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### More Rare Butterflies Found in Surveys

The Butterfly Surveyor Project has been ongoing for a year. The initial results are encouraging. More and more butterfly species—including some rare ones—are being recorded in various butterfly hotspots in Hong Kong. In San Tau of Tung Chung, for example, we have found 50% more butterfly species than that recorded in the Environmental Impact Assessment report of the Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road. **Green Power** has written to the Environmental Protection Department concerning the additional butterfly ecology record of San Tau. As the future link road is less than one kilometer from San Tau, the local butterfly ecology would be easily affected during the planning, construction and operation stages of the bridge. Hence our Butterfly Surveyors will closely monitor any changes in the butterfly population and ecology in the area.

There are now 144 members in the Butterfly Surveyor team. In small groups of four to five persons, the Butterfly Surveyors carried out studies in San Tau of Tung Chung, Wu Kau Tang of Tai Po, Luk Keng of Fanling and Lam Tsuen of Tai Po. The surveys are conducted in two phases: the first phase is from August 2008 to July 2009, followed by the second phase from August 2009 to July 2010. Concluding the data up to September 2009 (covering 14 months), a total of 148 butterfly species were recorded in the four hotspots. Among them, 19 were rare species and 7 were very rare species. The figure represents 60% of total butterfly species in Hong Kong, signifying the richness of species in the four butterfly hotspots. Comparing the data from the first phase and the second phase (first two months), the butterfly species and rare species number showed conspicuous increase.

Take San Tau as an example. In the first two months of the second phase, 12 new butterfly species have already been discovered, including two rare species, **Dark Grass Blue** (*Zizeeria karsandra*) being one of them. With the new additions, a total of 80 butterfly species have been put on record. In Wu Kau Tang of Tai Po, there are also 12 new additions, including 1 rare species **Plain Hedge Blue** (*Celastrina lavendularis*), accumulating to 97 butterfly species in total. Fourteen new species are reported in Luk Keng, Fanling, accumulating to 100 species. Lam Tsuen of Tai Po is a new site included in the second phase survey. Nonetheless, in comparing the latest results to another butterfly survey conducted in May by Green Power, butterfly species in She Shan of Lam Tsuen increased from 51 to 77, while butterfly species in Ng Tung Chai of Lam Tsuen even jumped 1.2-fold from 35 to 79. Four rare species and two very rare species were discovered, including **Lesser Forest Blue** (*Taraka hamada*) and **Small Yellow Sailor** (*Neptis miah*).

## Butterfly Surveyors help monitor future development impacts

There were only 67 Butterfly Surveyors during the first phase of the survey. In the second phase, new members joined in and the number of Butterfly Surveyors reached 144 now. With more human resources and time spent, the number of butterfly species discovered showed conspicuous increase in all butterfly hotspots. At present, the four surveyed sites are all unprotected. The work of Butterfly Surveyors will provide important data for future reference to protect the sites from development. In San Tau of Tung Chung, for example, which situates less than one kilometer from the future Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road, is likely to be affected by the planning, construction and operation stages of the bridge. In the Environmental Impact Assessment (EIA) report published by the Highways Department in July 2009, only 52 butterfly species, including five rare species, were reported in San Tau. By comparison, our Butterfly Surveyors, albeit being amateur, have found 80 butterfly species, 54% more than that recorded in the EIA. Among these there is one very rare species—**Chocolate Albatross** (*Appias lycida*) and another five rare species not recorded by the EIA. Green Power has written to the Environmental Protection Department concerning the additional butterfly ecology record of San Tau. Butterflies are ecological indicators that reflect the ecological value of an area. Hence our monitoring work in San Tau will provide important data on the impacts of the bridge on local ecology.

## An exciting discovery in Ng Tung Chai—*Courtesan* (*Euripus nyctelius*)

Apart from the number of butterfly species, there is an exciting discovery by our Butterfly Surveyors in August 2009 in Ng Tung Chai of Lam Tsuen. **Courtesan** (*Euripus nyctelius*) was first seen in Hong Kong in 2006. There is little record of the species afterwards and we are still unclear whether the species has settled in Hong Kong. With the habit of peak climbing, the butterflies are often found in highlands. Ng Tung Chai, where the species was reported, is of high altitude and the open area is surrounded by rich nectar sources that may have attracted the butterflies. Our Butterfly Surveyors can only confirm the distribution of the Courtesan but have yet to establish whether there is a local population of Courtesan in Ng Tung Chai. The survey will continue until July 2010 and we hope to get more precise answer to the question by that time.