

19 March 2014

### **“Overwintering Danaids Survey 2013” Results**

Green Power releases the latest results of "overwintering Danaids survey". Danaids tend to overcome the winter in warmer places. Every winter, lots of overwintering Danaids from the North visit Hong Kong. In Hong Kong, there are over 10 overwintering sites, including Siu Lang Shui in Tuen Mun, Deep Water Bay in Hong Kong Island and Fan Lau in Lantau at which Green Power's survey are carried out. The latest survey shows that the number of overwintering Danaids in Siu Lang Shui fluctuates compared with Deep Water Bay and Fan Lau.

#### **Siu Lang Shui - Fluctuation in numbers**

From 2013 overwintering Danaids survey, 230 Danaids were recorded in Siu Lang Shui which had dropped 96% compared to over 5,000 Danaids recorded in 2012. However, when we reviewed the findings of 2009, 2010 and 2011 survey, 41, 65 and 601 overwintering Danaids were recorded respectively. Similarly, a survey from another organization recorded 4,000 to 40,000 overwintering Danaids in Siu Lang Shui from 1999 to 2005. Such figures tell us the number of Danaids keeps fluctuating. On the other hand, Danaids can be classified into tigers and crows, whereas the former is the majority in Siu Lang Shui.

**Mr. Matthew Sin, Senior Environmental Affairs Manager of Green Power** said, "Siu Lang Shui is a well-known over-wintering site for Danaids. It is also the only Site of Special Scientific Interest (SSSI) in Hong Kong established to protect the overwintering Danaids. As far as we know, the peak of overwintering for Danaids has already gone. In the last 5 years, their population fluctuates violently with uncertainties. Possible reasons include destruction of stop-overs along their migrating route, or any alteration of overwintering habits by climate change. We are yet to identify the actual reasons, and we expect the number of overwintering Danaids will remain unstable."

**Matthew Sin** also mentioned the government is planning to develop four Potential Development Areas (PDAs) in Tuen Mun in 2013. PDA-D is only 500m away from former Siu Lang Shui Landfill. Development will definitely affect these overwintering Danaids. The new facilities will attract more people which may disturb overwintering butterflies in turn. Thus, he suggested excluding the western part of Siu Lang Shui from the potential PDA. "The latest survey shows that the overwintering pattern of Danaids is not optimistic. If unfavourable factors against overwintering are on the threshold, even the introduction of a minor impact may have a severe blow to the overwintering Danaids" **Matthew Sin** said.

### **Deep Water Bay - Relatively stable population**

In 2013, the overwintering Danaids survey recorded 175 Danaids. It is similar to the findings in the past few years. In fact, the number of Danaids of Deep Water Bay is very stable. Unlike Siu Lang Shui, most of the overwintering Danaids are tigers.

### **Fan Lau in Lantau - Slight increase in number**

In 2013, 177 overwintering Danaids were recorded in Fan Lau. The number is increasing gently compared to the past two years. Fan Lau was an important overwintering site in Lantau, at which thousands of Danaids were recorded around 2000. Although only few Danaids visit Fan Lau recently, the number is climbing slowly in this couple of years.

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### **Green Power's Overwintering Danaids Survey**

The survey was initiated in 2009 winter, and it includes Siu Lang Shui in Tuen Mun, Deep Water Bay in Hong Kong Island and Fan Lau in Lantau. The survey usually commences in November and completes in January. It aims to identify the species, quantity and habits of overwintering Danaids. In Hong Kong, there are 13 species of Danaids, while most of them spend the winter together. Every winter, thousands of Danaids migrate to Hong Kong from the north. Afterwards, they may return to the north or breed at the overwintering site. Overwintering Danaids are also found in Japan, Taiwan, Hainan and etc. Hong Kong and these areas are probably along the same flight path of the Danaids.

In addition to Green Power's survey, mark-recapture programmes are often carried out in many places to identify the flight path of the migrating Danaids.