Mai Po Inner Deep Bay Ramsar Site
Waterbird Monitoring Programme
2004 - 2005

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

July 2005

This report is printed on recycled paper

Waterbird Monitoring at the Mai Po Inner Deep Bay Ramsar Site
Shorebird Monitoring Report 2004-2005

Waterbird Count Coordinator

YU Yat Tung

The Hong Kong Bird Watching Society Ltd.

Data Contributors

YU Yat Tung, YING Hak King

The Hong Kong Bird Watching Society Ltd.

Project Funding

Agriculture, Fisheries and Conservation Department

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. 2005. Shorebird Monitoring at the Mai Po Inner Deep bay Ramsar Site: 2004-05. Report by Hong Kong Bird Watching Society to the Agriculture, Fisheries and Conservation Department, Hong Kong Special Administrative Region Government.

TABLE OF CONTENTS

APPENDIX 4

Shorebird Monitoring at the Mai Po Marshes and Inner Deep Bay

2004-2005 Report

Report

The Hong Kong Bird Watching Society Limited

Agriculture, Fisheries and Conservation Department

Shorebird Monitoring: 2004-2005 Report

Y. T. Yu and H. K. Ying[1]

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 2004 to June 2005. This project is a part of the tender project (contract tender reference no. AFCD/SQ/90/03) 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 throught the year. Frequency of survey is higher during the main passage period (late March to mid- May and mid- 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 17 May: one count every block of three days
- 18-31 May: one count per week
- 1 June to 15 July: two counts per month
- 16 July to 4 November: one count per week

The main counting 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,

[1] The Hong Kong Bird Watching Society Ltd
Postal address: G.P.O. Box 12460, Hong Kong
Tel: (852) 2377 4387 Fax: (852) 2314 3687 E-mail: hkbws@hkbws.org.hk

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 by 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 the 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 in 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 20-60x zoom eyepieces. Counting was carried out by HKBWS accredited surveyors experienced in bird counting and identification, in order to achieve a higher 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 2004

Figure 1 shows the trend in the total number of shorebirds in Mai Po throughout Mai Po. Numbers increased gradually from the beginning of July to the end of October 2004 with small fluctuations in August, September and October. There was no obvious peak of migrant shorebirds in autumn 2004, indicating that the shorebirds might pass through Mai Po in small numbers persistently throughout this season (Figure 1). The highest count was 3,308 birds recorded on 29 October, but this presumably comprised some of the wintering shorebirds in the Mai Po and Deep Bay area.

Although Figure 1 could not clearly show the arrival time of passage migrant and winter visitors, figures of some individual species indicate that wintering birds might begin to arrive at the following times:

Black-tailed Godwit *Limosa limosa* – mid September (Figure 8, c.f. early September 2003, late August 2002)
Eurasian Curlew *Numenius arquata* – mid September (Figure 11, c.f. mid September 2003, mid September 2002)
Spotted Redshank *Tringa erythropus* – mid October (Figure 12, c.f. mid October 2003, late September 2002)
Marsh Sandpiper *Tringa stagnatilis* – late September (Figure 14, c.f. mid September 2003, early September 2002)

Species that appear to be passage migrants from the figures in the autumn 2004 are Pacific Golden Plover *Pluviallis fulva* (Figure 3), Kentish Plover *Charadrius alexandrinus* (Figure 4), 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), Wood Sandpiper *Tringa glareola* (Figure 16), Red Knot *Calidris canutus* (Figure 18) and Broad-billed Sandpiper *Limicola falcinellus* (Figure 19). Common Redshank *T. totanus* (Figure 13) and Common Greenshank *T. nebularia* (Figure 15), the two most numerous species and occurred in greatest numbers in early August and late September respectively. However, the later one may comprise some wintering individuals.

Winter 2004-2005

The winter aggregate of shorebird species peak counts, which is the sum of the peak counts of each species during the mid-winter (i.e. December, January and February) waterbird counts, was recorded as 13,051 birds in Hong Kong during winter 2004-05. This figure is marginally lower than the figure of 13,534 shorebirds recorded in winter 2003-04. The five numerous species are: Pied Avocet *Recurvirostra avosetta* (4,490), Eurasian Curlew (1,292), Spotted Redshank (1,111), Marsh Sandpiper (1,110) and Common Greenshank (778). The count of Eurasian Curlew is a new high in Hong Kong, while the count of Pied Avocet is the second highest after a total of 5,864 birds recorded in winter 2002-03. A count of 2,420 unidentified small-sized shorebirds, which were thought to be either Kentish Plover or Dunlin *Calidris alpine*, was recorded in the December count. However, these small-sized shorebirds were not recorded in other mid-winter counts and were not present as frequent as before, indicating that they might be no longer wintering in the Deep Bay area.

Spring 2005

The trend in shorebird numbers in spring 2005 is shown in Figure 20. Numbers generally decreased toward the end of spring with three apparent peaks of passage shorebirds noted on 3, 23 April and 10 May. The aggregate shorebird species peak

count, an estimate of the minimum number of birds passing through, in spring 2005 is 14,312 birds, which is a 13% decrease from the equivalent figure in spring 2004 (i.e. 16,431 birds) and an even larger decrease of 18% from the spring 2002 figure (i.e. 17,421 birds). The peak daily count was 8,181 on 3 April 2005, which is a 15% decrease from the peak daily count of 9,640 birds in 2004 spring. In addition, the spring 2005 peak daily count consisted of a flock of over-wintering 3,000 Pied Avocets and so the actual figure got passage shorebirds was a relatively low figure of 5,181. Excluding the large number of wintering Pied Avocets in this shorebird monitoring, the peak daily count of passage shorebirds was 7,120 birds recorded on 23 April 2005.

The decrease in shorebird numbers presented in Mai Po in spring 2004 was largely caused by a decline in numbers of the most numerous species, Red-necked Stint *Calidris ruficollis* and Curlew Sandpiper *Calidris ferruginea*. Peak counts of Red-necked Stint and Curlew Sandpiper in spring 2005 were 1,909 and 3,947 respectively, decreasing from 2004 by 14% (from 2239) and 34% (from 6,000) respectively. Moreover, other species, including Pacific Golden Plover, Lesser Sand Plover, Ruddy Turnstone *Arenaria interpres*, Red Knot, Long-toed Stint *Calidris subminuta* also showed considerable decreases in numbers (Table 1).

Table 1. Shorebirds show considerable declines of their peak counts in spring 2005 with comparisons of peak counts in previous two springs.

Species	2005 spring	2004 spring	2003 spring
Pacific Golden Plover *Pluviallis fulva*	54	221	358
Lesser Sand Plover *Charadrius mongolus*	30	59	115
Ruddy Turnstone *Arenaria interpres*	39	80	86
Red Knot *Calidris canutus*	5	120	62
Red-necked Stint *C. ruficollis*	1909	2239	2302
Long-toed Stint *C. subminuta*	7	36	11
Sharp-tailed Sandpiper *C. acuminate*	41	300	231
Curlew Sandpiper *C. ferruginea*	3947	6000	4535

Despite these decreases, the globally endangered Spoon-billed Sandpiper *Eurynorhynchus pygmeus* provided an astonishing new high count for Hong Kong of 13 birds on 3 April; the total number of this species in this spring is estimated at 16 individuals. The previous single highest count was only five birds, although the highest number in a passage period was also 16 birds (Carey *et al*. 2001). Other species occurring in high numbers were Common Redshank and Common Greenshank; in addition, high numbers of Marsh Sandpiper also occurred, although these could have comprised in part some wintering individuals (Table 2).

Summer 2005

The numbers of shorebirds recorded in summer 2005 were lower than the previous two summers. Low peak counts of 150 birds were made in July 2004 (cf. 2002 July: 488 birds; 2003 July: 466 birds) and 163 birds in June 2005 (cf. 2004 June: 632 birds; 2003 June: 593 birds). These counts mostly comprised Common Redshank (82 individuals in July 2004) and Common Greenshank (31 individuals in June 2005).

Aggregate numbers recorded

The peak counts or by summing the number of 'new' birds based on differences of their plumages of all migrant shorebirds species are summed up to aggregate total numbers of spring and autumn. 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 2004 to June 2005, the peak winter count (i.e. December to February) obtained during winter waterbird counts is 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 2004 to June 2005.

Year				2004-05	2003-04	2002-03	2001-02
Species	autumn	winter	spring	Minimum	Minimum	Minimum	Minimum
Pheasant-tailed Jacana *Hydrophasianus chirugus*	1	0	0	1	1	1	1
Greater Painted-snipe *Rostratula bengalensis*	0	0	3	3	1	1	7
Black-winged Stilt *Himantopus himantopus*	147	40	252	439	402	296	569
Pied Avocet *Recurvirostra avosetta*	-	4490	-	4490	3500	5864	1957
Oriental Pratincole *Glareola maldivarum*	4	0	9	13	4	10	1
Northern Lapwing *Vanellus vanellus*	0	4	0	4	1	0	0
Grey-headed Lapwing *V. cinereus*	1	0	0	1	1	1	1
Pacific Golden Plover *Pluviallis fulva*	69	57	54	180	570	708	353
Grey Plover *P. squatarola*	17	565	-	582	467	307	298
Little Ringed Plover *Charadrius dubius*	-	174	-	174	77	191	243
Kentish Plover *C. alexandrinus*	12	2	15	29	2222	31	1
Lesser Sand Plover *C.mongolus*	13	0	30	43	70	119	112
Greater Sand Plover *C.leschenaultii*	237	0	306	543	430	243	983

Black-tailed Godwit *Limosa limosa*	417	491	700	1608	1597	721	902
Bar-tailed Godwit *Limosa lapponica*	6	0	11	17	38	15	26
Little Curlew *Numenius minutes*	0	0	1	1	0	0	0
Whimbrel *Numenius phaeopus*	114	1	23	138	149	174	174
Eurasian Curlew *N. arquata*	-	1292	-	1292	850	1014	558
Far Eastern Curlew *N. madagascariensis*	1	0	5	6	6	11	5
Spotted Redshank *Tringa erythropus*	-	-	1443	1443	1767	1828	2500
Common Redshank *T. totanus*	1138	176	992	2306	1934	2456	2085
Marsh Sandpiper *T. stagnatilis*	-	-	2378	2378	2249	2051	2278
Common Greenshank *T. nebularia*	860	-	1112	1972	1951	940	1679
Nordmann's Greenshank *T. guttifer*	1	0	21	22	26	36	15
Green Sandpiper *T. ochropus*	1	49	2	52	31	45	54
Wood Sandpiper *T. glareola*	130	136	253	519	382	488	801
Terek Sandpiper *Xenus cinereus*	214	0	262	476	500	557	660
Common Sandpiper *Actitis hypoleucos*	8	70	3	81	81	103	107
Grey-tailed Tattler *Heteroscelus brevipes*	7	0	78	85	19	42	72
Ruddy Turnstone *Arenaria interpres*	1	0	39	40	81	88	77
Red-necked Phalarope *Phalaropus lobatus*	2	0	9	11	2	44	22
Pintail/Swinhoe's Snipe *Gallinago stenura/megala*	6	4	1	11	1	5	0
Common Snipe *Gallinago gallinago*	0	45	0	45	9	17	8
Long-billed Dowitcher *Limnodromus scolopaceus*	-	0	2	2	2	3	3
Asian Dowitcher *Limnodromus semipalmatus*	8	0	36	44	41	549	40
Red Knot *Calidris canutus*	6	4	5	15	125	64	97
Great Knot *C. tenuirostris*	18	16	209	243	222	206	229
Sanderling *C. alba*	0	0	11	11	16	22	9
Red-necked Stint *C. ruficollis*	18	0	1909	1927	2321	2597	2570
Little Stint *C. minuta*	0	0	5	5	5	4	3
Temminck's Stint *C. temminckii*	0	15	1	16	4	28	35
Long-toed Stint *C. subminuta*	1	0	7	8	47	24	11
Pectoral Sandpiper *C. melanotos*	0	0	2	2	2	0	2

Sharp-tailed Sandpiper *C. acuminate*	5	0	41	46	309	244	248
Dunlin *C. alpine*	4	0	1	5	2436	6	2
Curlew Sandpiper *C. ferruginea*	89	0	3947	4036	6066	4583	5716
Spoon-billed Sandpiper *Eurynorhynchus pygmeus*	0	0	16	16	7	6	2
Broad-billed Sandpiper *Limicola falcinellus*	5	0	116	121	86	178	62
Ruff *Philomachus pugnax*	2	-	2	4	6	4	2
Small wader spp. (Dunlin or Kentish Plover)	0	2420	0	2420	-	-	-
NUMBER OF SPECIES	40	23	45	49	48	46	47
AGGREGATE SHOREBIRD SPECIES PEAK COUNT	3563	10051	14312	27926	31114	28514	30759

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

The aggregate total from July 2004 to June 2005 is 27,926 which is 10% lower than the total of 31,114 birds in the same period of 2003-2004, and is also the lowest since 2001-2002 (Table 2). Such a decrease is not surprising because all aggregate totals of autumn, winter and spring are also lower than the figures of previous year. The aggregate total of migrant shorebirds (i.e. spring and autumn) is 17,875 birds, of which 14,312 and 3,563 birds were recorded in the spring and autumn migration respectively.

The ten highest numbers species recorded in this 12-month period were: Pied Avocet (4,490, 16.1% of the total number of shorebirds in the same period), Curlew Sandpiper (4,036, 14.5%), Marsh Sandpiper (2,378, 8.5%), Common Redshank (2,306, 8.3%), Common Greenshank (1,972, 7.1%), Red-necked Stint (1,927, 6.9%), Black-tailed Godwit (1,608, 5.8%), Spotted Redshank (1,443, 5.2%), Eurasian Curlew (1,292, 4.6%) and Grey Plover *Pluviallis squatarola* (582, 2.1%).

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 14,312 in spring and 3,563 in autumn, totaling 17,875, Deep Bay may have supported in the range 53,625 to 80,438 migrant shorebirds during 2003-2004.

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 – Third Edition (Wetland International 2002). 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 2004 to June 2005.

Table 3. Species recorded in flyway/regional important numbers in the Deep Bay area during July 2004 to June 2005.

Species	Flyway/regional population	Number recorded	Percentage
Pied Avocet *Recurvirostra avosetta*	25,000 – 100,000	4,490	4.5 – 18%
Black-tailed Godwit *Limosa limosa*	160,000	1,608	1.0%
Eurasian Curlew *Numenius arquata*	35,000	1,292	3.7%
Spotted Redshank *Tringa erythropus*	25,000 – 100,000	1,443	1.4 – 5.8%
Common Redshank *Tringa totanus*	1,000 (1% level)	2,306	2.3%
Marsh Sandpiper *Tringa stagnatilis*	90,000	2,378	2.6%
Common Greenshank *Tringa nebularia*	55,000	1,972	3.6%
Terek Sandpiper *Xenus cinereus*	50,000	476	~1.0%
Curlew Sandpiper *Calidris ferruginea*	180,000	3,947	2.2%

Globally threatened species

With regard to species listed in BirdLife International (2000, 2004), the following were recorded during July 2004 to June 2005 (population figures from Wetland International (2002)):

- 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 250 to 1,000 birds. One was recorded in autumn 2004 and a total of 21 birds (15 adults and 6 first-summer birds) were recorded in spring 2005, which constituted 2.2 to 9.0% of the world population. This number is lower than the figure in the previous two years (cf. 24 in spring 2004, 35 in spring 2003).

- Asian Dowitcher *Limnodromus semipalmatus*: listed as Near-threatened, the world population is estimated to be 23,000. The peak count in spring 2005 was 36 which is marginally higher than the peak count of 33 birds in previous spring. An exceptional peak count of 540 birds was made in May 2003

- Spoon-billed Sandpiper: listed as Endangered, the world population is estimated to be fewer than 2,500 individuals and the population is considered to be decreasing. As mentioned above, a group of 13 birds were seen on 3 April 2005, which is a new high count for Hong Kong and is the first time for a double-digit count. All birds were still largely in non-breeding plumage, except two birds showing trace of breeding plumage on their breasts. In spring 2005, a minimum of 16 birds were counted which is more than double the peak counts of six and seven birds in spring 2003 and 2004 respectively.

Flagged shorebirds sightings

Occurrences of leg-flagged shorebirds are also noted during this monitoring. A total of 244 sightings were reported from July 2004 to June 2005. All sightings were from Mai Po Nature Reserve, except for one at the Lok Ma Chau fishponds area. The most frequently reported is Marsh Sandpiper with 91 (37%) sightings, which were all locally-flagged birds, and the second was the Red-necked Stint with 37 (15%) sightings. Furthermore, a total of 153 (63%) sightings referred to the birds flagged at Mai Po Nature Reserve (a white flag above and a yellow flag on right tibia) and 54 (22%) records are originated from the Southeastern Australia (single orange flag on right tibia). More details refer to Appendix 4.

Other observations

This shorebird monitoring depends largely on the management activities of the Mai Po Nature Reserve by WWF HK, which creates and maintains suitable high-tide roosting areas for shorebirds. The recent earth-moving works aimed at lowering islands in the middle of the scrape (i.e. Pond 16/17) that could enhance the numbers of shorebirds utilizing these islands during the high tide period. In spring 2005, most of the shorebirds roosted in the scrape during high tide with a few exceptions of some small roosting flocks scattering in Pond 8, 11 and very occasionally in Pond 22.

A case of Black Kite *Milvus migrans* catching a Common Redshank was noted and several cases of the roosting shorebirds disturbed by flying-over raptors were observed.

Many results of this monitoring indicate that shorebird numbers could fluctuate in a large scale. Such fluctuations could relate not only some biological aspects such as life cycles and stopover ecology of the shorebirds, but also abiotic factors such as availability of suitable habitats and even meteorological factors. Hence, this monitoring must been conducted in the long term before finding out the trend. Nevertheless, two groups of shorebirds have been recorded in a decreasing trend in Hong Kong. Greater and Lesser Sand Plovers have peak counts of 2,700 and 500

respectively in late 1980s to early 1990s (Carey *et al*. 2001). Only a few hundred of these species were counted during this monitoring programme in recent years. Another is the small-sized wintering shorebirds, primarily including Kentish Plover and Dunlin, which were recorded at over 2,500 and 5,000 individuals also in the early 1990s (Carey *et al*. 2001). Recent winter counts could not make good counts of these species because the high tides in winter months are low that could not push these small-sized shorebirds closed to the boardwalk hide for counting and they may also not utilize the Deep Bay as frequent as in the past (Anon. 2005). All these shorebirds comprise a large proportion of the total number of shorebird utilizing the Deep Bay area and decreases of their numbers are of local conservation concern.

Acknowledgements

We would like to thank Dr. Lew Young and staff 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. 2005. Winter 2004-05 Report on 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.

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

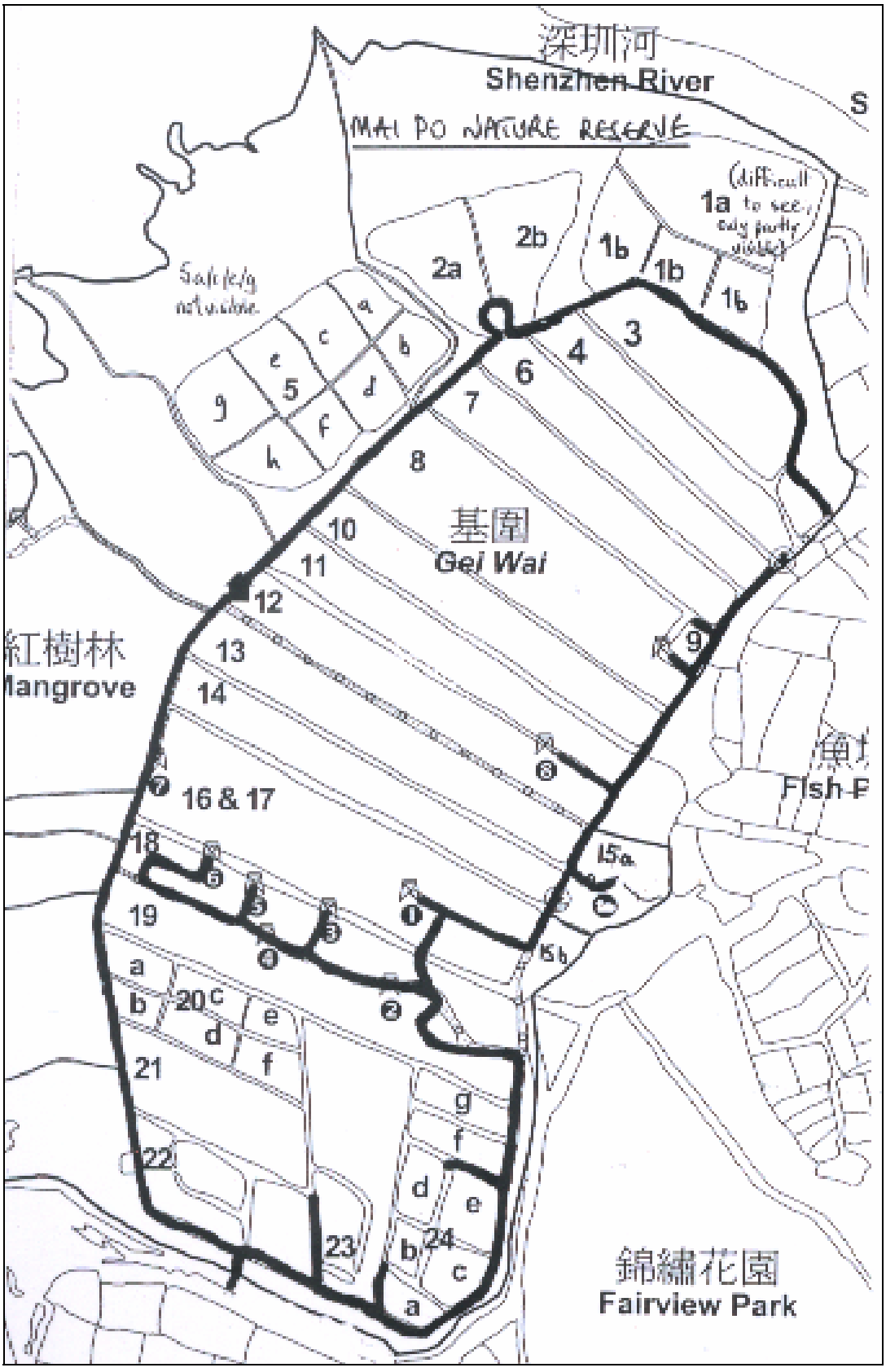
BirdLife International. 2004. Threatened Birds of the World 2004. CD-ROM. Cambridge, UK: BirdLife International.

Carey, G.J. Chalmers, M.L., Diskin, D.A., Kennerley, P.R., Leader, P.J., Leven, M.R., Lewthwaite, R.W., Melville, D.S., Turnbull, M. and Young, L. 2001. The Avifauna of Hong Kong. Hong Kong Bird Watching Society. Hong Kong.

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

Wetland International. 2002. Waterbird Population Estimates – Third Edition. Wetland International Global Series No.12, Wageningen, The Netherlands.

Map 1. The Mai Po Nature Reserve – the study site of shorebird monitoring programme, 2004-05.



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

2004-2005 Report

Y. T. Yu and H. K. Ying

Appendix 1

The Hong Kong Bird Watching Society Limited

Agriculture, Fisheries and Conservation Department

	1-15 Jul	16-22 Jul	23-29 Jul	30-5 Aug	6-12 Aug	13-19 Aug	20-26 Aug	27-2 Sep	3-9 Sep	10-16 Sep	17-23 Sep	24-30 Sep	1-7 Oct	8-14 Oct	15-21 Oct	22-28 Oct	29-4 Nov
Pheasant-tailed Jacana	0	0	0	0	0	0	0	0	0	0	0	1	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
Black-winged Stilt	42	32	21	13	13	12	66	54	33	78	33	81	51	38	31	68	147
Pied Avocet	0	0	0	0	0	0	0	0	0	0	0	0	7	0	4	213	238
Oriental Pratincole	0	0	0	0	0	2	4	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
Grey-headed Lapwing	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Pacific Golden Plover	0	0	0	0	0	2	12	69	2	0	0	1	7	2	0	5	0
Grey Plover	0	0	5	1	3	3	7	8	13	5	0	0	14	17	12	4	0
Common Ringed Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Ringed Plover	2	3	0	1	0	4	0	0	0	0	0	0	2	10	0	0	0
Kentish Plover	0	0	0	0	0	0	0	0	2	0	0	0	5	12	0	1	0
Lesser Sand Plover	0	0	2	7	2	13	0	0	2	0	0	0	0	0	0	0	0
Greater Sand Plover	0	1	68	48	186	174	237	121	124	0	9	16	11	1	3	1	0
Oriental Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-tailed Godwit	0	10	12	13	6	24	52	86	102	173	160	227	250	319	322	348	417
Bar-tailed Godwit	0	1	1	0	1	1	1	0	1	3	0	5	6	4	1	3	0
Little Curlew	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whimbrel	0	0	0	1	30	35	114	60	51	0	17	2	57	36	10	20	17
Eurasian Curlew	8	17	23	25	26	28	40	34	32	42	10	52	45	51	60	62	67
Far Eastern Curlew	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Redshank	0	0	1	1	0	0	0	0	3	11	5	10	7	47	41	159	175
Common Redshank	82	723	913	1138	868	530	446	333	295	245	235	341	215	239	165	144	143
Marsh Sandpiper	0	1	2	2	6	17	25	69	140	427	313	808	834	694	1206	1370	1732
Common Greenshank	8	176	339	258	335	269	662	778	801	759	726	860	832	770	135	547	364
Nordmann's Greenshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Green Sandpiper	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
Wood Sandpiper	0	1	19	38	50	98	11	130	11	4	4	3	13	13	0	7	0
Terek Sandpiper	4	0	214	0	14	98	101	61	9	1	3	1	1	0	0	0	1
Common Sandpiper	2	2	1	0	2	2	2	8	1	3	0	2	3	4	1	0	1
Grey-tailed Tattler	0	0	0	0	3	5	3	2	7	0	1	0	0	0	0	0	0
Ruddy Turnstone	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Red-necked Phalarope	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Pintail/Swinhoe's Snipe	0	0	0	0	0	0	3	0	0	0	0	0	6	1	0	0	0
Common Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long-billed Dowitcher	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Asian Dowitcher	1	0	0	0	0	2	8	0	7	6	1	0	0	0	0	0	0
Red Knot	0	0	0	0	0	0	0	0	1	1	5	2	6	2	2	3	0
Great Knot	0	0	0	0	0	0	0	0	0	8	18	5	15	5	9	13	0
Sanderling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red-necked Stint	0	0	18	0	4	12	4	11	2	0	0	0	0	0	0	0	0
Little Stint	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	0	0	0	0	0	0	0	0	0	0
Long-toed Stint	0	0	0	1	0	0	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
Sharp-tailed Sandpiper	0	0	1	3	1	1	5	0	1	2	0	0	0	0	0	0	0
Dunlin	0	0	0	0	0	1	0	0	0	0	0	0	3	1	0	0	4
Curlew Sandpiper	0	0	81	16	89	61	35	14	22	15	2	5	8	0	0	0	0
Spoon-billed Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broad-billed Sandpiper	0	0	3	0	0	5	5	1	2	0	3	0	0	0	0	0	0
Ruff	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	1	1
Sand Plover sp.	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
Large *tringa* sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	150	967	1724	1566	1639	1399	1843	1840	1666	1784	1545	2423	2403	2268	2005	2971	3308

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

2004-2005 Report

Y. T. Yu and H. K. Ying

Appendix 2

The Hong Kong Bird Watching Society Limited

Agriculture, Fisheries and Conservation Department

	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	18-24 May	25-31 May	1-15 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
Greater Painted-snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0
Black-winged Stilt	0	0	40	120	41	8	54	252	50	109	40	68	94	106	40	53	18	42	46	72	97	44	26
Pied Avocet	3000	3900	3500	3900	3000	2100	1590	1331	1185	0	650	1	631	514	0	270	183	163	165	43	53	7	0
Oriental Pratincole	0	0	0	1	0	0	0	0	0	9	0	0	0	0	0	1	0	3	0	2	0	1	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
Grey-headed Lapwing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Golden Plover	0	28	1	3	8	5	4	4	54	30	4	1	8	9	2	1	1	0	2	0	0	0	0
Grey Plover	60	10	0	2	1	16	2	6	4	5	1	7	10	10	7	6	9	7	4	3	3	6	1
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
Little Ringed Plover	1	2	5	0	14	0	2	0	0	0	0	0	0	1	0	2	0	0	0	0	0	1	0
Kentish Plover	3	15	4	4	0	4	2	7	3	1	10	10	0	2	2	1	3	2	0	2	1	0	0
Lesser Sand Plover	0	4	0	0	6	18	10	7	7	15	30	11	5	0	11	11	17	15	5	8	12	0	0
Greater Sand Plover	42	50	3	32	40	306	105	69	48	169	120	152	33	10	220	150	192	169	135	91	66	5	1
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
Black-tailed Godwit	324	253	328	447	700	0	532	341	472	38	382	378	276	13	1	6	7	5	2	0	0	0	0
Bar-tailed Godwit	8	8	3	5	6	9	0	5	11	1	0	0	0	1	1	1	0	0	0	1	1	0	0
Little Curlew	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Whimbrel	0	1	0	0	0	0	0	3	0	2	13	15	10	19	23	7	15	10	4	7	8	1	9
Eurasian Curlew	49	80	47	29	26	5	13	37	15	0	10	11	10	13	7	4	13	13	8	13	13	13	13
Far Eastern Curlew	0	1	1	2	1	0	1	0	1	0	1	1	3	5	0	1	1	1	0	0	1	1	0
Spotted Redshank	382	1111	528	337	1106	147	993	1443	1119	341	104	945	661	492	20	670	799	551	202	2	0	0	0
Common Redshank	5	20	224	153	147	215	1	170	267	44	567	992	431	91	102	352	563	210	122	33	18	0	12
Marsh Sandpiper	151	1470	2076	2378	2310	2163	1033	1959	2288	1712	316	211	395	99	2	3	7	6	2	4	2	2	0
Common Greenshank	536	264	72	46	241	158	7	108	20	318	137	196	249	540	1036	712	1112	553	236	33	23	31	22
Nordmann's Greenshank	0	0	1	2	6	7	7	6	2	0	8	5	1	2	2	2	4	5	6	0	0	2	1
Green Sandpiper	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wood Sandpiper	4	0	14	1	30	26	13	0	125	253	32	53	46	23	0	2	4	0	0	0	0	1	0
Terek Sandpiper	0	3	0	1	9	30	50	8	43	56	262	34	5	188	97	98	106	149	132	148	133	29	0
Common Sandpiper	2	1	1	0	1	3	0	3	0	1	0	3	1	1	1	0	1	0	0	0	0	0	0
Grey-tailed Tattler	0	0	0	0	0	0	0	0	0	0	2	0	0	4	78	12	28	6	13	4	0	0	0
Ruddy Turnstone	0	0	0	0	0	5	2	2	3	20	14	5	0	2	36	38	39	29	3	0	0	0	0
Red-necked Phalarope	0	0	0	9	0	3	8	7	2	2	0	2	0	1	0	0	0	0	0	0	0	0	0
Pintail/Swinhoe's Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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
Long-billed Dowitcher	0	1	1	1	1	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Asian Dowitcher	0	0	0	0	1	0	1	3	16	3	36	35	26	13	1	0	2	6	1	0	0	1	0
Red Knot	0	1	0	0	1	2	1	1	0	0	0	3	0	0	2	3	5	0	0	0	0	0	0
Great Knot	10	72	0	13	120	209	141	108	37	5	20	2	0	0	4	3	12	8	4	1	0	0	0
Sanderling	0	0	0	4	2	1	2	0	0	0	3	3	0	2	10	7	11	9	6	1	1	0	0
Red-necked Stint	12	58	1	11	21	136	20	73	56	235	914	1248	540	189	1406	1600	1470	1909	290	170	69	6	0
Little Stint	0	0	0	1	0	0	0	0	0	0	2	2	1	1	0	1	1	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	1	0	0
Long-toed Stint	0	0	0	0	4	0	0	2	3	1	6	7	1	0	2	0	5	0	0	0	0	0	0
Pectoral Sandpiper	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Sharp-tailed Sandpiper	0	2	0	3	7	21	7	11	26	5	20	41	17	11	5	5	9	5	3	30	9	4	0
Dunlin	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
Curlew Sandpiper	12	45	5	47	298	213	75	379	96	794	3947	1646	3722	1271	969	1064	679	223	30	29	35	6	2
Spoon-billed Sandpiper	0	0	0	0	13	2	1	0	1	0	2	0	1	0	0	0	0	1	1	0	0	0	0
Broad-billed Sandpiper	0	2	0	2	18	3	0	0	2	16	116	22	56	7	110	87	85	56	7	2	1	0	0
Ruff	0	2	1	2	0	1	0	0	1	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	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
Total	4,601	7,404	6,856	7,557	8,181	5,817	4,678	6,346	5,959	4,185	7,770	6,112	7,233	3,640	4,198	5,174	5,403	4,156	1,429	699	550	163	87

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

2004-2005 Report

Y. T. Yu and H. K. Ying

Appendix 3

The Hong Kong Bird Watching Society Limited

Agriculture, Fisheries and Conservation Department

Figure 1. Total numbers of shorebirds recorded at Mai Po Inner Deep Bay, autumn 2004

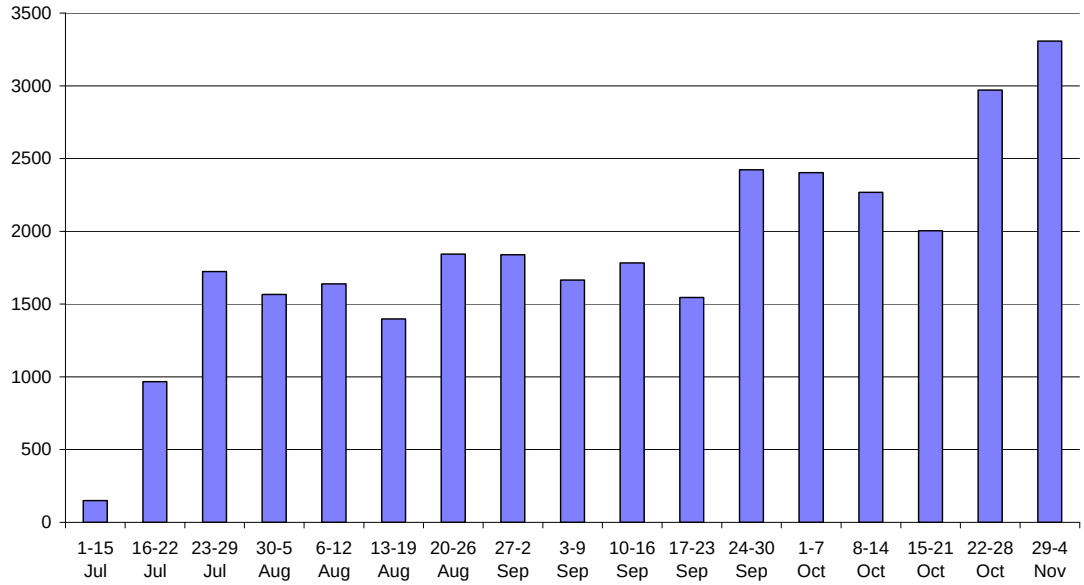


Figure 2. Counts of Black-winged Stilt at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

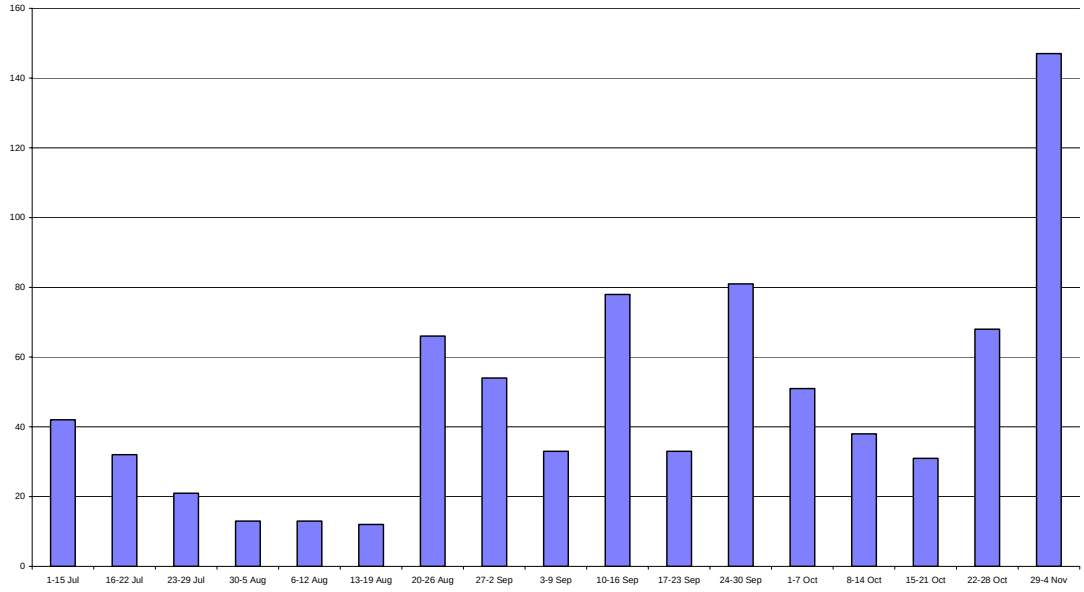


Figure 3. Counts of Pacific Golden Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

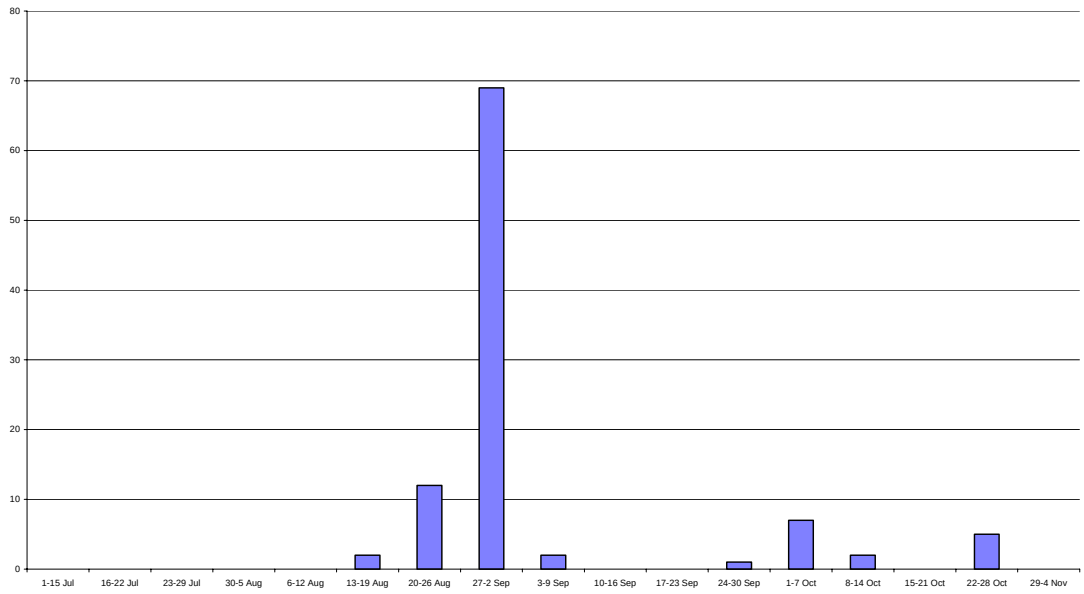


Figure 4. Counts of Kentish Plover at Mai Inner Deep Bay Ramsar Site, autumn 2002

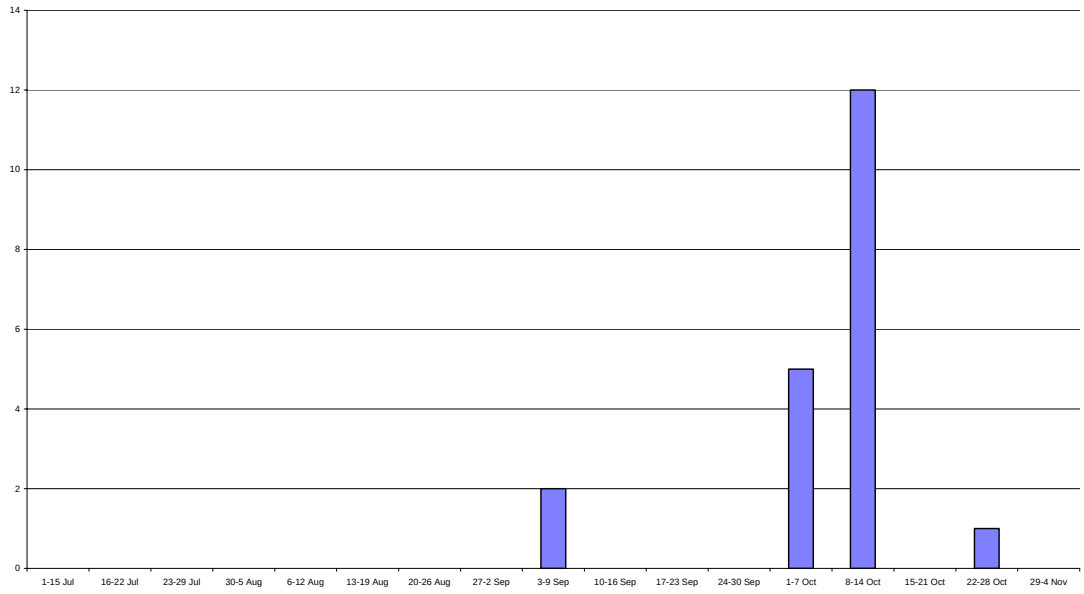


Figure 5. Counts of Grey Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

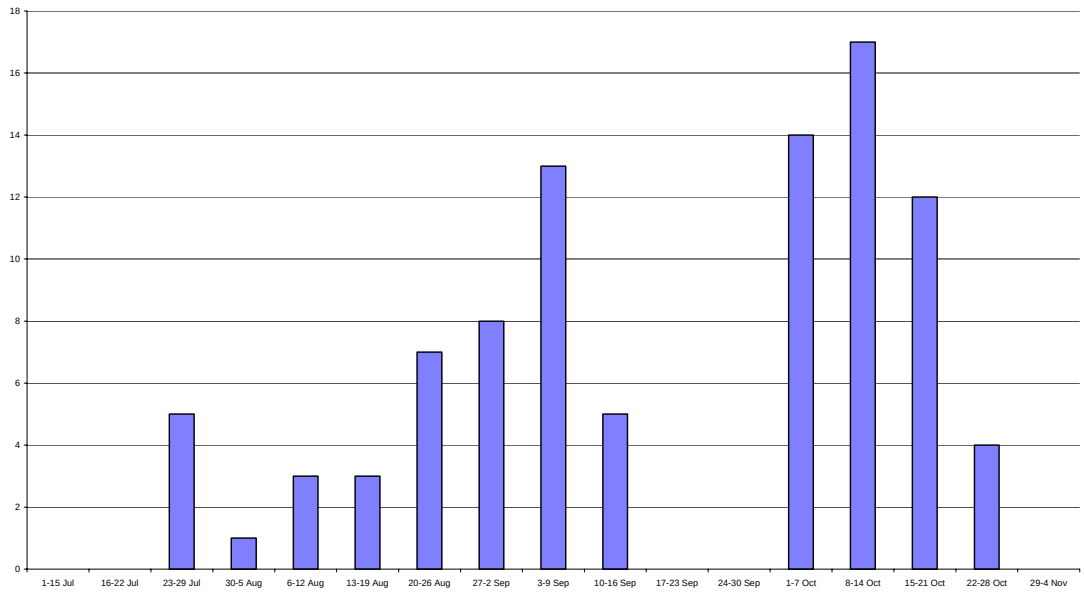


Figure 6. Counts of Lesser Sand Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

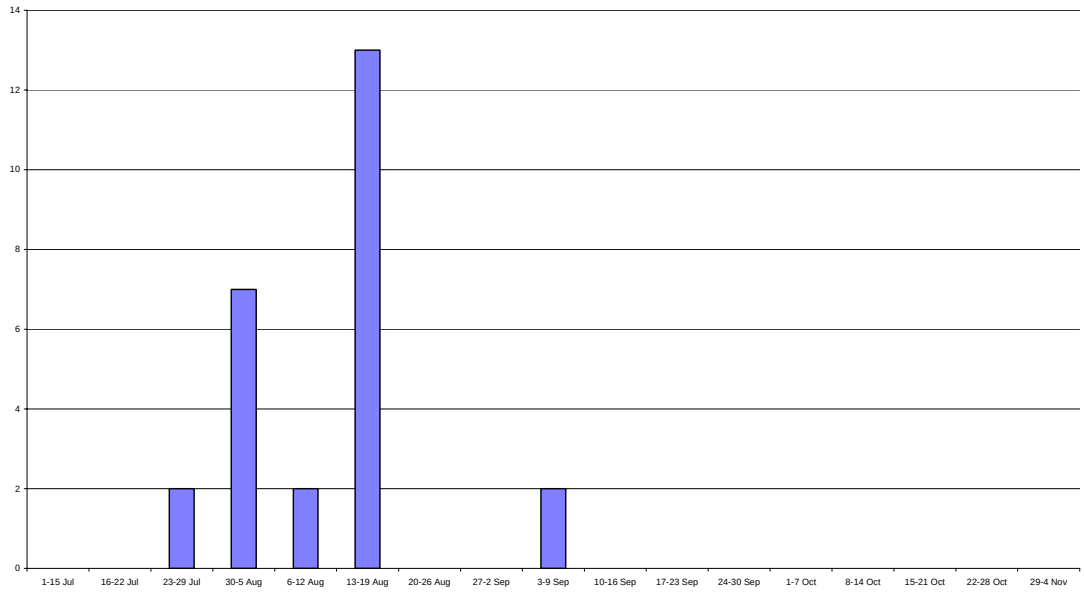


Figure 7. Counts of Greater Sand Plover at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

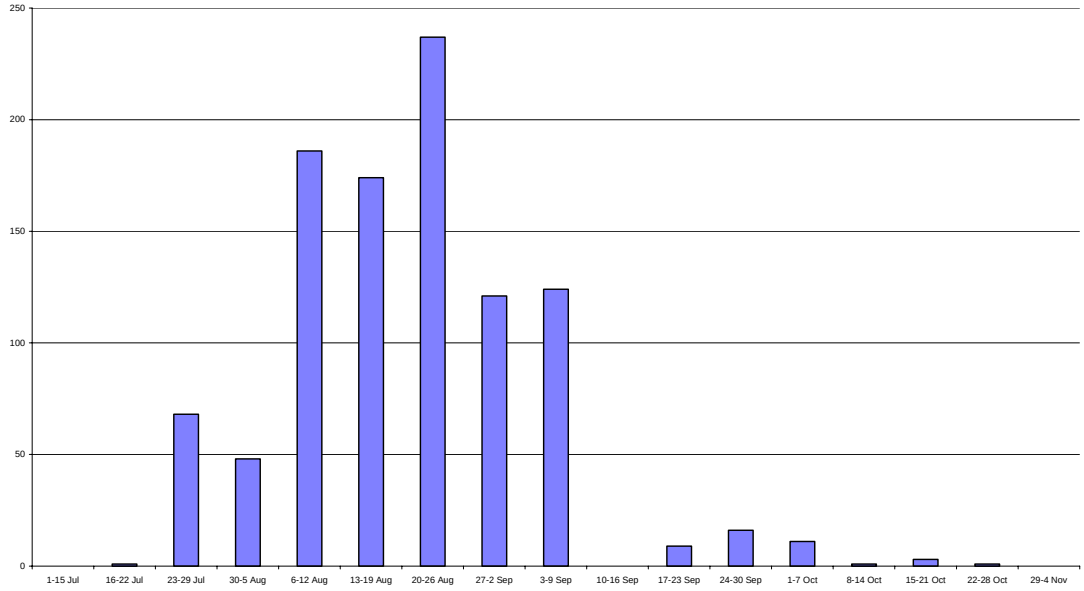


Figure 8. Counts of Black-tailed Godwit at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

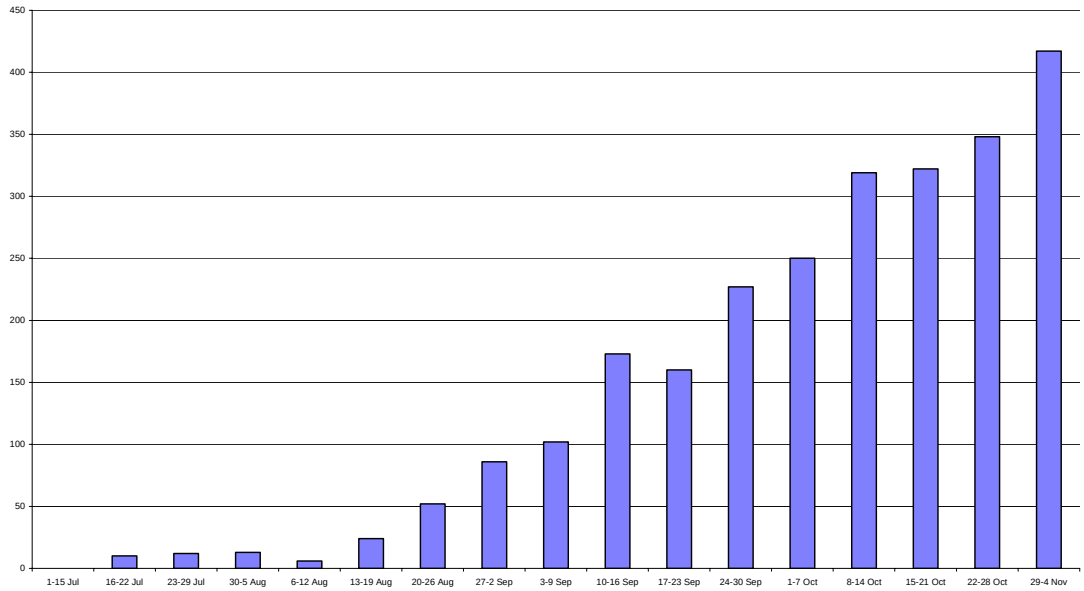


Figure 9. Counts of Bar-tailed Godwit at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

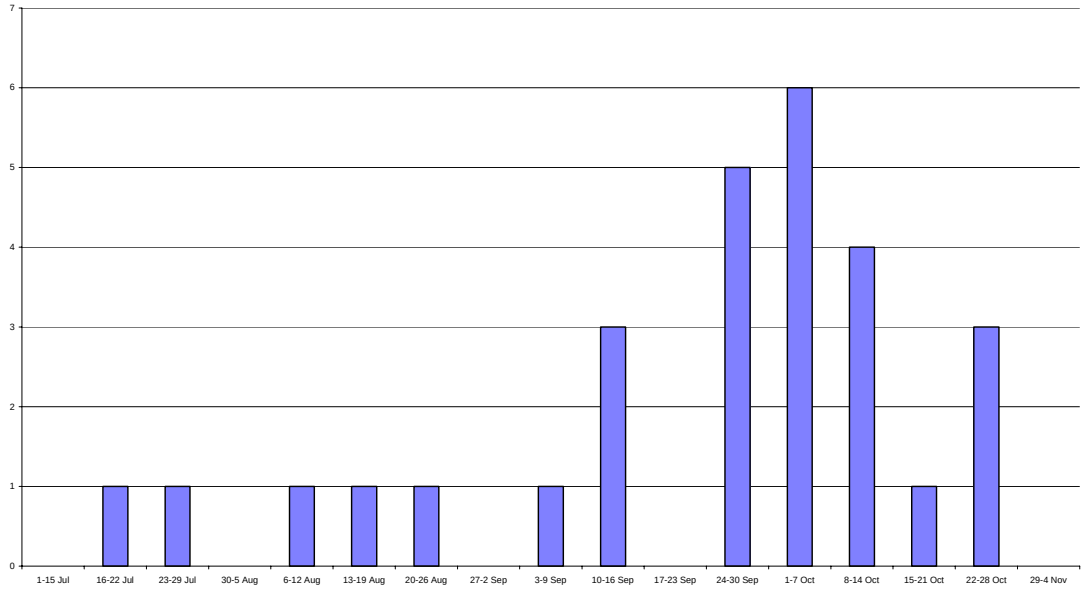


Figure 10. Counts of Whimbrel at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

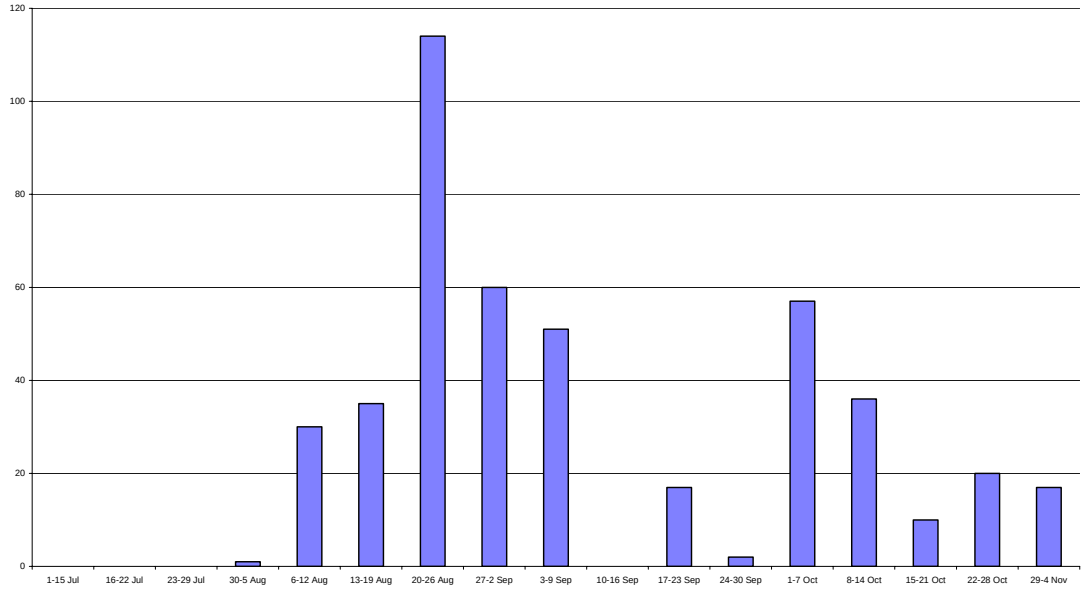


Figure 11. Counts of Eurasian Curlew at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

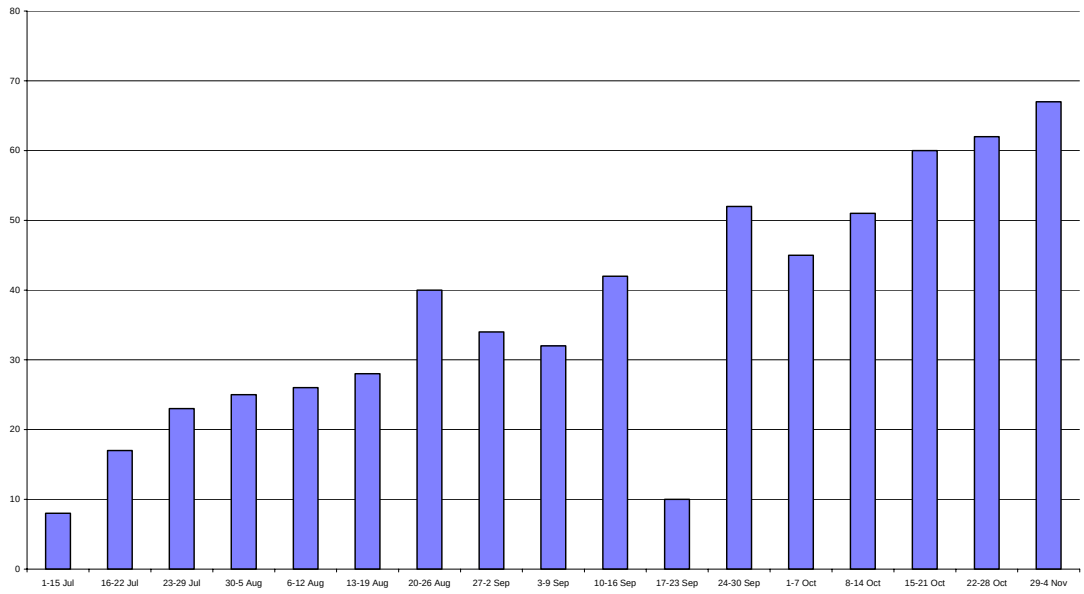


Figure 12. Counts of Spotted Redshank at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

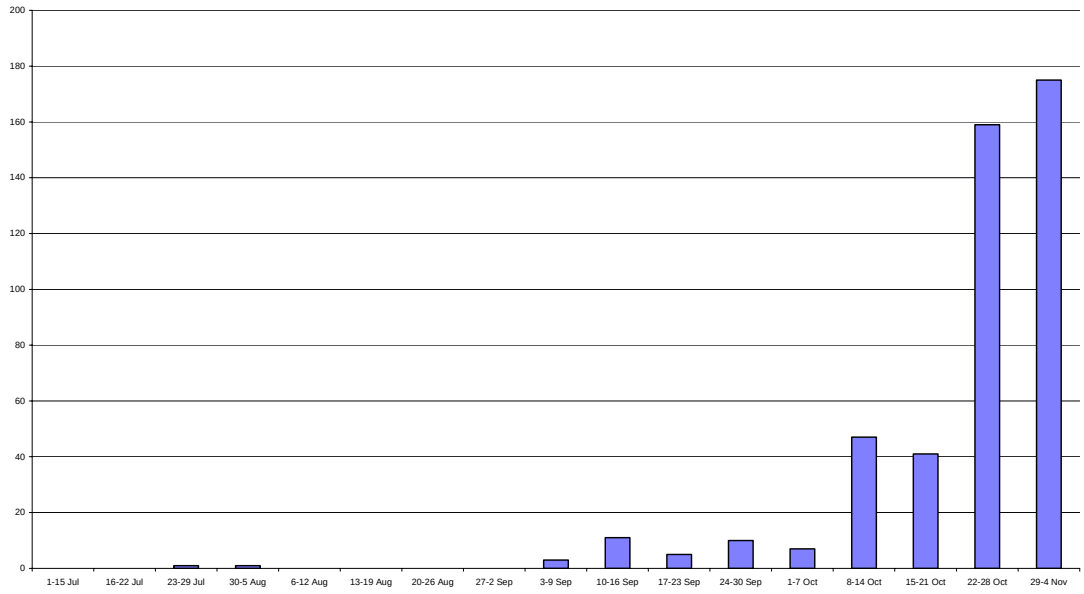


Figure 13. Counts of Common Redshank at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

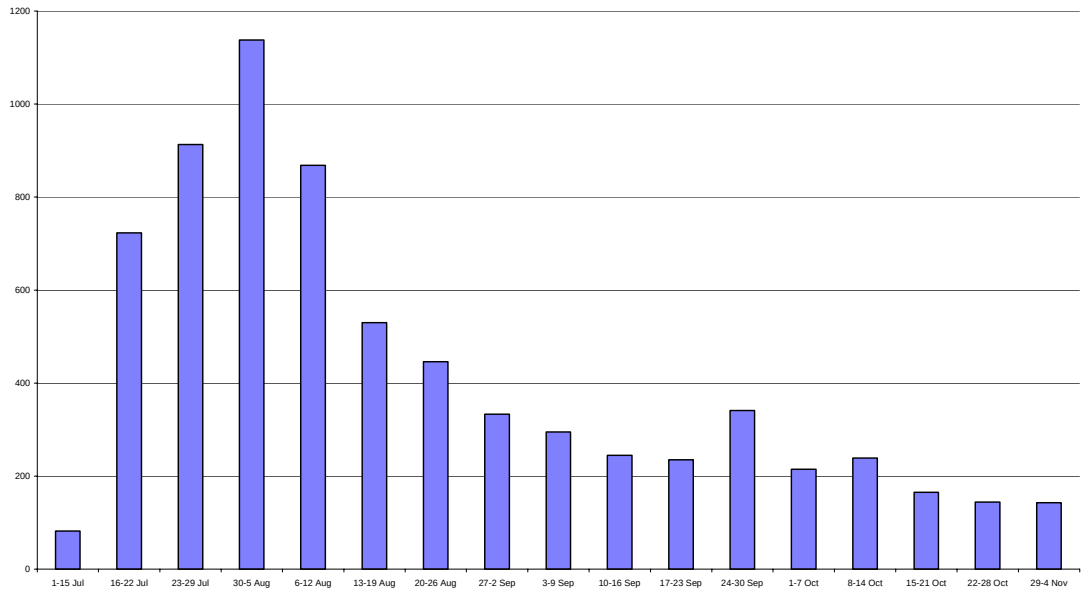


Figure 14. Counts of Marsh Sandpiper at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

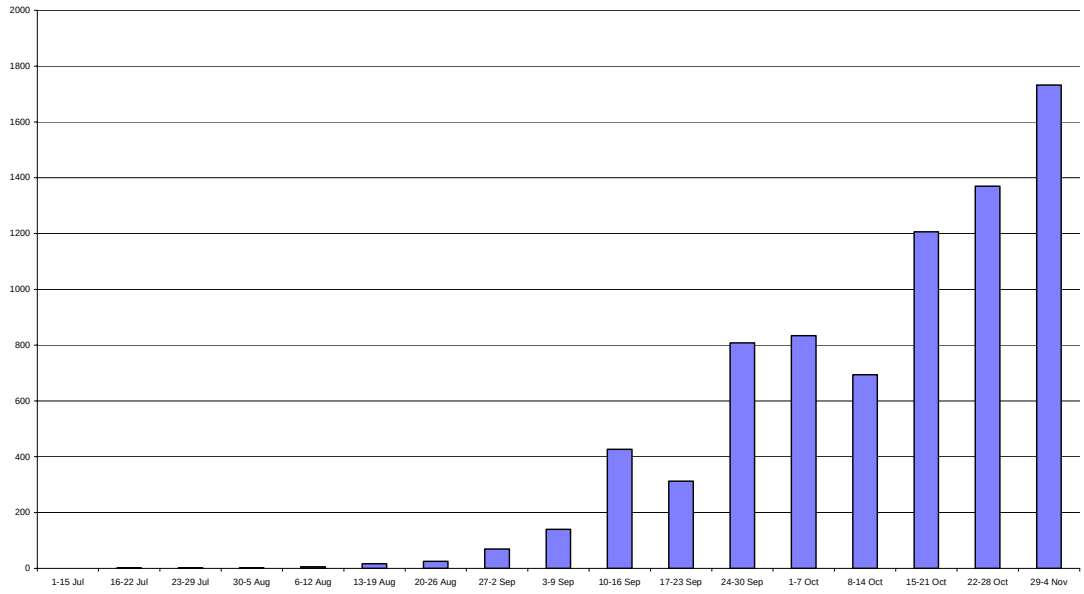


Figure 15. Counts of Common Greenshank at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

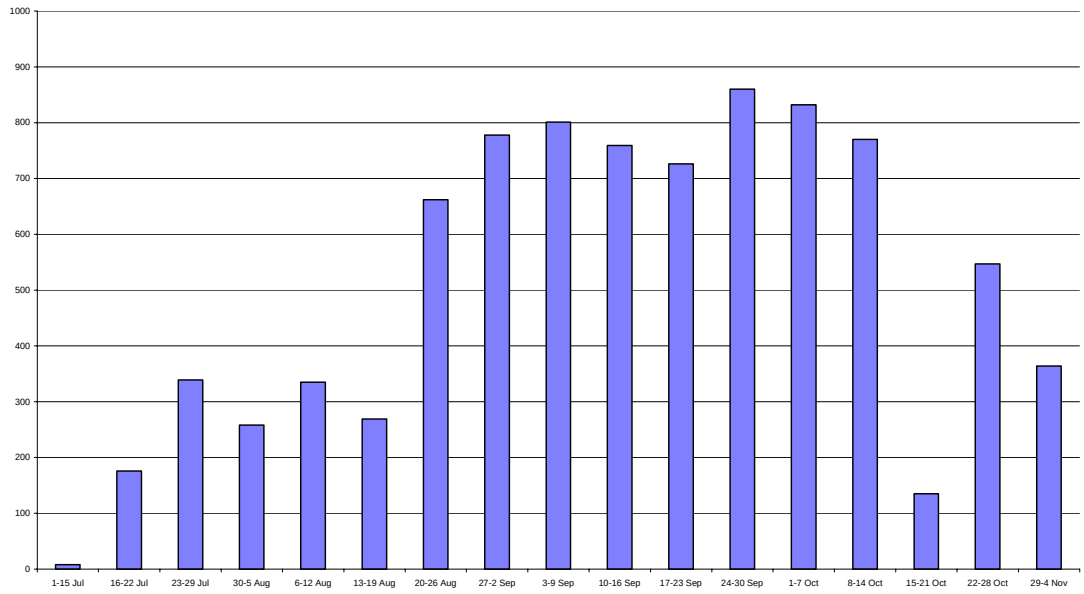


Figure 16. Counts of Wood Sandpiper at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

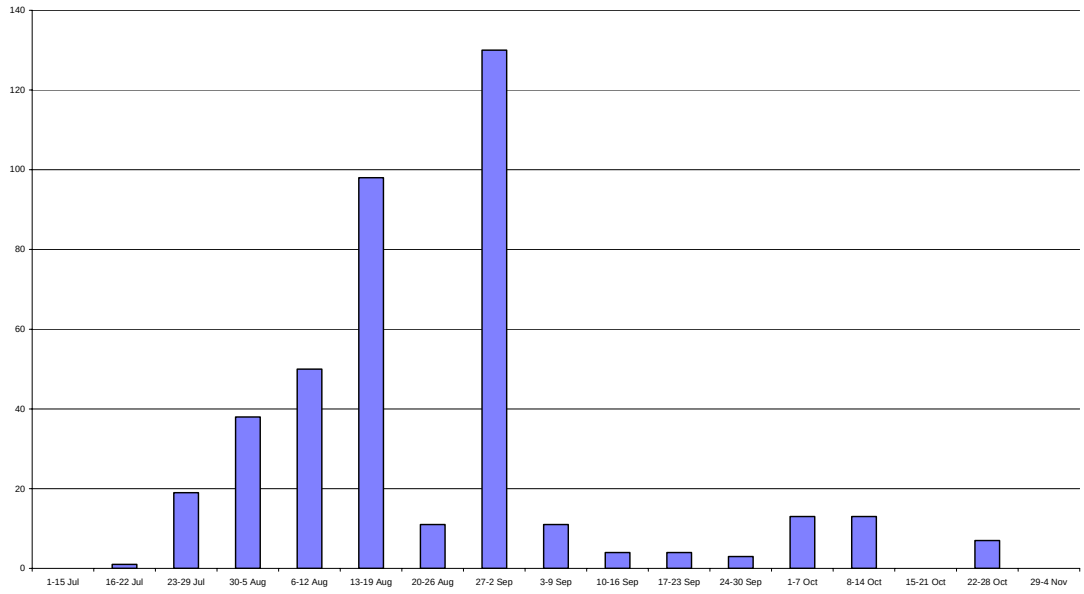


Figure 17. Counts of Great Knot at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

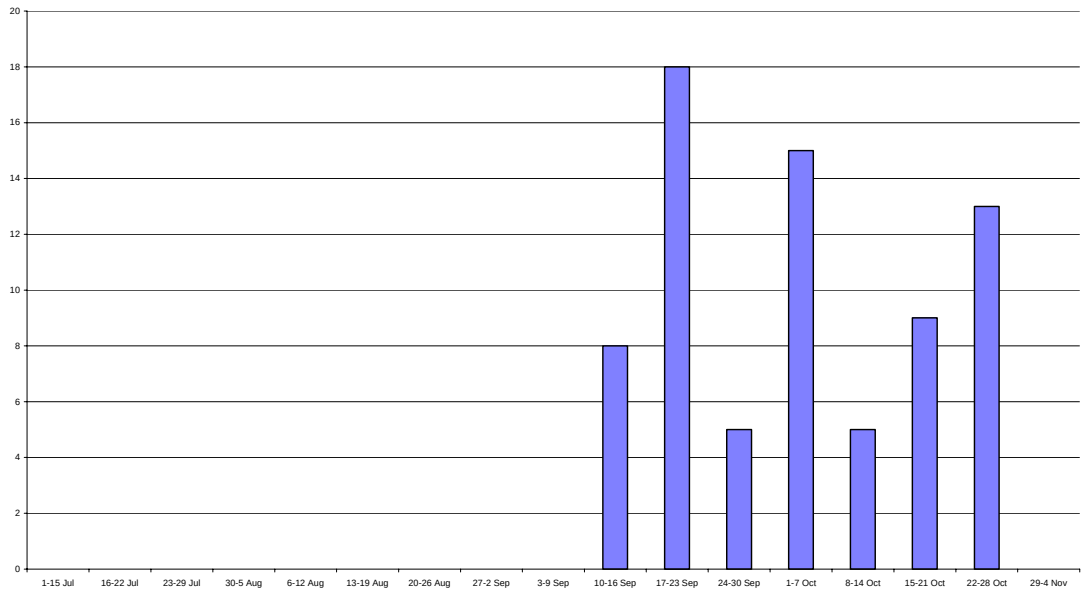


Figure 18. Counts of Red Knot at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

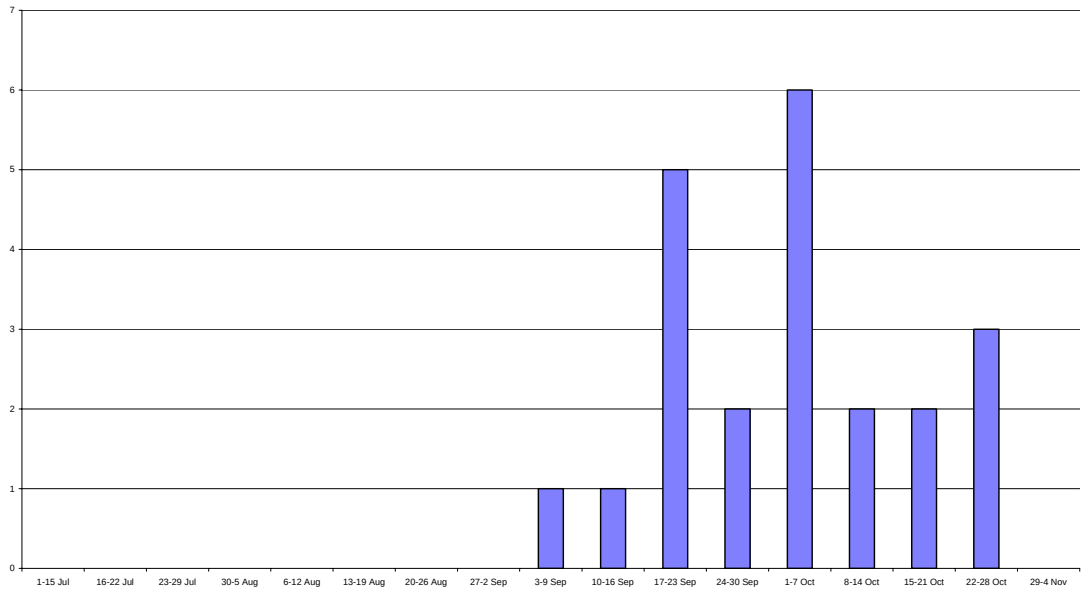


Figure 19. Counts of Broad-billed Sandpiper at Mai Po Inner Deep Bay Ramsar Site, autumn 2002

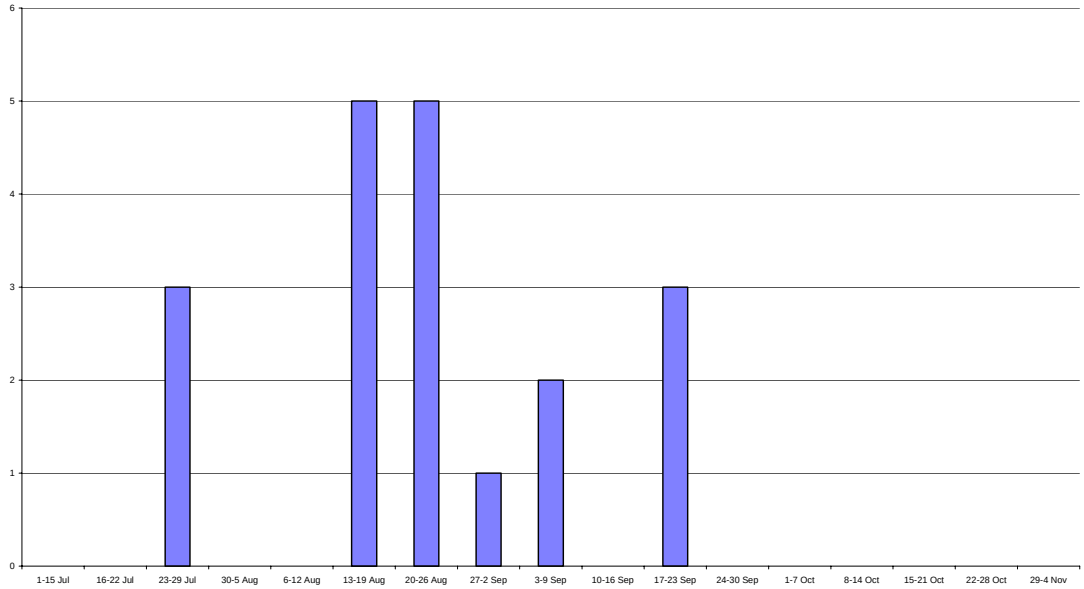


Figure 20. Total numbers of shorebirds recorded at Mai Po Inner Deep Bay, spring 2005

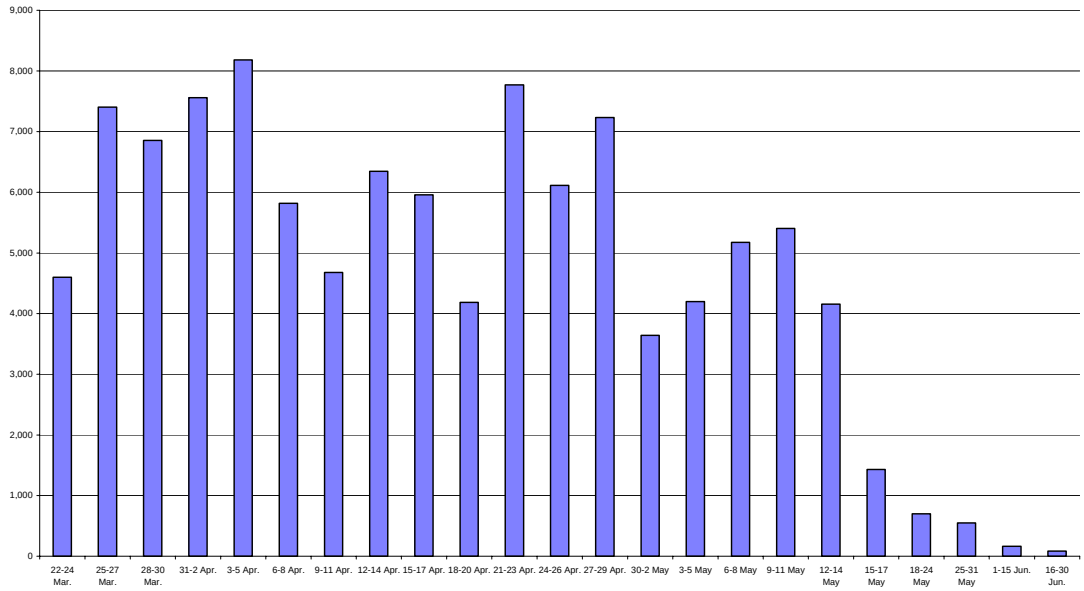


Figure 21. Counts of Pacific Golden Plover at Mai Po Inner Deep Bay Ramsar Site, spring 2005

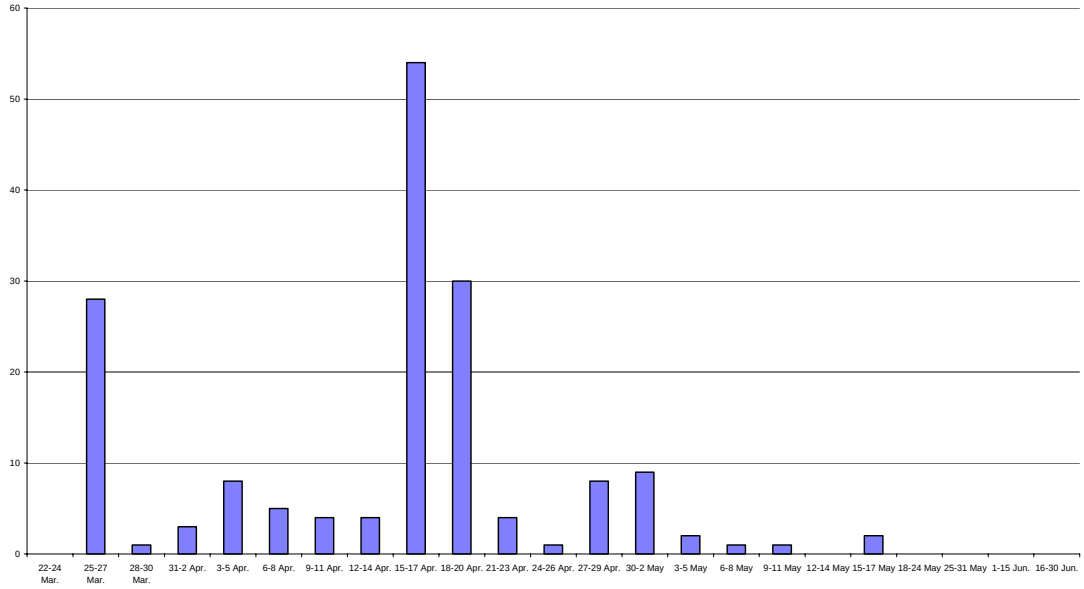


Figure 22. Counts of Lesser Sandplover at Mai Po Inner Deep Bay Ramsar Site, spring 2005

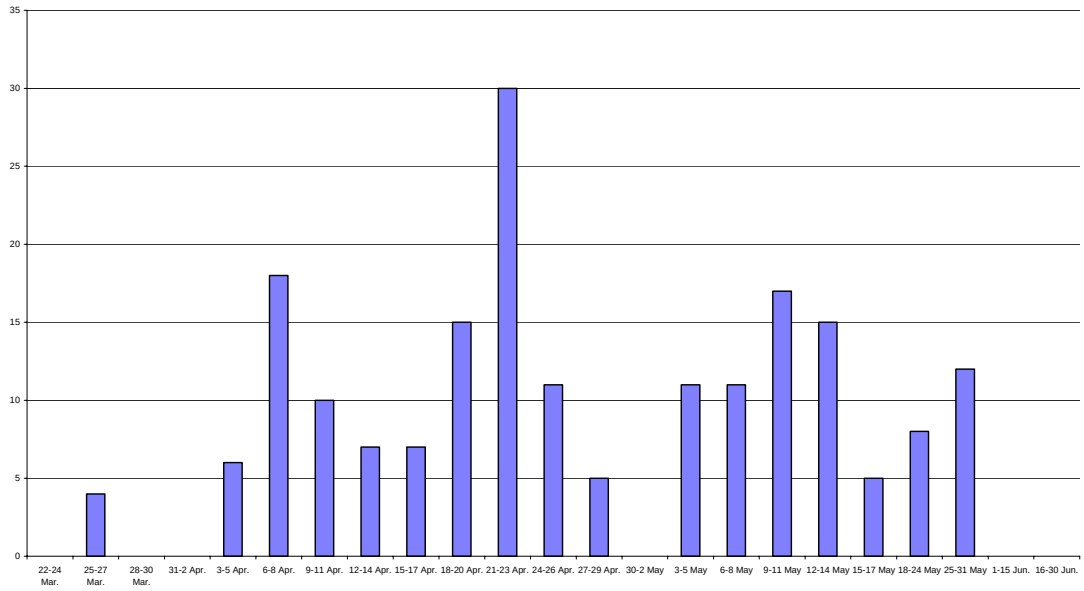


Figure 23. Counts of Greater Sandplover at Mai Po Inner Deep Bay Ramsar Site, spring 2005

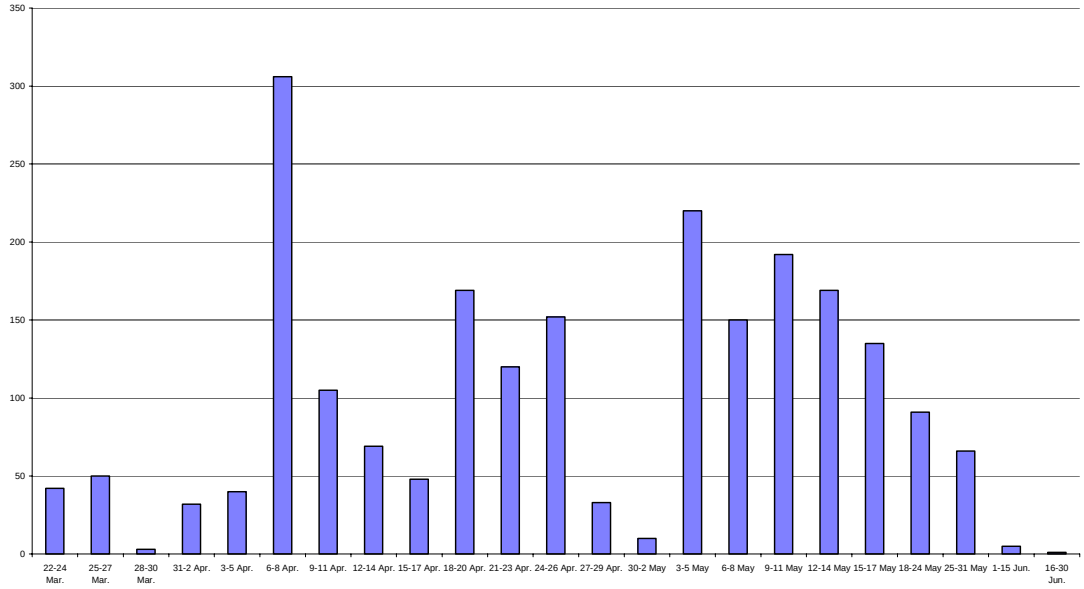


Figure 24. Counts of Black-tailed Godwit at Mai Po Inner Deep Bay Ramsar Site, spring 2005

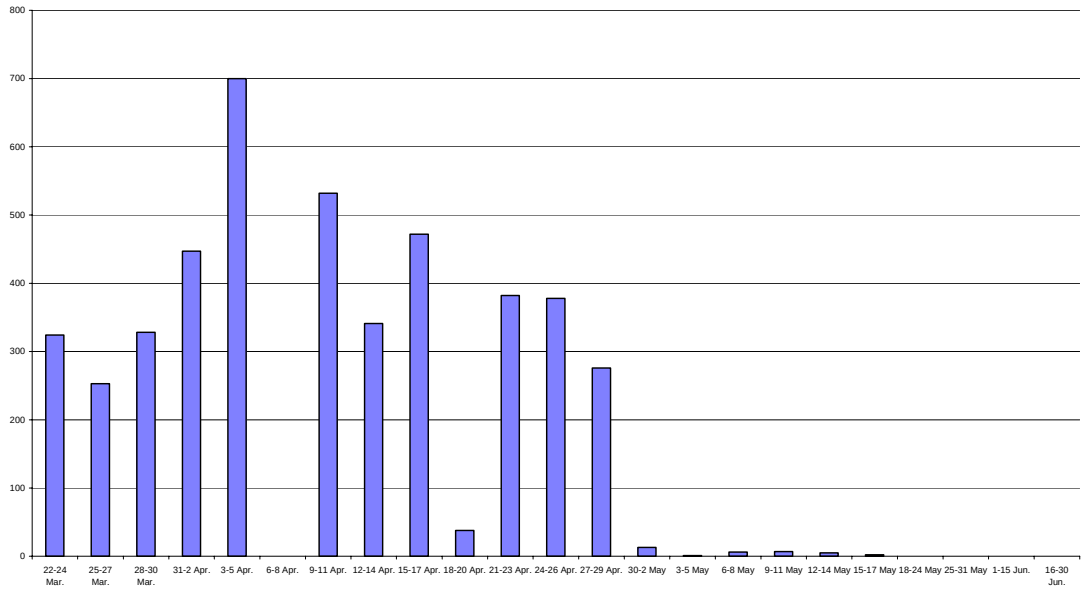


Figure 25. Counts of Spotted Redshank at Mai Po Inner Deep Bay Ramsar Site, spring 2005

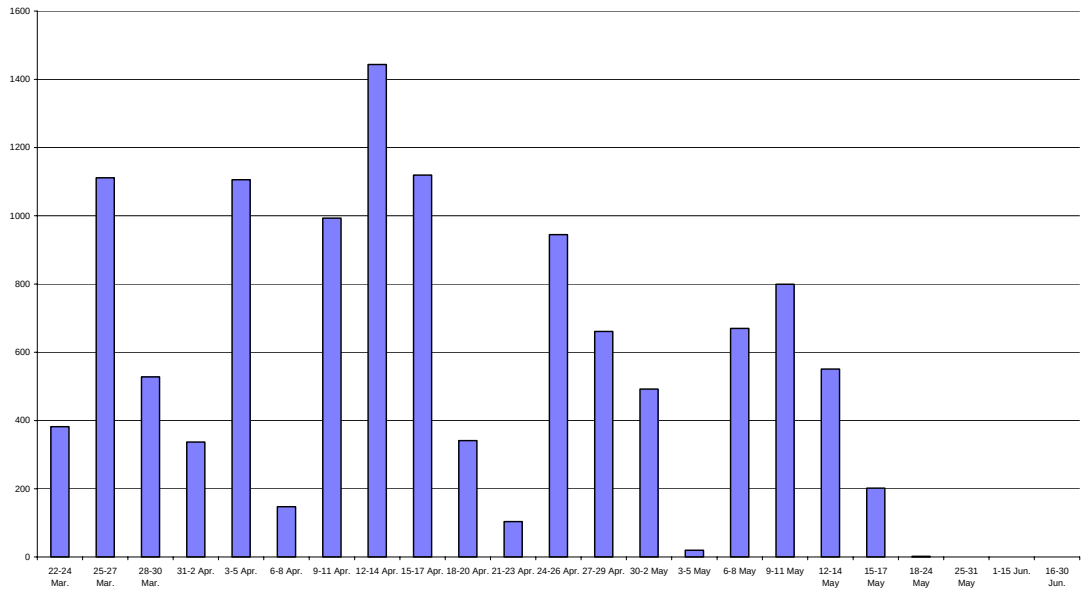


Figure 26. Counts of Common Redshank at Mai Po Inner Deep Bay Ramsar Site, spring 2005

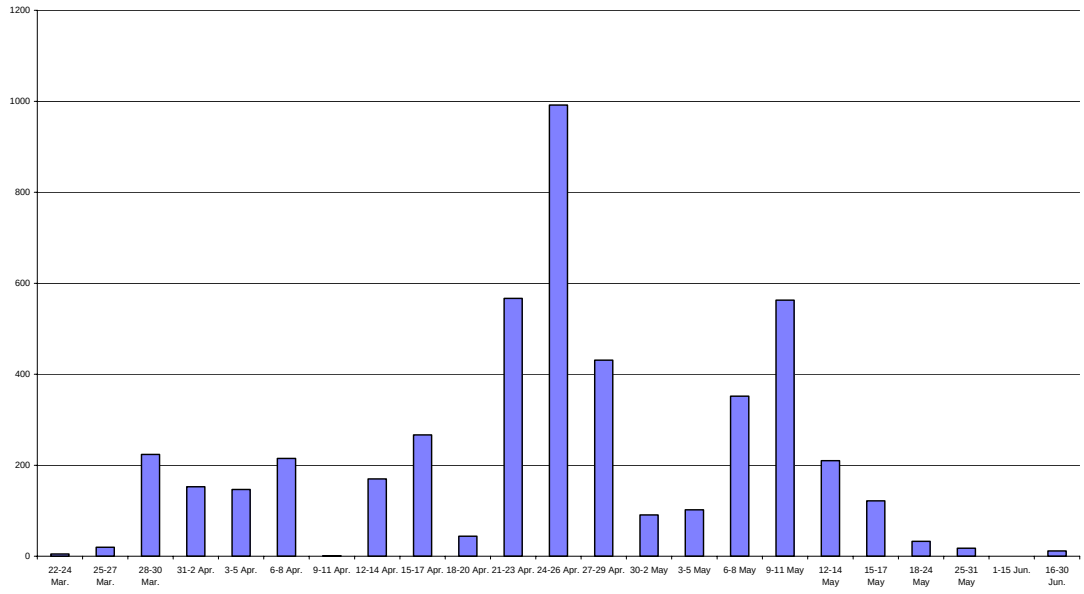


Figure 27. Counts of Marsh Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2005

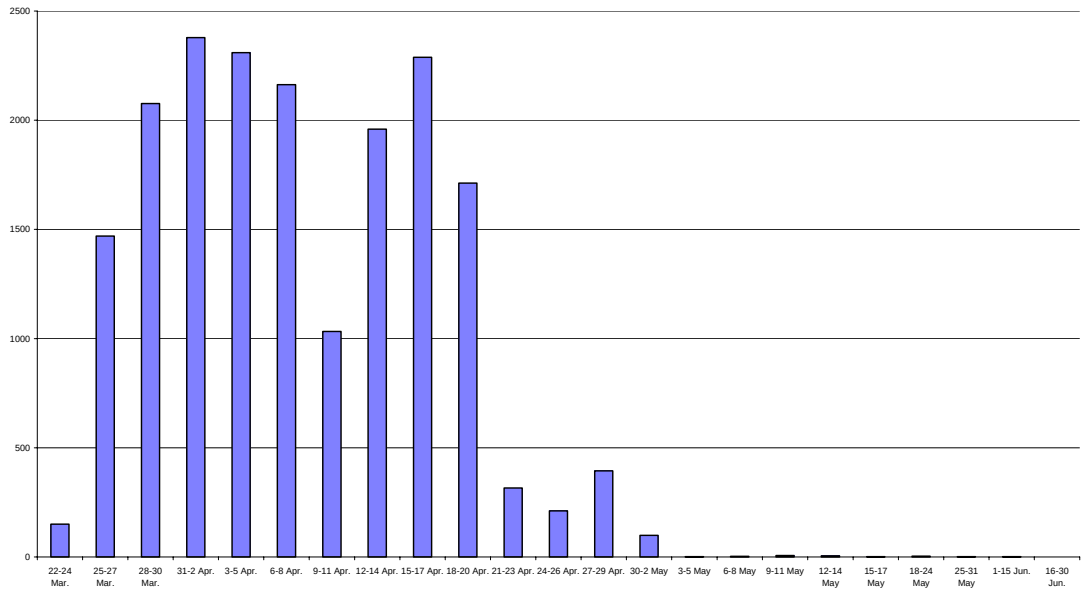


Figure 28. Counts of Common Greenshank at Mai Po Inner Deep Bay Ramsar Site, spring 2005

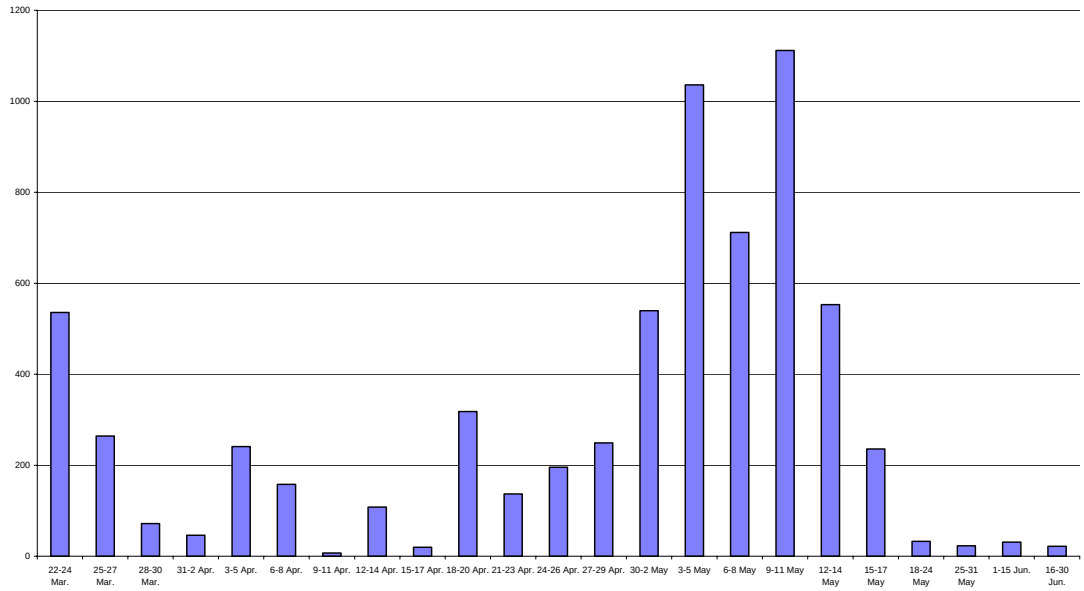


Figure 29. Counts of Terek Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2005

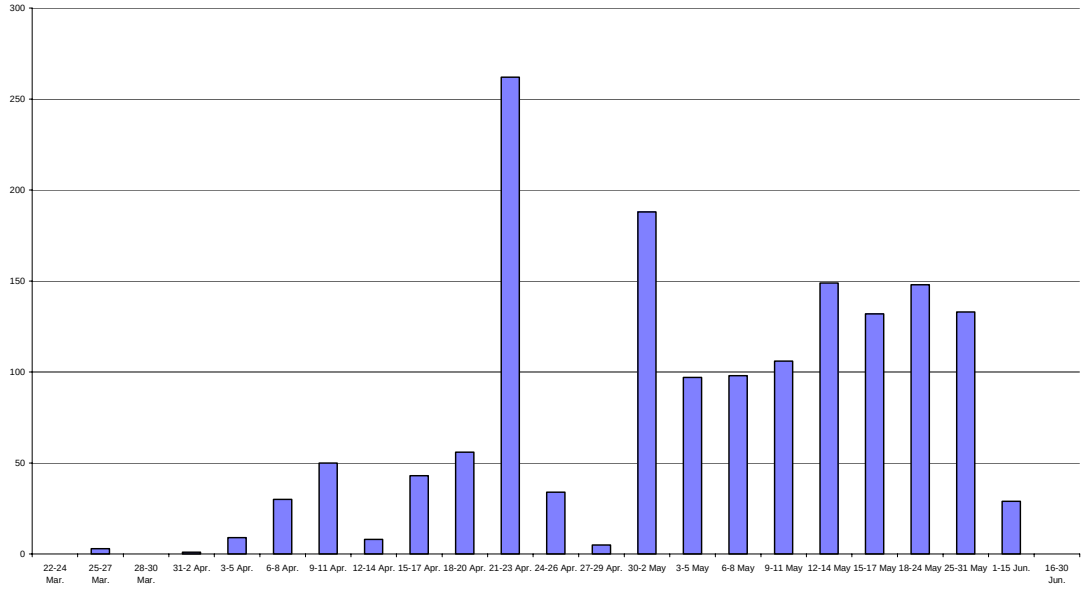


Figure 30. Counts of Grey-tailed Tattler at Mai Po Inner Deep Bay Ramsar Site, spring 2005

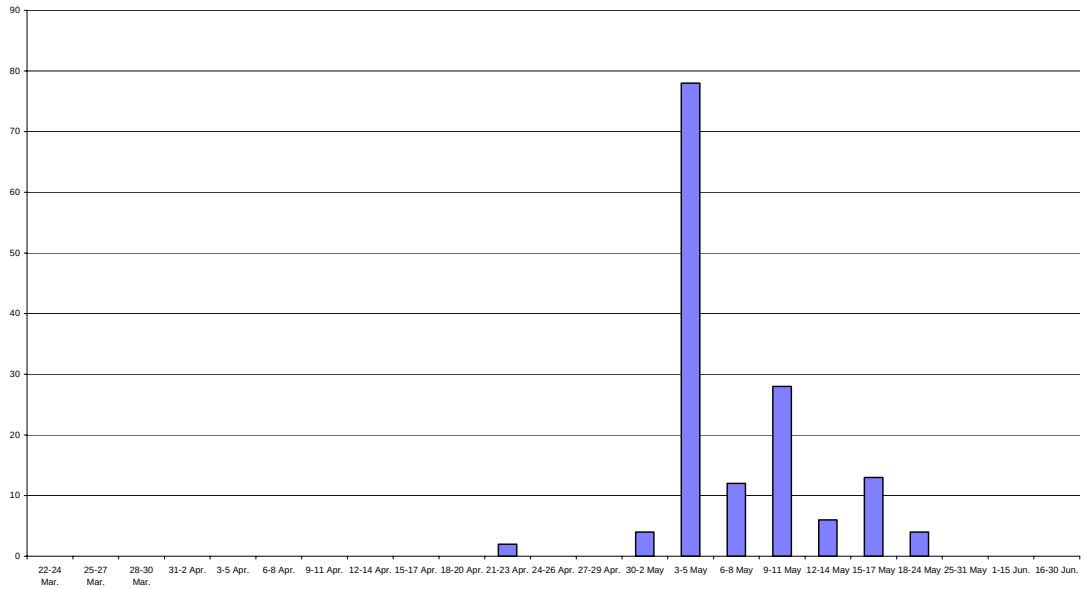


Figure 31. Counts of Ruddy Turnstone at Mai Po Inner Deep Bay Ramsar Site, spring 2005

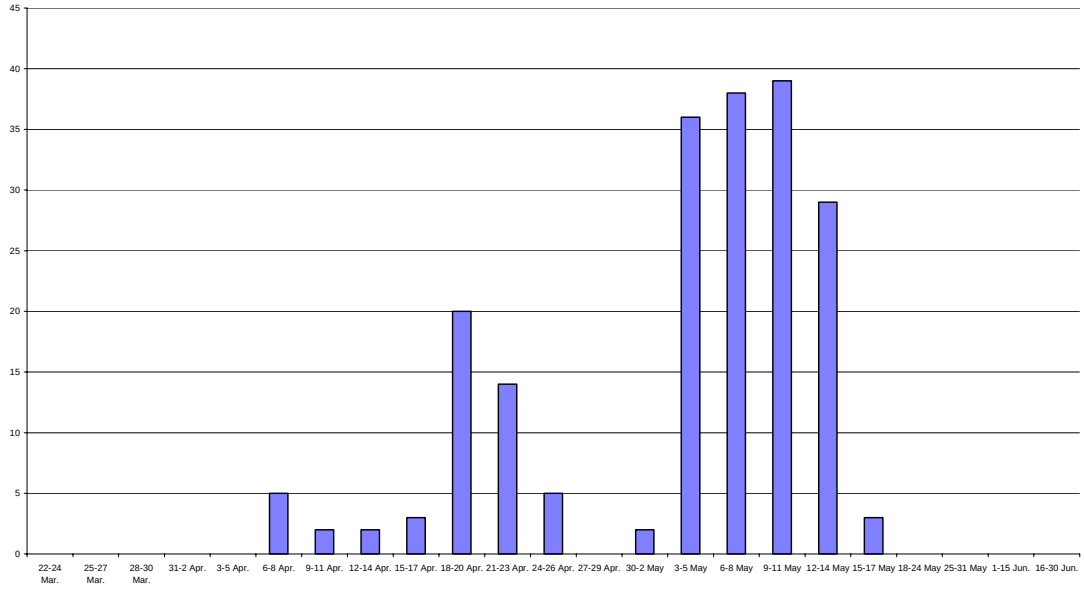


Figure 32. Counts of Asian Dowitcher at Mai Po Inner Deep Bay Ramsar Site, spring 2005

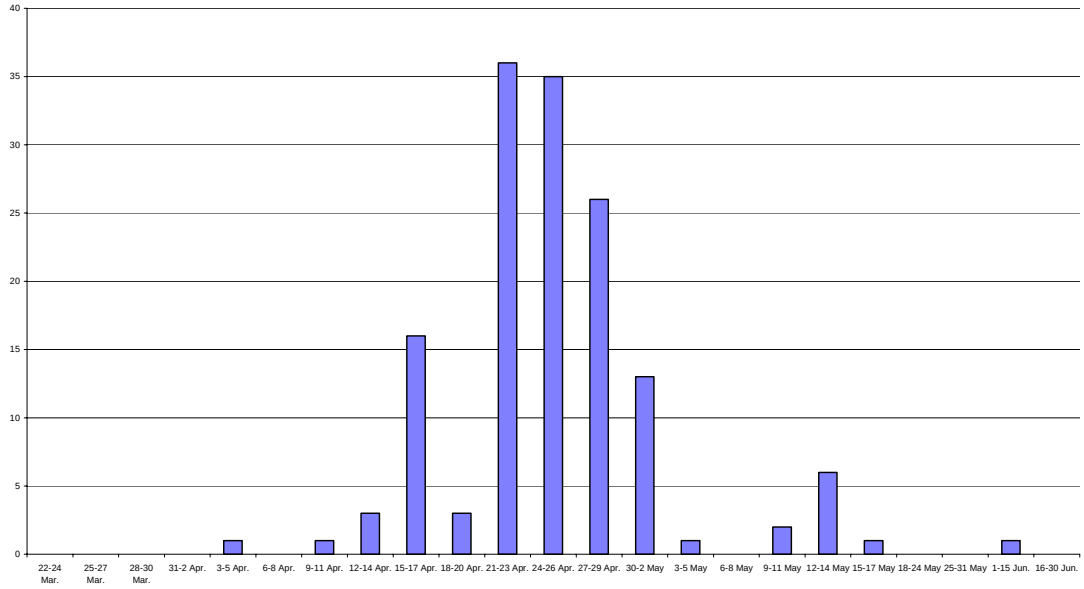


Figure 33. Counts of Red Knot at Mai Po Inner Deep Bay Ramsar Site, spring 2005

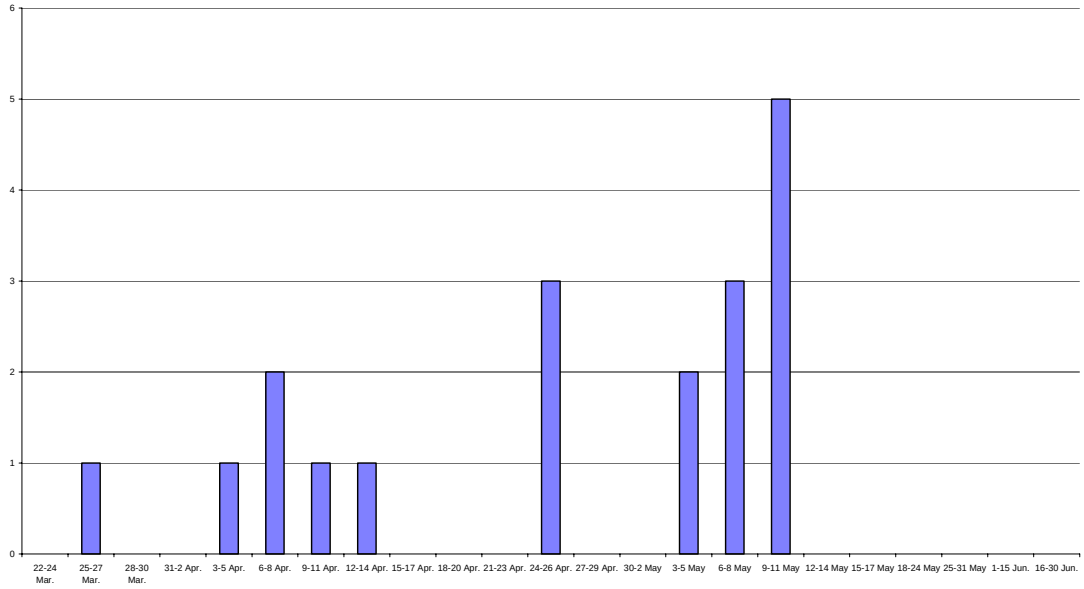


Figure 34. Counts of Great Knot at Mai Po Inner Deep Bay Ramsar Site, spring 2005

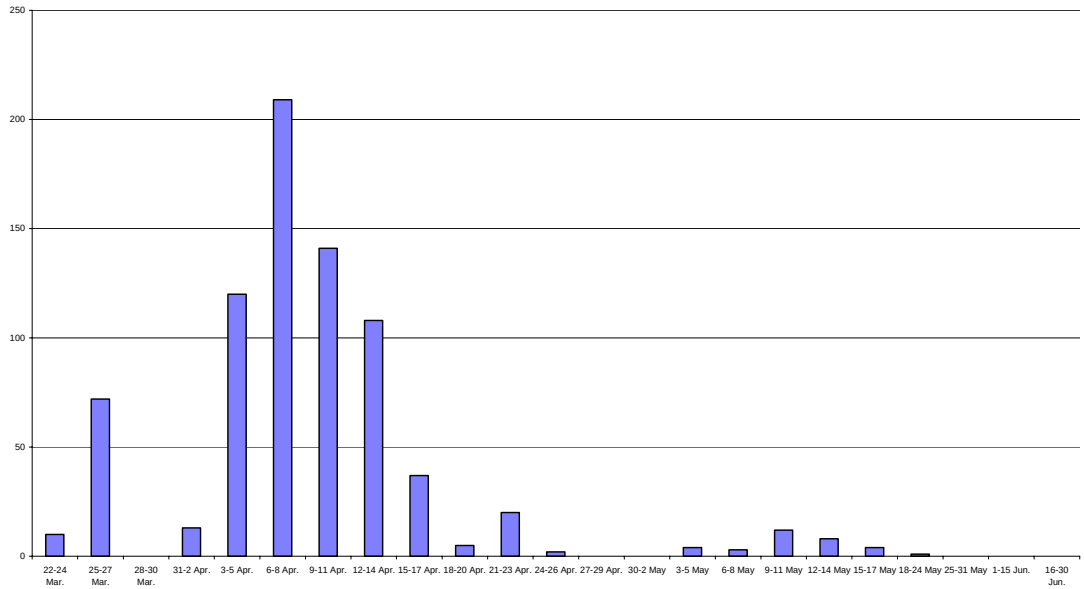


Figure 35. Counts of Red-necked Stint at Mai Po Inner Deep Bay Ramsar Site, spring 2005

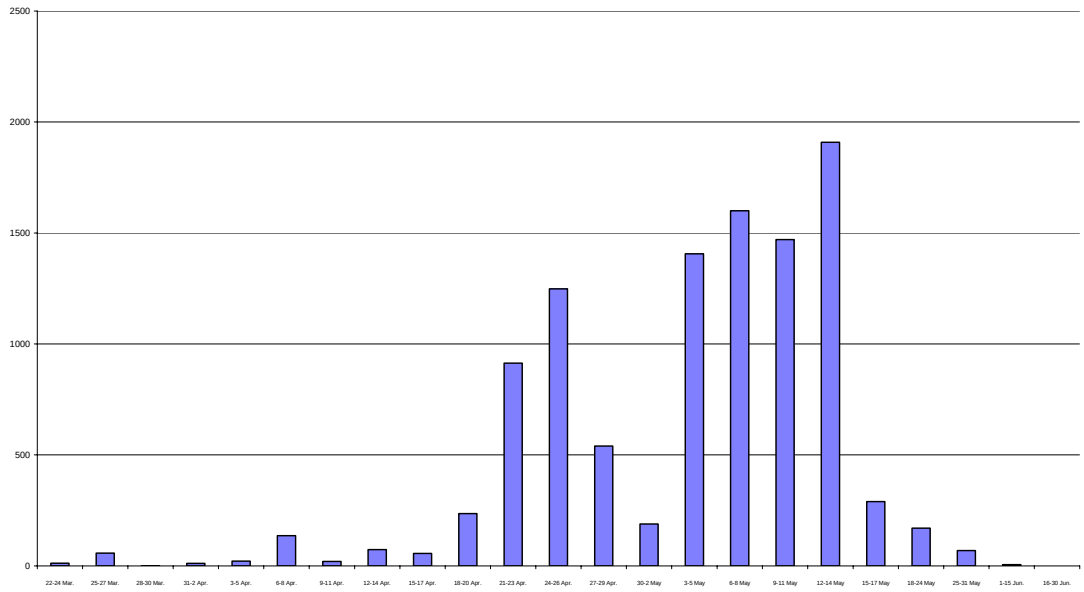


Figure 36. Counts of Sharp-tailed Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2005

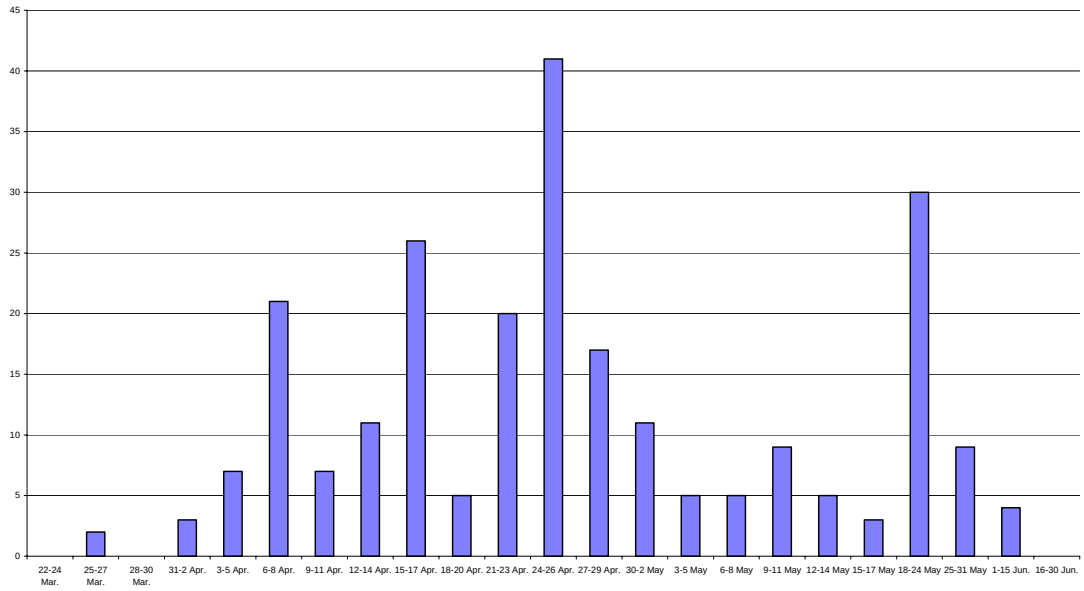


Figure 37. Counts of Curlew Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2005

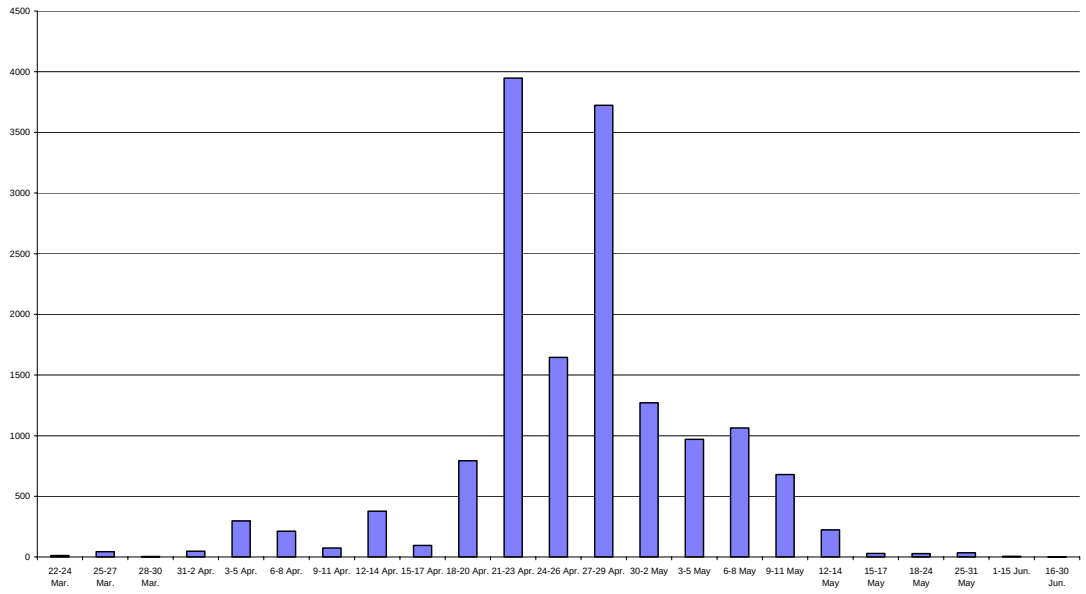
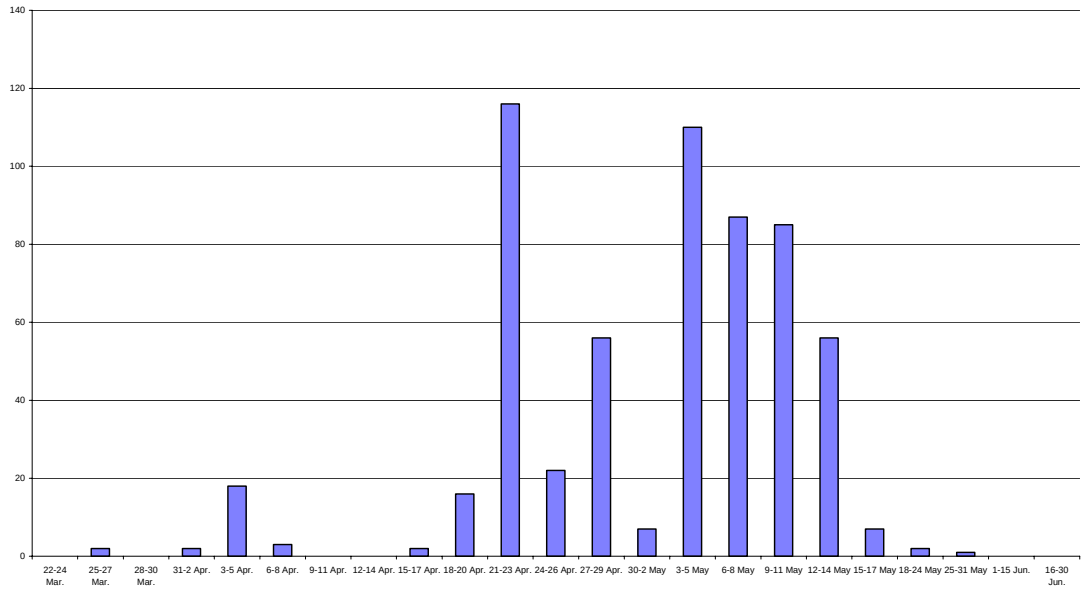


Figure 38. Counts of Broad-billed Sandpiper at Mai Po Inner Deep Bay Ramsar Site, spring 2005



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

2004-2005 Report

Y. T. Yu and H. K. Ying

Appendix 4

The Hong Kong Bird Watching Society Limited

Agriculture, Fisheries and Conservation Department

				Right Leg				Left Leg			
Date	Observer	Species	Breeding plumage	Colour	Position	Colour	Position	Colour	Position	Colour	Position
20-Jul-04	Y.T. Yu	Common Redshank	50	White	above	Yellow	below				
20-Jul-04	Y.T. Yu	Common Redshank	25	White	above	Yellow	below				
28-Jul-04	Y.T. Yu	Common Redshank	50	White	above	Yellow	below				
6-Aug-04	Y.T. Yu	Common Redshank	25	White	above	Yellow	below				
6-Aug-04	Y.T. Yu	Curlew Sandpiper	50	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Common Greenshank	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Common Redshank	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Common Redshank	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Whimbrel	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Whimbrel	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Whimbrel	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Grey Plover	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Bar-tailed Godwit	0	White	above	Yellow	below				
11-Oct-04	Y.T. Yu	Great Knot	0	White	above	Yellow	below				
16-Feb-05	JAA	Great Knot	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below				
27-Feb-05	JAA	Grey Plover	0	White	above	Yellow	below				
27-Feb-05	JAA	Common Greenshank	0	White	above	Yellow	below				
27-Feb-05	JAA	Great Knot	0	White	above	Yellow	below				
15-Mar-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below				
15-Mar-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below				
15-Mar-05	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below				
15-Mar-05	Y.T. Yu	Common Redshank	0	White	above	Yellow	below				
16-Mar-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below				

16-Mar-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below		
16-Mar-05	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below		
16-Mar-05	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below		
16-Mar-05	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below		
16-Mar-05	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below		
16-Mar-05	Y.T. Yu	Marsh Sandpiper	0	White	above	Yellow	below		
16-Mar-05	Y.T. Yu	Common Redshank	0	White	above	Yellow	below		
17-Mar-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
17-Mar-05	Neil Fifer	Common Redshank	0	White	above	Yellow	below		
26-Mar-05	Y.T. Yu	Spotted Redshank	50	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Black-tailed Godwit	0	White	above	Yellow	below		
28-Mar-05	JAA	Spotted Redshank	0	White	above	Yellow	below		
28-Mar-05	JAA	Black-tailed Godwit	0	White	above	Yellow	below		
28-Mar-05	JAA	Black-tailed Godwit	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	trace	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	25	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Common Greenshank	0	White	above	Yellow	below		
28-Mar-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
29-Mar-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below		
29-Mar-05	Y.T. Yu	Common Redshank	0	White	above	Yellow	below		
30-Mar-05	Chang Chung-yu	Great Knot	100	White	above	Black	below		
31-Mar-05	Y.T. Yu	Curlew Sandpiper	75	White	above	Yellow	below		
31-Mar-05	Y.T. Yu	Greater Sand Plover	75	Yellow	above				
1-Apr-05	Neil Fifer	Marsh Sandpiper	50	White	above	Yellow	below		
2-Apr-05	JAA	Spotted Redshank	0	White	above	Yellow	below		
2-Apr-05	JAA	Spotted Redshank	0			Yellow	below	Metal	below
2-Apr-05	JAA	Black-tailed Godwit	0	White	above	Yellow	below		
2-Apr-05	JAA	Grey Plover	0	White	above	Yellow	below		
2-Apr-05	JAA	Curlew Sandpiper	0	Orange	above				
2-Apr-05	JAA	Pied Avocet	0	White	above	Yellow	below		
8-Apr-05	Neil Fifer	Grey Plover	100	White	above	Yellow	below		
8-Apr-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
8-Apr-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below		
9-Apr-05	Geoff Carey	Curlew Sandpiper	30	Orange	above	Yellow	below		
9-Apr-05	Geoff Carey	Curlew Sandpiper	90	Orange	above				
10-Apr-05	Geoff Carey	Greater Sand Plover	90	Yellow	above				
10-Apr-05	Geoff Carey	Greater Sand Plover	95	Yellow	above				
10-Apr-05	Geoff Carey	Greater Sand Plover	70	Yellow	above				
10-Apr-05	Geoff Carey	Great Knot	50	Yellow	above				
10-Apr-05	Geoff Carey	Curlew Sandpiper	75	Yellow	above				
10-Apr-05	Geoff Carey	Curlew Sandpiper	15	Orange	above				
12-Apr-05	Y.T. Yu	Great Knot	25	White	above	Yellow	below		

12-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below
12-Apr-05	Y.T. Yu	Black-tailed Godwit	25	White	above	Yellow	below
12-Apr-05	Y.T. Yu	Great Knot	25	Yellow	above		
12-Apr-05	Neil Fifer	Great Knot	50	Yellow	above		
12-Apr-05	Neil Fifer	Black-tailed Godwit	0	White	above	Yellow	below
12-Apr-05	Neil Fifer	Black-tailed Godwit	25	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Neil Fifer	Black-tailed Godwit	0	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	50	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	25	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	0	White	above	Yellow	below
12-Apr-05	Neil Fifer	Marsh Sandpiper	25	White	above	Yellow	below
13-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
13-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
13-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
13-Apr-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
15-Apr-05	Y.T. Yu	Curlew Sandpiper	100	Orange	above		
15-Apr-05	Y.T. Yu	Bar-tailed Godwit	0	Yellow	above		
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Marsh Sandpiper	0	White	above	Yellow	below
16-Apr-05	JAA	Curlew Sandpiper	100	Orange	above		
16-Apr-05	JAA	Greater Sand Plover	0	White	above	Yellow	below
16-Apr-05	JAA	Greater Sand Plover	0	White	above	Yellow	below
16-Apr-05	JAA	Terek Sandpiper	Not checked	Yellow	above	Metal	below
17-Apr-05	JAA	Bar-tailed Godwit	0	Yellow	above		
17-Apr-05	JAA	Greater Sand Plover	Not checked	Yellow	above		
18-Apr-05	Y.T. Yu	Curlew Sandpiper	75	White	above	Yellow	below
18-Apr-05	Y.T. Yu	Curlew Sandpiper	50	Yellow	above	Orange	below
18-Apr-05	Y.T. Yu	Curlew Sandpiper	75	Orange	above		
24-Apr-05	Cheung Mok Jose Alberto	Sanderling	0	Orange	above		
24-Apr-05	Cheung Mok Jose Alberto	Great Knot	75	White	above	Yellow	below
24-Apr-05	Cheung Mok Jose Alberto	Red-necked Stint	0	Orange	above		
25-Apr-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
25-Apr-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
25-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below
25-Apr-05	Y.T. Yu	Marsh Sandpiper	25	White	above	Yellow	below

25-Apr-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below
25-Apr-05	Neil Fifer	Curlew Sandpiper	50	Yellow	above		
28-Apr-05	Y.T. Yu	Curlew Sandpiper	0	Orange	above		
28-Apr-05	Y.T. Yu	Curlew Sandpiper	25	Yellow	above		
28-Apr-05	Neil Fifer	Marsh Sandpiper	Not checked	White	above	Yellow	below
28-Apr-05	Neil Fifer	Marsh Sandpiper	Not checked	White	above	Yellow	below
28-Apr-05	Neil Fifer	Marsh Sandpiper	Not checked	White	above	Yellow	below
28-Apr-05	Neil Fifer	Marsh Sandpiper	Not checked	White	above	Yellow	below
28-Apr-05	Neil Fifer	Greater Sand Plover	25	White	above	Yellow	below
30-Apr-05	Y.T. Yu	Curlew Sandpiper	50	Yellow	above		
30-Apr-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
30-Apr-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
30-Apr-05	JAA	Sanderling	0	Orange	above	Yellow	below
30-Apr-05	JAA	Red-necked Stint	Not checked	Orange	above		
30-Apr-05	JAA	Curlew Sandpiper	0	Yellow	above		
30-Apr-05	JAA	Curlew Sandpiper	50	Yellow	above		
30-Apr-05	JAA	Curlew Sandpiper	100	Yellow	above		
30-Apr-05	JAA	Curlew Sandpiper	75	White	above	Yellow	below
30-Apr-05	JAA	Curlew Sandpiper	75	Orange	above		
5-May-05	Y.T. Yu	Sanderling	25	Orange	above		
5-May-05	Y.T. Yu	Sanderling	25	Orange	above	Yellow	below
5-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
5-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
5-May-05	Y.T. Yu	Common Greenshank	Not checked	White	above	Yellow	below
7-May-05	Y.T. Yu	Curlew Sandpiper	50	Yellow	above		
7-May-05	Y.T. Yu	Red-necked Stint	50	Orange	above		
7-May-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below
7-May-05	Y.T. Yu	Spotted Redshank	100	White	above	Yellow	below
7-May-05	Y.T. Yu	Common Greenshank	50	White	above	Yellow	below
8-May-05	JAA	Red-necked Stint	Not checked	Orange	above		
8-May-05	Adrian Boyle	Sanderling	75	Orange	above	Yellow	below
8-May-05	Adrian Boyle	Sanderling	75	Orange	above	Yellow	below
8-May-05	Adrian Boyle	Sanderling	75	Orange	above	Yellow	below
8-May-05	Adrian Boyle	Ruddy Turnstone	100	Orange	above	Yellow	below
8-May-05	Adrian Boyle	Curlew Sandpiper	100	Orange	above		
8-May-05	Adrian Boyle	Curlew Sandpiper	75	Orange	above		
8-May-05	Adrian Boyle	Curlew Sandpiper	75	Orange	above		
8-May-05	Adrian Boyle	Red-necked Stint	75	Orange	above		
8-May-05	Adrian Boyle	Red-necked Stint	25	Orange	above		
9-May-05	Adrian Boyle	Curlew Sandpiper	100	Yellow	above		
9-May-05	Adrian Boyle	Curlew Sandpiper	100	Orange	above		
9-May-05	Adrian Boyle	Red-necked Stint	75	Orange	above		
9-May-05	Adrian Boyle	Red-necked Stint	75	Orange	above		
9-May-05	Adrian Boyle	Red-necked Stint	25	Orange	above		
9-May-05	Adrian Boyle	Red-necked Stint	25	Orange	above		
9-May-05	Adrian Boyle	Grey-tailed Tattler	100	Yellow	above		
9-May-05	Adrian Boyle	Ruddy Turnstone	100	Orange	above		
9-May-05	Adrian Boyle	Ruddy Turnstone	100	Orange	above		
9-May-05	Adrian Boyle	Sanderling	75	Orange	above		
9-May-05	Adrian Boyle	Grey-tailed Tattler	100	Yellow	above		
10-May-05	Y.T. Yu	Ruddy Turnstone	100	Orange	above	Yellow	below
10-May-05	Y.T. Yu	Ruddy Turnstone	100	Orange	above	Yellow	below
10-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above		
10-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above		

10-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above			
10-May-05	Y.T. Yu	Red-necked Stint	50	Orange	above			
10-May-05	Y.T. Yu	Black-tailed Godwit	0	White	above	Yellow	below	
10-May-05	Y.T. Yu	Grey Plover	25	White	above	Yellow	below	
10-May-05	Adrian Boyle	Red-necked Stint	75	Yellow	above			
10-May-05	Adrian Boyle	Red-necked Stint	Not checked	Orange	above			
10-May-05	Adrian Boyle	Red-necked Stint	Not checked	Orange	above			
10-May-05	Adrian Boyle	Red-necked Stint	Not checked	Orange	above			
10-May-05	Adrian Boyle	Ruddy Turnstone	100	Orange	above			
12-May-05	Y.T. Yu	Red-necked Stint	75	Orange	above			
12-May-05	Y.T. Yu	Curlew Sandpiper	75	Orange	above	Yellow	below	
12-May-05	Neil Fifer	Grey Plover	50	White	above	Yellow	below	
15-May-05	Cheung Mok Jose Alberto	Red-necked Stint	75	Orange	above			
15-May-05	Cheung Mok Jose Alberto	Red-necked Stint	75	Orange	above			
15-May-05	Cheung Mok Jose Alberto	Red-necked Stint	0	Orange	above			
23-May-05	Y.T. Yu	Red-necked Stint	50	Orange	above			
23-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above			
23-May-05	Y.T. Yu	Red-necked Stint	25	Orange	above			
27-May-05	Neil Fifer	Common Redshank	75	White	above	Yellow	below	
27-May-05	Neil Fifer	Red-necked Stint	trace	Orange	above			
27-May-05	Neil Fifer	Red-necked Stint	0	Orange	above			
31-May-05	Neil Fifer	Red-necked Stint	50	Orange	above			
31-May-05	Neil Fifer	Red-necked Stint	25	Orange	above			
7-Jun-05	Y.T. Yu	Red-necked Stint	75	Orange	above			
22-Jun-05	Y.T. Yu	Common Redshank	Not checked	White	above	Yellow	below	