Division Column

Breeding Record of Black-winged Stilt (*Himantopus himantopus*, 黑翅長腳鷸) in Hong Kong Wetland Park

Hong Kong Wetland Park Reserve Section

本文報告在 2009 年 4 月至 8 月期間，黑翅長腳鷸在香 港濕地公園濕地保護區的泥灘築巢育幼的觀察結果，當 中包括牠們的巢數、繁殖、育幼及覓食行為。報告有助 了解牠們在香港的繁殖狀況，及檢討公園內的生態環境 是否切合其需要。

Introduction

On 25 April 2009, a Hong Kong Wetland Park volunteer (Mr. Y.T. Ip) observed a pair of Black-winged Stilts (*Himantopus himantopus*, 黑翅長腳鷸) nesting on the Mudflat, near the Mudflat bird hide in the reserve area of Hong Kong Wetland Park. More mating pairs and nests were sighted in the following months. This paper presents an account of Black-winged Stilts breeding in Hong Kong Wetland Park.

Black-winged Stilt

Black-winged Stilts are both passage migrants and winter visitors in Hong Kong (Carey *et al.*, 2001). They can be easily identified by their slender physique, and long pinkish legs. Black-winged Stilts amongst small waders are eye-catching, as they are taller than the rest. Downy Black-winged Stilt chicks have pale brown upperparts with black lines on the flanks. They have black spots on the back, arranged in parallel lines. Unlike adults, chicks have brownish crowns, which gradually turn white as they grow.

Black-winged Stilts usually forage for small fishes, insects, tadpoles and small invertebrates, in ponds, lakes and rivers (BirdLife International, 2009). Past records showed that Black-winged Stilts were found in the Deep Bay area, and the first breeding record in Hong Kong was in 2003 at Mai Po (Viney *et al.*, 2005). They have been recorded using small mounds of grass to build nests, and lay eggs on the ground close to water (del Hoyo *et al.*, 1996).

In Hong Kong, the autumn passage of Black-winged Stilts usually commences in late August, and peaks between late October and early November. Wintering flocks are established during early December. Although most Black-winged Stilts leave Hong Kong by the end of April, a few remain in summer (Carey *et al.*, 2001). Fig. 6 shows the numbers of Black-winged Stilts recorded in Hong Kong Wetland Park from 2003 to 2009. Black-winged Stilts in Hong Kong Wetland Park are mainly autumn passage migrants. They usually arrive in late summer, with a peak count of 65 individuals in September 2009.

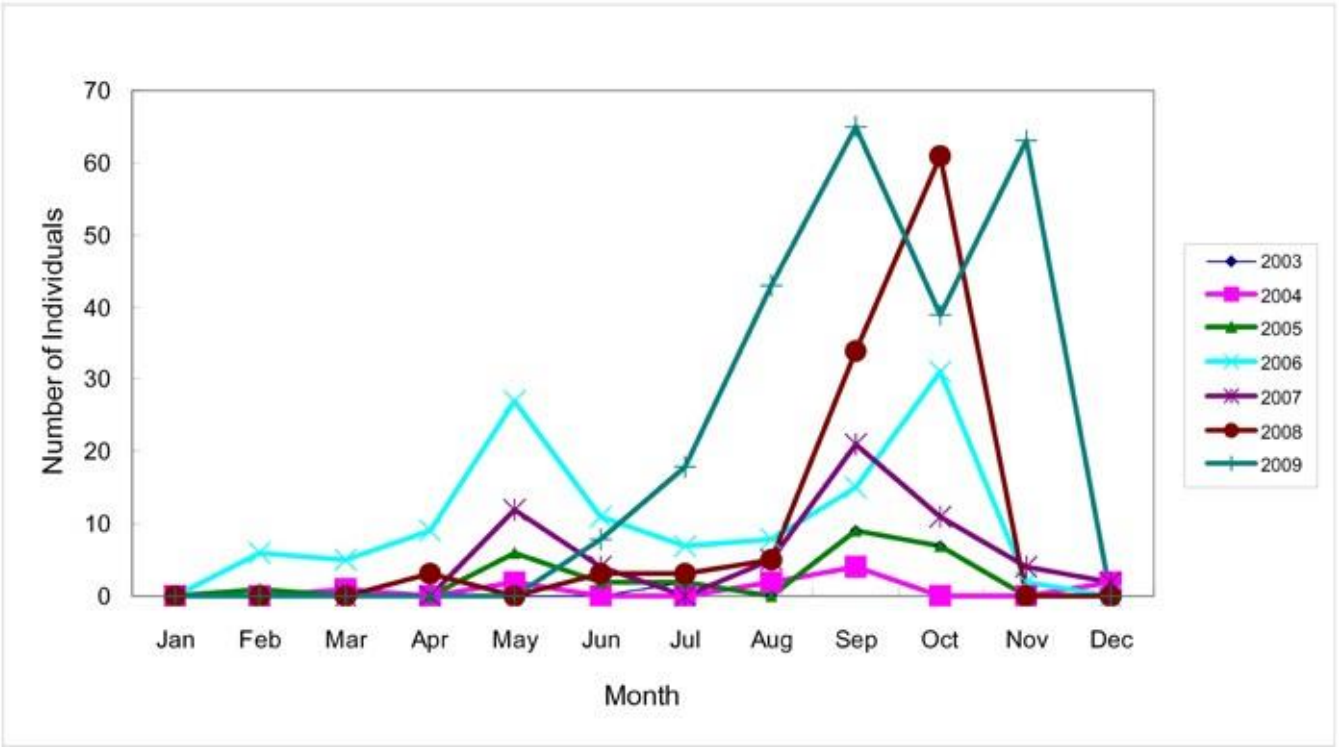

Fig 6. Numbers of Black-winged Stilts recorded in Hong Kong Wetland Park from 2003 to 2009.

Breeding account and findings

The Mudflat is in the south-east of Hong Kong Wetland Park, and has an area of 21,740 m^2 (Fig. 7). The Mudflat is managed to have minimal vegetation, thus affording good visibility. Through use of a weir, the water level is kept low, especially from October to March, to provide foraging grounds for wintering waterbirds, particularly waders. The Mudflat is influenced by the tide from Tsim Bei Tsui, and is therefore mainly brackish.

Fig 7. The mudflat in Hong Kong Wetland Park and its surrounding vegetation.

After the sighting of possible breeding and nesting behaviour on 25 April 2009, the Hong Kong Wetland Park Reserve Team monitored the Black-winged Stilts at the Mudflat twice daily, including carrying out fixed point counts from the Mudflat bird hide, and taking photos and recording video from April to August 2009. The numbers of adults and chicks, their locations, activities, extent of muddy area at the Mudflat and weather conditions were recorded. Precautionary measures were taken to minimise disturbance to the breeding pairs, including close monitoring of the Mudflat water level, postponing the scheduled weeding and related nearby activities, as well as restricting access to the Mudflat.

In all, 8 Black-winged Stilt nests and 14 chicks were recorded during the survey period from 25 April to 17 August 2009 (Fig. 8). Five broods hatched successfully.

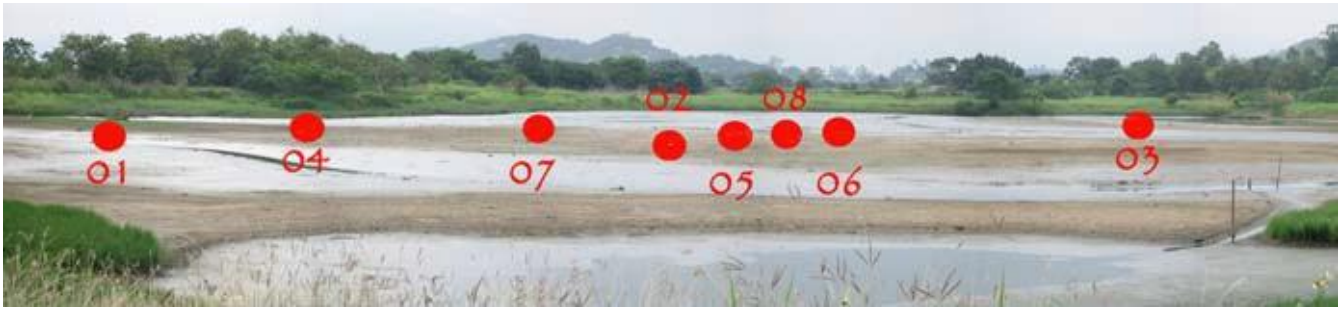

Fig 8. Black-winged Stilt nests at the Hong Kong Wetland Park Mudflat.

Fig 9. Nest built from mud, leaf detritus and grass roots.

Apart from the first nest, which was a mound built from mud, leaf detritus and grass roots (Fig. 9), the other seven nests were in the form of shallow scrapes on mud, covered with some dry grass, around which the stilts built small rings of pebbles (Fig. 10). Also, the first nest was built near grass tufts 15-20 cm tall, while the others were built in rather open areas. The distance between nests ranged from 4 to 30 m.

Fig 10. A nest with four eggs in a shallow scrape.

The eggs are light brown with some black dots. The incubation period was around 20 to 22 days and, on average, there were 3 to 4 chicks per brood.The air temperature ranged from 27˚C to 31˚C during the survey period. Both members of a pair took turns to incubate, forage and defend the nest. The hatchlings started foraging in shallow water on the day they hatched (Fig. 11). Adults took care of the chicks by providing shade and hiding them with spread wings.They also defended the chicks from intruders such as larger waterbirds (Fig. 12). It took about 45 days for the chicks to grow to flying juveniles.

Fig 11. Black-winged Stilt chicks foraging in shallow water.

Fig 12. Black-winged Stilt defending the chicks from an intruding Little Egret (*Egretta garzetta*, 小白鷺).

During the morning of 24 May 2009, the water level in the Mudflat kept rising due to heavy rainfall. To protect the eggs from being drowned, at least 2 pairs of Black-winged Stilt parents built small "platforms" with small branches and stones, and moved their eggs to the platform. Some other Black-winged Stilt parents guided their chicks to the non-flooded areas of the Mudflat.

To prevent the Mudflat from being colonised by grass, weeding was carried out after the last Black-winged Stilt chick left the site in August. The numbers of Black-winged Stilts increased after weeding, to a peak of 65 in September, which was the highest count since recording commenced in 2003. The percentage of exposed mud at the Mudflat and the numbers of Black-winged Stilts counted were recorded (Fig. 13). Based on a preliminary analysis, it appears that more Black-winged Stilts forage in the Mudflat when there is more extensive exposed mud. More data will be collected, to further analyse this relationship. To maximise the utilisation of the Mudflat by waterbirds, the percentage of vegetation cover and exposed mud will be monitored, and adjusted as appropriate.

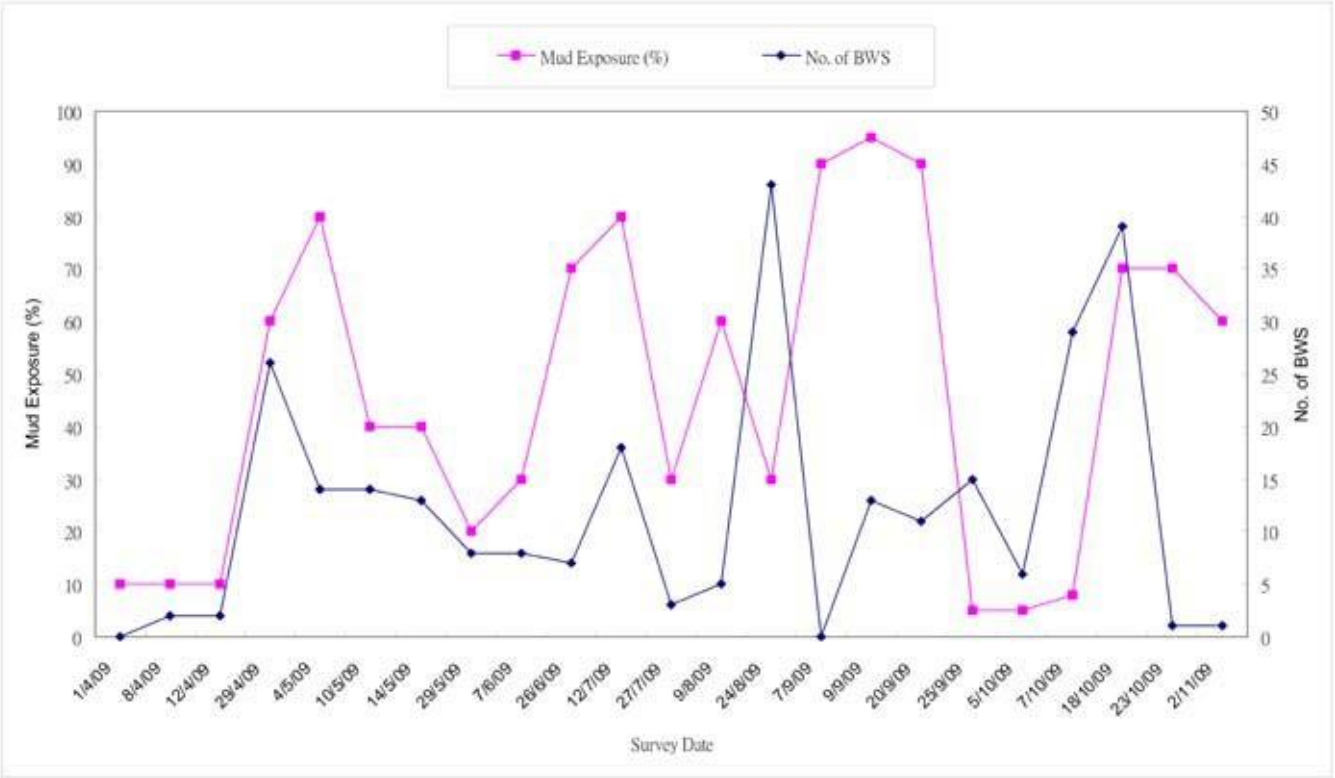

Fig 13. Relationship between the percentage of exposed mud and numbers of Black-winged Stilt (BWS) at the Mudflat from April to October 2009.

All birds occurring in Hong Kong Wetland Park are monitored in an ongoing basis. This provides up-to-date information for formulating appropriate conservation and management measures, to enhance the habitats of the reserve area for birds and other wildlife.

References

BirdLife International. 2009. *Species factsheet: Himantopus himantopus.* Downloaded from http://www.birdlife.org on 10/11/2009.

Carey, G.J., Chalmers, M.L., Diskin, D.A., Kennerley, P.R., Leader, P.J., Leven, M.R., Lewthwaite, R.W., Melville, D.S., Turnbull, M., and Young, L. 2001. *The Avifauna of Hong Kong.* Hong Kong Bird Watching Society, Hong Kong.

del Hoyo, J., Elliott, A. and Sargatal, J. 1996. *Handbook of the Birds of the World. Vol. 3: Hostzin to Auks.* Lynx Edicions, Barcelona.

Viney, C., Phillipps, K. & Lam, C.Y. 2005, *The Birds of Hong Kong and South China, 8th Edition.* Information Services Department, Hong Kong.