

# **Survey of House Swift and Barn Swallow Nests in Hong Kong**

## **2008 Report**



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Swift and Swallow Research Group

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# Survey of House Swift and Barn Swallow Nests in Hong Kong

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# SURVEY OF HOUSE SWIFT AND BARN SWALLOW NESTS IN HONG KONG

## 2008 REPORT

### Summary

866 House Swift (HS) nests and 396 Barn Swallow (BS) nests were recorded in 2008. Comparing the HS nest counts in common study sites between year 2007 and 2008, it was noted that the HS nest counts slightly decreased 7.4% (or 67 nests) from 903 nests in 2007 to 836 nests in 2008. However, BS nest counts were increased by 1.3% (or 5 nests) from 391 nests in 2007 to 396 nests in 2008. 19.6% HS nests (or 170 nests) distributed in Kowloon and 80.4% (or 696 nests) distributed in New Territories, but 0% (or 0 nest) in Hong Kong Island. Unlike the case of HS, Hong Kong Island hosted 13.9% BS nests (or 55 nests), Kowloon hosted 29.8% (or 118 nests), and New Territories including other islands hosted 56.3% BS nests (or 223 nests). The top-10 sites for HS nest counts in sum contributed 97.1% of total counts, suggesting local HS nests were highly concentrated in these 10 sites. On the other hand, distribution of BS nests is relatively scattered that the aggregated BS nest counts of top-10 sites contributed 73.2% of total counts.

### Introduction

1. House Swift (*Apus nipalensis*) and Barn Swallow (*Hirundo nistica*) are aerial insect feeders classified into Family Apodidae and Hirundinidae respectively (Monroe and Sibley, 1993). In Hong Kong, House Swifts (HS) are common residents and abundant spring migrants, and Barn Swallows (BS) are common summer visitors and abundant spring migrants (Carey *et. al.*, 2001). Both House Swift and Barn Swallow are breeding locally and their habitats especially breeding sites are highly associated with urban and sub-urban environment. Typically their nests are built under the eaves and beams of man-made structure (del Hoyo *et. al.*, 1999).
2. In 2003, 456 House Swift nests and 5 Barn Swallow nests were recorded at 5 study sites (Swift and Swallow Research Group, 2009a). In 2004, 727 House Swift nests and 54 Barn Swallow nests were recorded at 7 study sites (Anon, 2009b).
3. In 2005, the number of study sites was largely expanded to 44 sites. 900 House Swift (HS) nests and 283 Barn Swallow (BS) nests were recorded at 44 study sites (Anon,

2009c).

4. In 2006, 937 House Swift (HS) nests and 329 Barn Swallow (BS) nests were recorded in 48 sites (Anon, 2009d). It was noted that the HS nest counts in common study sites were increased by 6.0% (or 53 nests) from 884 nests in 2005 to 937 nests in 2006. However, the BS nest counts in common study sites were more or less stable at some 280 nests in both years.
5. In 2007, 932 House Swift (HS) nests and 438 Barn Swallow (BS) nests were recorded in 55 sites (Anon, 2009e). It was noted that the HS nest counts in common sites were decreased by 3.6% (or 34 nests) from 937 nests in 2006 to 903 nests in 2007. However, the BS nest counts in common sites were increased 11.9% (or 39 nests) by from 329 nests in 2006 to 368 nests in 2007.
6. The objective of this study is to collect baseline information of House Swift and Barn Swallow nests and their nest distribution in Hong Kong.

## **Methodology**

7. Study area: The number of study sites was slightly reduced from 55 sites in 2007 to 52 sites in 2008 that there were 18 study sites in Hong Kong Island, 11 sites in Kowloon and 23 sites in New Territories and islands (Table 1).
8. Study period: The survey was carried out in between May and July 2008 that the time falls within the breeding season of both House Swift and Barn Swallow in Hong Kong.
9. Nest counting: The surveyors walked through the streets in the assigned study area, watching on every street and every building, and recorded any swift or swallow nest including active and abandoned nest on there. The present of bird droppings and observation of birds flying “in and out” the nest are the important indicators to determine whether the nest is active or not. Counting of nest number was assisted by using binocular. The nest counts presented in this study represent the number of active nests in 2005.

## Results and Discussion

### *House Swift*

10. Counts of House Swift nest: Totally 866 HS nests were recorded at 52 study sites in 2008 (Table 1). Among these 55 study sites, only 16 sites had record of HS nests in 2008 that the number of site with HS nest record was the same as year 2007 (Table 1).
11. None HS nests were found in Hong Kong Island in 2008, the counts were slightly less than the counts in 2007 (Table 1). 170 HS nests were noted at 5 sites of Kowloon in 2008 that the counts were 6.1% (or 11 nests) less than year 2007 (Table 1). It should be noted that the counts of Sham Shui Po was under-estimated due to incapable of accessing the back of ex-North Kowloon Magistracy building where several tens HS nests were recorded in 2005. Similar to year 2007, in 2008, Sham Shui Po area contributed the largest portion of HS nest counts (i.e. 78.8% or 134 nests) in Kowloon (Table 1). In New Territories and Islands, 696 HS nests were found at 11 sites in 2008 that the counts showed 6.7% (or 50 nests) less than that in 2007 (Table 1).

Table 1. Survey of House Swift (HS) and Barn Swallow (BS) nests in 2008.

Survey Sites	HS nest counts		BS nest counts	
	2007 <sup>a</sup>	2008 <sup>b</sup>	2007 <sup>a</sup>	2008 <sup>b</sup>
<i>Hong Kong Island (18 sites)</i>				
Aberdeen	0	0	0	0
Causeway bay	0	0	9	9
Central District	0	0	0	0
Chai Wan	0	0	0	0
Happy Valley	0	0	8	7
Kennedy Town	0	0	0	0
North Point	0	0	6*	11
Quarry Bay	0	0	0	1
Sai Wan	0	0	0	0
Shau Kei Wan	0	0	12	7
Shek O	0	0	2	0
Sheung Wan	0	0	0	0
Siu Sai Wan	0	0	15	15*
Stanley	0	0	0	0
Tai Hang	0	0	0	0
Tai Tam Harbour	0	0	0	0
Wan Chai	5	0	4	4*

Wong Chuk Hang	0	0	1	1*
Subtotal of HK Island	5	0	57	55
<i>Kowloon (11 sites)</i>				
Cheung Sha Wan	2	2	14	14*
Diamond Hill	12	12	0	0
Ho Man Tin	0	0	0	0
Hung Hom	0	0	4	2
Kwun Tong	19	19*	0	0
Mong Kok	0	0	0	0
Sham Shui Po	136	134	83	83
Tai Kwok Tsui	0	0	4*	4
To Kwa Wan & Kowloon City	0	0	12*	3
Tsim Sha Tsui	12	3	10	12
Yau Ma Tei	0	0	0	0
Subtotal of Kowloon	181	170	127	118
<i>New Territories &amp; Islands (23 sites)</i>				
Cheung Chau	0	0	44	57
CUHK	243	262	0	0
Fan Leng Town (Luen Wo Hui)	44*	42	0	0
Fan Leng Wai	3	3*	21	21*
Fung Yuen Village	0	0	8*	10
Hok Tau Wai	0	No data	2	No data
Kwai Chung	43	4	0	0
Lai King	26	20	0	0
Lamma Island	0	0	3	3
Mai Po Village	0	0	28	29
Mui Wo	10*	15	14*	17
Peng Chau	0	0	13	25
Pui O	0	No data	20	No data
Sai Kung Town	0	0	0	0
Sha Kok Mei Village	0	No data	17	No data
Sham Tseng	No data	30	No data	0
Sheung Shui Town (Shek Wu Hui)	100	126	0	0
Tai O	0	0	17	17*
Tai Po Market	60*	60*	4*	4*
Tai Wai Town	0	0	0	0
Tap Mun	0	0	5	9

Tong Fuk & Cheung Sha	0	No data	8	No data
Tseung Kwan O	0	0	12*	12*
Tsing Yi	0	0	6	6
Tsuen Wan	0	0	0	0
Tung Chung	1	1	12	10
Yuen Long Town	216	133	20	3
Subtotal of NT & Islands	746	696	254	223
Subtotal of common sites between years	903	836	391	396
<b>Total</b>	932	866	438	396

a, Anon, 2009e

b, the present study

\*, adjustment or correction made

12. Comparing the HS nest counts in common study sites between year 2007 and 2008, it was noted that the HS nest counts slightly decreased 7.4% (or 67 nests) from 903 nests in 2007 to 836 nests in 2008 (Anon, 2009e; Table 1).
13. Distribution of HS nests: Table 2 summaries the distribution of HS nests in Hong Kong. Compared with the case in 2007 (Anon, 2009e), the distribution was more or less the same in 2007. It was noted that Kowloon hosted 19.6% HS nests in 2008 (vs. 19.4% in 2007) and New Territories including other islands host 80.4% HS nests in 2008 (vs. 80.0% in 2007), but 0% HS nest was found in Hong Kong Island (vs. 0.5% in 2007) (Table 2).

Table 2. Distribution of HS and BS nests in 2008.

Distribution	HS		BS	
	Counts	%	Counts	%
Hong Kong Island	0	0	55	13.9
Kowloon	170	19.6	118	29.8
New Territories and Islands	696	80.4	223	56.3
<b>Total</b>	<b>866</b>	<b>100.0</b>	<b>396</b>	<b>100</b>

14. Sites with highest HS nest counts: Table 3 showed the top-10 sites with highest HS nest counts. The aggregated nest counts (841 nests) of these top-10 sites contributed



97.1% of total counts in 2008 (vs. 94.9% in 2007). The results indicated that distribution of HS nests was not even, in fact, the nests were highly concentrated in the top-10 sites as shown in Table 3. Similar to the case in year 2007, the top 5 sites contributed more than 80% of total HS nests in 2008.

Table 3. Top 10 sites with highest HS nest counts in 2008.

Top 10 sites	Counts	% of total	Aggregated %
1. CUHK (New Territories)	262	30.3	30.3
2. Sham Shui Po (Kowloon)	134	15.5	45.8
3. Yuen Long Town (New Territories)	133	15.4	61.2
4. Sheung Shui Town (New Territories)	126	14.5	75.7
5. Tai Po Market (New Territories)	60	6.9	82.6
6. Fan Leng Town (New Territories)	42	4.8	87.4
7. Sham Tseng (New Territories)	30	3.5	90.9
8. Lai King (New Territories)	20	2.3	93.2
9. Kwun Tong (Kowloon)	19	2.2	95.4
10. Mui Wo (New Territories)	15	1.7	97.1
<b>Total of top 10 =</b>	<b>841</b>	<b>97.1</b>	

12. Colonies with highest HS nest counts: Similar to the situations in year 2004 to 2007, in 2007, the University Library (大學圖書館) of CUHK also hosted the largest colony of HS that some 250 HS nests were noted on the eaves of library building. Second to the University Library, the ex-North Kowloon Magistracy building (前北九龍裁判法院) at Sham Shui Po (Kowloon) hosted the second largest colony of HS that not less than 120 nests were noted on the eaves of building. No. 81 Sun Fung Avenue (also known as HSBC outlet) at Sheung Shui Town hosted the third largest colony of HS that 61 nests were noted on the eaves of building.

#### *Barn Swallow*

13. Counts of Barn Swallow nest: Totally 396 BS nests were recorded at 52 study sites in 2008 (Table 1). Among these 55 study sites, 28 sites have record of BS nests.
14. When comparing the BS nest counts in common study sites between years 2007 and 2008, it was noted that the BS nest counts were increased 1.3% (or 5 nests) by from 391 nests in 2007 to 396 nests in 2008 (Anon, 2009e; Table 1).
15. Distribution of BS nests: It was noted that Hong Kong Island hosted 55 nests or 13.9%,

Kowloon hosted 118 nests or 29.8%, and New Territories including other islands hosted 223 nests or 56.3% in 2006 (Table 2), the situation this year was more or less the same as year 2007 (Anon, 2009e).

16. Sites with highest BS nest counts: Table 4 showed the top-10 sites with highest BS nest counts. It was noted that the aggregated nest counts of these top-10 sites contributed 73.2% (or 290 nests) of total counts in 2008 (vs. 63.7% in 2007). In the list of top-10 sites, there were only 1 site in Hong Kong Island, 3 sites in Kowloon and 6 sites in New Territories. Together with their overall distribution (Table 2), the results indicated that distribution of BS nests was relatively scattered. Unlike the case of HS, the top 5 sites contributed only some 50% of total BS nests.

Table 4. Top 10 sites with highest BS nest counts in 2008.

Top 10 sites	Counts	% of total	Aggregated %
1. Sham Shui Po (Kowloon)	83	21	21
2. Cheung Chau (New Territories)	57	14.4	35.4
3. Mai Po Village (New Territories)	29	7.3	42.7
4. Peng Chau (New Territories)	25	6.3	49
5. Fan Leng Wai (New Territories)	21	5.3	54.3
6. Mui Wo (New Territories)	17	4.3	58.6
7. Tai O (New Territories)	17	4.3	62.9
8. Siu Sai Wan (Hong Kong Island)	15	3.8	66.7
9. Cheung Sha Wan (Kowloon)	14	3.5	70.2
10. Tsim Sha Tsui (Kowloon)	12	3	73.2
<b>Total of top 10 =</b>	<b>290</b>	<b>73.2</b>	

17. Site good in both HS and BS nest counts: When comparing the top-10 list of HS and BS nests (Table 2 & 4), it was found that two site (i.e. Sham Shui Po and Mui Wo) were overlapping. This indicated HS and BS utilize different areas for breeding in Hong Kong.

## Conclusion

18. 866 House Swift (HS) nests and 396 Barn Swallow (BS) nests were recorded in 2008. Comparing the HS nest counts in common study sites between year 2007 and 2008, it was noted that the HS nest counts slightly decreased 7.4% (or 67 nests) from 903 nests in

2007 to 836 nests in 2008. However, BS nest counts were by increased 1.3% (or 5 nests) from 391 nests in 2007 to 396 nests in 2008. 19.6% HS nests (or 170 nests) distributed in Kowloon and 80.4% (or 696 nests) distributed in New Territories, but 0% (or 0 nest) in Hong Kong Island. Unlike the case of HS, Hong Kong Island hosted 13.9% BS nests (or 55 nests), Kowloon hosted 29.8% (or 118 nests), and New Territories including other islands hosted 56.3% BS nests (or 223 nests). The top-10 sites for HS nest counts in sum contributed 97.1% of total counts, suggesting local HS nests were highly concentrated in these 10 sites. On the other hand, distribution of BS nests is relatively scattered that the aggregated BS nest counts of top-10 sites contributed 73.2% of total counts.

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