

Contract Ref.: AFCD/SQ/19/10/C

**Mai Po Inner Deep Bay Ramsar Site
Waterbird Monitoring Programme
2010 - 11**

**Egretty Counts in Hong Kong,
with particular reference to the Mai Po
Inner Deep Bay Ramsar Site**

Summer 2010 Report



Submitted by

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Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

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The Hong Kong Bird Watching Society Ltd.

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Summer 2010 Report: Egretty Counts in Hong Kong with particular reference to the Mai Po Inner Deep Bay Ramsar Site

Report



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

EGRETRY COUNTS IN HONG KONG, WITH PARTICULAR REFERENCE TO THE MAI PO INNER DEEP BAY RAMSAR SITE

SUMMER 2010 REPORT

Summary

In the 2010 breeding season, a total of 248 nests of two ardeid species (Little Egret (*Egretta garzetta*) and Chinese Pond Heron (*Ardeola bacchus*)) in six egrettries (hereafter colonies) were recorded in the Deep Bay area. The number of nests in the Deep Bay area accounted for 34% of the total in Hong Kong in 2010. The Chinese Pond Heron (*Ardeola bacchus*) was not only the dominant species in the Deep Bay area (61% of the total number of nests in this area), but also in Hong Kong (36%). The total number of nests in Hong Kong in 2010 was 734 nests of five species in 18 colonies. The colony at Shuen Wan was abandoned. The least abundant of the regularly breeding ardeids was the Cattle Egret (*Bubulcus ibis*, 9%). Compared with 2009 totals of 308 nests in the Deep Bay area and 809 nests in Hong Kong, there has been a 19% decrease in the Deep Bay area and 9% decrease in Hong Kong as a whole. The decline could be related to natural fluctuation, change of management practice in some wetlands in Deep Bay or lost of feeding habitats.

1 INTRODUCTION

Breeding activity is an important aspect of population dynamics. Nesting populations of colonial waterbirds are counted as part of long-term monitoring studies in Mediterranean Europe (Tourenq *et al.* 2000), Australia (McKilligan 2001) and the United States (Gawlik *et al.* 1998). In East and Southeast Asia long-term records of breeding populations of colonial nesting ardeids only exist in Hong Kong and Vietnam (Landsdown *et al.* 2000). Reporting of the number of nesting pairs in Hong Kong, organised by the Hong Kong Bird Watching Society (HKBWS), started as early as 1958, but was suspended between 1975 and 1989 (Young and Cha 1995). A review of the trends of numbers of nests of five ardeid species between 1989 and 2004 in Hong Kong and the influence of weather on the trends was published in 2006 (Wong and Young 2006). With the establishment of the Mai Po Inner Deep Bay Ramsar Site, a waterbird monitoring programme was developed which was coordinated and undertaken by the HKBWS with support rendered by the Agriculture, Fisheries and Conservation Department (AFCD) of the Hong Kong SAR Government since 1998. The present monitoring is to record the nesting population of nesting ardeids, in terms

of numbers of nests, as part of the long-term waterbird monitoring programme. Both breeding species and the number of nesting pairs at nesting colonies in the Deep Bay area and elsewhere in Hong Kong are recorded.

2 METHODS

Active and abandoned colonies identified in the past two years (i.e. 2008 and 2009), were surveyed once a month between April and July 2010 (Table 1, Figure 1, Appendix 1). A nesting colony of egrets and herons is defined as an area in which more than a pair of these birds was recorded building nests, laying eggs and raising young. Active nests, determined by the presence of incubating adults or chicks, were counted directly from vantage points or along the edge of a colony with 10x binoculars or naked-eye, depending on the proximity between the surveyor and the colony. Estimation of nest numbers was also made if nests were hidden in vegetation. At the Little Green Island colony, as most nests were hidden in vegetation, landing locations were marked on a sketch and repeated landings around the same location were considered as one nest. The number of nests in colonies surveyed more than once was taken to be the sum of the highest count of the number of nests of each species. Apart from the number of nests, the nesting substratum was also identified.

In addition to existing colonies, potential new nesting sites were also visited; these potential new colonies were located by personal observations and information from birdwatchers, environmentalists and the general public. A new nesting site is considered as a new nesting colony if it is at least 500 m away from an existing colony, because the lowest foraging range of a colony is usually about 500 m (L. C. Wong unpublished data), thus overlapping of feeding habitats of nesting sites within 500 m will be considered as high and combining breeding birds in locations within 500 m could avoid defining numerous small nesting sites in the same area.

3. RESULTS and DISCUSSION

3.1 Breeding population in the 2010 breeding season

A total of 734 nests were recorded at 18 colonies in Hong Kong (Table 1, Figure 1-22, Appendix 2). Underestimation of the number of nests at A Chau, Yeung Chau and Little Green Island colonies may have occurred as some nests were built in dense vegetation, and

were thus invisible. The Shuen Wan colony was abandoned and previously two pairs of Chinese Pond Herons were recorded regularly. No colony was noted to relocate at area in close proximity to the original location. Visits to Ha Mei San Tsuen, Ma On Kong, Tai O, Centre Island, Ocean Park, and Heung Yip Road (Aberdeen) were made, but no breeding was noted.

Table 1. The number of nests at surveyed colonies in the Hong Kong in 2010

	Great Egret	Little Egret	Cattle Egret	Black-crowned Night Heron	Chinese Pond Heron	Total	%
The Deep Bay area							
1. Mai Po Village		19			109	128	17.2
2. Mai Po Lung Village		2			5	7	1.0
3. Tung Shing Lane		26			24	50	6.8
4. Pak Nai					2	2	0.3
5. Pak Nai 2		30			13	43	5.9
6. Ngau Hom Shek		8			10	18	2.5
Elsewhere in the New Territories							
7. Ho Sheung Heung		42	25		19	86	11.7
8. Man Kam To Road		2			22	24	3.3
9. Ping Che					16	16	2.2
10. A Chau	42	10	27	40		119	16.2
11. Tai Po Market	6	19		9		34	4.6
12. Yeung Chau (Tai Po)	20	8	2	15		45	6.1
13. Lam Tsuen					10	10	1.4
14. Ha Che		3			28	31	4.2
15. Tai Tong			12		7	19	2.6
16. Tuen Mun		16				16	2.2
17. Penfold Park	12	14	1	7	2	36	4.9
Hong Kong Island District							
18. Little Green Island		30		20		50	6.8
Total	80	229	67	91	267	734	100.0
%	10.9	31.2	9.1	12.4	36.4	100.0	

The highest number of nests was recorded at the Mai Po Village colony (128 nests, 17% of total nests in Hong Kong, Table 1) which contained the highest number of Chinese Pond Herons (*Ardeola bacchus*, 109 nests, 41% of the total number of nests of this species), while the smallest was at the Pak Nai colony (2 nests, 0.3% of total nests in Hong Kong). A Chau contained the highest number of nests of Great Egrets (*Egretta alba*, 42 nests, 53% of the total number of nests of this species), Black-crowned Night Herons (40 nests, 44% of the total number of nests of this species) and Cattle Egrets (*Bubulcus ibis*, 27 nests, 40% the

total number of nests of this species). Ho Sheung Heung colony is the most important site for Little Egret (*Egretta garzetta*) (42 nests, 18% of total number of Little Egret nests).

In terms of the number of nests, Chinese Pond Heron and Little Egret (CPH: 267 nests, 36% of the total number of nests; LE: 229 nests, 31% of the total number of nests; Table 1) were the most abundant and widespread species, while Cattle Egret was the least numerous (67 nests, 9%). Little Egret was recorded at 14 colonies, while it was 13 for Chinese Pond Heron.

3.2 Colonies in the Deep Bay area

A total of 248 nests of two species were recorded in six colonies in the Deep Bay area in the 2010 breeding season (Table 2). No breeding of Great Egrets (*Egretta alba*), Cattle Egret (*Bubulcus ibis*) and Black-crowned Night Herons (*Nycticorax nycticorax*) was noted in Deep Bay in 2010. Great Egrets and Black-crowned Night Herons have been recorded breeding in the Deep Bay area until 2006 and 2003, respectively. With a breeding record of one nest in Tung Shing Lane last year, Cattle Egret also did not breed in this area of Hong Kong in 2010. The Chinese Pond Heron was the dominant species, of which it comprised nearly 2/3 of the total number of nests in Deep Bay. The total number of nests in the Deep Bay colonies comprised 34% of the Hong Kong total.

Table 2. The relative importance of Deep Bay colonies to the others in Hong Kong in 2010. Colonies in the Deep Bay area include Mai Po Village, Mai Po Lung Village, Tung Shing Lane Pak Nai, Pak Nai 2 and Ngau Hom Shek.

Species	No. of nests in Deep Bay	No. of nests in Hong Kong	Deep Bay nests as % of all nests in Hong Kong
Great Egret		80	0.0
Little Egret	85	229	39.0
Cattle Egret		67	0.0
Black-crowned Night Heron		91	0.0
Chinese Pond Heron	163	267	61.0
Total	248	734	33.8

Table 3 shows decline in the number of nests of Great Egrets, Black-crowned Night Herons and Cattle Egrets in the Deep Bay area. Small numbers of nests of these three species were recorded in the early of this decade. With the exception of 2005 and 2006 for the overall high number of breeding records, the number of nests of the Chinese Pond Heron was

comparatively higher than that in 2007-08 and the years before 2004, while the number of nests of the Little Egret gradually shows a decreasing trend in the last five years.

According to our observations, there is no record of significant wetland loss in the Deep Bay area in recent years. The absence of the breeding records of Great Egrets, Cattle Egrets and Black-crowned Night Herons in Deep Bay may be associated with their habitat preference: nesting Great Egrets utilise of fishponds and shallow coastal waters and mudflats, and Cattle Egrets use active farmlands and fishponds, while Black-crowned Night Herons use fishponds and mangrove (Wong and Young 2009). In addition, the prey items consumed by nesting Great Egrets and Black-crowned Night Heron are larger in size (medium prey size of the Night Heron = 82 mm, Wong and Young 2009) compared to that of Little Egret and Chinese Pond Heron. The reduction in the number of the birds in the last decade may indicate a change in the size of the prey available in fishponds, shallow coastal waters and mudflats, and mangrove. The absence of breeding Cattle Egrets in Deep Bay may associate with the gradual disappearance of active farmlands. For example, a drainage project near Yau Mei Shan Tsuen has led to a reduction of approximate 5-10 hectare of farmlands from 2003-2006. In addition, change of fishpond bund may reduce the area of habitat available to Cattle Egrets which forage on insects along vegetated fishpond bunds. It is noted that some pond bunds of commercial fishponds adjacent to Mai Po Nature Reserve were covered by tarmac and plastic clothes, which reduced the colonisation and coverage of wild grasses. It is suggested to conduct further studies to collect information on prey size for egrets and herons, and to monitor habitat utilization of fishpond bunds by egrets in Deep Bay.

Table 3. The number of nests of colonies in Deep Bay from 2001-2010.

	Great Egret	Little Egret	Black-crowned Night Heron	Chinese Pond Heron	Cattle Egret	Total no. of nests in the Deep Bay area
2001	12	145	25	90	22	295
2002	15	135	9	111	19	289
2003	2	85		119	3	209
2004		100		133	9	242
2005		126		203	4	333
2006	3	165		235	3	406
2007		119		152	4	275
2008		96		137	1	234
2009		95		212	1	308
2010		85		163		248

In addition, the first fishpond study in Deep Bay was undertaken in mid 1990s, it is recommended that such study should be conducted in order to update the present condition of fishponds, in particular the use of active and abandoned fishponds by waterbirds and the impact of non-traditional fish farming on the use of ponds by waterbirds.

3.3 A comparison of the number of nests with the previous years

After the decline in the number of nests in 2007 and 2008, and then a rebound in 2009, there was a decrease in the overall number of nests in Hong Kong (-9%) and the Deep Bay area (-19%) again in 2010 (Table 4). When compared with the number of nests in 2009, Great Egret and Black-crowned Night Heron decreased 21% and 26%, respectively. A decline in 10% of the number of nests was also noted in Chinese Pond Heron. However, Little Egret and Cattle Egret showed a small percentage of increase (Table 4). It is also noted that there is a general decreasing trend of the number of nests in key nesting colonies of Great Egret and Black-crowned Night Heron where they are located at or nearby in the intertidal wetlands and shallow coastal waters at the eastern part of Hong Kong, i.e. Starling Inlet and Tolo Harbour (Table 5 and 6). It is suggested that further attention should be paid on conditions of shallow coastal waters in the future breeding season.

Table 4. A comparison of nests in 2010 with the previous year

	2009	2010	Percentage change (%)
Great Egret	101	80	-21
Little Egret	224	229	2
Cattle Egret	64	67	5
Black-crowned Night Heron	123	91	-26
Chinese Pond Heron	297	267	-10
Sub-total in Deep Bay	308	248	-19
Total in Hong Kong	809	734	-9

Table 5. Comparison of number of nests of Great Egret at the eastern part of Hong Kong from 2006 to 2010

	2006	2007	2008	2009	2010
A Chau	80	59	49	40	42
Tai Po Market	1		10	2	6
Yeung Chau (Tai Po)	5	67	20	44	20
Penfold Park	42	9	19	15	12
Total	128	135	98	101	80

Table 6. Comparison of number of nests of Black-crowned Night Heron at the eastern part of Hong Kong from 2006 to 2010

	2006	2007	2008	2009	2010
A Chau	78	24	50	73	40
Tai Po Market	10	17	12	11	9
Yeung Chau (Tai Po)	10	17	13	15	15
Penfold Park	7	7	8	10	7
Total	105	65	83	109	71

3.4 Population decline in the Mai Po Lung colony

A sharp decline in the number of nests at the Mai Po Lung colony has been observed since 2006 (Table 7). It decreased from 86 nests in 2006 to 7 nests in 2010. Chinese Pond Heron and Little Egret were the two species nested in the colony. A study of their feeding habitat use in the 2008 breeding season showed that they mainly use habitat nearby fishponds at San Tin/Lok Ma Chau (61-82%), and 13% of them made use of wet farmlands at Shek Wu Wai (Anon 2009). Unfortunately, the wet farmlands at Shek Wu Wai surrounding the egretty were filled and converted to open storage in recent years. Although the wet farmlands at Shek Wu Wai were not the frequently visited habitats of these birds, the importance of this less visited habitat may be underestimated as the flight-line study only indicated the first landing pattern of nesting birds and did not show the profitability of this first landing habitat. The decline in the number of nests at this colony coincided with the feeding habitat loss at Shek Wu Wai, while the major feeding habitats at San Tin/Lok Ma Chau have no obvious change, this suggested that the decline in number of nests are possibly be associated with the habitat lost. Whether this colony will be eventually abandoned by the nesting birds in subsequent breeding seasons would be a concern and further monitoring is recommended.

Table 7. The number of nests recorded at Mai Po Lung Village between 2006 and 2010.

	2006	2007	2008	2009	2010
Nests	86	49	37	9	7

The Mai Po Lung colony case could illustrate that breeding ardeids in Hong Kong are sensitive to the change of landscape. This arise the need that particular attention, planning and conservation effort should be spend on key habitats, in particular those in a greater size. Taking this case as reference, wet farmlands at Fu Tei Au and Long Valley, which are in close proximity to the Ho Sheung Heung colony, should be particularly concern when

opening up of the Frontier Closed Area in late 2010 and 2011 as farmlands are always viewed as landbank for developments.

3.5 Protection of colonies against minor construction and maintenance works

The only disturbance observed during the monitoring was an air gun shooting of nesting birds by a resident at the Tung Shing Lane colony in May (Table 8). As all birds are protected in Hong Kong by law under Cap. 170, advice of no shooting has been given to the resident. It is suggested that more communication between surveyors / HKBWS and AFCD or arrangement of regular patrols by relevant departments is needed.

Table 8. Disturbances recorded in colonies in Hong Kong during the monitoring in 2010

Colonies	Type of disturbance	Nature of disturbance	Solution
Tung Shing Lane	Air gun (BB gun) shooting	Shooting of chicks by a resident of a hut underneath the colony	Surveyer advice the resident of possible offence due to bird shooting was given to the resident

3.6 Monitoring the post-fledging dispersal of newly-fledged juveniles

The post-fledging dispersal pattern of newly-fledged ardeid juveniles in Hong Kong is still unknown. Experience in North America indicates that the dispersal range is about 300-500 km from the colony (Erwin *et al.* 1996). No such information is available and thus it is not known whether juveniles will disperse within the territory of Hong Kong or other areas in South China. Also, little is known about the location of wintering grounds of the summer visitors, i.e. Black-crowned Night Herons and Cattle Egrets. As the survival rate of juveniles in the wintering ground may affect recruitment and the nesting population in successive breeding seasons, it is crucial to understand the post-fledging dispersal pattern. In this breeding season, in order to investigate the post-dispersal pattern of local ardeid juveniles, the Egret Research Group of the HKBWS, collaborated by Kadoorie Farm and Botanic Garden (KFBG) and approved by the AFCD, conducted a ringing programme of rescued chicks that admitted to the Wild Animal Rehabilitation Centre at KFBG. Unfortunately, no chicks were admitted to KFBG during the 2010 breeding season, but an adult Little Egret was ringed and released at Nam Sang Wai on 21 June 2010 (marked with HA 01). This ringing programme will be continued in next breeding seasons.

3.7 Nesting habitats

Bamboo was the main nesting substrate of egrets and herons nesting in North and Northwest New Territories (Table 9). Birds at the Penfold Park colony built their nests in Banyan trees (*Ficus microcarpa*). The exotic tree *Lagerstroemia speciosa* was used by ardeids for nesting in the Tuen Mun colony. Most nests at Mai Po Village were in Chinese Hackberry (*Celtis sinensis*). The majority of nests on the A Chau colony were built on Cuban Bast (*Hibiscus tiliaceus*), while unidentified coastal plants were used by birds nesting on Little Green Island. On Yeung Chau, most nests were noted inside climbers, which may provide shelter against bad weather and sun exposure. Collection of plant specimen will be undertaken for identification, if necessary.

Table 9. Plant species utilized by ardeids as nesting habitats in 2010

	Bamboo	Tree species	Remarks
1. Mai Po Village	+	<i>Celtis sinensis</i>	
2. Mai Po Lung Village	+	Lychee and Longgan trees	
3. Tung Shing Lane	+	(i) Lychee and Longgan (ii) <i>Celtis sinensis</i>	
4. Pak Nai	+		
5. Pak Nai 2	+		
6. Ngau Hom Shek	+		
7. Ho Sheung Heung	+		
8. Man Kam To Road	+		
9. Ping Che	+		
10. A Chau		Mainly on (i) <i>Hibiscus tiliaceus</i> , and (ii) <i>Mallotus paniculatus</i>	
11. Tai Po Market		(i) <i>Ficus variegata</i>	
12. Yeung Chau		(i) <i>Hibiscus tiliaceus</i> , and (ii) unidentified climbers	
13. Lam Tsuen	+		
14. Ha Che		<i>Celtis sinensis</i>	
15. Tai Tong	+		
16. Tuen Mun		<i>Lagerstroemia speciosa</i>	
17. Penfold Park		<i>Ficus microcarpa</i>	
18. Little Green Island			No detailed plant survey was conducted

3.8 Training workshop for ardeid nesting colony monitoring

A training workshop was conducted during the breeding seasons of 2010. A total of 20 participants joined training workshop with subsequent practical session on counting of nests.

In view of the success of this training workshop, it is recommended that this open training workshop should be conducted again in the future.

4. CONCLUSION

In 2010, a total of 734 nests of five species in 18 colonies were recorded in Hong Kong, including 248 nests of two species in six colonies in the Deep Bay area. Compared with 2009, there were 9% and 19% decreases in the number of nests in Hong Kong and Deep Bay area, respectively. As decline in the number of nests was obviously recorded in 2007, 2008 and 2010, it is suggested investigating whether there is a persisted decline in the nesting population and the associated causes. Recommendations on the management of the local nesting population are:

- (1) In order to avoid and minimise disturbance due to minor works, circulation of the latest location of colonies amongst government departments and public utilities is recommended;
- (2) Conduct egret count training workshop for the public and encourage their involvement;
- (3) Particular attention to be made when the Frontier Closed Area (FCA) being open up at Ho Sheung Heung colony and nearby feeding habitat. Currently, this colony and the feeding habitats are indirectly protected by this restricted land designation due to the cross-border security justification;
- (4) Investigate the post-fledging dispersal of juveniles that are recovered in rescue actions;
- (5) Investigate whether there is a long-term decline of nesting population and the cause if there are further decline in subsequent years; and
- (6) Conduct fishpond study to obtain latest habitat use pattern of fishponds by waterbirds in the Deep Bay area.
- (7) Conduct studies to collect information on prey type and size of nestlings of egrets and herons.
- (8) Update the feeding habitat use pattern of large colonies, e.g those in Deep Bay

Regarding the recommendation No 5, Black-crowned Night Herons appear to exhibit a long term decline as the number of nests decreased from 250 nests in 2002 to 91 nests in 2010. If the population remains low in upcoming breeding seasons, it may conclude that this species suffer a long term decline. It is suggested that conservation management practices, e.g.

creating shallow ponds with floating rafts for feeding or perching by Black-crowned Night Herons could be introduced in managed wetlands in the Deep Bay area, for example, at or nearby Hong Kong Wetland Park and/or Mai Po Nature Reserve.

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Figures

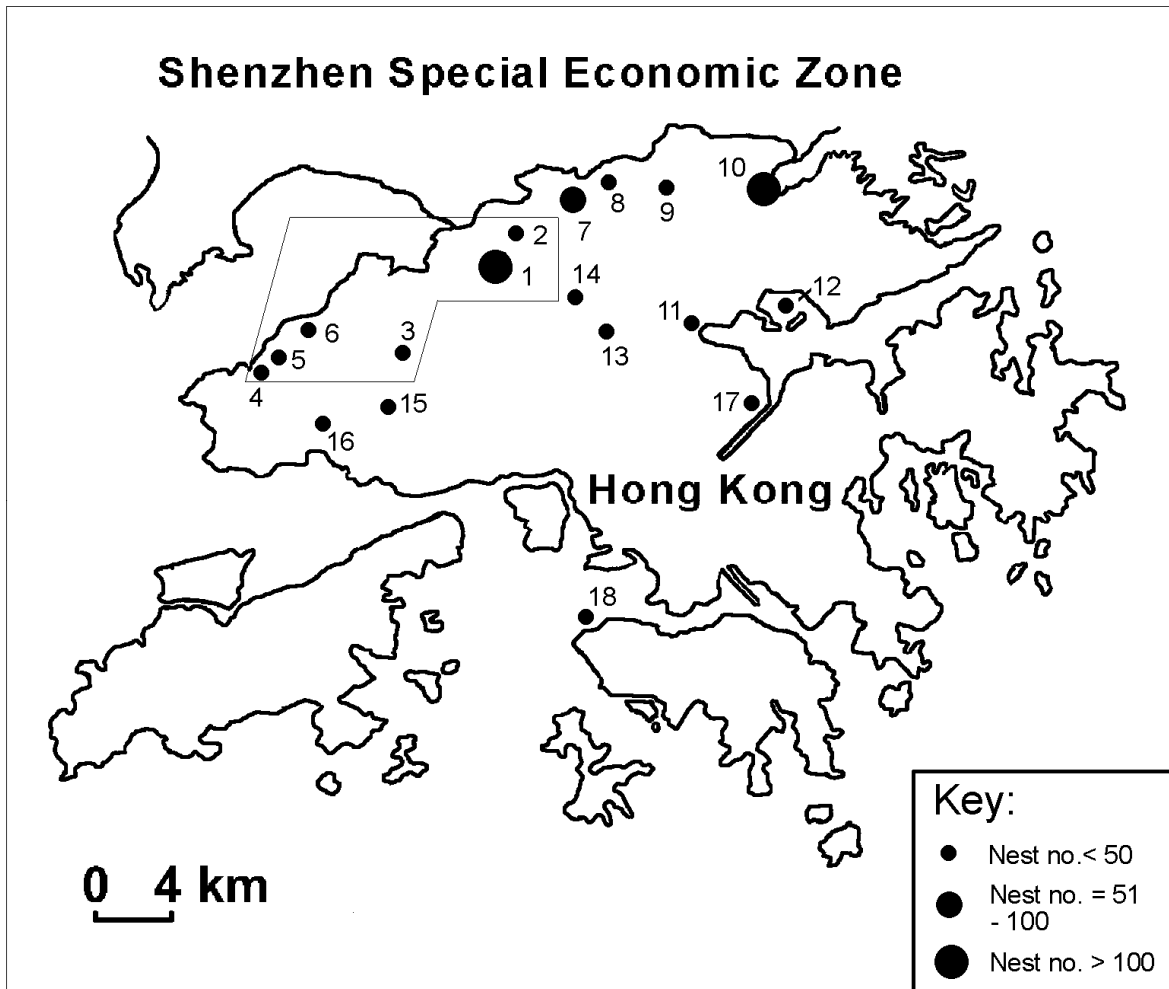


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Figure 1. Locations of colonies in Hong Kong in 2010. Nesting colonies in the Deep Bay area are enclosed. (1: Mai Po Village, 2: Mai Po Lung Village, 3: Tung Shing Lane, 4: Pak Nai, 5: Pak Nai 2, 6: Ngau Hom Shek, 7: Ho Sheung Heung, 8: Man Kam To Road, 9: Ping Che, 10: A Chau, 11: Tai Po Market, 12:Yeung Chau, 13: Lam Tsuen; 14: Ha Che, 15: Tai Tong, 16: Tuen Mun, 17: Penfold Park, and 18: Little Green Island.



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Appendices



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Appendix 1. Survey dates of nesting colonies and additional sites in 2010 (*: within the Deep Bay area).

Colony	Date
Active colonies	
1. Mai Po Village*	17 Apr, 15 May, 13 June, 18 July
2. Mai Po Lung Village*	17 Apr, 15 May, 13 June, 18 July
3. Tung Shing Lane*	17 Apr, 15 May, 13 June, 18 July
4. Pak Nai*	23 Apr, 15 May, 13 June, 18 July
5. Pak Nai 2*	23 Apr, 15 May, 13 June, 18 July
6. Ngau Hom Shek*	17 Apr, 15 May, 13 June, 18 July
7. Ho Sheung Heung	17 Apr, 15 May, 26 June, 24 July
8. Man Kam To Road	17 Apr, 15 May, 13 June, 18 July
9. Ping Che	28 Apr, 15 May, 26 June, 1 July
10. A Chau	27 April, 16 May, 11 June, 10 July
11. Tai Po Market	28 April, 15 May, 26 June, 24 July
12. Yeung Chau (Plover Cove)	27 Apr, 15 May, 26 June, 24 July
13. Penfold Park	17 Apr, 15 May, 13 June, 18 July
14. Lam Tsuen	17 Apr, 15 May, 26 June, 24 July
15. Ha Che	17 Apr, 15 May, 26 June, 24 July
16. Tai Tong	17 Apr, 15 May, 13 June, 18 July
17. Tuen Mun	24 April, 10 May, 30 June, 20 July
18. Little Green Island	23 and 26 April, 17 May, 19 June, 24 July
19. Shuen Wan#	17 Apr, 15 May, 26 June, 24 July
Additional sites	
20. Tam Kon Chau*	17 Apr, 15 May, 13 June, 18 July
21. Ha Mei San Tsuen*	11 May
22. Ma On Kong	11 May
23. Tai O	26 May
24. Heung Yip Road, Aberdeen	27 Apr
25. Ocean Park	27 Apr
26. Centre Island	27 April, 15 May
27. Fong Ma Po, Lam Tsuen	15 May

Note: # The colony at Shuen Wan was abandoned.

Appendix 2. The number of nests recorded in each count of the 18 colonies in 2010.

Appendix 2.1. Number of nests at Mai Po Village.

	17 Apr	15 May	13 June	18 July	Max
Little Egret	17	19	9		19
Chinese Pond Heron	61	102	109	54	109
Total	78	121	118	54	128

Appendix 2.2. Number of nests at Mai Po Lung Village

	17 Apr	15 May	13 June	18 July	Max
Little Egret		2	1		2
Chinese Pond Heron		5	3	1	5
Total		7	4	1	7

Appendix 2.3. Number of nests at Tung Shing Lane

	17 Apr	15 May	13 June	18 July	Max
Little Egret	8	26	14	5	26
Chinese Pond Heron	15	24	22	12	24
Total	23	50	36	17	50

Appendix 2.4. Number of nests at Pak Nai

	23 Apr	15 May	13 June	18 July	Max
Chinese Pond Heron	2				2

Appendix 2.5. Number of nests at Pak Nai 2

	23 Apr	15 May	13 June	18 July	Max
Little Egret	30	16	20	4	30
Chinese Pond Heron	2	13	8	10	13
Sub-total	32	29	28	14	43

Appendix 2.6. Number of nests at Ngau Hom Shek

	23 Apr	15 May	13 June	18 July	Max
Little Egret	8	8	4	2	8
Chinese Pond Heron		10	5	5	10
Total	8	18	9	7	18

Appendix 2.7. Number of nests at Ho Sheung Heung

	17 Apr	15 May	26 June	24 July	Max
Little Egret	17	42	37	2	42
Cattle Egret		25	16		25
Chinese Pond Heron	8	19	6	5	19
Total	25	86	59	7	86

Appendix 2.8. Number of nests at Man Kam To Road.

	17 Apr	15 May	13 June	18 July	Max
Little Egret		2	1		2
Chinese Pond Heron	11	22	14	1	22
Total	11	24	15	1	24

Appendix 2.9. Number of nests at Ping Che.

	28 Apr	15 May	26 June	10 July	Max
Chinese Pond Heron	3	16	15	10	16
Total	3	16	15	10	16

Appendix 2.10. Number of nests at A Chau

	27 Apr	16 May	11 June	10 July	Max
Great Egret	42	31	25	15	42
Little Egret	5	10	5	10	10
Cattle Egret	10	27	23	15	27
Black-crowned Night Heron	20	40	31	20	40
Total	77	108	84	60	119

Appendix 2.11. Number of nests at Tai Po Market (Wan Tau Kok Lane)

	28 Apr	15 May	26 June	24 July	Max
Great Egret	1	6			6
Little Egret	8	19	9	4	19
Black-crowned Night Heron	7	9	5	4	9
Total	16	34	14		34

Appendix 2.12. Number of nests on Yeung Chau, Plover Cove (+: present)

	28 Apr	15 May	26 June	24 July	Max
Great Egret	18	15	20	20	20
Little Egret	2	5		8	8
Cattle Egret	1	2		1	2
Black-crowned Night Heron	5	15		10	15
Total	26	37	20	39	45

Appendix 2.13. Number of nests at Lam Tsuen.

	17 Apr	15 May	26 June	24 July	Max
Chinese Pond Heron	6	10	6	3	10
Total	6	10	6	3	10

Appendix 2.14. Number of nests at Ha Che

	17 Apr	15 May	26 June	24 July	Max
Little Egret	1	3		1	3
Chinese Pond Heron	10	28	20	10	28
Total	11	31	20	11	31

Appendix 2.15. Number of nests at Tai Tong

	17 Apr	15 May	13 June	18 July	Max
Cattle Egret	12	5	7	1	12
Chinese Pond Heron	2	7		1	7
Total	14	12	7	2	19

Appendix 2.16. Number of nests at Tuen Mun

	25 Apr	22 May	13 June	24 July	Max
Little Egret	15	16	14	6	16
Total	15	16	14	6	16

Appendix 2.17. Number of nests at Penfold Park

	17 Apr	15 May	13 June	18 July	Max
Great Egret	7	12	9	1	12
Little Egret	1	14	10	6	14
Cattle Egret		1			1
Black-crowned Night Heron	5	7	5	1	7
Chinese Pond Heron	2	2	1		2
Total	15	36	25	8	36

Appendix 2.18. Number of nests on Little Green Island

	23 & 26Apr	17 May	19 June	24 July	Max
Little Egret	15	30	20	8	30
Black-crowned Night Heron	17	20	15	15	20
Total	32	50	35	23	50