



世界自然基金會
香港分會

WWF-Hong Kong

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Legislative Complex
1 Legislative Council Road
Central, Hong Kong

17 May 2018

Dear Members of the Legislative Council,

Re: Receiving public views on the protection of endangered species of animals and plants

WWF would like to express our view on the protection of the endangered species, green turtle (*Chelonia mydas*) in Hong Kong.

Green turtle - fighting for survival

Hong Kong is home to exceptional marine biodiversity. More than 6000 marine species have been recorded, including the globally endangered green turtle.

Green turtles are found throughout the tropics and subtropics and well known for their late sexual maturation; it takes between 26 and 40 years before they are able to breed¹. Green turtles return to their natal beach for nesting, with adults traveling hundreds to thousands of kilometers between nesting beaches and foraging grounds. Throughout their different life stages, green turtles face multiple anthropogenic threats including harvesting, entanglement by fishing gears, water pollution, ingestion of marine debris and habitat degradation. It was suggested that only one in 1,000 juvenile green turtles survives to adulthood². Green turtles are listed as "Endangered" in the IUCN Red List¹ and in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)³. In the South China region, five species of sea turtle were recorded and the green turtle is the only species that nests in the area. However, their nesting populations have been declining. Decades ago, green turtles nesting were reported in a number of beaches along the coast of Guangdong, Hainan Island and Beibu Gulf. Sadly, most of these sites seemed to have been abandoned, and the only known nesting sites on the mainland nowadays are in Huidong and Hong Kong⁴.

Conservation of sea turtles on both a regional and global scale is strongly needed.

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Green turtle in Hong Kong - on the verge of extinction

Being one of the two remaining nesting sites of green turtles anywhere in China, and given the fact that adult nesters are vital to sustain the green turtle population in the region, conservation of green turtle and of its habitat in Hong Kong is crucial.

Some decades ago, nesting green turtles were observed at many remote beaches and islands in Hong Kong, including Tai wan (Sai Kung), Tai Long Wan (Shek O), Tung O (Lamma Island) and Sham Wan (Lamma Island)⁵. Nowadays, Sham Wan is the only remaining nesting beach for green turtles in Hong Kong. According to the satellite tracking results of nesting green turtles in Sham Wan by AFCD, turtles migrate to their foraging ground in Hainan Island and Vietnam after nesting⁶.

Sham Wan is a small sandy beach (0.6 ha) located in southern Lamma Island. The area has been a Site of Special Scientific Interest since June 1999. To minimize disturbance during the green turtle breeding season, Sham Wan is a Restricted Area from June to October every year. Between 1998 and 2006, there were 14 records of nesting turtles in Sham Wan. But only two have been documented since 2006, with the last sighting in 2012, i.e. no green turtle returned to Sham Wan to lay eggs in the last 5 years.

Inadequate protection for green turtles in Hong Kong

Although Sham Wan was designated as a Restricted Area during breeding season and green turtles in Hong Kong are protected under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) and in the Wild Animals Protection Ordinance (Cap. 170), the green turtle still faces various threats in Hong Kong and considerably more protection and conservation measures are needed.

Anthropogenic activities, including marine traffic and light and noise pollution, can prevent female green turtles from nesting. Sham Wan, with its beautiful scenery, is a popular bay for pleasure crafts during the summer time which is also the nesting season for green turtles. Although the nesting area, i.e. the 0.5 ha of sandy beach was designated as the restricted area, no protection was imposed to the adjacent sea area in the bay. According to a study⁷ conducted by an eNGO from 2013-2015, up to 17 boats were found anchored in the bay during summer weekends, generating high levels of noise. There are frequent reports of visitors entering the beach. Besides recreational activities, fishing activities are not being regulated in Sham Wan bay. Fishing activities such as trammel net, purse seine, squid fishing have been found operating in the bay, which creates considerable threats of fishnet entanglement and light pollution.

Marine litter is another serious threat to green turtles in Hong Kong because this can be readily ingested by turtles by accident, or could cause entanglement. In October 2015, a dead green turtle was found on the Pak Lap Wan in Sai Kung, with its guts and stomach full of plastic. Between October 2011 and February 2016, 12 out of 23 sea turtles that Ocean Park received from AFCD were found affected by marine debris. All these cases involved marine litter, plastic in particular, which clearly impose threats to green turtles.

In summer 2016, a huge amount of marine litter was found in western to southern waters in Hong Kong, including Sham Wan. More than 570 kg of marine litter was collected in Sham Wan by the government in just one month. In August 2017, one

hundred tons of palm oil spilled onto Hong Kong beaches including Sham Wan as a result of a ship collision. Marine litter is a potential hazard for keeping green turtles from returning to the bay.

Pollution is serious in coastal waters and habitats in South China which are often contaminated by organic pollutants and trace elements due to the recent rapid increase in industrialized activities in the region. Marine species, including green turtles, are exposed to these contaminated waters daily and might cause adverse health impacts. A recent study on levels of trace elements and persistent organic pollutants (POPs) of green turtles in South China⁸ indicated that the levels of some trace elements in their bodies were much higher than in studies conducted 10 years ago, while the PBDE (a kind of POPs) levels were a lot greater than those reported in Australia and Japan which is less industrialized.

Sham Wan feasibility study

Sham Wan was assessed under a “Study on the Suitability of South Lamma to be Established as a Marine Park or Marine Reserve” by Agriculture, Fisheries and Conservation Department (AFCD) in 1999, whereas the assessment area covered Shek Pai Wan, Tung O Wan, Sham Wan, Yuen Kok and Tai Kok. The ecological value of Sham Wan and its nearby area is well recognized. However, so far only Sham Wan was designated as SSSI and Restricted Area, with inadequate protection to the adjacent South Lamma area which also needs to be protected.

WWF’s recommendations for conservation of green turtles in Hong Kong are;

At Sham Wan take immediate action to;

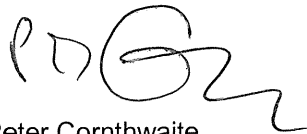
- Designate South Lamma as a marine park and expand the Sham Wan Restricted Area (see fig. 1). Control human access to the sandy shore and nearby shallow waters to limit disturbance to green turtles, particularly during the nesting season.
- Restrict vessel speeds to 5 knots cover the entire Sham Wan bay to minimize collision risk to turtles in accordance with Marine Department notice no. 93 of 2010 on Speed in Restricted Zones (The speed limit is 5 knots between 8 a.m. and 12 midnight on all days from 1 July to 15 September (both dates inclusive) every year and all other Saturdays and public holidays).
- Study the feasibility of a non-anchoring zone, regulate fishing activities by banning trammel nets and restricting the number of recreational vessels, in particular during the breeding season.
- Implement weekly clean-ups of ghost nets and marine litter

In general since green turtles are migratory species, successful conservation measures can only be achieved by the cooperation among the concerned parties at nesting sites (both on the beach and in adjacent waters), along the migratory routes, and in the foraging grounds. The Government needs to provide the resources to AFCD for;

- Monitoring and conservation measures of green turtles at a broader scale than is currently in place are required, i.e. in the whole south China region, especially in relation to water pollution
- Reducing marine litter at its source – e.g. better waste management to prevent litter entering the sea and reduce the production of waste by promotion of adopting a green life style
- Providing more education on general public about green turtle conservation

We hope our views will be considered by the Panel.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'PCG' followed by a stylized flourish.

Peter Cornthwaite
Chief Executive Officer
WWF-Hong Kong

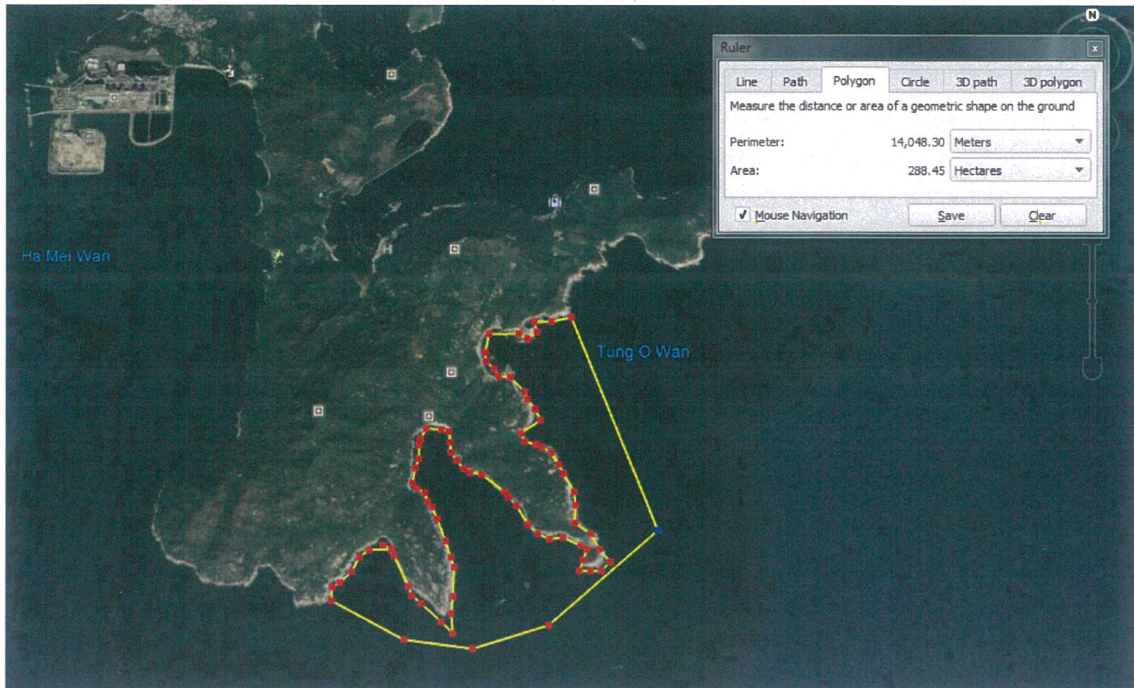


Fig. 1. The boundary of the proposed South Lamma Marine Park

References

- ¹ Seminoff, J.A. (Southwest Fisheries Science Center, U.S.). 2004. *Chelonia mydas*. The IUCN Red List of Threatened Species 2004: e.T4615A11037468. <http://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T4615A11037468.en>. Downloaded on **11 May 2018**.
- ² http://www.panda.org/knowledge_hub/endangered_species/marine_turtles/
- ³ https://www.speciesplus.net/#/taxon_concepts/11071/documents
- ⁴ Chan, S.K.F., Cheng, I.J., Zhou, T., Wang, H.J., Gu, H.X., Song, X.J., 2007. A comprehensive overview of the population and conservation status of sea turtles in China. *Chelonian Conservation and Biology*. 6 (2), 185-198.
- ⁵ Ng, C.K.Y., Dutton, P.H., Chan, S.K.F., Cheung, K.S., Qiu, J.W., Sun, Y.A., 2014. Characterization and conservation concern of green turtles (*Chelonia mydas*) nesting in Hong Kong, China. *Pacific Science*. 68 (2), 231-243.
- ⁶ Chan, S.K.F., Chan, J.K., Lo, L.T., Balazs, G. 2003. Satellite tracking of the post-nesting migration of

a green turtle (*Chelonia mydas*) from Hong Kong. Marine Turtle Newsletter 102:24.

⁷ http://www.greenpower.org.hk/html5/download/press/20151015_environment_c.pdf

⁸ Ng, C.K.Y., Lam, J.C.W., Zhang, X.H., Gu, H.X., Li, T.H., Ye, M.B., Xia, Z.R., Zhang, F.Y., Duan, J.X., Wang, W.X., Lam, I.K.S., Balazs, G.H., Lam, P.K.S., Murphy, M.B., 2018. Levels of trace elements, methylmercury and polybrominated diphenyl ethers in foraging green turtles in the South China region and their conservation implications. *Environmental Pollution*. 234, 735-742.