



Mai Po Inner Deep Bay Ramsar Site Waterbird Monitoring Programme

Monthly Waterbird Count Data
April 2010 – March 2011



Hong Kong Bird
Watching Society



Agriculture, Fisheries and
Conservation Department

Tender Reference No. AFCD/SQ/19/10

Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

Waterbird Count Coordinator

YU Yat Tung

The Hong Kong Bird Watching Society Ltd

Copyright

The project is part of the “Mai Po Inner Deep Bay Ramsar Site Waterbird Monitoring Programme 2010-11” funded by Agriculture, Fisheries and Conservation Department, Hong Kong SAR Government (AFCD). All the data shall be the property of the Government with full copyright.

Report available for public information

The Hong Kong Bird Watching Society Limited

14/F., Ruby Commercial Building, 480 Nathan Road,

Kowloon, Hong Kong

E-mail: hkbws@hkbws.org.hk Website: www.hkbws.org.hk

Tel: (852) 2377 4387 Fax: (852) 2314 3687

And

Agriculture, Fisheries and Conservation Department

Hong Kong SAR Government

7/F, Cheung Sha Wan Government Offices

303 Cheung Sha Wan Road

Kowloon, Hong Kong

Website: www.afcd.gov.hk

This publication should be cited as

Anon 2011. Monthly Waterbird Counts Data April 2010 - March 2011: Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site. Report by Hong Kong Bird Watching Society to the Agriculture, Fisheries and Conservation Department, Hong Kong Special Administrative Region Government.

Cover photo:

Smew (Credit: Kinni HO)



Printed on recycled paper

WATERBIRD MONITORING PROGRAMME AT THE MAI PO INNER DEEP BAY RAMSAR SITE

Programme 2010/11

Summer Count

April 2010

Summary Report - April 2010

Y.T. YU¹

The Waterbird Count was conducted on 18 April 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

A total of 22,884 waterbirds were counted at the Deep Bay area, of which 13,973 (61%) were recorded within the Ramsar Site. April is the peak month of the year when Shorebirds migrate to the North. A total of 18,768 Shorebirds were counted and they formed the major waterbird group present in the Deep Bay area (82%). "Ardeid" was the second highest group with a total number of 1,694 (7%) individuals were recorded. Only a very small number of wintering ducks (333 nos; 1.5%) were found.

Results of the Counts conducted in April each year from 2006 to 2010 and the average for the month are listed in Table 1. Both the number of waterbirds recorded at the Deep Bay area and the Ramsar Site in April 2010 are higher than those of the previous year. They are the second highest record since commencement of the Waterbird Monitoring Programme in 1998. The waterbird number at the Deep Bay area shows a 53% increase while the Ramsar Site shows a 29% increase as compared with the previous year. Both results are also higher than the average for the month.

Table 1. Waterbird Counts conducted in April 2006 to 2010

April	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	10,388	17,545	28,666	14,865	22,884	14,176	6,145
The Ramsar Site	7,301	8,953	17,458	10,871	13,973	10,471	3,010

* Calculated from the records for the month of April from 1998 to 2010

¹ YU Yat Tung (Coordinator, Waterbird Monitoring Programme)
The Hong Kong Bird Watching Society Limited
Postal address: 14/F., Ruby Comm. Bldg., 480 Nathan Road, Kowloon, Hong Kong
Tel: (852) 2377 4387 Fax: (852) 2314 3687 E-mail: hkbws@hkbws.org.hk

Summary of Waterbird Count, April 2010

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	WEP	NW/LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA
Little Grebe	29	14	2					26	2		15	0	3	5	7	32	41	0	73	135
Great Crested Grebe			18													0			0	18
Great Cormorant	0	0	2					0			0	0	0	0	0	4	0	0	4	6
Grey Heron	1	0	7		9		2	2	25	1	0	1	2	0	0	29	4	11	44	79
Great Egret	4	48	43	20	23	6	10	33		10	9	5	5	6	2	83	42	68	193	307
Intermediate Egret	3	0		1				0			0	1	1	0	0	21	1	1	23	27
Little Egret	13	90	138	52	21		3	38	2	30	44	10	14	33	22	312	113	80	505	822
Cattle Egret	0	0	4					0			0	4	1	0	0	5	5	0	10	14
Chinese Pond Heron	13	4	17	2				2		4	27	4	8	8	11	18	44	2	64	118
Striated Heron	0	0		1				0			0	0	0	0	0	3	0	1	4	4
B-c Night Heron	0	0	61	1				1	0		5	1	2	0	3	10	7	2	19	84
Yellow Bittern	0	0	1					0			0	0	0	0	0	0	0	0	0	1
Great Bittern									1							0			0	1
Eurasian Spoonbill																2			2	2
Black-faced Spoonbill			65		9			2	26	3		2	1			127	5	9	141	235
Eurasian Wigeon	0	0	28					0			0	0	0	0	0	27	0	0	27	55
Spot-billed Duck																2			2	2
Garganey	4		15													0			0	19
Northern Shoveler			100													0			0	100
Tufted Duck			1													3			3	4
White-breasted Waterhen	12	3	8	2			1	3	2		4	1	2	1	3	13	5	3	21	55
Common Moorhen	17	19	21	1			2	5	19		7	1	0	0	1	58	9	3	70	151
Black-winged Stilt	14		222						29				1			218	1		219	484
Pied Avocet			1						1							1850			1850	1852
Oriental Pratincole											74					0			0	74
Pacific Golden Plover			8	30										3	1	2	3	30	35	44
Grey Plover			1													66			66	67
Little Ringed Plover	5	0	12					1		3	6	4	0	2	2	0	11	0	11	35
Kentish Plover			15	5												0		5	5	20
Lesser Sand Plover			24	21							6					0		21	21	51
Greater Sand Plover			32	73					1	2	4					0		73	73	112
Black-tailed Godwit								2								1550	2		1552	1552
Bar-tailed Godwit																26			26	26
Whimbrel			19													9			9	28
Eurasian Curlew			20							1						8			8	29
Far Eastern Curlew																19			19	19
Spotted Redshank									435							276			276	711
Common Redshank			1100				10		4							332			332	1446
Marsh Sandpiper			10						73							2168			2168	2251
Common Greenshank	1		13						392		4			3	1	573	5		578	987
Nordmann's Greenshank																2			2	2
Green Sandpiper	3	4						4			3	0	0	0	0	0	7	0	7	14
Wood Sandpiper	47	13	247					0	4		6	0	17	5	16	27	24	0	51	382
Terek Sandpiper							2									187			187	189
Common Sandpiper	17	11	8		2		3	8	4	12	26	5	10	2	8	0	38	5	43	116
Ruddy Turnstone										1						0			0	1
Red-necked Phalarope			2										4		2	9	4		13	17
Pintail/Swinhoe's Snipe	3													2		0	2		2	5

Common Snipe			4													0		0	4	
Asian Dowitcher			3													41		41	44	
Red Knot																26		26	26	
Great Knot				11												0	11	11	11	
Red-necked Stint			3560	780*					3	21					110	0	780	780	3694	
Little Stint			3													0		0	3	
Temminck's Stint	3		5	3				4								0	3	3	15	
Long-toed Stint	1		4	13							15	10	4			0	25	13	38	47
Sharp-tailed Sandpiper			6							2						9		9	17	
Dunlin			20													0		0	20	
Curlew Sandpiper			416	3900												0	3900	3900	4316	
Broad-billed Sandpiper			25	30												0	30	30	55	
Ruff																2		2	2	
Heuglin's Gull				3												0	3	3	3	
Black-headed Gull	0	0	1478	3	2	0				0	1	0	0	0	0	0	1	5	6	1484
Whiskered Tern			21	12						8	25					44	30	12	86	110
Gull-billed Tern				9									5			231	5	9	245	245
Caspian Tern																35		35	35	35
Total	190	206	7810	4193	64	8	34	126	1024	70	271	80	81	79	189	8459	434	5080	13973	22884
	Deep Bay Area	%	Ramsar Site	%	SI															
Cormorants	6	0.0	4	0.0	0	0														
Ardeids etc	1694	7.4	1005	7.2	0	0														
Ducks, grebes, pelicans	333	1.5	105	0.8	0	0														
Rails, Coot etc	206	0.9	91	0.7	0	0														
Waders	18768	82.0	12393	88.7	0	0														
Gulls and terns	1877	8.2	375	2.7	0	0														
TOTAL	22884		13973		0	0														
Date of count: 18 Apr 2010																				
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)	WEP	NW/LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA
Osprey			1	1												2			2	4
Black Kite	0	0	4					8			1	1	1	3	0	3	11	0	14	21
Common Buzzard			1											1		0	1		1	2
Pied Kingfisher	2	3	3					1			2	0	0	0	1	5	3	0	8	17
Common Kingfisher	2	0	1					2	1		5	0	2	0	2	3	7	0	10	18
White-throated Kingfisher	1	4						0	1		0	0	1	0	0	2	1	0	3	9
Black-capped Kingfisher	1	0	1					0			0	0	0	0	0	0	0	0	0	2
Red-billed Starling	0	0	1					0			0	0	0	0	0	0	0	0	0	1
Collared Crow	2	0	6					2			0	8	7	0	0	3	17	0	20	28

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Summer Count

May 2010

Summary Report – May 2010

The Waterbird Count was scheduled on 16 May 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the ‘Ramsar Site’) and wetland areas at and 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 at Mainland China.

A total of 3,433 waterbirds were counted at the Deep Bay area, of which 2,474 (72%) were recorded at the Ramsar Site. “Shorebird” was still the main waterbird group with a total number of 1,933 individuals (56%) were recorded. “Ardeid” was the second largest group with a total of 1,200 individuals. Only a small number of ducks were counted in this month, and no Great Cormorant was seen. This suggested that almost all the wintering waterbirds had left the Deep Bay area by northward migration and returned to their breeding grounds.

Results of the Counts conducted in May each year from 2006 to 2010 and the average for the month are listed in Table 1. Both the number of waterbirds recorded at the Deep Bay area and the Ramsar Site in May 2010 are less than those of the previous year as well as the average for the month. The number for the Deep Bay area shows a sharp decrease of 37%, while the Ramsar Site shows a drop of 33% as compared with the previous year. It reflects the early migration of the waterbirds, and most of them had left the Deep Bay area.

Table 1. Waterbird Counts conducted in May 2006 to 2010

May	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	4,227	9,630	6,359	5,439	3,433	5,041	2,355
The Ramsar Site	3,069	7,443	4,884	3,695	2,474	4,008	2,031

* Calculated from the records for the month of May from 1998 to 2010

Summary of Waterbird Count, May 2010

SPECIES	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	WEP	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Little Grebe	23	9	5					7			9	0	3	7	1	23	20	0	43	87	4
Great Crested Grebe																1			1	1	
Grey Heron	1	0	13					1	2		0	0	0	0	0	2	1	0	3	19	
Great Egret	9	30	89	8	27	2	3	44	2	12	52	7	15	3	15	61	68	43	172	379	67
Intermediate Egret	2	0						0			0	0	0	0	0	2	0	0	2	4	2
Little Egret	9	11	210	11	7	1	2	33	5	20	33	12	46	14	8	67	106	28	201	489	11
Cattle Egret	3	4	9					12	1		5	5	2	3	0	4	20	0	24	48	75
Chinese Pond Heron	5	7	22		1			3	1	2	14	5	2	9	6	6	27	1	34	83	1
Striated Heron	0	0	2					0			0	0	0	0	0	3	0	0	3	5	
B-c Night Heron	3	4	70					11		1	0	2	2	0	0	2	15	0	17	95	46
Yellow Bittern	0	0	1					0	1		0	0	0	0	0	0	0	0	0	2	
Black-faced Spoonbill					7				13				3			53	3		56	76	
Chinese Spotbill																1			1	1	
Tufted Duck																1			1	1	
White-breasted Waterhen	2	6	3					0	2	1	0	1	4	6	0	4	11	0	15	29	1
Common Moorhen	3	4	12					2	1		0	0	0	2	0	3	4	0	7	27	3
Pheasant-tailed Jacana																1			1	1	
Greater Painted Snipe									1							0			0	1	
Black-winged Stilt	5		9				2		13			1				50	1		51	80	
Pied Avocet																1056			1056	1056	
Oriental Pratincole																2			2	2	
Grey Plover																14			14	14	
Little Ringed Plover	0	1	1					0	2		1	1	0	0	1	0	2	0	2	7	
Lesser Sand Plover																7			7	7	
Greater Sand Plover																22			22	22	
Black-tailed Godwit																22			22	22	
Whimbrel																13			13	13	
Eurasian Curlew																13			13	13	
Far Eastern Curlew																3			3	3	
Spotted Redshank																108			108	108	
Common Redshank			3													64			64	67	
Marsh Sandpiper									1							13			13	14	
Common Greenshank			12													265			265	277	
Nordmann's Greenshank																7			7	7	
Green Sandpiper	0	1						1			0	0	0	0	0	0	1	0	1	2	
Wood Sandpiper	0	2						0			0	0	0	0	0	0	0	0	0	2	
Terek Sandpiper																37			37	37	
Common Sandpiper	1	6	8					0		2	3	3	1	4	3	0	11	0	11	31	
Asian Dowitcher																2			2	2	
Red Knot																5			5	5	
Red-necked Stint																20			20	20	
Temminck's Stint									1							0			0	1	
Sharp-tailed Sandpiper																34			34	34	
Curlew Sandpiper																84			84	84	
Ruff																1			1	1	
Black-headed Gull	0	0	31					0			0	0	0	0	0	0	0	0	0	31	
Whiskered Tern			6								19			17		0	17		17	42	
White-winged Tern			12								39			7		0	7		7	58	
Gull-billed Tern			8													1			1	9	
Caspian Tern			3													11			11	14	
Total	66	85	529	19	42	3	7	114	46	38	175	37	78	72	34	2088	314	72	2474	3433	210

	Deep Bay Area	%	Ramsar Site	%	SI																
Cormorants	0	0.0	0	0.0	0	0															
Ardeids etc	1200	35.0	512	20.7	202	0															
Ducks, grebes, pelicans	90	2.6	46	1.9	4	0															
Rails, Coot etc	56	1.6	22	0.9	4	0															
Waders	1933	56.3	1858	75.1	0	0															
Gulls and terns	154	4.5	36	1.5	0	0															
TOTAL	3433		2474		210	0															
Date of count: 16 May 2010																					
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)	WEP	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Black Kite	0	2	1					2	1		1	1	0	2	1	2	4	1	7	13	1
Pied Kingfisher	1	2	1					3	1		0	0	0	0	1	2	3	0	5	11	
Common Kingfisher	4	4	2					1	1		0	0	0	0	0	0	1	0	1	12	
White-throated Kingfisher	1	1	1					1			0	0	0	0	0	0	1	0	1	4	
Black-capped Kingfisher	0	0	1					0			0	0	0	0	0	0	0	0	0	1	
Collared Crow	0	0	5					5			0	5	4	0	0	10	12	2	24	29	

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Summer Count

June 2010

Summary Report - June 2010

The Waterbird Count was performed on 13 June 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

A total of 1,919 waterbirds were counted at the Deep Bay area, of which 746 (39%) were recorded at the Ramsar Site. "Ardeid" was the major waterbird group recorded in the Deep Bay area with a total of 1,641 (86%) individual recorded. "Shorebird" was second largest group with a total of 123 individuals (6%). Comparing with the result of Shorebird recorded last month (1,993 individuals), it showed that many of them had left the Deep Bay area for northward migration.

Results of the Counts conducted in June each year from 2006 to 2010 and the average for the month are listed in Table 1. The number of waterbirds recorded at the Deep Bay area is similar to that of the average for the month. However, the number recorded at the Ramsar Site in June 2010 is 26% less than the previous year and that of the average for the month.

Table 1. Waterbird Counts conducted in June 2006 to 2010

June	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	3,065	1,657	2,500	1,927	1,919	2,019	718
The Ramsar Site	1,748	501	1,147	1,011	746	1,082	478

* Calculated from the records for the month of June from 1998 to 2010

Wetland-dependant species																					
Species	SRA	SRB	DBA	DBB	DBC	DBD	DBE	DBF (TBT)	WEP	NW / LFS	TKC	LC	TSW	MPST	ST	MPNR	Ramsar ponds	Ramsar intertidal areas	Ramsar Site	DEEP BAY AREA	Starling Inlet
Black Kite	1	1						3			0	1	1	1	1	1	6	0	7	10	
Pied Kingfisher	1	3	2					0			1	0	0	1	0	0	2	0	2	8	1
Common Kingfisher	6	1						0			0	1	0	4	4	2	6	0	8	18	2
White-throated Kingfisher	0	1						1			0	0	0	0	0	0	1	0	1	2	
Collared Crow	1	0	3					0			0	13	0	1	2	16	14	0	30	36	

WATERBIRD MONITORING PROGRAMME AT THE MAI PO INNER DEEP BAY RAMSAR SITE

Programme 2010/11

Summer Count

July 2010

Summary Report - July 2010

The Waterbird Count was conducted on 11 July 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

A total of 1,881 waterbirds were recorded at the Deep Bay area, of which 951 (51%) were found at the Ramsar Site. As many migratory waterbirds had left Hong Kong for their northward migrations, resident "Ardeids" with a total number of 1,348 (72%), constituted the major waterbird group. Some 398 (21%) non-breeding "Shorebird" spent the summer in the Deep Bay area and became the second largest waterbird group recorded in the month.

Results of the Counts conducted in July of each year from 2006 to 2010 and the average for the month are listed in Table 1. The number of waterbirds recorded at the Deep Bay area and the Ramsar Site in July 2010 is 19% and 24% respectively less than the previous year. There is also a decrease of 33% and 41% respectively comparing the result with the average of the month. These numbers are the lowest records in July since commencement of the Waterbird Monitoring Programme in 1998.

Table 1. Waterbird Counts conducted in July 2006 to 2010

July	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	2,835	2,518	3,363	2,314	1,881	2,810	749
The Ramsar Site	1,255	980	2,001	1,254	951	1,600	587

* Calculated from the records for the month of July from 1998 to 2010

Summary of Waterbird Count, July 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	35	3	2					12	0	1			8	0	3	2	1	14	20	0	34	81	
Grey Heron	0	0	1					0	0	1			0	0	0	0	0	1	0	0	1	3	
Great Egret	23	13	95	20	7	41	13	51	15	2		21	11	10	11	4	6	127	85	94	306	470	80
Intermediate Egret	1	0	1					0	1	2			0	0	0	0	0	7	0	1	8	12	
Little Egret	12	24	208	20	2	12	2	17	9		2	3	45	7	9	12	15	75	57	44	176	474	33
Cattle Egret	23	0	35	1				0	0				2	0	0	0	0	2	2	1	5	63	23
Chinese Pond Heron	19	18	9			2		5	2	1	3	6	31	5	8	23	32	14	50	4	68	178	1
Striated Heron	0	0	2					0	0				0	1	0	0	0	2	1	0	3	5	
B-c Night Heron	28	21	57					1	0				1	1	3	3	1	12	7	0	19	128	30
Yellow Bittern	0	0	1					0	0	1			0	0	0	3	0	2	3	0	5	7	
Cinnamon Bittern										1								0			0	1	
Black-faced Spoonbill																		7			7	7	
White-breasted Waterhen	6	4	6					3	0	3	2		5	0	1	1	3	3	4	0	7	37	
Common Moorhen	0	0	14	1				0	0				0	0	0	1	0	0	1	1	2	16	
Eurasian Coot			1															0			0	1	
Black-winged Stilt	2		13														5	1	17	5	22	38	
Pied Avocet																		1			1	1	
Grey Plover																		2			2	2	
Little Ringed Plover	1	2	20					0	0				0	0	0	0	0	2	0	0	2	25	
Greater Sand Plover																		12			12	12	
Black-tailed Godwit																		2			2	2	
Whimbrel																		10			10	10	
Eurasian Curlew																		12			12	12	
Common Redshank																		116			116	116	
Marsh Sandpiper																		3			3	3	
Common Greenshank																		110			110	110	
Green Sandpiper	0	0						0	0				2	0	0	0	0	0	2	0	2	2	
Wood Sandpiper	0	1	30					0	0	12			0	0	0	0	0	7	0	0	7	50	
Terek Sandpiper																		1			1	1	
Common Sandpiper	0	0	4					0	0				0	0	6	2	0	0	8	0	8	12	
Pintail/Swinhoe's Snipe										2								0			0	2	
Total	150	86	499	42	9	55	15	89	27	26	7	30	105	24	41	56	59	561	245	145	951	1881	167
	Deep Bay Area	%	Ramsar Site	%	S1																		
Cormorants	0	0.0	0	0.0	0	0																	
Ardeids etc	1348	71.7	598	71.7	167	0																	
Ducks, grebes, pelicans	81	4.3	34	4.3	0	0																	
Rails, Coot etc	54	2.9	9	2.9	0	0																	
Waders	398	21.2	310	21.2	0	0																	
Gulls and terns	0	0.0	0	0.0	0	0																	
TOTAL	1881		951		167	0																	
Date of count: 11 Jul 2010																							
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							1											0			0	1	
Black Kite	0	0						1	0	1			1	1	0	1	0	0	3	0	3	5	
Pied Kingfisher	4	4	2					2	0	1			3	0	0	1	2	7	6	0	13	26	1
Common Kingfisher	3	3	2					1	0				1	0	1	4	1	2	7	0	9	18	
White-throated Kingfisher	3	3	2					2	0	2			0	0	0	1	0	2	2	0	4	15	
Red-billed Starling	0	0						0	0				0	0	0	16	0	0	16	0	16	16	
Collared Crow	0	0	1					1	0				0	0	1	0	2	1	2	0	3	6	

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Summer Count

August 2010

Summary Report - August 2010

The Waterbird Count was performed on 8 August 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

A total of 4,147 waterbirds were recorded, of which 2,879 (69%) were counted at the Ramsar Site. "Shorebird", with a total of 2,452 (59%) individuals became the major waterbirds group. This indicated that a considerable number of migratory Shorebirds had arrived the Deep Bay area from their southward migration. "Ardeid" was the second largest group with a total number of 1,556 individuals recorded. This count record included young birds born in the summer of this year. Neither duck nor cormorant was observed in this month, indicating that these wintering waterbirds had not yet returned to the Deep Bay area.

Results of the Counts conducted in August of each year from 2006 to 2010 and the average for the month are listed in Table 1. The number of waterbirds recorded at the Deep Bay area in August 2010 shows a 7% increase as compared with the previous year. There is also a 4% increase in the waterbird numbers recorded at the Ramsar Site. Both numbers are also higher than the average for the month.

Table 1. Waterbird Counts conducted in August 2006 to 2010

August	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	4,802	4,361	5,532	3,879	4,147	3,985	841
The Ramsar Site	3,125	2,692	3,493	2,761	2,879	2,635	486

* Calculated from the records for the month of August from 1998 to 2010 (the record for August 2005 was incomplete due to thunderstorm)

Summary of Waterbird Count, August 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	31	0	1					5	0	1			23	0	3	5	2	13	22	0	35	84	1
Great Crested Grebe																		1			1	1	
Grey Heron	1	1						1	0				0	0	0	0	0	27	1	0	28	30	
Great Egret	34	32	74	37	2	11	4	52	9	4		17	17	24	21	8	71	68	120	58	246	485	50
Intermediate Egret	3	0		1				0	0	2			0	2	0	0	0	6	2	1	9	14	
Little Egret	22	42	219	42	1	8	3	16	18	4		4	62	13	10	6	84	152	67	68	287	706	11
Cattle Egret	4	1						0	0				0	4	3	0	5	3	7	0	10	20	4
Chinese Pond Heron	52	22	10			4		6	2	3	1	3	31	7	11	21	25	21	68	4	93	219	5
Striated Heron	0	0	4					0	1				0	0	0	0	0	1	1	0	2	6	
B-c Night Heron	6	0	31					0	0				9	1	1	5	3	15	13	0	28	71	11
Yellow Bittern	0	0	1					1	0	2			1	0	0	0	0	0	1	0	1	5	
White-breasted Waterhen	9	1	2					1	1	1			4	1	2	4	6	4	9	0	13	36	2
Common Moorhen	2	0	5					0	0				0	0	0	0	0	0	0	0	0	7	
Greater Painted Snipe																		1			1	1	
Black-winged Stilt	8		3							5							5	2	11		11	34	
Grey Plover																		1			1	1	
Little Ringed Plover	3	0	20					9	0	6			1	0	0	4	3	3	5	0	8	49	
Lesser Sand Plover																	1	31			31	32	
Greater Sand Plover																		107			107	107	
Black-tailed Godwit																		61			61	61	
Whimbrel			1															8			8	9	
Eurasian Curlew			1															60			60	61	
Spotted Redshank																		5			5	5	
Common Redshank			31															718			718	749	
Marsh Sandpiper																		13			13	13	
Common Greenshank			19							20								784			784	823	
Green Sandpiper	0	0						1	0				4	0	0	0	0	0	4	0	4	5	
Wood Sandpiper	25	1	68					0	0	24			1	0	0	64	18	78	65	0	143	279	
Terek Sandpiper																		3			3	3	
Common Sandpiper	11	5	4					0	0	4			10	3	9	12	5	0	31	0	31	63	
Pintail/Swinhoe's Snipe		1																0			0	1	
Asian Dowitcher																		5			5	5	
Red Knot																		1			1	1	
Great Knot																		2			2	2	
Red-necked Stint																		27			27	27	
Sharp-tailed Sandpiper																		1			1	1	
Curlew Sandpiper																		95			95	95	
Broad-billed Sandpiper																		3			3	3	
Wader sp.			22															0			0	22	
Black-headed Gull	0	0	8					0	0				0	0	0	0	0	0	0	0	0	8	
Gull-billed Tern																		2			2	2	
Caspian Tern																		1			1	1	
Total	211	106	524	80	3	23	7	92	31	76	1	24	163	55	60	134	225	2332	416	131	2879	4147	84
	Deep Bay Area	%	Ramsar Site	%	SI																		

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Summer Count

September 2010

Summary Report - September 2010

The Waterbird Count was conducted on 12 September 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China. The survey record for this month excluded Shenzhen River B because the surveyor's vehicle was broken down and no replacement could be arranged instantly.

A total of 5,333 waterbirds were counted at the Deep Bay area, of which 3,862 (72%) were recorded at the Ramsar Site. "Shorebird" with a total of 3,030 (57%) individuals constituted the major waterbird group recorded and "Ardeid" with 2,170 (41%) individuals ranked the second. No wintering duck or cormorant was recorded in this count, indicating that they had not yet returned to the Deep Bay area.

Results of the Counts conducted in September of each year from 2006 to 2010 and the average for the month are listed in Table 1. The number of waterbirds recorded in September 2010 at the Deep Bay area shows a decrease of 10% than that of the previous year and it is also lower than the average for the month. At the Ramsar Site, there is a 5% decrease as compared with the previous year while it is nearly the same as the average for the month.

Table 1. Waterbird Counts conducted in September 2006 to 2010

September	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	5,899	8,170	7,368	5,913	5,333	5,699	1,259
The Ramsar Site	3,816	4,262	4,534	4,059	3,862	3,856	662

* Calculated from the records for the month of September from 1998 to 2010

Summary of Waterbird Count, September 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	23	0						10	0				30	0	13	6	5	13	48	0	61	100	1
Great Crested Grebe																		1			1	1	
Grey Heron	26	0	31				6	1	4				0	8	3	11	0	18	24	9	51	108	2
Great Egret	28	0	164	44	79	8	17	85	36	3		10	17	19	54	7	43	45	188	178	411	659	112
Intermediate Egret	34	0						0	0	2			0	5	2	0	0	11	7	0	18	54	1
Little Egret	38	0	226	38	10	32	42	35	103	9	2	13	30	23	68	29	113	32	242	221	495	843	28
Cattle Egret	71	0	13					6	0	3			2	30	6	9	61	1	52	0	53	202	2
Chinese Pond Heron	87	0	13				1	7	0	3		3	30	2	14	47	37	8	90	1	99	252	4
Striated Heron	0	0						0	0				0	0	0	0	1	5	0	0	5	6	
B-c Night Heron	5	0	22					0	0				0	1	3	3	0	9	5	0	14	43	
Yellow Bittern	2	0	1					0	0				0	0	0	0	0	0	0	0	0	3	
White-breasted Waterhen	5	0	3		1			0	0	2			1	0	3	3	2	3	8	1	12	23	1
Common Moorhen	1	0						0	0				0	0	0	0	0	1	0	0	1	2	
Black-winged Stilt	19		34				4	6					1		2	26		86	34		120	178	
Pied Avocet																		1			1	1	
Grey Plover																		18			18	18	
Little Ringed Plover	13	0	20					0	0			29	0	0	0	0	0	2	0	0	2	64	
Lesser Sand Plover																		4			4	4	
Greater Sand Plover																		36			36	36	4
Black-tailed Godwit			160*															261			261	261	
Bar-tailed Godwit																		11			11	11	
Whimbrel												5						195			195	200	
Eurasian Curlew			1															62			62	63	
Spotted Redshank																		8			8	8	
Common Redshank																		229			229	229	
Marsh Sandpiper							1											492			492	493	
Common Greenshank			20				12											905			905	937	
Green Sandpiper	1	0						1	0				2	2	0	1	4	0	5	0	5	11	
Wood Sandpiper	72	0	82					0	0			1	0	0	0	0	1	169	0	0	169	325	
Terek Sandpiper																		5			5	5	
Common Sandpiper	11	0	6		1		2	3	0		1	4	11	5	10	2	16	2	25	3	30	74	
Grey-tailed Tattler												1						0			0	1	
Pintail/Swinhoe's Snipe	24															2		6	2		8	32	
Asian Dowitcher																		14			14	14	
Great Knot																		17			17	17	
Red-necked Stint																		33			33	33	
Long-toed Stint	2																	2			2	4	
Curlew Sandpiper																		5			5	5	
Broad-billed Sandpiper																		6			6	6	
Black-headed Gull	0	0	4					0	0				0	0	0	0	0	1	0	0	1	5	
Whiskered Tern																2		0	2		2	2	4
Total	462	0	640	82	91	40	85	154	143	22	3	66	124	95	178	148	283	2717	732	413	3862	5333	159
	Deep Bay Area	%	Ramsar Site	%	SI																		
Cormorants	0	0.0	0	0.0	0	0																	
Ardeids etc	2170	40.7	1146	29.7	149	0																	
Ducks, grebes, pelicans	101	1.9	62	1.6	1	0																	
Rails, Coot etc	25	0.5	13	0.3	1	0																	

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Winter Count

October 2010

Summary Report - October 2011

The Waterbird Count was conducted on 10 October 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

There were altogether 8,289 waterbirds recorded at the Deep Bay Area, of which 5,937 (72%) were recorded at the Ramsar Site. "Shorebird" still constituted the major waterbird group with a total number of 4,916 (60%) individuals recorded. It was followed by "Ardeid" with 2,319 (28%) individuals. Only 449 individuals of "Duck and Grebe" were seen. This showed that many of the wintering ducks had still not returned to the Deep Bay area. During the Count, the first Black-faced Spoonbill was observed re-visiting the Mai Po Nature Reserve.

Results of the Counts conducted in October of each year from 2006 to 2010 and the average for the month are listed in Table 1. Both the number of waterbirds recorded at the Deep Bay area and the Ramsar Site in October 2010 are less than those of the previous years, which might related to the late arrival of wintering waterbirds. The number recorded at the Deep Bay area shows a 44% decrease as compared with the previous year and it is also 8% lower than the monthly average. The number recorded at the Ramsar Site shows a 32% decrease as compared with 2009, but is marginally higher than the average by 3%.

Table 1. Waterbird Counts conducted in October 2006 to 2010

October	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	9,360	10,164	10,609	14,930	8,289	8,980	2,767
The Ramsar Site	5,808	4,946	6,403	8,708	5,937	5,767	1,646

* Calculated from the records for the month of October from 1998 to 2010

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	1	
Great Cormorant	30	15	5					39	97				19	9	25	36	20	172	105	97	374	467	1	
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	
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	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		2	2		
Black-faced Spoonbill				1														0		1	1	1		
Eurasian Wigeon	0	0	13					0	0				0	0	0	0	0	0	0	0	0	13		
Common Teal	21	0	20					0	0	1			0	0	0	0	0	2	0	0	2	44		
Garganey	1			10														2		10	12	13		
Northern Shoveler			240	10														0		10	10	250		
White-breasted Waterhen	6	6					1	0	0	4		2	2	1	4	1	2	4	8	1	13	33	1	
Common Moorhen	12	0						2	0				1	0	1	0	1	4	1	0	5	21		
Pheasant-tailed Jacana	1																1	0		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		
Grey-headed Lapwing																		1			1	1		
Pacific Golden Plover			280													4		0			0	284		
Little Ringed Plover	24	0						0	0			17	6	1	0	48	0	0	52	0	52	96		
Kentish Plover				13														0			0	13		
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		
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	
Green Sandpiper	2	4						0	0			2	5	7	1	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		
Pintail/Swinhoe's Snipe	5																	0			0	5		
Common Snipe	23	3																1			1	27		
Asian Dowitcher																		1			1	1		
Great Knot																		5			5	5		
Temminck's Stint																1		0			0	1		
Dunlin				2														0		2	2	2		
Wader sp.			2															0			0	2		

Whiskered Tern		2												22			0	22		22	24		
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											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			1														1		3		3	5	
Black Kite	0	2						1	1				4	0	8	13	5	21	25	1	47	55	1
Eastern Marsh Harrier									1									1	1		2	2	
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
Collared Crow	0	2						3	0				6	18	3	3	1	12	32	0	44	48	1

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Winter Count

November 2010

Summary Report - November 2010

The Waterbird Count took place on 7 November 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

A total of 32,597 waterbirds were recorded at the Deep Bay area, of which 12,519 (38%) were recorded at the Ramsar Site while 17,823 (55%) were recorded at the Futian side. "Duck and Grebe" with a total of 16,350 (50%) individuals recorded and became the major waterbird group. "Shorebird" ranked the second, with a total number of 7,917 (24%). Wintering Great Cormorants had also arrived at the Deep Bay area and their number rose to 5,795 (18%).

Results of the Counts conducted in November of each year from 2006 to 2010 and the average for the month are listed in Table 1. As compared with the previous year, there is a decrease in the number of waterbirds counted in November 2010 at both the Deep Bay area and the Ramsar Site. The Deep Bay area shows a decrease of 11%, while the number recorded at the Ramsar Site drastically decreased by 48%. The tidal height during the time of survey may be a reason for the low waterbird number recorded at the Ramsar Site. During the time of the Count, many of the waterbirds stayed at the intertidal mudflat near the Futian side because of the low tidal height during the time of high-tide at the Ramsar Site. There is not much difference between the number of waterbirds counted at the Deep Bay area and the monthly average. However, the number of waterbirds recorded at the Ramsar Site is 36% less than the average for the month.

Table 1. Waterbird Counts conducted in November 2006 to 2010

November	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	30,725	55,808	34,071	36,683	32,597	31,549	8,498
The Ramsar Site	22,947	23,229	16,463	23,941	12,519	19,672	3,671

* Calculated from the records for the month of November from 1998 to 2010

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
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
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
B-c Night Heron	11	2	1				1	4	0				1	0	0	2	0	9	6	1	16	31	3
Eurasian Spoonbill																		2			2	2	
Black-faced Spoonbill	11		22	5			30			51		1		1			4	111	1	35	147	236	
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	
Common Teal	208	1	306	2	4			0	90	199	1		0	0	0	0	0	24	0	96	120	835	
Chinese Spotbill																		1			1	1	
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	
Tufted Duck	1		2962	5					10									2		15	17	2980	
Duck sp.			6100															0			0	6100	
White-breasted Waterhen	1	2		1				2	1				4	0	2	2	2	3	9	2	14	20	3
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	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	
Grey-headed Lapwing			2															0			0	2	
Pacific Golden Plover			5	140														0		140	140	145	
Grey Plover				40														0		40	40	40	
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	
Whimbrel				3							21							0		3	3	24	
Eurasian Curlew			4	111														0		111	111	115	
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	
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	
Common Sandpiper	7	2	26					5	2	3		8	11	2	4	3	12	0	18	1	19	85	
Pintail/Swinhoe's Snipe																	1		1		1	1	
Common Snipe	2									2							2	0			0	6	
Long-billed Dowitcher				1														0		1	1	1	

Sanderling												1						0			0	1	
Red-necked Stint				2														0			0	2	
Temminck's Stint										1							6	0			0	7	
Dunlin				397														0		397	397	397	2
Broad-billed Sandpiper				1														0		1	1	1	
Wader sp.			4400															0			0	4400	
Heuglin's Gull				7														0			0	7	
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	
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																	
Waders	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		High tide measured at TBT:																					
# indicates count consists of or includes a count made up to one week either side of the count date																							
n/c = site not counted		High tide measured at TBT:																					
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
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		1	2	
Imperial Eagle	0	0						0	0				0	0	0	0	1	3	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	

WATERBIRD MONITORING PROGRAMME AT THE MAI PO INNER DEEP BAY RAMSAR SITE

Programme 2010/11

Winter Count

December 2010

Summary Report - December 2010

The Waterbird Count was scheduled on 19 December 2010, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China. Apart from the usual counting exercise that was conducted at time of high-tide, an additional low-tide count was made on the same day at Tsim Bei Tsui Police jetty and from the direction of Futian.

A total of 57,740 waterbirds were recorded at the Deep Bay area during the high tide period, of which 27,436 were recorded at the Ramsar Site. The additional count conducted during the low-tide period resulted with a total of 32,075 waterbirds at the Deep Bay area and 6,977 waterbird at the Ramsar Site. The low-tide count provided a higher and more comparable number for the waterbird group "Gulls and Terns" which served as useful supplementary information. Other species of waterbirds showed a higher number in the count conducted at time of high-tide. Taking into account the maximum number of waterbirds recorded both at time of high-tide and low-tide, it resulted that a total of 59,455 waterbirds were recorded at the Deep Bay area, of which 28,936 (49%) were recorded at the Ramsar Site. Details of the results obtained at the high-tide and low-tide periods are listed in Table 1. "Duck and Grebe" with a total of 30,628 (52%) became the major waterbird group, followed by "Shorebird" (17,330; 29%).

Results of the Counts conducted in December of each year from 2006 to 2010 and the average for the month are listed in Table 1. The number of waterbirds recorded at the Deep Bay area and the Ramsar Site in December 2010 shows an increase of 35% and 13% respectively as compared with the previous year. In addition, the number recorded at the Deep Bay area is 26% higher than the average, while the number recorded at Ramsar Site is 6% less than the average for the month.

Table 1. Number of waterbirds recorded at the Deep Bay area in December 2010 during periods of high-tide and low-tide. Number in parenthesis represents the record taken at the Ramsar Site.

Species	Count at time of high-tide	Count at time of low-tide	Maximum between the two
Cormorant	4,831 (4,669)	30 (0)	4,831 (4,669)
Ardeid	3,006 (1,460)	898 (92)	3,006 (1,460)
Duck and Grebe	30,628 (14,509)	18,609 (5,002)	30,628 (14,509)
Rail and Coot	174 (76)	77 (0)	174 (76)
Shorebird	17,330 (6,339)	8,975 (0)	17,330 (6,339)
Gull and Tern	1,771 (383)	3,486 (1,883)	3,486 (1,883)
Total	57,740 (27,436)	32,075 (6,977)	59,455 (28,936)

Table 2. Waterbird Counts conducted in December 2006 to 2010

December	2006	2007	2008	2009	2010	Average*	Std. Dev.*
The Deep Bay Area	55,983	45,859	64,902	43,923	59,455	47,130	8,936
The Ramsar Site	45,596	25,827	27,435	25,593	28,936	30,691	6,508

* Calculated from the records for the month of December from 1998 to 2010

Summary of Waterbird Count, 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	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
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
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
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
B-c Night Heron	0	0						1	0				1	0	0	0	0	1	1	0	2	3	
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	
Eurasian Wigeon	24	6	90	1980	30	30	52	0	65	33	1880	10	0	0	0	0	0	229	0	2157	2386	4429	
Falcatid Duck																		1			1	1	
Gadwall																		5			5	5	
Common Teal	25	0	224	1038			43	3	0	32			0	0	0	2	0	92	5	1081	1178	1459	1
Chinese Spotbill																		2			2	2	
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	
Tufted Duck			4100			2	1495											226		1497	1723	5823	
Duck sp.			6100															0			0	6100	
White-breasted Waterhen	0	1	5	2			5	1	0				3	0	1	0	4	1	5	7	13	23	1
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	
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
Grey Plover				185							4							0		185	185	189	
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
Greater Sand Plover																		0			0	0	3
Black-tailed Godwit			480															0			0	480	
Whimbrel											28	1						0			0	29	
Eurasian Curlew			91	949			4				14	12						0		953	953	1070	
Spotted Redshank	1						21											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
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
Common Snipe			6															1			1	7	
Red-necked Stint				1														0		1	1	1	
Temminck's Stint				46													1		0	1	46	47	
Dunlin				720														0		720	720	720	
Wader sp.			6800															0			0	6800	

Heuglin's Gull				76														0		76	76	76	
Black-headed Gull	0	0	1383	125				0	0		5		0	180	0	0	0	0	180	125	305	1693	
Saunders's Gull				2														0		2	2	2	
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 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			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	
Eastern Marsh Harrier				1														0			0	1	
Common Buzzard	2	1											1		1			2	3		5	7	1
Imperial Eagle	0	1						0	0				0	0	0	0	0	1	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	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	

WATERBIRD MONITORING PROGRAMME AT THE MAI PO INNER DEEP BAY RAMSAR SITE

Programme 2010/11

Winter Count

January 2011

Summary Report – January 2011

The Waterbird Count took place on 16 January 2011, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China. Apart from the usual counting exercise that was conducted at time of high-tide, a supplementary low-tide count was conducted on the same day at the intertidal mudflat area from Tsim Bei Tsui Police jetty and from the direction of Futian.

A total number of 62,588 and 33,252 waterbirds were recorded during the high-tide and low-tide periods respectively. For the count conducted at the low-tide period, it recorded a higher number of Pied Avocet *Recurvirostra avosetta* and Black-headed Gull *Chroicocephalus ridibundus*. The total number of these two species of waterbirds were added to the maximum count result obtained on the same survey day so as to reflect a more realistic condition of waterbird usage at the Deep Bay area. Detailed information is presented in Table 1. The results showed that a total of 68,635 waterbirds were recorded at the Deep Bay area, of which 42,699 (62%) were recorded at the Ramsar Site. "Duck and Grebe" (26,146; 38%) and "Shorebird" (20,708; 30%) were the two major species of waterbird group. A total of 9,309 wintering Cormorants were recorded at their roosting sites at Mai Po Nature Reserve (7,209) and Nam Sang Wai (2,100). There was a slight increase in the number of Cormorants compared to that (9,045 individuals) recorded in January 2010.

Results of the Counts conducted in January of each year from 2007 to 2011 and the average for the month are listed in Table 2. The number recorded at the Deep Bay area in January 2011 shows a decrease of 7%, while the number recorded at the Ramsar Site shows an increase of 9% as compared with the previous year. The gradual increase in the records taken at the Ramsar Site from the low level in 2009 is an encouraging sign. Both the numbers recorded at the Deep Bay area and the Ramsar Site are higher than the average for the month.

Table 1. Number of waterbirds recorded at the Deep Bay area in December 2010 during periods of high-tide and ow-tide. Number in parenthesis represents the record taken at the Ramsar Site.

Species	Count at time of high-tide	Count at time of low-tide	Maximum between the two
Cormorant	9,309 (7,209)	125 (0)	9,309 (7,209)
Ardeid	2,747 (1,747)	311 (0)	2,747 (1,747)
Duck and Grebe	26,146 (17,812)	10,441 (81)	26,146 (17,812)
Rail and Coot	332 (213)	44 (0)	332 (213)
Shorebird	19,001 (13,385)	13,040 (0)	20,708* (13,385)
Gull and Tern	5,053 (1,483)	9,291 (2,230)	9,393* (2,333)
Total	62,588 (41,798)	33,252 (2,311)	68,635 (42,699)

* Inclusive of the numbers of Pied Avocet and Black-headed Gull recorded during the low-tide period

Table 2. Waterbird Counts conducted in January 2007 to 2011

January	2007	2008	2009	2010	2011	Average*	Std. Dev.*
The Deep Bay Area	65,909	90,132	71,264	73,602	68,635	59,753	13,237
The Ramsar Site	46,372	56,823	30,539	39,000	42,699	39,435	9,942

* Calculated from the records for the month of January from 1998 to 2011

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	
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
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	
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	
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	
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	
Common Teal	83	0	35	1			2	0	13	73			2	0	0	2	11	68	15	3	86	290	12
Chinese Spotbill																		1			1	1	
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	
Tufted Duck			150		325	850	237	44		1								3155		1412	4567	4762	
Greater Scaup					1													0		1	1	1	
Smew																		1			1	1	
Duck sp.			6210			1100			1000									0		2100	2100	8310	
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	
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	
Black-winged Stilt	5		465											1				0	1		1	471	
Pied Avocet	154		360	7724													1	45		7724	7769	8284	
Pacific Golden Plover				782														0		782	782	782	
Grey Plover				320														0		320	320	320	1
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	
Whimbrel										1	17							0			0	18	
Eurasian Curlew				1592							10							0		1592	1592	1602	
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						172	3	390	565	1149	2
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	
Common Sandpiper	8	2	4			2		4	0	1	4	4	15	9	7	13	14	1	37	2	40	88	

WATERBIRD MONITORING PROGRAMME AT THE MAI PO INNER DEEP BAY RAMSAR SITE

Programme 2010/11

Winter Count

February 2011

Summary Report - February 2011

The Waterbird Count was conducted on 13 February 2011, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China. Apart from the usual counting exercise that was conducted at time of high-tide, an additional low-tide count was made on the same day from the Tsim Bei Tsui Police jetty and from the direction of Futian. This served to provide supplementary information on the number of birds utilising the intertidal mudflat area.

A total of 54,366 and 33,919 waterbirds were recorded during the high-tide and low-tide periods respectively. The count conducted during the low-tide period recorded a substantial number of Black-winged Stilt *Himantopus himantopus* and Black-headed Gull *Chroicocephalus ridibundus*. In order to provide a more accurate result, these numbers recorded were included in the result to present the maximum count of the day. Detailed information is presented in Table 1. Out of the 55,762 waterbirds recorded at the Deep Bay area, 32,846 (58%) were counted at the Ramsar Site. "Duck and Grebe" (21,122; 38%) and "Shorebird" (17,379; 31%) were the two major waterbird groups present. A total of 10,023 wintering Cormorants were also recorded. It showed an 8% increase in comparison with the 9,309 Cormorants recorded in February 2011.

Results of the Counts conducted in February of each year from 2007 to 2011 and the average for the month are listed in Table 1. The numbers recorded in February 2011 at the Deep Bay area and the Ramsar Site are 12% and 20% lower than the previous year. Comparing to the average for the month, the record at the Deep Bay area is higher while the Ramsar Site is slightly lower than the average.

Table 1. Number of waterbirds recorded at the Deep Bay area in February 2011 during periods of high-tide and low-tide. Number in parenthesis represents the record taken at the Ramsar Site.

Species	Count at time of high-tide	Count at time of low-tide	Maximum between the two
Cormorant	10,023 (7,500)	95 (47)	10,023 (7,500)
Ardeid	1,966 (1,232)	361 (179)	1,966 (1,232)
Duck and Grebe	21,122 (10,858)	14,987 (5,506)	21,122 (10,858)
Rail and Coot	183 (68)	36 (2)	183 (68)
Shorebird	17,412 (11,084)	13,597 (3,759)	17,479* (11,084)
Gull and Tern	3,660 (2,104)	4,843 (104)	4,989* (2,104)
Total	54,366 (32,846)	33,919 (9,597)	55,762 (32,846)

* Inclusive of the numbers of Black-winged Stilt and Black-headed Gull recorded during low-tide period.

Table 2. Waterbird Counts conducted in February 2007 to 2011

February	2007	2008	2009	2010	2011	Average*	Std. Dev.*
The Deep Bay Area	70,303	55,439	78,155	63,311	55,762	49,991	15,124
The Ramsar Site	33,782	40,248	27,526	39,336	32,846	33,123	10,142

* Calculated from the records for the month of February from 1998 to 2011.

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
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
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
B-c Night Heron	0	1						0	0				0	0	0	0	0	0	0	0	20	21	1
Great Bittern																		1			1	1	
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	
Eurasian Wigeon	190	0	27	1201		33	2	0	0	64	120		0	0	0	1	0	132	1	1236	1369	1770	
Falcated Duck																		2			2	2	
Gadwall																		4			4	4	
Common Teal	201	0	2	7			16	0	3	67			0	0	0	0	32	106	0	26	132	434	5
Chinese Spotbill																		8			8	8	
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	
Tufted Duck		3	655	11		475	282	29										318		768	1086	1773	
Duck sp.			3500						1050									0		1050	1050	4550	
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	
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	
Black-winged Stilt	6		460							6								3	0		0	475	
Pied Avocet	96		1620	8780					7				1					440		8787	9227	10944	
Grey-headed Lapwing	1																	0			0	1	
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	
Black-tailed Godwit			1900															0			0	1900	
Eurasian Curlew			1	1242						1								0		1242	1242	1244	
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	13
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	
Common Sandpiper	13	1	2	1				4	0	4	1	7	10	9	1	1	14	2	17	1	20	70	4
Pintail/Swinhoe's Snipe																		1	0		0	1	
Common Snipe	3	4	7	1						1			7					2	0	1	1	25	
Long-billed Dowitcher										1								0			0	1	
Temminck's Stint													4					1	7	0	1	12	

**WATERBIRD MONITORING PROGRAMME AT THE
MAI PO INNER DEEP BAY RAMSAR SITE**

Programme 2010/11

Winter Count

March 2011

Summary Report - March 2011

The Waterbird Count was conducted on 13 March 2011, the survey area included the Mai Po Inner Deep Bay Ramsar Site (the 'Ramsar Site') and wetland areas at and 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 at Mainland China.

A total of 37,086 waterbirds were counted at the Deep Bay area, of which 23,067 (62%) were recorded at the Ramsar Site. Comparing with the total number of 55,762 recorded in February 2011, the substantial decrease in the number of waterbirds suggested that many of them had left the Deep Bay area for migration to the north. "Shorebird" was the major group of waterbirds with a total number of 18,773 (51%) were recorded. "Duck and Grebe" with the number of 10,114 (27%) ranked the second

Results of the Counts conducted in March of each year from 2007 to 2011 and the average for the month are listed in Table 1. The number of waterbirds recorded at the Deep Bay area and the Ramsar Site in March 2011 is 12% and 13% more than the previous year. Both numbers are also higher than the average for the month.

Table 1. Waterbird Counts conducted in March 2007 to 2011

March	2007	2008	2009	2010	2011	Average*	Std. Dev.*
The Deep Bay Area	36,606	55,156	32,515	32,976	37,086	26,816	12,097
The Ramsar Site	23,711	30,324	21,764	20,357	23,067	17,996	7,551

* Calculated from the records for the month of March from 1998 to 2011

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
Grey Heron	51	1	14	3		2	11	8	26	41	2	1	15	1	1	6	2	169	30	40	239	354	34
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
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
Yellow Bittern	0	0						0	0				1	0	0	0	0	0	1	0	1	1	
Great Bittern																		1			1	1	
Eurasian Spoonbill	2																	4			4	6	
Black-faced Spoonbill	14		10	1	1		28	1		54			1			2		113	4		117	225	
Eurasian Wigeon	46	0	16	1704			300	0	0			125	0	0	0	0	0	308	0	2004	2312	2499	
Common Teal	66	0		10			37	0	1	12			0	0	0	0	29	88	1	47	136	243	6
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	
Tufted Duck			2104		2		13		71									222		85	307	2412	
Duck sp.			2600															0			0	2600	
White-breasted Waterhen	0	3		1			1	0	0	1			3	1	0	3	3	6	7	2	15	22	
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	
Black-winged Stilt	17		657							6								21			21	701	
Pied Avocet	4		265	9776														23		9776	9799	10068	
Grey-headed Lapwing			1															0			0	1	
Pacific Golden Plover			1	90														0		90	90	91	
Grey Plover				479														0		479	479	479	
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	
Black-tailed Godwit			878	560														0		560	560	1438	
Bar-tailed Godwit				1														0		1	1	1	
Eurasian Curlew				614														0		614	614	614	
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
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	
Common Sandpiper	0	1	13					0	0	??	2	10	7	8	4	1	9	4	17	0	21	59	5
Common Snipe			6							3								0			0	9	
Long-billed Dowitcher			1															0			0	1	
Temminck's Stint	2			10														0		10	10	12	
Dunlin				1														0		1	1	1	
Curlew Sandpiper			93	13														0		13	13	106	
Ruff			1															0			0	1	
Black-tailed Gull				3														0		3	3	3	

Heuglin's Gull				95														0		95	95	95	
Yellow-legged Gull				1														0		1	1	1	
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														0		41	41	41	
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			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			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	
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	
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