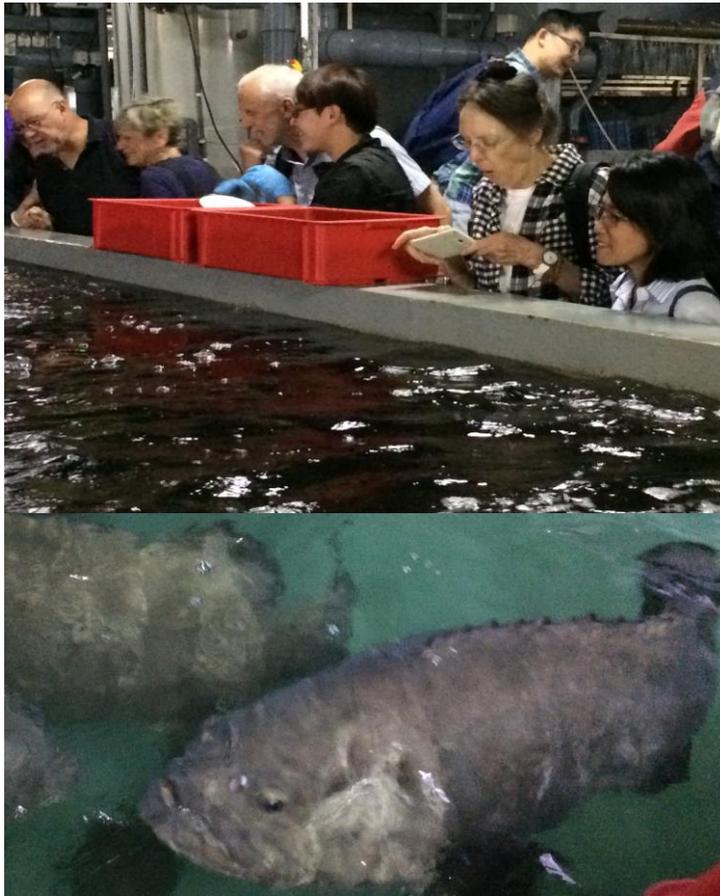


NHS OUTING TO TIN SHUI WAI – 28 APRIL 2018
FISH FARM – LUNCH – WWF TALK – HK WETLAND PARK

On this outing to the far northwest New Territories, 21 members and guests packed in four activities, though none were very strenuous, exercising mainly our minds and digestive tracts! First stop was Aquaculture Technologies Asia's indoor farm in Lau Fau Shan, which houses 60,000-80,000 giant grouper/garoupa (*Epinephelid lanceolatus*), from fingerlings to market-size, in huge tanks of filtered tap water and aquarium salt.



In this controlled habitat, the fingerlings, imported from Taiwan & Australia, are raised for 10-18 months, mostly to “banquet size” (1.5-1.8kg) but a few up to 60kg. Many gasps were heard as we watched ATA food scientist Elpho Zhu feeding about a dozen of these giants with shellfish-powder pellets free of the metals & other pollutants found in the food chain of sea fish. Better nutrition, less muscle deterioration and less stress (monitored with blood tests to check cortisol levels) enhances the quality and taste of their grouper, said ATA's Assistant to GM Felix Wai. The fish are killed “with minimum struggle”

by quickly severing their central nervous system. About 2,000 groupers of 1.5-1.8kg go to hotels, clubs & restaurants per month. The 40-60kg giants are sliced up and sold to supermarkets. We were also shown a short video on ATA, founded in 2003 by Mark Kwok (of the family that owns Wing On Dept Store), with scientific help from HKU and the Kadoorie Institute. *E. lanceolatus* was chosen because it's the largest and fastest-



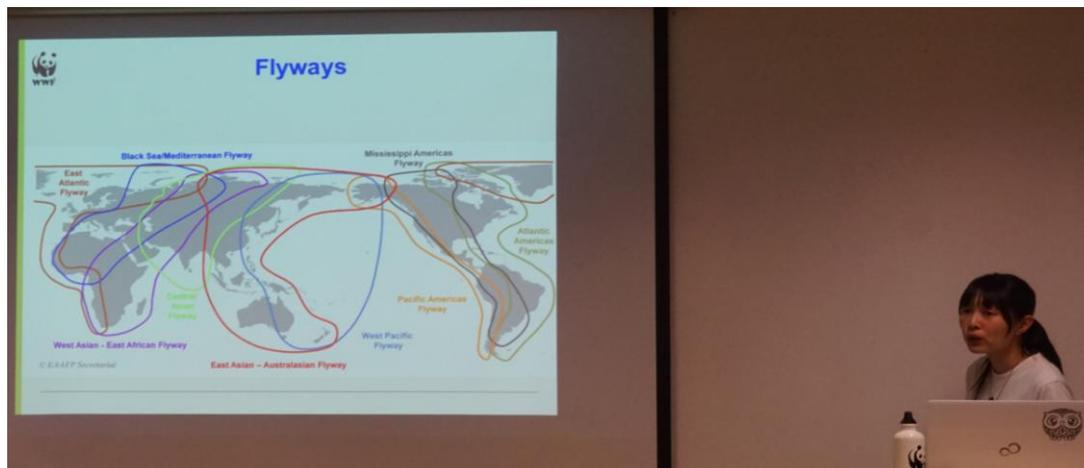
-growing grouper, popular at Chinese banquets. Mature fish, called broodstock, spawn in a regulated environment and fertilised eggs are collected and nurtured until they hatch, then the larvae, fry and fingerlings are grown out before despatch to ATA's farms. Despite such controlled conditions, only 20-60% survive to maturity as ATA minimizes the use of antibiotics. Along with its efforts to source quality hatcheries, traceable fish feed, and invest in a clean recirculation system, this has earned its grouper a recommendation in WWF-HK's Seafood Guide as a sustainable alternative to wild grouper, many species of which are now endangered from overfishing.



Doing our bit for grouper sustainability, we bought 2 banquet-size specimens and ferried them in our aircon coach to the nearby Yuen Long Rural Committee Restaurant. Steamed with soya sauce, ginger and spring onion, the stress-free fish were enjoyed by all, along with other dishes and a reasonable quantity of beer. Aficionados tasted no difference between farmed and wild grouper, while Andrew, Pam and Clara did justice to the fish head and bones!



After lunch the group proceeded to HK Wetland Park where we'd booked one of the function rooms for a talk by Fion Cheung, WWF-HK's Assistant Manager, Flyway Planning and Training, on the importance of China's coastal wetlands to bird migration.



Fion works at Mai Po Nature Reserve, which is in the middle of migration paths known as the East Asian-Australasian Flyway (EAAF) encompassing 22 countries from Russia to China to New Zealand. China's 58,000 sq km of coastal wetlands are crucial "rest and refuelling" stops for 50 million migratory birds. They summer in the north when insects are plentiful, winter south in warmer climates, then fly back in spring to northern breeding sites—journeys of thousands of kilometres during which they lose half their body weight. She detailed the massive reclamation and intensifying development along China's coast, home to 40% of its (human) population, that is destroying tidal mudflats where millions of shorebirds feed.

Particularly alarming is the rapid pace of urban development around the Yellow Sea and Bohai Bay, where six wetland areas are critical to migratory birds. In the 20 years to 1994, 300 sq km of coastal mudflats were lost, but in 2004-2010 (only 6 years), 530 sq km were reclaimed. With satellite maps and survey data, Fion showed how reclamation around Tianjin forced waterbirds like Red Knots and Curlew Sandpipers into the mudflats of nearby Tangshan, where their density tripled. But Tangshan is also being transformed with the development of an offshore oil field.

In China's land law, wetlands are classified as "unused land," up for grabs for fisheries, salt production or tourism, and overseen by several different ministries. Reclamation is a fast, cheap way to gain new land and local officials are assessed on economic growth. As a result of China's shrinking wetlands, the EAAF has the highest number of endangered & threatened species, and Mai Po's bird numbers are dwindling: for example, a 70% decrease in Red-necked Stints (below left) since 2012 and an even bigger fall in Bar-tailed Godwits (below right) since 2014.



Photos courtesy of
www.hkbws.org.hk
www.birdinghongkong.com

But Fion ended her talk with some “glimmers of hope”: Last year, the Chinese government issued a National Wetland Protection Plan setting specific targets for wetlands to be preserved, and banning reclamation in Bohai Bay; multiple ministries with overlapping supervision of the environment have been consolidated into two superministries; WWF-HK has been training hundreds of nature reserve staff, educators and government officials from the mainland, and partnered with four nature reserves there in habitat management.

An article echoing the very threats that Fion described ran in that day’s edition of The New York Times: [Opinion | Shorebirds, the World’s Greatest Travelers, Face Extinction](#)

-- Report& photos by Kim Chai, additional photos by Tom Yam

On a quick whizz around the Wetland Park afterwards, we were unfortunately unable to spot any spoonbills, although Fion had said some were still around; however most are gone by about mid May.



But from the two farthest hides we did see several Cattle egrets in their orange-buff and white breeding plumage. And a couple of Chinese pond herons in theirs—stunning chestnut head and neck, slatey grey back, and white under parts. Grey herons were of course in abundance, and various melodious cuckoo calls were heard though the birds were not seen. From the mangrove boardwalk, many mudskippers below looked like they were having a good time leaping about.



And Pui Pui the crocodile was posing on a rock in her home near the Visitor Centre.

Despite the paucity of birds spotted on this particular occasion, our small group still thoroughly enjoyed our walk around this extremely scenic Park. - Report by Jan Campbell

Chinese Pond Heron photo courtesy of www.birdinghongkong.com/blog/mai-po-spring-1