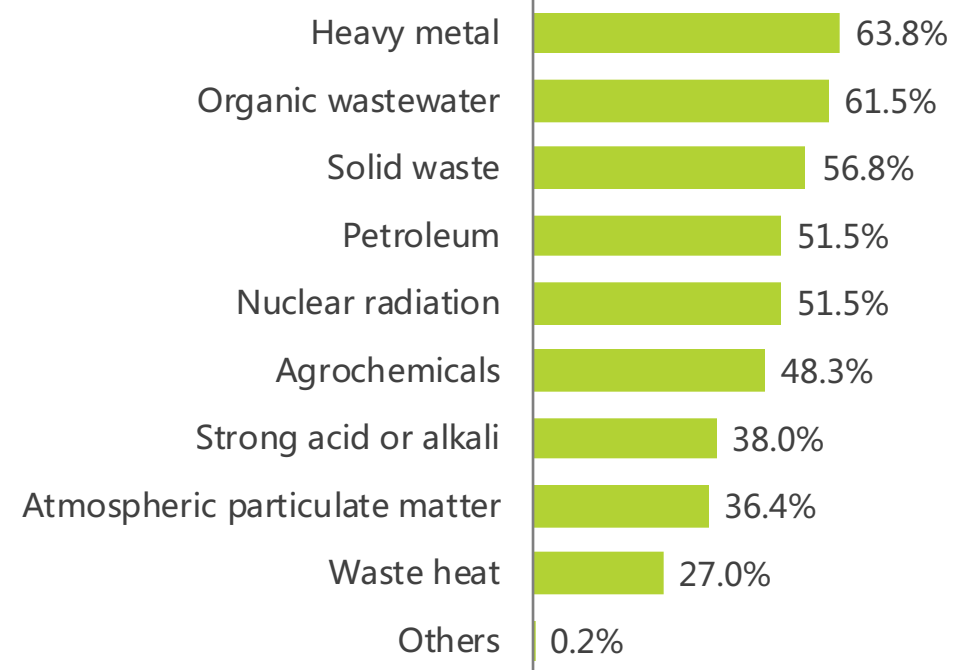
Ocean Pollutants

Consumers Know the Most About Heavy Metals , Regarding Ocean Pollutants

- Consumers Know the Most About Heavy Metals (63.8%), Organic Wastewater (61.5%), and Solid Waste (56.8%), Regarding Ocean Pollutants



Awareness of Consumers on Ocean Pollutants



Question: What do you know about ocean pollutants?
Sample amount: N = 2556.

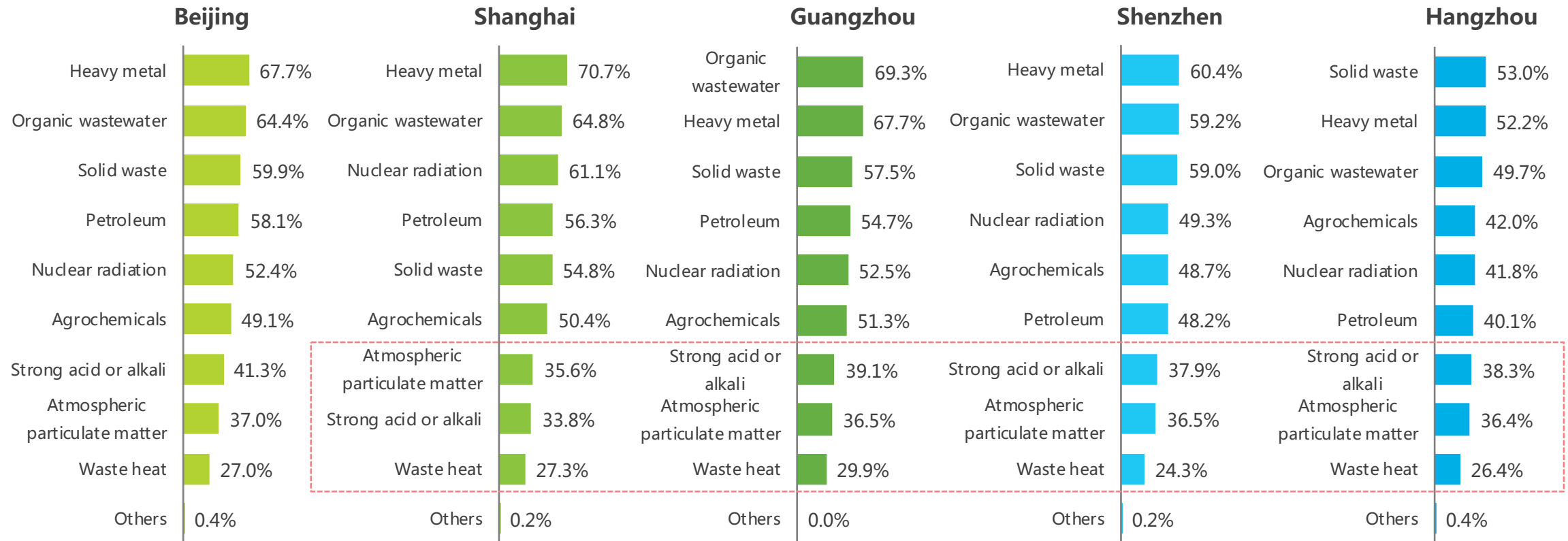


Ocean Pollutants

Consumers Across All Five Cities are the Least Aware of Waste Heat

- Consumers in Beijing, Shanghai, and Shenzhen know the most about heavy metals, consumers in Guangzhou know the most about organic wastewater, and consumers in Hangzhou know the most about solid waste.
- Generally, consumers lack knowledge about waste heat, atmospheric particulate matters, strong acids, and strong alkali.

Awareness of Consumers on Ocean Pollutants



Question: What do you know about ocean pollutants?

Sample amount: Beijing N = 511, Shanghai N = 542, Guangzhou N = 499, Shenzhen N = 485, and Hangzhou N = 519.



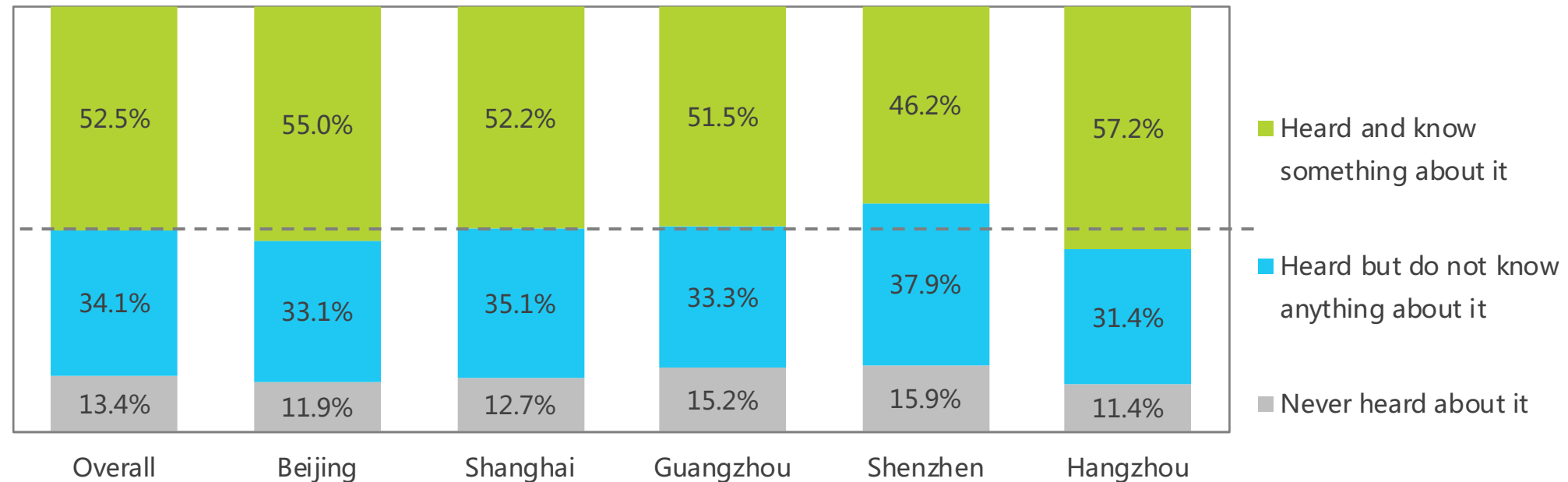
Concept and Content of Sustainable Fisheries

Awareness of Consumers on Sustainable Fisheries Need to Be Improved

- Over 10% of consumers have never heard about sustainable fisheries. A third of consumers have heard the word but do not know anything about the concept.

Consumers in Shenzhen have less awareness of sustainable fisheries while counterparts in Hangzhou are more aware.

Awareness of Consumers on Sustainable Fisheries



Question: Have you heard about sustainable fisheries before?

Sample amount: Total awareness N = 2556, Beijing awareness N = 511, Shanghai awareness N = 542, Guangzhou awareness N = 499, Shenzhen awareness N = 485, Hangzhou awareness N = 519.

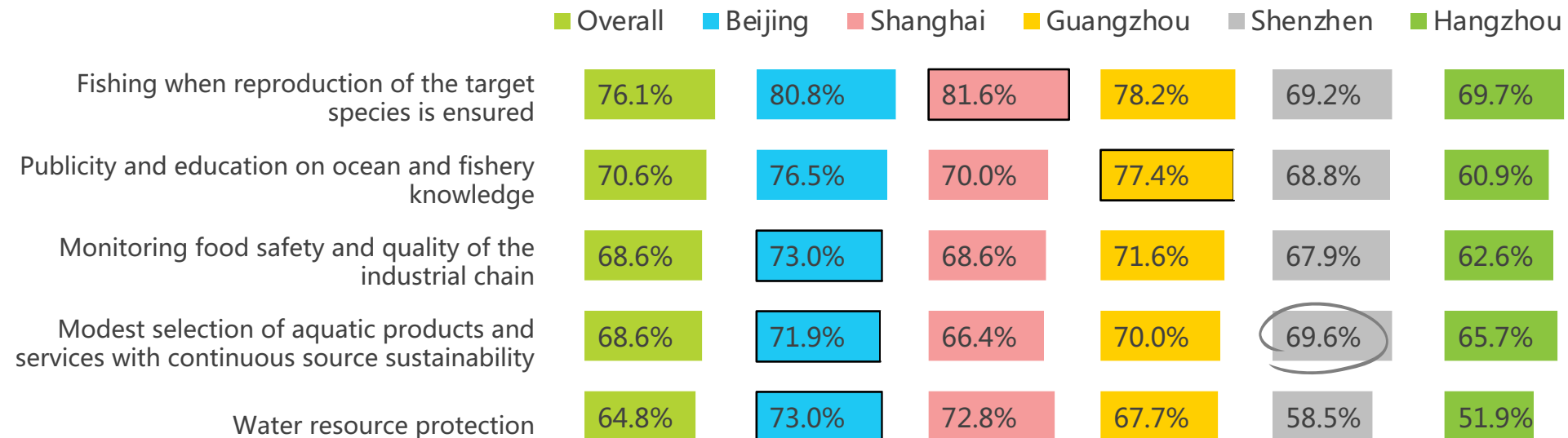


Concept and Content of Sustainable Fisheries

Awareness of Consumers on Sustainable Fisheries Need to Be Improved

- 76.1% of consumers think that the content of sustainable fisheries correlated with aquatic product consumption is *fishing when reproduction of the target species is ensured*.
- Consumers in Shenzhen think that the content correlated with aquatic product consumption is modest selection of aquatic products and services with continuous source sustainability.
- **Consumers in Beijing have the highest awareness on modest selection of aquatic products and services with continuous source sustainability.**

Content Deemed by Consumers Who Know About Sustainable Fisheries as Correlated with Aquatic Product Consumption



*The circle marks out prominent data from vertical comparison, and the black boxes mark out prominent data from horizontal comparison.

Question: Which of the following contents of sustainable fisheries do you think are correlated with aquatic product consumption?

Sample amount: Total answers N = 1342, Beijing answers N = 281, Shanghai answers N = 283, Guangzhou answers N = 257, Shenzhen answers N = 224, and Hangzhou answers N = 297.

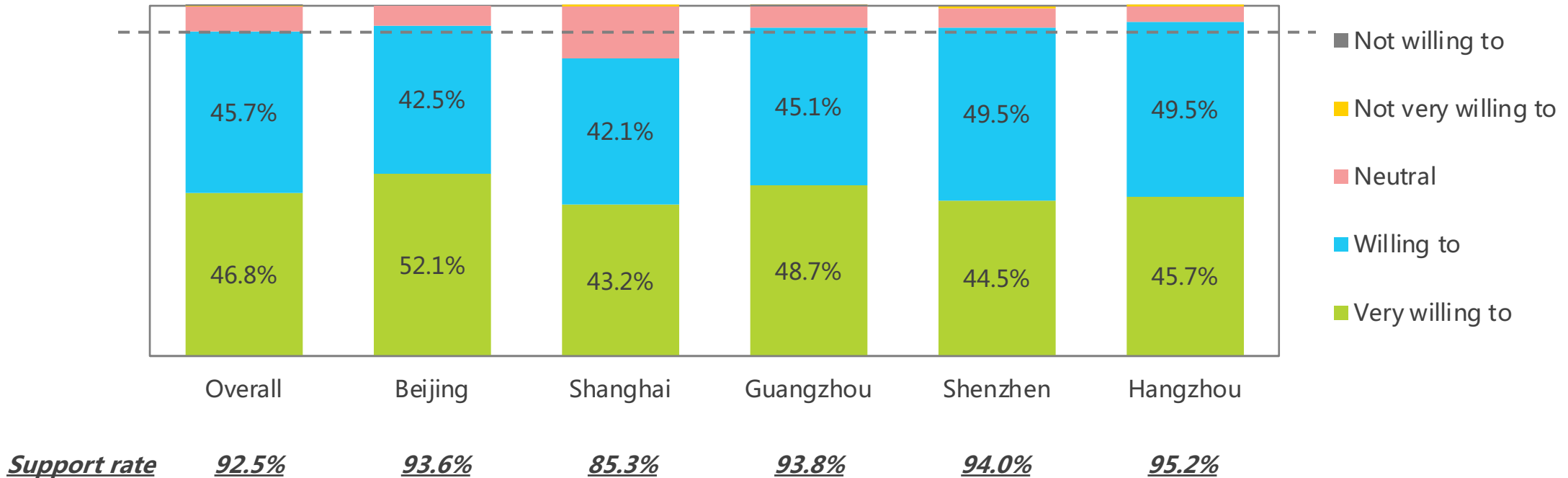


Willingness of Consumers to Support Sustainable Fisheries

Consumers Are Highly Willing to Support Sustainable Fisheries

- Statistics show that 92.5% of consumers are willing to support sustainable fisheries. This figure is highest in Hangzhou, reaching 95.2%.

Support Rate of Consumers on Sustainable Fisheries



Question: Are you willing to support sustainable fisheries?
Sample amount: Total support rate N = 2556, Beijing support rate N = 511, Shanghai support rate N = 542, Guangzhou support rate N = 499, Shenzhen support rate N = 485, Hangzhou support rate N = 519.

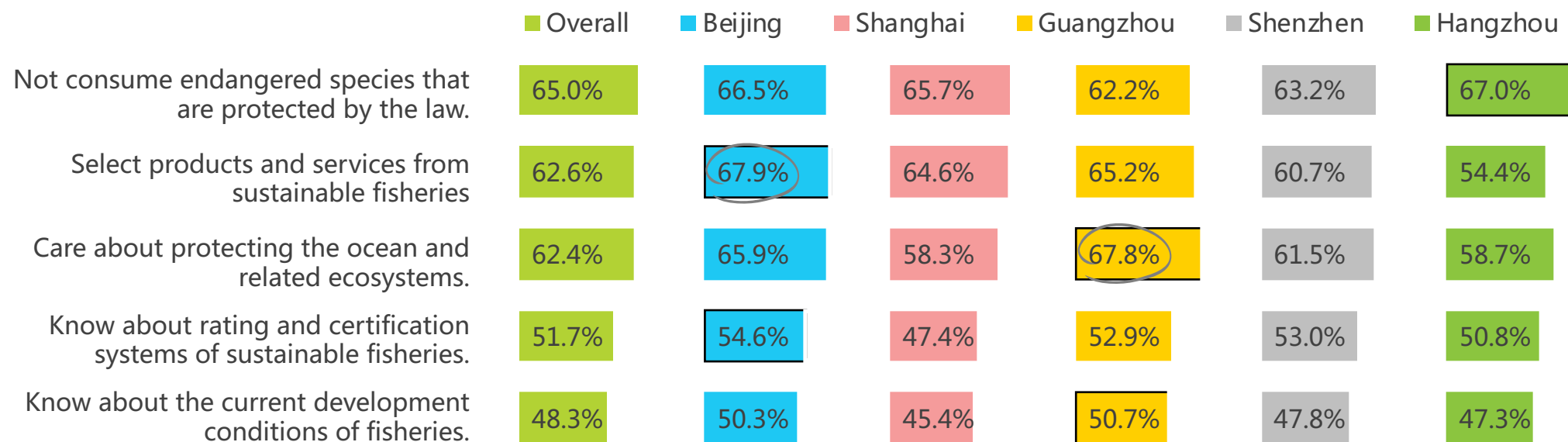


Willingness of Consumers to Support Sustainable Fisheries

Consumers Are Especially Willing to Avoid Consuming Endangered Species Protected by Law

- Over 60% of supporters are willing to *avoid consuming endangered species that are protected by the law* (highest in Hangzhou), *select products and services from sustainable fisheries* (highest in Beijing), and *are willing to care about protecting the ocean and related ecosystems* (highest in Guangzhou) to promote development of sustainable fisheries.
- **Consumers in Beijing are willing to select products and services from sustainable fisheries the most**, and consumers in Guangzhou are willing to care about protecting the ocean and related ecosystems the most.

Willingly Actions of Supporters



*The circle marks out prominent data from vertical comparison, and the black boxes mark out prominent data from horizontal comparison.

Question: What actions are you willing to carry out to promote development of sustainable fisheries?
Sample amount: Total actions N = 2547, Beijing actions N = 511, Shanghai actions N = 540, Guangzhou actions N = 497, Shenzhen actions N = 481, and Hangzhou actions N = 518.

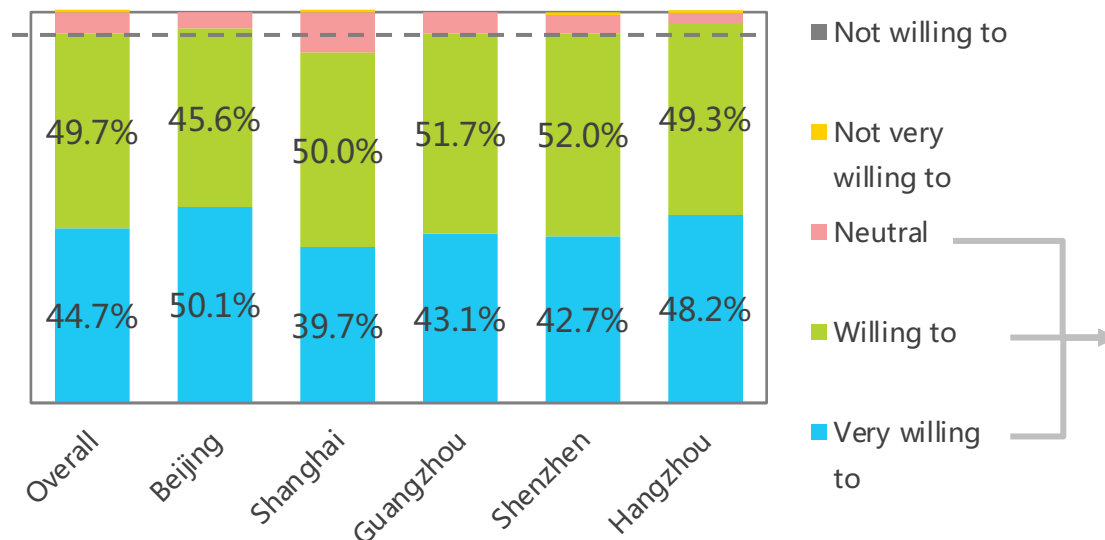


Preferences and Price Premiums of Sustainable Fisheries Products

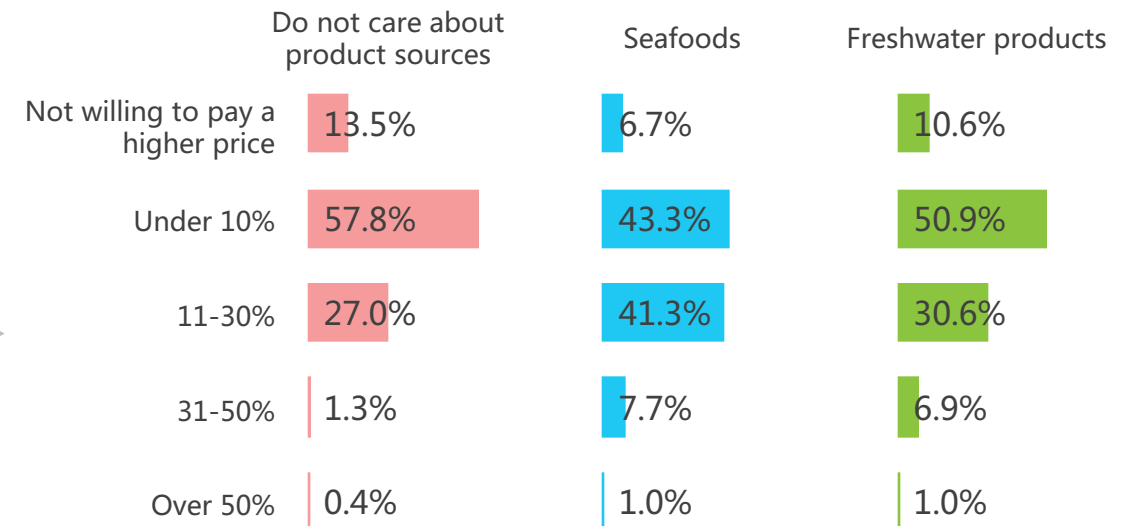
Consumers Are Willing to Make Sustainable Fisheries Products a Higher Priority and Pay a 30% Price Premium for Them

- Statistics show that **94.4% of consumers are willing to make sustainable fisheries products a higher priority**. This proportion is the highest in Hangzhou, reaching up to 97.5%. In addition, over half of consumers in Beijing choose "Very willing to," the proportion ranking the highest.
- Over 90% of consumers are willing to pay some price premiums for sustainable fisheries products**. Most of them accept price premiums of 30% or lower.
- Consumers who do not mind the aquatic product source accept lower price premiums.
- Consumers who mind the aquatic product source accept higher price premiums.

Willingness of Consumers to Place Sustainable Fisheries Products at Higher Priority



Price Premiums Accepted by Consumers Who Are Willing to Place Sustainable Fisheries Products at Higher Priority



Support rate 94.4% 95.7% 89.7% 94.8% 94.7% 97.5%

Question: Are you willing to place sustainable fisheries products at higher priority when you purchase aquatic products in the future? Sustainable fisheries products are usually more expensive than their normal counterparts. What price gap do you think is acceptable?

Sample amount: Total preferences N = 2556, Beijing preferences N = 511, Shanghai preferences N = 542, Guangzhou preferences N = 499, Shenzhen preferences N = 485, Hangzhou preferences N = 519; total price premiums N = 230, Beijing premiums N = 49, Shanghai premiums N = 67, Guangzhou premiums N = 41, Shenzhen premiums N = 20, and Hangzhou premiums N = 53.



Price Premiums of Sustainable Fisheries Products — Comments from Consumers



Why Are Consumers Willing to Pay Price Premiums for Products Certified by Marine Stewardship Council (MSC) and Other Institutions?

Pursuit for Wild-capture Seafoods and Also for Environmental Protection

- The word "wild-capture" attracts me. A 20% to 30% increase in price is acceptable. Those certifications ensure that I can eat wild-capture fishes. Also, fisheries are protected in this way. It is a win-win. But **I will not pay even one extra cent for selectively bred products**, because they are cultivated in batches using modern methods, such as hormones or feeds. They should be cheaper. — Shanghai, Mr. Chen, aged 41
- This certification not only means products are environmental friendly, it also means selected and wild-capture. Each fish is certified. So the extra amount of money is paid for the quality. As far as I am concerned, I am willing to pay extra 2 RMB. — Shanghai, Mr. Yao, aged 33

Why Are Consumers Willing to Pay an Extra Amount of Money for Product Quality than for Sustainable Fisheries Products?

Quality Is Related to Personal Interest While Environmental Protection Is Public Welfare

- Higher quality products make me happy. As for environmental protection, I do like to take action sometimes, but I will not spend a lot of money on public welfare. — Shanghai, Mr. Zhu, aged 30
- People always hope of receiving goods which match the value of money spent. However, environmental protection belongs to public welfare. After my own needs are satisfied, I will benefit others. — Shanghai, Mr. Yao, aged 33

Negative Influences from the Surroundings Prevent Consumers from Awareness of Individuality Significance

- There are a great number of people wasting resources. Why should I pay extra 10 RMB for sustainable fisheries products? — Shanghai, Mr. Chen, aged 41
- Although I pay money for environmental protection, a lot of people are still destroying the environment. Individual efforts are useless. — Shanghai, Ms. Chen, aged 24

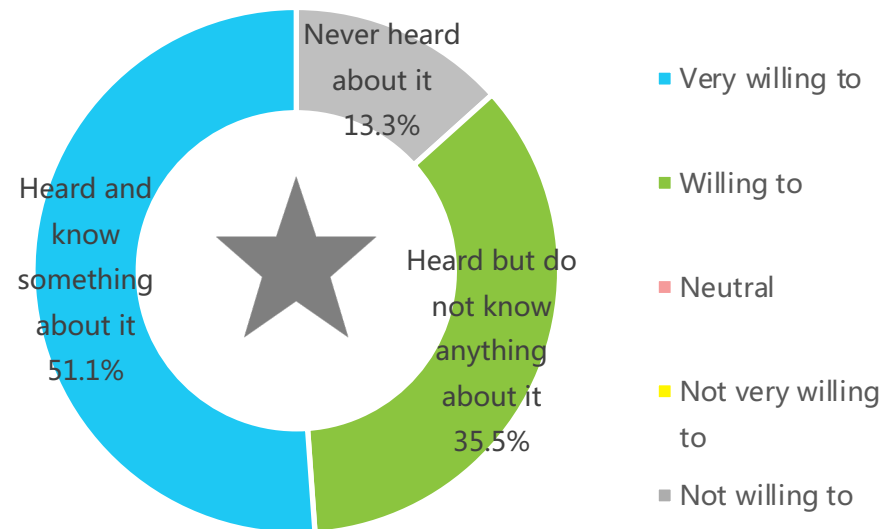


Publicity and Recommendation on Sustainable Fisheries

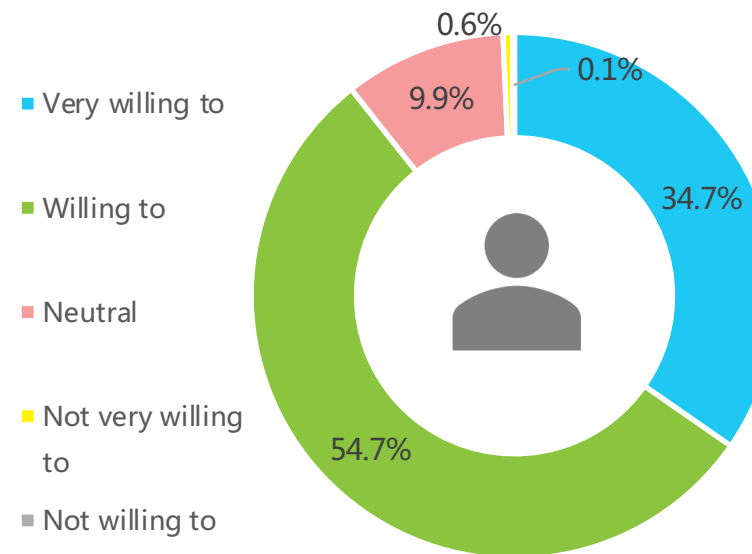
Consumers Are Not Aware of National Measures on Sustainable Fisheries but Support Publicity

- China needs to increase publicity of sustainable fisheries. 13.3% of consumers have never heard about sustainable fisheries and 35.5% of consumers have heard the term but do not know anything about it. Only 51.1% of consumers know something about sustainable fisheries.
- However, consumers are willing to promote publicity of sustainable fisheries. Statistics show that 89.4% of consumers are willing to publicize this concept to their relatives and friends.

Awareness of Consumers on National Measures on Sustainable Fisheries



Willingness of Consumers to Publicity of Sustainable Fisheries



Why are consumers willing to publicize sustainable fisheries?

- *If rare fish are available in markets, they are likely to be dead. I would not purchase those types of fish, but others would. So I think publicity is important. **The quality of the whole nation should be improved. Awareness is the corner stone of action.** It would be pointless if fish available in the supermarkets are already dead. — Shanghai, Ms. Sang, aged 25*

Who are consumers willing to publicize sustainable fisheries to?

- *I focus on **my friends who love to eat seafood or those who love to cook seafood.** As tips. — Beijing, Ms. Li, aged 34*

What content will consumers publicize to their relatives and friends regarding sustainable fisheries?

- *I will talk to those around me about **ecological sustainability.** I am not trying to be a teacher, but I will briefly talk about **individual actions** e.g. not eating rare seafood and using plastic bags less frequently. — Beijing, Mr. Xie, aged 44*

Question: Have you heard about national measures on sustainable fisheries before? Are you willing to publicize sustainable fisheries to your relatives and friends in your daily life?
Sample amount: N = 2556.



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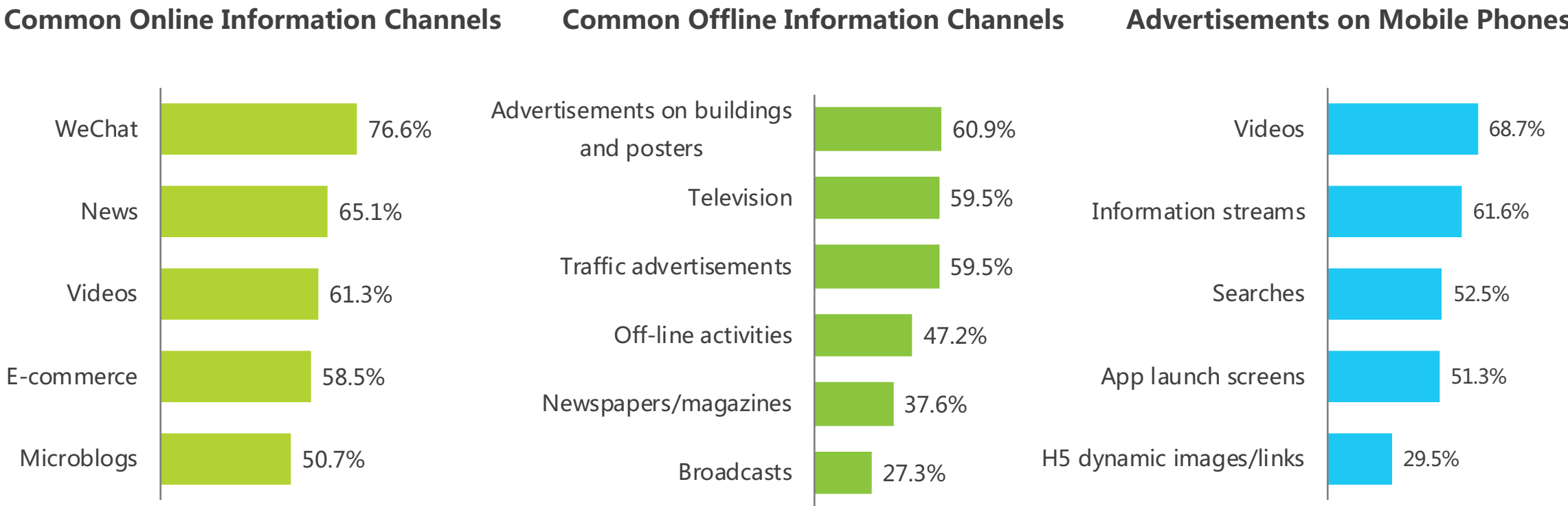
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- High-potential Consumer Portraits



Online and Offline Information Channels and Advertisements

Wechat, Advertisements on Buildings, Posters, and Video Advertisements

- In the Internet age, consumers are more likely to get in touch with information online than offline.
- The most frequently used online information channel is WeChat and its offline counterparts are advertisements on buildings and posters.
- Video advertisements are most likely to attract consumers' attention.

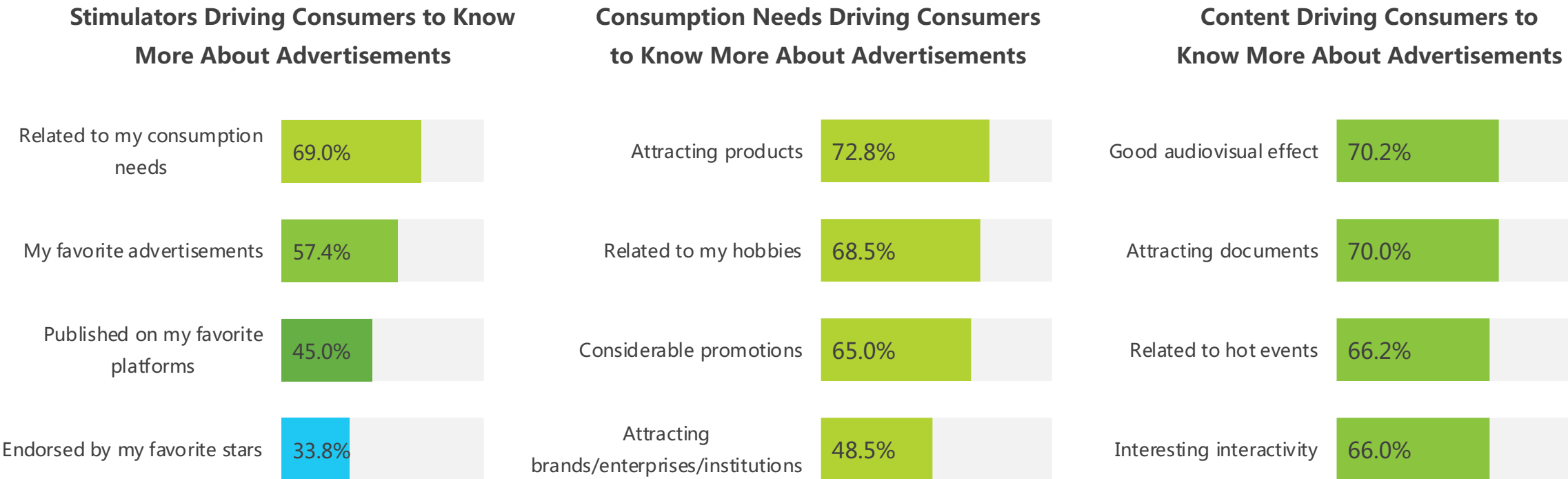




Stimulators Driving Consumers to Know More About Advertisements

Content Related to Consumers' Needs Ranks the First

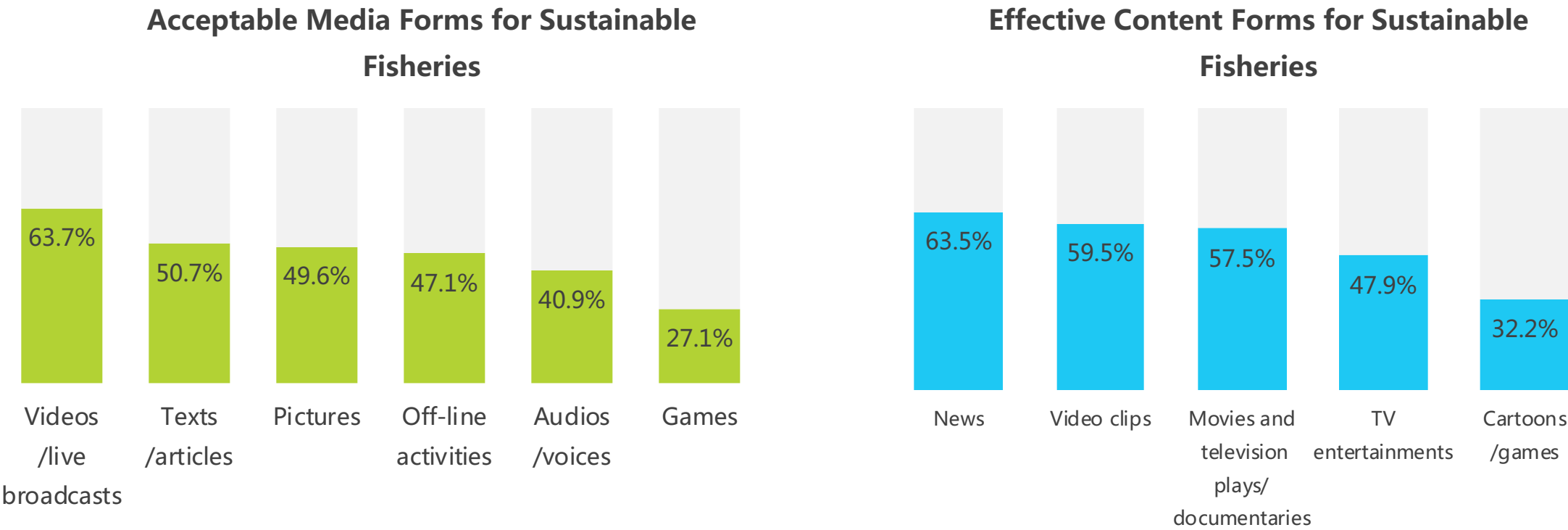
- Statistics show that 69% of consumers know more about advertisements related to their needs, and 57.4% of consumers know more about advertisements that interest them.
- In terms of consumption needs, attractive products are the most significant stimulator.
- In terms of advertisement content, good audiovisual effects and attractive documents are the most significant stimulators.





News Is an Effective Content Form for Sustainable Fisheries

- Statistics show that 63.7% of consumers think that videos or live broadcasts are the most acceptable form of media for sustainable fisheries, higher than that of others.
- Consumers think that the news (63.5%), video clips (59.5%), and movies and documentaries (57.5%) are effective content forms of sustainable fisheries.



Question: Which media forms do you think are acceptable to display content about sustainable fisheries? What content forms do you think are effective to display public welfare information related to sustainable fisheries?
Sample amount: N = 2556.



Content Forms for Sustainable Fisheries — Comments from Consumers



News

- *To really achieve public benefits, long-term visual clues and long-lasting impressions are essential. People won't remember it if they only see it once or twice. I will take notice of activities such as swimming across the Pearl River, even if I do not participate in the event myself. This is because it is organized by the Guangzhou municipal government and it will be broadcast on news programs. Furthermore, the broadcast lasts for a while: a week before the event until the end of the event. — Guangzhou, Ms. Wen, aged 39*

Movies and television plays

- *Turn it into a movie or drama. — Shanghai, Mr. Yao, aged 33*
- *Insert it into movies or TV series. For example in Aquaman, there is an episode about ocean trash. It is not an advertisement, but it lets you know you should protect the ocean environment. — Guangzhou, Ms. Wen, aged 39*

Documentaries

- *Cast documentaries to show the life of ocean animals. This would help to attract more audiences. Or add content about environment protection to scientific shows, for example, to introduce various kinds of fish and their growth cycles. — Shanghai, Ms. Sang, aged 25*
- *I think documentaries are better. I like content about fishermen. So they can start from lives of fishermen. — Shanghai, Ms. Chen, aged 24*

Games

- *Game activities. For example, you have to collect items about environmental protection. And after you have collected all the items, you will be rewarded with virtual clothes or the like. The point is, let more players know about the activity background and intention. — Hangzhou, Mr. Zhou, aged 30*
- *Learn from Alipay. Users plant virtual trees in Ant Forest and contribute to the public welfare day by day. — Shanghai, Mr. Zhu, aged 30*

Foodie Calender

- *Create a foodie calendar as a reminder. For example, if a species of fish is under migration, the calendar reminds me so I will not purchase that species for the moment. Instead, if portunidae are in season, the calendar lets me know so I can purchase fresh ones. — Shanghai, Mr. Chen, aged 41*



Offline Commonweal Activities for Sustainable Fisheries that Consumers Are Willing to Participate In

Contextualized Offline Activities Correlated with Sustainable Fisheries Are More Welcomed

- Popular offline commonweal activities related to sustainable fisheries include recreational fisheries and other outdoor events, visits to aquariums, oceanic knowledge lectures, markets and food festivals.
- Consumers in Hangzhou are more willing to visit aquariums and attend oceanic knowledge lectures, while consumers in Guangzhou prefer markets and food festivals.

Offline Commonweal Activities of Sustainable Fisheries that Consumers Are Willing to Participate In



*The circle marks out prominent data from vertical comparison.

Question: What offline commonweal activities related to sustainable fisheries will you participate in?
Sample amount: Total N = 1204, Beijing N = 263, Shanghai N = 247, Guangzhou N = 260, Shenzhen N = 210, and Hangzhou N = 224.



Offline Commonweal Activities of Sustainable Fisheries — Comments from Consumers



Outdoor Activities — Island Visiting

- *The 4S car shop of our automobile has organized a visit to nearby islands. It's interesting, and the children also loved it. — Guangzhou, Ms. Wen, aged 39*

Publicity in Aquariums

- *Animal trainers can tell stories during animal shows. — Guangzhou, Ms. Jiang, aged 27*

Lectures

- *Lectures in the form of educational training can be organized and opened to public, either free of charge or charging 1 RMB. Online registration should be available. This can be a family activity. — Shanghai, Mr. Yao, aged 33*

Family Activities

- *Family activities that can broaden children's horizons and improve children's intelligence. — Hangzhou, Ms. Yang, aged 37*

QR Codes

- *Better to be articles. Because we do not have information or channels to obtain knowledge about sustainable fisheries. Then, set signboards of public interest at the cashier counters in supermarkets for people to review and participate intensively online, by scanning the QR codes. — Shanghai, Ms. Chen, aged 42*
- *To achieve quick effect, buyers are the best target. Design a plug-in that comes up after a user scans a QR code for payment to answer a question related to sustainable fisheries. If the answer is right, the user can get lucky money. To be honest, I do not like lottery, but I like getting lucky money. So it works. — Shanghai, Mr. Chen, aged 41*

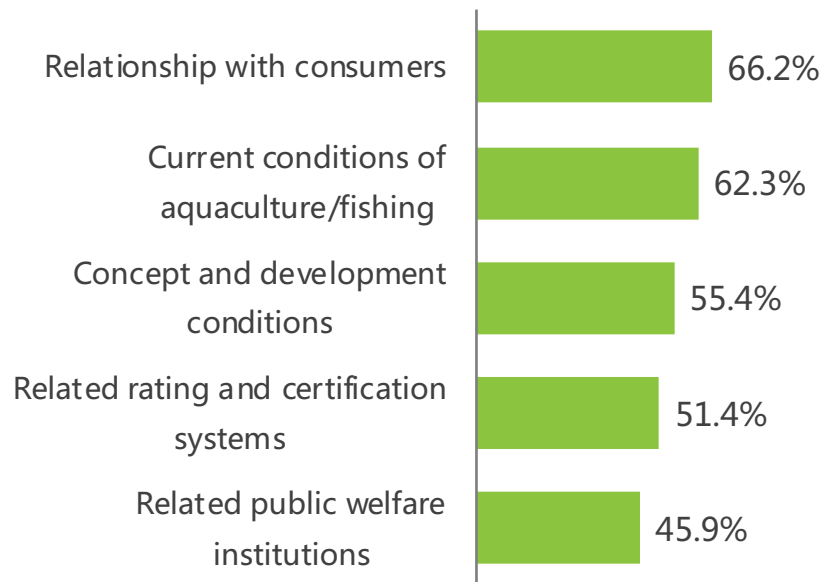


Content Related to Sustainable Fisheries that Consumers Hope to Know About

Consumers Want to Know Most About the Relationship Between Themselves and Sustainable Fisheries

- Statistics show that 66.2% of consumers want to know about the relationship between themselves and sustainable fisheries, and 62.3% of consumers want to know about the current conditions of aquaculture and fishing.
- Consumers dislike cramming. Instead, they look forward to intuitive and specific publications that provide more details and help them make judgments.

Content Related to Sustainable Fisheries that Consumers Hope to Know About



Pollution Details

- I want to see pollution details, more intuitively. — Guangzhou, Mr. Huang, aged 42*
- Cases. That is, the causes and consequences of pollution. — Guangzhou, Mr. Zhang, aged 24*
- From environmental pollution to sustainable fisheries. That would be more impressive. — Hangzhou, Ms. Yang, aged 37*
- Specific measures used to protect the ocean environment. Not just a slogan. — Guangzhou, Ms. Tan, aged 34*

Current Condition and Related Knowledge

- It should reflect current conditions. Specific data seems more convincing. — Beijing, Ms. Li, aged 34*
- Publicize knowledge about fish. Most citizens have only tasted dozens or even under ten types of seafood. Public welfare advertisements without highlights are easy to forget. So cartoons or cute/funny elements could be added to them. Information on fish migration and spawning periods should be publicized to help people avoid purchasing fish in wrong seasons. If everyone understands these concepts, then it becomes public knowledge. — Shanghai, Mr. Chen, aged 41*

Causes and Consequences

- I think the starting point should be awareness. First of all, let the public know about sustainable fisheries products, so that they can judge and decide whether to purchase these products themselves. Secondly, introduce related activities that have been conducted by commonweal organizations, governments, and other organizations. After the public are aware of sustainable fisheries, they will then agree with and support the industry. — Shanghai, Mr. Yao, aged 33*



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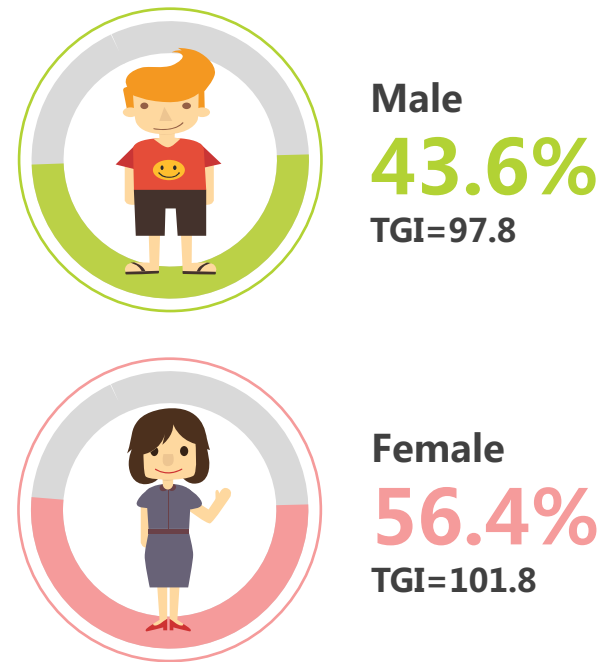


Gender, Age, and Educational Background of Intensely Potential Clients

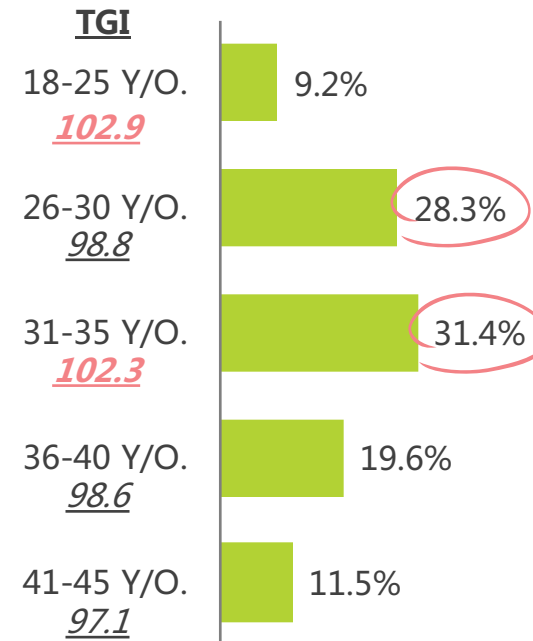
Females and Young People with High-Level Educational Background Are the Main Force

- Females are the main consumer force who are likely to support sustainable fisheries, totaling 56.4%. This figure is higher than that of overall consumers.
- People aged 26 to 35 account for nearly 60% of potential supporters. The proportion of supporters under 25 years old and those aged 31 to 35 is higher than that of overall consumers.
- People with a bachelor's or higher degree account for over 80% of potential supporters. The proportion of supporters with a bachelor's degree and people with a master's or higher degree is higher than that of overall consumers.

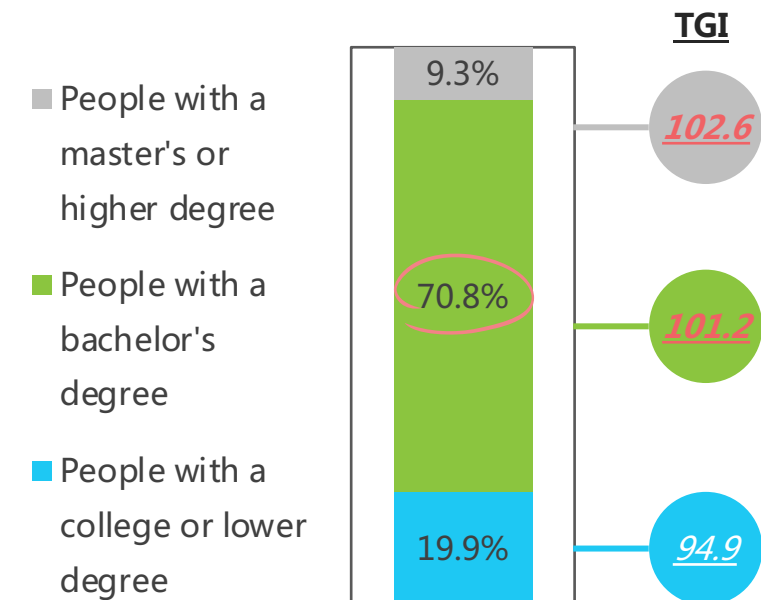
Gender of Potential Supporters



Age of Potential Supporters



Educational Background of Potential Supporters



*The circles mark out prominent data, and the bold texts in pink show the data whose TGI is larger than 100.

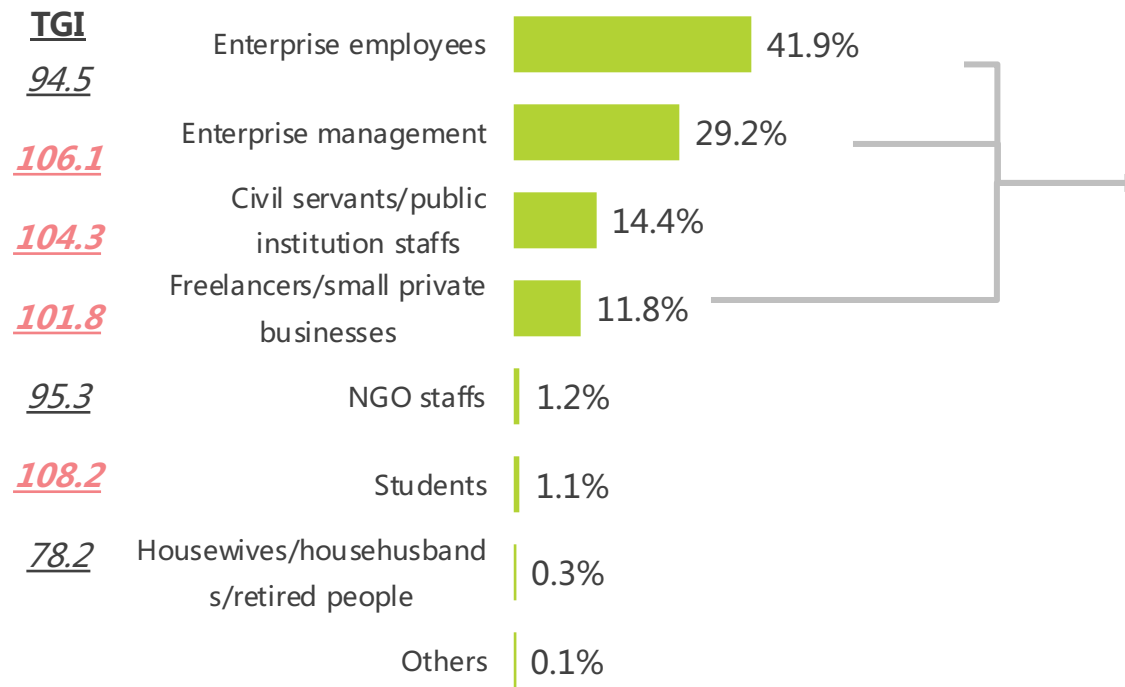
Question: What is your gender? What is the month and year of your birth? What is your educational background?
Sample amount: N = 2556.



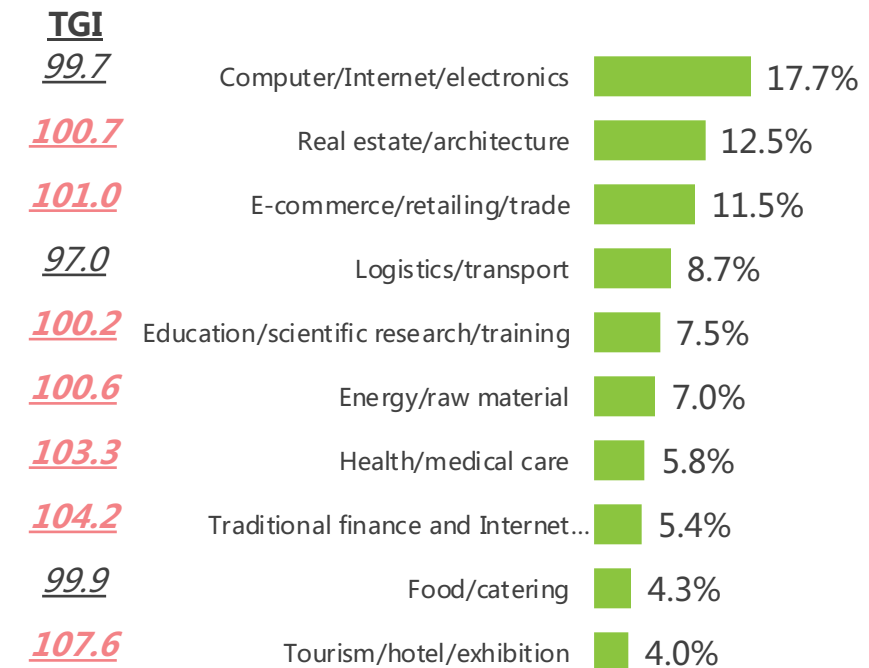
Employees from the following Industries: Computing, Internet, Electronic, Real Estate, Architecture, E-Commerce, Retailing, and Trade Are the Main Force for Supporting Sustainable Fisheries

- Employees are the main force of consumers who are likely to support sustainable fisheries, reaching over 40%. However, the proportion of supporters among enterprise management, civil servants, public institution staffs, freelancers, small private businesses, and students is higher than that of overall consumers.
- Potential supporters are mainly distributed in the following industries : computing, Internet, electronics, real estate, architecture, e-commerce, retailing, and trade. The proportion of supporters in industries of real estate, architecture, e-commerce, retailing, and trade is higher than that of overall consumers.

Occupations of Potential Supporters



Top 10 Industries of Potential Supporters



*The bold texts in pink show the data whose TGI is larger than 100.

Question: What is your occupation? Which industry are you in?
Sample amount: Occupations N = 2556 and industries N = 2132.

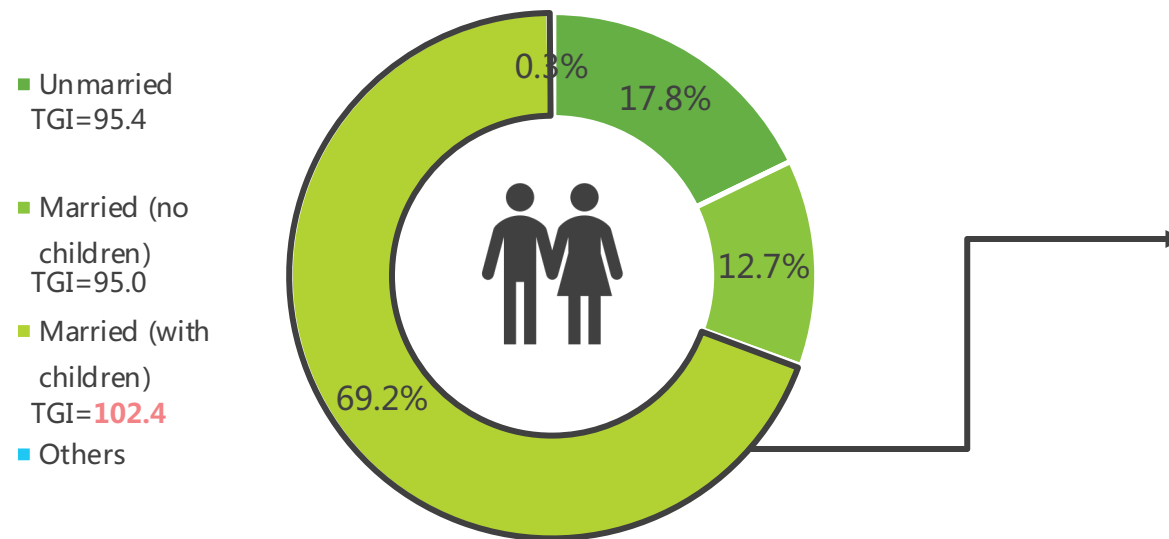


Marital and Parental Statuses of Potential Supporters

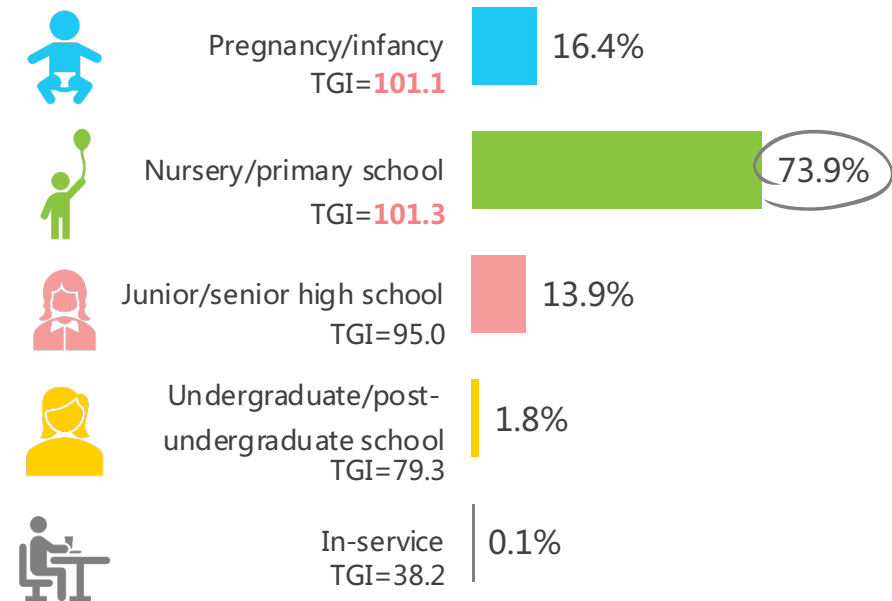
Married Couples (with children at Early Childhood) Are the Main Force

- Married couples are the main consumer force who are likely to support sustainable fisheries, reaching over 80%. In addition, parents account for 69.2% of the total potential supporters, which is higher than that of overall consumers.
- Children of such married couples are in the early stages of childhood, mainly at nursery or primary school. The proportion of married parents who have kids at primary schools or earlier stages is higher than that of overall consumers.

Marital Statuses of Potential Supporters



Children Statuses of Married Parents Who Are Potential Supporters



*The circles mark out prominent data, and the bold texts in pink show the data whose TGI is larger than 100.

Question: What is your marital status? Which life stage are your children in?
Sample amount: Marital statuses N = 2556 and children statuses N = 1727.

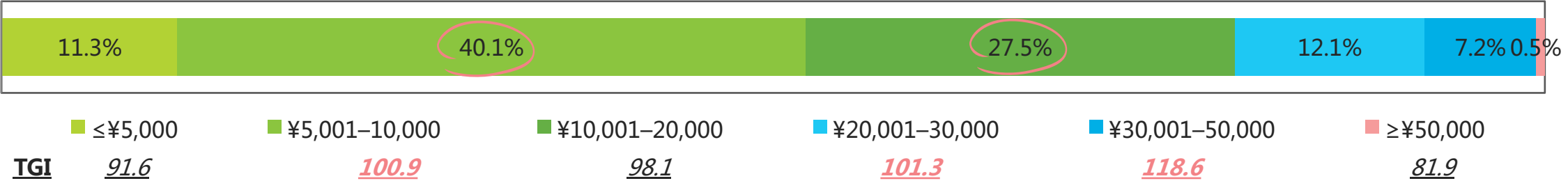


Income of Potential Supporters

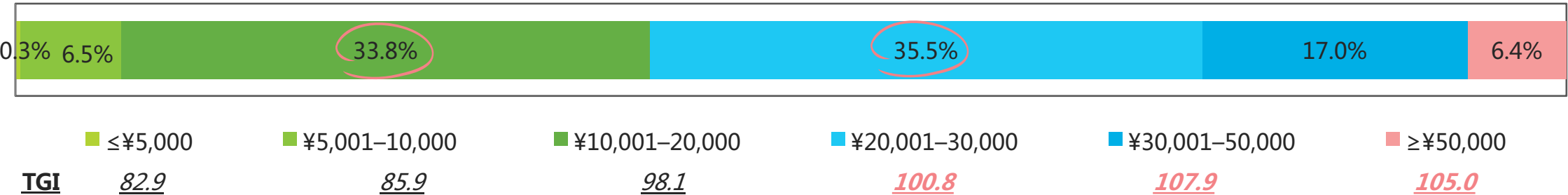
High Income

- The monthly income of unmarried potential supporters ranges from 5,001 to 20,000 RMB, accounting for over two thirds of the total. The proportion of unmarried potential supporters whose monthly income ranges from 20,000 to 50,000 RMB is higher than that of overall consumers.
- The monthly family income of married potential supporters ranges from 10,000 to 30,000 RMB, accounting for nearly 70% of the total. The proportion of married potential supporters whose monthly family income is higher than 20,000 RMB is higher than that of overall consumers.

Monthly Income of Unmarried Potential Supporters



Monthly Family Income of Married Potential Supporters



*The circles mark out prominent data, and the bold texts in pink show the data whose TGI is larger than 100.

Question: What is your pre-tax monthly income? What is your pre-tax monthly family income? (Including salaries, bonuses, material benefits, profits from financial products, and asset incomes.)
Sample amount: Unmarried N = 478 and married N = 2078.

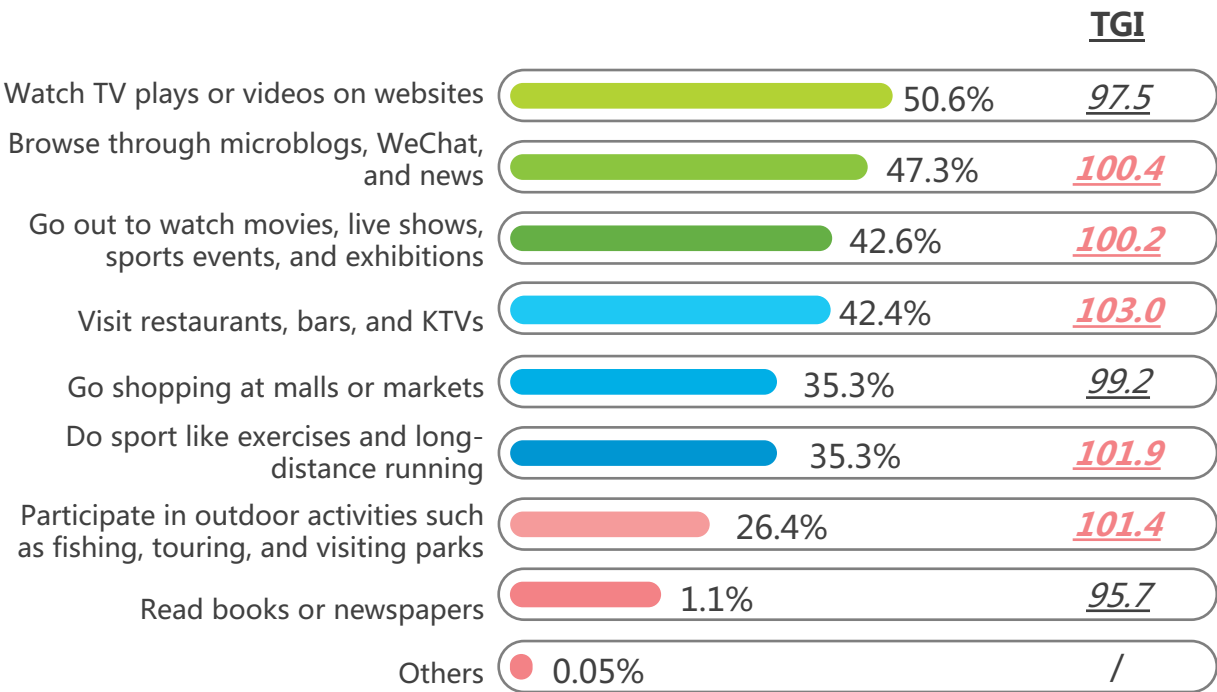


Hobbies and Personalities of Potential Supporters

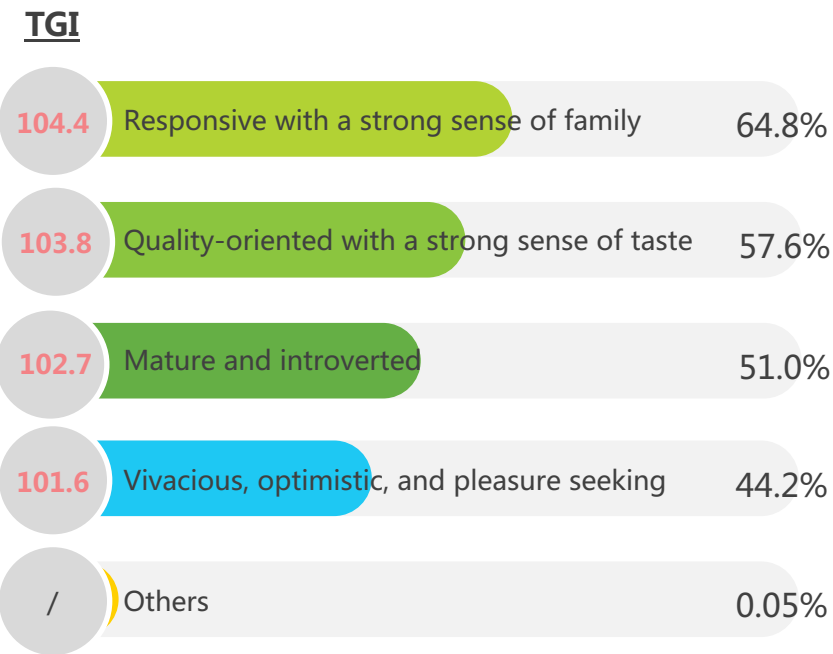
Homebodies and People Who Are Responsive and Have a Strong Sense of Family Are the Main Force

- Potential supporters tend to watch television plays or videos on websites, browse through social apps, go out to watch live shows, and go to recreational places during leisure time. In addition, compared with overall consumers, more potential supporters watch live shows and go to recreational places.
- Many potential supporters think that they are responsive and have a strong sense of family, focus on quality and have a strong sense of taste and judgement , and are characterized by maturity and introversion. The proportion of such people is higher than that of overall consumers.

Hobbies of Potential Supporters



Personalities of Potential Supporters



*The bold texts in pink show the data whose TGI is larger than 100.

Sincere Thanks to the Following Institutes

(They are listed in random order)



**ChinaBlue
Sustainability Institute**



Blue Pioneers



**School of Oceanography,
Shanghai Jiao Tong University**



Duke Kunshan University



Go For Change