

VERTEBRATES

Another alien has landed: the discovery of a wild population of water dragon, *Physignathus cocincinus*, in Hong Kong.

by Allen To

An apparently wild population of the water dragon, *Physignathus cocincinus*, has been discovered along a stream on Tsing Yi Island, New Territories, which runs adjacent to two housing estates. The stream has two sections, the lower section is about 30 m long with large boulders and has a wetted width of about 1 m, covered with riparian shrubs. The upper section is about 50 m long and is more densely vegetated than the first section. There are some agricultural activities along the upper section.

I am living in the housing estate next to said stream. Since water dragons were discovered there in October 2004, I have visited the stream on a bi-weekly basis. So far, at least eight individual water dragons have been recorded. Three are more than 60 cm long from head to tail; two are about 45 cm long and the last three, juveniles, are about 30 cm long (Fig. 1). The three largest water dragons are likely to be males because of the large size, triangular head and extended mid-sagittal crest (Fig. 2). The other two medium-sized individuals are possibly females (Fig. 3). The water dragons were less active in December 2004 and were not sighted again until April 2005. Hikers using the nearby hiking trail reported sightings of these 'large lizards' a few years ago. The water dragons appear to have colonized the whole of the lower section of the stream and along to the middle part of the upper section. They were observed utilizing boulders as basking spots, and the stream and tall trees as resting sites (or maybe as a sentry box for defending territories).

The water dragon, is semi-aquatic and is distributed in China, Thailand and Vietnam (Lau, 1995; Zhao & Adler, 1993). There is no known previous record of this lizard in the wild in Hong Kong (Bogadek & Lau, 1997; Karsen *et al.*, 1998). However, it is commonly available in local reptile pet shops for sale (Lau *et al.*, 1997). Thus, it is very likely that these water dragons were released by people who used to keep them at home as pets. If this population in Tsing Yi is breeding successfully and expanding, it becomes an additional naturalized exotic species in Hong Kong. However, it does not appear on the IUCN Global Invasive Species Database and is therefore not considered invasive anywhere in the world. [1]



Fig. 1. The smallest juvenile (~ 30 cm long) (Photo: Allen To).



Fig.2. An adult male (> 60 cm from head to tail) resting on a branch (Photo: Allen To).

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[1] <http://www.issg.org/database/welcome/>

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Fig. 3. Medium sized female (~ 45 cm long) (Photo: Allen To).

Enormous fishing pressure on the whale sharks *Rhincodon typus* in Taiwan and southern China waters

by Kenny Leung

On November 15, 2002, the whale shark *Rhincodon typus* was placed on Appendix II of CITES (Convention on International Trade in Endangered Species), a United Nations Treaty Organization which requires the member nations of CITES to monitor international trade in whale shark products and to ensure that international trade does not threaten survival of the species [1]. In many countries such as Australia, India, the Maldives, the Philippines, South Africa and United States, whale sharks are protected, and all trade in whale shark products (fins, flesh and skin) is prohibited [1].

Unfortunately, the flesh of *R. typus* is considered a delicacy by many people in China, Taiwan, Singapore, Korea and Japan, leading to overexploitation in SE Asia. The whale shark is also known as the 'tofu' shark in Taiwan (or the white meat whale in Hong Kong), because of its soft white flesh, and it is now the most expensive of the shark meats available on the market. A set of four dried fins runs US \$400-500 in Taiwanese markets while the resale value of frozen whale shark flesh for export to Asian markets has reached over US \$1/kg [2]. It is therefore not surprising that significant fisheries for whale sharks have been developed in Taiwan and southern China.



Fig. 1. A young male whale shark *Rhincodon typus*.

In early July 2005, I attended a training workshop on modern fisheries, aquaculture and seafood processing in Taiwan which was organised by the Joint Committee of Hong Kong Fisher's Association and the Agriculture, Fisheries and Conservation Department of Hong Kong SAR. During the workshop, we visited several major fishing ports in Taiwan and, sadly, encountered two young males of *R. typus* (3-4 m in length) (Figs. 1 & 2). Lengths of newborn whale sharks range from 0.55 to 0.65 m while the adult can reach as long as 18 m [1]. Through interviews with fishermen, it was estimated that each shark was worth over HK\$ 150,000 (or US \$19,230).



Fig. 2. Young male whale shark (Photo: Kenny Leung).

As a member of CITES, the Taiwanese Government has made some efforts to control the fishing pressure on the whale shark. Recently, they have implemented legislation to restrict the allowable number of *R. typus* being caught each year (Fig. 3) Taiwan's year 94 = 2005]. The restricted quota is 65 whale sharks per year. If the quota is reached within a year (e.g. 1 Jan-31 Dec 2005), a complete prohibition of fishing *R. typus* will be applied and enforced in the remaining period of that year. To achieve such a goal, all fishermen must report their catch of whale sharks within 2 days after arrival at the fishing port and must bring the whole fish to land. The fishermen are also required to report to the Government if they have caught the basking shark *Cetorhinus maximus*, megamouth shark