

New Data on the Trade and Captive Breeding of Turtles in Guangxi Province, South China

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Abstract. - New data on the captive breeding and trade of turtles in Guangxi Province, China, are presented. These data are from four turtle farms and three markets surveyed in May 2002. The scale of captive breeding in Guangxi is larger than previously known. At the same time, the number of wild turtles in the markets may be decreasing. Issues concerning the licensing of turtle farms and the effectiveness of enforcement are discussed.

Key words. - China, Guangxi, turtles, trade, farming.

Introduction

The People's Republic of China is Asia's most significant importer of tortoises and freshwater turtles and more comprehensive studies on its wildlife trade are urgently needed (Li and Li, 1997; van Dijk, et al., 2000). There is a long history of wildlife consumption in Guangxi, and traditional Chinese medicine is as popular as in neighboring Guangdong Province. Li and Li (1997) reported that there are at least 91 species of animals involved in the wildlife trade in Guangxi, mostly turtles and snakes. The sheer volume of the wildlife trade on the border between China and Vietnam is astonishing, and may be unprecedented in the history of international wildlife trade. Guangxi is one of the main corridor for the import and export of wildlife from land and sea into mainland China. Although China has recently increased its level of protection for imported and exported turtles (Meng et al., 2002), the effectiveness of these new measures is not well demonstrated. We report data on four turtle farms and three markets surveyed in late May 2002.

Turtle farms

Shifu turtle farm (Shifu Town, Nanping City). - The turtle farm was founded in 1996, its area is 65 ha. At its height it included ~70,000 turtles: ~60,000 *Trachemys scripta elegans*, ~7,000 *Pelodiscus sinensis*, and ~600 *Ocadia sinensis*. However during a very heavy flood on July 5, 2001 in the area, almost all the turtles escaped or

drowned. The farm is rebuilding, but now includes only ~700 *Mauremys mutica*, ~200 *Palea steindachneri* and ~50 *Cuora trifasciata*.

Quanming wildlife farm (Located at Quanming Town, Daxin County). - The farm began to raise turtles in 1996. It has ~80 *Mauremys mutica* and 47 *Chelydra serpentina*. Their 36 female *Chelydra* lay 30-35 eggs three times every year. So they get more than 3000 eggs every year. They are expanding to include *Macrochelys temminckii*. Besides turtles, the wildlife farm also breed successfully 1800 Tokay Geckos (*Gekko gecko*) and for several decades has also bred the Masked Palm Civet (*Paguma larvata*).

Qingzhou turtle farm 1 (Qingzhou City). - This farm has been raising turtles since 1981, but was not very successful until 1997. In 2001, the farm had ~1000 *Mauremys mutica* and ~300 *Cuora trifasciata*. In the past they also bred *Trachemys scripta elegans*, but switched to *Cuora trifasciata* and *Mauremys mutica* due to the higher price for the two species. The owner of this farm claims that there are dozens more farms in Qingzhou that were founded based stock from his farm. The phenomena of *Mauremys mutica* mixed with *Cuora trifasciata* was found here, mirroring the conditions of a farm in Tunchang, Hainan Province (Shi & Parham, 2001). It was impossible for us to visit the farm without the local officials of Forestry Department forcing the farmer to accept us. The owner prefers to remain secret in order to avoid theft, taxes, and people wanting to borrow money.

Qingzhou turtle farm 2 (Qingzhou city). - This farm was founded in 1986. It encompasses 4 hectares, and includes ~7,000 *Mauremys mutica*, ~6,000 *Trachemys scripta elegans*, ~2700 *Pelodiscus sinensis*, ~800 *Cuora trifasciata*, 200 *Cuora flavomarginata* and 3 *Pelochelys bibroni*. Approximately, 30,000 hatchlings are bred every year. Unlike the owner of the previously reported farm, the owner of this farm, Wusong Ma, is friendly, generous, and open to visitors. Many famous people have visited his turtle farm, including a former Chinese national vice-premier, the Governor of Guangxi, and the Minister of Agriculture Department. Unfortunately, all this attention may have led to a large theft of *Mauremys mutica* in April of 2001. According to the owner of the farm, the value of these turtles was 50,000 USD. Despite this, Mr. Ma remains non-secretive and has even set up at least 20 additional farms.

Remarks on turtle farms. - The senior author (HS) looked over the licenses for captive breeding of turtles at the Forestry Department of Guangxi Province. More than 600 farms (of various sizes, including small breeding operations) were licensed in Guangxi Province. Zou Yi, an official in the Guangxi Forestry Department, informed us that another governmental department (Agriculture Department) issues even more licenses for turtle farming, but we do not have these numbers. Moreover, most breeding operations are illegal and not licensed. Consequently, determining the actual number of commercial, often secretive, turtle breeders will require intensive survey and investigation.

Turtle Markets

Nanning Road Trade Market in Nanning City. - Five stalls with 14 species and 194 turtles were found in this market. The species included 58 *Pelodiscus sinensis*, 24 *Pyxidea mouhotii*, 21 *Platysternon megacephalum*, 17 *Mauremys mutica*, 15 *Trachemys scripta elegans*, 13 *Cyclemys dentata*, 13 *Palea steindachneri*, 12 *Sacalia quadriocellata*, 8 *Indotestudo elongata*, 4 *Cuora amboinensis*, 4 *Ocadia sinensis*, 2 *Heosemys grandis*, 1 *Hieremys annandalei*, and 1 *Orlitia borneensis*.

Dongfeng Market in Qingzhou City. - Three stalls with 9 species and 64 were found in Dongfeng Market in Qingzhou. The species included 19 *Trachemys scripta elegans*, 18 *Indotestudo elongata*, 9 *Manouria impressa*, 5 *Malayemys subtrijuga*, 4 *Cuora amboinensis*, 4 *Pyxidea mouhotii*, 2 *Geoemyda spengleri*, 2 *Heosemys grandis*, and 1 *Cuora galbinifrons*.

Danqing Wholesale Market in Nanning City. - 5 stalls with 4 species and 42 turtles were found in this market. Sixty (71%) of the turtles were *Platysternon megacephalum*. *Platysternon* was sold at every stall. I was told that they came from turtle farms, but they refused to tell where these turtle farms were.

Remarks on turtles. - According to Lu Qi, the vice director of the Wildlife Management Section of the Guangxi Forestry Department, the past three years have seen a sharp decrease in the numbers of turtles in the markets and he attributes this to increased enforcement. This increased enforcement coincides with an ever-growing commercial effort to breed these turtles. For example, Manying Huang (professor of biology at Guangxi Medicine University) states that there are over 3000 families that raise *Cuora trifasciata* in Nanning City. However, the increased level of enforcement has led to many captive-bred turtles also being confiscated. If indiscriminant confiscations continue it could depress the development of captive breeding of turtles in China.

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