

Projects Funded by HKDCS in the Past

Biopsy Sampling Trial Programme on Chinese white dolphins

In 2004, HKDCS sponsored Dr. Thomas A. Jefferson to conduct a trial biopsy collection programme to determine the feasibility of this technique for Hong Kong dolphins. The collected biopsy samples can help to learn more about the dolphins' colour pattern development, external indicators of age and sex, life history parameters, population structure, unbiased information on exposure to pollutants, and prey composition differences of various age and sex classes.

For this project, Dr. Jefferson collected small biopsy cores of skin and blubber from local Chinese white dolphins using a crossbow during October and November 2004. All dolphins reacted to the biopsy darting procedure in just a mild wild, and their reactions were temporary. The biopsy samples were sent to research collaborators from overseas



for analysis. DNA from the skin samples were used for sex determination of the biopsied animals, while the blubber samples were used for examination of pollutants levels in dolphin including DDT, PCBs, and other organochlorine contaminants.

To learn more about the study findings in details, please search for the following published papers:

Jefferson, T. A. and Hung, S. K. 2008. Effects of biopsy sampling on Indo-Pacific humpback dolphins (*Sousa chinensis*) in a polluted coastal environment. *Aquatic Mammals* 34: 310-316.

Jefferson, T. A., Hung, S. K. and Lam, P. K. S. 2006. Strandings, mortality, and morbidity of Indo-Pacific humpback dolphins in Hong Kong, with emphasis on the role of organochlorine contaminants. *Journal of Cetacean Research and Management* 8: 181-193.



Hong Kong Dolphin Conservation Society 香港海豚保育學會

Taxonomic investigation of finless porpoises (genus Neophocaena) from the waters of Northern China and Japan

In 2009, HKDCS sponsored Dr. John Y. Wang to conduct a research study to understand the taxonomy of finless porpoises from northern China and Japan. The funding was used by the Dr. Wang and his collaborators to visit northern China to improve the quality and quantity of information that can be collected from carcasses obtained by Chinese collaborators. The work is dependent upon detailed necropsies and experienced preparation of skeletal specimens for measurements. This work is on-going at present, and the study result will be presented here in the near future.

Surveys of Chinese white dolphins in Taiwan with FormosaCetus Research and Conservation Group

Since 2002, researchers from Taiwan and Hong Kong had initiated a long-term study on Chinese white dolphins along the west coast of Taiwan (a critically endangered dolphin population declared by IUCN) to investigate the abundance, distribution and habitat use of dolphins as well as threats faced by them. HKDCS researchers have assisted Dr. John Wang and Ms. Shih-Chu Yang, researchers of the *FormosaCetus* Research and Conservation Group, to carry out boat surveys along the coastline of western Taiwan. In recent years, HKDCS continues to support this important research work as well as local conservation initiatives to protect this small dolphin population. To learn more about this research study, please search for the following published papers:

Wang, J. Y., Hung, S. K., Yang, S. C., Jefferson, T. A. and Secchi, E. R. 2008. Population differences in the pigmentation of Indo-Pacific humpback dolphin, *Sousa chinensis*, in Chinese waters. *Mammalia* 72: 302-308..

Wang, J. Y., Yang, S. C., Hung, S. K. and Jefferson T. A. 2007. Distribution, abundance and conservation status of the Eastern Taiwan Strait population of Indo-Pacific humpback dolphins, *Sousa chinensis*. *Mammalia* 71: 157-165.

Wang, J. Y., Hung, S. K. and Yang, S. C. 2004. Records of Indo-Pacific humpback dolphins, *Sousa chinensis* (Osbeck, 1765), from the waters of western Taiwan. *Aquatic Mammals* 30: 187-194.



Hong Kong Dolphin Conservation Society 香港海豚保育學會

Land-based Study at Matsu Islands, Taiwan, with FormosaCetus Research and Conservation Group

In 2004, HKDCS researchers assisted the *FormosaCetus* Research and Conservation to carry out cetacean survey at Matsu Islands, a group of islands to the northwest of Taiwan, with funding support from the local government. The research aimed to find out species composition and distribution of cetaceans occurring in this area. The research study was very successful, and researchers recorded numerous sightings of both Indo-Pacific finless porpoises (*Neophocaena phocaenoides*) and narrow-ridged finless porpoises (*Neophocaena asiaeorientalis*). To learn more about this research study, please search for the following published papers:

Wang, J. Y., Frasier, T. R., Yang, S. C. and White, B. N. 2008. Detecting recent speciation events: the case of the finless porpoise (genus *Neophocaena*). *Heredity* 101: 145-155.

Wang, J. Y., Yang, S. C. and Yang, B. J. and Wang, L. S. 2010. Distinguishing between two species of finless porpoises (*Neophocaena phocaenoides* and *N. asiaeorientalis*) in areas of sympatry. *Mammalia* 74: xx-xx.

Surveys of Dolphinarium in China, Hong Kong and Taiwan

In 2004, HKDCS sponsored Ms. Polly Chik, a former research intern of HKDCS) to conduct a nationwide surveys of dolphinarium and aquariums that kept marine mammals in captivity in China, Hong Kong and Taiwan. The objective of this project is to provide general information on current situation of marine mammals (including cetaceans, pinnipeds, polar bear, arctic fox and sea otter), penguins and sea turtles kept in captivity in the Greater China region. In the past decade, number of aquaria that house these animals has been escalating, and the situation has never been documented or monitored. Therefore, Ms. Chik visited 22 aquaria and institutes throughout mainland China and Hong Kong during 2004-05, to gather much valuable information through interviews and personal observations. An initial database was set up to track future changes of the situation, and recommendations were made to monitor the growing industry, which may be related to conservation issues of some involved species.