

Coral scientist sees new tide of hope to protect Hainan reefs

Restoration of the precious resource and ensuring its survival is Chen Hong's lifetime mission

By MA ZHIPING in Sanya, Hainan
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What lies beneath has intrigued Chen Hong since childhood and he has devoted his life to exploring the mysteries of the seas, especially the "lungs of the oceans", coral reefs.

"Look, these are coral seedlings we planted in Xisha in April 2014. They are growing fast," said Chen, a 52-year-old oceanic scientist, showing recently taken pictures, smiling like a veteran collector who has struck gold.

"After more than 10 years of experiments, we have mastered at least six kinds of technology for growing coral under different environments and the survival rate of corals such as goniastrea (resembling a sponge) is as high as 90 percent," Chen, director of the Hainan South China Sea Institute of Tropical Oceanography, said at his new 1,500 square-meter laboratory at Yazhou Bay, Sanya.

Coral reefs are the forest of the ocean and are at the top of the biodiversity system where almost all kinds of living marine categories have representative species living among them.

Charles Darwin, the father of modern biology, described coral as "one of the most wonderful things in the world". Healthy reefs attract fish, algae and other marine life forms, gradually evolving into a biological supermarket and eventually "an undersea city".

Reefs account for less than 0.25 percent of sea area, but shelter and nourish more than one quarter of the oceans' fish resources.

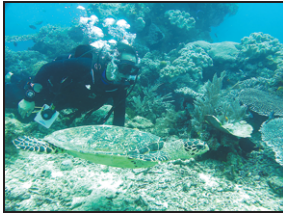
"Global warming, land-based sewage, illegal fishing activities, wild multiplying of thorn starfish predators and too much tourism are threatening the coral reef ecosystems. My heart was broken seeing many of them turning white in response to stress," said Chen.

He explained that as sea temperatures rise, zooxanthellae parasitic plants, vital for the coral's survival, are expelled.

Without zooxanthellae, bleaching occurs and the reefs will die.

In 2003, Chen set up his research institute in the wake of a large area of albino coral, after years of research work in Sanya at the southern tip of tropical Hainan island, dubbed "China's Hawaii".

As a young man Chen was inspired by a United States' documentary showing Jane Goodall's research into African wild gorillas. "It fascinated me and made me yearn for a lifestyle of pure research into nature and a report about the development of the Sanya Ocean Experimental Station attracted me to this



Top and right: Chen Hong, director of the Hainan South China Sea Institute of Tropical Oceanography, grows coral seedlings in waters around the Xisha Islands. While above, from left, Chen at work during a survey of reefs in Indonesia. PROVIDED TO CHINA DAILY

dreamland of Hainan after graduation from Zhejiang Ocean University in Zhoushan in 1986," said Chen.

Since then he has acted as a Chinese "Don Quixote", as some people call him, spending most of his earnings on research and losing himself in the laboratories studying the growth of various corals and leading his teams in monitoring the waters in Hainan, with support from local governments and institutions.

The sometimes harsh conditions are not to everyone's taste, said a friend, but Chen has overcome a host of problems.

"People have their own values in life. I can lead a very comfortable life with my technology. But I want to do more for society and the ecosystems. The only thing I feel ashamed about is that I have made no contribution

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Chen Hong at the Hainan South China Sea Institute of Tropical Oceanography

to my family," said Chen, uneasily.

As a participant of a number of Hainan's sea ecosystem research projects, he has gone to Xisha with his teams about 20 times, planting more than 9,500 corals, tridacna clams and large-size seaweed.

During his exploration in Xisha, he found new coral species and a seaweed bed ecosystem, which have enriched Xisha's ecodiversity.

He also tried laser measurement equipment and coral transplanting devices he himself has developed.

"Our restoration efforts also led us to discover that with global warming, shell algae can grow and cling on coral chippings to form small coral reefs, inspiring a new technical solution to the ecological restoration of reefs.

"And it is amazing to see that soft

coral forms a relationship with shellfish, with the latter helping clean harmful tiny seaweed and soft corals to provide living space for the shellfish," said Chen, adding these findings could have a global impact.

"It is very hard to plant the coral. We have to bind the coral seedlings in a net and then dive to the sea bed and pin the net on rocks with steel nails to keep them from being swept away by waves," said Chen.

After that, checks and monitoring must be conducted in the following days and even months or years to make sure they survive.

Xu Daoning, a local fisherman was so moved by Chen's hard work and determination that he often helped him.

"A normal diver can stay under water for 90 minutes a day, but he

9,500 corals

Chen Hong and his team have planted in Xisha Islands

200,000

coral-related species

Chen has grown when building demonstration zones for coral reef restoration in the past 10 years.

has dived several times a day each for 90 minutes, planting as many as 500 corals in one day."

Chen has won a number of awards for his scientific research in safeguarding the coral.

He has grown 60,000 corals, 200,000 coral-accompanying species and constructed demonstration zones covering 6.7 hectares for coral reef restoration over the past 10 years.

"We are now able to replant all kinds of hard coral through asexual reproduction of a single polyp and this can effectively solve the problem that asexually reproduced corals are not able to survive strong typhoons. This year, we will grow another 200,000 corals," said Chen, who has a blueprint to grow one million corals in Hainan's sea waters in the next few years.

Chen is planning to build "coral gardens" as demonstration zones in waters around Phoenix island in Sanya Bay.

The coral gardens will help construct an ecosystem that encourages fish, shellfish and sea plants to form a completely new ecological landscape.

"I will continue diving to explore but speed up my development of robots that will function as coral growers and I will then be able to concentrate more on research," said Chen, who is in talks with domestic robot-making companies.

"China is comparatively weak in basic research on coral resources but is catching up quickly and taking a leading position in fields such as coral reproduction, transplantation, disease control and ecosystem monitoring," said Chen.

"Coral reefs are becoming more and more vulnerable and the coral reef systems need more and better protection. The mission is important and I will keep on doing my duty, bit by bit," said Chen, adding that he has given a number of lectures to local fishermen.

Japanese media star fights against anti-China bias

By LI XIAOKUN
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For the past 45 years, since Beijing and Tokyo normalized relations, Yasuhiro Tase, a leading Japanese media professional, has always sought to bolster the often-fraught ties.

On Oct 8, 1944, Tase, son of a Japanese medical-corps soldier, was born in Heihe in Northeast China's Heilongjiang province. The city, which borders Russia, was part of a Japanese puppet state known as Manchukuo, in the area of Manchuria, at that time.

In April 1945, the corps to which Tase's father belonged to suddenly retreated to Japan to prepare for a "decisive battle" with the United States on Japanese soil. Tase's mother learnt about it from others after her husband left home.

"My mother carried me on her back and walked to China's border with Korea, and then got on a ship to Japan," Tase recalled in an interview with China Daily before the 45th anniversary of the normalization of bilateral ties, which fell on Sept 29.

"It was a long and arduous trip. She had no food, and could not breast-feed me due to malnutrition. Fortunately many Chinese people, mainly local peasants, fed us. Some let us spend the night at their home. Without them I would not have survived."

Tase said his father did not go on the battlefield in China and did not kill Chinese people.

"However, he was in China as a Japanese soldier. So, I still feel regret for the Chinese.

"Besides, my mother kept telling me how the Chinese helped us. So I felt obliged to do something for Japan-China ties. It is like my fate."

"Always keep in touch."

When studying at Waseda University, Tase participated in a speech contest among Japanese universities. The theme of his speech was the importance of building good ties with China.

After graduation, Tase joined the Nihon Keizai Shimbun, a major Japanese newspaper, as a political reporter. He stayed there for 45 years and was Washington bureau chief. Later, he became an independent media professional on political issues.

"I have been working for the media since the normalization of Japan-China relations and have exerted my efforts in the field to promote the ties."

As a famous media figure, Tase has been in delegations of Japanese politicians on their China visits, and met many Chinese leaders.

"When I came with Kiichi Miyazawa on a China visit, before he became prime minister in 1991, a former Chinese leader showed me



Yasuhiro Tase attends the 12th China-Japan Media Professional Talks in Shanghai on Sept 11 and 12.

LI XIAOKUN / CHINA DAILY

how to peel a lychee. As I was leaving Beijing, he had somebody send some lychee to the train. I have kept the scene firmly in my mind."

Tase is on familiar terms with many Chinese diplomats, such as Wu Dawei and Foreign Minister Wang Yi, both former Chinese ambassadors to Japan. He also made friends with many Chinese scholars and students when he stayed at Harvard University and taught at Waseda University from 2006-10.

"I have promised many Chinese friends that no matter how bilateral

relations change, we will keep in touch."

Neutral reports on China

"When I was young, I never thought about writing negative reports about China. At that time, about 80 percent of Japanese people liked China, but things are totally different nowadays," Tase said.

He said the change is linked to the state of Japanese politics.

"Led by right-wing politicians, the whole of Japan has been turning right. Personally I want to stick to objective reports. But as the whole society is turning right, that makes me look leftist."

Tase believed the negative emotions against China are also partially due to biased reports in the Japanese media. "There is a big problem with the Japanese media's reports on China."

He recalled that about five years ago, when anti-Japan protests broke out in major Chinese cities due to Japan's "nationalization" of the Diaoyu Islands in September 2012, Japanese TV channels were full of scenes smashing Japanese-brand cars, which were isolated cases in China.

"The footage shocked the Japanese. I was working for a TV station and sent a cameraman to Beijing to take such pictures. But after his arrival the cameraman called me, saying 'Mr. Tase, I can't find such

scenes here. Can you tell me where to film the scene?'"

Five years on, during business trips around Japan, Tase saw many Chinese tourists.

"At first I thought they were here for shopping, but after talking I found many Chinese visitors go to places that even Japanese people do not know about. They like Japan very much and found the places on the internet. That was an important discovery."

However, he found that there are not many Japanese tourists going to major Chinese cities such as Beijing and Shanghai.

"Why is that? Is there something wrong with the Japanese media's reports on China?"

He said China's development was very quick in terms of innovation and Japan can learn a lot from China. But Japanese media reports on China still focus on the negatives, such as air pollution. "Against such a background, it is not surprising to see a limited number of visitors," he said.

A new mission

However, in July Tase was deeply impressed and encouraged by communication and exchanges involving the younger generation.

"I attended a concert of a popular Japanese rock band Radwimps in Shanghai. About 8,000 Chinese young people were there. It was unbelievable. The Chinese young-

“Led by right-wing politicians, the whole of Japan has been turning right. Personally I want to stick to objective reports.”

Yasuhiro Tase, a Japanese media professional

sters did not speak Japanese, but they all sang in Japanese with the band.

"After the concert, I saw many young people who could not get in, waiting outside, as they failed to get tickets. I realized that as times change, relations between the two governments are no longer that important. In such events, hearts of the two people are closely bonded."

In frequent visits to China, Tase found that South Korean music is very popular here. "It is a regret that not many people listen to Japanese music. Vice-versa, it is hard to hear Chinese music in Japan.

"My mission for the rest of my life will be introducing music of the two countries to each other and to forge another platform for communication between the two nations," said Tase, who is also a singer and music producer.