



## HK-Zhuhai-Macao Bridge and North Lantau Development to Impact San Tau – a Butterfly Hotspot

Hong Kong is home to 240 butterfly species, or one sixth of all butterfly species in China. The figure is even higher than that of some countries, as Japan and England; hence it's called a "butterfly paradise". However, apart from some butterfly hotspots which are inside country parks and thus protected by the Country Park Ordinance, Fung Yuen of Tai Po is the only Site of Special Scientific Interest designated for the protection of butterflies in Hong Kong. Many butterfly habitats are not properly protected and may be damaged by development at any time.

Take San Tau of Tung Chung as an example. At least 87 butterfly species have been recorded there, proving it is a rich butterfly habitat. The soon-to-be-built HK-Zhuhai-Macao Bridge may, however, affect butterflies in the area. In 2003, the government announced its plan to build HK-Zhuhai-Macao Bridge; in October the same year, the Highways Department released "Hong Kong -Zhuhai - Macao Bridge Hong Kong



Section and North Lantau Highways Connection – Study Brief", which proposed Sha Lo Wan as the best landing site in Hong Kong. After landing, the bridge will connect with Airport Channel, Airport Island south and North Lantau Highway. The linkage road is only one kilometre from San Tau. Whether during construction or upon completion, the works pose threat to San Tau's butterflies.

## EIA fails to reflect ecological status

In Hong Kong, specific engineering works must pass the Environmental Impact Assessment (EIA) Ordinance. The project proponent must submit an EIA Report to seek approval from the Director of Environmental Protection Department, regarding the impacts of the works on flora and fauna and historic buildings. Due to resources and time limitation, however, the ecological assessment



cannot fully reflect a site's actual ecological status. For example, in 1999, the invertebrate ecology assessment for the Study area of EIA of Northshore Lantau Development, which covered 26 km², was only conducted over two days. An EIA for Tung Chung - Ngong Ping Cable Car Project, which covered 7 km², was only carried out for 11 days. The results of these ecological impact assessments were substantially different from surveys by Hong Kong Lepidopterists' Society (please refer to the following table for details).

	Study report	No. of butterfly species recorded	rare and very rare species
1*	Northshore Lantau Development, 1999 (covering 26 km²)	69	0
2*	Tung Chung - Ngong Ping Cable Car Project, 2003 (covering 7 km²)	46	1
3*	Results released by Hong Kong Lepidopterists' Society regarding San Tau area, 2004	87	9

## \* Notes:

- In 1999, the Planning Standards Sub-Committee passed the overall planning of Northshore Lantau
  Development, which set tourism or leisure as the long-term objectives. The government carried
  out a feasibility study and EIA for the linkage road between Northshore Lantau and Penny's Bay.
  The ecological assessment, which covered 26 km² across the northeast of Lantau, was only
  conducted over two days; 69 butterfly species were reported and no rare species was found.
- 2. The cable car project from Tung Chung to Ngong Ping stretches 5.7 km. The Highways Department submitted the project's EIA in 2003; this was passed by the EIA Ordinance in the same year. The ecological baseline study included butterfly diversity and covered about 7 km², from Tung Chung Town and Southeast of Airport Island to Lin Fa Shan, Nei Lak Shan and Ngong Ping, including San Tau. Yet the study was only carried out for 11 days, and 46 butterfly species, including one rare species, were reported.
- The butterfly diversity study in San Tau area was conducted by Hong Kong Lepidopterists' Society from 1999 to 2004.

## Public effort gathered to survey butterflies

In view of the inadequacy of past ecological studies under the EIA Ordinance, Dr. Cheng Luk Ki, Division Head of Scientific Research & Conservation, Green Power, remarked, "At present, the EIA



for Hong Kong - Zhuhai - Macao Bridge has yet to be conducted. To find out the butterfly species and number of the area is of utmost importance."

It is hoped that the Butterfly Surveyor Training Scheme launched by Green Power will draw more human resources for the study of butterfly ecology baseline in more butterfly hotspots, and build up a public butterfly ecology database that can provide important data for the conservation of butterfly hotspots in Hong Kong. Besides San Tau, the butterfly surveyors will also conduct butterfly surveys in Luk Keng of Fanling and Wu Kau Tang of Tai Po.

"Previously, public discussions of development projects were based only on EIA data provided by project proponents," said Dr. Cheng. "Through the Butterfly Surveyor Training Scheme, we can build up a public butterfly database; what's more, we hope to provide professional training to members of the public so that more people will in future participate in butterfly watching. This way, more butterfly hotspots can be discovered, observed and monitored—with initiation by and support from the public."