

Tender Reference No. AFCD/SQ/16/06

**Mai Po Inner Deep Bay Ramsar Site
Waterbird Monitoring Programme
2006 - 2007**

Shorebird Monitoring Report



Submitted by
The Hong Kong Bird Watching Society Ltd.
Approved Charitable Institution of a Public Character
to Agriculture, Fisheries and Conservation Department,
Hong Kong SAR Government

September 2007



This report is printed on recycled paper

Tender Reference No. AFCD/SQ/16/06

Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site

Waterbird Count Coordinator

Yu Yat-tung
The Hong Kong Bird Watching Society Ltd.

Data Contributors

Yu Yat-tung, Geoff Carey, Ying Hak-king
The Hong Kong Bird Watching Society Ltd.

Copyright

The project is part of the “Mai Po Inner Deep Bay Ramsar Site Waterbird Monitoring Programme 2006-07” 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
Room 1612, Beverley Commercial Centre, 87-105 Chatham Road
Tsim Sha Tsui, Kowloon, Hong Kong
E-mail: hkbws@hkbws.org.hk Website: www.hkbws.org.hk

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. 2007. Shorebird Monitoring at the Mai Po Inner Deep bay Ramsar Site: 2006-07. Report by Hong Kong Bird Watching Society to the Agriculture, Fisheries and Conservation Department, Hong Kong Special Administrative Region Government.

TABLE OF CONTENTS

REPORT

1. Introduction.....	7
2. Methodology	7
3. Results	8
Autumn 2006	
Winter 2006-2007	
Spring 2007	
Summer 2007	
Aggregate numbers recorded	
Regionally important populations	
Globally threatened species	
Flagged shorebirds sightings	
Other observations	
4. Acknowledgements.....	16
5. References.....	16

Tables

- Table 1. Peak counts of some shorebirds with a declining trend in recent springs.
- Table 2. Estimate of the minimum number of shorebirds utilizing Deep Bay during the 12-month period July 2006 to June 2007.
- Table 3. Species recorded in flyway/regional important numbers in the Deep Bay during July 2006 to June 2007.

Map

- Map 1. Mai Po Nature Reserve

APPENDIX 1

- Counts of shorebirds in the Mai Po Inner Deep Bay Ramsar Site in autumn 2006

APPENDIX 2

- Counts of shorebirds in the Mai Po Inner Deep Bay Ramsar Site in spring 2007

APPENDIX 3

- Figure 1. Total numbers of shorebirds at Mai Po Inner Deep Bay Ramsar Site, autumn 2006
- Figure 2. Counts of Black-winged Stilt at Mai Po Inner Deep Bay Ramsar Site, autumn 2006
- Figure 3. Counts of Pacific Golden Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

Figure 4. Counts of Kentish Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

Figure 5. Counts of Grey Plover at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 6. Counts of Lesser Sand Plover at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 7. Counts of Greater Sand Plover at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 8. Counts of Black-tailed Godwit at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 9. Counts of Bar-tailed Godwit at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 10. Counts of Whimbrel at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 11. Counts of Eurasian Curlew at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 12. Counts of Spotted Redshank at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 13. Counts of Common Redshank at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 14. Counts of Marsh Sandpiper at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 15. Counts of Common Greenshank at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 16. Counts of Wood Sandpiper at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 17. Counts of Great Knot at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 18. Counts of Red Knot at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 19. Counts of Board-billed Sandpiper at Mai Po Inner Deep Bay Rasmar Site, autumn 2006

Figure 20. Total numbers of shorebirds at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 21. Counts of Pacific Golden Plover at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 22. Counts of Lesser Sand Plover at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 23. Counts of Greater Sand Plover at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 24. Counts of Black-tailed Godwit at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 25. Counts of Spotted Redshank at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 26. Counts of Common Redshank at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 27. Counts of Marsh Sandpiper at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 28. Counts of Common Greenshank at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 29. Counts of Terek Sandpiper at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 30. Counts of Grey-tailed Tattler at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 31. Counts of Ruddy Turnstone at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 32. Counts of Asian Dowitcher at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 33. Counts of Red Knot at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 34. Counts of Great Knot at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 35. Counts of Red-necked Stint at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 36. Counts of Sharp-tailed Sandpiper at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 37. Counts of Curlew Sandpiper at Mai Po Inner Deep Bay Rasmar Site, spring 2007

Figure 38. Counts of Broad-billed Sandpiper at Mai Po Inner Deep Bay Rasmar Site, spring 2007

APPENDIX 4

Records of leg-flagged shorebirds in autumn 2006 and spring 2007



Shorebird Monitoring at the Mai Po Marshes and Inner Deep Bay Ramsar Site

2006-07 Report

Report



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

MAI PO INNER DEEP BAY RAMSAR SITE WATERBIRD MONITORING PROGRAMME

Programme 2006 / 07

Shorebird Monitoring

July 2006 - June 2007

Shorebird Monitoring: 2006-07 Report

Introduction

Systematic, long-term monitoring of waterbirds in the Mai Po Inner Deep Bay Ramsar Site commenced in March 1998. Counts of shorebirds (also called waders) form one part of this programme, the other components being monthly counts of waterbirds and surveys of ardeid nesting colonies. This report concerns the shorebird monitoring component from July 2006 to June 2007. This project is a part of the tender project (contract tender reference no. AFCD/SQ/16/06) and it is administered, coordinated and executed by the Hong Kong Bird Watching Society (HKBWS), and funded by the Agriculture, Fisheries and Conservation Department (AFCD).

Methodology

Shorebirds mainly occur in Hong Kong during three periods: autumn and spring for migration, and the winter. This study aims to monitor shorebirds numbers in the Mai Po Inner Deep Bay Ramsar Site through the year. Frequency of survey is higher during the main passage period (late March to late May and July to late October) but less frequent during summer. Surveys in winter time (i.e. November to mid-March) are covered by the monthly waterbird count. The schedule of this shorebird monitoring programme is as follows:

- 22 March to 1 June: one count every block of three days
- 2 to 30 June: two counts per month
- 1 July to 4 November: one count per week
- Mid November to mid March: once count per month

The main survey site is the Mai Po Nature Reserve (Map 1) where counts are made either in the *gei wai* or from the two boardwalk birdwatching hides, depending on the height of the tide. In general, counting during the high tide period is conducted in the *gei wai* where suitable roosting areas on the reserve are provided as a result of

the management activities of WWF HK; these regular and generally rather stable roosting sites allow counts to be made with a relatively high degree of accuracy for many species. In contrast, counts are made from the boardwalk hides during mid tide periods where the shorebirds feed in the intertidal area. The counts are usually made using the following procedures:

- Count birds from the boardwalk hide during the rising tide, beginning at a tidal height of around 1.9m.
- Count birds roosting in MPNR using a bicycle (essential to complete the count during the time available).
- Count birds from the boardwalk hide during the falling tide until such a time as counting is no longer possible due to distance from the observer.

The equipment used consisted of 8x or 10x binoculars and a telescope with wide angle or 20-60x zoom eyepieces. Counting was carried out by HKBWS accredited surveyors experienced in bird counting and identification, in order to achieve a high degree of accuracy. All shorebirds present in the counting areas are counted for each species. If birds carrying leg flags for migration route studies are present, the details are also recorded, including the colour and position of the flags, the species, age and/or the extent of breeding plumage acquired.

Results

Results of all shorebird counts are presented in full in Appendices 1 and 2. The numbers of selected species are illustrated graphically in Appendix 3.

Autumn 2006

Figure 1 shows the numbers of all shorebird counts in the autumn 2006. Numbers were relatively low in July and gradually increased toward the end of the autumn in October. Several higher numbers were noted, including 2,748 birds on 30 July, 3,236 birds on 22 August, 4,169 birds on 24 September and 4,928 birds on 9 October. The later one is also the highest count in the autumn 2006. These several peaks of birds indicate that migratory shorebirds passed through Mai Po in different periods, for example: Common Redshanks *Tringa totanus* on 30 July, Common Greenshanks *Tringa nebularia* on 22 August and 24 September, Wood Sandpipers *Tringa glareola* on 9 October.

In addition, the two peaks in September and October might actually consist of some wintering shorebirds, e.g. Black-tailed Godwit *Limosa limosa*, Eurasian Curlew

Numenius arquata, Spotted Redshank *Tringa erythropus* and Marsh Sandpiper *Tringa stagnatilis*. Some details of arrival of these wintering species are shown in the figures:

Black-tailed Godwit – late September (Figure 8, c.f. mid September 2005 and 2004, early September 2003, late August 2002)

Eurasian Curlew – September to early October (Figure 11, c.f. mid September 2005, 2004, 2003 and 2002)

Spotted Redshank – late October (Figure 12, c.f. mid October 2005, 2004, 2003, late September 2002)

Marsh Sandpiper – late September (Figure 14, c.f. late September 2005, 2004, mid September 2003, early September 2002)

Numbers of other shorebirds that clearly appear to be passage migrants in the autumn 2006, include Pacific Golden Plover *Pluvialis fulva* (Figure 3), Lesser Sand Plover *C. mongolus* (Figure 6), Greater Sand Plover *C. leschenaultii* (Figure 7), Bar-tailed Godwit *Limosa lapponica* (Figure 9), Whimbrel *Numenius phaeopus* (Figure 10), Common Redshank (Figure 13), Wood Sandpiper (Figure 16), Red Knot *Calidris canutus* (Figure 18) and Broad-billed Sandpiper *Limicola falcinellus* (Figure 19). The two most numerous species during the 2006 autumn migration are Common Greenshank and Common Redshank, which had a peak count of 1,816 in late August and 1470 in late July respectively.

Winter 2006-2007

The sum of the peak counts of each shorebird species during the mid-winter period, i.e. December, January and February, constitutes the winter aggregate of shorebird species. The aggregate in winter 2006-07 was 22,259 birds of the positively identified shorebirds in the whole Deep Bay area. The five most numerous species were Pied Avocet *Recurvirostra avosetta* (11,957), Common Greenshank (1,522), Spotted Redshank (1,151), Eurasian Curlew (1,049) and Marsh Sandpiper (796). The count of Pied Avocet is the new highest figure for the Deep Bay area, while the counts of the Common Greenshank and Black-tailed Godwit (at 693 individuals) were also the new high counts for winter period. However, small unidentified shorebirds presumed to be mainly Kentish Plovers and Dunlins, numbered 2,150 in the December count showing a decline of more than 50% from a figure of 5,500 individuals recorded in the previous winter.

Spring 2007

For numbers of shorebirds in spring 2007 refer to Figure 20, which shows a decrease

in numbers in late March and early April and a rebound to reach a peak count for the spring in mid-April. Subsequently, numbers fluctuated in the second half of the spring with two smaller influxes in early and the middle of May. Finally, numbers further decreased in the second half of May and in June. The spring peak count was recorded at 15,149 individuals on 17 April, which is also a new high figure for the spring shorebird migration since the commencement of this monitoring programme. This peak count is almost doubled the figure of the previous spring at 7,710 individuals. The 2007 spring aggregate of shorebird species is 21,223 birds, which has a 50% increase from the same aggregates of both 2005 and 2006 springs.

Several shorebird species apparently showing decreases of their numbers in the previous springs were discussed in last reports (Table 1, Anon. 2005 and 2006). Table 1 shows their figures for this spring and previous springs. Most of the species showed a recovery in numbers in this spring, while Pacific Golden Plover and Long-toed Stint *Calidris subminuta* were still counted in relatively lower numbers.

Table 1. Peak counts of some shorebirds with a declining trend in recent springs.

Species	2007	2006	2005	2004	2003
Pacific Golden Plover <i>Pluvialis fulva</i>	160	219	54	221	358
Lesser Sand Plover <i>Charadrius mongolus</i>	179	35	30	59	115
Ruddy Turnstone <i>Arenaria interpres</i>	100	34	39	80	86
Red Knot <i>Calidris canutus</i>	144	16	5	120	62
Red-necked Stint <i>C. ruficollis</i>	2,239	1,478	1,909	2,239	2,302
Long-toed Stint <i>C. subminuta</i>	4	11	7	36	11
Sharp-tailed Sandpiper <i>C. acuminata</i>	175	68	41	300	231
Curlew Sandpiper <i>C. ferruginea</i>	10,982	4,151	3,947	6,000	4,535
Total spring aggregate number	21,223	14,942	14,312	16,431	16,836

Summer 2007

Two counts were conducted in June 2007, which provided figures of 369 and 63 birds on 8 and 18 June respectively. Compared to figures of previous springs, these summer figures are relatively lower than those from 2002 to 2005. The highest single-species flock was a total of 177 Terek Sandpipers *Xenus cinereus* on 8 June.

Aggregate numbers recorded

The aggregate total number of shorebirds recorded in spring and autumn is derived by using the peak count for each season added to, where possible, by the sum of influxes of new birds, assessed from the pattern of occurrence and/or differences in the amount or types of breeding plumage. In an attempt to estimate a total number of shorebirds that utilized the Mai Po Inner Deep Bay Ramsar Site during the 12-month period from July 2006 to June 2007, the peak winter count (i.e. December to February) obtained during winter waterbird counts can also be added. However, it is not possible to rule out some overlap in individuals occurring in different seasons; consequently, such records (marked by a dash in Table 2) are excluded from the calculation.

Table 2. Estimated minimum number of shorebirds utilizing the Mai Po Inner Deep Bay Ramsar Site during the 12-month period July 2006 to June 2007.

Year	2006	2006-07	2007	2006-07	2005-06	2004-05	2003-04
Species	autumn	winter	spring	Minimum	Minimum	Minimum	Minimum
Pheasant-tailed Jacana <i>Hydrophasianus chirurgus</i>	2	0	0	2	0	1	1
Greater Painted-snipe <i>Rostratula bengalensis</i>	0	3	1	4	6	3	1
Black-winged Stilt <i>Himantopus himantopus</i>	-	468	-	468	495	439	402
Pied Avocet <i>Recurvirostra avosetta</i>	-	11957	-	11957	5813	4490	3500
Oriental Pratincole <i>Glareola maldivarum</i>	3	0	5	8	26	13	4
Northern Lapwing <i>Vanellus vanellus</i>	0	0	0	0	2	4	1
Grey-headed Lapwing <i>V. cinereus</i>	1	4	1	6	11	1	1
Pacific Golden Plover <i>Pluvialis fulva</i>	104	6	160	270	236	180	570
Grey Plover <i>P. squatarola</i>	-	390	-	390	560	582	467
Little Ringed Plover <i>Charadrius dubius</i>	4	230	3	237	271	174	77
Kentish Plover <i>C. alexandrinus</i>	251	-	12	263	72	29	2222
Lesser Sand Plover <i>C. mongolus</i>	11	3	179	193	41	43	70
Greater Sand Plover <i>C. leschenaultii</i>	222	0	147	369	349	543	430
Black-tailed Godwit <i>Limosa limosa</i>	-	693	1659	2352	1401	1608	1597
Bar-tailed Godwit <i>Limosa lapponica</i>	8	1	114	123	69	17	38
Little Curlew <i>Numenius minutes</i>	0	0	0	0	0	1	0
Whimbrel <i>Numenius phaeopus</i>	134	3	72	209	220	138	149
Eurasian Curlew <i>N. arquata</i>	-	1049	-	1049	1087	1292	850
Far Eastern Curlew <i>N. madagascariensis</i>	1	2	5	8	5	6	6
Spotted Redshank <i>Tringa erythropus</i>	-	1151	1239	2390	1687	1443	1767
Common Redshank	1470	551	1139	3160	2476	2306	1934

<i>T. totanus</i>							
Marsh Sandpiper <i>T. stagnatilis</i>	-	-	1662	1662	2411	2378	2249
Common Greenshank <i>T. nebularia</i>	1816	1522	1386	4724	1997	1972	1951
Nordmann's Greenshank <i>T. guttifer</i>	1	0	50	51	24	22	26
Green Sandpiper <i>T. ochropus</i>	2	39	1	42	35	52	31
Wood Sandpiper <i>T. glareola</i>	597	354	57	1008	706	519	382
Terek Sandpiper <i>Xenus cinereus</i>	29	0	590	619	617	476	500
Common Sandpiper <i>Actitis hypoleucos</i>	2	78	3	83	82	81	81
Grey-tailed Tattler <i>Heteroscelus brevipes</i>	5	0	27	32	19	85	19
Ruddy Turnstone <i>Arenaria interpres</i>	0	0	100	100	36	40	81
Red-necked Phalarope <i>Phalaropus lobatus</i>	0	0	2	2	5	11	2
Pintail/Swinhoe's Snipe <i>Gallinago stenura/megala</i>	8	0	7	15	3	11	1
Common Snipe <i>Gallinago gallinago</i>	2	36	0	38	40	45	9
Long-billed Dowitcher <i>Limnodromus scolopaceus</i>	2	0	1	3	4	2	2
Asian Dowitcher <i>Limnodromus semipalmatus</i>	6	0	132	138	50	44	41
Red Knot <i>Calidris canutus</i>	4	4	144	152	43	15	125
Great Knot <i>C. tenuirostris</i>	-	28	340	368	67	243	222
Sanderling <i>C. alba</i>	0	0	10	10	23	11	16
Red-necked Stint <i>C. ruficollis</i>	182	1	2239	2422	2363	1927	2321
Little Stint <i>C. minuta</i>	0	0	3	3	4	5	5
Temminck's Stint <i>C. temminckii</i>	3	24	0	27	10	16	4
Long-toed Stint <i>C. subminuta</i>	4	1	4	9	15	8	47
Pectoral Sandpiper <i>C. melanotos</i>	0	0	0	0	0	2	2
Sharp-tailed Sandpiper <i>C. acuminata</i>	2	0	175	177	116	46	309
Dunlin <i>C. alpine</i>	92	-	1	93	2	5	2436
Curlew Sandpiper <i>C. ferruginea</i>	161	0	10982	11143	4246	4036	6066
Spoon-billed Sandpiper <i>Eurynorhynchus pygmeus</i>	1	0	7	8	1	16	7
Broad-billed Sandpiper <i>Limicola falcinellus</i>	17	0	78	95	57	121	86
Ruff <i>Philomachus pugnax</i>	5	3	3	11	9	4	6
Small wader spp. (mainly Dunlin or Kentish Plover)	0	2150	0	2150	5500	2420	-
NUMBER OF SPECIES	41	29	43	46	46	49	48
AGGREGATE SHOREBIRD SPECIES PEAK COUNT	5152	20751	22740	48643	33312	27926	31114

Note: a dash indicates that birds were recorded, but not thought to comprise different individuals to those in other seasons.

The all-year aggregate in 2006-07 is 48,643 which is the highest figure for this shorebird monitoring programme (table 2). This is a substantial increase of 46% from the previous year. The sum of spring and autumn aggregates is 27,892, which is also a considerable increase of about 60-70% from the figure between 16,000 to 17,000 birds in the sums of autumn 2004 and spring 2005, and autumn 2005 and spring 2006. This significant increase of the all-year aggregate is caused mainly by new high figures of the wintering Pied Avocets and the spring passage Curlew Sandpipers. Other species including Black-tailed Godwit, Spotted Redshank, Common Redshank and Common Greenshank had been recorded with different flocks in different seasons that could provide a clearer picture of presences of these birds that involved different individuals and so more figures could be added up for the all-year aggregates.

The ten highest numbers species recorded in this 12-month period were: Pied Avocet (11,957, 24.6% of the total number of shorebirds in the same period), Curlew Sandpiper (11,143, 22.9%), Common Greenshank (4,724, 9.7%), Common Redshank (3,160, 6.5%), Red-necked Stint (2,422, 5.0%), Spotted Redshank (2,390, 4.9%), Black-tailed Godwit (2,352, 4.8%), Marsh Sandpiper (1,662, 3.4%), Eurasian Curlew (1,049, 2.2%) and Wood Sandpiper *Tringa glareola* (1,008, 2.1%). In addition, small waders, presumed mainly to be Kentish Plover and Dunlin, were also recorded in 2,150 individuals, 4.4% of the total number of shorebirds in this period.

Shorebird turnover rates in Hong Kong have yet to be determined; however, Howes and Bakewell (1989) quoted studies using marked birds in Morocco and Malaysia as indicating that the total number of shorebirds using a given area during migration lies in the range 3 – 4.5 times the peak daily count of passage shorebird species. Using this as the calculation basis, with peak day counts of 22,740 in spring and 5,152 in autumn, totaling 27,892, Deep Bay may have supported in the range 83,676 to 125,514 migrant shorebirds during 2006-2007.

Regional important populations

Reviews and estimates of the known shorebird population size and the 1% level of the flyway or regional population of all waterbird species that is criterion 3c for determining a wetland of international importance are listed in a publication: Waterbird Population Estimates – Fourth Edition (Wetland International 2006). Significant proportions of the populations of some shorebirds species pass through the Mai Po Inner Deep Bay Ramsar site. These species are listed in Table 3 with their flyway or regional population, numbers recorded in the Ramsar site and percentages

of the flyway or regional during the course of July 2006 to June 2007.

Table 3. Species recorded in flyway/regional important numbers in the Deep Bay area during July 2006 to June 2007.

Species	Flyway/regional population	Number recorded	Percentage
Pied Avocet <i>Recurvirostra avosetta</i>	1,000 (1% level)	11,957	12%
Black-tailed Godwit <i>Limosa limosa</i>	160,000	2,352	1.5%
Eurasian Curlew <i>Numenius arquata</i>	35,000	1,049	3.0%
Spotted Redshank <i>Tringa erythropus</i>	1,000 (1% level)	2,390	2.4%
Common Redshank <i>Tringa totanus</i>	1,000 (1% level)	3,160	3.2%
Common Greenshank <i>Tringa nebularia</i>	1,000 (1% level)	4,724	4.7%
Nordmann's Greenshank <i>Tringa guttifer</i>	500-1,000	51	5-10%
Terek Sandpiper <i>Xenus cinereus</i>	50,000	619	1.2%
Curlew Sandpiper <i>Calidris ferruginea</i>	180,000	11,143	6.2%

Globally threatened species

With regard to species listed in BirdLife International (2000, 2004, 2006), the following were recorded during July 2006 to June 2007 (population figures from Wetland International (2006)):

- Black-tailed Godwit *Limosa limosa*: listed as Near-threatened, the population may have declined at a rate of 30% over the last 15 years. A total of 2,352 individuals were recorded in the 12-month period covered by this report which includes a peak count of 693 birds in winter – a new high figure of this species in winter, and 1,659 birds during the spring migration. Regional population is set to 160,000 individuals and so 1.5% of the regional population was recorded in Hong Kong.
- Nordmann's Greenshank *Tringa guttifer*: listed as Endangered (i.e. facing a very high risk of extinction in the wild in the near future), the world population is estimated to be 500 to 1,000 birds. One was recorded in autumn 2006 and a total of 50 birds (i.e. 46 adults and 4 first-summer birds) were recorded in spring 2007, which constituted 5 to 10% of the world population. This all-year aggregate is more than a double to the figures in the previous three years (cf. 24 birds in spring 2004 and 2006, 22 birds in spring 2005).

- Asian Dowitcher *Limnodromus semipalmatus*: listed as Near-threatened, the world population is estimated to be 23,000. The peak count in spring 2007 was 132 birds and another six individuals were recorded in autumn 2006. This peak spring count is the highest count among in recent years, which had only 25 to 36 birds in the springs of 2004 to 2006.
- Spoon-billed Sandpiper: listed as Endangered, the world population is estimated to be fewer than 3,000 individuals and the population is considered to be decreasing. One was recorded in autumn 2006 and seven were noted in the spring 2007. This is a normal year for this charismatic shorebird.

Flagged shorebirds sightings

In the period of July 2006 to June 2007, a total of 190 sightings of flagged shorebirds were reported from the Mai Po and Deep Bay area. One additional sighting was recorded at Po Toi on 3 May 2007, referring to a Ruddy Turnstone flagged in South Australia. This total number of sightings is 13% higher than in the previous year, but still 15% lower than sightings reported in 2004-05. Most of the sightings refer to local re-sighting, i.e. birds flagged in Hong Kong, which has 141 records, 74% of the total sightings. Overseas sightings include birds from Victoria (orange), South (orange/yellow) and Northwest Australia (yellow), and Shanghai, China (white/black), of which the most frequent reported was birds flagged at Victoria in 24 sightings. The most frequent reported species is the Marsh Sandpiper (56 sightings, all local sightings) and the second was the Common Greenshank (37 sightings, with one overseas sighting). More details refer to appendix 4.

Other observations

Shorebird numbers in the Mai Po Inner Deep Bay area had shown a decreasing trend in the previous years (Anon. 2006). Therefore, the increase of numbers in the spring 2007 and also the all-year aggregates is very encouraging. Several factors would be related to this increase. Management activities carried out by WWF Hong Kong in the Mai Po Nature Reserve, e.g. earth-moving works and control of *gei wai* water level, look suitable for shorebird roosting. Disturbance of raptors to roosting shorebirds seems less frequent in this spring. However, the shorebird numbers often fluctuate that makes less easy to conclude the health of the shorebird population in a particular place.

Acknowledgements

We would like to thank Dr. Lew Young and staffs at the WWF HK in Mai Po Nature

Reserve for much help in habitat management to provide suitable shorebird roosting areas. We also thank Geoff Carey for giving comments for the earlier draft of this report. We are also grateful to members of the Hong Kong Bird Watching Society for providing sightings of the colour-flagged shorebirds.

References

Anon. 2006. Shorebird Monitoring at the Mai Po Inner Deep Bay Ramsar Site: 2005-06. Report by Hong Kong Bird Watching Society to the Agriculture, Fisheries and Conservation Department, Hong Kong Special Administrative Region Government.

BirdLife International. 2000. Threatened Birds of the World. Lynx Edicions and BirdLife International. Barcelona and Cambridge, UK.

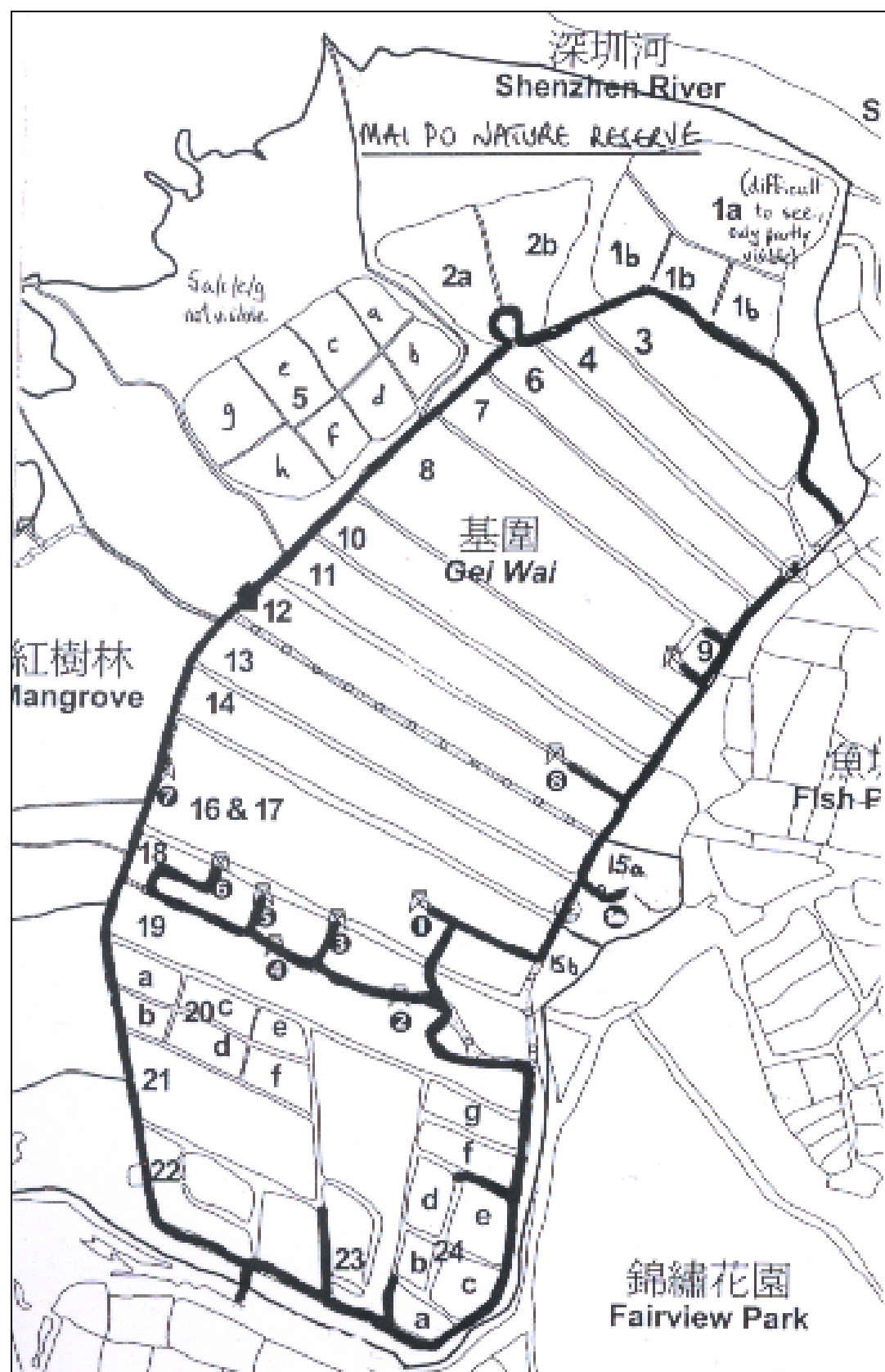
BirdLife International. 2004. Threatened Birds of the World 2004. CD-ROM. Cambridge, UK: BirdLife International.

BirdLife International. 2006. Species factsheet: *Limosa limosa*. Download from <http://www.birdlife.org> on 20/5/2006.

Howes, J and Bakewell, D. 1989. Shorebird Studies Manual. AWB Publication No. 55. Kuala Lumpur.

Wetland International. 2006. Waterbird Population Estimates – Fourth Edition. Wetland International, Wageningen, The Netherlands.

Map 1. The Mai Po Nature Reserve - the study site of shorebird monitoring programme, 2006-07.





Shorebird Monitoring at the Mai Po Marshes and Inner Deep Bay Ramsar Site

2006-07 Report

Appendix 1

Counts of shorebirds in the Mai Po Inner Deep Bay
Ramsar Site in autumn 2006



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Counts of shorebirds in the Mai Po Inner Deep Bay Ramsar Site in autumn 2006

	1-7 Jul	8-14 Jul	15-21 Jul	22-28 Jul	29-4 Aug	5-11 Aug	12-18 Aug	19-25 Aug	26-1 Sep	2-8 Sep	9-15 Sep	16-22 Sep	23-29 Sep	30-6 Oct	7-13 Oct	14-20 Oct	21-27 Oct	28-3 Nov
Pheasant-tailed Jacana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Greater Painted-snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-winged Stilt	35	39	27	30	25	34	16	111	129	29	80	137	54	230	271	148	159	46
Pied Avocet	1	0	0	0	0	0	0	10	0	0	0	0	0	0	18	25	6	464
Oriental Pratincole	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0
Northern Lapwing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey-headed Lapwing	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Pacific Golden Plover	0	0	0	0	0	0	0	37	0	2	0	1	0	19	25	27	2	104
Grey Plover	7	0	4	6	5	0	11	3	12	6	22	18	28	11	1	28	42	17
Common Ringed Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Ringed Plover	0	0	0	4	0	1	1	0	0	0	0	0	3	0	0	0	0	0
Kentish Plover	0	0	0	2	0	0	0	0	0	0	1	0	2	251	0	4	0	217
Lesser Sand Plover	3	0	2	1	11	1	6	0	3	2	0	0	0	0	0	1	0	0
Greater Sand Plover	8	4	1	14	149	25	104	219	222	122	36	23	37	18	25	2	4	1
Oriental Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-tailed Godwit	9	11	6	18	16	31	38	94	151	199	214	231	373	304	396	415	584	481
Bar-tailed Godwit	0	0	0	0	0	0	0	0	0	1	7	3	8	1	1	2	3	4
Little Curlew	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whimbrel	7	0	0	1	0	22	63	126	134	75	79	25	90	14	105	49	19	3
Eurasian Curlew	26	27	36	57	55	60	53	64	77	59	67	69	72	85	82	80	81	93
Far Eastern Curlew	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1
Spotted Redshank	0	0	0	0	2	6	2	0	12	8	6	7	10	9	31	34	40	268
Common Redshank	55	17	434	867	1470	966	645	506	382	336	267	227	384	183	460	300	341	461
Marsh Sandpiper	0	5	7	11	25	17	20	56	76	203	570	592	1303	829	1583	1067	1656	1456
Common Greenshank	64	64	108	355	611	687	390	1816	1285	1446	898	816	1304	1275	1308	1003	907	717
Nordmann's Greenshank	0	1	1	0	1	0	1	0	0	1	0	0	1	0	0	1	1	0
Green Sandpiper	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0
Wood Sandpiper	2	1	4	16	152	1	0	51	27	165	71	217	267	147	597	227	230	4
Terek Sandpiper	0	0	0	5	29	9	2	19	14	29	7	0	2	8	3	0	0	1
Common Sandpiper	0	0	1	2	1	0	2	0	0	0	0	0	0	0	1	0	0	0
Grey-tailed Tattler	0	0	0	0	1	2	3	0	1	1	0	0	0	5	0	2	1	0
Ruddy Turnstone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-necked Phalarope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pintail/Swinhoe's Snipe	0	0	0	0	0	0	0	0	0	0	1	8	2	1	0	0	0	0
Common Snipe	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	1
Long-billed Dowitcher	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Asian Dowitcher	0	0	0	0	0	6	0	3	5	5	4	0	1	0	0	0	0	0
Red Knot	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	4	3	1
Great Knot	0	0	0	1	0	1	0	5	7	3	5	1	6	8	13	4	13	10
Sanderling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-necked Stint	0	0	0	4	32	16	2	112	0	29	38	130	182	23	0	0	0	0
Little Stint	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Temminck's Stint	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Long-toed Stint	0	0	0	0	1	1	0	0	0	4	1	2	1	0	0	1	0	0
Pectoral Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sharp-tailed Sandpiper	0	0	0	0	0	1	0	0	2	1	1	2	1	0	1	2	2	1
Dunlin	0	0	0	0	0	0	0	0	0	0	3	5	15	7	0	1	2	92
Curlew Sandpiper	0	0	1	99	161	112	0	0	20	6	10	4	2	2	0	1	0	0
Spoon-billed Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Broad-billed Sandpiper	0	0	0	0	0	0	0	0	0	1	13	14	17	1	0	0	0	0
Ruff	0	0	0	0	0	0	1	0	0	1	1	1	3	5	3	1	1	1
Sand Plover sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small wader sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large <i>tringa</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	0	0	0
Total	219	169	632	1493	2748	2000	1360	3236	2559	2734	2404	2537	4169	3790	4928	3433	4100	4446



Shorebird Monitoring at the Mai Po Marshes and Inner Deep Bay Ramsar Site

2006-07 Report

Appendix 2

Counts of shorebirds in the Mai Po Inner Deep Bay
Ramsar Site in spring 2007



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Counts of shorebirds in the Mai Po Inner Deep Bay Ramsar Site in spring 2007

	22-24 Mar	25-27 Mar.	28-30 Mar.	31-2 Apr.	3-5 Apr.	6-8 Apr.	9-11 Apr.	12-14 Apr.	15-17 Apr.	18-20 Apr.	21-23 Apr.	24-26 Apr.	27-29 Apr.	30-2 May	3-5 May	6-8 May	9-11 May	12-14 May	15-17 May	18-20 May	21-23 May	24-26 May	27-29 May	30-1 Jun	2-15 Jun.	16-30 Jun.
Pheasant-tailed Jacana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greater Painted-snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Black-winged Stilt	0	51	96	12	94	108	145	25	85	23	70	39	39	47	26	38	84	5	43	41	56	61	47	39	42	18
Pied Avocet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Oriental Pratincole	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northern Lapwing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grey-headed Lapwing	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Golden Plover	0	1	0	2	5	29	6	40	59	33	160	1	5	8	3	1	3	2	3	2	1	2	2	0	0	0
Grey Plover	11	3	29	32	10	18	20	15	7	4	10	3	2	4	4	4	9	7	4	5	4	6	4	2	0	0
Common Ringed Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Ringed Plover	0	0	0	0	0	0	3	0	1	0	0	0	0	2	1	0	0	0	0	0	2	0	1	0	0	0
Kentish Plover	0	0	0	0	3	3	8	6	12	2	0	1	2	0	6	4	4	0	2	3	0	1	0	0	0	0
Lesser Sand Plover	0	0	0	0	0	4	11	30	70	19	4	0	90	179	113	55	22	9	18	13	10	6	4	2	1	0
Greater Sand Plover	2	0	0	6	11	32	14	37	147	39	8	20	76	23	29	110	80	41	78	124	90	73	55	19	4	4
Oriental Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-tailed Godwit	223	302	299	1	155	92	1247	1659	983	450	816	739	600	244	43	43	13	0	10	10	10	5	3	7	4	0
Bar-tailed Godwit	1	0	4	1	56	69	114	25	16	10	7	13	5	3	2	1	1	2	1	1	1	2	0	3	1	0
Little Curlew	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whimbrel	0	1	2	6	0	0	1	1	0	0	3	23	44	36	72	59	17	5	13	21	16	14	12	17	18	18
Eurasian Curlew	288	187	105	24	47	44	50	18	20	11	21	21	23	22	17	18	15	16	16	14	17	17	17	19	14	17
Far Eastern Curlew	1	1	0	0	1	2	5	0	0	2	2	2	1	1	2	0	2	2	1	1	1	1	1	0	1	1
Spotted Redshank	814	359	83	64	9	17	718	1239	41	126	907	356	394	963	512	813	465	143	57	38	4	4	0	0	0	0
Common Redshank	157	170	8	365	9	16	47	346	137	457	242	1139	492	600	310	524	620	291	188	218	145	31	8	15	16	1
Marsh Sandpiper	1662	1016	79	312	21	10	636	808	303	138	901	476	15	98	12	2	8	0	1	1	9	1	0	0	0	0
Common Greenshank	587	601	907	331	422	301	903	1137	930	1071	1134	689	881	1386	1142	886	778	191	83	75	78	32	14	9	52	1
Nordmann's Greenshank	1	3	0	1	2	28	46	40	2	1	1	1	0	0	0	2	0	2	2	3	4	0	0	0	0	0
Green Sandpiper	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wood Sandpiper	3	1	2	0	2	1	51	16	15	43	9	57	1	1	4	0	0	0	0	0	0	0	0	0	0	0
Terek Sandpiper	0	0	0	37	2	14	64	370	140	109	28	590	224	36	350	246	125	37	197	244	367	284	117	118	177	2
Common Sandpiper	1	1	0	0	1	1	0	0	1	1	1	3	2	1	0	0	1	3	0	0	0	0	0	0	0	0

Grey-tailed Tattler	0	0	0	0	0	0	0	0	2	0	1	4	16	6	3	5	1	12	4	3	1	1	0	0	27	0
Ruddy Turnstone	0	0	0	0	0	1	2	10	10	38	10	29	24	15	76	100	84	2	36	39	29	5	0	0	0	0
Red-necked Phalarope	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Pintail/Swinhoe's Snipe	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long-billed Dowitcher	1	1	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asian Dowitcher	0	0	0	1	1	0	0	7	6	11	5	7	38	132	116	90	35	1	2	0	1	0	0	0	0	0
Red Knot	1	1	0	24	3	2	2	2	3	1	2	0	10	68	144	3	6	24	46	47	20	5	0	0	0	0
Great Knot	3	8	37	41	39	340	226	47	68	8	18	12	10	6	9	1	6	12	8	4	18	23	2	2	5	0
Sanderling	0	1	0	0	0	0	0	0	3	3	2	0	1	2	3	4	2	4	10	7	10	0	0	0	0	0
Red-necked Stint	6	0	0	200	14	2	34	625	1003	355	310	52	760	543	241	1176	2239	200	803	1230	1514	96	6	2	3	0
Little Stint	0	0	0	0	0	0	0	0	2	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Temminck's Stint	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long-toed Stint	0	0	0	0	0	0	0	2	1	1	0	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Pectoral Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sharp-tailed Sandpiper	0	0	0	12	0	2	7	22	16	14	3	1	10	62	128	175	41	12	14	7	11	4	0	0	0	0
Dunlin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Curlew Sandpiper	9	13	50	88	411	840	94	1862	10982	4619	1640	1541	1053	3827	232	699	317	65	16	23	7	11	9	0	3	0
Spoon-billed Sandpiper	0	0	0	0	0	0	0	5	4	2	0	0	1	1	0	0	0	1	1	1	1	1	0	0	0	0
Broad-billed Sandpiper	0	1	0	18	6	2	8	24	78	23	31	16	33	16	10	35	50	18	21	12	18	0	0	0	0	0
Ruff	1	0	0	0	0	0	2	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Small wader sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large tringa sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3,772	2,722	1,701	1,578	1,326	1,981	4,469	8,422	15,149	7,617	6,350	5,847	4,854	8,332	3,612	5,095	5,028	1,108	1,678	2,187	2,444	688	301	255	369	63



Shorebird Monitoring at the Mai Po Marshes and Inner Deep Bay Ramsar Site

2006-07 Report

Appendix 3



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Figure 1. Total number of shorebirds recorded at Mai Po Inner Deep Bay, autumn 2006

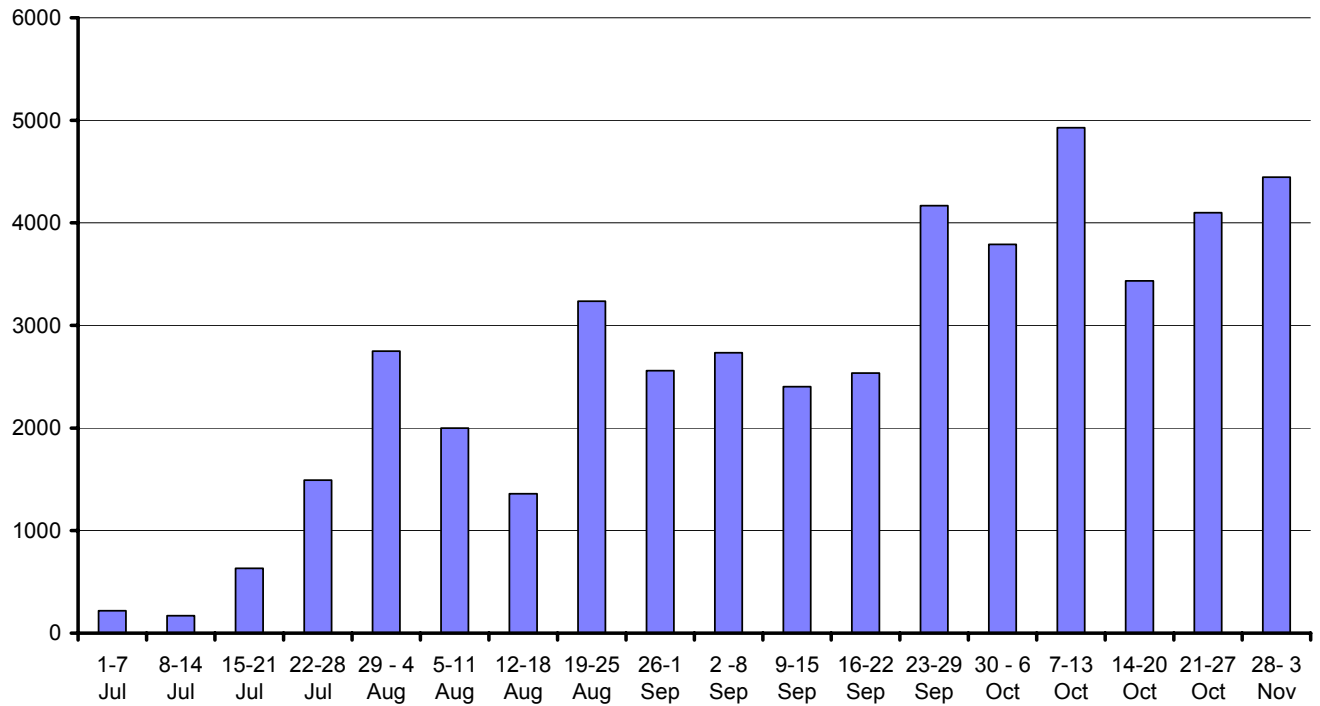


Figure 2. Counts of Black-winged Stilt at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

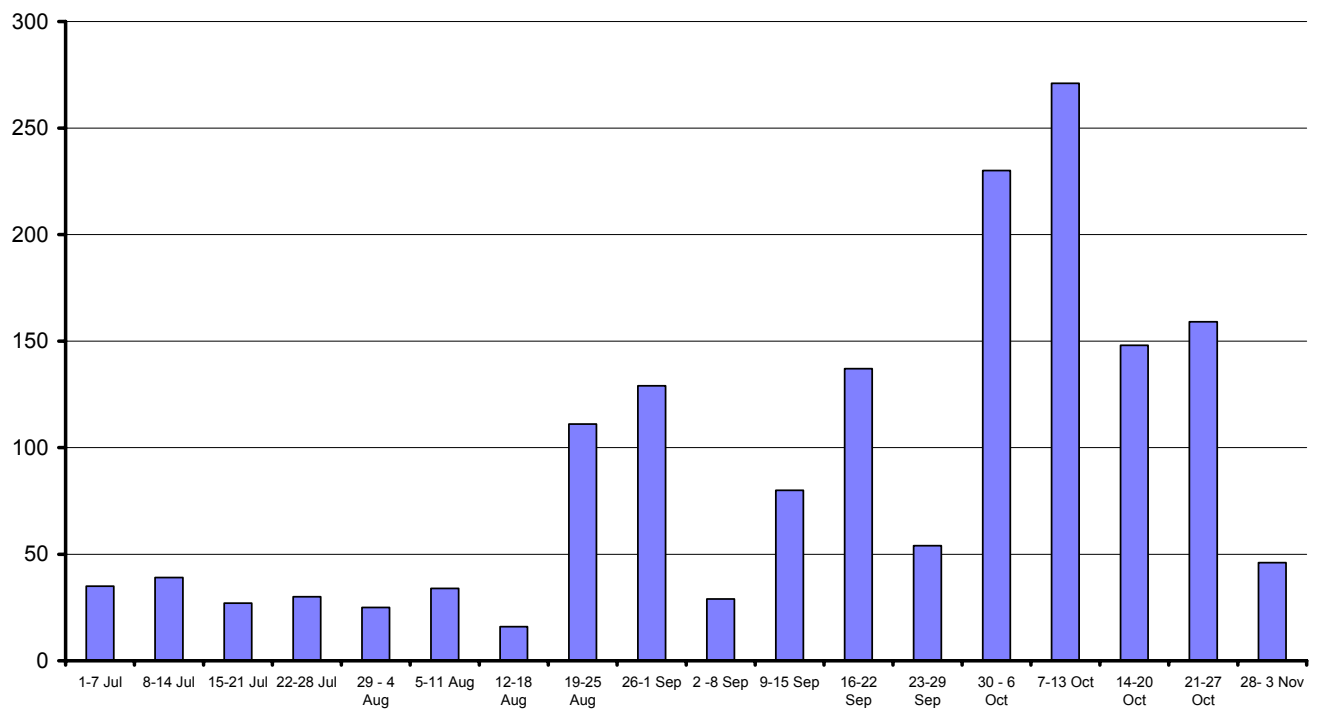


Figure 3. Counts of Pacific Golden Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

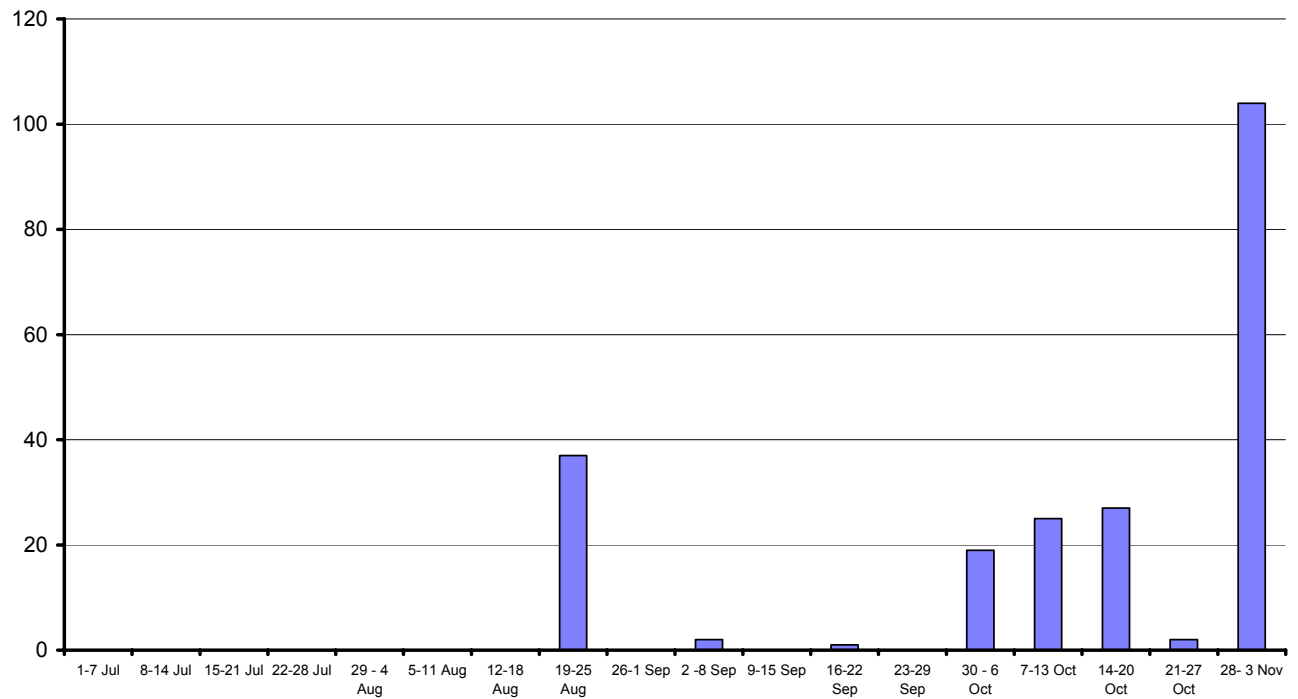


Figure 4. Counts of Kentish Plover at Mai Inner Deep Bay Ramsar Site, autumn 2006

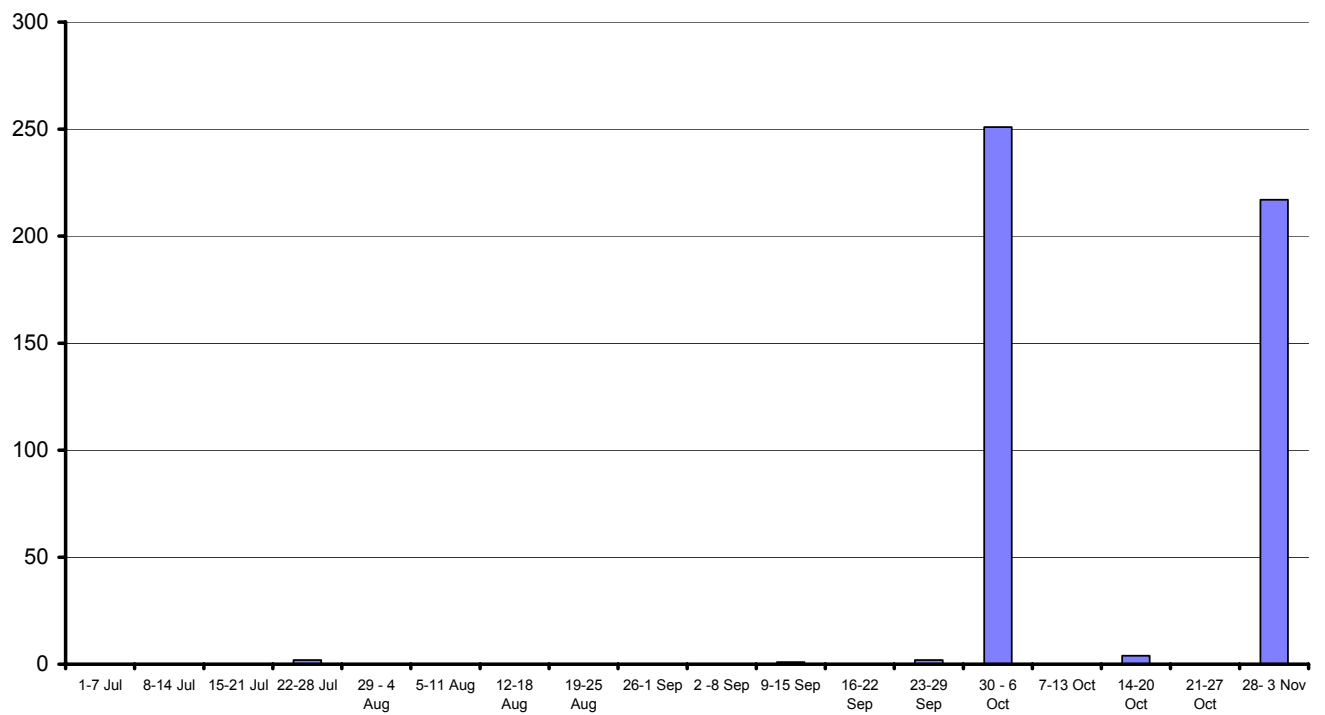


Figure 5. Counts of Grey Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

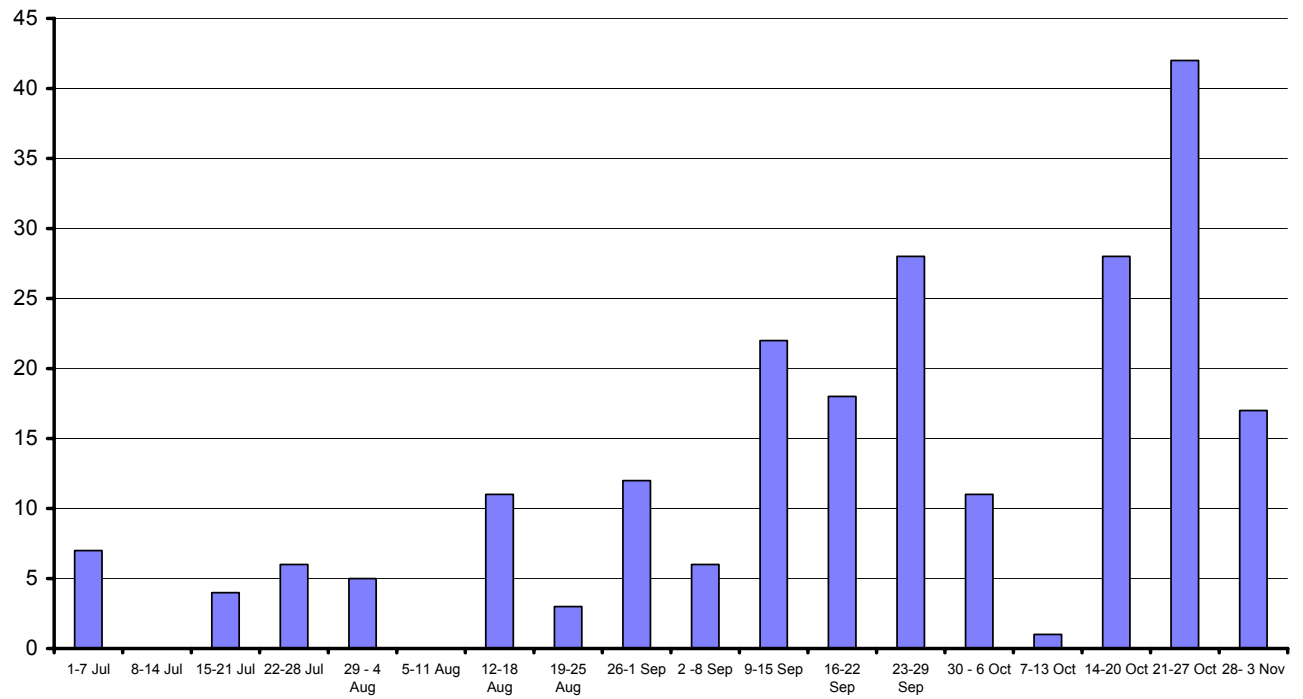


Figure 6. Counts of Lesser Sand Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

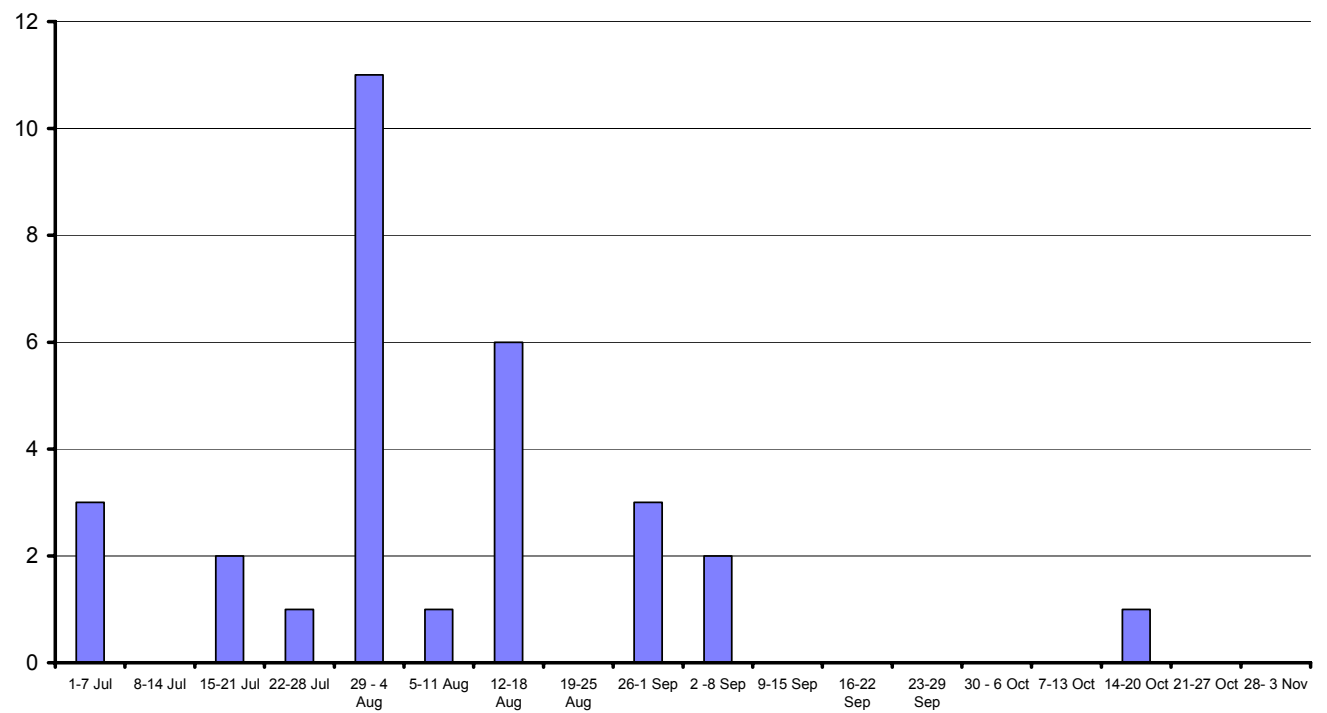


Figure 7. Counts of Greater Sand Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

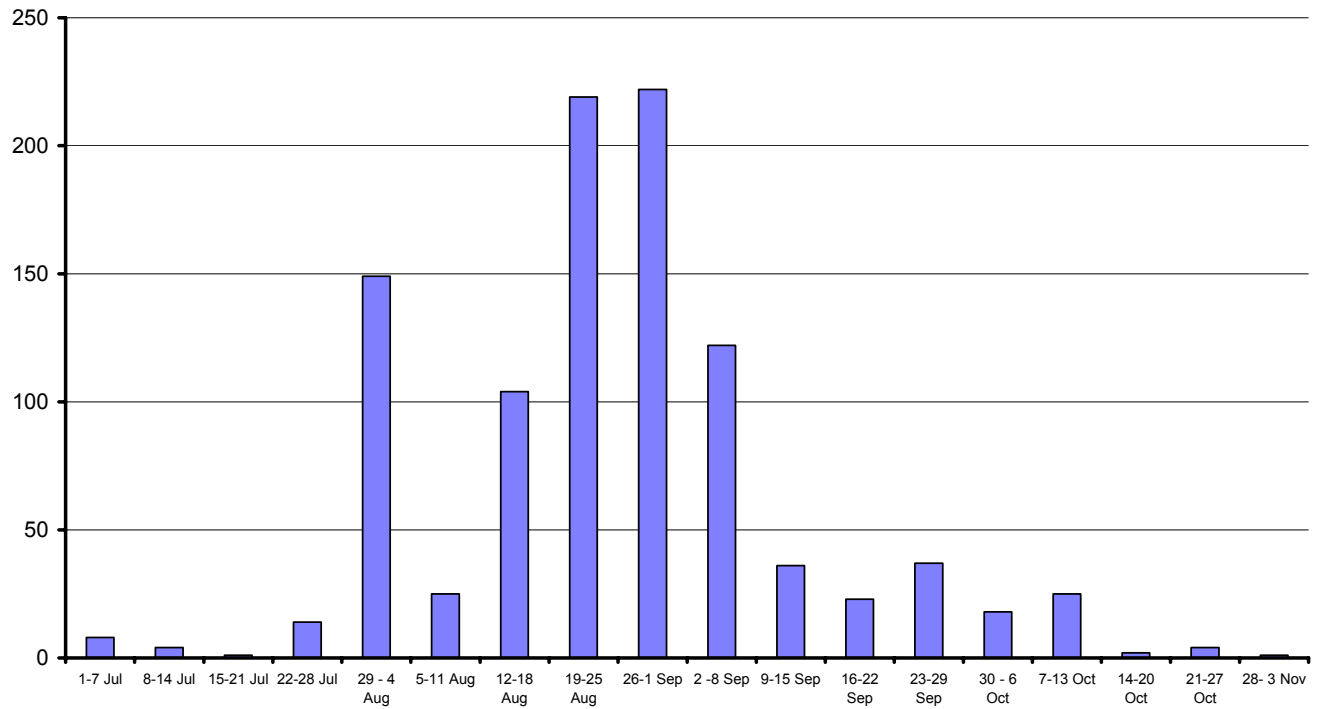


Figure 8. Counts of Black-tailed Godwit at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

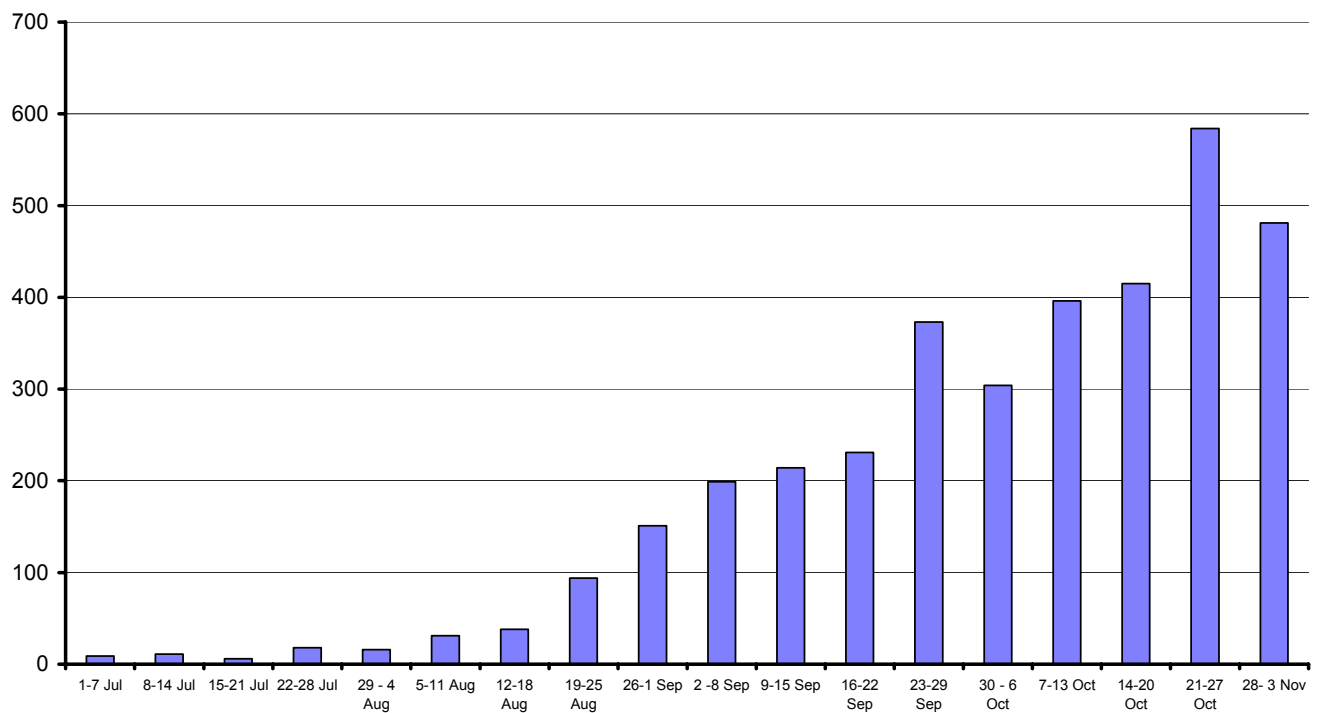


Figure 9. Counts of Bar-tailed Godwit at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

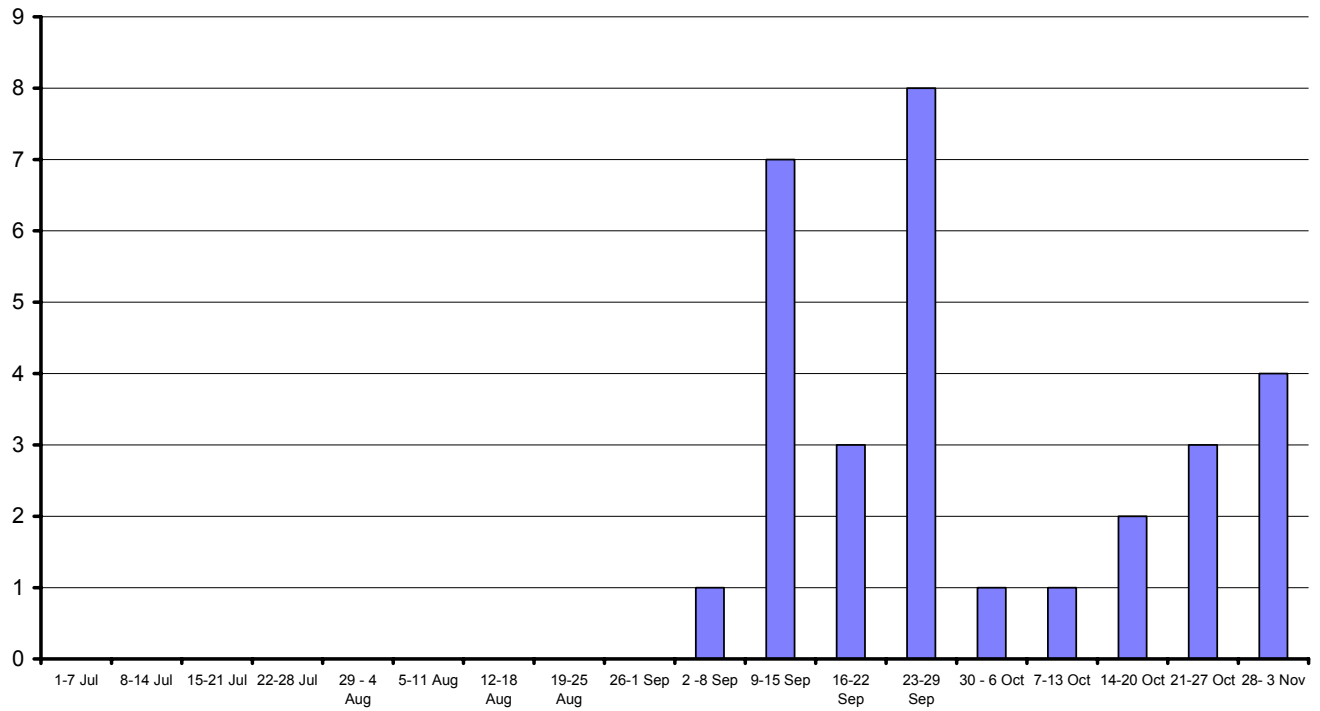


Figure 10. Counts of Whimbrel at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

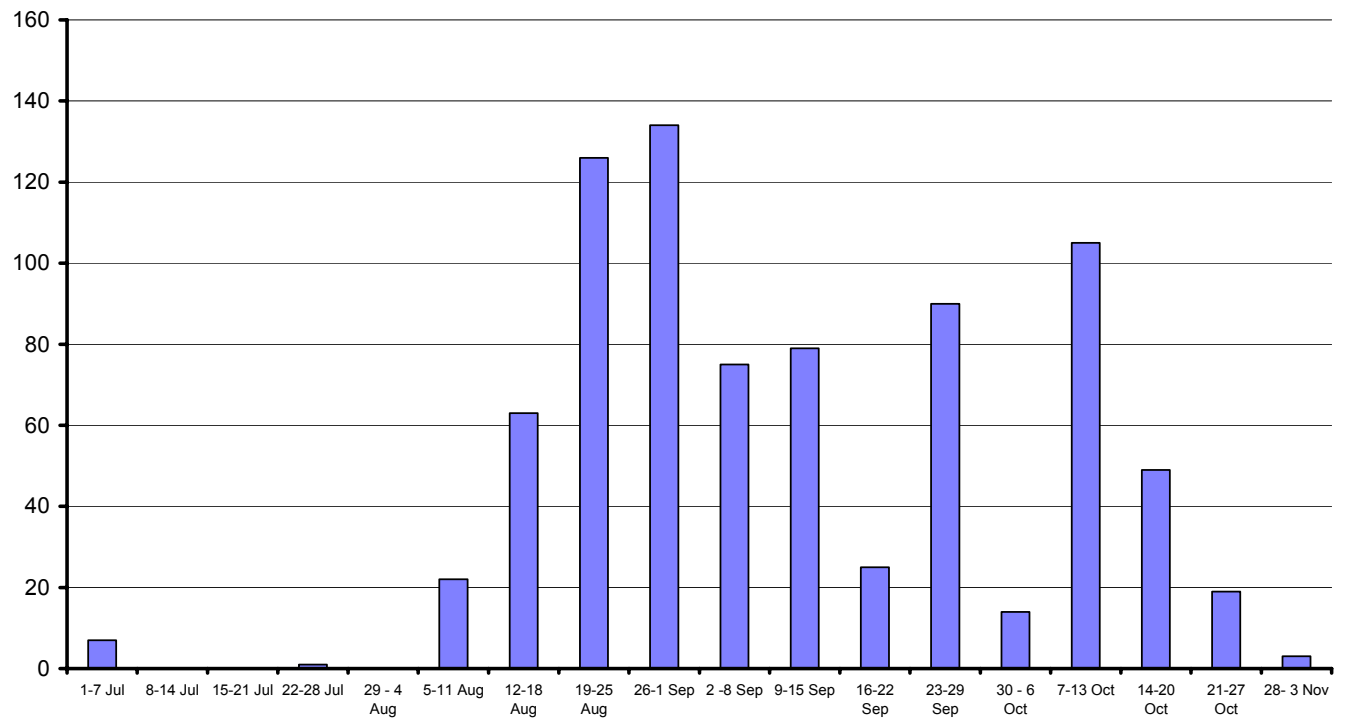


Figure 11. Counts of Eurasian Curlew at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

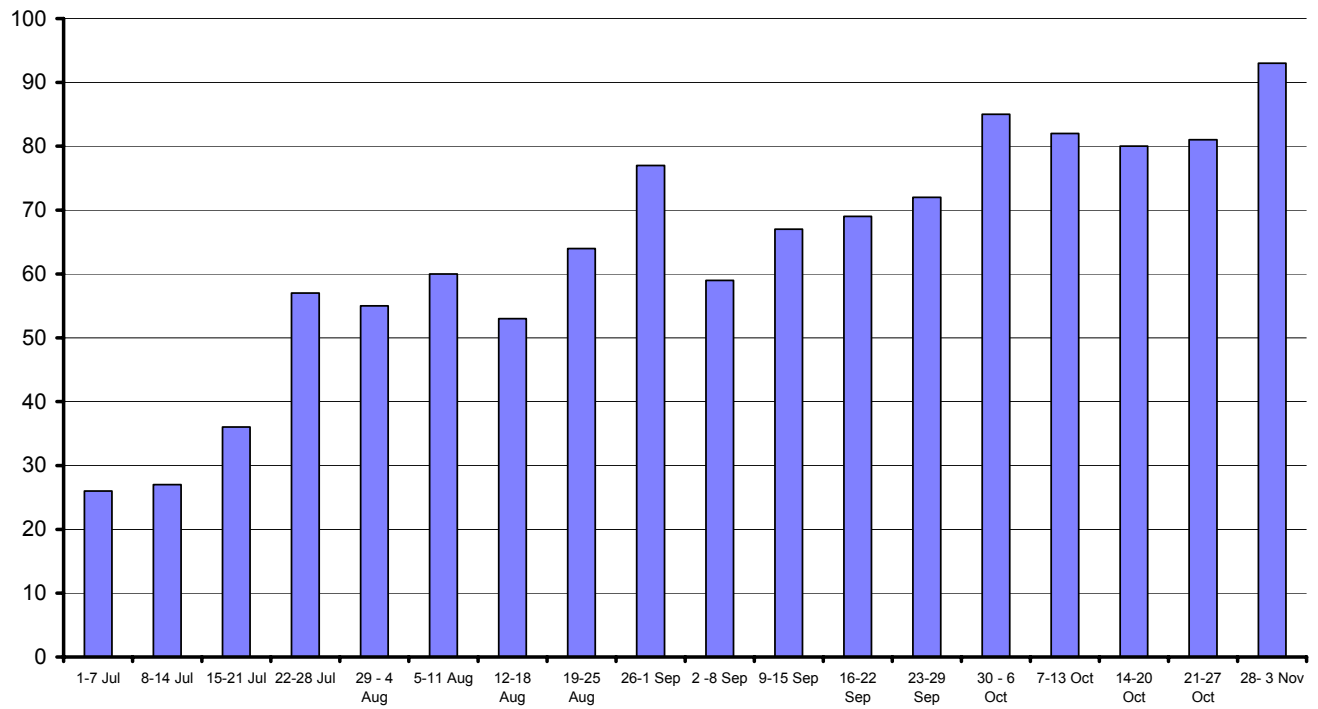


Figure 12. Counts of Spotted Redshank at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

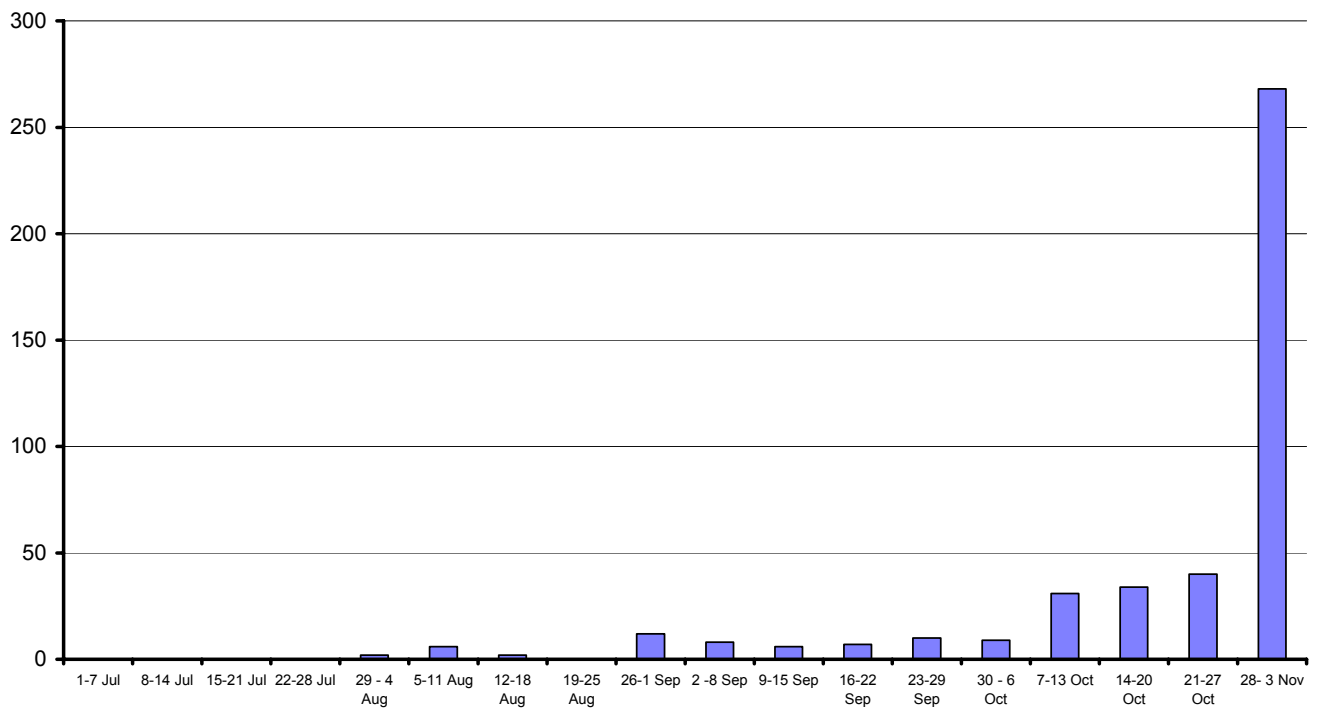


Figure 13. Counts of Common Redshank at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

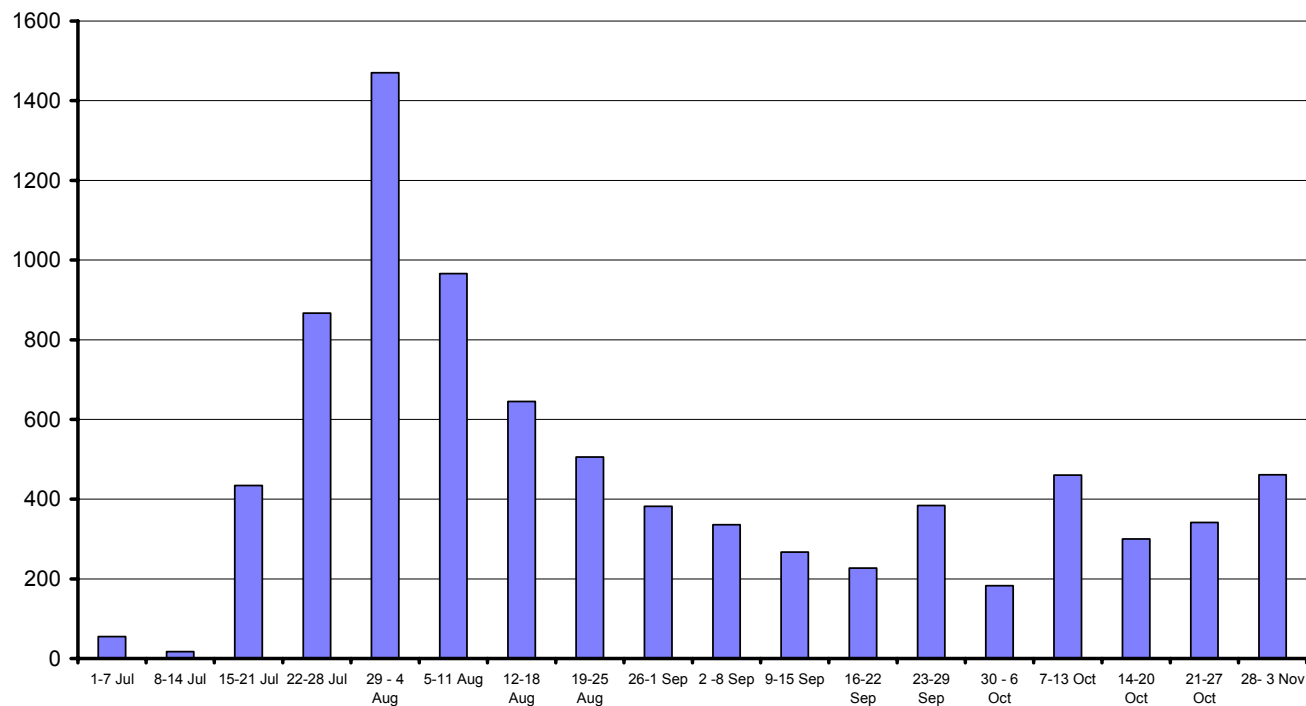


Figure 14. Counts of Marsh Sandpiper at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

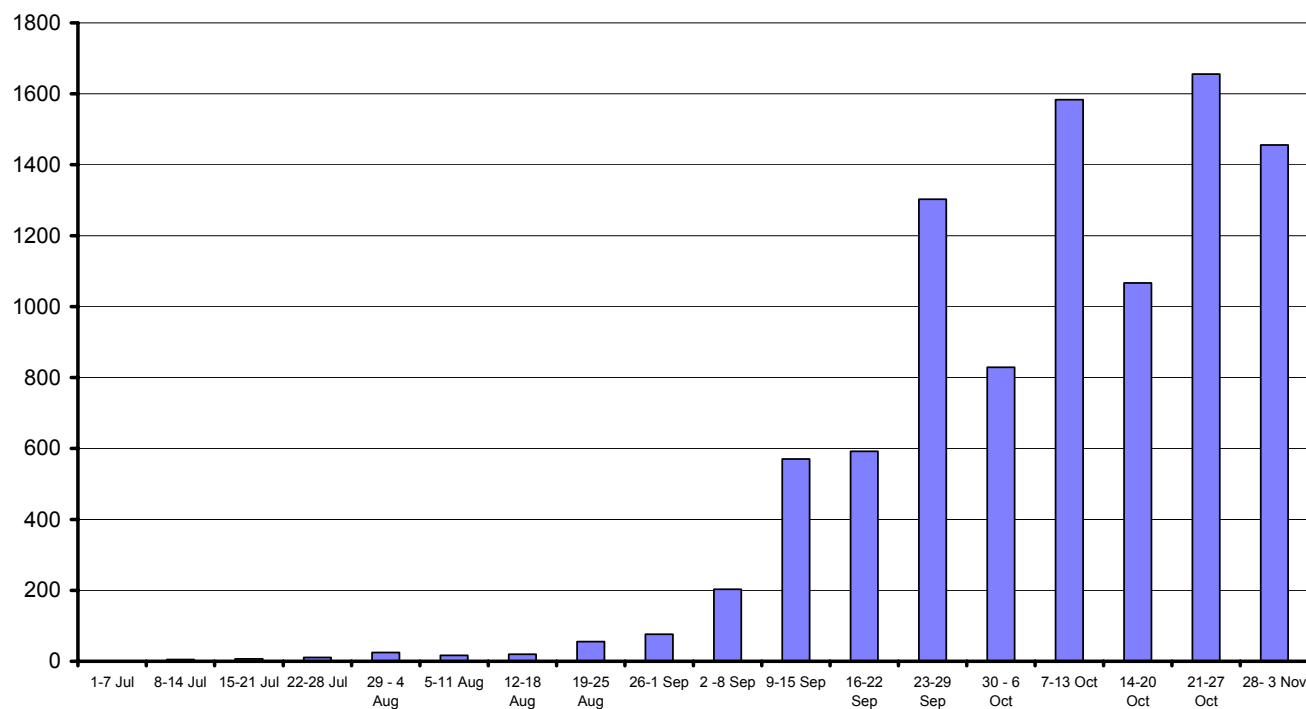


Figure 15. Counts of Common Greenshank at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

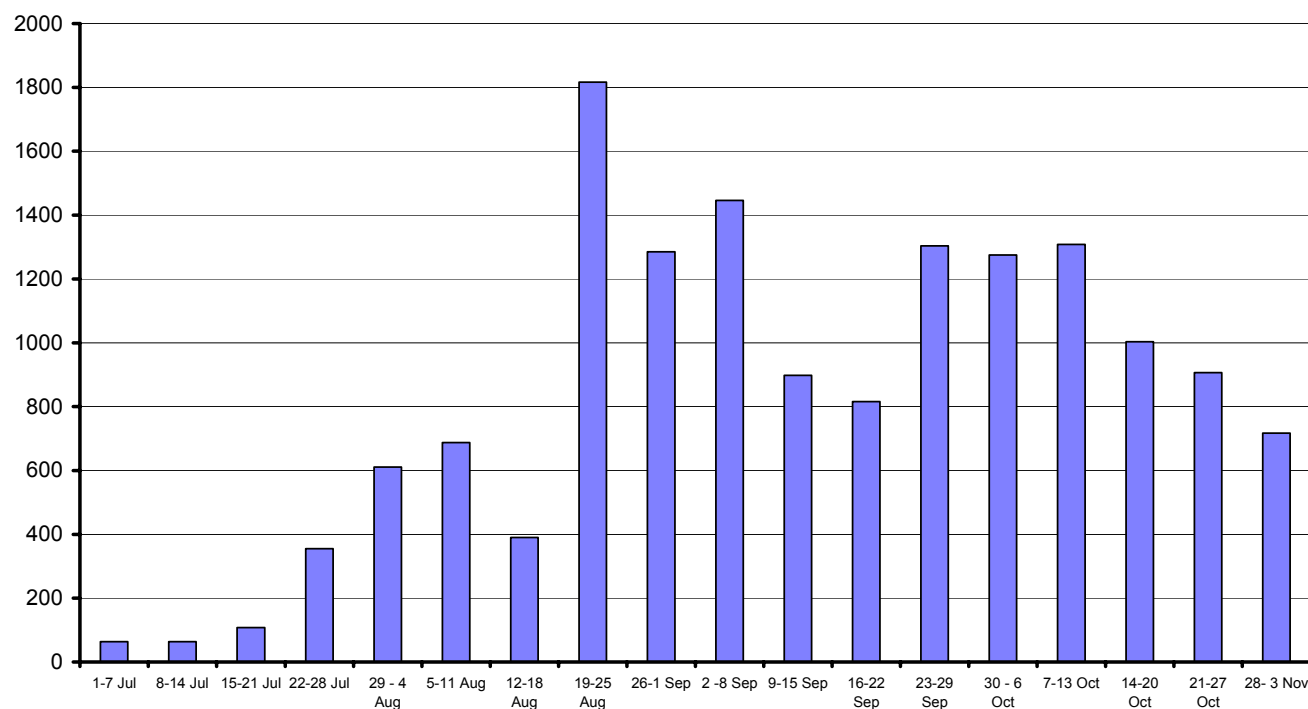


Figure 16. Counts of Wood Sandpiper at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

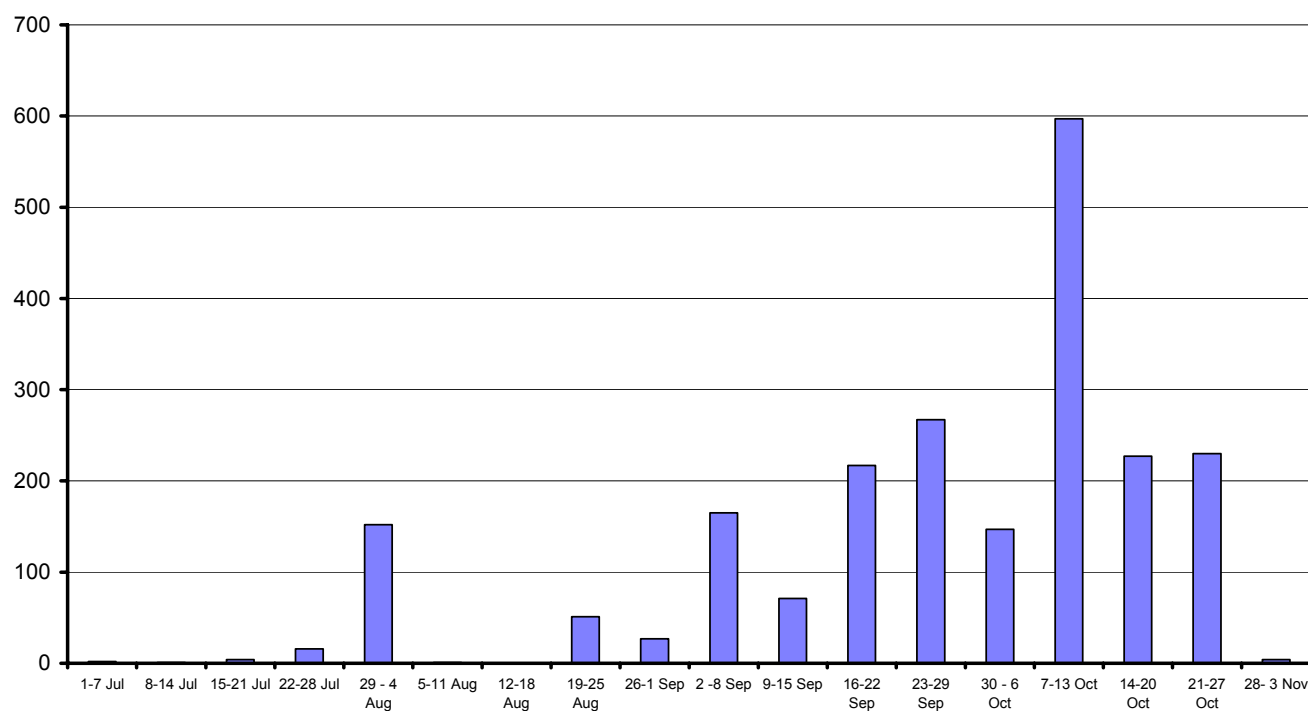


Figure 17. Counts of Great Knot at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

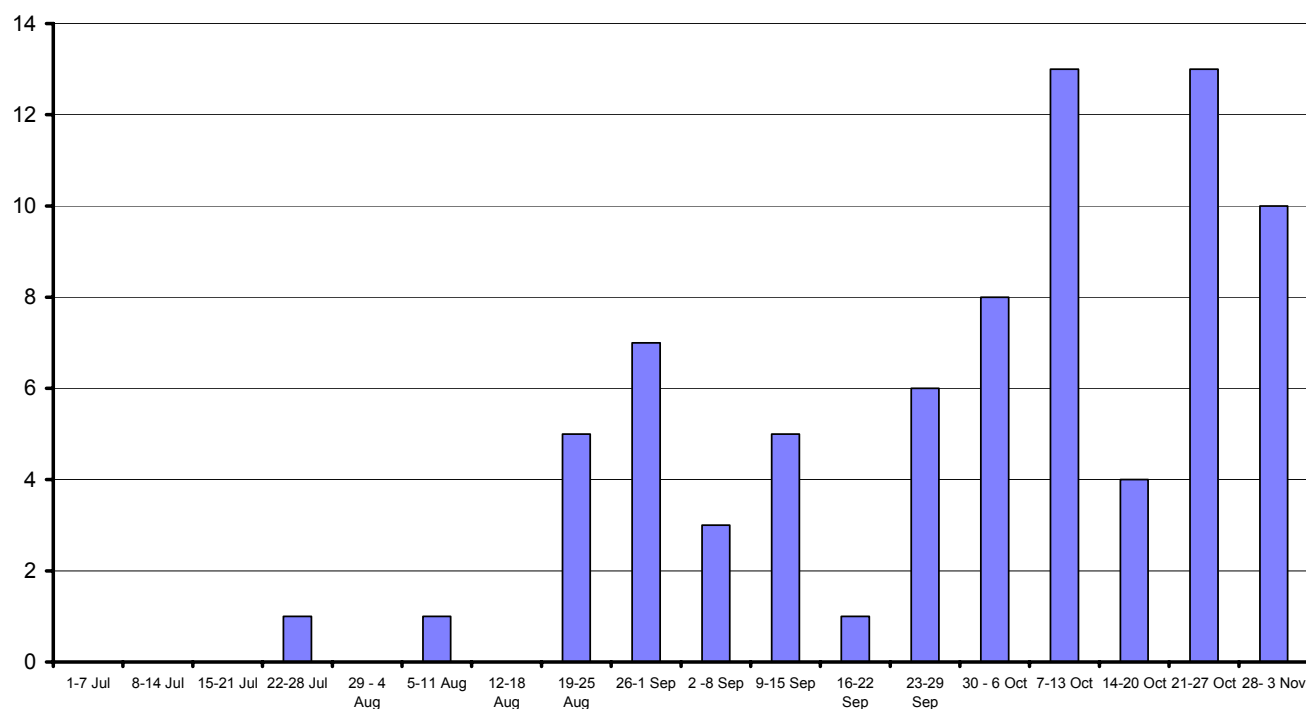


Figure 18. Counts of Red Knot at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

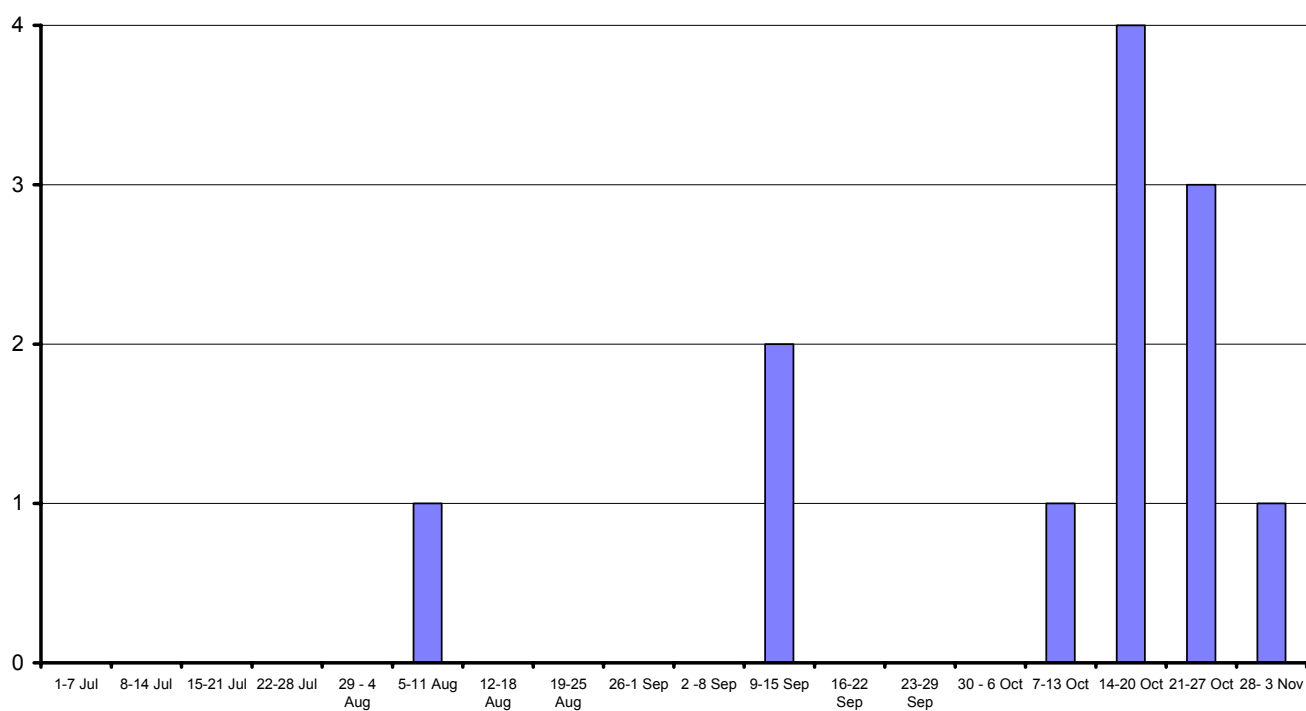


Figure 19. Counts of Broad-billed Sandpiper at Mai Po Inner Deep Bay Ramsar Site, autumn 2006

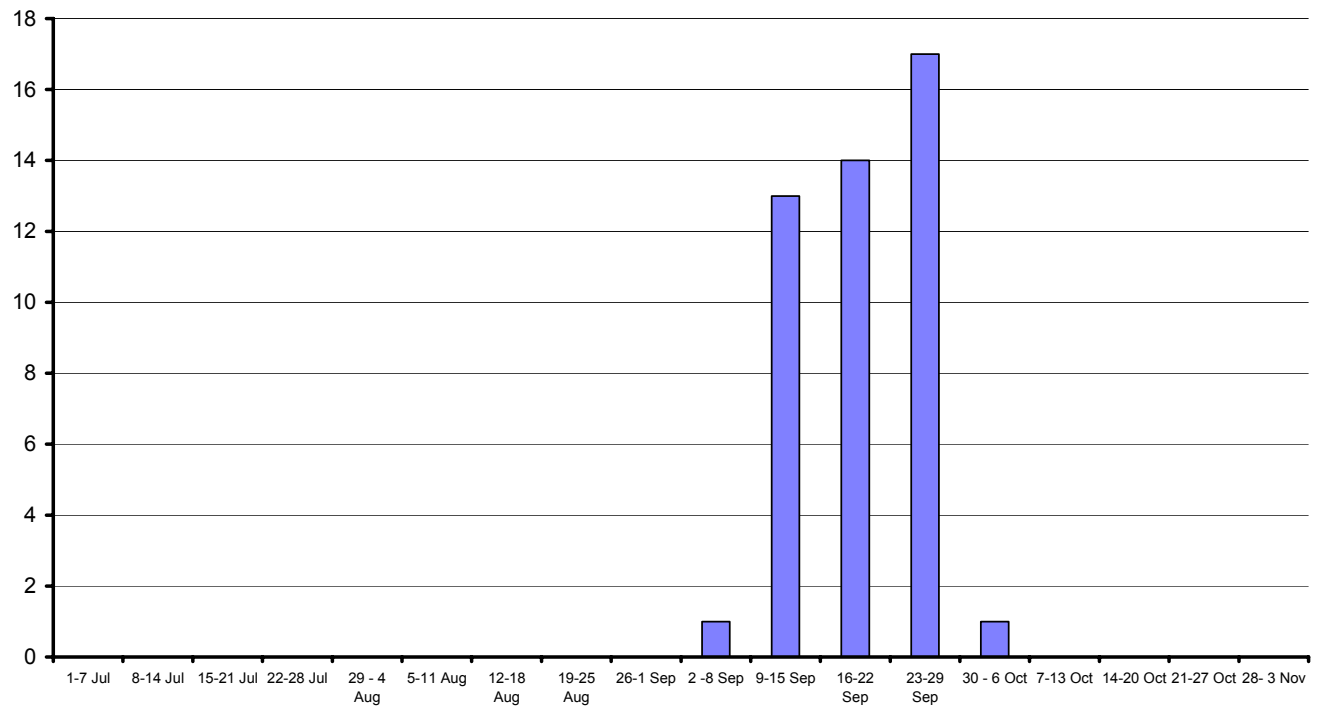


Figure 20. Total number of shorebirds recorded at Mai Po Inner Deep Bay, spring 2007

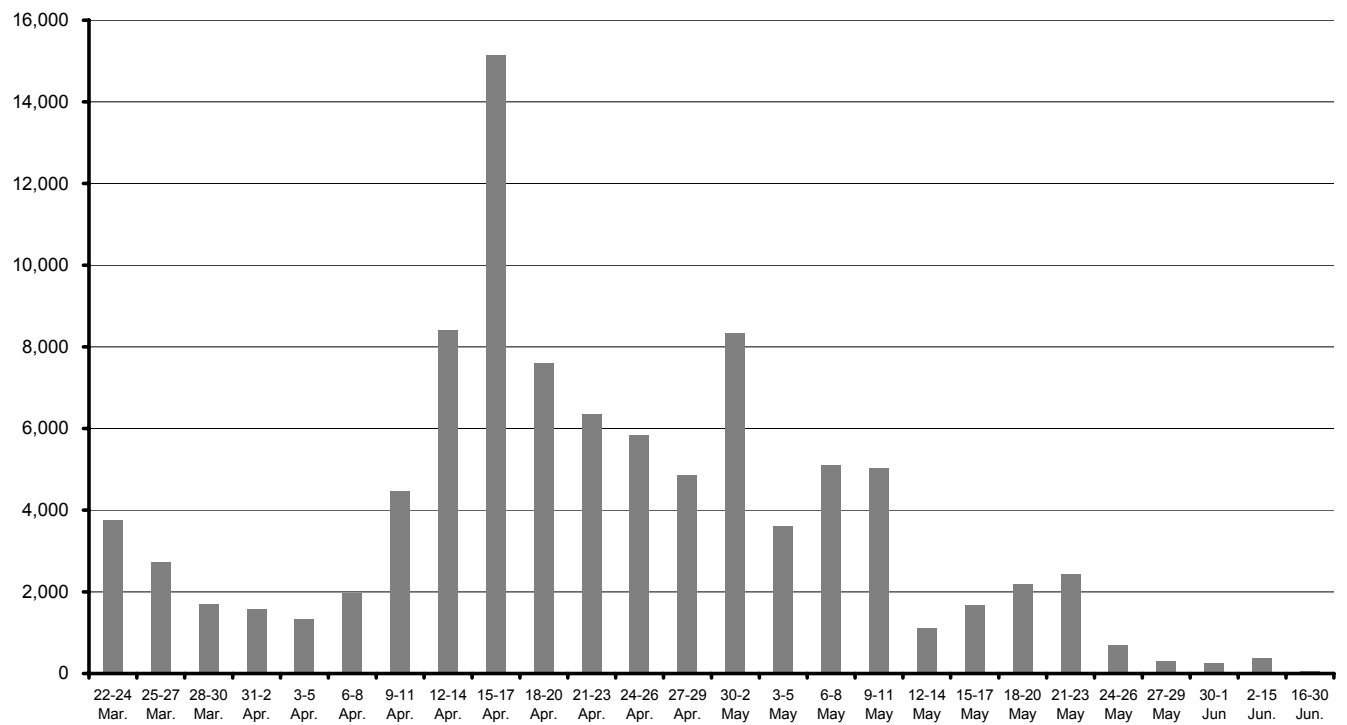


Figure 21. Counts of Pacific Golden Plover at Mai Po Inner Deep Bay Ramsar Site, spring 2007

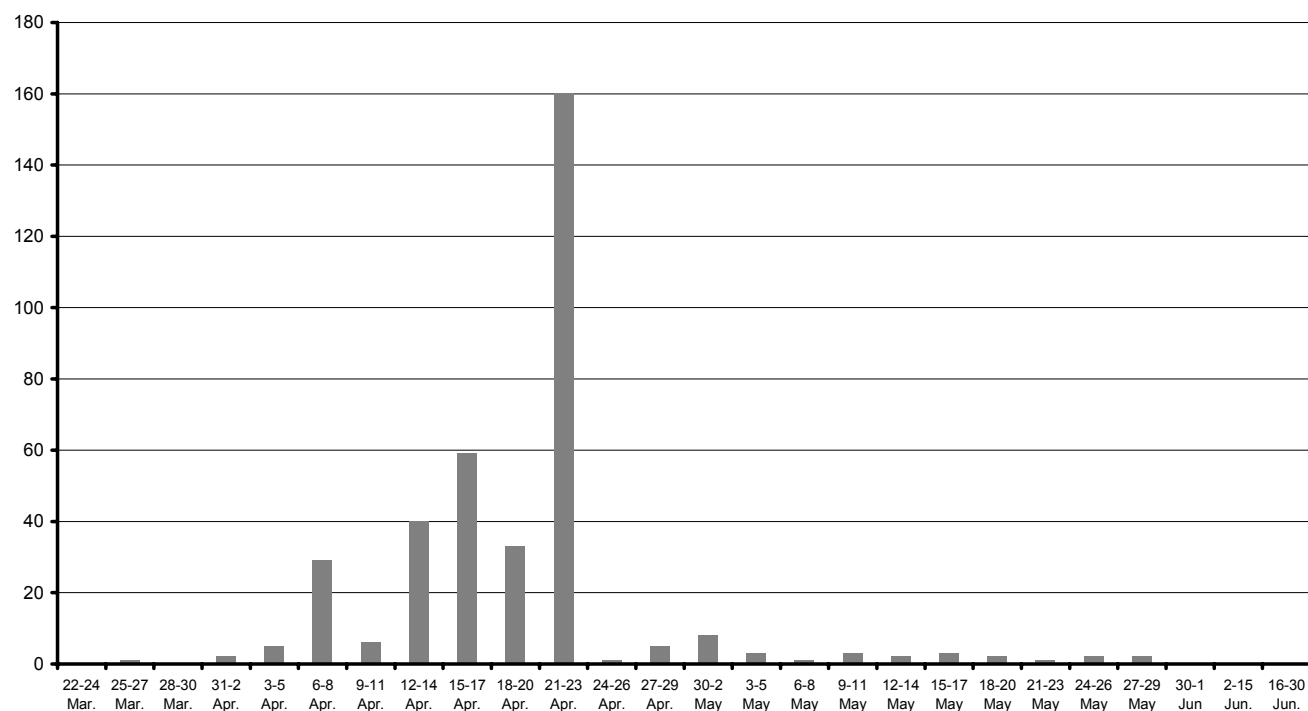


Figure 22. Counts of Lesser Sandplover at Mai Po Inner Deep Bay Ramsar Site, spring 2007

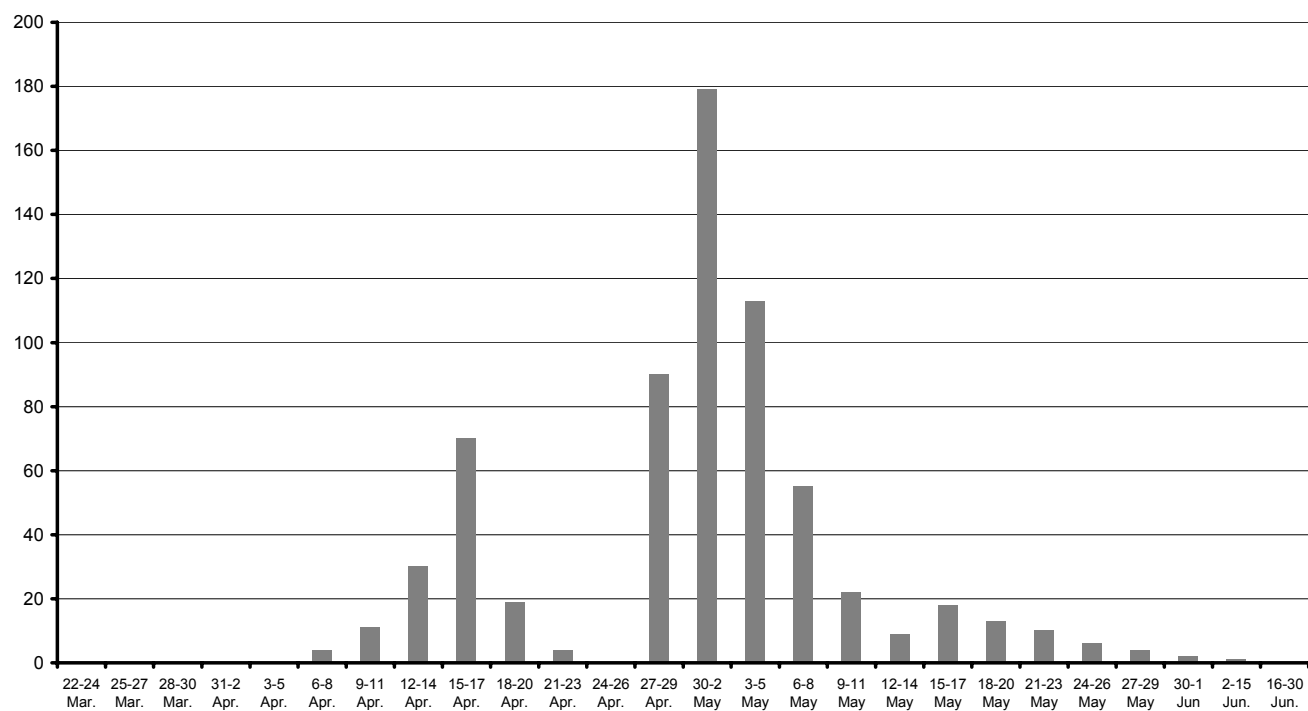


Figure 23. Counts of Greater Sandplover at Mai Po Inner Deep Bay Ramsar Site, spring 2007

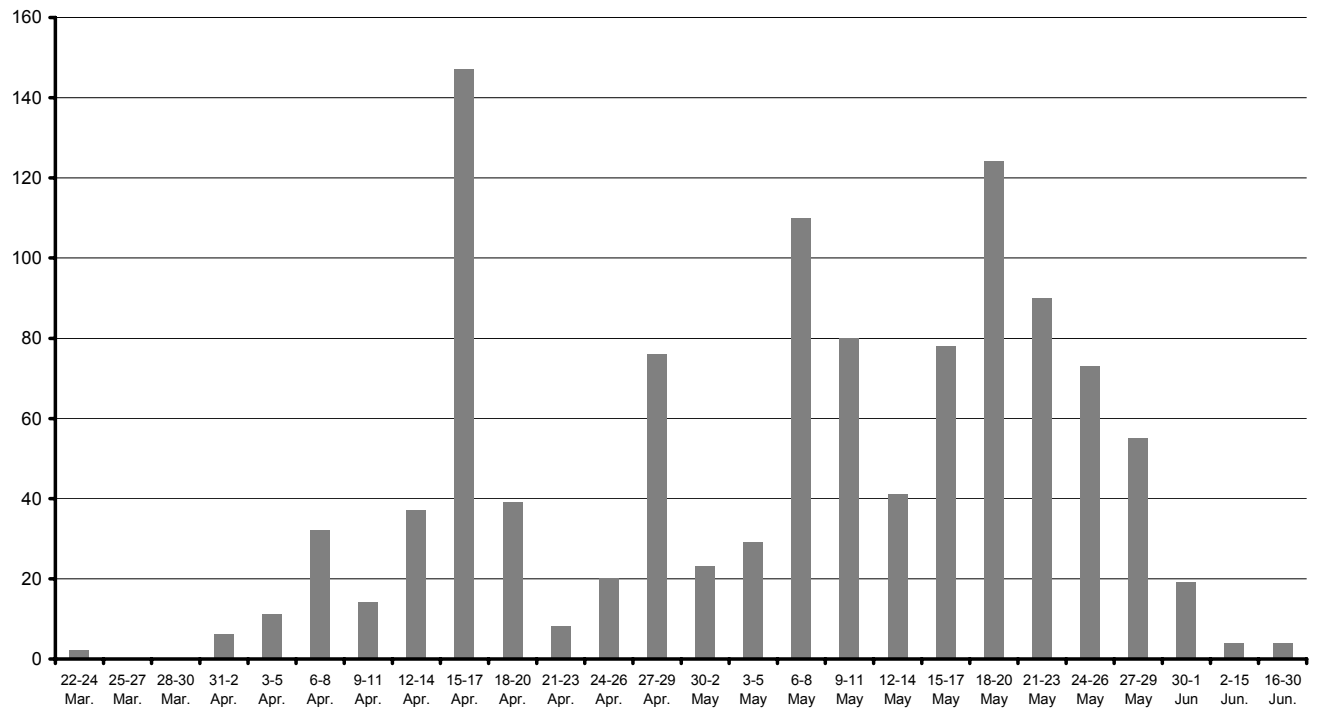


Figure 24. Counts of Black-tailed Godwit at Mai Po Inner Deep Bay Ramsar Site, spring 2007

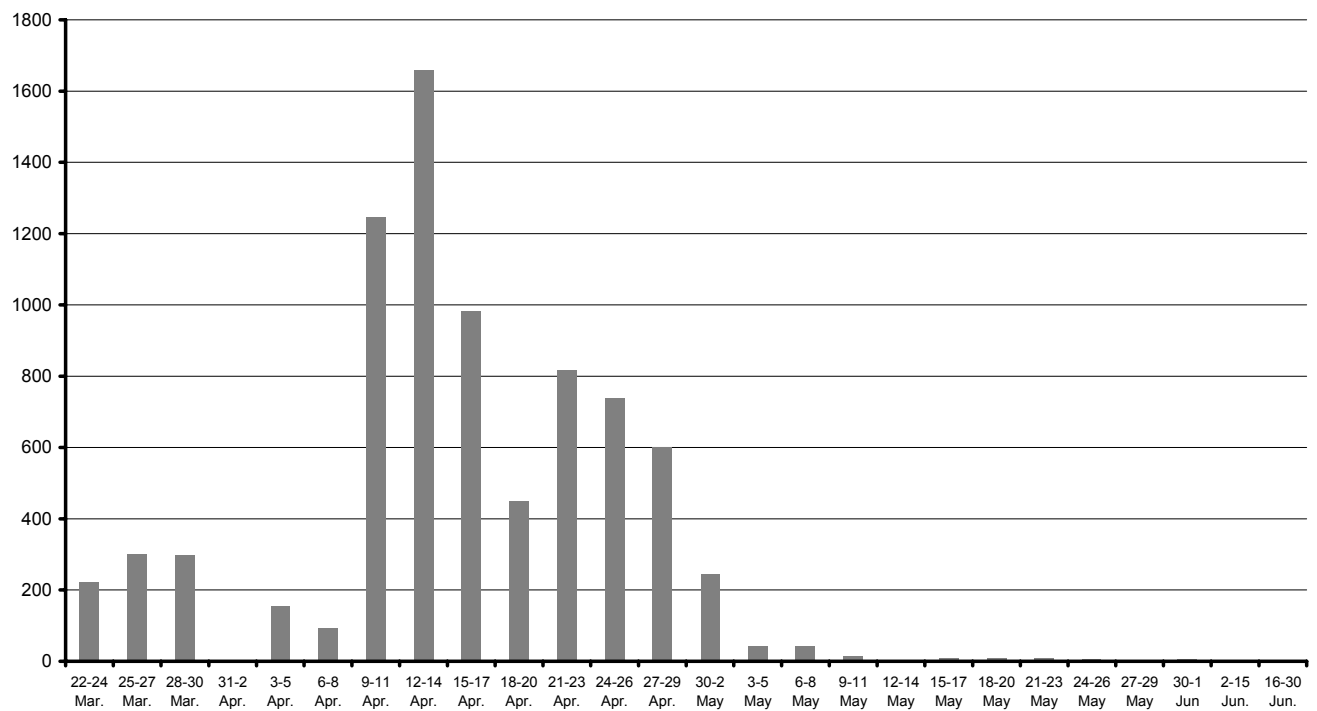


Figure 25. Counts of Spotted Redshank at Mai Po Inner Deep Bay Ramsar Site, spring 2007

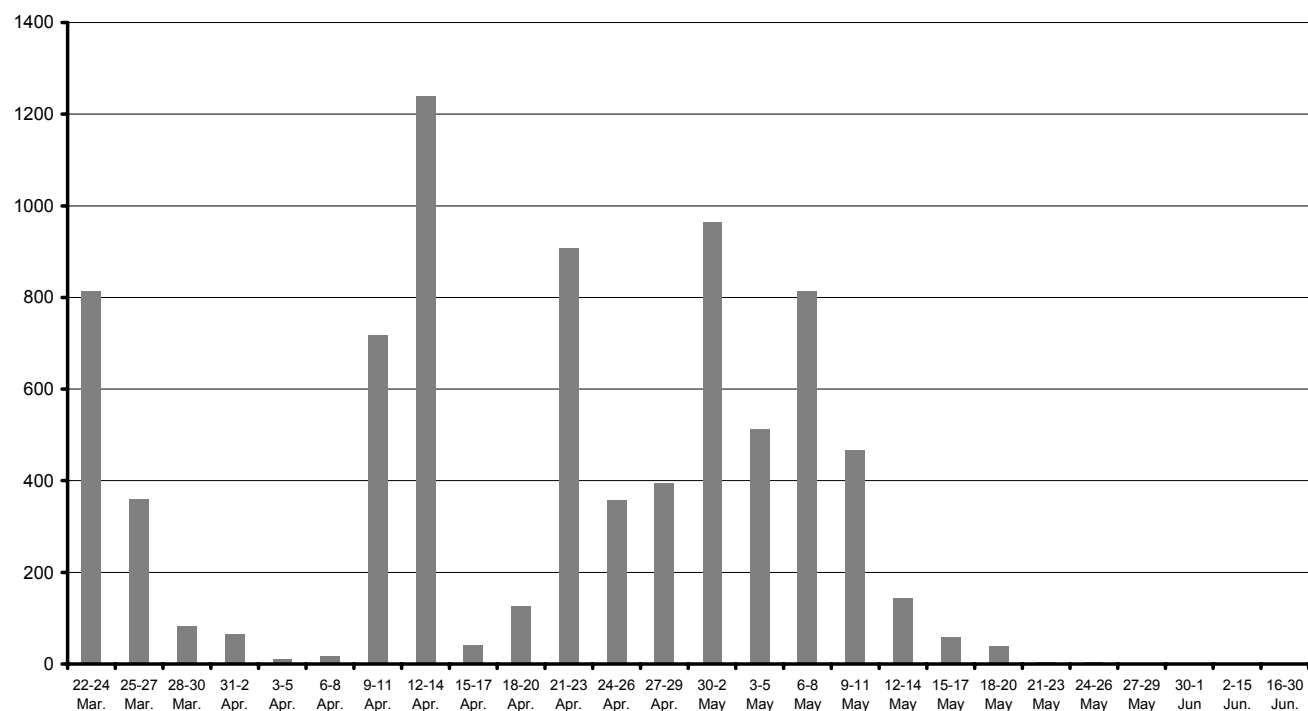


Figure 26. Counts of Common Redshank at Mai Po Inner Deep Bay Ramsar Site, spring 2007

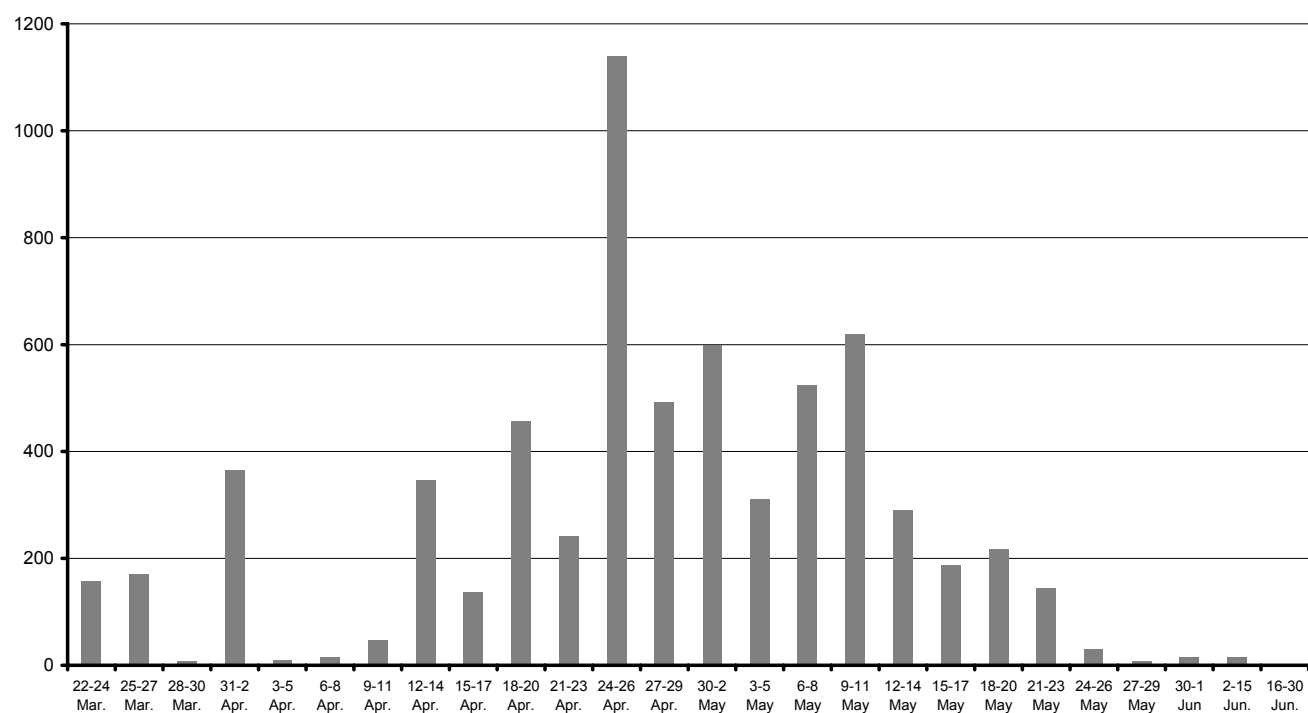


Figure 27. Counts of Marsh Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2007

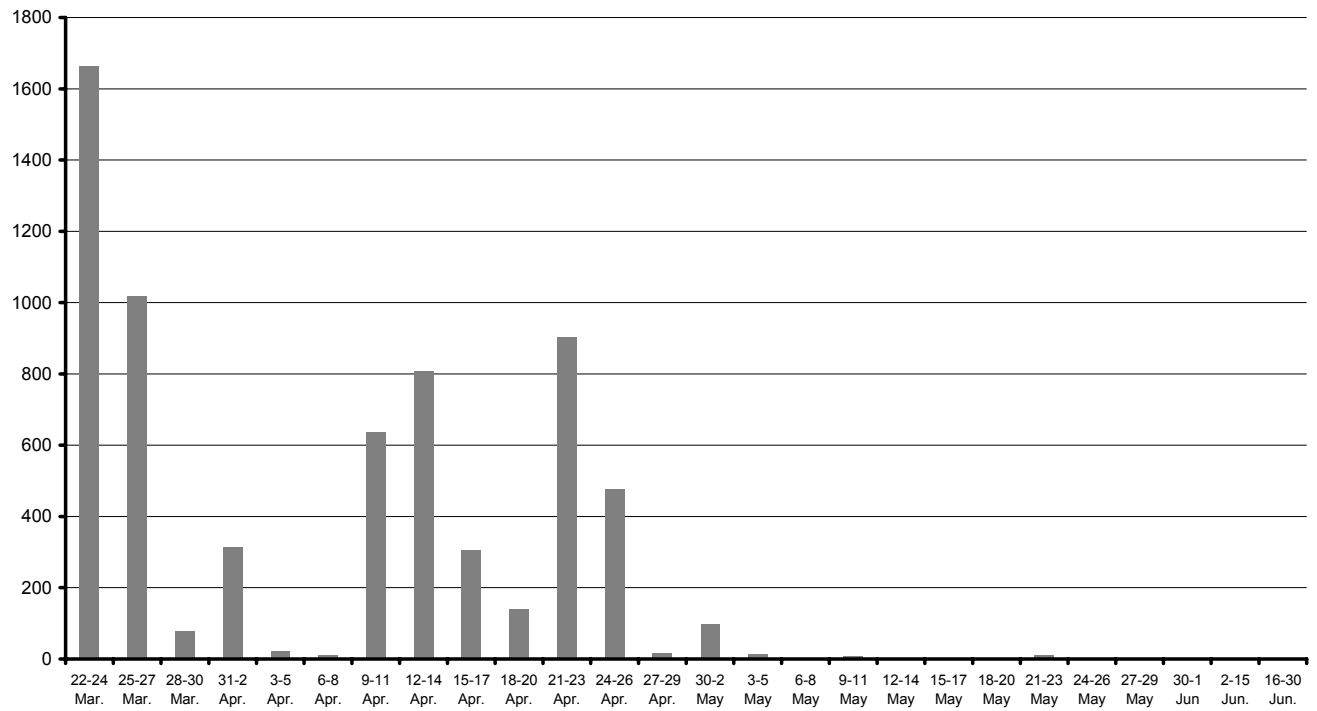


Figure 28. Counts of Common Greenshank at Mai Po Inner Deep Bay Ramsar Site, spring 2007

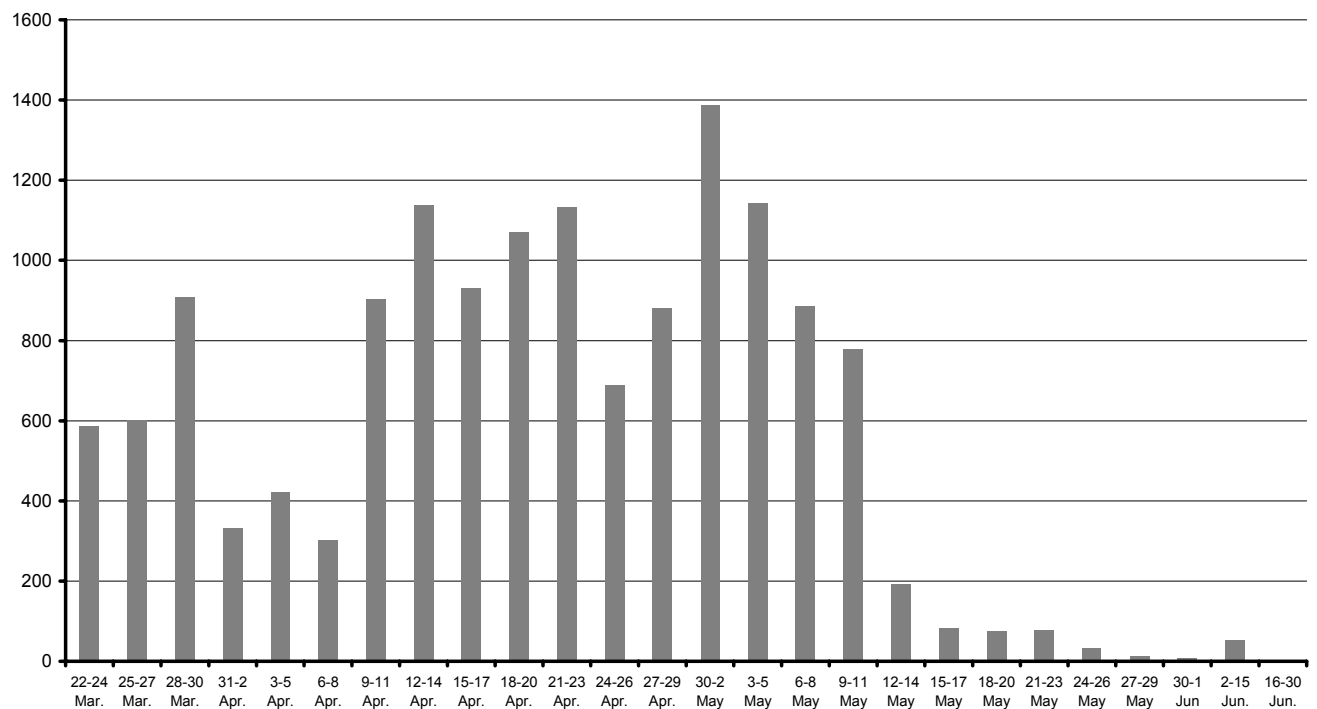


Figure 29. Counts of Terek Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2007

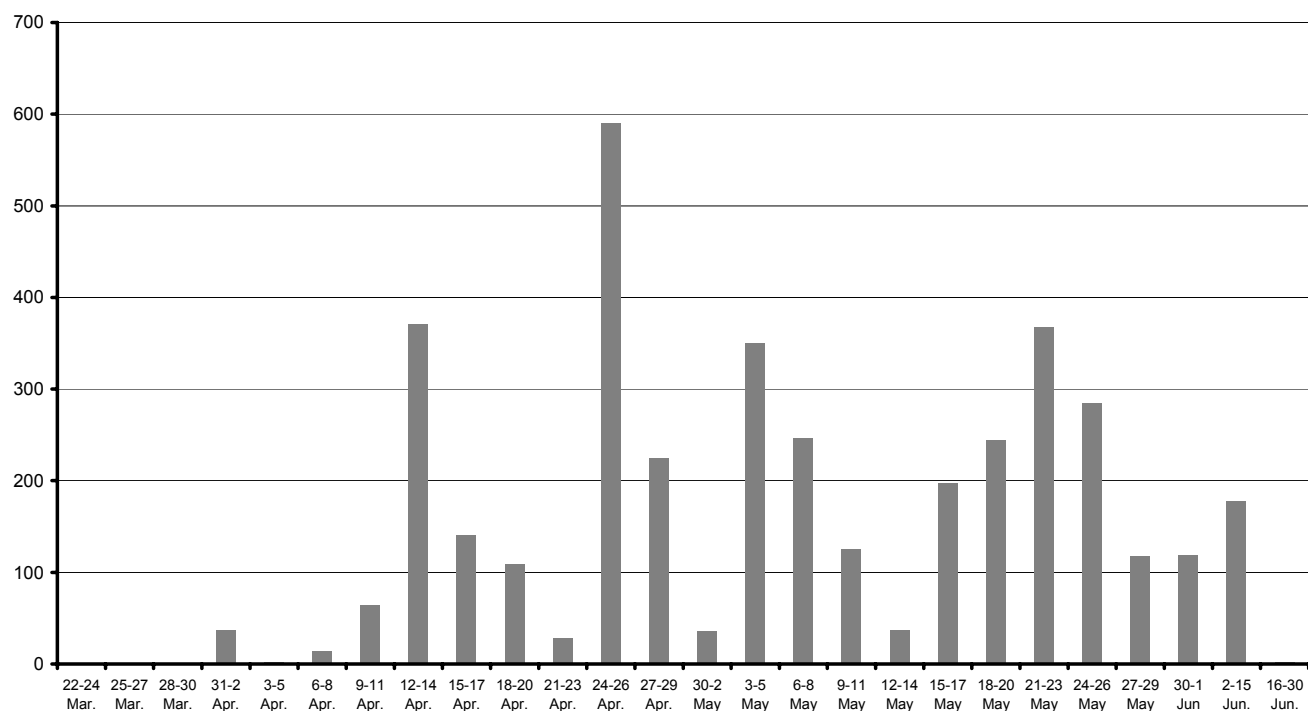


Figure 30. Counts of Grey-tailed Tattler at Mai Po Inner Deep Bay Ramsar Site, spring 2007

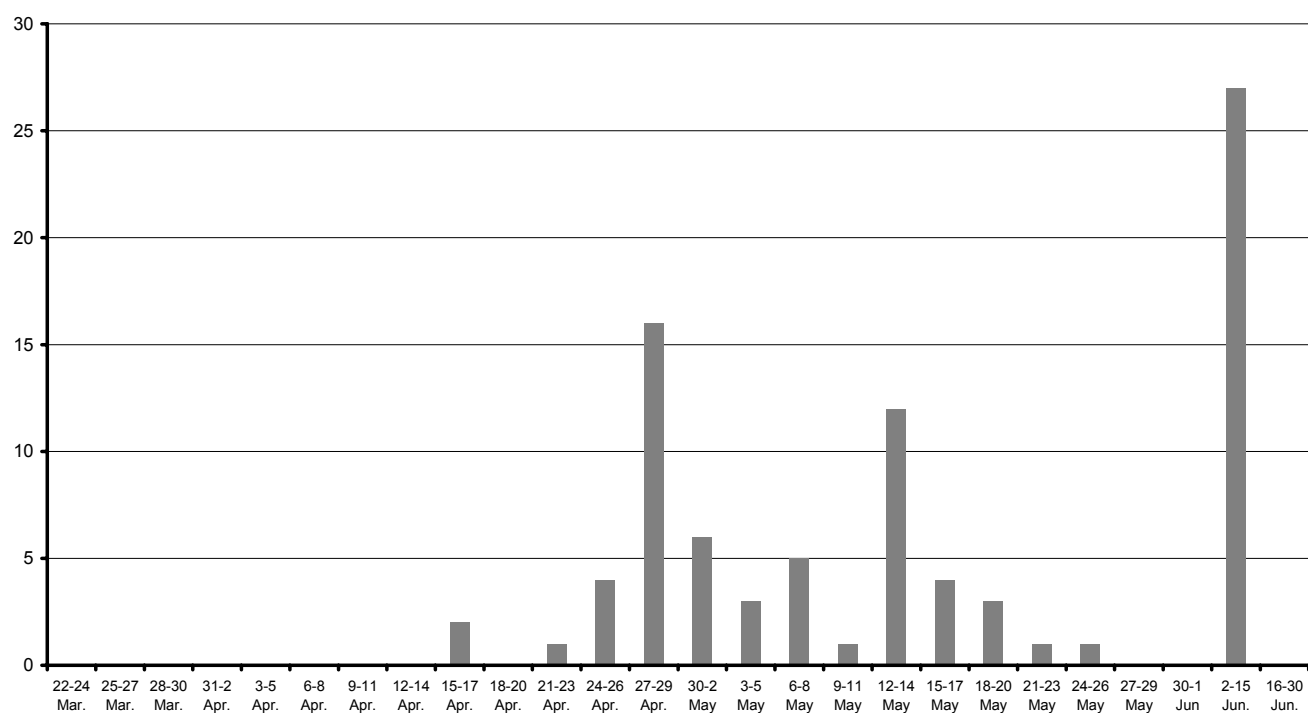


Figure 31. Counts of Ruddy Turnstone at Mai Po Inner Deep Bay Ramsar Site, spring 2007

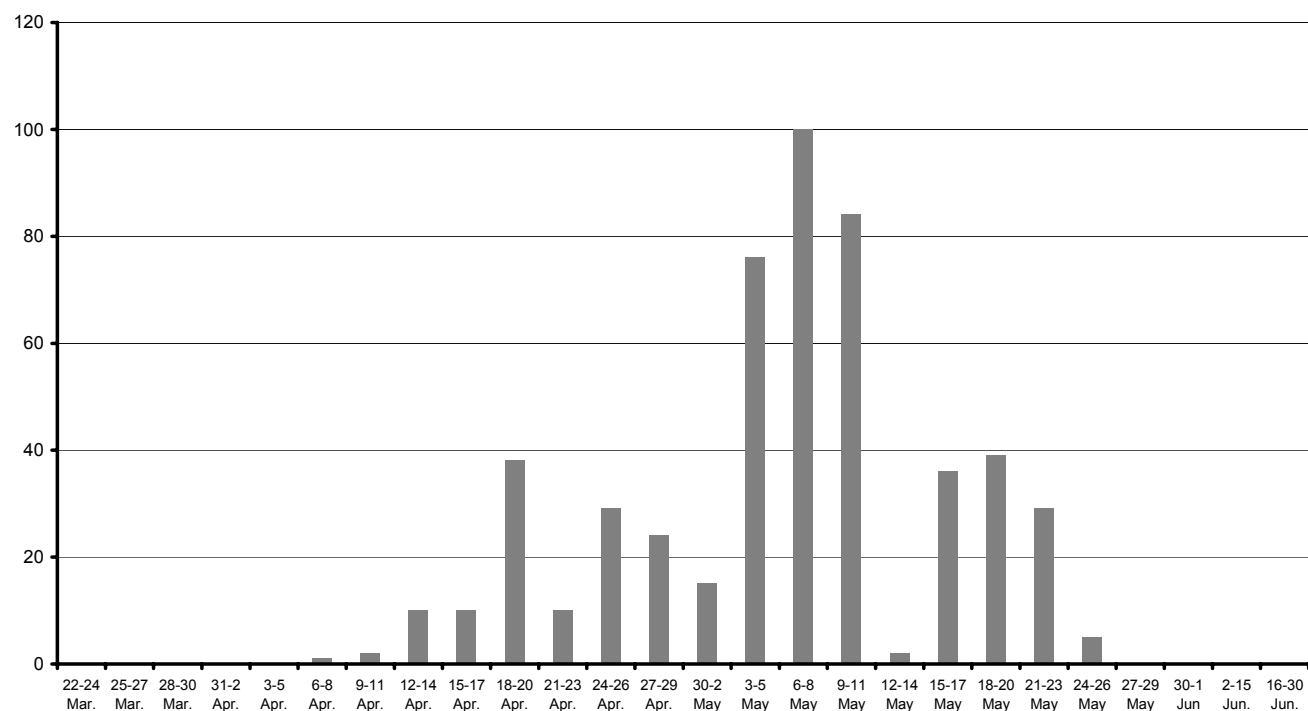


Figure 32. Counts of Asian Dowitcher at Mai Po Inner Deep Bay Ramsar Site, spring 2007

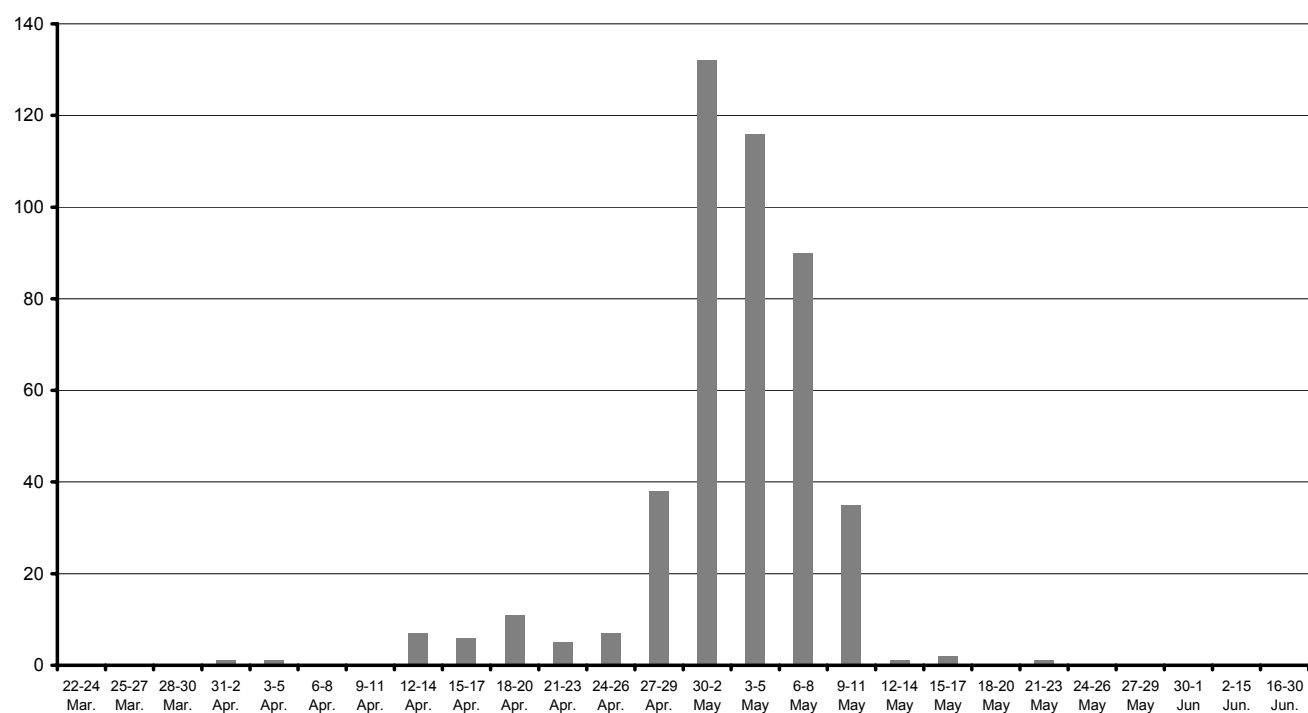


Figure 33. Counts of Red Knot at Mai Po Inner Deep Bay Ramsar Site, spring 2002

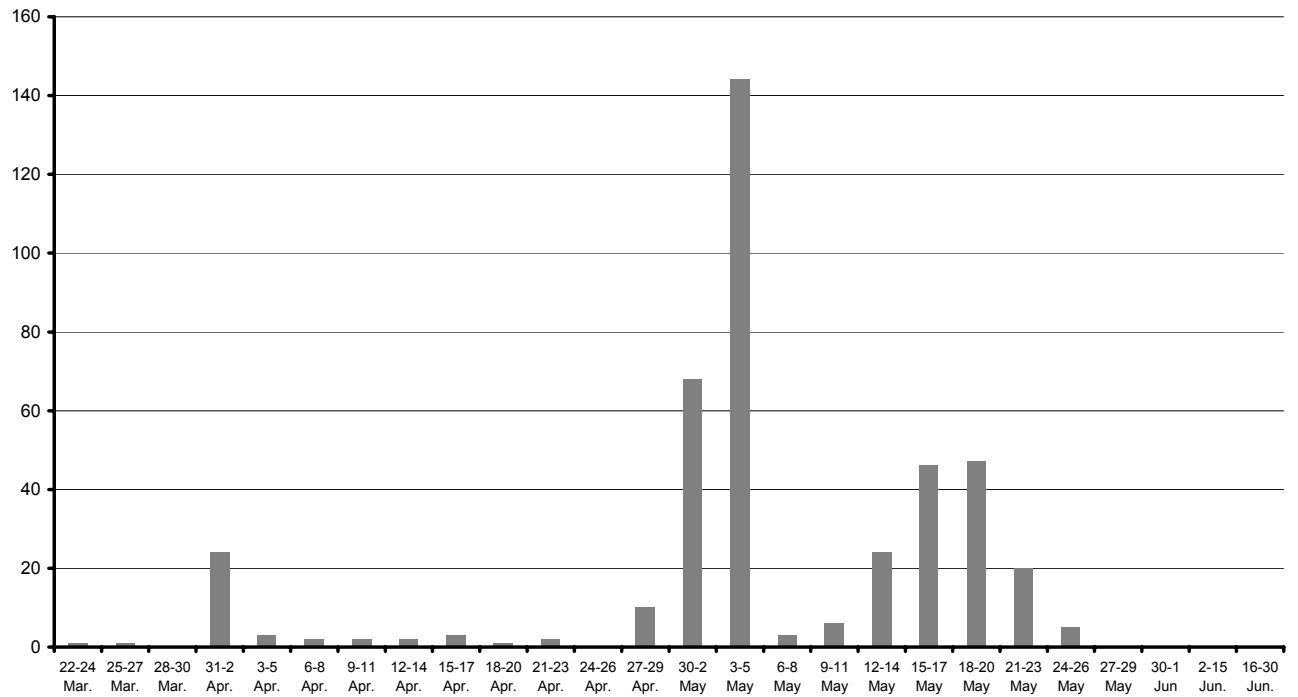


Figure 34. Counts of Great Knot at Mai Po Inner Deep Bay Ramsar Site, spring 2007

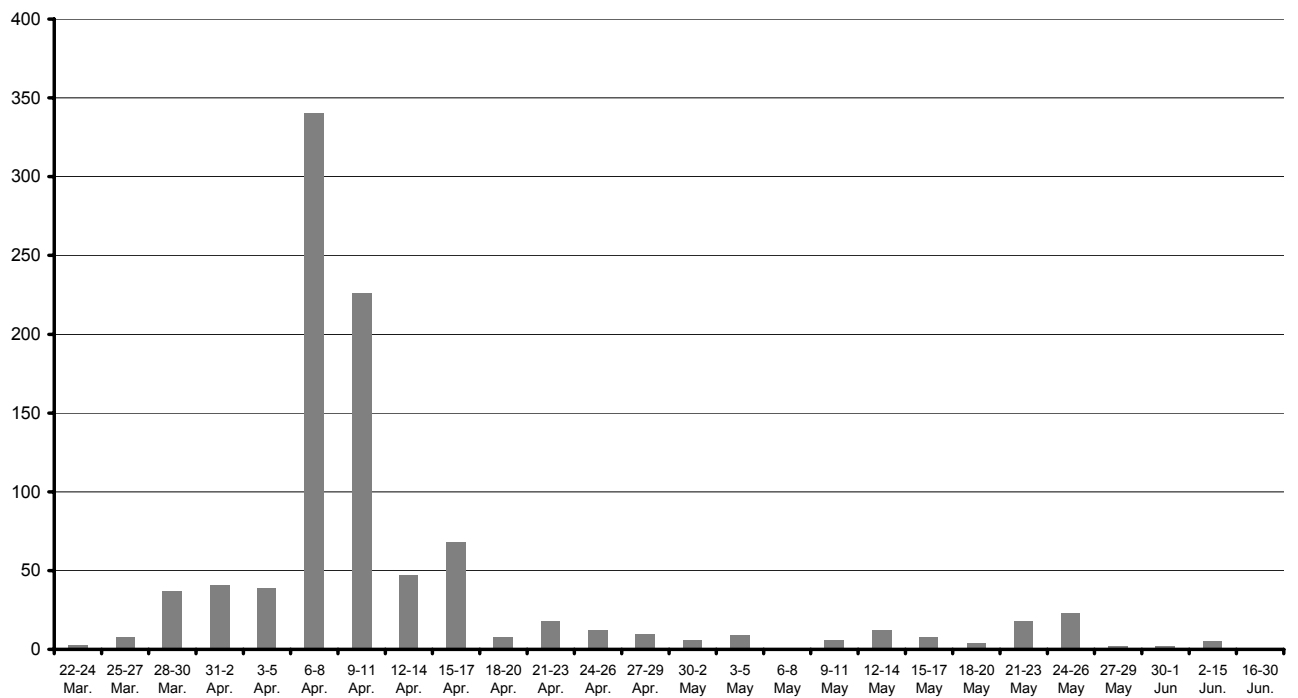


Figure 35. Counts of Red-necked Stint at Mai Po Inner Deep Bay Ramsar Site, spring 2007

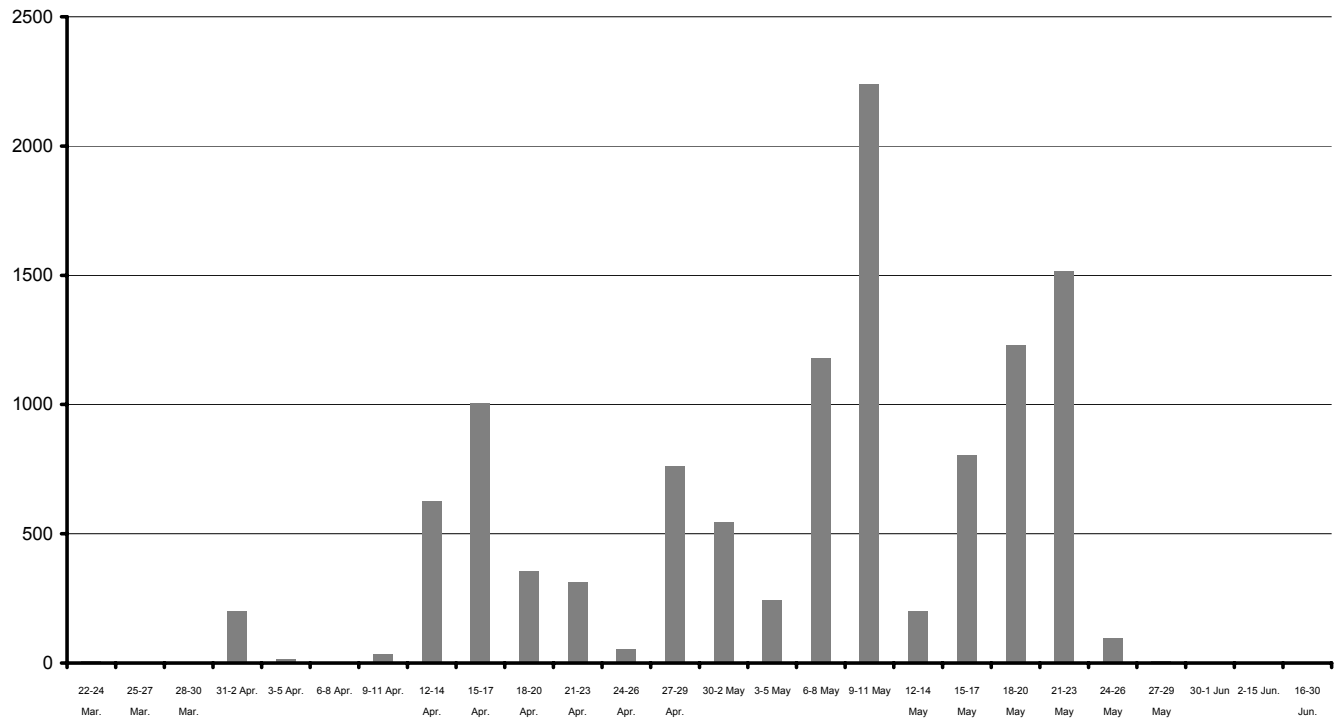


Figure 36. Counts of Sharp-tailed Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2007

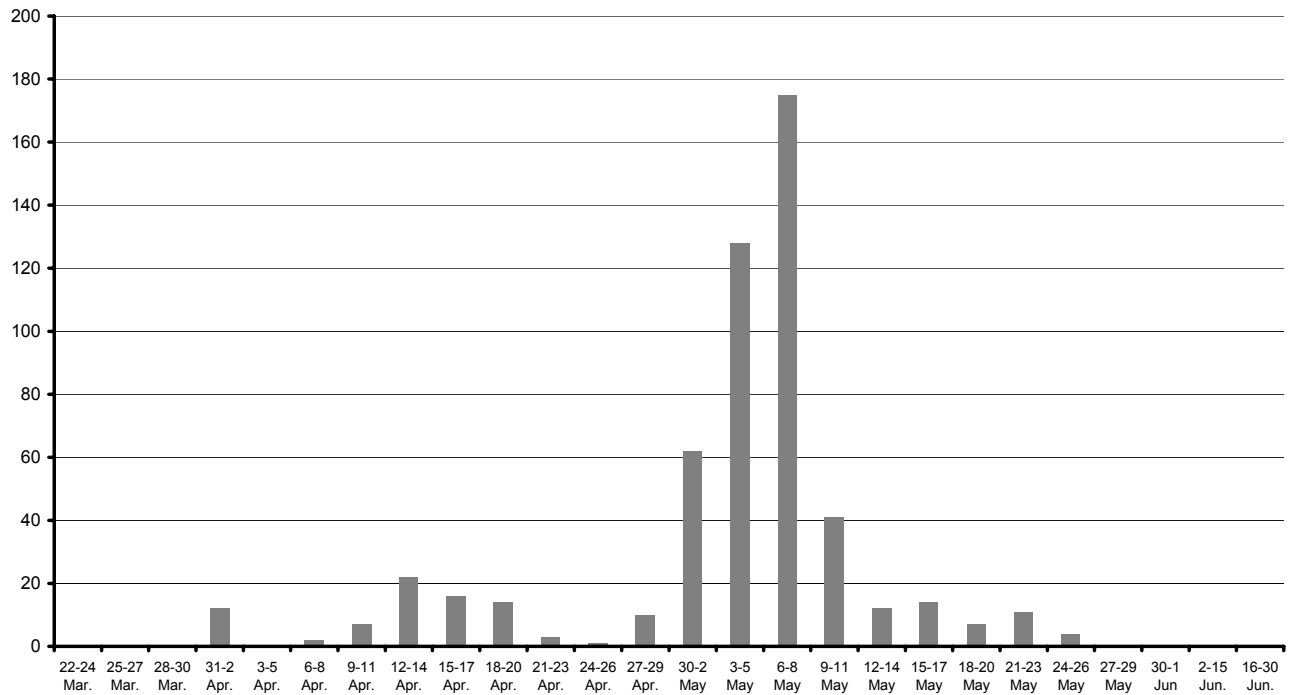


Figure 37. Counts of Curlew Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2007

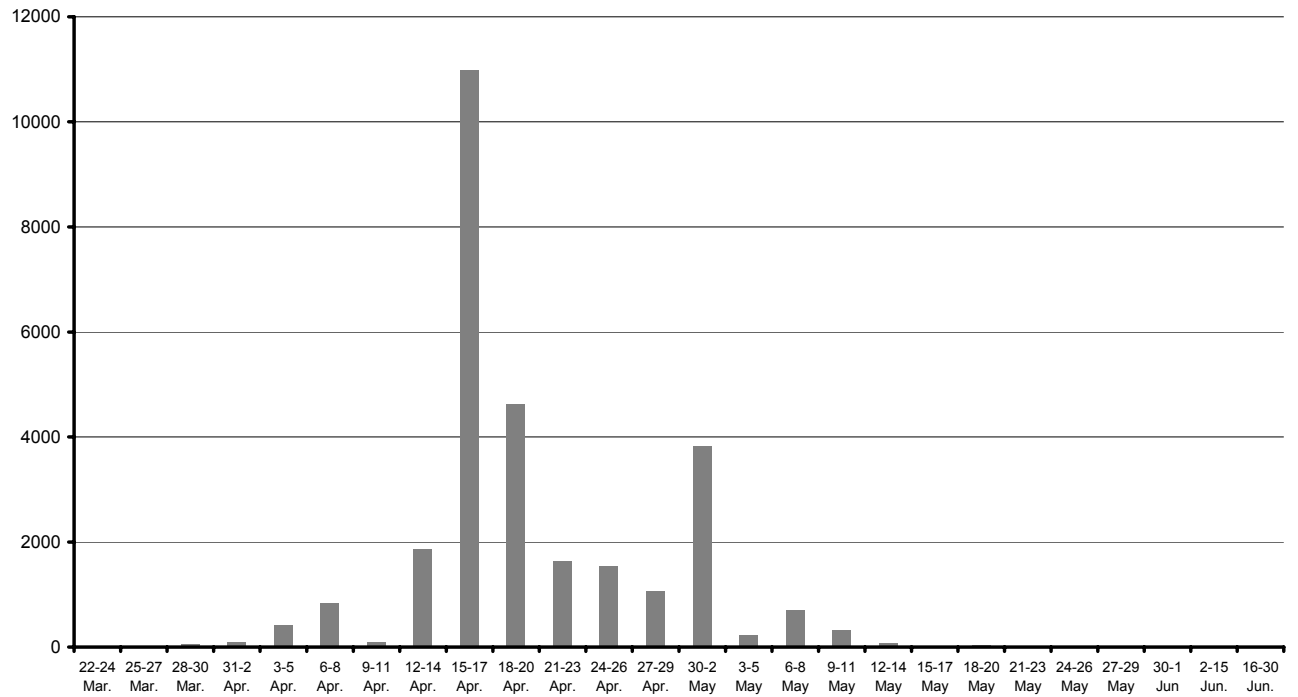
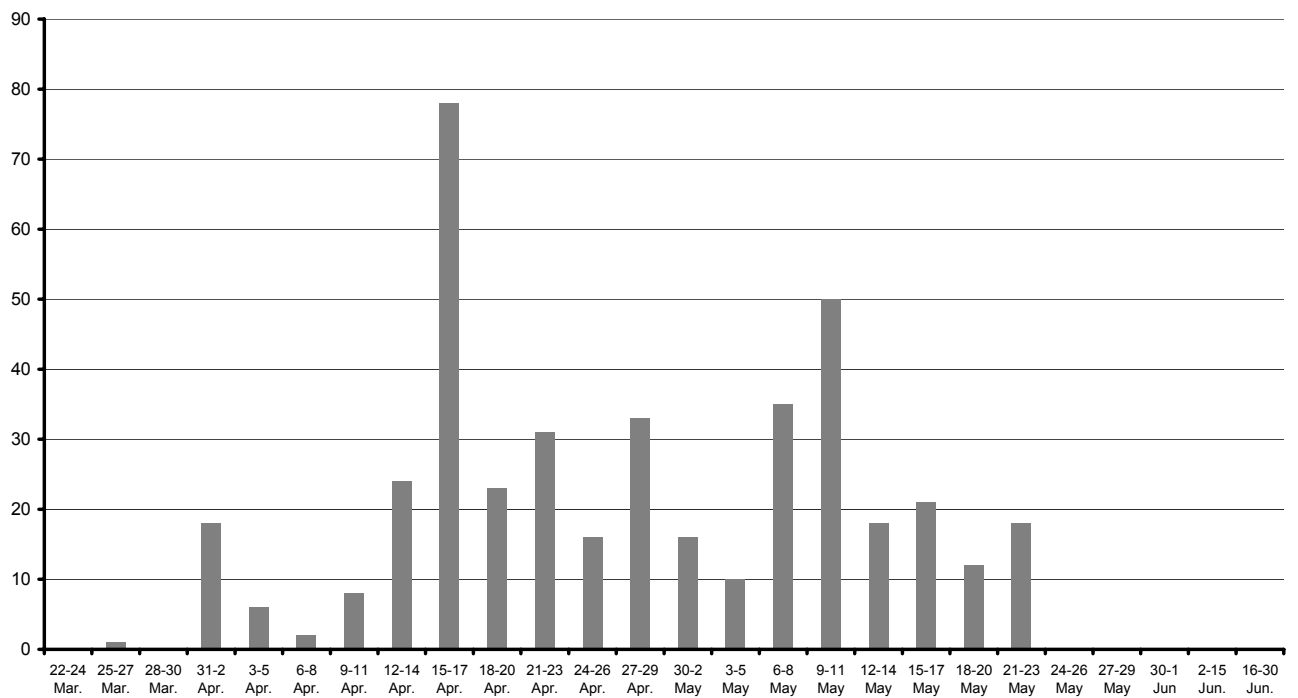


Figure 38. Counts of Broad-billed Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2007





Shorebird Monitoring at the Mai Po Marshes and Inner Deep Bay Ramsar Site

2006-07 Report

Appendix 4

Records of leg-flagged shorebirds in autumn 2006 and
spring 2007



The Hong Kong Bird Watching Society Limited



Agriculture, Fisheries and Conservation Department

Records of leg-flagged shorebirds in autumn 2006 and spring 2007

				Right Leg				Left Leg				Remarks
Date	Observer	Species	Breeding	Colour	Position	Colour	Position	Colour	Position	Colour	Position	
7-Jul-06	Yu Yat Tung	Common Greenshank	50	White	Above	Yellow	Below					
11-Jul-06	Yu Yat Tung	Common Greenshank	50	White	Above	Yellow	Below					
11-Jul-06	Yu Yat Tung	Common Redshank	75	White	Above	Yellow	Below					
17-Jul-06	Yu Yat Tung	Common Greenshank	50	White	Above	Yellow	Below					
25-Jul-06	Neil Fifer	Common Redshank	100	White	Above	Yellow	Below					
30-Jul-06	Yu Yat Tung	Common Redshank	25	White	Above	Yellow	Below					
30-Jul-06	Yu Yat Tung	Common Redshank	25	White	Above	Yellow	Below					
30-Jul-06	Yu Yat Tung	Red-necked Stint	25	Orange	Above							
8-Aug-06	Yu Yat Tung	Common Greenshank	75	White	Above	Yellow	Below					
8-Aug-06	Yu Yat Tung	Common Greenshank	75	White	Above	Yellow	Below					
8-Aug-06	Yu Yat Tung	Common Greenshank	75	White	Above	Yellow	Below					
8-Aug-06	Yu Yat Tung	Common Greenshank	75	White	Above	Yellow	Below					
22-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
22-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
22-Aug-06	Ying Hak King	Common Redshank	Not observed	White	Above	Yellow	Below					
22-Aug-06	Ying Hak King	Common Redshank	Not observed	White	Above	Yellow	Below					
22-Aug-06	Ying Hak King	Common Redshank	Not observed	White	Above	Yellow	Below					
22-Aug-06	Ying Hak King	Common Redshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Black-tailed Godwit	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Greenshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Redshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Common Redshank	Not observed	White	Above	Yellow	Below					
28-Aug-06	Ying Hak King	Spotted Redshank	Not observed	White	Above	Yellow	Below					
5-Sep-06	Yu Yat Tung	Common Greenshank	Not observed	White	Above	Yellow	Below					
5-Sep-06	Yu Yat Tung	Common Greenshank	Not observed	White	Above	Yellow	Below					
5-Sep-06	Yu Yat Tung	Common Greenshank	Not observed	White	Above	Yellow	Below					
5-Sep-06	Yu Yat Tung	Common Greenshank	Not observed	White	Above	Yellow	Below					
5-Sep-06	Yu Yat Tung	Common Redshank	Not observed	White	Above	Yellow	Below					
5-Sep-06	Yu Yat Tung	Common Redshank	Not observed	White	Above	Yellow	Below					
11-Sep-06	Yu Yat Tung	Common Greenshank	Not observed	White	Above	Yellow	Below					
11-Sep-06	Yu Yat Tung	Common Redshank	Not observed	White	Above	Yellow	Below					

[illegible]

[illegible]

3-Nov-06	Ying Hak King	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
3-Nov-06	Ying Hak King	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
3-Nov-06	Ying Hak King	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
3-Nov-06	Ying Hak King	Pacific Golden Plover	Not observed	White	Above	Yellow	Below					
3-Nov-06	Ying Hak King	Pied Avocet	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Common Redshank	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Eurasian Curlew	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
23-Mar-07	Yu Yat Tung	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
25-Mar-07	Yu Yat Tung	Eurasian Curlew	Not observed	White	Above	Yellow	Below					
25-Mar-07	Yu Yat Tung	Marsh Sandpiper	Not observed	White	Above	Yellow	Below					
28-Mar-07	Yu Yat Tung	Common Greenshank	Not observed	White	Above	Yellow	Below					
4-Apr-07	Yu Yat Tung	Curlew Sandpiper	25	Yellow	Above							
7-Apr-07	Yu Yat Tung	Great Knot	25	Yellow	Above							
9-Apr-07	Yu Yat Tung	Common Greenshank	100	White	Above	Yellow	Below					
9-Apr-07	Yu Yat Tung	Great Knot	100	White	Above	Black	Below					
9-Apr-07	Yu Yat Tung	Great Knot	75	Yellow	Above							No number on flag and small flag
9-Apr-07	Yu Yat Tung	Great Knot	100	Yellow	Above							with numbers on flag but cannot be checked from long distance
9-Apr-07	Yu Yat Tung	Gull-billed Tern	100	Yellow	Above							
9-Apr-07	Yu Yat Tung	Marsh Sandpiper	100	White	Above	Yellow	Below					
9-Apr-07	Yu Yat Tung	Marsh Sandpiper	100	White	Above	Yellow	Below					
13-Apr-07	Yu Yat Tung	Common Greenshank	100	White	Above	Yellow	Below					
13-Apr-07	Yu Yat Tung	Great Knot	100	White	Above	Black	Below					
13-Apr-07	Yu Yat Tung	Great Knot	100	Yellow	Above							With numbers '89' or 'B9'
13-Apr-07	Yu Yat Tung	Greater Sand Plover	75	Yellow	Above							
13-Apr-07	Yu Yat Tung	Marsh Sandpiper	100	White	Above	Yellow	Below					
13-Apr-07	Yu Yat Tung	Marsh Sandpiper	100	White	Above	Yellow	Below					
13-Apr-07	Yu Yat Tung	Marsh Sandpiper	100	White	Above	Yellow	Below					
17-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Orange	Above							
17-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Orange	Above							
17-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Yellow	Above	Orange	Below					
17-Apr-07	Yu Yat Tung	Curlew Sandpiper	25	Yellow	Above							With code P1 on the flag
17-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Yellow	Above							With code on flag but cannot be read due to long distance
17-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Yellow	Above							With code on flag but cannot be read due to long distance
17-Apr-07	Yu Yat Tung	Terek Sandpiper	100	Yellow	Above							

20-Apr-07	Paul Leader	Curlew Sandpiper	100	Yellow	Above							with code R6 engraved
20-Apr-07	Yu Yat Tung	Curlew Sandpiper	trace	Orange	Above							
22-Apr-07	Yu Yat Tung	Common Greenshank	100					Blue or	Above			
22-Apr-07	Jemi Wong	Curlew Sandpiper	75					Orange	Above			
22-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Yellow	Above							
24-Apr-07	Yu Yat Tung	Curlew Sandpiper	100	Yellow	Above	Orange	Below					
29-Apr-07	Yu Yat Tung	Terek Sandpiper	100	Yellow	Above							
4-May-07	Yu Yat Tung	Curlew Sandpiper	100	Orange	Above	Yellow	Below					
4-May-07	Yu Yat Tung	Curlew Sandpiper	100	Orange	Above							
4-May-07	Yu Yat Tung	Red-necked Stint	75	Orange	Above							
6-May-07	Kinni	Curlew Sandpiper	100	Orange	Above	Yellow	Below					
6-May-07	Kinni	Curlew Sandpiper	100	Orange	Above							
6-May-07	Kinni	Curlew Sandpiper	100	Yellow	Above							
6-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							At Ma Tso Lung, NOT in Mai Po, GPS: N22 deg 31mins 54.63sec, E114deg 05mins 25.60sec
6-May-07	Martin Hale	Sanderling	Not observed	Orange	Above	Yellow	Below					at Pak Nai/Lau Fau Shan area, Not in Mai Po
7-May-07	Owen Chiang	Red-necked Stint	75	Orange	Above							
7-May-07	Owen Chiang	Whimbrel	Not observed	Black	Above	White	Below					White flag engraved with code 'K9'
10-May-07	Wong Hok Sze	Red-necked Stint	75	Orange	Above							
16-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							
18-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							
18-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							
18-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							
18-May-07	Yu Yat Tung	Whimbrel	Not observed	White	Above	Yellow	Below					
20-May-07	Kinni	Red-necked Stint	75	Orange	Above	Yellow	Below					
20-May-07	Kinni	Red-necked Stint	100	Orange	Above							
21-May-07	Yu Yat Tung	Red-necked Stint	100	Orange	Above							
21-May-07	Yu Yat Tung	Red-necked Stint	75	Orange	Above							
21-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							
21-May-07	Yu Yat Tung	Red-necked Stint	0	Orange	Above							
21-May-07	Yu Yat Tung	Red-necked Stint	100	White	Above	Yellow	Below					
21-May-07	Yu Yat Tung	Sanderling	25	Orange	Above							
24-May-07	Yu Yat Tung	Red-necked Stint	100	Orange	Above							
24-May-07	Yu Yat Tung	Red-necked Stint	75	Orange	Above							
24-May-07	Yu Yat Tung	Red-necked Stint	50	Orange	Above							
24-May-07	Yu Yat Tung	Red-necked Stint	25	Orange	Above							
24-May-07	Yu Yat Tung	Whimbrel	Not observed	White	Above	Yellow	Below					