

# Asian Waterbird Census (AWC 2015)

## Malaysia



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**RICOH**

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Cover photo: Lesser Adjutant (*Leptoptilos javanicus*) foraging at Tengah Island, Port Klang,  
Selangor, Malaysia

(Courtesy from Mr. Suhaimi Sabli)

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## EXECUTIVE SUMMARY

The Asian Waterbirds Census (AWC Malaysia) continues to be the primary waterbirds and wetland monitoring programme in Malaysia that is participated by many volunteers and several stakeholders throughout Peninsular Malaysia since 1999. The efforts of monitoring on waterbirds for many years have yielded significant results including the appraisal outcome of decreasing in waterbirds nationally and continuing degradation/destructions of habitats for waterbirds based on the recent investigations by Wetland International. Correspondingly to our AWC in Malaysia this year engendered several interesting outcomes. A snapshot of the overall survey results according to geographical locations and major waterbird groups [i.e. number of individuals and species (in parenthesis)] are presented below.

| Waterbird Group      | Pulau Pinang   | Perak        | Selangor       | Melaka     | Johor      |
|----------------------|----------------|--------------|----------------|------------|------------|
| GREBES               | -              | 13 (1)       | -              | -          | -          |
| HERONS AND EGRETS    | 283 (5)        | 5,430 (11)   | 304 (9)        | 59 (7)     | 172 (7)    |
| STORKS               | -              | 87 (1)       | 43 (2)         | 1 (1)      | 23 (1)     |
| GEESE AND DUCKS      | -              | 3 (2)        | 4 (1)          | 43 (2)     | -          |
| RAILS AND GALLINULES | -              | 82 (4)       | 7 (2)          | 14 (5)     | 6 (1)      |
| SHOREBIRDS-WADERS    | 13,272 (20)    | 1,527 (18)   | 10,622 (21)    | -          | 426 (17)   |
| GULLS AND TERNS      | 4,440 (8)      | 138 (3)      | 1,030 (8)      | -          | -          |
| ADDITIONAL SPECIES   | -              | 3 (3)        | 5 (4)          | -          | -          |
| <b>TOTAL</b>         | <b>17, 995</b> | <b>7,283</b> | <b>12, 015</b> | <b>117</b> | <b>627</b> |
| <b>GRAND TOTAL</b>   | <b>38,037</b>  |              |                |            |            |

Several interesting sightings also emerged from this nationwide survey, most notably;

- Teluk Air Tawar, Pulau Pinang recorded numerous numbers of shorebirds-waders with 13,236 individuals (20 species) and this site also noted as the highest counting site with grand total 14,782 (31 species) of waterbirds.
- Five individuals of Globally Threatened Species (2008); Nordmann's Greenshank (*Tringa guttifer*) was recorded at Teluk Air Tawar, Pulau Pinang.
- Kapar Ash Pond, Selangor counting site was noted 42 individuals of Globally Near-Threatened species; Black-tailed Godwit (*Limosa limosa*) and this species also seen at Teluk Air Tawar, Pulau Pinang with two individuals.

- The Far Eastern Curlew (*Numenius madagascariensis*) was found at two AWC sites in Peninsular Malaysia. This Globally Near-Threatened species was recorded at Kapar Ash Pond, Selangor and Teluk Air Tawar, Pulau Pinang with one and seven individuals respectively.
- Sg. Buaya ricefields, Perak was recorded the highest number of Lesser Adjutant (*Leptoptilos javanicus*) with 45 individuals follow by Sg. Balang ricefields, Johor and Jeram, Selangor with 21 and 16 individuals respectively.
- The most abundance of herons and egrets group were counted in Sg. Buaya ricefields, Perak (1,830 individuals) and the most numerous species of this group is Cattle Egret (*Egretta eulophotes*) with 1,604 individuals in total.
- The highest number of rails and gallinules group were counted at Chikus, Perak with four species and 54 individuals followed by Sg. Rambai, Melaka with five species and 14 individuals.
- Both site in Pulau Pinang, Teluk Air Tawar and Kuala Muda were recorded the most numerous number of gulls and terns with 1,352 and 3,088 individuals respectively. However Teluk Air Tawar was noted eight species of this group, while Kuala Muda only counted four species.
- Only a group of Garganey (*Anas querquedula*) was found throughout the counting period of AWC 2015 at Sg. Rambai, Melaka with three individuals.
- Two groups of Baillon's Crake (*Porzana pusilla*) were counted at Sg. Balang ricefields, Johor.
- Only four individuals of Watercock (*Gallicrex cinerea*) were recorded this year within three AWC counting sites; Ulu Dedap, Chikus at Perak, and Sg. Rambai, Melaka. The number recorded for this speices was reduced from years before.
- Only a group of Common Snipe (*Gallinago gallinago*) with three individuals was found at Chikus, Perak.
- 13 individuals of Long-toed Stint (*Calidris subminuta*) were only counted, 11 individuals at Sg. Balang ricefields, Johor and only two individuals at Malim Mawar, Perak
- Sg. Balang ricefields, Johor also recorded only one individual of Ruff (*Philomachus pugnax*).
- Only a group of Caspian Tern (*Hydroprogne caspia*) with 12 individuals was counted at Kapar Ash Pond, Selangor.

Continued significant decline in numbers of waterbird remains a major concern. Despite this disheartening findings, AWC (Malaysia) needs to continue to generate information in order for it to improve protection and policy (species, site and habitat) measures for our waterbirds and wetlands. AWC (Malaysia) also continues to look forward to the participation of volunteers, who no doubt form the backbone of this annual survey. An initiative to increase the number of volunteers to cover the East Coast sites of the Peninsula as well as Sabah are needed to have as far as possible a complete coverage.

## 1.0 INTRODUCTION

The Asian Waterbirds Census (AWC) was started in 1987 in the Indian subcontinent and has grown rapidly to cover the region of Asia, from Afghanistan eastwards to Japan, Southeast Asia and Australasia. It therefore includes the entire East Asian - Australasian flyway and a large part of the Central Asian flyway. The migration of waterbirds between the Northern and Southern Hemispheres occurs along well defined routes known as flyways. The flyway that brings these birds to our shore is the East Asia –Australasia Flyway (FIGURE 1).

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 updating current knowledge on waterbirds populations worldwide and wetlands status. The AWC 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.



**FIGURE 1** The general route of East Asia–Australasia Flyway  
(Resource: ebonph.wordpress.com)



The major six objectives of the Asian Waterbird Census are (Wetland International, 2002);

- Providing the basis for estimates of waterbird populations;
- Monitoring changes in waterbird numbers and distribution by regular, standardised counts of representative wetlands;
- Improving knowledge of little-known waterbird species and wetland sites;
- Identifying and monitoring (networks of) sites that are important for waterbirds in general and, more specifically, identifying and monitoring sites that qualify as Wetlands of International Importance under the Ramsar Convention on Wetlands;
- Providing information on the conservation status of waterbird species, for use by international agreements;
- Increasing awareness of the importance of waterbirds and their wetland habitats at local, national and international levels.

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 the Country Coordinator can be traced back to 1999, working in collaboration with Wetlands International (based in Kuala Lumpur). Through its participation over the years, the census has seen a moderate growth in terms of volunteer involvement and locations surveyed although in 2009 the sites covered has somewhat been reduced and effort must be undertaken to continue to encourage and seek more volunteers to cover these affected sites. 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.

One of the efforts that have been carried out to achieve this vision, the five series waterbirds training workshops were held in Kuala Selangor Nature Park (KSNP) in collaboration with GEF SGP & Tan Kean Cheong Bird Conservation Memorial Fund started from November 2014. These workshops were hosted by the Bird Conservation Council (BCC) of the MNS's Conservation Division. The participants were exposed to basic waterbird identification skills and applied their monitoring skills by counting waterbirds at a few sites around KSNP such as Kapar Ash Pond and Jeram located at north-central coast Selangor. These training workshops also exposed the participant on the bird migration route known as

the East Asia Australasian Flyway (EAAF) around Peninsular and East Malaysia and give extra knowledge of the importance of conservation of coastal wetlands for waterbirds.

## **2.0 IMPORTANT BIRD AREAS (IBA) IN MALAYSIA**

The 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. Important Bird Areas, in short, are places of international significance for the conservation of birds at the global, regional or sub-regional level chosen using standardized criteria.

As 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 waterbirds or/and have exceptionally large numbers of migratory or congregatory waterbirds. During the census, volunteers are encouraged to survey any of the 22 IBAs closest and convenient to him/her.

## **3.0 METHODS**

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.

The official survey period for AWC annually is the 2nd and 3rd week of January. However, an extension of the survey period was accepted in Malaysia to allow AWC volunteers greater flexibility in conducting surveys. Counts from the last week of December till the first week of February are thus accepted

## 4.0 RESULTS

### 4.1 Survey Locations

A total of 20 sites nationwide were surveyed during the AWC 2015 (Malaysia) period (TABLE 1). Notably missing were sites in Perlis, Kedah/Perlis, Pahang, Terengganu, Sarawak and Sabah compared to previous years wherein these sites were part of the census. The Kuala Selangor Nature Park and its surrounding areas were also not covered in the 2015.

**TABLE 1** A total of 20 sites nationwide were surveyed during the AWC 2015 (Malaysia)

| States                 | No of sites surveyed |
|------------------------|----------------------|
| Perlis/Kedah           | -                    |
| Pulau Pinang           | 2                    |
| Perak                  | 6                    |
| Selangor               | 7                    |
| Melaka/Negeri Sembilan | 2                    |
| Johor                  | 3                    |
| Pahang                 | -                    |
| Terengganu             | -                    |
| Sarawak                | -                    |
| Sabah                  | -                    |
| <b>TOTAL</b>           | <b>20</b>            |

\*Five new sites in Selangor: Pantai Remis, Tg. Karang, Jeram, Klang Islands and Paya Indah

\*One new site in Penang: Teluk Air Tawar

### 4.2 Major Waterbirds Groups

Eight major waterbird groups and seven additional bird species were counted with a total count of 38,037 individuals (327 species) nationwide. The overall count were dominated by three groups; the Shorebirds (25, 847), following by and Herons and Egrets (6,248), Gulls and Terns (5,608), Storks (154), Rails and Gallinules (20) Geese and Ducks (50), Grebes (13) and additional bird species (7) were also reported. The major three waterbird groups dominated the counts in Peninsular Malaysia since there is no survey conducted in East

Malaysia in 2015. The state breakdown for the counts according to major waterbird groups are in detailed in TABLE 2.

**TABLE 2      The state breakdown for the counts according to major waterbird groups**

| <b>Waterbird Group</b>  | <b>Pulau<br/>Pinang</b> | <b>Perak</b> | <b>Selangor</b> | <b>Melaka</b> | <b>Johor</b> |
|-------------------------|-------------------------|--------------|-----------------|---------------|--------------|
| GREBES                  | -                       | 13 (1)       | -               | -             | -            |
| HERONS AND EGRETS       | 283 (5)                 | 5,430 (11)   | 304 (9)         | 59 (7)        | 172 (7)      |
| STORKS                  | -                       | 87 (1)       | 43 (2)          | 1 (1)         | 23 (1)       |
| GEESE AND DUCKS         | -                       | 3 (2)        | 4 (1)           | 43 (2)        | -            |
| RAILS AND<br>GALLINULES | -                       | 82 (4)       | 7 (2)           | 14 (5)        | 6 (1)        |
| SHOREBIRDS-WADERS       | 13,272 (20)             | 1,527 (18)   | 10,622 (21)     | -             | 426 (17)     |
| GULLS AND TERNS         | 4,440 (8)               | 138 (3)      | 1,030 (8)       | -             | -            |
| ADDITIONAL SPECIES      | -                       | 3 (3)        | 5 (4)           | -             | -            |
| <b>TOTAL</b>            | <b>17, 995</b>          | <b>7,283</b> | <b>12, 015</b>  | <b>117</b>    | <b>627</b>   |
| <b>GRAND TOTAL</b>      | <b>38,037</b>           |              |                 |               |              |

#### **4.2.1      Herons and Egrets**

Generally, herons and egrets were seen in modest numbers across the four states in Peninsula Malaysia with total 6,248 individuals in five states of Peninsular Malaysia (Pulau Pinang, Perak, Selangor, Melaka, and Johor).

The Cattle Egret (*Bubulcus ibis*) was noted as a numerous heron species throughout the states with 2,642 individuals. Perak were recorded with the most abundance numbers with 2,484 individuals with 11 species. In Perak, the highest numbers of Cattle Egrets were reported at Sg. Buaya ricefield with 1,604 individuals, followed by Kinta Nature Park and Ulu Dedap which also located at Perak with 362 and 257 individuals respectively.

Other significant sightings include 1,545 of Little Egret (*Egretta garzetta*), 482 of Great Egret (*Casmerodius alba*) and 366 of Grey Heron (*Ardea cinerea*). However, only an individual of Pacific Reef-egret (*Egretta sacra*) was counted in Kuala Muda, Pulau Pinang and

none of our Globally Threatened species, Chinese Egret (*Egretta eulophotes*) was recorded this year. Other species in herons and egrets group consist of less than 200 individuals including Purple Heron (*Ardea purpurea*, 224 individuals), Little Heron (*Butorides striatus*, 133 individuals), Intermediate Egret (*Egretta intermedia*, 164 individuals), Black-crowned Night-heron (*Nycticorax nycticorax*, 75 individuals), Chinese Pond-heron (*Ardeola bacchus*, 24 individuals), and Yellow Bittern (*Ixobrychus sinensis*, 13 individuals). Remaining 607 individuals were unidentified Herons and Egrets species.

#### 4.2.2 Storks

Only two species of storks were recorded for all AWC sites nationwide. Painted Storks (*Mycteria leucocephala*) and Lesser Adjutant (*Leptoptilos javanicus*) were counted with total 11 and 143 individuals respectively. Only a group of Painted stork (*Mycteria leucocephala*) was noted at Kapar Ash Pond, Selangor. The highest number of Lesser Adjutant (*Leptoptilos javanicus*) was counted at Sg. Buaya ricefield, Perak with 45 individuals, followed by Kuala Gula (Matang FR) with 38 individuals, Sg. Balang ricefield (21 individuals), and other sites with less 20 individuals including Jeram, Selangor (16 individuals), Klang Islands, Selangor (11 individuals), Kapar Ash Pond, Selangor (15 individuals), Ulu Dedap, Perak (four individuals), and only one individuals was counted at a few other locations including Chikus, Johor, Sg. Balang ricefield, Sg. Rambai, Melaka, and Tg. Karang, Selangor.

#### 4.2.3 Geese and Ducks

With total 50 individuals were counted in four AWC sites nationwide and Sg. Rambai, Melaka was recorded with the highest number of Geese and Duck with 40 individuals of Lesser Whistling-duck (*Dendrocygna javanica*) and three individuals of Garganey (*Anas querquedula*). Other sites including Kinta Nature Park, Perak was counted two individuals of Lesser Whistling-duck (*Dendrocygna javanica*), and Pantai Remis, Selangor was also noted a group of this species with four individuals. Other interesting species, an individual of Tufted duck (*Aythya fuligula*) was identified at Malim Nawar, Perak.

#### 4.2.4 Rails and Gallinules

Only five species of Rails and Gallinules with total 109 individuals were recorded nationwide. Chikus, Perak was noted as the highest number of individuals for this group with 54 individuals and five species and numerous species were counted in this site including White-breasted Waterhen (*Amaurornis phoenicurus*) and Purple Swampphen (*Porphyrio porphyrio*) with 25 individuals. Watercock (*Gallicrex cinerea*) and Common Moorhen (*Gallinula chloropus*) were also noted on this site with two individuals. Other highlighted species, Baillon's Crake (*Porzana pusilia*) was only counted at Sg. Rambai, Melaka with an individual.

#### 4.2.5 Jacanas

Unfortunately, this year counting (2015) there was no individual counted for jacanas.

#### 4.2.6 Shorebirds (Waders)

The total for the shorebirds on nationwide for this year are 25,847 individuals with 34 species, a major contributor in the grand total of Waterbirds in general. A few sites were indentified with numerous numbers of shorebirds (more than 1,500 individuals) and Teluk Air Tawar, Pulau Pinang was recorded the highest number of shorebirds with total 13,326 individuals and 20 species, followed by Kapar Ash Pond (5,943 individuals and 20 species), Jeram (1,679 individuals and nine species), and Banting (1,646 individuals and 10 species). All this three sites were located at north-central coast Selangor.

The Common Redshank (*Tringa tetanus*) was identified as the numerous species nationwide with total 4,368 individuals, followed by Mongolian Plover (*Charadrius mongolus*) with 3,821 individuals, Pacific Golden Plover (*Pluvialis fulva*) with total 2,213 individuals, Eurasian Curlew (*Numenius arquata*) with 2,084 individuals, 1,873 individual of Rufous-necked Stint (*Calidris ruficollis*), and 1,339 of Whimbrel (*Numenius phaeopus*). Other shorebirds were counted less than 1,000 individuals.

There were a few species of shorebirds considered as 'uncommon species' and were counted less than 10 individuals were indentified including an individual of Greater Painted Snipe (*Rostratula benghalensis*) and Ruddy-breasted Crake (*Porzana fusca*) at Chikus, Perak, and Ruff (*Philomachus pugnax*) at Sg. Balang ricefield, Johor. Only a group of Common Snipe (*Gallinago gallinago*) with three individuals of were identified at Chikus, Perak. Other

species with five individuals of the Globally Threatened species, Nordmann's Greenshank (*Tringa guttifer*) were found at Teluk Air Tawar, Pulau Pinang, and two groups of Little Cormorant (*Phalacrocorax niger*) were counted at Kinta Nature Park and Malim Nawar, Perak with one and four individuals respectively. Besides that, Two group of Ruddy Turnstone (*Arenaria interpres*) were also noted at two AWC sites, Kapar Ash Pond, Selangor and Teluk Air Tawar, Pulau Pinang with three and five individuals respectively. Remaining 4,046 individuals of shorebirds were unidentified species.

#### **4.2.7 Gulls and Terns**

The total 5,606 individuals of Gulls and Terns were counted nationwide with 10 species. The highest numbers of individuals were identified at Kuala Muda, Pulau Pinang with 3,088 individuals and four species, followed by Teluk Air Tawar, Pulau Pinang with 1,352 individuals and eight species. The other sites with less than 500 individuals were counted at Banting (440 individuals, four species), Kapar Ash Pond (191 individuals, two species), Tg. Karang (163 individuals, four species) and Pantai Remis (100 individuals, one species). All these four sites were located in Selngor. Other sites, Malim Nawar, Perak showed 135 individuals with three species, and Jeram and Klang islands in Selangor were noted with 92 individuals (five species) and 44 individuals (3 species) respectively.

Common Tern (*Sterna hirundo*) was identified as numerous species throughout the AWC 2015 with total 3,077 individuals, followed by Whiskered Tern (*Chlidonias hybridus*) with 444 individuals, Brown-headed Gull (*Larus brunnicephalus*) with 353 individuals, Little Tern (*Sterna albifrons*) with 320 individuals, White-winged Tern (310 individuals), and Gull-billed Tern (*Gelochelidon nilotica*) with 211 individuals.

Other species including Common Black-headed Gull (*Larus ridibundus*), Caspian Tern (*Hydroprogne caspia*), Lesser Created Tern (*Sterna bengalensis*), and Greater Crested Tern (*Sterna bergii*) were counted less than 80 individuals. Remaining 796 individuals were unidentified species.

#### **4.2.8 Globally Threatened and Near-Threatened Waterbirds**

Two species of Globally Threatened and two species Near-Threatened Waterbirds were indentified during AWC this year; Nordmann's Greenshank (*Tringa guttifer*) and Lesser

Adjutant (*Leptoptilos javanicus*). Even though Lesser Adjutant was identified as Globally Threatened species, but for this year we managed to count quite a good number of this species with total 143 individuals nationwide and the highest number of individuals was counted at Kuala Gula (Matang FR) with 43 individuals. However for Nordmann's Greenshank (*Tringa guttifer*), only five individual were noted at Teluk Air Tawar, Pulau Pinang. Other locations no individual counted for this species.

For the Near-Threatened species, Black-tailed Godwit (*Limosa limosa*) was counted as numerous species total 44 individuals (within two group), followed by the Far Eastern Curlew (*Numenius madagascariensis*) with total eight individuals (within two group). These species were found at two different sites; Kapar Ash Pond, Selangor and Teluk Air Tawar, Pulau Pinang with 42 and two individual Black-tailed Godwit (*Limosa limosa*) and one and seven individuals of Far Eastern Curlew (*Numenius madagascariensis*), respectively.

## 5.0 CONCLUSION

Data collections for Peninsular Malaysia during the AWC (Malaysia) in the 1980s, early 1990s and since 1999 have shown that the north-central Selangor coast is one of the most important waterbird sites for passage migrants and/or non-breeding winter visitors as well as coastal residents. This year, we managed to cover seven sites in north-central Selangor coast and within seven sites; five sites were a new AWC sites (Pantai Remis, Tg. Karang, Jeram, Klang Islands and Paya Indah) which not have been covered for at least last four years. This year census was the good improvement for AWC Malaysia in term of numbers of counting sites and the involvement of the volunteer participation. Unfortunately, in East Malaysia no surveyed have been run for this year and effort must be taken to continue to encourage and seek more volunteers to cover these sites in the future.

The East Asian-Australasian Flyway that brings the waterbirds to our shore has over the years continued to face numerous challenges and pressures primarily due to damages from coastal development for infrastructure projects, agriculture, aquaculture and industry. Birds are global travellers passing through many countries and unless there is a full cooperation between nations to preserve the staging posts, the unilateral uncoordinated actions of a single country can seriously affect the population of the world's migratory birds. An example of the habitat loss was the commercial development of the Saemungeum estuary in Korea in 2006. An important staging site which previously hosted globally critical



populations of the Spoon-billed Sandpiper, Asian Dowitcher, Great Knot, Nordmann's Greenshank as well as other shorebirds.

The low count experience this year and the last five years could be most likely in part due to the challenges explained above. Hence great effort must be undertaken by various environmental organizations and the respective governments to ensure a more balance and sustainable development of the world's coastal areas. The AWC (Malaysia) annual survey provides valuable collection of data and its associated analysis thereof which provides as a basis of monitoring sites and population.

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