

Tender Reference No. AFCD/SQ/19/10

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

**Monthly Waterbird Monitoring
Winter 2010 - 11 Report**



Submitted by
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Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

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Report available for public information

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Winter 2010-11 Report on Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

Report



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

MAI PO INNER DEEP BAY RAMSAR SITE WATERBIRD MONITORING PROGRAMME

Programme 2010/11

Monthly Waterbird Count

Oct 2010 - Mar 2011

Winter 2010-2011 Report

Y.T. Yu¹

1. Introduction

Long-term monitoring of waterbirds provides an indication of the health of wetlands, which is not only a concern for the waterbird community, but also for the entire Deep Bay ecosystem. It is an important and strategic facet in the management of Mai Po Inner Deep Bay Ramsar Site. This Waterbird Monitoring Programme was administered and executed by the Hong Kong Bird Watching Society Limited (HKBWS) under subvention from the Agriculture, Fisheries and Conservation Department (AFCD) from December 1998 to March 2004. Starting from April 2004, the Waterbird Monitoring Programme was arranged under service contracts funded by AFCD.

The Waterbird Monitoring Programme comprises three major components, namely monthly waterbird count, shorebird count and egret count. The monthly waterbird counts were scheduled in the Deep Bay area including the Mai Po Inner Deep Bay Ramsar Site, fishpond area and mudflat adjacent to the Ramsar Site; the shorebird counts were conducted at the key foraging and loafing sites in the Mai Po Marshes Nature Reserve during the migration seasons; and the egret counts were conducted all around in Hong Kong during the breeding season. This report focused on the results of the monthly counts of waterbirds during the winter period from October 2010 to March 2011 under the tender reference number AFCD/SQ/19/10.

2. Methodology

Coordinated mid-monthly counts of wintering waterbirds in Hong Kong were carried out by accredited waterbird surveyors of the HKBWS on 10 October 2010, 7 November 2010, 19 December 2010, 16 January 2011, 13 February 2011 and 13 March 2011. The survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar

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Site') and wetland areas around the Ramsar Site (the 'Deep Bay area'). The Deep Bay area covered the Ramsar Site and survey sites including mudflat between Nim Wan to Lau Fau Shan, Hong Kong Wetland Park, Fishpond areas in Tin Shui Wai, Shan Pui River to the west of Lut Chau, Tam Kon Chau, Mai Po San Tsuen, Lok Ma Chau, San Tin, Ma Tso Lung and Futian National Nature Reserve at Shenzhen Special Economic zone in mainland China. Map 1, 2 and 3 show the locations of each of the survey sites within the survey area, together with the boundary of the Mai Po Inner Deep Bay Ramsar Site. Figures collected from the monthly waterbird counts were grouped and presented with respect to two main areas: (1) Ramsar Site and (2) Deep Bay area.

This monitoring programme involved the counting of waterbirds in the above survey areas. Habitat types included fishponds, *gei wais*, storm water channel, streams, intertidal mudflat, mangroves, reedbed and marshes. The survey sites, in particular the intertidal areas of Inner Deep Bay, were surveyed simultaneously so as to avoid double-counting as far as possible.

During the winter months, a substantial number of waterbirds were present in the Deep Bay intertidal area. However, there were only a few days with diurnal tides high enough to force all waterbirds off the mudflat to roost sites in Mai Po and/or close to the floating bird watching hides. All counts were conducted on dates with rising tide, preferably from 1.8 m or above. High-tide counts of individual species conducted within one week from the scheduled survey date were included if they were considered to provide more accurate counting result than those gathered on the counting day. This methodology has been described in details in the Waterbird Count Handbook (Carey 2002, Map 1 to 3).

Additional low-tide counts were arranged in the mid-winter period (i.e. December to February) on same dates scheduled for high-tide counts in order to provide supplementary information on the number of ducks and gulls which preferred to stay in the intertidal area during low-tide. Counting was conducted in a synchronous manner at the jetty for the Police in Tsim Bei Tsui and the Futian National Nature Reserve in Shenzhen.

3. Results and discussion

3.1. Results of winter waterbird counts

All survey areas in Deep Bay area and the Ramsar Site were covered during the survey period in the winter months. A full dataset of the surveys were provided in Appendix 1. January 2011 was the month with the peak monthly count in winter 2010-11 with a total of 68,635 birds in the Deep Bay area and 42,699 birds in the Ramsar Site (Table 1). The survey results of the Deep Bay area exhibited an 11% decrease from those of the previous year, whereas those for the Ramsar Site showed an increase of 9%.

In the count conducted this January, wintering ‘ducks and grebes’ comprised the largest waterbird group with 26,146 individuals (38%), followed by ‘shorebirds’ with 20,708 individuals (30%) (Table 2). In fact, a peak count of the ‘ducks and grebes’ was recorded in the December count with 30,628 individuals, while a peak count of ‘shorebirds’ was recorded in January (Table 2). There were respectively 9,309 and 10,023 wintering Great Cormorants in January and February (Table 3), similar to the peak count of 10,758 birds in the previous winter (Table 2). Nevertheless, decreases were observed in the peak counts of ardeids, shorebirds and ‘gulls and terns’ compared to the result in the previous winter, down by 10%, 14% and 17% respectively (Table 3). The winter peak count of ardeids in this winter was the lowest since 2001-02.

Table 1. Comparisons of winter peak monthly and January counts in the whole Deep Bay area and Mai Po Inner Deep Bay Ramsar Site, from winter 2006-07 to 2010-11. The Ramsar site covers part of the Deep Bay area, with details shown in Map 2 and 3.

		Winter 2006-07	Winter 2007-08*	Winter 2008-09	Winter 2009-10*	Winter 2010-11*
Winter peak monthly count [^]	Deep Bay	70,303	90,132	78,155	76,882	68,635
	Ramsar Site	33,782	56,823	27,526	39,000	42,699
January count	Deep Bay	65,909	90,132	71,264	76,882	68,635
	Ramsar Site	46,732	56,823	30,539	39,000	42,699

[^] ‘Winter peak monthly count’ refers to the highest count in the winter period.

* Counts of the whole Deep Bay area peaked in January for the winters in 2007-08, 2009-10 and 2010-11.

Table 2. Numbers of waterbird counted in winter 2010-2011 by groups and areas.

Group	Site	Oct	Nov	Dec	Jan	Feb	Mar
Cormorants	Deep Bay area	467	5,795	4,831	9,309	10,023	4,576
	Ramsar site	374	4,568	4,669	7,209	7,500	3,672
	Starling Inlet	1	16	31	0	52	521
Ardeids	Deep Bay area	2,319	2,302	3,006	2,747	1,966	1,700
	Ramsar site	1,211	1,194	1,460	1,747	1,232	929
	Starling Inlet	231	118	118	177	269	163
Ducks and grebes	Deep Bay area	449	16,350	30,628	26,146	21,122	10,114
	Ramsar site	105	4,327	14,509	17,812	10,858	4,774
	Starling Inlet	2	9	10	19	9	9
Rails and Coots	Deep Bay area	54	124	174	332	183	104
	Ramsar site	18	53	76	213	68	68
	Starling Inlet	1	6	11	5	19	15
Shorebirds	Deep Bay area	4,976	7,917	17,330	20,708	17,479	18,773
	Ramsar site	4,207	2,377	6,339	13,385	11,084	12,013
	Starling Inlet	15	24	22	3	18	6
Gulls and terns	Deep Bay area	24	109	3,486	9,393	4,989	1,819
	Ramsar site	22	0	1,883	2,333	2,104	1,611
	Starling Inlet	0	0	0	0	0	0
Total	Deep Bay area	8,289	32,597	59,455	68,635	55,762	37,086
	Ramsar site	5,937	12,519	28,936	42,699	32,486	23,067
	Starling Inlet	250	173	192	204	367	714

Table 3. Peak numbers of different waterbird groups in the Deep Bay area during the mid-winter period (i.e. December to February) from 2001 to 2011.

Winter	Cormorants	Ardeids	Ducks and Grebes	Rails and coots	Shore-birds	Gulls and Terns
2001-02	6,230 (Jan)	4,400 (Jan)	18,987 (Dec)	195 (Jan)	10,242 (Jan)	13,302 (Jan)
2002-03	7,959 (Jan)	4,702 (Jan)	20,203 (Jan)	219 (Dec)	9,849 (Feb)	13,191 (Jan)
2003-04 [^]	8,964 (Jan)	3,963 (Dec)	16,856 (Feb)	362 (Jan)	12,856 (Jan)	8,469 (Dec)
2004-05	9,552 (Jan)	6,425 (Dec)	22,521 (Jan)	384 (Feb)	9,806 (Feb)	9,346 (Dec)
2005-06	10,347 (Jan)	4,345 (Jan)	19,657 (Feb)	597 (Dec)	13,695 (Feb)	14,417 (Feb)

2006-07	10,081 (Jan)	4,396 (Dec)	33,779 (Feb)	798 (Feb)	19,054 (Feb)	12,000 (Jan)
2007-08	11,144 (Jan)	3,549 (Jan)	35,066 (Jan)	866 (Jan)	27,720 (Jan)	11,787 (Jan)
2008-09	8,736 (Jan)	4,384 (Feb)	38,099 (Feb)	460 (Jan)	24,069 (Feb)	11,212 (Dec)
2009-10	10,758 (Feb)	3,357 (Jan)	28,700 (Jan)	523 (Jan)	23,926 (Jan)	11,331 (Jan)
2010-11	10,023 (Feb)	3,006 (Dec)	30,628 (Dec)	332 (Jan)	20,708 (Jan)	9,393 (Jan)

^ Counts in mid-winter period of winter 2003-04 had been modified subsequent to additional counts. Details are referred to Part II: additional counts of waterbirds in Deep Bay Intertidal area in January and February 2004 in Yu (2004) and Anon. (2005).

Table 3 showed a comparison of peak counts of waterbird groups in different months during winter from 2001-02 to 2010-11. Results of the January count were selected to show a long-term trend of the waterbird abundance in the Deep Bay area for submission to the Asian Waterbird Census which projected the trend of waterbird population in the Asian region.

In order to avoid stochastic biases for adopting the January count solely and to acquire a more accurate profile of the numbers of waterbirds that were dependant on Deep Bay as their habitat for at least a period in the winter, the total winter peak count in the mid-winter period (December to February) was also extracted to show the maximum numbers of waterbirds that used the Deep Bay area or, in other words supported by the area in the 2010-11 winter. As a result, the peak count was 76,679 birds, including 5,196 unidentified ducks. There was a decrease of 12% when compared with the result of 87,379 birds in the last winter. Table 4 showed a comparison of the total peak counts in the winters from 2005-06 to 2010-11.

Table 4. Figures of total winter peak counts in the winters of six consecutive years.

	Winter 2005-06	Winter 2006-07	Winter 2007-08	Winter 2008-09	Winter 2009-10	Winter 2010-11
Total peak count	63,058	80,108	90,986	87,633	87,379	76,679
Total no. of positively - identified waterbird species	67	71	71	70	75	67

Synchronised low-tide counts were conducted in the intertidal area at Tsim Bei

Tsui and Futian National Nature Reserve, Shenzhen in December, January and February. Figures collected in the low-tide counts could serve as supplementary information for high-tide counts as some bird species preferred to stay in the intertidal mudflat during the low-tide periods. Examples of such bird species which were recorded in this winter included Black-headed Gull, Black-winged Stilt and Pied Avocet. Results of low-tide counts of different waterbird groups were listed in Table 5 and details were found in the Appendix 3.

Low-tide count was proved to be an effective method to acquire additional information of ducks and gulls which preferred to stay in the intertidal area of the Deep Bay area. Two factors were critical to the counts of waterbirds in the low tide period: visibility and height of the tide. The low tide counts this winter were conducted in a less favourable condition because the tide was not low enough when it receded to expose the whole mudflat in the January and February counts. Therefore, surveyers encountered difficulties in their counting particularly on some occasions when waterbirds neither fed in shallow water area nor rested near visible locations.

Table 5. Numbers of waterbird groups recorded in the Deep Bay area during low-tide counts, winter 2010-11. Numbers in parenthesis refer to the results from the Ramsar Site area.

	December 2010	January 2011	February 2011
Cormorants	30 (0)	125 (0)	95 (47)
Ardeids	898 (92)	311 (0)	361 (179)
Ducks, grebes and pelicans	18,609 (5,002)	10,441 (81)	14,987 (5,506)
Rails and Coots	77 (0)	44 (0)	36 (2)
Waders	8,975 (0)	13,040 (0)	13,597 (3,759)
Gulls and terns	3,486 (1,883)	9,291 (2,230)	4,843 (104)
Total	32,075 (6,977)	33,252 (2,311)	33,919 (9,597)
High-tide count total	57,740 (27,436)	62,588 (41,798)	54,366 (32,846)
Aggregate total from low-tide count	59,455 (28,936)	68,635 (42,699)	55,762 (32,846)

In the mid-winter period the ten most numerous waterbird species recorded in the Deep Bay area were (in descending order): Pied Avocet *Recurvirostra avousetta* (10,944), Great Cormorant *Phalacrocorax carbo* (10,023), Northern Shoveler *Anas clypeata* (9,674), Black-headed Gull *Larus ridibundis* (9,160), Tufted Duck *Aythya fuligula* (5,823), Eurasian Wigeon *Anas penelope* (4,429), Northern Pintail *Anas acuta* (3,622), Marsh Sandpiper *Tringa stagnatilis* (2,884), Black-tailed Godwit *Limosa Limosa* (1,900) and Eurasian Curlew *Numenius arquata* (1,602). These species altogether contributed a total of 60,061 individuals, constituting 78% of the total winter peak number of all the waterbird recorded. Among these ten most numerous waterbird species, more than 50% in the numbers of birds were recorded in the Futian National Nature Reserve, Shenzhen for five species. These species included Northern Shoveler, Black-headed Gull, Tufted Duck, Marsh Sandpiper and Black-tailed Godwit (Table 6). The result suggested that the bird flocks moved actively between Hong Kong and Shenzhen and they probably preferred utilising mudflat area away from the Hong Kong side.

Table 6. Figures of the ten most numerous wintering waterbird species in Hong Kong and Shenzhen, Deep Bay.

	Number of birds at Hong Kong side	Number of birds at Futian (i.e. Shenzhen)	Total number
Pied Avocet	9,324	1,620	10,944
Great Cormorant	10,023	0	10,023
Northern Shoveler	4,691	4,983	9,674
Black-headed Gull	2,100	7,060	9,160
Tufted Duck	1,723	4,100	5,823
Eurasian Wigeon	4,339	90	4,429
Northern Pintail	3,615	7	3,622
Marsh Sandpiper	456	2,428	2,884
Black-tailed Godwit	0	1,900	1,900
Eurasian Curlew	1,602	0	1,602

In addition, as low temperature persisted for a long period this winter, it had been envisaged that more waterbirds migrated to the Deep Bay area from the north. However, counts in this winter revealed a result to the opposite that there were fewer waterbirds compared to other 'warmer' winters in the past few years. Perhaps the waterbirds moved further south, or there was no direct relationship between climatic factors and the abundance of waterbirds. To learn more about this relationship, surveys with a bigger spatial coverage are needed.

3.2 *Species of conservation significance*

Some species that appeared in the Deep Bay Area were of conservation significance attributable to their globally threatened status as classified by BirdLife International (2000, 2008), or because at least 1% of the regional or flyway population was supported by the Deep Bay area. The '1% of the regional or flyway population' is adapted from the information provided by Wetlands International (2006) and Li *et al.* (2009). Brief reviews of these important waterbird species in winter 2010-11 are appended below.

[Dalmatian Pelican *Pelcanus crispus*

Vulnerable

None was recorded in winter 2010-11.]

Great Cormorant *Phalacrocorax carbo*

Combining the result gathered from the additional coordinated roost count for this species at Mai Po Nature Reserve and Nam Sang Wai, 9,309 and 10,023 individuals were counted in January and February respectively. The January count showed a slight increase of 3% from the result of the previous year. The coordinated roost count of 10,023 birds in February was the highest count in this winter, signaling a small increase by 7% from the previous winter's peak count of 10,758 birds. As the 1% regional population was 1,000 individuals (Wetland International 2006, Li *et al.* 2009), the Deep Bay supported 10% of the regional population in winter 2010-11.

Black-faced Spoonbill *Platalea minor*

Endangered

The peak count of this popular but endangered species in 2010-11 winter was 441 recorded in January 2011. As mentioned in the 2011 International Black-faced Spoonbill Census (HKBWS material), the global wintering population suffered a drastic decline in number from 2,347 in 2010 (Yu 2010) to 1,848 individuals this year. The peak count in the Deep Bay area therefore constituted 24% of the world wintering population. However, the figure for this winter decreased by 11% from the peak count of 496 birds in the previous winter (i.e. January 2010).

Falcat Duck *Anas falcata*

Near Threatened

Ten individuals were recorded in the January count while small numbers were also recorded in December and February counts. These numbers were higher than those of the previous years.

Northern Pintail *Anas acuta*

The peak count of this species was 3,622 individuals in December, showing a

48% increase from the peak count in the previous winter. As the 1% regional population was 2,500 individuals (Wetlands International 2006, Li *et al.* 2009), the Deep Bay area supported 1.4% of the regional population in winter 2010-11.

Northern Shoveler *Anas clypeata*

The peak count of this species was 9,674 individuals recorded in February, showing a dramatic decrease by 52% from the exceptionally high count of 20,008 in the previous winter. Half of the wintering birds were recorded in Futian National Nature Reserve. As the 1% regional population threshold was 5,000 individuals (Wetlands International 2006, Li *et al.* 2009), about 2% of the regional population stayed in the Deep Bay area this winter.

Tufted Duck *Aythya fuligula*

The highest count of this winter for this species was 5,823 individuals in December, showing an increase of 20% from the peak count in the previous winter. As the 1% regional population was set at 2,500 individuals (Wetlands International 2006, Li *et al.* 2009), the Deep Bay area supported around 2.3% of the regional population, where most of these birds (at 4,100 individuals) were recorded in the Futian National Nature Reserve.

Pied Avocet *Recurvirostra avosetta*

The highest count of this winter was 10,944 individuals in February, showing a decrease of 21% from the peak count in the previous winter (i.e. 13,883 birds). As the 1% regional population level was at 1,000 individuals (Wetlands International 2006 and Li *et al.* 2009), about 11% of the regional population used the Deep Bay area in winter 2010-11.

Black-tailed Godwit *Limosa limosa*

Near Threatened

A total of 1,900 birds were recorded at Futian National Nature Reserve in February, which was the peak count in this winter and the new highest count in the mid-winter period for this species. This record was more than double the peak count of 752 individuals in the previous winter. As the 1% regional population level was 1,600 individuals (Wetlands International 2006, Li *et al.* 2009), this flock constituted 1.2% of the regional population. In the boundary of Hong Kong, the highest count of this species in the mid-winter period was 752 individuals.

Eurasian Curlew *Numenius arquata*

Near Threatened

A total of 1,602 individuals were recorded in January as a new highest record of this species in Hong Kong, symbolising a 50% leap from the peak count in the last winter. As the 1% regional population was 350 individuals (Wetlands International 2006, Li *et al.* 2009), this peak count represented 4.6% of the regional population.

Common Greenshank *Tringa nebularia*

The peak count in the mid-winter period of 1,149 individuals in January was almost identical to the previous winter's peak count (i.e. 1,146 individuals). As the 1% regional population was at 1,000 individuals (Wetlands International 2006, Li *et al.* 2009), this peak count represented 1.1% of the regional population.

Nordmann's Greenshank *Tringa guttifer*

Endangered

A single bird of this endangered species was recorded in February but more individuals were observed during spring migration period. The global population of this species was estimated at 500-1,000 individuals (BirdLife International 2009a).

Saunders's Gull *Chroicocephalus saundersi*

Vulnerable

The peak count in this winter was only 30 individuals in January, with a significant decrease of 60% from the peak count in the previous winter. The global population was estimated between the range of 7,100 to 9,600 individuals (BirdLife International 2008) and the 1% population level was 85 birds (Wetlands International 2006).

3.3 *Other notable counts*

Greater Crested Grebe *Podiceps cristatus*

The peak count in this winter was 127 individuals in December. As the 1% regional population was 375 individuals (Wetlands International 2006, Li *et al.* 2009), the wintering population in the Deep Bay area was far from this threshold population in the winter 2010-11.

Eastern Great Egret *Ardea modesta*

This species was common and widespread in the Deep Bay area throughout the year and high numbers were recorded in winter months. The peak count in this winter was 804 birds in December, showing a 9% decrease from the peak count in previous winter. For the 1% level of the regional population was 1,000 individuals (Wetlands International 2006, Li *et al.* 2009), the Deep Bay wintering population did

not meet the threshold this time despite its fulfillment of the criteria in the past.

[Common Shelduck *Tadorna tadorna*

Once a common and numerous species wintering in the Deep Bay area with a peak count of 4,011 individuals in January 1988 (Carey *et al.* 2001), this species suffered a drastic decline in its numbers in recent years. None was recorded during the monthly waterbird count in winter 2010-11.]

Common Teal *Anas crecca*

As one of the most numerous ducks wintering in the Deep Bay area (Carey *et al.* 2002), this species however declined in numbers in recent winters. The peak count in this winter was 1,459 individuals in December, though doubled the peak count in the previous winter (627 birds), was still lower than the peak count of 2,332 birds in winter 2008-09.

Eurasian Coot *Fulica atra*

This species was once the most numerous wintering waterbird species with thousands of individuals present in Deep Bay in the past. However, the peak count in this winter was only 125 birds in January, exhibiting a drastic decrease of 65% from the peak count in the previous winter. This species is becoming very scarce in the Deep Bay area.

Little Ringed Plover *Charadrius dubius*

For the 1% regional population threshold was 250 individuals (Wetlands International 2006, Li *et al.* 2009), the Deep Bay population met this threshold in previous counts, such as 315 birds in February 2009. However, in winter 2009-10 the number recorded (i.e. 192 individuals) was lower than the 1% threshold. The peak count in this winter was only 114 individuals in February, which was more obviously lower than 1% population level.

Kentish Plover *Charadrius alexandrinus*

The peak count of this species was only 720 individuals in December. There was a significant decrease of 83% from the peak count in the previous winter. This winter peak count was also less than the 1% regional population of 1,000 individuals (Wetlands International 2006, Li *et al.* 2009).

Spotted Redshank *Tringa erythropus*

This species had been declining in recent winters from a thousand individuals in the 1990s to only 186 birds in the previous winter. The peak count in this winter was only 160 birds in February with a decrease of 14% from the peak count in last winter.

Marsh Sandpiper *Tringa stagnatillis*

A total of 3,705 individuals, including a large flock of 3,700 individuals at the Futian National Nature Reserve, Shenzhen, recorded in March. This was a new highest count of this species in the Deep Bay area. In mid-winter period, a total of 2,884 individuals were recorded in January, of which 2,428 were from Futian.

Black-headed Gull *Chroicocephalus ridibundis*

A peak count of 9,160 individuals was recorded in January, symbolising a decrease of 13% from the peak count in last winter. Of this peak count, a total of 7,060 individuals were recorded in the Futian National Nature Reserve, indicating that the birds preferred to use the mudflat area away from the Hong Kong side. The peak counts in the recent winters also show that there is a declining trend for this species in the Deep Bay area.

4. Conclusion

Waterbird abundances in the Deep Bay area were higher in recent winters than those recorded in the 1990s and the early 2000s. The highest winter count across all years was 90,986 individuals in 2007-08. The peak monthly count in winter 2010-11 was recorded in January with tolls of 68,635 birds in the whole Deep Bay area and 42,699 birds in the Ramsar Site. The result was supplemented by the low-tide count to enhance accuracy of habitat usage information of waterbirds. The total aggregate count in this winter was 76,679, which was the lowest figure after the winter 2007-08, though it was still higher than those of some other previous winters (Figure 1).

This winter saw a prolonged period of low temperature and it was once thought that more waterbirds would have visited the Deep Bay area from the north. However, counts in this winter showed the contrary because fewer waterbirds were recorded than the warmer winters in the past few years. Perhaps there was no direct relationship between climatic factors and waterbird abundance. The correction question would probably be answered upon the acquisition of results from surveys with larger spatial coverage.

The total number of waterbird decreased in this winter, while the proportion of the ten most numerous waterbird species among all waterbirds were also lower than that in the previous winters (i.e. winter 2010-11: 78%, winter 2009-10: 86%, winter 2008-09: 84%, winter 2007-08: 84%), indicating that certain common species became less predominant in this winter. Taking a closer look of the figures in this winter, there were fewer Northern Shovelers (winter 2010-11: 9,674 individuals; winter 2009-10: 20,008 individuals) and Pied Avocets (winter 2010-11: 10,944 individuals; winter 2009-10: 13,883 individuals) but more Eurasian Wigeons, Northern Shovelers, Tufted Ducks, Marsh Sandpipers and Eurasian Curlews in the Deep Bay area. In the other words, the increased number of different waterbird species might be good signs for the diversity of waterbird communities in the Deep Bay area.

With regard to species of conservation concern, a total of 10 waterbird species were recorded in 2010-11 winter with more than 1% level of the global or regional population needed, of which 6 species were globally threatened or near-threatened, including Black-faced Spoonbill, Falcated Duck, Black-tailed Godwit, Eurasian Curlew, Nordmann's Greenshank and Saunders's Gull. The Deep Bay area hence shoulders a pivotal role for the survival of these species. Regular monitoring programme therefore provide data on both spatial abundance and temporal fluctuations for keeping track of the trend or health of the waterbird population including the globally threatened species which was important key in local, regional and even globally context.

Cross border fishermen were spotted occasionally in the mudflat area in front of the Mai Po boardwalk but it seemed that the situation has been greatly improved because disturbances to waterbirds were not observed so often as t in the past. In addition, some fishermen were observed working on sampans in Deep Bay (between Mai Po and Tsim Bei Tsui) during high tide period. In view of the above, it is suggested that AFCD conducting surveillance checks if the person who entered the restricted area are the holders of valid permits.

5. Acknowledgements

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Wetland Park for contributing waterbird data.

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Figure

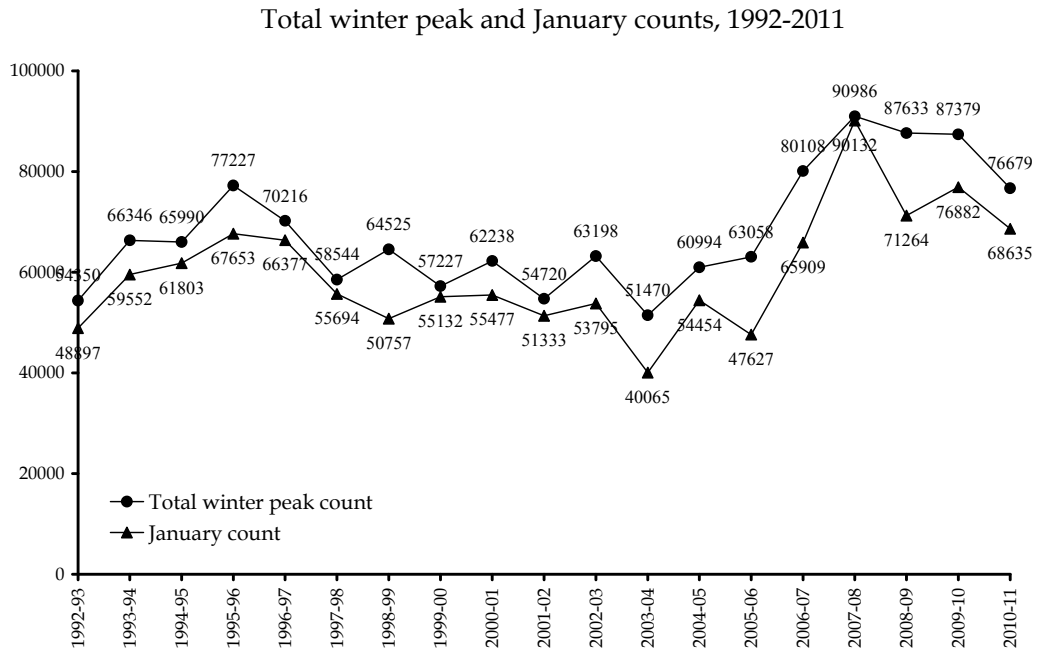


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Figure 1. Total winter peak counts and January (mid-winter) counts, 1992-2011. Note: number of waterbird in winter 2003-04 was modified and details are referred to Anon. (2005). Data of winter 1997/98, 1998/99, 1999/00 and 2005/06 have been revised.



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Maps

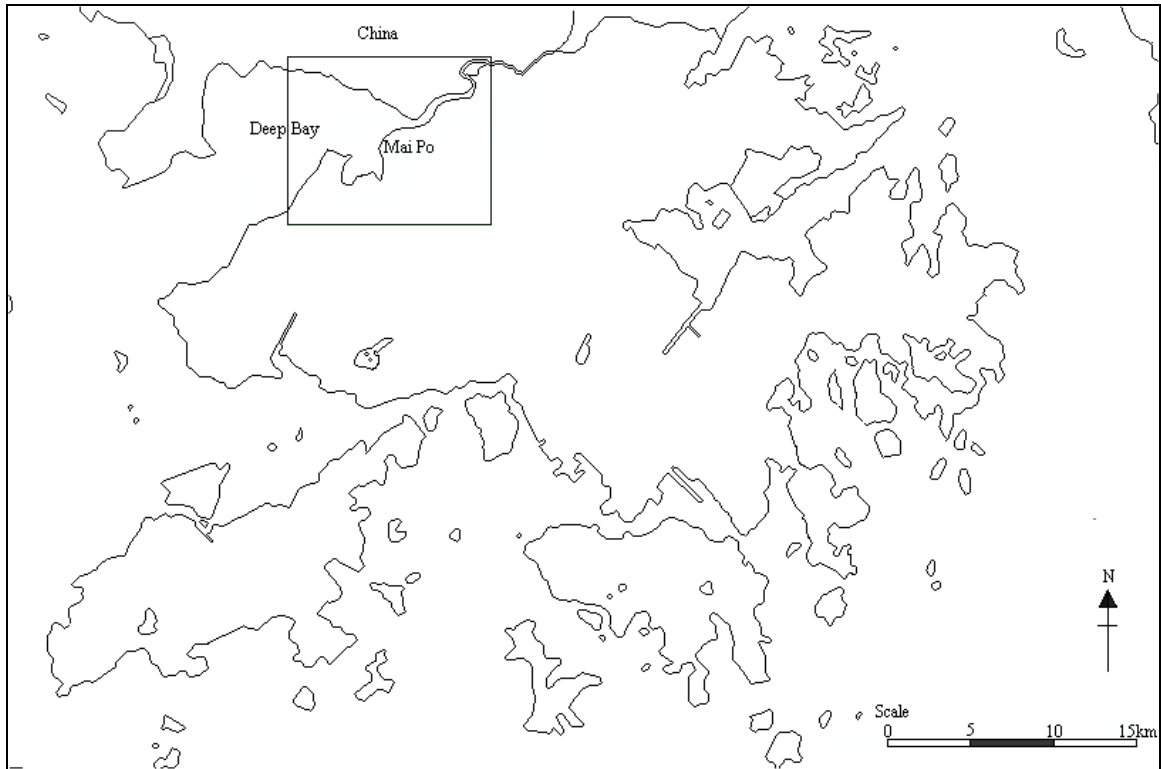


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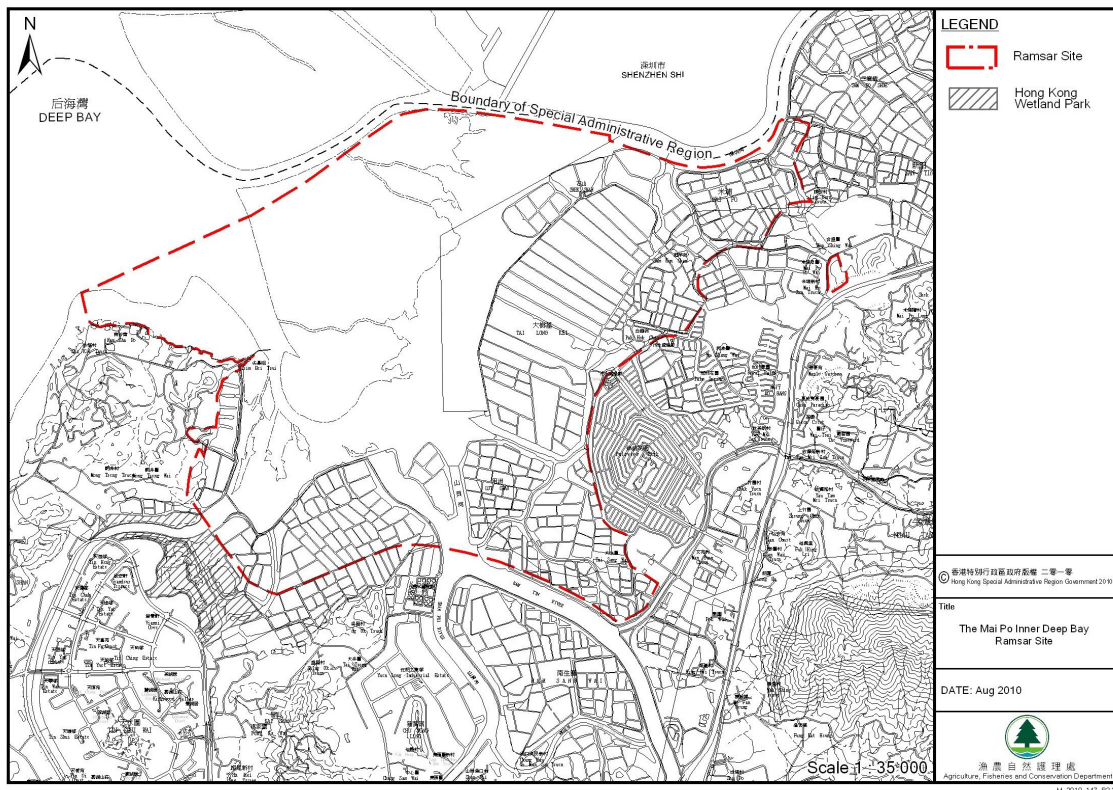


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Map 1. Map of Hong Kong showing location of the Mai Po Inner Deep Bay Ramsar Site

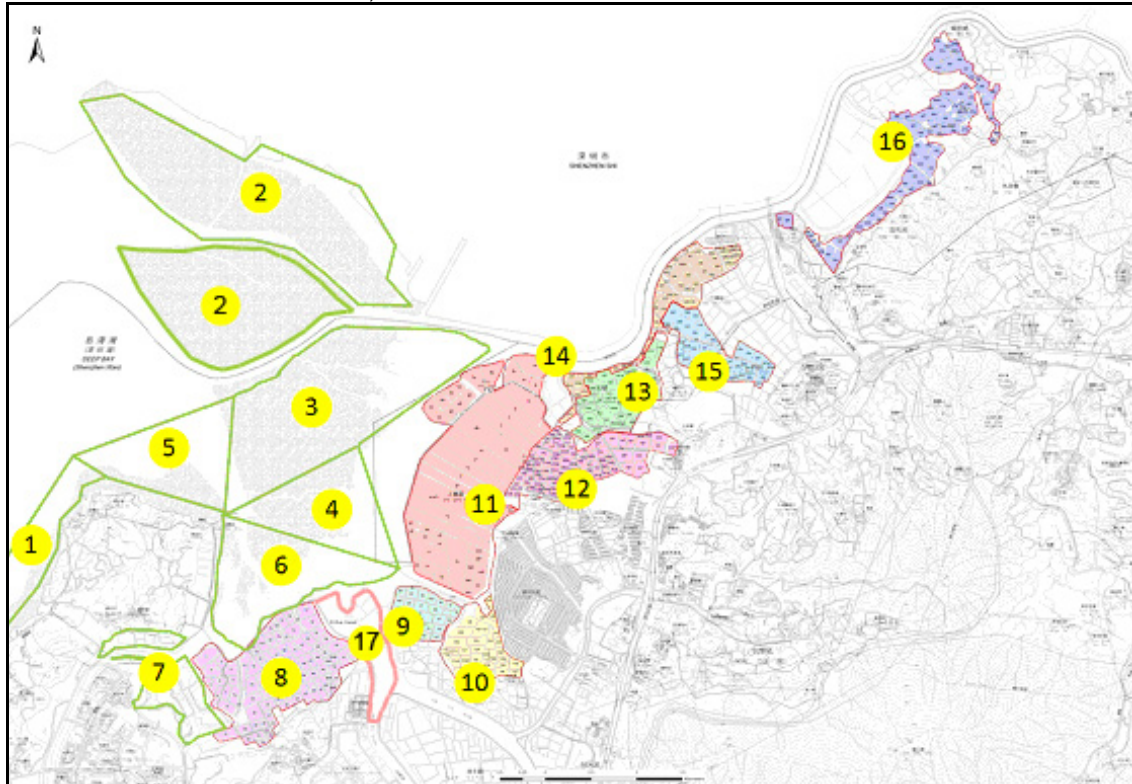


Map 2. Boundary of Mai Po Inner Deep Bay Ramsar site area.



Source: AFCD

Map 3. Locations of counting areas of the Waterbird Monitoring Programme
 (1: Nim Wan to Lau Fau Shan; 2: Deep Bay 'A'; 3: Deep Bay 'B'; 4: Deep Bay 'C'; 5:
 Deep Bay 'D'; 6: Deep Bay 'E'; 7: Hong Kong Wetland Park; 8: Deep Bay 'F' (Tsim Bei
 Tsui fishpond); 9: Lut Chau; 10: Tai Sang Wai; 11: Mai Po Nature Reserve; 12: Tam
 Kon Chau; 13: Mai Po San Tsuen; 14: Shenzhen River 'A'; 15: San Tin; 16: Shenzhen
 River 'B'; 17: Shan Pui River)



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Appendix 1



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Summary of Waterbird Count, October 2010

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW/LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Little Grebe	14	14					2	9	0	3			22	0	25	18	7	14	64	2	80	128	2
Great Crested Grebe																		1			1	1	
Great Cormorant	30	15	5					39	97				19	9	25	36	20	172	105	97	374	467	1
Dalmatian Pelican																		0			0	0	
Grey Heron	76	12	132	1	71	4		11	59	29		3	20	7	9	20	0	88	61	134	283	542	17
Purple Heron		1																1			1	2	
Great Egret	27	9	88	25	34	4		65	105	6	13	42	66	1	37	6	14	45	125	168	338	587	173
Intermediate Egret	17	0	1	7				0	0				0	0	3	0	1	2	3	7	12	31	
Little Egret	70	28	114	17	34	10	2	71	32	4	26	84	114	8	174	23	42	27	336	95	458	880	28
Swinhoe's Egret																		0			0	0	
Pacific Reef Egret																		0			0	0	
Cattle Egret	0	0						4	0				27	17	2	2	12	5	25	0	30	69	
Chinese Pond Heron	36	29	3			1		2	0	2		6	32	5	16	19	26	9	64	1	74	186	6
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	1	3	2					0	1			1	0	0	0	9	0	0	9	1	10	17	7
Yellow Bittern	0	0					1	0	0				0	1	0	0	0	0	1	1	2	2	
Cinnamon Bittern															1			1	1		2	2	
Great Bittern																		0			0	0	
Black Stork																		0			0	0	
Black-headed Ibis																		0			0	0	
Eurasian Spoonbill																		0			0	0	
Black-faced Spoonbill				1														0		1	1	1	
Common Shelduck																		0			0	0	
Eurasian Wigeon	0	0	13					0	0				0	0	0	0	0	0	0	0	0	13	
Falcated Duck																		0			0	0	
Gadwall																		0			0	0	
Baikal Teal																		0			0	0	
Common Teal	21	0	20					0	0	1			0	0	0	0	0	2	0	0	2	44	
Mallard																		0			0	0	
Spot-billed Duck																		0			0	0	
Chinese Spotbill																		0			0	0	
Burmese Spotbill																		0			0	0	
Northern Pintail																		0			0	0	
Garganey	1			10														2		10	12	13	
Northern Shoveler			240	10														0		10	10	250	
Common Pochard																		0			0	0	
Baer's Pochard																		0			0	0	
Tufted Duck																		0			0	0	
Greater Scaup																		0			0	0	
Red-breasted Merganser																		0			0	0	
Duck sp.																		0			0	0	
Slaty-breasted Rail																		0			0	0	
Water Rail																		0			0	0	
White-breasted Waterhen	6	6					1	0	0	4		2	2	1	4	1	2	4	8	1	13	33	1
Watercock																		0			0	0	
Common Moorhen	12	0						2	0				1	0	1	0	1	4	1	0	5	21	
Eurasian Coot																		0			0	0	
Pheasant-tailed Jacana	1																1	0			0	2	
Greater Painted Snipe	3																	0			0	3	

Black-winged Stilt	9	2		92					13	3			2		4	1	1	268	17	92	377	395	
Pied Avocet																		0			0	0	
Oriental Pratincole																		0			0	0	
Northern Lapwing																		0			0	0	
Grey-headed Lapwing																		1			1	1	
Pacific Golden Plover			280												4			0			0	0	284
Grey Plover																		0			0	0	
Common Ringed Plover																		0			0	0	
Little Ringed Plover	24	0						0	0			17	6	1	0	48	0	0	52	0	52	96	
Kentish Plover				13														0			0	13	
Lesser Sand Plover																		0			0	0	
Greater Sand Plover				1														0		1	1	1	10
Black-tailed Godwit																		426			426	426	
Bar-tailed Godwit				4														0		4	4	4	
Whimbrel				26							3							1		26	27	30	
Eurasian Curlew			1															95			95	96	
Far Eastern Curlew																		0			0	0	
Spotted Redshank																		36			36	36	
Common Redshank				1							7				4			211	4	1	216	223	
Marsh Sandpiper	2																	1983			1983	1985	
Common Greenshank	3		10	2				76	92	11				35				793	111	2	906	1022	5
Nordmann's Greenshank																		0			0	0	
Green Sandpiper	2	4						0	0		2	5	7	1	0	0	0	0	10	0	10	21	
Wood Sandpiper	118	34	3					0	0	17		3	0	0	13	2	8	16	0	24	198		
Terek Sandpiper																		0			0	0	
Common Sandpiper	8	10	1		1		2	2	3		9	10	16	7	7	20	1	38	1	40	97		
Grey-tailed Tattler																		0			0	0	
Ruddy Turnstone																		0			0	0	
Red-necked Phalarope																		0			0	0	
Pintail Snipe																		0			0	0	
Swinhoe's Snipe																		0			0	0	
Pintail/Swinhoe's Snipe	5																	0			0	5	
Common Snipe	23	3																1		1	27		
Long-billed Dowitcher																		0			0	0	
Asian Dowitcher																		1			1	1	
Red Knot																		0			0	0	
Great Knot																		5			5	5	
Sanderling																		0			0	0	
Red-necked Stint																		0			0	0	
Little Stint																		0			0	0	
Temminck's Stint																1		0			0	1	
Long-toed Stint																		0			0	0	
Pectoral Sandpiper																		0			0	0	
Sharp-tailed Sandpiper																		0			0	0	
Dunlin				2														0		2	2	2	
Curlew Sandpiper																		0			0	0	
Spoon-billed Sandpiper																		0			0	0	
Broad-billed Sandpiper																		0			0	0	
Ruff																		0			0	0	
Small wader spp.																		0			0	0	
Wader sp.				2														0			0	2	
Black-tailed Gull																		0			0	0	
Heuglin's Gull																		0			0	0	
Yellow-legged Gull																		0			0	0	
Slaty-backed Gull																		0			0	0	
Pallas's Gull																		0			0	0	

Large Gull spp.																			0		0	0	
Brown-headed Gull																			0		0	0	
Black-headed Gull	0	0						0	0			0	0	0	0	0		0		0	0	0	
Saunders's Gull																			0		0	0	
Whiskered Tern		2											22					0	22		22	24	
White-winged Tern																		0			0	0	
Gull-billed Tern																		0			0	0	
Caspian Tern																		0			0	0	
Total	509	172	915	212	139	20	6	205	385	164	60	166	329	108	335	208	149	4207	1073	657	5937	8289	250
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	467	5.6	374	6.3	1	0																	
Ardeids etc	2319	28.0	1211	20.4	231	0																	
Ducks, grebes, pelicans	449	5.4	105	1.8	2	0																	
Rails, Coot etc	54	0.7	18	0.3	1	0																	
Waders	4976	60.0	4207	70.9	15	0																	
Gulls and terns	24	0.3	22	0.4	0	0																	
TOTAL	8289		5937		250	0																	
Date of count: 10 Oct 2010																							
n/c = site not counted																							
# indicates count consists of or includes a count made up to one week either side of the count date																							
% = count made at evening roost																							
Wetland-dependant species																							
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW/LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Osprey			1													1		3			3	5	
Black Kite	0	2						1	1				4	0	8	13	5	21	25	1	47	55	1
White-bellied Sea Eag																		0			0	0	
Eastern Marsh Harrier									1									1	1		2	2	
Common Buzzard																		0			0	0	
Greater Spotted Eagle	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Imperial Eagle	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Peregrine Falcon									1				1					0	1	1	2	2	
Pied Kingfisher	0	5	3					0	0				0	0	2	0	0	2	1	0	3	12	2
Common Kingfisher	4	7						0	0	1			8	7	9	2	6	4	22	0	26	48	3
White-throated Kingfisher	2	1	2					0	0				3	0	2	3	0	0	7	0	7	13	3
Black-capped Kingfisher	0	0	1	1				0	0				0	0	0	0	0	0	0	1	1	2	2
Red-billed Starling	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Collared Crow	0	2						3	0				6	18	3	3	1	12	32	0	44	48	1

Summary of Waterbird Count, November 2010

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Little Grebe	34	1						29	1	2			27	0	23	18	3	34	85	0	119	172	9
Great Crested Grebe						24												0		24	24	24	
Great Cormorant	437	127	436	219				103	58	132			33	14	37	335	43	3821	520	227	4568	5795	16
Dalmatian Pelican																		0		0	0	0	
Grey Heron	112	31	88	8	2	7	56	35	24	67	2	5	27	5	10	21	15	196	92	89	377	711	24
Purple Heron																		1			1	1	2
Great Egret	10	49	82	47	24	2	21	94	13	6	7	42	24	3	18	9	52	56	107	139	302	559	70
Intermediate Egret	4	1	1	5				0	0	2		1	0	0	2	1	0	5	3	5	13	22	
Little Egret	11	70	173	18	8		16	14	7	3	3	26	51	8	46	14	23	70	120	53	243	561	17
Swinhoe's Egret																		0			0	0	
Pacific Reef Egret																		0			0	0	
Cattle Egret	3	0						8	0				4	0	6	5	0	4	19	0	23	30	
Chinese Pond Heron	30	2	5	2			1	4	1			14	31	1	14	22	15	7	59	4	70	149	1
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	11	2	1				1	4	0				1	0	0	2	0	9	6	1	16	31	3
Yellow Bittern	0	0						0	0				0	0	0	0	0	0	0	0	0	0	1
Cinnamon Bittern																		0			0	0	
Great Bittern																		0			0	0	
Black Stork																		0			0	0	
Black-headed Ibis																		0			0	0	
Eurasian Spoonbill																		2			2	2	
Black-faced Spoonbill	11		22	5			30			51		1		1			4	111	1	35	147	236	
Common Shelduck																		0			0	0	
Eurasian Wigeon	5	0	225	110		295	2	0	100	12	11		0	0	0	0	0	11	0	507	518	771	
Falcated Duck				1														0		1	1	1	
Gadwall																		0			0	0	
Baikal Teal																		0			0	0	
Common Teal	208	1	306	2	4			0	90	199	1		0	0	0	0	0	24	0	96	120	835	
Mallard																		0			0	0	
Spot-billed Duck																		0			0	0	
Chinese Spotbill																		1			1	1	
Burmese Spotbill																		0			0	0	
Northern Pintail				44					100	4								32		144	176	180	
Garganey	1			1						15								1		1	2	18	
Northern Shoveler	20		2031	2925	199					3						1		89	1	3259	3349	5268	
Common Pochard																		0			0	0	
Baer's Pochard																		0			0	0	
Tufted Duck	1		2962	5					10									2		15	17	2980	
Greater Scaup																		0			0	0	
Red-breasted Merganser																		0			0	0	
Duck sp.			6100															0			0	6100	
Slaty-breasted Rail																		0			0	0	
Water Rail																		0			0	0	
White-breasted Waterhen	1	2		1				2	1				4	0	2	2	2	3	9	2	14	20	3
Watercock																		0			0	0	
Common Moorhen	9	0	13					5	0	7			17	0	1	4	2	12	27	0	39	70	3
Eurasian Coot		1	33															0			0	34	
Pheasant-tailed Jacana	1															1		0	1		1	2	
Greater Painted Snipe										1								0			0	1	

Black-winged Stilt	1		130						40	3			2		4		10	15	6	40	61	205	
Pied Avocet			290	8					34				1	4			1	2	5	42	49	340	
Oriental Pratincole																		0			0	0	
Northern Lapwing																		0			0	0	
Grey-headed Lapwing			2															0			0	2	
Pacific Golden Plover			5	140														0		140	140	145	
Grey Plover				40														0		40	40	40	
Common Ringed Plover																		0			0	0	
Little Ringed Plover	2	0	2					0	0	8		13	31	0	0	15	59	1	40	0	41	131	
Kentish Plover				16								43						0		16	16	59	6
Lesser Sand Plover				5														0		5	5	5	11
Greater Sand Plover																		0			0	0	5
Black-tailed Godwit			200															0			0	200	
Bar-tailed Godwit																		0			0	0	
Whimbrel				3						21								0		3	3	24	
Eurasian Curlew			4	111														0		111	111	115	
Far Eastern Curlew																		0			0	0	
Spotted Redshank																		0			0	0	
Common Redshank			84	131					2	1								0		133	133	218	
Marsh Sandpiper			30	683								5				14	2	5	683	690	734		
Common Greenshank	3		30	626						10	42	2	1		2		2	6	3	655	664	724	
Nordmann's Greenshank																		0			0	0	
Green Sandpiper	2	1						0	0			2	2	1	2	0	2	0	3	0	3	12	
Wood Sandpiper	4	1	42					0	0				0	0	1	0	11	0	1	0	1	59	
Terek Sandpiper																		0			0	0	
Common Sandpiper	7	2	26					5	2	3		8	11	2	4	3	12	0	18	1	19	85	
Grey-tailed Tattler																		0			0	0	
Ruddy Turnstone																		0			0	0	
Red-necked Phalarope																		0			0	0	
Pintail Snipe																		0			0	0	
Swinhoe's Snipe																		0			0	0	
Pintail/Swinhoe's Snipe															1			0	1		1	1	
Common Snipe	2									2							2	0			0	6	
Long-billed Dowitcher				1														0		1	1	1	
Asian Dowitcher																		0			0	0	
Red Knot																		0			0	0	
Great Knot																		0			0	0	
Sanderling											1							0			0	1	
Red-necked Stint				2														0			0	2	
Little Stint																		0			0	0	
Temminck's Stint										1							6	0			0	7	
Long-toed Stint																		0			0	0	
Pectoral Sandpiper																		0			0	0	
Sharp-tailed Sandpiper																		0			0	0	
Dunlin			397															0		397	397	397	2
Curlew Sandpiper																		0			0	0	
Spoon-billed Sandpiper																		0			0	0	
Broad-billed Sandpiper				1														0		1	1	1	
Ruff																		0			0	0	
Small wader spp.																		0			0	0	
Wader sp.			4400															0			0	4400	
Black-tailed Gull																		0			0	0	
Heuglin's Gull				7														0			0	7	
Yellow-legged Gull																		0			0	0	
Slaty-backed Gull																		0			0	0	
Pallas's Gull																		0			0	0	

Large Gull spp.																		0			0	0	
Brown-headed Gull																		0			0	0	
Black-headed Gull	0	0	100					0	0				0	0	0	0	0	0	0	0	0	100	
Saunders's Gull				1														0			0	1	
Whiskered Tern																		0			0	0	
White-winged Tern																		0			0	0	
Gull-billed Tern																		0			0	0	
Caspian Tern				1														0			0	1	
Total	930	291	17823	5566	237	328	127	303	483	532	87	158	272	39	172	454	278	4517	1132	6870	12519	32597	173
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	5795	17.8	4568	36.5	16	0																	
Ardeids etc	2302	7.1	1194	9.5	118	0																	
Ducks, grebes, pelicans	16350	50.2	4327	34.6	9	0																	
Rails, Coot etc	124	0.4	53	0.4	6	0																	
Shorebirds	7917	24.3	2377	19.0	24	0																	
Gulls and terns	109	0.3	0	0.0	0	0																	
TOTAL	32597		12519		173	0																	
Date of count: 7 Nov 2010																							
n/c = site not counted																							
# indicates count consists of or includes a count made up to one week either side of the count date																							
% = count made at evening roost																							
Wetland-dependant species																							
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Osprey			1	3			1		1									2		4	6	8	1
Black Kite	4	2		2			3	0	0	1			2	4	1	6	0	23	16	5	44	48	1
White-bellied Sea Eag																		0			0	0	
Eastern Marsh Harrier																		1			1	1	
Common Buzzard	2	2	4				2		1							2		2	3		5	15	
Greater Spotted Eagle	1	0						0	0				0	0	0	0	0	1	0	0	1	2	
Imperial Eagle	0	0						0	0				0	0	0	0	1	3	0	0	3	4	
Peregrine Falcon														1				0	1		1	1	
Pied Kingfisher	1	2					1	0	0				0	0	0	2	0	3	2	1	6	9	1
Common Kingfisher	3	4	1					7	0				8	2	0	2	3	3	15	0	18	33	4
White-throated Kingfisher	2	2	3	1			2	2	0				5	1	1	1	3	1	6	3	10	24	5
Black-capped Kingfisher	0	0	1	2				0	0				0	0	0	0	0	0	0	2	2	3	3
Red-billed Starling	14	18						0	0				15	7	0	0	88	47	22	0	69	189	
Collared Crow	7	2						3	0				5	5	2	2	1	5	18	0	23	32	

Summary of Waterbird Count, December 2010

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TK C	LC	TSW	MPST	ST	MPN R	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet	
Little Grebe	24	26	3					8	0	3			31	0	25	18	8	22	62	0	84	168	9	
Great Crested Grebe			100	10		7	8				2							0		25	25	127		
Great Cormorant	12	104	17					17	42	1		1	22	200	57	220	20	4118	509	42	4669	4831	31	
Dalmatian Pelican																		0			0	0		
Grey Heron	123	20	114	7	12	3	34	30	42	71	1	4	25	9	3	16	0	234	77	98	409	748	37	
Purple Heron																		0			0	0		
Great Egret	142	98	121	30	5	34	22	36	20		6	4	26	13	131	6	13	97	184	111	392	804	52	
Intermediate Egret	7	0		7				0	0			1	0	0	0	0	0	8	0	7	15	23	2	
Little Egret	135	85	173	23	9	12	12	107	12	2	9	45	71	21	89	6	86	38	237	68	343	935	21	
Swinhoe's Egret																		0			0	0		
Pacific Reef Egret																		0			0	0		
Cattle Egret	13	4						7	0				1	0	0	2	0	1	9	0	10	28		
Chinese Pond Heron	13	8	8	3				5	2		5	5	11	1	3	5	14	3	19	5	27	86	6	
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0		
B-c Night Heron	0	0						1	0				1	0	0	0	0	1	1	0	2	3		
Yellow Bittern	0	0						0	0				0	0	0	0	0	0	0	0	0	0		
Cinnamon Bittern																		0			0	0		
Great Bittern																		0			0	0		
Black Stork																		0			0	0		
Black-headed Ibis																		0			0	0		
Eurasian Spoonbill									1									2			2	3		
Black-faced Spoonbill	30	1	26	20	16		6	29	35		2		10		6	5	1	189	29	42	260	376		
Common Shelduck																		0			0	0		
Eurasian Wigeon	24	6	90	1980	30	30	52	0	65	33	1880	10	0	0	0	0	0	229	0	2157	2386	4429		
Falcated Duck																		1			1	1		
Gadwall																		5			5	5		
Baikal Teal																		0			0	0		
Common Teal	25	0	224	1038			43	3	0	32			0	0	0	2	0	92	5	1081	1178	1459	1	
Mallard																		0			0	0		
Spot-billed Duck																		0			0	0		
Chinese Spotbill																		2			2	2		
Burmese Spotbill																		0			0	0		
Northern Pintail	1		7	1126	1260		950			27							1	250	1	3336	3587	3622		
Garganey				2			7			32								1		2	3	42		
Northern Shoveler	30		3300	3941	370		1030		40	5							1	133	41	5341	5515	8850		
Common Pochard																		0			0	0		
Baer's Pochard																		0			0	0		
Tufted Duck			4100			2	1495											226		1497	1723	5823		
Greater Scaup																		0			0	0		
Red-breasted Merganser																		0			0	0		
Duck sp.			6100															0			0	6100		
Slaty-breasted Rail																		0			0	0		
Water Rail																		0			0	0		
White-breasted Waterhen	0	1	5	2		5	1	0					3	0	1	0	4	1	5	7	13	23	1	
Watercock																		0			0	0		
Common Moorhen	24	7	30	1			7	1	0	17			2	9	0	0	6	0	32	16	8	56	136	10
Eurasian Coot	8												1					5	2		7	15		

Pheasant-tailed Jacana	1																	0		0	1		
Greater Painted Snipe																		0		0	0		
Black-winged Stilt	12		305					19										1		1	337		
Pied Avocet	53		2866	3360		80		87	2		10	7						10	7	3440	3457	6475	6
Oriental Pratincole																		0		0	0		
Northern Lapwing																		0		0	0		
Grey-headed Lapwing																		0		0	0		
Pacific Golden Plover																		0		0	0		
Grey Plover				185						4								0		185	185	189	
Common Ringed Plover																		0		0	0		
Little Ringed Plover	7	0	12	17			0	0	16			11	0	3	0	0	0	13	17	30	66	6	
Kentish Plover				720														0		720	720	720	1
Lesser Sand Plover																		0		0	0		
Greater Sand Plover																		0		0	0	3	
Black-tailed Godwit			480															0		0	480		
Bar-tailed Godwit																		0		0	0		
Whimbrel										28	1							0		0	29		
Eurasian Curlew			91	949		4				14	12							0		953	953	1070	
Far Eastern Curlew																		0		0	0		
Spotted Redshank	1					21									1		0	1	21	22	23		
Common Redshank										3								0		0	3		
Marsh Sandpiper			2			8												0		8	8	10	
Common Greenshank			36	80	30	42		23	15	10	6				1		8	1	152	161	251	4	
Nordmann's Greenshank																		0		0	0		
Green Sandpiper	3	3					4	0			1	5	1	0	2	0	0	7	0	7	19		
Wood Sandpiper	6	0	7				0	0	1			6	1	0	1	0	0	3	0	3	22		
Terek Sandpiper			1															0		0	1		
Common Sandpiper	8	5	12	2	1		3	0		1		6	4	6	7	4	0	20	3	23	59	2	
Grey-tailed Tattler																		0		0	0		
Ruddy Turnstone																		0		0	0		
Red-necked Phalarope																		0		0	0		
Pintail Snipe																		0		0	0		
Swinhoe's Snipe																		0		0	0		
Pintail/Swinhoe's Snipe																		0		0	0		
Common Snipe			6														1		1	7	7		
Long-billed Dowitcher																		0		0	0		
Asian Dowitcher																		0		0	0		
Red Knot																		0		0	0		
Great Knot																		0		0	0		
Sanderling																		0		0	0		
Red-necked Stint				1														0		1	1	1	
Little Stint																		0		0	0		
Temminck's Stint				46											1		0	1	46	47	47		
Long-toed Stint																		0		0	0		
Pectoral Sandpiper																		0		0	0		
Sharp-tailed Sandpiper																		0		0	0		
Dunlin				720														0		720	720	720	
Curlew Sandpiper																		0		0	0		
Spoon-billed Sandpiper																		0		0	0		
Broad-billed Sandpiper																		0		0	0		
Ruff																		0		0	0		
Small wader spp.																		0		0	0		
Wader sp.			6800															0		0	6800		
Black-tailed Gull																		0		0	0		

Heuglin's Gull				76														0		76	76	76		
Yellow-legged Gull																		0			0	0	0	
Slaty-backed Gull																		0			0	0	0	
Pallas's Gull																		0			0	0	0	
Large Gull spp.																		0			0	0	0	
Brown-headed Gull																		0			0	0	0	
Black-headed Gull	0	0	1383	125				0	0	5	0	180	0	0	0	0	0	180	125	305	1693			
Saunders's Gull				2														0	2	2	2			
Whiskered Tern																		0			0	0	0	
White-winged Tern																		0			0	0	0	
Gull-billed Tern																		0			0	0	0	
Caspian Tern																		0			0	0	0	
Total	702	368	26419	14473	1732	169	3746	252	391	257	1967	102	239	437	324	302	150	5710	1430	20296	27436	57740	192	
	Deep Bay Area	%	Ramsar Site	%	SI																			
Cormorants	4831	8.4	4669	17.0	31	0																		
Ardeids etc	3006	5.2	1460	5.3	118	0																		
Ducks, grebes, pelicans	30628	53.0	14509	52.9	10	0																		
Rails, Coot etc	174	0.3	76	0.3	11	0																		
Shorebirds	17330	30.0	6339	23.1	22	0																		
Gulls and terns	1771	3.1	383	1.4	0	0																		
TOTAL	57740		27436		192	0																		
Date of count: 19 Dec 2010																								
n/c = site not counted																								
# indicates count consists of or includes a count made up to one week either side of the count date																								
% = count made at evening roost																								
Wetland-dependant species																								
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TK C	LC	TSW	MPST	ST	MPN R	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet	
Osprey			2	4			1		1								1	1	0	1	1	10	1	
Black Kite	3	1	1		1			5	0	3			6	3	0	4	3	2	14	1	17	32		
White-bellied Sea Eag																		0			0	0		
Eastern Marsh Harrier				1														0			0	1		
Common Buzzard	2	1											1	1				2	3		5	7	1	
Greater Spotted Eagle	0	0						0	0				0	0	0	0	0	0	0	0	0	0		
Imperial Eagle	0	1						0	0				0	0	0	0	1	0	0	0	1	2		
Peregrine Falcon				1										1		1		0	2		2	3		
Pied Kingfisher	1	4					2	0	0				1	0	0	4	0	0	4	2	6	12	1	
Common Kingfisher	5	1	3	1				0	0			1	7	2	4	5	0	2	17	1	20	31	2	
White-throated Kingfisher	2	1	2	1			2	2	0	2	2	1	1	1	0	2	0	6	3	9	21	1		
Black-capped Kingfisher	0	0		2			2	0	0			1	0	0	0	0	0	0	0	4	4	5		
Red-billed Starling	113	71	1					0	0				725	550	0	0	110	30	962	0	992	1600		
Collared Crow	2	0	2					2	0			1	5	1	2	10	0	14	21	0	35	39		

Summary of Waterbird Count, January 2011

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW/LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Little Grebe	27	32	2					17	4	3			28	0	36	23	6	37	86	0	123	215	6
Great Crested Grebe			8	2	13	10	3				32	14						0		28	28	82	
Great Cormorant%	112*	56*	286*					169*	0	27*			34*	1*	2100	205*	60*	7209	362*	0	7209	9309	
Dalmatian Pelican																		0		0	0	0	
Grey Heron	56	29	92	25			18	80	49	55		8	16	1	5	34	3	236	139	83	458	707	17
Purple Heron																		1			1	1	
Great Egret	46	60	41	165	1		6	120	28	7	2	6	30	13	33	111	19	31	296	195	522	719	102
Intermediate Egret	2	1		1				0	0				0	0	0	2	0	7	2	1	10	13	
Little Egret	171	23	95	27			4	46	0	1	4	7	64	20	58	138	20	27	300	31	358	705	58
Swinhoe's Egret																		0			0	0	
Pacific Reef Egret																		0			0	0	
Cattle Egret	8	2						0	0				2	0	5	3	8	0	10	0	10	28	
Chinese Pond Heron	15	9	3	3				8	0	1	1	2	20	1	11	14	17	11	50	3	64	116	
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	0	5						0	0				0	0	0	0	0	9	0	0	9	14	
Yellow Bittern	0	0						0	0				1	0	0	0	0	0	1	0	1	1	
Cinnamon Bittern																		0			0	0	
Great Bittern																		0			0	0	
Black Stork																		0			0	0	
Black-headed Ibis																		0			0	0	
Eurasian Spoonbill	1											1						0			0	2	
Black-faced Spoonbill	74		7				10	4	8	16		1	2	37*	7*	41	19	259	47	8	314	441	
Taiga Bean Goose																		2			2	2	
Common Shelduck																		0			0	0	
Eurasian Wigeon	51	0	85	890		8		0	2	27	65		0	0	0	0	0	383	2	898	1283	1511	
Falcated Duck																		10			10	10	
Gadwall																		3			3	3	
Baikal Teal																		0			0	0	
Common Teal	83	0	35	1			2	0	13	73			2	0	0	2	11	68	15	3	86	290	12
Mallard																		0			0	0	
Spot-billed Duck																		0			0	0	
Chinese Spotbill																		1			1	1	
Burmese Spotbill																		0			0	0	
Northern Pintail			15	879	610		223			32						1		347	1	1712	2060	2107	
Garganey										20								8			8	28	
Northern Shoveler	3		1255	6634	9		160			26								735		6803	7538	8822	1
Common Pochard						1												0		1	1	1	
Baer's Pochard																		0			0	0	
Tufted Duck			150		325	850	237	44		1								3155		1412	4567	4762	
Greater Scaup					1													0		1	1	1	
Smew																		1			1	1	
Red-breasted Merganser																		0			0	0	
Duck sp.			6210			1100				1000								0		2100	2100	8310	
Slaty-breasted Rail																		0			0	0	
Water Rail																		0			0	0	
White-breasted Waterhen	4	4		3				1	1	4	1	1	9	1	0	3	1	7	13	3	23	40	
Ruddy-breasted Crake													1					0	1		1	1	
Watercock																		0			0	0	
Common Moorhen	14	11	28	3			1	2	0	29			19	1	2	5	5	46	24	4	74	166	5

Eurasian Coot	9		1			105										10		105	115	125		
Pheasant-tailed Jacana	1															0			0	1		
Greater Painted Snipe																0			0	0		
Black-winged Stilt	5		465								1				0	1			1	471		
Pied Avocet	154		360	7724										1	45			7724	7769	8284		
Oriental Pratincole															0				0	0		
Northern Lapwing															0				0	0		
Grey-headed Lapwing															0				0	0		
Pacific Golden Plover				782											0			782	782	782		
Grey Plover				320											0			320	320	320	1	
Common Ringed Plover															0				0	0		
Little Ringed Plover	10	0	5				0	0	6		6	1	0	38	4	9	1	42	0	43	80	
Kentish Plover				461							1					2		461	463	464		
Lesser Sand Plover				1												0		1	1	1		
Greater Sand Plover																0			0	0		
Black-tailed Godwit																0			0	0		
Bar-tailed Godwit																0			0	0		
Whimbrel								1	17							0			0	18		
Eurasian Curlew				1592					10							0		1592	1592	1602		
Far Eastern Curlew																0			0	0		
Spotted Redshank								75					1		2	1			3	78		
Common Redshank								5								0			0	90		
Marsh Sandpiper				2428	190			222								44		190	234	2884		
Common Greenshank	1			122	390			419	39	4				2		172	3	390	565	1149	2	
Nordmann's Greenshank																0			0	0		
Green Sandpiper	3	2					1	0	1			5	1	2	2	4	0	7	0	7	21	
Wood Sandpiper	12	3		84			0	0	17			6	0	9	0	15	55	12	0	67	201	
Terek Sandpiper																0			0	0		
Common Sandpiper	8	2		4			2	4	0	1	4	4	15	9	7	13	14	1	37	2	40	88
Grey-tailed Tattler																	0			0	0	
Ruddy Turnstone																	0			0	0	
Red-necked Phalarope																	0			0	0	
Pintail Snipe																	0			0	0	
Swinhoe's Snipe																	0			0	0	
Pintail/Swinhoe's Snipe																	0			0	0	
Common Snipe	1											2		1			1	1		2	5	
Long-billed Dowitcher																	0			0	0	
Asian Dowitcher																	0			0	0	
Red Knot																	0			0	0	
Great Knot																	0			0	0	
Sanderling																	0			0	0	
Red-necked Stint																	0			0	0	
Little Stint																	0			0	0	
Temminck's Stint	1			25										1	4		0	1	25	26	31	
Long-toed Stint																	0			0	0	
Pectoral Sandpiper																	0			0	0	
Sharp-tailed Sandpiper																	0			0	0	
Dunlin				1470													0		1470	1470	1470	
Curlew Sandpiper																	0			0	0	
Spoon-billed Sandpiper																	0			0	0	
Broad-billed Sandpiper																	0			0	0	
Ruff								1									0			0	1	
Small wader spp.																	0			0	0	
Wader sp.				960													0			0	960	
Black-tailed Gull																	0			0	0	
Heuglin's Gull																	0			0	0	

Yellow-legged Gull																		0		0	0		
Slaty-backed Gull																		0		0	0		
Pallas's Gull																		0		0	0		
Large Gull spp.			202															0	202	202	202		
Brown-headed Gull																		0		0	0		
Black-headed Gull	3	0	3616	830				4	0				0	350	15	0	2	0	369	830	1199	4820	
Saunders's Gull			30															0	30	30	30		
Whiskered Tern																		0		0	0		
White-winged Tern																		0		0	0		
Gull-billed Tern																		0		0	0		
Caspian Tern			1															0	1	1	1		
Total	763	183	16156	22651	959	2076	664	331	1105	1043	175	55	223	398	2322	400	158	12926	1461	27411	41798	62588	204
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	9309	14.9	7209	17.2	0	0																	
Ardeids etc	2747	4.4	1747	4.2	177	0																	
Ducks, grebes, pelicans	26146	41.8	17812	42.6	19	0																	
Rails, Coot etc	332	0.5	213	0.5	5	0																	
Shorebirds	19001	30.4	13385	32.0	3	0																	
Gulls and terns	5053	8.1	1432	3.4	0	0																	
TOTAL	62588		41798		204	0																	
Date of count: 16 Jan 2011																							
n/c = site not counted																							
			High tide measured at TBT:																				
# indicates count consists of or includes a count made up to one week either side of the count date																							
% = count made at evening roost																							
Wetland-dependant species																							
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW/LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Osprey			3	5	1										1	1		2	2		4	13	1
Black Kite	4	2		1				3	0				4	2	4	38	8	7	48	1	56	73	
White-bellied Sea Eag																		0			0	0	
Eastern Marsh Harrier	1		1	1														0			0	3	
Common Buzzard	1	1								1				1	1	1		3	3		6	9	
Greater Spotted Eagle	0	0						0	0				0	0	0	0	0	1	0	0	1	1	
Imperial Eagle	0	0						0	0				0	0	0	0	0	1	0	0	1	1	
Peregrine Falcon																		1			1	1	
Pied Kingfisher	0	3	2					2	0				0	0	2	0	1	2	3	0	5	12	1
Common Kingfisher	2	7						3	0	4			14	1	3	3	0	1	22	0	23	38	
White-throated Kingfisher	1	0	3	3				3	0	3			1	0	2	2	1	0	6	3	9	19	3
Black-capped Kingfisher	0	0	1	4				0	0				0	0	0	0	0	0	0	4	4	5	
Red-billed Starling	6	35						0	0				12	580	215	167	50	800	870	0	1670	1865	
Collared Crow	1	1	4					0	0				0	1	0	1	2	8	3	0	11	18	

Summary of Waterbird Count, February 2011

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Little Grebe	28	17	4				3	14	0	5			8	0	25	8	14	44	39	3	86	170	
Great Crested Grebe			36	23	6	1	5					23						0		35	35	94	4
Great Cormorant%	91*	57*	32*					123*	5*	12*			51*	9*	2523	106*	52*	7500	280*	0	7500	10023	52
Dalmatian Pelican																		0			0	0	
Grey Heron	91	36	63	63		3	3	43	62	29	2	16	16	17	9	33	14	223	142	94	459	723	45
Purple Heron																		1			1	1	
Great Egret	23	21	17	77		4	3	10	37	1		6	26	8	20	20	21	16	109	88	213	310	185
Intermediate Egret	5	0		4				0	2				0	0	0	0	0	0	2	4	6	11	
Little Egret	27	25	27	43		2	2	14	84	5	9	39	59	10	65	22	23	48	236	49	333	504	33
Swinhoe's Egret																		0			0	0	
Pacific Reef Egret																		0			0	0	
Cattle Egret	1	0						0	0				0	0	0	11	0	1	11	0	12	13	
Chinese Pond Heron	10	8	2				1	5	0				7	3	7	12	9	3	30	1	34	67	5
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	0	1						0	0				0	0	0	0	0	20	0	0	20	21	1
Yellow Bittern	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Cinnamon Bittern																		0			0	0	
Great Bittern																		1			1	1	
Black Stork																		0			0	0	
Black-headed Ibis																		0			0	0	
Eurasian Spoonbill	1																	0			0	1	
Black-faced Spoonbill	38		13					24	1	4			109	7	1			117	35	1	153	314	
Taiga Bean Goose																		2			2	2	
Common Shelduck																		0			0	0	
Eurasian Wigeon	190	0	27	1201		33	2	0	0	64	120		0	0	0	1	0	132	1	1236	1369	1770	
Falcatid Duck																		2			2	2	
Gadwall																		4			4	4	
Baikal Teal																		0			0	0	
Common Teal	201	0	2	7			16	0	3	67			0	0	0	0	32	106	0	26	132	434	5
Mallard																		0			0	0	
Spot-billed Duck																		0			0	0	
Chinese Spotbill																		8			8	8	
Burmese Spotbill																		0			0	0	
Northern Pintail			16	1148						9								1413		1148	2561	2586	
Garganey	3			13						39								0		13	13	55	
Northern Shoveler	20		4893	3094			110			251								1306		3204	4510	9674	
Common Pochard																		0			0	0	
Baer's Pochard																		0			0	0	
Tufted Duck		3	655	11		475	282	29										318		768	1086	1773	
Greater Scaup																		0			0	0	
Red-breasted Merganser																		0			0	0	
Duck sp.			3500						1050									0		1050	1050	4550	
Slaty-breasted Rail																		0			0	0	
Water Rail																		0			0	0	
White-breasted Waterhen	4	4	2	2			1	2	0			2	3	1	2	1	3	5	7	3	15	32	2
Ruddy-breasted Crake													1					0	1		1	1	
Watercock																		0			0	0	
Common Moorhen	11	13	20					9	3	29		2	5	2	1	0	7	27	11	3	41	129	17
Eurasian Coot	9		1															11			11	21	

Pheasant-tailed Jacana	1																	0			0	1
Greater Painted Snipe																		0			0	0
Black-winged Stilt	6		460					6							3			0			0	475
Pied Avocet	96		1620	8780				7				1						440		8787	9227	10944
Oriental Pratincole																		0			0	0
Northern Lapwing																		0			0	0
Grey-headed Lapwing	1																	0			0	1
Pacific Golden Plover																		0			0	0
Grey Plover																		0			0	0
Common Ringed Plover																		0			0	0
Little Ringed Plover	30	0					28	0			15	1	0	1	3	35	1	47	0	48	114	
Kentish Plover	1										14							0			0	15
Lesser Sand Plover																		0			0	0
Greater Sand Plover																		0			0	0
Black-tailed Godwit			1900															0			0	1900
Bar-tailed Godwit																		0			0	0
Whimbrel																		0			0	0
Eurasian Curlew			1	1242							1							0		1242	1242	1244
Far Eastern Curlew																		0			0	0
Spotted Redshank			30	1							98		4					27		1	28	160
Common Redshank											7							11			11	18
Marsh Sandpiper			950	70							265		2					83		70	153	1370
Common Greenshank	7	2	40	52							587		4					285		52	337	977
Nordmann's Greenshank#				1														0		1	1	1
Green Sandpiper	2	3	1				6	0				1	1	2	4	0	4	0	13	0	13	24
Wood Sandpiper	26	7					0	0				4	0	1	1	20	0	2	0	2	59	
Terek Sandpiper																		0			0	0
Common Sandpiper	13	1	2	1			4	0	4	1	7	10	9	1	1	14	2	17	1	20	70	4
Grey-tailed Tattler																		0			0	0
Ruddy Turnstone																		0			0	0
Red-necked Phalarope																		0			0	0
Pintail Snipe																		0			0	0
Swinhoe's Snipe																		0			0	0
Pintail/Swinhoe's Snipe																	1	0			0	1
Common Snipe	3	4	7	1							1						2	0		1	1	25
Long-billed Dowitcher											1							0			0	1
Asian Dowitcher																		0			0	0
Red Knot																		0			0	0
Great Knot																		0			0	0
Sanderling																		0			0	0
Red-necked Stint																		0			0	0
Little Stint																		0			0	0
Temminck's Stint												4				1	7	0	1		1	12
Long-toed Stint																		0			0	0
Pectoral Sandpiper																		0			0	0
Sharp-tailed Sandpiper																		0			0	0
Dunlin																		0			0	0
Curlew Sandpiper																		0			0	0
Spoon-billed Sandpiper																		0			0	0
Broad-billed Sandpiper																		0			0	0
Ruff																		0			0	0
Small wader spp.																		0			0	0
Wader sp.																		0			0	0
Black-tailed Gull				1														0		1	1	1
Mew Gull				1														0		1	1	1
Heuglin's Gull				275											1			0	1	275	276	276

Yellow-legged Gull				4												1		0	1	4	5	5	
Slaty-backed Gull																		0			0	0	
Pallas's Gull																		0			0	0	
Large Gull spp.																		0			0	0	
Brown-headed Gull																		0			0	0	
Black-headed Gull	2	0	1553	570			3	0	40					0	647	9	1	0	551	657	613	1821	3376
Saunders's Gull																		0			0	0	
Whiskered Tern																		0			0	0	
White-winged Tern																		0			0	0	
Gull-billed Tern																		0			0	0	
Caspian Tern				1														0			0	1	
Total	850	145	15842	16686	6	518	431	188	1289	1473	132	125	272	706	2669	117	209	12708	1363	18775	32846	54366	367
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	10023	18.4	7500	22.8	52	0																	
Ardeids etc	1966	3.6	1232	3.8	269	0																	
Ducks, grebes, pelicans	21122	38.9	10858	33.1	9	0																	
Rails, Coot etc	183	0.3	68	0.2	19	0																	
Shorebirds	17412	32.0	11084	33.7	18	0																	
Gulls and terns	3660	6.7	2104	6.4	0	0																	
TOTAL	54366		32846		367	0																	
Date of count: 13 Feb 2011																							
n/c = site not counted																							
# indicates count consists of or includes a count made up to one week either side of the count date																							
% = count made at evening roost																							
Wetland-dependant species																							
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Osprey			3	5			1											3			3	12	1
Black Kite	1	0						4	1	1			1	0	0	2	1	1	7	0	8	12	
White-bellied Sea Eag																		0			0	0	
Eastern Marsh Harrier				1														0			0	1	
Common Buzzard	4		1							1						1		2			2	9	
Greater Spotted Eagle	0	0						0	0				0	0	0	0	0	1	0	0	1	1	
Imperial Eagle	0	0						0	0				0	0	0	0	0	1	0	0	1	1	
Peregrine Falcon																		0			0	0	
Pied Kingfisher	1	0						0	0				1	0	0	1	0	2	1	0	3	5	2
Common Kingfisher	2	2	2					1	0	1			10	0	1	3	1	1	13	0	14	24	2
White-throated Kingfisher	0	0		1				0	0	1			1	0	1	1	0	0	2	1	3	5	1
Black-capped Kingfisher	0	0		1				0	0				0	0	0	0	0	0	1	1	1	1	2
Red-billed Starling	48	1						0	0				84	2130	8	93	0	0	2286	0	2286	2364	
Collared Crow	2	0						0	0				0	0	0	4	0	8	6	0	14	14	

Summary of Waterbird Count, March 2011

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Little Grebe	14	6	1					21	11	2			18	0	12	15	12	45	64	0	109	157	3
Great Crested Grebe			11		5	4	5											0			0	25	
Great Cormorant	138	40	513					173	11	32			36	3	12	135	109	3374	287	11	3672	4576	521
Dalmatian Pelican																		0			0	0	
Grey Heron	51	1	14	3		2	11	8	26	41	2	1	15	1	1	6	2	169	30	40	239	354	34
Purple Heron																		0			0	0	
Great Egret	11	151	14	70		12	3	12	14	2	11	5	53	1	5	14	13	49	58	95	202	440	101
Intermediate Egret	6	0	1	3				0	0	1			0	0	0	0	0	4	0	3	7	15	
Little Egret	17	37	62	41		16	15	11	1	3	13	17	85	2	22	48	20	97	117	73	287	507	20
Swinhoe's Egret																		0			0	0	
Pacific Reef Egret																		0			0	0	
Cattle Egret	4	0	2					0	0				4	0	9	4	16	0	15	0	15	39	1
Chinese Pond Heron	2	18	6	1				0	0		1	1	44	1	3	16	15	4	51	1	56	112	7
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Yellow Bittern	0	0						0	0				1	0	0	0	0	0	1	0	1	1	
Cinnamon Bittern																		0			0	0	
Great Bittern																		1			1	1	
Black Stork																		0			0	0	
Black-headed Ibis																		0			0	0	
Eurasian Spoonbill	2																	4			4	6	
Black-faced Spoonbill	14		10	1	1		28	1		54			1			2		113	4		117	225	
Common Shelduck																		0			0	0	
Eurasian Wigeon	46	0	16	1704			300	0	0			125	0	0	0	0	0	308	0	2004	2312	2499	
Falcated Duck																		0			0	0	
Gadwall																		0			0	0	
Baikal Teal																		0			0	0	
Common Teal	66	0		10			37	0	1	12			0	0	0	0	29	88	1	47	136	243	6
Mallard																		0			0	0	
Spot-billed Duck																		0			0	0	
Chinese Spotbill																		0			0	0	
Burmese Spotbill																		0			0	0	
Northern Pintail				35														20			35	55	55
Garganey				13			2											3			13	16	18
Northern Shoveler	4		224	422	1	23	12		263	33		2						1121		718	1839	2105	
Common Pochard																		0			0	0	
Baer's Pochard																		0			0	0	
Tufted Duck			2104		2		13		71									222		85	307	2412	
Greater Scaup																		0			0	0	
Red-breasted Merganser																		0			0	0	
Duck sp.			2600															0			0	2600	
Slaty-breasted Rail																		0			0	0	
Water Rail																		0			0	0	
White-breasted Waterhen	0	3		1			1	0	0	1			3	1	0	3	3	6	7	2	15	22	
Watercock																		0			0	0	
Common Moorhen	4	7	6					4	0	6			13	0	0	2	3	30	17	0	47	75	15
Eurasian Coot			1					1										5	1		6	7	
Pheasant-tailed Jacana	1																	0			0	1	
Greater Painted Snipe																		0			0	0	

Black-winged Stilt	17		657						6								21		21	701	
Pied Avocet	4		265	9776													23	9776	9799	10068	
Oriental Pratincole																	0		0	0	
Northern Lapwing																	0		0	0	
Grey-headed Lapwing			1														0		0	1	
Pacific Golden Plover			1	90													0	90	90	91	
Grey Plover				479													0	479	479	479	
Common Ringed Plover																	0		0	0	
Little Ringed Plover	11	5	4				0	0	6		24	1	2	0	18	1	4	20	0	24	76
Kentish Plover			19	25							9						0	25	25	53	
Lesser Sand Plover																	0		0	0	
Greater Sand Plover																	0		0	0	
Black-tailed Godwit			878	560													0	560	560	1438	
Bar-tailed Godwit				1													0	1	1	1	
Whimbrel																	0		0	0	
Eurasian Curlew				614													0	614	614	614	
Far Eastern Curlew																	0		0	0	
Spotted Redshank	1		20														2		2	23	
Common Redshank			30						3								0		0	33	
Marsh Sandpiper			3700						5								0		0	3705	
Common Greenshank			398	5					414	12							324	5	329	1153	1
Nordmann's Greenshank																	0		0	0	
Green Sandpiper	4	1				1	0			1	0	3	2	3	5	0	10	0	10	20	
Wood Sandpiper	12	8	87			0	0				3	1	2	9	5	0	14	0	14	127	
Terek Sandpiper																	0		0	0	
Common Sandpiper	0	1	13			0	0	??	2	10	7	8	4	1	9	4	17	0	21	59	5
Grey-tailed Tattler																	0		0	0	
Ruddy Turnstone																	0		0	0	
Red-necked Phalarope																	0		0	0	
Pintail Snipe																	0		0	0	
Swinhoe's Snipe																	0		0	0	
Pintail/Swinhoe's Snipe																	0		0	0	
Common Snipe			6					3									0		0	9	
Long-billed Dowitcher			1														0		0	1	
Asian Dowitcher																	0		0	0	
Red Knot																	0		0	0	
Great Knot																	0		0	0	
Sanderling																	0		0	0	
Red-necked Stint																	0		0	0	
Little Stint																	0		0	0	
Temminck's Stint	2			10													0	10	10	12	
Long-toed Stint																	0		0	0	
Pectoral Sandpiper																	0		0	0	
Sharp-tailed Sandpiper																	0		0	0	
Dunlin				1													0	1	1	1	
Curlew Sandpiper			93	13													0	13	13	106	
Spoon-billed Sandpiper																	0		0	0	
Broad-billed Sandpiper																	0		0	0	
Ruff			1														0		0	1	
Small wader spp.																	0		0	0	
Wader sp.																	0		0	0	
Black-tailed Gull				3													0	3	3	3	
Heuglin's Gull				95													0	95	95	95	
Yellow-legged Gull				1													0	1	1	1	
Slaty-backed Gull																	0		0	0	
Pallas's Gull																	0		0	0	

Large Gull spp.																				0			0	0	
Brown-headed Gull																				0			0	0	
Black-headed Gull	3	0	205	1227	140	80	16	0	5				0	1	0	1	0	1	2	1468	1471	1679			
Saunders's Gull				41																41	41	41			
Whiskered Tern																				0			0	0	
White-winged Tern																				0			0	0	
Gull-billed Tern																				0			0	0	
Caspian Tern																				0			0	0	
Total	434	278	11964	15245	149	137	443	232	403	624	41	195	284	24	72	277	242	6042	716	16309	23067	37086		714	
	Deep Bay Area	%	Ramsar Site	%	SI																				
Cormorants	4576	12.3	3672	15.9	521	0																			
Ardeids etc	1700	4.6	929	4.0	163	0																			
Ducks, grebes, pelicans	10114	27.3	4774	20.7	9	0																			
Rails, Coot etc	104	0.3	68	0.3	15	0																			
Shorebirds	18773	50.6	12013	52.1	6	0																			
Gulls and terns	1819	4.9	1611	7.0	0	0																			
TOTAL	37086		23067		714	0																			
Date of count: 13 Mar 2011																									
n/c = site not counted																									
# indicates count consists of or includes a count made up to one week either side of the count date																									
% = count made at evening roost																									
Wetland-dependant species																									
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet		
Osprey			1	4					1				1		1			2			2	10			
Black Kite	6	2	1					2	0				4	3	0	19	4	7	28	0	35	48			
White-bellied Sea Eag																		0			0	0			
Eastern Marsh Harrier																		1			1	1			
Common Buzzard	2						1		3									2			2	8			
Greater Spotted Eagle	0	0						0	0				0	0	0	0	0	0	0	0	0	0			
Imperial Eagle	0	2						0	0				0	0	0	0	0	2	0	0	2	4			
Peregrine Falcon																		0			0	0			
Pied Kingfisher	0	0						0	0				0	0	2	1	1	1	3	0	4	5	3		
Common Kingfisher	1	1						0	0				2	0	1	5	0	3	8	0	11	13	1		
White-throated Kingfisher	0	0	1					1	0				2	0	1	0	0	1	3	0	4	6	4		
Black-capped Kingfisher	0	0						0	0				0	0	0	0	0	0	0	0	0	0	1		
Red-billed Starling	3	0						0	10				1	201	0	16	0	98	130	0	228	329	10		
Collared Crow	0	0	1					0	0				1	0	1	15	2	2	16	0	18	22	1		

Winter 2010-11 Report on Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

Appendix 2



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Peak counts of each waterbird species, mid-winter period (December to February) 2010-11.

Cormorants

Great Cormorants	10,023
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Ardeids and Ciconiiformes

Grey Heron	748
Purple Heron	1
Great Egret	804
Intermediate Egret	23
Little Egret	935
Swinhoe's Egret	0
Pacific Reef Egret	0
Cattle Egret	28
Chinese Pond Heron	116
Striated Heron	0
Black-crowned Night Heron	21
Yellow Bittern	1
Cinnamon Bittern	0
Great Bittern	1
Black Stork	0
Black-headed Ibis	0
Eurasian Spoonbill	3
Black-faced Spoonbill	441
Sub-total:	3,122

Ducks, Grebes and Pelicans

Little Grebe	215
Great Crested Grebe	127
Black-necked Grebe	0
Dalmatian Pelican	0
Taiga Bean Goose	2
Common Shelduck	0
Eurasian Wigeon	4,429
Falcated Duck	10
Gadwall	5
Baikal Teal	0
Common Teal	1,459
Mallard	0
'Unassigned' Spotbill	0
Chinese Spotbill	8
Burmese Spotbill	0
Northern Pintail	3,622
Garganey	55
Northern Shoveler	9,674
Common Pochard	1
Baer's Pochard	0
Tufted Duck	5,823
Greater Scaup	1
Smew	1
Red-breasted Merganser	0
Unidentified duck	5,196
Sub-total:	30,628

Rails and Coots

Slaty-breasted Rail	0
Water Rail	0
White-breasted Waterhen	40
Ruddy-breasted Crake	1

Watercock	0
Common Moorhen	166
Eurasian Coot	125
Sub-total:	332

Shorebirds

Pheasant-tailed Jacana	1
Greater Painted Snipe	0
Black-winged Stilt	542
Pied Avocet	10,944
Oriental Pratincole	0
Northern Lapwing	0
Grey-headed Lapwing	1
Pacific Golden Plover	782
Grey Plover	320
Common Ringed Plover	0
Little Ringed Plover	114
Kentish Plover	720
Lesser Sand Plover	1
Greater Sand Plover	0
Black-tailed Godwit	1,900
Bar-tailed Godwit	0
Whimbrel	29
Eurasian Curlew	1,602
Far Eastern Curlew	0
Spotted Redshank	160
Common Redshank	90
Marsh Sandpiper	2,884
Common Greenshank	1,149
Nordmann's Greenshank	1
Green Sandpiper	24
Wood Sandpiper	201
Terek Sandpiper	1
Common Sandpiper	88
Grey-tailed Tattler	0
Ruddy Turnstone	0
Red-necked Phalarope	0
Pintail Snipe	0
Swinhoe's Snipe	0
Pintail/Swinhoe's Snipe	1
Common Snipe	25
Long-billed Dowitcher	1
Asian Dowitcher	0
Red Knot	0
Great Knot	0
Sanderling	0
Red-necked Stint	1
Little Stint	0
Temminck's Stint	47
Long-toed Stint	0
Pectoral Sandpiper	0
Sharp-tailed Sandpiper	0
Dunlin	1,470
Curlew Sandpiper	0
Spoon-billed Sandpiper	0
Broad-billed Sandpiper	0
Ruff	1
Unidentified small-sized Shorebird	0
Sub-total:	23,100

Gulls and Terns

Black-tailed Gull	1
Common Gull	1

Heuglin's Gull	276
Yellow-legged Gull	5
Slaty-backed Gull	0
Pallas's Gull	0
Unidentified large Gull	0
Relict Gull	0
Brown-headed Gull	0
Black-headed Gull	9,160
Saunders's Gull	30
Whiskered Tern	0
White-winged Tern	0
Gull-billed Tern	0
Caspian Tern	1
Sub-total:	9,474

Summary of sub-totals of different waterbird groups, December 2010 to February 2011.

Group	Sub-total
Cormorants	10,023
Ardeids	3,122
Ducks, Grebes and Pelicans	30,628
Rails and Coots	332
Shorebirds	23,100
Gulls and Terns	9,474
Total	76,679

Winter 2010-11 Report on Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

Appendix 3



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Summary of Waterbird Count during Low Tide, December 2010

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA
Little Grebe	0	0	5					0	0				0	0	0	0	0	0	0	0	0	5
Great Crested Grebe			1															0			0	1
Great Cormorant	0	0	30					0	0				0	0	0	0	0	0	0	0	0	30
Dalmatian Pelican																		0			0	0
Grey Heron	0	0	125	13				0	0				0	0	0	0	0	0	0	13	13	138
Purple Heron																		0			0	0
Great Egret	0	0	209	79				0	0				0	0	0	0	0	0	0	79	79	288
Intermediate Egret	0	0						0	0				0	0	0	0	0	0	0	0	0	0
Little Egret	0	0	456					0	0				0	0	0	0	0	0	0	0	0	456
Swinhoe's Egret																		0			0	0
Pacific Reef Egret																		0			0	0
Cattle Egret	0	0						0	0				0	0	0	0	0	0	0	0	0	0
Chinese Pond Heron	0	0	14					0	0				0	0	0	0	0	0	0	0	0	14
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0
B-c Night Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0
Yellow Bittern	0	0						0	0				0	0	0	0	0	0	0	0	0	0
Cinnamon Bittern																		0			0	0
Great Bittern																		0			0	0
Black Stork																		0			0	0
Black-headed Ibis																		0			0	0
Eurasian Spoonbill																		0			0	0
Black-faced Spoonbill			2															0			0	2
Common Shelduck																		0			0	0
Eurasian Wigeon	0	0	97		34		338	0	0				0	0	0	0	0	0	0	372	372	469
Falcated Duck																		0			0	0
Gadwall																		0			0	0
Baikal Teal																		0			0	0
Common Teal	0	0	204					0	0				0	0	0	0	0	0	0	0	0	204
Mallard																		0			0	0
Spot-billed Duck																		0			0	0
Chinese Spotbill																		0			0	0
Burmese Spotbill																		0			0	0
Northern Pintail				930														0		930	930	930
Garganey																		0			0	0
Northern Shoveler			1700	1410														0		1410	1410	3110
Common Pochard																		0			0	0
Baer's Pochard																		0			0	0
Tufted Duck			3500															0			0	3500
Greater Scaup																		0			0	0
Red-breasted Merganser																		0			0	0
Duck sp.			8100	2290														0		2290	2290	10390
Slaty-breasted Rail																		0			0	0
Water Rail																		0			0	0
White-breasted Waterhen	0	0	7					0	0				0	0	0	0	0	0	0	0	0	7
Watercock																		0			0	0
Common Moorhen	0	0	70					0	0				0	0	0	0	0	0	0	0	0	70

Eurasian Coot																		0	0	0
Pheasant-tailed Jacana																		0	0	0
Greater Painted Snipe																		0	0	0
Black-winged Stilt			581															0	0	581
Pied Avocet			6226															0	0	6226
Oriental Pratincole																		0	0	0
Northern Lapwing																		0	0	0
Grey-headed Lapwing																		0	0	0
Pacific Golden Plover			80															0	0	80
Grey Plover																		0	0	0
Common Ringed Plover																		0	0	0
Little Ringed Plover	0	0	60				0	0				0	0	0	0	0	0	0	0	60
Kentish Plover			8															0	0	8
Lesser Sand Plover																		0	0	0
Greater Sand Plover																		0	0	0
Black-tailed Godwit																		0	0	0
Bar-tailed Godwit																		0	0	0
Whimbrel																		0	0	0
Eurasian Curlew			307															0	0	307
Far Eastern Curlew																		0	0	0
Spotted Redshank																		0	0	0
Common Redshank			12															0	0	12
Marsh Sandpiper																		0	0	0
Common Greenshank			80															0	0	80
Nordmann's Greenshank																		0	0	0
Green Sandpiper	0	0					0	0				0	0	0	0	0	0	0	0	0
Wood Sandpiper	0	0	2				0	0				0	0	0	0	0	0	0	0	2
Terek Sandpiper																		0	0	0
Common Sandpiper	0	0	16				0	0				0	0	0	0	0	0	0	0	16
Grey-tailed Tattler																		0	0	0
Ruddy Turnstone																		0	0	0
Red-necked Phalarope																		0	0	0
Pintail Snipe																		0	0	0
Swinhoe's Snipe																		0	0	0
Pintail/Swinhoe's Snipe																		0	0	0
Common Snipe			3															0	0	3
Long-billed Dowitcher																		0	0	0
Asian Dowitcher																		0	0	0
Red Knot																		0	0	0
Great Knot																		0	0	0
Sanderling																		0	0	0
Red-necked Stint																		0	0	0
Little Stint																		0	0	0
Temminck's Stint																		0	0	0
Long-toed Stint																		0	0	0
Pectoral Sandpiper																		0	0	0
Sharp-tailed Sandpiper																		0	0	0
Dunlin																		0	0	0
Curlew Sandpiper																		0	0	0
Spoon-billed Sandpiper																		0	0	0
Broad-billed Sandpiper																		0	0	0
Ruff																		0	0	0
Small wader spp.																		0	0	0

Wader sp.			1600																0		0	1600	
Black-tailed Gull																			0		0	0	
Heuglin's Gull				53															0	53	53	53	
Yellow-legged Gull																			0		0	0	
Slaty-backed Gull																			0		0	0	
Pallas's Gull																			0		0	0	
Large Gull spp.																			0		0	0	
Brown-headed Gull																			0		0	0	
Black-headed Gull	0	0	1603	1830			0	0				0	0	0	0	0	0	0	0	0	1830	1830	3433
Saunders's Gull																			0		0	0	
Whiskered Tern																			0		0	0	
White-winged Tern																			0		0	0	
Gull-billed Tern																			0		0	0	
Caspian Tern																			0		0	0	
Total	0	0	25098	6605	34	0	338	0	0	0	0	0	0	0	0	0	0	0	0	0	6977	6977	32075
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	30	0.1	0	0.0	0	0																	
Ardeids etc	898	2.8	92	1.3	0	0																	
Ducks, grebes, pelicans	18609	58.0	5002	71.7	0	0																	
Rails, Coot etc	77	0.2	0	0.0	0	0																	
Shorebirds	8975	28.0	0	0.0	0	0																	
Gulls and terns	3486	10.9	1883	27.0	0	0																	
TOTAL	32075		6977		0	0																	

Summary of Waterbird Count during Low Tide, January 2011

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	
Little Grebe	0	0	4					0	0				0	0	0	0	0	0	0	0	0	4	
Great Crested Grebe			8			81															81	81	89
Great Cormorant	0	0	125					0	0				0	0	0	0	0	0	0	0	0	125	
Dalmatian Pelican																						0	0
Grey Heron	0	0	97					0	0				0	0	0	0	0	0	0	0	0	97	
Purple Heron																						0	0
Great Egret	0	0	65					0	0				0	0	0	0	0	0	0	0	0	65	
Intermediate Egret	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Little Egret	0	0	108					0	0				0	0	0	0	0	0	0	0	0	108	
Swinhoe's Egret																						0	0
Pacific Reef Egret																						0	0
Cattle Egret	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Chinese Pond Heron	0	0	12					0	0				0	0	0	0	0	0	0	0	0	12	
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Yellow Bittern	0	0						0	0				0	0	0	0	0	0	0	0	0	0	
Cinnamon Bittern																						0	0
Great Bittern																						0	0
Black Stork																						0	0
Black-headed Ibis																						0	0
Eurasian Spoonbill																						0	0
Black-faced Spoonbill			29																			0	29
Common Shelduck																						0	0
Eurasian Wigeon	0	0	213					0	0				0	0	0	0	0	0	0	0	0	213	
Falcated Duck																						0	0
Gadwall																						0	0
Baikal Teal																						0	0
Common Teal	0	0	58					0	0				0	0	0	0	0	0	0	0	0	58	
Mallard																						0	0
Spot-billed Duck																						0	0
Chinese Spotbill																						0	0
Burmese Spotbill																						0	0
Northern Pintail			50																			0	50
Garganey																						0	0
Northern Shoveler			3227																			0	3227
Common Pochard																						0	0
Baer's Pochard																						0	0
Tufted Duck			700																			0	700
Greater Scaup																						0	0
Red-breasted Merganser																						0	0
Duck sp.			6100																			0	6100
Slaty-breasted Rail																						0	0
Water Rail																						0	0
White-breasted Waterhen	0	0	1					0	0				0	0	0	0	0	0	0	0	0	1	
Watercock																						0	0
Common Moorhen	0	0	43					0	0				0	0	0	0	0	0	0	0	0	43	

Eurasian Coot																		0	0	0
Pheasant-tailed Jacana																		0	0	0
Greater Painted Snipe																		0	0	0
Black-winged Stilt			363															0	0	363
Pied Avocet			9771															0	0	9771
Oriental Pratincole																		0	0	0
Northern Lapwing																		0	0	0
Grey-headed Lapwing																		0	0	0
Pacific Golden Plover			16															0	0	16
Grey Plover			2															0	0	2
Common Ringed Plover																		0	0	0
Little Ringed Plover	0	0	20				0	0			0	0	0	0	0	0	0	0	0	20
Kentish Plover																		0	0	0
Lesser Sand Plover																		0	0	0
Greater Sand Plover																		0	0	0
Black-tailed Godwit			220															0	0	220
Bar-tailed Godwit																		0	0	0
Whimbrel																		0	0	0
Eurasian Curlew			138															0	0	138
Far Eastern Curlew																		0	0	0
Spotted Redshank			2															0	0	2
Common Redshank			62															0	0	62
Marsh Sandpiper																		0	0	0
Common Greenshank			310															0	0	310
Nordmann's Greenshank																		0	0	0
Green Sandpiper	0	0				0	0			0	0	0	0	0	0	0	0	0	0	0
Wood Sandpiper	0	0	122			0	0			0	0	0	0	0	0	0	0	0	0	122
Terek Sandpiper																		0	0	0
Common Sandpiper	0	0	14			0	0			0	0	0	0	0	0	0	0	0	0	14
Grey-tailed Tattler																		0	0	0
Ruddy Turnstone																		0	0	0
Red-necked Phalarope																		0	0	0
Pintail Snipe																		0	0	0
Swinhoe's Snipe																		0	0	0
Pintail/Swinhoe's Snipe																		0	0	0
Common Snipe																		0	0	0
Long-billed Dowitcher																		0	0	0
Asian Dowitcher																		0	0	0
Red Knot																		0	0	0
Great Knot																		0	0	0
Sanderling																		0	0	0
Red-necked Stint																		0	0	0
Little Stint																		0	0	0
Temminck's Stint																		0	0	0
Long-toed Stint																		0	0	0
Pectoral Sandpiper																		0	0	0
Sharp-tailed Sandpiper																		0	0	0
Dunlin																		0	0	0
Curlew Sandpiper																		0	0	0
Spoon-billed Sandpiper																		0	0	0
Broad-billed Sandpiper																		0	0	0
Ruff																		0	0	0
Small wader spp.																		0	0	0

Wader sp.			2000																0		0	2000	
Black-tailed Gull																			0		0	0	
Heuglin's Gull			1		130														0		130	130	131
Yellow-legged Gull																			0		0	0	0
Slaty-backed Gull																			0		0	0	0
Pallas's Gull																			0		0	0	0
Large Gull spp.																			0		0	0	0
Brown-headed Gull																			0		0	0	0
Black-headed Gull	0	0	7060		2100			0	0			0	0	0	0	0	0	0	0		2100	2100	9160
Saunders's Gull																			0		0	0	0
Whiskered Tern																			0		0	0	0
White-winged Tern																			0		0	0	0
Gull-billed Tern																			0		0	0	0
Caspian Tern																			0		0	0	0
Total	0	0	30941	0	2230	81	0	0	0	0	0	0	0	0	0	0	0	0	0		2311	2311	33252
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	125	0.4	0	0.0	0	0																	
Ardeids etc	311	0.9	0	0.0	0	0																	
Ducks, grebes, pelicans	10441	31.4	81	3.5	0	0																	
Rails, Coot etc	44	0.1	0	0.0	0	0																	
Shorebirds	13040	39.2	0	0.0	0	0																	
Gulls and terns	9291	27.9	2230	96.5	0	0																	
TOTAL	33252		2311		0	0																	

Summary of Waterbird Count during Low Tide, February 2011

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	SPR	WEP	Sha Kiu	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet	
Little Grebe	0	0	2					0	0				0	0	0	0	0	0	0	0	0	2		
Great Crested Grebe			76	8		26															34	34	110	
Great Cormorant	0	0	48	12	4	18	13	0	0				0	0	0	0	0	0	0	0	47	47	95	
Dalmatian Pelican																					0	0	0	
Grey Heron	0	0	91	5	2	4	2	0	0				0	0	0	0	0	0	0	0	13	13	104	
Purple Heron																					0	0	0	
Great Egret	0	0	34	12	5	6	3	0	0				0	0	0	0	0	0	0	0	26	26	60	
Intermediate Egret	0	0						0	0				0	0	0	0	0	0	0	0	0	0	0	
Little Egret	0	0	39	24	8	32	39	0	0				0	0	0	0	0	0	0	0	103	103	142	
Swinhoe's Egret																					0	0	0	
Pacific Reef Egret																					0	0	0	
Cattle Egret	0	0						0	0				0	0	0	0	0	0	0	0	0	0	0	
Chinese Pond Heron	0	0	5	6	5	8	4	0	0				0	0	0	0	0	0	0	0	23	23	28	
Striated Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	0	
B-c Night Heron	0	0						0	0				0	0	0	0	0	0	0	0	0	0	0	
Yellow Bittern	0	0						0	0				0	0	0	0	0	0	0	0	0	0	0	
Cinnamon Bittern																					0	0	0	
Great Bittern																					0	0	0	
Black Stork																					0	0	0	
Black-headed Ibis																					0	0	0	
Eurasian Spoonbill																					0	0	0	
Black-faced Spoonbill			13	8		6															14	14	27	
Common Shelduck																					0	0	0	
Eurasian Wigeon	0	0	77	342	84	469	57	0	0				0	0	0	0	0	0	0	0	952	952	1029	
Falcated Duck																					0	0	0	
Gadwall																					0	0	0	
Baikal Teal																					0	0	0	
Common Teal	0	0	152	472	224	187	96	0	0				0	0	0	0	0	0	0	0	979	979	1131	
Mallard																					0	0	0	
Spot-billed Duck																					0	0	0	
Chinese Spotbill																					0	0	0	
Burmese Spotbill																					0	0	0	
Northern Pintail				312	99	138	48														597	597	597	
Garganey																					0	0	0	
Northern Shoveler			1469	987	465	743	340														2535	2535	4004	
Common Pochard																					0	0	0	
Baer's Pochard																					0	0	0	
Tufted Duck			905	68		121															189	189	1094	
Greater Scaup																					0	0	0	
Red-breasted Merganser																					0	0	0	
Duck sp.			6800			220															220	220	7020	
Slaty-breasted Rail																					0	0	0	
Water Rail																					0	0	0	
White-breasted Waterhen	0	0	7					0	0				0	0	0	0	0	0	0	0	0	0	7	
Watercock																					0	0	0	
Common Moorhen	0	0	27			2		0	0				0	0	0	0	0	0	0	0	2	2	29	

Eurasian Coot																		0	0	0
Pheasant-tailed Jacana																		0	0	0
Greater Painted Snipe																		0	0	0
Black-winged Stilt			542															0	0	542
Pied Avocet			7457	789	387	580	184											1940	1940	9397
Oriental Pratincole																		0	0	0
Northern Lapwing																		0	0	0
Grey-headed Lapwing																		0	0	0
Pacific Golden Plover			50		12		18											30	30	80
Grey Plover				34	9	14	3											60	60	60
Common Ringed Plover																		0	0	0
Little Ringed Plover	0	0	26					0	0			0	0	0	0	0	0	0	0	26
Kentish Plover																		0	0	0
Lesser Sand Plover																		0	0	0
Greater Sand Plover																		0	0	0
Black-tailed Godwit			320															0	0	320
Bar-tailed Godwit																		0	0	0
Whimbrel				29	4	18												51	51	51
Eurasian Curlew			120	98	85	65	24											272	272	392
Far Eastern Curlew																		0	0	0
Spotted Redshank			4															0	0	4
Common Redshank			63		84	102	35											221	221	284
Marsh Sandpiper				123	230	223	57											633	633	633
Common Greenshank			100	98	110	156	34											398	398	498
Nordmann's Greenshank																		0	0	0
Green Sandpiper	0	0						0	0			0	0	0	0	0	0	0	0	0
Wood Sandpiper	0	0	27					0	0			0	0	0	0	0	0	0	0	27
Terek Sandpiper																		0	0	0
Common Sandpiper	0	0	20					0	0			0	0	0	0	0	0	0	0	20
Grey-tailed Tattler																		0	0	0
Ruddy Turnstone																		0	0	0
Red-necked Phalarope																		0	0	0
Pintail Snipe																		0	0	0
Swinhoe's Snipe																		0	0	0
Pintail/Swinhoe's Snipe																		0	0	0
Common Snipe			9															0	0	9
Long-billed Dowitcher																		0	0	0
Asian Dowitcher																		0	0	0
Red Knot																		0	0	0
Great Knot																		0	0	0
Sanderling																		0	0	0
Red-necked Stint						2												2	2	2
Little Stint																		0	0	0
Temminck's Stint																		0	0	0
Long-toed Stint																		0	0	0
Pectoral Sandpiper																		0	0	0
Sharp-tailed Sandpiper																		0	0	0
Dunlin				110	24		18											152	152	152
Curlew Sandpiper																		0	0	0
Spoon-billed Sandpiper																		0	0	0
Broad-billed Sandpiper																		0	0	0
Ruff																		0	0	0
Small wader spp.																		0	0	0

Wader sp.			1100																0		0	1100		
Black-tailed Gull																			0		0	0		
Heuglin's Gull			34	63		33													0	96	96	130		
Yellow-legged Gull																			0		0	0		
Slaty-backed Gull																			0		0	0		
Pallas's Gull																			0		0	0		
Large Gull spp.																			0		0	0		
Brown-headed Gull																			0		0	0		
Black-headed Gull	0	0	4705	480*	320*	340*	215*	0	0			0	0	0	0	0	0	0	0	0	0	4705		
Saunders's Gull				5		3													0	8	8	8		
Whiskered Tern																			0		0	0		
White-winged Tern																			0		0	0		
Gull-billed Tern																			0		0	0		
Caspian Tern																			0		0	0		
Total	0	0	24322	3605	1841	3176	975	0	0	0	0	0	0	0	0	0	0	0	0	0	9597	9597	33919	0
	Deep Bay Area	%	Ramsar Site	%	SI																			
Cormorants	95	0.3	47	0.5	0	0																		
Ardeids etc	361	1.1	179	1.9	0	0																		
Ducks, grebes, pelicans	14987	44.2	5506	57.4	0	0																		
Rails, Coot etc	36	0.1	2	0.0	0	0																		
Shorebirds	13597	40.1	3759	39.2	0	0																		
Gulls and terns	4843	14.3	104	1.1	0	0																		
TOTAL	33919		9597		0	0																		