

19th March, 2023

**“Overwintering Danaids Survey”
Recorded the Largest Danaid Population in Fan Lau, South Lantau, and
No Danaids in Deep Water Bay for the First Time**

Green Power, the environmental organization, has released the latest results of the “Overwintering Danaids Survey”, summarizing the data on the local overwintering Danaid population from last winter (October 2022 to January 2023). The survey covers four locations, including Siu Lang Shui of Tuen Mun, Deep Water Bay on Hong Kong Island, as well as Fan Lau and Shui Hau on Lantau Island. Among them, Siu Lang Shui recorded the highest number with an overwhelming 601 Danaids, followed by Fan Lau with 331 Danaids, both of which set new records since the sites were first surveyed in 2009. Only 50 overwintering Danaids were recorded at Shui Hau on Lantau Island. There was zero recorded at Deep Water Bay, marking the first time since the survey started that no overwintering Danaids had been recorded at the location. Overall, the number of overwintering Danaids recorded in the four locations has decreased by 15% compared to the previous winter.

According to **Ms Helen Yau, Assistant Senior Education & Project Manager at Green Power**, Danaids in the East Asian region migrate collectively every year. As the autumn and winter seasons approach, large groups of Danaids from colder regions will travel south to cluster and spend the winter. Due to Hong Kong's warm subtropical climate, certain valleys and forests can become ideal overwintering sites or stopovers for migrating Danaids. Every year, overwintering Danaids are recorded from around October. Green Power has been conducting the “Overwintering Danaids Survey” since 2009 to maintain records and monitor changes in the populations and habitats of Danaids in the four overwintering hotspots.

According to **Ms Yau**, the number of overwintering Danaids has been fluctuating over the past decade. For example, in Siu Lang Shui, Tuen Mun, over a thousand overwintering Danaids were recorded in 2012 and 2015, while in other years, the number hovered between tens to hundreds. Deep Water Bay recorded peaks of over a thousand Danaids in 2017 and 2020, with the number ranging from dozens to hundreds in other years. This is the first year that no Danaids were recorded there. She stated that there were no significant changes to the habitat in Deep Water Bay, thus ruling out any human-related factors that may have caused the “zero”

overwintering Danaids. In recent years, signs of group migration of Danaids to different locations have been observed from the surveys in the area, indicating that it is possible that the butterflies have chosen to gather in nearby, less observable locations, instead of completely abandoning Deep Water Bay as a traditional overwintering ground.

There were two new overwintering sites discovered last winter on Lamma Island and Lantau Island, where thousands of overwintering Danaids were sighted at that time. There were no overwintering Danaids spotted when we revisited these two locations this past winter. **Ms Yau** said that similar “one-time” mass overwintering sites of Danaids have also appeared in the past, indicating that the migration routes and choices of overwintering sites of the populations coming to Hong Kong each year are different, and may be influenced by the climate or environment of that year. Hence, Hong Kong needs to protect existing forest areas as much as possible to provide more suitable habitats for the overwintering Danaids.

Overwintering Danaids Survey

The survey, conducted by Green Power, began in 2009 and covers four locations—Deep Water Bay on Hong Kong Island, Siu Lang Shui of Tuen Mun, and Fan Lau and Shui Hau on Lantau Island. The survey begins in October and ends in January of the following year. It documents the number, types, and behaviours of the overwintering Danaids. There are 13 Danaid species in Hong Kong, most of which have a habit of clustering to overwinter. Every autumn and winter, tens of thousands of Danaids migrate southward from the colder regions to Hong Kong. Currently, their migratory route is still unclear. Apart from Hong Kong, overwintering Danaids have also been found in Japan, Taiwan, and Hainan. It is likely that these various regions are on the same migratory routes of the Danaid.

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