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Green Power's Survey Found New Overwintering Site in Lantau with Peak Number of Danaids Butterflies

Green Power has excitingly discovered a new overwintering site of Danaids butterflies in Lantau, with a population of around 5,000 individuals - the highest number recorded in recent years. Contrary to Tigers which compose the majority of recorded Danaids butterflies in Lantau in the past, the newly found group is made up of mostly Crows. The discovery of large number of Danaids in January is also rather uncommon.

Matthew Sin, Senior Environmental Affairs Manager of Green Power detailed that the overwintering site belongs to a mixed forest of about 1,000 square meters. The earliest report from the public was received in last December. Later Green Power's butterfly surveyors and staff visited the site and recorded 5,000 and 4,500 Danaids butterflies on 1st January and 3rd January respectively. About 95% were Blue-spotted Crow (*Euploea midamus*) and the remaining were mostly Common Indian Crow (*Euploea core*). There were also a few Tigers, including Blue Tiger (*Tirumala limniace*) and Common Tiger (*Danaus genutia*).

Sin pointed out that Fan Lau and Shui Hau of Lantau are sites covered by Green Power's overwintering Danaids survey. On average a few dozens to several hundreds of overwintering Danaids are recorded each year. Over the 13-year survey, there was only once in 2012 when over 5,000 Danaids were recorded in Siu Lang Shui, Tuen Mun. Therefore, the latest record is quite unusual. Furthermore, Blue-spotted Crow (*Euploea midamus*), a Crow Danaid, was the dominating species, which contrasted with the Tiger type - such as Blue Tiger (*Tirumala limniace*) and Common Tiger (*Danaus genutia*) - recorded as the majority in Fan Lau and Shui Hau in the past. The reason is unclear as to why Crow Danaids are visiting Lantau this year, probably from outside Hong Kong or from other places in Hong Kong.

Sin remarked that new overwintering sites of Danaids were also discovered from time to time. In 2015, large number of Danaids, reaching about 10,000 individuals during the peak, were reported in Lantau. However, they lasted only a few days and no more butterfly cluster was recorded at the site in the years after. In general, overwintering Danaids stay in Hong Kong for different period of time, and fly south further for next stop. Overwintering Danaids usually arrive in Hong Kong in October, and by January of the following year the population is greatly

reduced. In the latest discovery, large number of Danaids were found in January - and they were observed to be closely packed together with minimal activities. Sin postulated that the Danaids community might be staying in Hong Kong over the whole winter. They might find another place for reproduction after the winter.

Sin warned that in recent years many illegal developments, logging and damaging activities to the land were seen in Lantau. Some of these damages are done close to the overwintering sites of Danaids, posing threat to the butterflies and causing uncertainty to the overwintering sites. There are specific conditions to fulfil as the overwintering sites of Danaids. It is not the case that “when one site is damaged, another site can easily substitute”. The government has major plans to develop Lantau in the years to come. Although environmental impact assessment has to be carried out for development of a certain scale, overwintering sites of Danaids are easily overlooked in conventional ecological survey for their temporary and covert nature. Sin urged the authority to prepare for more detailed and long-term ecological investigation before any development plan to avoid causing irreversible damage to the precious overwintering sites of Danaids butterflies.

Overwintering Danaids Survey

The survey was launched by Green Power in 2009 with new sites adding to the survey in phases. At present, four sites are covered: Deep Water Bay of Hong Kong Island, Siu Lang Shui of Tuen Mun, Fan Lau and Shui Hau of Lantau. The survey begins in October and ends in January of the next year. The number, species and habits of overwintering danaids are recorded. There are 13 danaid species found in Hong Kong, most having the habit of overwintering in groups. Every year in autumn and winter, thousands of danaids come to Hong Kong from the chilly regions in the north. Their migratory routes are not yet clear. Apart from Hong Kong, overwintering danaids are also found in Japan, Taiwan and Hainan. It is likely that the various regions are on the same migratory route of danaid butterflies.

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