

Asian Waterbird Census 2007 & 2008 (Malaysia) Country Report

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Participating Organisations:







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Cover photo: A group of 75 Nordmann's Greenshanks *Tringa guttifer*, a globally threatened shorebird, at the Sg Nibong coast, Selangor. (David Li/2007)

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EXECUTIVE SUMMARY

The Asian Waterbird Census (Malaysia) in 2007 and 2008 was successfully conducted in seven States nationwide, six of which were in Peninsular Malaysia and Sarawak. However, the total number of sites surveyed dropped from 36 in 2007 to 25 in 2008. This reduction nonetheless did not impact crucial waterbird sites. AWC volunteers continue to ensure that key waterbird sites or wetland Important Bird Areas (IBAs) were covered in both years primarily the Teluk Air Tawar-Kuala Muda coast (MY03), Matang coast (MY05), north-central Selangor coast (MY11) and south-west Johor coast (MY15) in Peninsular Malaysia and Bako-Buntal Bay (MY37) in Sarawak. Selected former tin-mining wetlands in Perak and Selangor were also not neglected.

A total of 53,251 (73 species) and 31,947 (67 spp.) individuals were recorded in 2007 and 2008 respectively, dominated by the Shorebirds group and followed by Herons and Egrets and Gulls and Terns. The breakdown of total counts according to major waterbird groups is presented in the Table below.

Waterbird Group	No. of Individuals		No. of Species*	
	2007	2008	2007	2008
Herons & Egrets	8,308	6,497	14	12
Storks	21	44	2	2
Grebes	19	17	1	1
Geese & Ducks	36	42	3	2
Rails & Gallinules	229	415	7	7
Jacanas	4	5	1	1
Shorebirds	40,949	23,600	37	34
Gulls & Terns	3,664	1,327	8	8
TOTAL	53,230	31,947	73	67

Note: (*) This excludes unidentified waterbird species.

Based on the surveys results, seven species showed consistency in exceeding the '1,000 individuals' mark (excluding unidentified species) in both years namely the Chinese Pond-Heron Ardeola bacchus (2,523 individuals in 2007/2,103 individuals in 2008), Cattle Egret Bubulcus ibis (1,153/1,522), Mongolian Plover Charadrius mongolus (5,122/1,377), Bar-tailed Godwit Limosa lapponica (1,213/1,076), Whimbrel Numenius phaeopus (1,664/1,414), Eurasian Curlew N. arquata (2,651/3,296), and Common Redshank Tringa totanus (5,428/3,997).

The surveys in 2007 and 2008 also produced some several notable sightings such as;

- Black-winged Stilts *Himantopus himantopus* were seen at their faithful sites in Perak (6-10 individuals) and eight at Sejingkat Power Station in Sarawak in 2007.
- Single Grey-tailed Tattlers *Heteroscelus brevipes* were counted at Kampung Buntal in both years.
- A single Red-necked Phalarope *Phalaropus lobatus* and non-breeding Ruff *Philomachus pugnax* were surprising finds from the Teluk Air Tawar-Kuala Muda coast in 2007.
- In Penang, a Little Stint Calidris minuta was spotted amongst a group of shorebirds at Tanjung Tokong in 2007.
- Seventeen Brown-headed Gulls *Larus brunnicephalus* were recorded from the Teluk Air Tawar-Kuala Muda coast in 2007.

- Kampung Buntal in Sarawak produced 109 and 75 Chinese Egrets *Egretta eulophotes* in 2007 and 2008 respectively whilst the Pulau Kukup mudflats supported only 21 individuals in 2008.
- Four to seven Milky Storks *Mycteria cinerea* were recorded during the AWC period in both years at their stronghold in Matang.
- A total of 105 Nordmann's Greenshanks *Tringa guttifer* were counted at three locations along the west coast of Peninsular Malaysia in 2007 i.e. the Teluk Air Tawar-Kuala Muda coast supported 26 individuals whilst the Sungai Nibong mudflats and Kapar Power Station had 75 and four individuals respectively.
- Three Malaysian Plovers Charadrius peronii were counted at Kampung Buntal in 2008.

To date, the success of AWC (Malaysia) lies largely on the dedication of AWC volunteers and the cooperation between MNS and related government agencies in working towards a common goal i.e. to improve the conservation of wetlands and waterbirds through annual monitoring. The AWC programme remains Malaysia's **ONLY** annual and consistently-implemented monitoring programme for our wetlands and waterbirds. It is with this in mind that we need to continue to ensure that this effort is sustained for without reliable information, wetland and waterbird conservation in Malaysia will continue to be impaired.

INTRODUCTION

Waterbirds are useful indicators of the conservation status and health of wetland habitats. 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 (IWC), 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 Waterbird Census are (Lopez and Mundkur 1997):

- 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;
- To monitor on an annual basis the status and conditions of wetlands; and
- 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 Malaysian Nature Society (MNS) assumes the role of Country Coordinator for this annual survey which is carried out by a host of dedicated volunteers. Two government agencies currently involved in this initiative are the Department of Wildlife and National Parks, Peninsular Malaysia (PERHILITAN) and Sarawak Forestry Corporation (SFC). Malaysia has been participating in the AWC since 1999. Through the years, the census has seen a moderate growth in terms of volunteer involvement and locations surveyed.

The AWC programme is currently **THE ONLY** annual and consistently-implemented monitoring programme for our waterbirds and wetlands. Data collected largely through volunteers' efforts to date have begun to show worrying trends for Malaysia (and the rest of South-east Asia) based on recent analysis¹. It is hoped that the AWC continue to generate concern for waterbird and habitat conservation in Malaysia amongst Malaysians and government agencies leading to the achievements of the AWC objectives and improved conservation of our waterbirds and wetlands.

IMPORTANT BIRD AREAS (IBAs) IN MALAYSIA

The Important Bird Area (IBA) programme of BirdLife International aims to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity. IBAs, in short, are places of international significance for the conservation of birds at the global, regional or sub-regional level chosen using standardised criteria.

As the BirdLife Partner in Malaysia, MNS has identified national 55 IBAs according to the BirdLife's site selection criteria. Twenty-two of those IBAs are wetlands or wetland-related sites. These sites hold significant numbers of one or more globally threatened waterbird or/and have exceptionally large numbers of migratory or congregatory waterbirds. During the census, volunteers are encouraged to survey any of the 22 wetland IBAs closest and most convenient to him/her.

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¹ See Li and Ounsted (2007).

METHODS

Standardised survey forms are sent out to AWC volunteers electronically Volunteers are encouraged to cover as many sites as possible and also to survey previous sites. Completed forms are then returned to MNS for collation and preparation of a country report. A copy of the country report (and site survey results) is subsequently forwarded to Wetlands International for regional collation.

The official survey period for AWC annually is the 2nd and 3rd week of January. *However, allowances* were made in extending the survey period in Malaysia in order to allow AWC volunteers greater flexibility in conducting surveys under local conditions. Counts from the last week of December till the first week of February are thus accepted.

RESULTS

Survey Locations

Surveys were conducted in a total of seven States in 2007 and 2008, six of which were in Peninsular Malaysia and Sarawak. Thirty-six sites were visited in 2007 whilst in 2008, this was reduced to 25 sites. ANNEX 1 and 2 shows the list of sites surveyed for both years. A total of 53,251 (73 species) and 31,947 (67 spp.) individuals were recorded in 2007 and 2008 respectively. A closer examination state-wise, continues to illustrate the importance of the Pulau Pinang, Selangor, Johor and Sarawak coasts to migratory waterbirds particularly shorebirds, terns and gulls. A summary of the AWC counts in Malaysia for 2007 and 2008 is presented in TABLE 1 below.

TABLE 1. Summary of the number of sites, species and individuals recorded according to states in 2007 and 2008.

State	No. of Sites		No. of Species*		No. of Individuals	
	2007	2008	2007	2008	2007	2008
PENINSULAR MAL	AYSIA					
Kedah	6	2	13	13	1,759	343
Pulau Pinang	5	4	47	33	18,012	5,726
Perak	6	7	41	41	4,252	4,212
Selangor	14	2	45	37	23,302	17,012
Johor	-	4	-	35	-	1,593
Terengganu	3	-	11	-	64	-
EAST MALAYSIA						
Sarawak	2	6	37	37	5,841	3,061
TOTAL	36	25	73	67	53,230	31,947

Note: (*) This excludes unidentified waterbird species.

Although Perak scores high number of individual and species counts in both years, these figures originate mostly from inland man-made wetland sites especially former tin-mining lakes and pools and ricefields. These habitats attract a large number of egrets, herons, rails, gallinules, ducks and geese species. However, these habitats continue to be converted to other forms of landuse in Perak. The conservation of key former tin-mining wetlands such as Kinta Nature Park is urgently

needed to ensure that the waterbird populations dependent on such habitat will not decline and a representative of this wetland type is preserved. The coast of Matang continues to consistently record poor waterbird counts (<1,000 individuals), a far cry from its former numbers in the late 1980s and early 1990s.

A total of five Important Bird Areas (IBAs) in Malaysia were covered, four in Peninsular Malaysia and one in Sarawak. Sub-sites surveyed within the IBAs in 2007 and 2008 are indicated in italics in TABLE 2. The Teluk Air Tawar-Kuala Muda and North-central Selangor coasts and Bako-Buntal Bay remain Malaysia's most important sites for migratory waterbirds. The South-west Johor coast, particularly the Parit Jawa, Pontian and Kukup areas, requires more consistent annual counts to further determine its capabilities to support high numbers of coastal waterbirds. TABLE 3 summarizes the waterbird counts for these five coastal wetland IBAs.

TABLE 2. Coastal wetland IBAs that were surveyed in 2007 and 2008.

IBA/Code	Sub-sites			
PENINSULAR MALAYSIA				
Teluk Air Tawar-Kuala Muda coast (MY03)	Teluk Air Tawar-Kuala Muda coast			
Matang coast (MY05)	Bund Joo Kau, Kuala Gula-Pulau Kelumpang-Sg Buloh, Teluk Rubiah, Pulau Terung			
North-central Selangor coast (MY11)	Sekinchan coast, Sg Nibong coast, Sg Haji Dorani coast, Sg Burung coast, Sg Besar-Sg Burung bunds, Sg Besar coast, Bagan Pasir coast, Kuala Selangor Nature Park, Kapar Power Station*, Bagan Sg Buloh coast, Jeram coast			
South-west Johor coast (MY15)	Parit Jawa, Pontian Kecil, Kukup Village			
SARAWAK				
Bako-Buntal Bay (MY37)	Kg Buntal, Sejingkat Power Station, Buntal-JW Pond, Sejingkat landfill, Buntal Inland Pond			

Note: (*) Kapar Power Station is currently Malaysia's only East Asian-Australasian Shorebird Site Network. It was officially accepted into the Network in July 2003.

TABLE 3. A summary of the count results in five Malaysian coastal IBAs in 2007 and 2008.

IBA Site & Code	Total No. o	f Individuals	Total No. of Species	
	2007	2008	2007	2008
PENINSULAR MALAYSIA				
Teluk Air Tawar-Kuala Muda (MY03)	16,414	3,560	41	26
Matang coast (MY05)	513	413	22	21
North-central Selangor coast (MY11)	22,848	16,901	34	25
South-west Johor coast (MY15)	-	1,390	-	25
SARAWAK				
Bako-Buntal Bay (MY37)	5,841	3,049	36	38

Major Waterbird Groups

A total of eight major waterbird groups were recorded for both years with a total of 53,230 individuals (73 species) and 31,947 individuals (67 spp.) in 2007 and 2008 respectively. Three dominant groups were noted, in descending order; the Shorebirds, Herons & Egrets and Gulls & Terns. More than 40,000 shorebirds were counted in 2007, but dropped to slightly over half of that figure in 2008. For Herons & Egrets, the counts hovered around 6,000-8,000 individuals in the two-year period. Counts for Gulls & Terns also showed a 'drop' from 4,020 individuals in 2007 to 1,273 individuals in 2008. TABLE 4 summarizes the 2007 and 2008 counts according to major waterbird groups. The 'decline' in population numbers within the span of two years is largely attributed to few sites counted, especially in 2008, in several States.

TABLE 4. The total number of individuals and species according to major waterbird groups counted in 2007 and 2008.

Waterbird Group	No. of Individuals		No. of Species*	
	2007	2008	2007	2008
Herons & Egrets	8,308	6,497	14	12
Storks	21	44	2	2
Grebes	19	17	1	1
Geese & Ducks	36	42	3	2
Rails & Gallinules	229	415	7	7
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Gulls & Terns	3,664	1,327	8	8
TOTAL	53,230	31,947	73	67

Note: (*) This excludes unidentified waterbird species.

Seven species consistently exceeded the '1,000 individuals' mark (excluding unidentified species) in both years namely:

- Chinese Pond-Heron Ardeola bacchus (2,523 individuals in 2007/2,103 individuals in 2008),
- Cattle Egret Bubulcus ibis (1,153/1,522),
- Mongolian Plover Charadrius mongolus (5,122/1,377),
- Bar-tailed Godwit Limosa lapponica (1,213/1,076),
- Whimbrel *Numenius phaeopus* (1,664/1,414),
- Eurasian Curlew N. arquata (2,651/3,296), and
- Common Redshank Tringa totanus (5,428/3,997),

Additionally, six species passed the mark in 2007 namely Little Egret *Egretta garzetta* (2,311 individuals), Pacific Golden Plover *Pluvialis fulva* (1,342), Terek Sandpiper *Xenus cinereus* (1,306), Rufous-necked Stint *Calidris ruficollis* (3,420), Curlew Sandpiper *Calidris ferruginea* (1,292), and Whiskered Tern *Chlidonias hybridus* (1,338). In 2008, however, the total counts for these species were less than 1,000 individuals respectively.

Herons and Egrets

Herons and egrets constitute the second largest waterbird group in the AWC counts in Malaysia with a total of 8,308 individuals (14 species) and 6,497 (12 spp.) in 2007 and 2008 respectively. Several species were counted in the hundreds or thousands, namely the Black-crowned Night-

heron *Nycticorax nycticorax*, Chinese Pond-heron, Cattle Egret, Little Egret, Great Egret *Casmerodius alba*, Purple Heron *Ardea purpurea* and Grey Heron *A. cinerea*. Interesting sightings in 2007 include five Javan Pond-herons *Ardeola speciosa* at Matang coast and three Pacific Reefegrets *Egretta sacra* on Langkawi and Penang Islands. Concentrations of Chinese Pond-herons at the Kuala Muda-Teluk Air Tawar coast remained high for both years. Small numbers of Chinese Egrets *Egretta eulophotes* (about 100 individuals) were also noted in both years.

Storks

The number of Milky Storks *Mycteria cinerea* recorded at the Matang coast in 2007 and 2008 were four and seven individuals respectively that comprise of both remaining wild and captive-released birds. A total of 17 and 37 Lesser Adjutants *Leptoptilos javanicus* were counted in 2007 and 2008 respectively through the country.

Grebes

A total of 19 and 17 Little Grebes *Tachybaptus ruficollis* were counted at inland wetland sites in 2007 and 2008 respectively.

Geese and Ducks

Lesser Treeducks *Dendrocygna javanica* dominated this group with counts of up to at least 30 individuals in both years. The Cotton Pygmy Goose *Nettapus coromandelianus* were noted in both years i.e. two individuals in 2007 and a single bird in 2008. Over in Sarawak, two Wandering Whistling-Ducks *D. arcuata* were seen at the Sejingkat Power Station.

Rails and Gallinules

Seven species of rails and gallinules were recorded in both years. Unsurprisingly, the White-breasted Waterhen *Amaurornis phoenicurus* was the most commonly encountered rail with counts of 100 and 202 individuals in 2007 and 2008 respectively. Common Moorhens *Gallinula chloropus* and Purple Swamphens *Porphyrio porphyrio* were also frequently encountered.

Jacanas

A small number of Pheasant-tailed Jacanas *Hydrophasianus chirurgus* were recorded in both years; four individuals in 2007 and five in 2008.

Shorebirds (Waders)

Shorebirds constitute the largest waterbird group in the AWC counts for Malaysia, contributing over 70% of the total number of individuals in both years (40,949 in 2007 and 23,600 in 2008). Over 30 shorebird species are consistently recorded annually dominated by Pacific Golden Plover, Grey Plover *Pluvialis squatarola*, Mongolian Plover, Bar-tailed Godwit, Whimbrel, Eurasian Curlew, Common Redshank, Marsh Sandpiper *Tringa stagnatilis*, Common Greenshank *T. nebularia*, Terek Sandpiper, Red Knot *Calidris canutus*, Great Knot *C. tenuirostris*, Rufous-necked Stint, Curlew Sandpiper and Broad-billed Sandpiper *Limicola falcinellus* (all more than 200 individuals).

Several notable sightings were recorded in 2007 and 2008. Black-winged Stilts *Himantopus himantopus* were seen at their faithful sites in Perak (6-10 individuals) and eight at Sejingkat Power Station in Sarawak. Single Grey-tailed Tattlers *Heteroscelus brevipes* were counted at Kg Buntal in both years. A single Red-necked Phalarope² *Phalaropus lobatus* and non-breeding Ruff *Philomachus pugnax* were surprising finds from the Teluk Air Tawar-Kuala Muda coast in 2007. At Penang, a Little Stint *Calidris minuta* was spotted amongst a group of shorebirds at Tanjung Tokong in the same year.

 $^{^{2}}$ A single Red-necked Phalarope was previously recorded from a site at the North-Central Selangor coast IBA in January 2005 during the census.

Gulls and Terns

Seabirds, primarily terns, formed the third largest waterbird group counted dominated by Whiskered *Chlidonias hybridus*, Gull-billed *Gelochelidon nilotica* and Little Terns *Sterna albifrons*. A total of 3,664 and 1,327 individuals were counted in 2007 and 2008 respectively with the majority of these counts originating from the Teluk Air Tawar-Kuala Muda coast and/or Kapar Power Station. Seventeen Brown-headed Gulls *Larus brunnicephalus* were recorded from the Teluk Air Tawar-Kuala Muda coast in 2007 but only one was seen in the following year. A single Blackheaded Gull *L. ridibundus* was seen at Kapar Power Station in 2008.

Globally Threatened and Near-Threatened Waterbirds

Several globally threatened and near-threatened waterbirds were also recorded in 2007 and 2008 namely: **VULNERABLE**: Chinese Egret, Milky Stork, Lesser Adjutant, Nordmann's Greenshank *Tringa guttifer*; **NEAR-THREATENED**: Malaysian Plover *Charadrius peronii*, Far Eastern Curlew *Numenius madagascariensis* and Asian Dowitcher *Limnodromus semipalmatus* (TABLE 5).

TABLE 5. The total number of globally threatened and near-threatened waterbirds in 2007 and 2008.

Species	RDB Status	Total No. of Individuals		
Species	nob otatao	2007	2008	
Nordmann's Greenshank Tringa guttifer	EN	105	24	
Chinese Egret Egretta eulophotes	VU	109	97	
Milky Stork Mycteria cinerea	VU	4	7	
Lesser Adjutant Leptoptilos javanicus	VU	17	37	
Malaysian Plover Charadrius peronii	NT	-	3	
Far Eastern Curlew Numenius madagascariensis	NT	8	2	
Asian Dowitcher Limnodromus semipalmatus	NT	3	3	

Chinese Egret Egretta eulophotes

In 2007, Chinese Egrets were only recorded from Kg Buntal in Sarawak where 109 individuals were noted. However, only 75 individuals were counted the following year. In Peninsular Malaysia, these egrets were seen around the Kukup mudflats which supported 21 individuals in 2008.

Milky Stork Mycteria cinerea

Matang coast remained the last stronghold for this species in Malaysia. Four to seven individuals were recorded during the AWC period in both years.

Lesser Adjutant Leptoptilos javanicus

In 2007 and 2008, low numbers of Lesser Adjutants (ranging from single to eight individuals per sighting) were recorded from coastal sites during AWC. Surprisingly, relatively large numbers were seen at the Ulu Dedap and Sg Buaya ricefields, up to 15 and 20 individuals in 2007 and 2008 respectively.

Nordmann's Greenshank Tringa guttifer

A total of 105 individuals were counted three locations along the west coast of Peninsular Malaysia in 2007; Teluk Air Tawar-Kuala Muda coast up north supported 26 individuals whilst the Sg Nibong mudflats and Kapar Power Station had 75 and four individuals respectively. The latter two sites are located within the north-central Selangor coast IBA. In 2008, however, 17 birds were

seen in Kapar Power Station. Additionally, six individuals were also counted at Kg Buntal in Sarawak.

Far Eastern Curlew Numenius madagascariensis

The Teluk Air Tawar-Kuala Muda mudflats attracted eight and two curlews in 2007 and 2008 respectively.

Asian Dowitcher Limnodromus semipalmatus

Two individuals were seen at the Teluk Air Tawar-Kuala Muda coast in 2007. Another individual was recorded at Kg Buntal. In the following year, three individuals were counted at the Bako-Buntal Bay IBA.

Malaysian Plover Charadrius peronii

Three individuals were counted at Kg Buntal in 2008.

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2008

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ANNEXES

ANNEX 1. Survey Locations during the AWC 2007 (Malaysia).

States & Sites Surveyed (36)

KEDAH

Kuala Kedah coast, Kubang Badak, Pantai Tekek & Pulau Ringgis, Langkawi Airport (Typha wetlands), Padang Matsirat, Sg Cenang ricefields

PULAU PINANG (PENANG)

Batu Maung-Jelutong coast, Tanjung Tokong, Kuala Juru/Sg Sembilang, Mak Mandin (Sg Perai), Teluk Air Tawar-Kuala Muda coast

PERAK

Matang coast, Kinta Nature Park, Ulu Dedap & Sg Buaya ricefields, Chikus, Kamunting, Malim Nawar

SELANGOR

Sekinchan coast, Sg Nibong coast, Sg Haji Dorani coast, Sg Burung coast, Sg Besar-Sg Burung bunds, Sg Besar coast, Sg Nibong-Sekinchan ricefields, Bagan Pasir coast, Kuala Selangor Nature Park, Tanjung Karang ricefields, Kapar Power Station, Bagan Sg Buloh coast, Jeram coast, Batang Berjuntai ex-mining area

TERENGGANU

KUSZA lake, Kuala Ibai estuary, Gong Badak wetland

SARAWAK

Kg Buntal, Sejingkat Power Station

ANNEX 2. Survey Locations during the AWC 2008 (Malaysia).

States & Sites Surveyed (23)

KEDAH

Pantai Cenang ricefields, Padang Matsirat

PULAU PINANG (PENANG)

Batu Maung-Jelutong coast, Pantai Acheh-Sg Burung, Kuala Juru/Sg Sembilang, Teluk Air Tawar-Kuala Muda coast

PERAK

Matang coast, Kinta Nature Park, Ulu Dedap & Sg Buaya ricefields, Malim Nawar, Chikus, Kamunting (North), Kamunting (South)

SELANGOR

Kapar Power Station, Batang Berjuntai ex-mining area

JOHOR

Pontian Kecil, Kukup Village

SARAWAK

Kg Buntal, Buntal-JW Pond, Sejingkat Power Station, Sejingkat landfill, Buntal Inland Pond, Yong Kong field

ANNEX 3. Summary of the Waterbirds and Wetland Sites Surveyed During the AWC 2007 (Malaysia). [In Microsoft Excel format]

ANNEX 4. Summary of the Waterbirds and Wetland Sites Surveyed During the AWC 2008 (Malaysia). [In Microsoft Excel format]