

THE ASIAN WATERBIRD CENSUS 2003

COUNTRY REPORT (MALAYSIA)



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Photo credits:

Front cover – Terns and gulls in Matang (David Li, Wetlands International)

Page 6 – Congregation of shorebirds and terns (Ooi Beng Yean)

Page 8 - Black-headed Ibis *Threskiornis melanocephalus* in Matang (Harun Rahman)

Page 8 – Milky Storks *Mycteria cinerea* in Pulau Kelumpang, Matang (Rozy Ghaffar)

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EXECUTIVE SUMMARY

The Asian Waterbird Census 2003 in Malaysia showed a marked increase of the number of wetlands surveyed and the total number of individual and waterbird species recorded from late December 2002 to early February 2003, compared to previous year. Surveys of 47 sites, both natural and man-made, were undertaken by 33 MNS volunteers and the Department of Wildlife and National Parks, Peninsular Malaysia (Perhilitan) teams from Cheras and Kuala Gula. A total of 36,052 individuals from 78 waterbird species were recorded, almost double of last year's count (18,949 individuals; 72 species).

Surveys were conducted in almost every State except Terengganu and Kelantan. Seven sites were not re-surveyed due to unforeseen reasons. Seven wetland-based Important Bird Areas were surveyed including one newly-declared Ramsar Site, the Tanjung Piai State Park. The surveyes yielded nine major waterbird groups dominated by shorebirds (waders) (22,708 individuals; 37 species). Other groups in descending order are herons and egrets (7,205; 15), gulls and terns (2,822; 10), frigatebirds (2,700; 2), rails and gallinules (320; 7), storks (195; 3), grebes (60; 1), geese and ducks (41; 2) and ibises (1;1).

Several globally threatened waterbirds recorded were; **CRITICAL** Christmas Island Frigatebird *Fregata andrewsi*; **ENDANGERED** Nordmann's Greenshank *Tringa guttifer*; **VULNERABLE** Chinese Egret *Egretta eulophotes*, Milky Stork *Mycteria cinerea*, Lesser Adjutant *Leptoptilos javanicus*; **NEAR THREATENED** Malaysian Plover *Charadrius peronii*, Far Eastern Curlew *Numenius madagascariensis* and Asian Dowitcher *Limnodromus semipalmatus*. Highlights included at least 700 Christmas Island Frigatebirds (Pulau Mantanani, Sabah), four Nordmann's Greenshanks and 30 Chinese Egrets (Bako-Buntal Bay-Bako sandbars, Sarawak), eight Milky Storks and 57 Lesser Adjutants (Matang, Perak), 11 Malaysian Plovers (Mersing, Johor), 198 Far Eastern Curlews (Sejingkat Power Station, Sarawak) and 2 Asian Dowitchers (Penaga-Bagan Belat, Pulau Pinang).

Other interesting species recorded during surveys included Black Bittern *Ixobrychus flavicollis*, Rufous Night-heron *Nycticorax caledonicus*, Black-headed Ibis *Threskiornis melanocephalus*, Red-necked Phalarope *Phalaropus lobatus* and large concentrations of Chinese Pond-heron *Ardeola bacchus* and Great Knot *Calidris tenuirostris*.

1. INTRODUCTION

1.1. Background

Waterbirds are useful tools as indicators of the conservation status and health of wetland habitats. They are also an important part of our natural heritage and a renewable resource utilized for research, education, and recreation as well as food resource.

The Asian Waterbird Census (AWC) is a coordinated international scheme for the collection and dissemination of information on waterbirds and wetlands. It forms a part of the International Waterfowl Census, a global effort coordinated by Wetlands International and conducted once a year, during the 2nd and 3rd week of January. Information is gathered on standardised forms by network of national/regional coordinators and volunteer participations.

The **major objectives** of the Asian Waterfowl Census are (Lopez & Mundkur 1997):

- 1. To obtain information on an annual basis of waterbird population at wetlands in the region during the non-breeding period of most species (January), as a basis for evaluation of sites and monitoring of populations;**
- 2. To monitor on an annual basis the status and conditions of wetlands; and**
- 3. To encourage greater popular interest in waterbirds and wetlands, and thereby promote their conservation.**

The results of the census and associated information are widely used to promote regional and national waterbird and wetland conservation initiatives. These include the identification of internationally important wetlands under the Ramsar Convention and as support for the development of draft agreement on the conservation of migratory waterbirds.

The involvement of the Malaysian Nature Society (MNS) in this programme as one of the National Coordinator (the other is the Department of Wildlife and National Parks, Peninsular Malaysia) can be traced back to 1999, working in collaboration with Wetlands International – Asia Pacific (based in Kelana Jaya). Through its participation over the years, the census has seen a moderate growth in terms of volunteers involvement and locations surveyed. It is hoped that the AWC will be able to generate concern for waterbird and habitat conservation in Malaysia amongst Malaysians and government agencies leading to the achievements of the AWC objectives.

This report is a compilation of all AWC information received from MNS volunteers throughout the country and the Department of Wildlife and National Parks, Peninsular Malaysia (Perhilitan) for the 2003.

2. METHODOLOGY

Standardised survey forms were sent out to volunteers via electronically or snail mail from MNS Head Office in Kuala Lumpur. Volunteers were encouraged to cover as many sites as possible and also to survey previous sites. Completed forms were then returned to MNS for collation and preparation of a country report. However, an extended period of survey from the standardised period was accepted to allow volunteers greater flexibility in conducting surveys. Counts from the last week of December till early February is accepted.

3. RESULTS

3.1. Locations

3.1.1. Survey Locations

The dates of all the sites surveyed are listed in Table 1.

Table 1. Locations and Survey Dates of the AWC 2003 (Malaysia).

LOCATION	STATE	SURVEY DATE
1. Timah-Tasoh Dam	Perlis	19 January
2. Kuala Perlis	Perlis	19 January
3. Kuala Kedah-Kampung Sala coast	Kedah	30 January
4. Penaga-Bagan Belat	Pulau Pinang	17 January
5. Pantai Aceh village-Sungai Burung	Pulau Pinang	17 January
6. Gurney Drive coast	Pulau Pinang	28 December
7. Chikus	Perak	25 January
8. Malim Nawar	Perak	20 January
9. Kamunting	Perak	19 January
10. Kinta Nature Park	Perak	12 January
11. Matang	Perak	4 & 21-22 January
12. Ulu Yam Lama & Bharu	Selangor	19 January
13. Berjantai Tin mining area	Selangor	19 January
14. Tanjung Tumbuk	Selangor	27 January
15. Kuala Selangor Nature Park	Selangor	7 February
16. Kapar Power Station	Selangor	20 January
17. Bandar Tasik Selatan's Twin Lakes	Kuala Lumpur	26 January
18. Plaza Dwtasik Lake	Kuala Lumpur	26 January
19. Bandar Tasik Selatan Interchange Station Lake	Kuala Lumpur	23 December
20. Taman Desa Oxidation Pond	Kuala Lumpur	14 January
21. Batang Tiga	Melaka	18 January
22. Tanjung Piai State Park	Johor	10 February
23. Sungai Balang	Johor	13-14 January
24. Parit Jawa	Johor	13-14 January
25. Mersing	Johor	22 January
26. Pasir Gogok	Johor	24 January
27. Yong Peng	Johor	23 January
28. Institut Jabatan Haiwan Kluang	Johor	23 January
29. Tanjung Pengelis-Penggerang	Johor	23 January
30. Kampung Punggai	Johor	23 January
31. Kuala Sedili	Johor	24 January
32. Laka ricefields	Pahang	22 January
33. Kuala Rompin	Pahang	22 January
34. Tanjung Sepat	Pahang	1 January
35. Sungai Galing	Pahang	8 January
36. Pekan	Pahang	21-22 January
37. Sungai Kera/Rampangi	Sarawak	19 January
38. Sejingkat Power Station	Sarawak	30 January
39. Bako-Buntal Bay (Shrimp ponds)	Sarawak	18 January
40. Bako-Buntal Bay (Bako sandbar)	Sarawak	18 January
41. Bako-Buntal Bay (Kampung Buntal)	Sarawak	19 January
42. Jaie-Semera	Sarawak	20 January
43. Kampung Chupak	Sarawak	16 January
44. Pulau Mantanani	Sabah	12 January
45. Kota Kinabalu City Bird Sanctuary	Sabah	3 February
46. Likas Lagoon	Sabah	20 January
47. Sembulan Mudflats	Sabah	25 January

Reports were received from all States with the exception of Kelantan and Terengganu and one Federal Territory. Johor recorded the highest number of count sites (10) followed by Sarawak (7), Pahang (5), Perak (5), Selangor (5), Sabah (4), Kuala Lumpur (4), Pulau Pinang (3), Perlis (2), Kedah (1) and Melaka (1).



3.1.2. Habitat Types

The sites surveyed are classified under the following wetland types in Table 2 and are accompanied by the number of locations involved. The majority of sites surveyed were (i) estuaries, tidal mudflats, (ii) mangrove, nipah and (iii) rivers, streams and canals.

Table 2. Types of Wetlands Surveyed During the AWC 2003 (Malaysia).

Wetland Type	Number of Sites
1) Oxidation Pond	1
2) Reservoirs, barrages, tanks	2
3) Brackish or saline lakes, lagoons, salt pans	3
4) Freshwater marshes, flooded areas	5
5) Grassland, arable land	5
6) Agricultural areas (e.g. padi cultivation)	6
7) Gravel pits, mineral workings, mining pools	7
8) Open seas, bays, straits	8
9) Fish ponds, shrimp ponds	8
10) Freshwater lakes, ponds	9
11) Rivers, streams, canals, drains	11
12) Mangrove, nipah	13
13) Estuaries, tidal mudflats, salt pans	15

3.2. Major Waterbird Groups

The waterbird species that were counted are traditionally divided into seven major waterbird group; grebes, herons and egrets, storks, geese and ducks, rails and gallinules, shorebirds (waders) and gulls and terns. Two additional groups were added namely the Ibises and Frigatebirds. No reports on darters was received.

A total of 36,052 individuals from 78 species were counted at 47 sites (Appendix 1). Sixty-three percent of the waterbirds counted were shorebirds followed by herons and egrets (20%), gulls and terns (8%) and frigatebirds (7%) respectively. Grebes, ibises, storks, geese and ducks, and rails and gallinules make up the remaining two percent. A more detailed account on the species diversity and population counts are treated under the respective major waterbird groups.

Table 3 indicates that very few sites harbour more than 1,000 individual waterbirds per site, and even fewer sites with more than 20 species per site.

Table 3. Breakdown of Surveyed Sites According to the Number of Individuals and Species Per Site.

Number of Individuals Per Site	Number of Sites	Number of Species Per Site	Number of Sites
1-50	10	1-10	25
51-100	4	11-20	16
101-500	19	21-30	5
501-1,000	6	31-40	1
1,001-5,000	7	41-50	0
More than 5,001	1		
Total number of sites	47	Total number of sites	47

3.2.1. Grebes

A total of 60 Little Grebes *Tachybaptus ruficollis* were counted in the survey, with the highest count from the Taman Desa Oxidation Pond (15 individuals) and Malim Nawar (13). The majority of sightings of this species is from former tin-mining pools and lakes such as Malim Nawar, Kinta Nature Park, Berjantai Tin mining area, Kamunting and Chikus.

3.2.2. Herons and Egrets

A total of 15 species and 7,205 individuals from the genera *Ixobrychus* (3 species), *Nycticorax* (2), *Ardeola* (1), *Bubulcus* (1), *Butorides* (1), *Egretta* (4), *Casmerodius* (1) and *Ardea* (2) were counted nationwide. The Chinese Pond-heron *Ardeola bacchus* (1,660 individuals) and Little Egret *Egretta garzetta* (2,094) dominated the count for this group. Four sites nationwide; Kuala Selangor Nature Park, Malim Nawar, Matang, Penaga-Bagan Belat and Bako-Buntal Bay (Kampung Buntal), are the most important sites for this group with individual respective counts exceeding 500 individuals.

Sungai Galing, Pekan and Penaga-Bagan Belat continues to be the most important wintering sites for the Chinese Pond-heron with highs of 200, 455 and 727 individuals respectively. Thirty globally threatened Chinese Egrets *Egretta eulophotes* were counted at the Bako-Buntal Bay (Bako sandbars). Another single individual was seen at Sejingkat Power Station. One Black Bittern *Ixobrychus flavicollis* was recorded at Malim Nawar. The scarce resident, Rufous Night-heron *Nycticorax caledonicus*, was reported from two sites in Sabah, the Kota Kinabalu City Bird Sanctuary (3 individuals) and Likas Lagoon (1 individual). The heronry at Yong Peng produced 142 Black-crowned Night-herons *Nycticorax nycticorax*. Its traditional heronry site in the Matang mangroves, however, has been abandoned and shifted northwards. No counts were made at this new heronry site.



3.2.3. Ibises

A single Black-headed Ibis *Threskiornis melanocephalus* was spotted in Kuala Gula on 17 December 2002 (0740hrs) in the company of Cattle Egrets *Bubulcus ibis* (see side photo). Historically, the ibis occurred along the coastline of Selangor and Kedah but disappeared after 1934 (Wells 1999). The origin of this species could not be traced to any nearby zoos or bird park.

3.2.4. Storks

Three species of storks were recorded; the Painted Stork *Mycteria leucocephala*, Milky Stork *Mycteria cinerea* and Lesser Adjutant *Leptoptilos javanicus*, with a total of 195

individuals.

For the first time in the AWC census since 1999, a count of the Milky Stork's breeding colony at Pulau Kelumpang, Matang was made possible. However, only 8 individuals were counted indicating a severe decline in population numbers (see side photo). A single individual, probably from Zoo Negara, was sighted in the company of Painted Storks in the Bandar Tasik Selatan Interchange Station Lake. The Painted Storks were also spotted at the Taman Desa Oxidation Pond. A total of 92 birds were counted.



reported from Kapar Powerstation, Kuala Selangor Nature Park, Tanjung Piai State Park and Sungai Balang.

Parit Jawa and Matang continues to be the stronghold for the Lesser Adjutants. Twenty-six individuals were counted on the river mouth mudflats at Parit Jawa. The numbers were slightly lower as the more mature birds may be preparing for breeding in Batu Pahat (about 20 km south). Matang recorded its highest count of Lesser Adjutants to date with a total of 57 birds. Most of the them were seen congregating in numbers south of Kuala Gula in a few pockets of sheltered mudflats. Scattered individuals were also

3.2.5. Geese and Ducks

The Lesser Tree Duck *Dendrocygna javanica* was counted in five locations (34 individuals) while the Cotton Pigmy Goose *Nettapus coromandelianus* was only seen in one location (7

individuals). The Lesser Treeduck was reported from Kinta Nature Park, Berjuntai Tin mining area, Chikus, Kuala Rompin and Laka ricefields while the Cotton Pygmy Goose was recorded at Kinta Nature Park.

3.2.6. Rails and Gallinules

Seven species of rails, crakes and gallinules and one unidentified rail was recorded with a total count of 320 individuals. Predictably, the White-breasted Waterhen *Amourornis phoenicurus* dominated with 154 individuals.

3.2.7. Shorebirds-Waders

18 genera of shorebirds representing 37 species were represented in this year's survey; *Rostratula*, *Himantopus*, *Glareola*, *Vanellus*, *Pluvialis*, *Charadrius*, *Limosa*, *Numenius*, *Tringa*, *Xenus*, *Actitis*, *Heteroscelus*, *Arenaria*, *Phalaropus*, *Limnodromus*, *Calidris*, *Limicola* and *Gallinago*. A total of 22,708 shorebirds were counted nationwide. 16% of the total shorebirds counted was unidentified. Important shorebird sites (>1,000 individuals per site) counted included Kapar Powerstation (8,004 individuals), Bako-Buntal Bay (Bako sandbar) (3,560), Penaga-Bagan Belat (2,740), Kampung Jaie-Semera (2,183), Pantai Acheh village-Sungai Burung (1,390) and Bako-Buntal Bay (Kampung Buntal) (1,160).

The most common shorebirds counted were Mongolian Plover *Charadrius mongolus* (3,283 individuals), Common Redshank *Tringa totanus* (2,630), Whimbrel *Numenius phaeopus* (1,649), Greater Sand-plover *Charadrius leschenaultii* (1,579), Eurasian Curlew *Numenius arquata* (1,185), Curlew Sandpiper *Calidris ferruginea* (1,179) and Great Knot *Calidris tenuirostris* (1,178) respectively.

Only one globally threatened shorebird (Endangered status) was encountered; the Nordmann's Greenshank *Tringa guttifer* (7 individuals). Near-threatened species encountered included Asian Dowitcher *Limnodromus semipalmatus* (2 individuals), Malaysian Plover *Charadrius peronii* (18) and Far Eastern Curlew *Numenius madagascariensis* (206). Other interesting shorebirds recorded were 2 Red-necked Phalaropes *Phalaropus lobatus*, 1,178 Great Knots and 1 Temminck's Stint *Calidris temminckii*.

3.2.8. Gulls and Terns

Ten species of terns and one gull was recorded throughout the survey with 2,822 individuals counted. Unidentified gulls and terns accounted for 21% of the total count for this group. The commonest seabird recorded was White-winged Tern *Chlidonias leucopterus* (673 individuals), followed by Little Tern *Sterna albifrons* (668), Gull-billed Tern *Gelochelidon nilotica* (268) and Great Crested Tern *Sterna bergii* (250). Only 4 Black-naped Terns *Sterna sumatrana* were recorded this year. Kapar Powerstation, Kuala Kedah-Kampung Sala and Mersing are important sites for this group based on the surveys with totals of 910, 236 and 422 individuals respectively.

3.2.9. Frigatebirds

The frigatebird group is incorporated into this year's AWC census for the first time. The survey undertaken at Pulau Mantanani revealed an estimated population of 2,700 individual frigatebirds. Two species were identified the Christmas Island Frigatebird *Fregata andrewsi* (700 individuals) and Lesser Frigatebird *F. ariel* (2,000). The site is perhaps the most important site for this frigatebirds particularly for the Christmas Island Frigatebird which is critically threatened globally (BirdLife International 2001).

3.3. Other Wetland-related Species

3.3.1. Wetland Raptors

Three species raptors from 3 families were recorded; Osprey *Pandion haliaetus* (3 individuals), White-bellied Sea-eagle *Haliaeetus leucogaster* (7) and Peregrine Falcon *Falco peregrinus* (1), from 8 locations (Appendix 2).

3.4. Globally Threatened and Near-Threatened Species

Globally threatened near-threatened waterbirds recorded in 16 locations for this year's census were; **CRITICAL (CR)** Christmas Island Frigatebird *Fregata andrewsi*, **ENDANGERED (EN)** Nordmann's Greenshank *Tringa guttifer*, **VULNERABLE (VU)** Chinese Egret *Egretta eulophotes*, Milky Stork *Mycteria cinerea*, Lesser Adjutant *Leptoptilos javanicus*, **NEAR THREATENED (nt)** Malaysian Plover *Charadrius peronii*, Far Eastern Curlew *Numenius madagascariensis* and Asian Dowitcher *Limnodromus semipalmatus*. The details are displayed in Table 4.

Table 4. Abundance of Globally Threatened and Near-threatened Waterbirds in 16 Surveyed Locations During the AWC 2003 (Malaysia).

Species/Status	Date	Location	No. of Individuals
Christmas Island Frigatebird (CR)	12 Jan	i. Pulau Mantanani	700
Nordmann's Greenshank (EN)	20 Jan	i. Kapar Powerstation	2
	17 Jan	ii. Penaga-Bagan Belat	1
	18 Jan	iii. Bako-Buntal Bay (Bako sandbar)	4
Chinese Egret (VU)	18 Jan	i. Bako-Buntal Bay (Bako sandbar)	30
	30 Jan	ii. Sejingkat Power Station	1
Milky Stork (VU)	4 Jan	i. Matang	8
	23 Dec	ii. Bandar Tasik Selatan Interchange Station Lake	1*
Lesser Adjutant (VU)	20 Jan	i. Kapar Powerstation	1
	7 Feb	ii. Kuala Selangor Nature Park	3
	10 Feb	iii. Tanjung Piai State Park	4
	21-22 Jan	iv. Matang	57
	13-14 Jan	v. Sungai Balang	2
	13-14 Jan	vi. Parit Jawa	26
	22 Jan	vii. Pekan	1
Malaysian Plover (nt)	19 Jan	i. Bako-Buntal Bay (Kampung Buntal)	7
	22 Jan	ii. Mersing	11
Far Eastern Curlew (nt)	17 Jan	i. Penaga-Bagan Belat	4
	30 Jan	ii. Sejingkat Power Station	198
	23 Jan	iii. Tanjung Pengelis-Penggerang	4
Asian Dowitcher (nt)	17 Jan	i. Penaga-Bagan Belat	2

*Most probably a free-flyer from Zoo Negara. Seen in company with Painted Storks foraging.

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