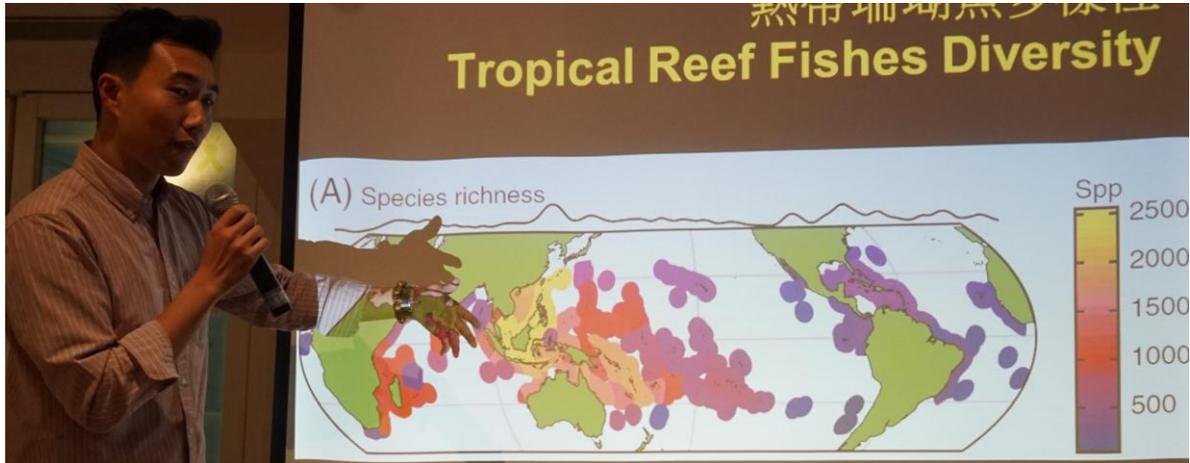


**NHS DINNER TALK – THURSDAY 11 JANUARY 2018**  
**HONG KONG'S REEF FISHES - A JOURNEY AROUND OUR SEAS**  
by **DR ALLEN TO**



Café 8 atop the HK Maritime Museum proved an apt venue for this marine-themed dinner-talk, attended by 22 members and guests. Dr Allen To gave a most informative and engaging talk on fishes that spend all or part of their lives in tropical coral reefs, illustrated with many of his own underwater photos taken while diving in waters around Hong Kong and beyond.

A 2017 study found that the highest diversity of reef fish, up to 2,500 species, is in the seas around Indonesia, Malaysia, and the Philippines. On the margins of this region, Hong Kong doesn't do badly: despite covering only 0.05% of the South China Sea, our waters contain 26% of its marine fish species, about 1,000 species. Of these, 340-500 are reef fish species. This relative richness for a small area is because HK straddles tropical and temperate zones, so that 75% of the fish in its reefs are tropical and 25% temperate.

Hong Kong's own study, called Project 114 ° E Reef Fish Survey, involves more than 100 volunteers who've been diving at 49 sites. Reef fish hot-spots, mostly off Sai Kung, include Basalt, Sharp, Shelter and Ninepin Islands. Photos of newly-spotted species in our waters are shared on a global database and published in a peer-reviewed journal.

Some species are very tricky to tell apart, as we discovered when we played spot-the-difference with photos of various species that look identical but for the shape of the dorsal fin, or spot on the tail, number of rays in a fin, or whether stripes on the body are solid or broken. Sue and Stewart won copies of Allen's book on reef fish for their superior powers of observation!

We were introduced to a series of interesting characters captured in close-up in local reefs: colour-changing goatfish and butterfly fish (20 species in HK); golden cardinalfish that keep their eggs and babies in their mouth; rabbitfish which look dull solid in wet markets but are actually a lively yellow hue alive underwater; weedy stingfish which are common here but so well camouflaged they're hardly seen; Russell's snapper with its

distinctive black spot, also common in wet markets; Moorish idol spotted in just a handful of locations in HK.

But many reef fish species are struggling for survival. Allen highlighted some alarming statistics: WWF's Marine Living Planet Index shows a 36% drop in marine vertebrate population size across the globe over the past 40 years; in the South China Sea the estimate is a 70-95% decline in marine resources since the 1950s. By far the biggest threat is overexploitation, followed by habitat loss and climate change. Less than 2% of Hong Kong waters are designated marine protected areas – "way too little," Allen said.

In Asia, only the Maldives consumes more fish per capita than HK. As WWF-Hong Kong's Manager, Ocean Sustainability, Allen made a pitch for the consumption of sustainable seafood, passing around copies of a WWF guide listing species to avoid/think twice about/okay to eat; the leaflets were snapped up by members.

He ended by giving us a glimpse of what a relatively pristine marine environment looks like, where fish are bountiful and underwater visibility can go beyond 40m (in HK it's 1.7m). This was off some of the atoll reefs in French Polynesia, where Allen and his wife Fion, who also works for WWF-HK, went diving last year. He showed some stunning videos and photos they had taken of huge schools of snappers, groupers and surgeonfish unafraid of humans, curious humphead wrasse making eye contact with divers, and reef sharks swimming in the shallows around people.

Members asked Allen about the best time for visibility in HK waters (June & November but visibility changes often so there's no guarantee) and the outlook for coral bleaching (bleak, especially as global temperature is expected to rise further). As a token of appreciation NHS Chairman Ken Bradley presented Allen with a copy of the NHS Memoirs, which Allen said he remembered was used as a reference when he was studying at HKU! We then enjoyed a tasty buffet dinner with plenty of healthy options and no unsustainable seafood.



(Photos courtesy of Tom Yam)