

11<sup>th</sup> January, 2021

**Green Power's Overwintering Butterfly Survey  
Found Highest Number of Danaids in Deep Water Bay  
and Two New Overwintering Sites**

Danaids are migratory butterflies that overwinter in groups. Over thousands of danaids are seen since October of each year in Hong Kong as the butterflies fly from the chilly regions in the north to overwinter in Hong Kong which is a stopover in their migratory route. Green Power released the latest results from the Overwintering Danaid Butterfly Survey today.

The Survey, covering four local overwintering sites, began in 2009 to study the number of danaids and their behaviors. The latest results found record-breaking number of 1,566 danaids in Deep Water Bay on Hong Kong Island, followed by 308 butterflies in Fan Lau of Lantau, 195 in Siu Lang Shui of Tuen Mun and 98 in Shui Hau of Lantau.

**Matthew Sin, Senior Environmental Affairs Manager of Green Power** said that there are over a dozen known danaids overwintering sites locally and occasionally new sites are identified. The four sites covered in the survey have a longer history and constant record of overwintering communities. However, the butterfly populations fluctuated rather drastically in the past decade. Take Deep Water Bay as an example, less than 20 individuals were recorded in the winters of 2014 and 2015, while over 1,000 were reported in 2017 and this year a record-breaking number of 1,566 were found.

Sin also pointed out that the overwintering location had changed this year in Deep Water Bay. In the past the butterflies gathered mostly in the midstream and upstream where they were more exposed. This year they took shelter further away from the river channel. Sin suggested that the reason may be that the woodland nearby had become mature enough to attract the butterflies to gather in places with less human disturbance.

Overwintering danaids are mainly classified into two types: crows (e.g. Blue-spotted Crow, Common Indian Crow, etc) and tigers (Ceylon Blue Glassy Tiger and Common Tiger, etc). Different types are found in different survey sites. In Deep Water Bay and Siu Lang Shui, 90% of the butterflies found were crows, while in Fan Lau and Shui Hau of Lantau, tigers dominated with 70-80% of the population.



## **Two New Overwintering Sites Discovered**

Two new danaiids overwintering sites were found at Tai Lam Country Park and a place on Southern Hong Kong Island, by Chan Chi Man and other members of the Butterfly Surveyors in December of last year. There was no previous record at the two sites. The survey found 838 butterflies at Tai Lam Country Park and 553 butterflies on Southern Hong Kong Island. The two sites were dominated by crows, accounting for 80-90% of the population.

Most butterflies found at the two sites were still, showing that the sites were not just temporary stopover but overwintering sites indeed. Sin remarked that most local overwinter sites are situated in small river valleys, and danaiids favour mixed woodlands with numerous small trees and climbers. Tai Lam Country Park and Southern Hong Kong Island offer the ideal overwintering shelters with mixed woodlands and streams nearby. A selection of butterfly plants were cultivated in Tai Lam Country Park in recent years, coupled with the proximity to another overwintering site in Siu Lang Shui of Tuen Mun, turning Tai Lam Country Park into a successful shelter for overwintering danaiids.

However, Sin pointed out that years ago a new overwintering site was discovered in South Lantau with over 2,000 butterflies recorded. Yet after a few years the site no longer reports any overwintering danaiids. Whether overwintering danaiids will revisit Tai Lam Country Park and Hong Kong Island South is unclear at the moment. Green Power will continue to monitor and record the data.

## **Overwintering Danaiids 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 danaiids 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 danaiids come to Hong Kong from the chilly regions in the north. Their migratory routes are not yet clear. Apart from Hong Kong, overwintering danaiids are also found in Japan, Taiwan and Hainan. It is likely that the various regions are on the same migratory routes of danaid butterflies.

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