

12 March, 2020

**“Overwintering Danaids Survey 2019” Results**  
**Number of Butterflies Rises at Siu Lang Shui and Deep Water Bay,**  
**Fan Lau and Shui Hau As Mid-point for Overwintering Common Tiger**

**Green Power** announced the latest results from the Overwintering Danaids Survey which covered the period from October 2019 to February 2020. The survey was launched in 2009 to collect data on the number and habits of danaids which migrate from the colder regions in the north to Hong Kong around October each year. Four local sites including Siu Lang Shui of Tuen Mun, Deep Water Bay of Hong Kong Island, and Fan Lau and Shui Hau of Lantau are surveyed.

The winter of 2019 recorded a total of 649, 521, 200 and 68 overwintering danaids in Siu Lang Shui, Deep Water Bay, Fan Lau and Shui Hau respectively. Compared with the figures from previous year, the numbers in Siu Lang Shui and Deep Water Bay showed sharp increase, the latter even recorded a 22-fold jump. The figures ranked third among the surveys since 2009. The numbers at Fan Lau and Shui Hau were about the same as previous year.

**Matthew Sin, Senior Environmental Affairs Manager of Green Power**, remarked that the overwintering danaid populations at Siu Lang Shui and Deep Water Bay fluctuated during the past decade, showing a peak every two to three years. At Siu Lang Shui, for example, the 2019 figure was 1.5 times that of the previous year, but it was still falling after the last peak figure of 1,596 recorded in 2005. It was likely that the next winter would show continuous increase in population. As for Deep Water Bay, the numbers recorded across the years showed ups and downs as well, but a rising trend was quite obvious in recent years, indicating that it has become an important overwintering site for danaids.

Another important finding from the survey, **Sin** pointed out, was that danaids at Siu Lang Shui and Deep Water Bay, and Fan Lau and Shui Hau of Lantau most probably belonged to two separate groups coming from different regions in the north. The first indication was that the first group usually arrived in Hong Kong in November through January of the following year, while the latter group arrived earlier in October and left largely by December. The species at the different sites varied too: crows were mainly found in Siu Lang Shui and Deep Water Bay while tigers were found in Fanlau and Shui Hau.

Judging from the overwintering periods of the two groups, Siu Lang Shui and Deep Water Bay are likely to be overwintering sites for danaids, meaning that the butterflies will stay at the sites until winter is over. Fan Lau and Shui Hau, on the other hand, may only be the mid-point of the migratory route and the butterflies will go further south for overwintering sites.

**Sin** said that although overwintering danaids have been studied by different groups in various regions for years, the migratory routes are not at all clear. Tigers, the main danaid species at Fan Lau and Shui Hau, for example, are known to carry out large scale migration. However, their overwintering sites have not been found in Asia regions, despite that in previous butterfly tagging study, the tigers species *Parantica sita* has been recorded flying from Japan to Hong Kong and Taiwan for overwinter. The latest Green Power overwintering danaid survey provided significant data in understanding the long migratory route of tigers danaids, even though Fan Lau and Shui Hau are likely to be mid-point stations only.

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### **Overwintering Danaids Survey**

The survey began in 2009 and to date covers four sites: Deep Water Bay of Hong Kong Island, Siu Lang Shui of Tuen Mun, and Fan Lau and Shui Hau of Lantau. The survey period is from October to February of the following year, recording the numbers, species and habits of overwintering danaids. There are 13 danaid species in Hong Kong, most having the habit of overwintering in groups. Every year during the autumn and winter seasons, tens of thousands of danaids migrate from the colder regions in the north to the warmer shelter in Hong Kong. At present, their migratory routes are unknown. Apart from Hong Kong, overwintering danaids are also found in Japan, Taiwan and Hainan. The various sites are potentially on the same overwintering migratory route.