

1 March 2016

**“Overwintering Danaids Survey 2015” Results
Population at Siu Lang Shui Jumps 40-fold
Overwintering Behaviour in Continuous Flux**

Environmental group Green Power released the latest results of the Overwintering Danaids Survey, summarising findings in the winter of late 2015. The survey shows that the number of Danaids (tiger and crows) in Siu Lang Shui, Tuen Mun rose substantially – about 40-fold compared to the previous year: from 41 individuals to 1,587. This was also seven times the figure of 230 Danaids recorded in 2013. This is the second sharp increase in the overwintering Danaids population since Green Power began the survey in 2009. The last increase was in the winter of 2012, when 5,469 Danaids were recorded, which was 9 to 130 times the numbers in previous years.

"The population of Danaids at Siu Lang Shui has been fluctuating significantly, but the reason is unknown," said **Green Power's Senior Environmental Affairs Manager, Mr. Matthew Sin**. "Due to global warming in recent years, extreme weather conditions occur more frequently, possibly affecting the overwintering Danaids, but the actual cause is yet to be determined." Set in Tuen Mun, Siu Lang Shui is the largest overwintering site for Danaids in Hong Kong, and the only "Site of Special Scientific Interest" set up to protect overwintering Danaids. There are literature records of as many as 40,000 Danaids overwintering in groups in the area. Matthew pointed out that the population of overwintering Danaids had been dropping in early years, and it was worried that they would disappear from the site. Despite the fluctuation in the number of Danaids in recent years, it is found that Siu Lang Shui is still an important overwintering site in Hong Kong. Siu Lang Shui is a restored landfill site. He suggested that the government should manage the area well and avoid large scale development nearby to preserve the vegetation for the Danaids.

Matthew pointed out that there has been a change in the overwintering behaviour of Danaids at Siu Lang Shui. In the past, overwintering Danaids stayed in the area for at least a month. Last winter (2015), as many as 1,587 Danaids were recorded at the end of November. However, after approximately two weeks, the number dropped by three-quarters to 347, and continued to decrease thereafter, showing that most Danaids only stayed in the area for one to two weeks. "Starting from the winter of 2014, we have already discovered that the overwintering Danaids tended to stay for short periods. We may say that Siu Lang Shui is no longer an overwintering site for Danaids, but a stop-over for their overwinter journey." said Matthew.

As for Deep Water Bay and Fan Lau, the other two key overwintering sites, populations of Danaids remained stable. In Deep Water Bay, the latest record was 21 overwintering Danaids. It is a relatively large overwintering site on Hong Kong Island, but the number of Danaids recorded in previous years fluctuated from a few dozens to over a hundred. Also, 160 overwintering Danaids were recorded at Fan Lau, Lantau; the figure is similar to findings in previous years.

Matthew said that there has not been any major rise in numbers of overwintering Danaids at traditional overwintering sites in Hong Kong, but decreases in numbers instead. Overwintering behaviour has also changed, according to observations from the past two years. In addition, a Green Power Butterfly Surveyor discovered a new overwintering site in Lantau South Country Park, with about 10,000 Danaids. Matthew expects more overwintering sites to be discovered on Lantau Island in the future. He hopes the government can make conserving Lantau's ecology the top priority, reduce development in the area, and prioritise the protection of natural habitats in Lantau.

Green Power's Overwintering Danaids Survey

The survey was launched in 2009 and covers Sui Lang Shui, Tuen Mun; Deep Water Bay, Hong Kong Island; and Fan Lau, Lantau. Starting from 2015, the new overwintering site in Lantau South Country Park has been included. The survey starts in November of each year and ends in January of the next year. The species, numbers and habits of overwintering Danaids were recorded. There are 13 Danaid species in Hong Kong; most have the habit of overwintering in groups. Every year in autumn and winter, thousands of Danaids fly to Hong Kong from the north, stop for a while and return to the north or reproduce in the overwintering sites. At present, the overwintering migration route is not clear. Besides Hong Kong, overwintering butterflies are also found in Taiwan and Hainan. It is possible that the three places lie on the same overwintering route.