

Monitoring of waterbirds in the East Asian – Australasian Flyway: input of the Asian Waterbird Census and Waterbird Population Estimates

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Background

The EAAFP Implementation Strategy 2012 – 2016¹ Outcome 6: requires that “*Scientifically sound information is available on the flyway-wide status and trends of waterbird populations and their habitats*”. It recognises that the Asian Waterbird Census (AWC), an ongoing regional waterbird monitoring programme “*can continue to provide good information, the extent of their coverage is need of enhancement and related capacity building can improve the quality of the information*”.

The AWC:

- is the only ongoing flyway level collation of annual waterbird count data,
- covers East, Southeast and South Asia and Australasia,
- has data that was collected by Government agencies, NGO's and individuals; often stored in national databases and shared with the Asian Waterbird Census
- is regionally coordinated by Wetlands International (WI) and implemented through a network of national partners - government and/or NGOs, including WI & BirdLife International national partners, and
- is coordinated jointly by the WI-South Asia office (New Delhi) and the WI-Netherlands offices.

Summary of Decisions from EAAFP MoP7

4. EAAFP should continue to use the “Waterbird Population Estimates” (WPE) process (also used to inform the Ramsar Convention and other multinational Agreements) to:
 - (a) Provide updated information on population sizes, and trends, and
 - (b) Provide the basis for deriving the FSN thresholds.
5. Review and provide updates to the population estimates through the WPE6 process (Site Network Criterion a6).
6. The Secretariat will take on the following tasks (A) and (B):
 - (a) Update the FSN thresholds by 31 October 2013 (Appendix 4 in the Report).
 - (b) For MoP8, make recommendations by end of 2014 on:
 - Potential additions of populations to the Partnership list that go beyond previous guiding principles
 - The scope of the activities of taxonomic Working Groups through consultation with these Groups
 - Establishment of an ongoing mechanism for dealing with such technical issues.

¹ <http://www.eaaflyway.net/implementation.php>

Report for the period 2013-2014

The following section reports progress against activities in Outcome 6 and specific action arising from MOP7.

6.1. Assessment and monitoring programmes are enhanced through increased collaboration and integration of activities to provide scientifically sound information on the status and trends of migratory waterbird populations (All Partners)

6.3. Updated information is available on the status and threats to internationally important sites and to Flyway Network sites in particular. (National Governmental Partners, Wetlands International & BirdLife International)

- A strong emphasis was placed on strengthening communication with national coordinators and the large volunteer network through the AWC e-group a dissemination of a newsletter² and improved website.
- As a result, a lot of new and older annual count information is being received from national coordinators and participants. The data is currently being checked and entered into the AWC Access Database. An overview of the site visits (6463) between 2008-2014 (average of 1100 visits per year) and annual waterbird counts from nearly 300 species (average of nearly 3,100,000 waterbirds, with a maximum of 4.4 million in 2007/8) that has been received by Wetlands International is provided in Tables 1 and 2. There remains several data gaps (North Korea, China mainland, Laos, Malaysia, Papua New Guinea and Timor Leste) and WI is in discussion with the national coordinators to ensure that their data can be received and included into the flyway synthesis. Alaska is largely frozen during this January monitoring period and is currently not providing any counts, while few counts are received from Russia and Mongolia.
- While the monitoring programme aims to cover all waterbird groups and is reported from most countries, Japan mainly covers three separate waterbird count efforts (mainly for Anatidae, crane and shorebirds, with few additional species of spoonbill and Saunders's Gull). From Australia and New Zealand, only shorebird counts (which form a bulk of the northern migrants) are received.
- It is expected that only a minority of network sites are currently being covered on an annual basis. Additional efforts by Partners will be required to ensure that at least all the network sites are included in the annual census.
- Information on the status and threats to the waterbird sites is being collated where provided; however for several countries this information is not being received.

AWC database development - To improve the efficiency of waterbird data handling, collation and reporting, WI has been developing a global IWC online data management system for national coordinators, that has been successfully tested and rolled out for the African-Eurasian region. A prototype for the AWC is now being created and will be available at the meeting. Its development is subject to additional resources being secured.

Additionally, plans for development of an online count data entry system for AWC participants are being progressed, subject to additional resources being secured to support its development. This system will also be based on a new system has been successfully tested for the African-Eurasian region.

To support efforts to improve national efforts for data collection and submission to national coordinators, an prototype Excel based Count and Site Form was developed and tested in India in January 2014. Based on feedback, an updated version is to be used for the AWC 2015. It is proposed that such an Excel Count & Site Form format could be rolled out for use in other countries as required.

² [AWC News](#)

Coordination and implementation of monitoring – The national coordination of the AWC is undertaken by a wide network of partners, including government (4 countries) and NGOs (rest of countries/regions) as provided in Table 3. For Laos, North Korea, Russian Federation and Timor Leste there is no coordinator and limited information is received.

Waterbird Population Estimate (WPE) update – The WPE is the official reference for countries to designate Ramsar and EAAF Network Sites based on the 1% criterion. An interactive WPE online tool³ was successfully launched by Wetlands International at the Ramsar COP11, in Bucharest, in June 2012, at a side event co-organised with the EAAFP Secretariat. The new online tool provides access to the entire series of five Waterbird Population Estimates, including the latest 5th update of 2012. The monitoring information generated through the AWC provides a major data source for the WPE reviews.

The WPE is reviewed through the three year cycle with a next review scheduled to be undertaken for publication in 2015 (See Table 4). This will require reviews of populations in the various flyway regions to be undertaken during early 2015. As the major flyway initiative, the EAAFP benefits from supporting this process in collaboration with partners to ensure that the latest information on waterbird populations and their trends can feed into the review.

It is proposed that the review of the EAAF populations for the 6th WPE, be done in close collaboration with the Secretariat (building on the experience with the 5th WPE, when the Science Officer, Dr Chang Yong Choi led the initial consultation), Working Groups and other experts.

The WPE website has been recently updated with an inbuilt functionality that allows for expert and public feedback for each population to review the status and trends of the population. This will be opened in early 2015 to allow for an online consultation process for the EAAFP populations.

Resources to support flyway monitoring activities – WI is covering the regional coordination and database development activities from its core budget for 2013-14 (covered by a contribution of our membership fees). However, these resources are not guaranteed and inadequate to sustain the coordination work from 2015 onwards. Additional resources are urgently needed to support the on-going coordination, database and reporting related activities for 2015 and onwards.

Efforts are also required to secure resources required to strengthen coordination and promote the AWC at a regional and national level.

Actions requested:

- This essential work for the Partnership can only continue to be conducted if it is adequately resourced. Partners are strongly urged to provide cofunding on an on-going basis to enable regional coordination to deliver flyway level collation of information needed to conserve migratory waterbirds.
- Additional efforts by Partners to ensure that network and other important sites are included in the annual census and data is being provided to Wetlands International for collation.
- Support and input from Partners to ensure that the latest information on waterbird populations and trends is collated in 2015 to feed into the WPE6 review process.

³ <http://wpe.wetlands.org>

Table 1. Preliminary overview of the number of waterbird count sites received by Wetlands International and included in the AWC Database (as at 30 Nov 2014)

Country/region	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014
Australia	88	155	114	114	141	143	
Bangladesh	38	38	15	26	16	22	
Brunei Darussalam		6	8	11	14	16	17
Cambodia	4	10	8	13	13	11	6
China: Hong Kong	3	2	2	2	2		
China: Mainland		2					
China: Taiwan			30				
India (NE & Andamans)				9	22		
Indonesia	38	11	30	11	9		
Japan	179	174	148	144	156	151	
Malaysia	23	41	16	14	6	1	5
Mongolia		1		1		2	
Myanmar		17	15			12	
New Zealand	361	336	239	248	262	251	
Philippines	159	169	228	220	164	194	140
Russian Federation	2	2	2	2	1	1	
Singapore	9	8	9	9	8		
South Korea	139	135	137	132	137	133	
Thailand	122	47	53	69	82	88	18
Timor Leste		1					
Vietnam			2	1		3	
Total	1,165	1,155	1,056	1,026	1,033	1,028	186

Notes:

- The columns indicate the AWC count year. So 2007/2008 indicates AWC 2008 and recognises that counts are included for the period Nov 2007 to March 2008. Information for 2013/2014 is still to be received from most countries.
- The definition and size of sites varies from country to country, so comparison between countries should be treated with great caution.
- The AWC Coordinator is in discussion with national coordinators on information received and the number of sites may change in the final analysis
- Numbers of sites for Japan covers three separate waterbird count efforts (mainly for Anatidae, crane and shorebirds) with only shorebird counts received from Australia and New Zealand
- Some information for China mainland has been received and is being reviewed.
- For New Zealand the number of sites vs sub-sites is being sorted out.
- Countries in South Asia covered by the AWC and that lie outside the list of EAAFP countries are not included in the overview. Information is being received from Nepal and Bhutan which is in the biogeographic region of the Partnership and can be made available as required.

Table 2 - Preliminary overview of the annual total count of waterbirds at count sites received by Wetlands International and included the AWC Database (as at 30 Nov 2014)

Country/Region	2007/ 2008	2011/ 2012	2008/ 2009	2010/ 2011	2009/ 2010	2012/ 2013	2013/ 2014
Australia	856,396	919,651	561,048	534,143	636,686	656,066	
Bangladesh	312,993	31,469	279,837	85,176	53,448	215,123	
Brunei		8,338	6,000	3,639	3,198	3,272	3,908
Cambodia	57,062	110,297	68,318	22,126	55,272	27,403	94,384
China: Hong Kong	90,809	49,716	71,513	68,838	77,390		
China: Mainland			5,183				
China: Taiwan					45,685		
India		76,289		11,958			
Indonesia	24,077	9,618	16,105	19,262	22,117		
Japan	585,283	620,897	599,925	636,145	685,339	612,603	
Malaysia	31,675	5,503	34,771	27,586	10,713		3,796
Mongolia			1,308	543		269	
Myanmar			92,979		4,995	33,849	
Nepal	34,307	29,375	29,635	29,062	27,213	39,969	
New Zealand	386,761	196,868	354,303	221,909	215,740	193,676	
Philippines	292,447	343,710	264,636	235,840	295,991	390,898	306,121
Russian Federation	13,594	8,702	11,492	10,805	13,789	8,976	
Singapore	2,542	3,114	3,621	1,457	3,611		
South Korea	1,389,447	745,350	1,811,259	894,239	1,208,481	749,485	
Thailand	250,716	146,277	99,692	163,968	90,617	136,390	
Timor Leste			123				
Vietnam				6,231	5,607	2,801	
Grand Total	4,328,109	3,305,174	4,311,748	2,972,927	3,455,892	3,070,780	408,209

Notes:

- Countries/regions for which no information has been received during any year between 2008-2014 is not included in the table.
- Waterbird information includes waterbirds and other wetland species including raptors
- In order to support the monitoring of changes in the numbers of introduced species, this report also includes records of species that are not native to the country, i.e. vagrants, escapes or feral individuals of introduced species. Coordinators are kindly requested to notify Wetlands International if any of these records are the result of erroneous data entry.
- The AWC Coordinator is in discussion with coordinators on information received and the number of waterbirds reported may change in the final analysis

Table 3. Waterbird groups currently covered by the Asian Waterbird Census in the EAAFP region (as at 30 Nov 2014)

Country/region	Grebes	Pelicans	Cormorants & Darters	Hérons & egrets	Storks, Ibises, Spoonbills	Anatidae	Cranes	Rails & Jacanas	Shorebirds	Gulls & Terns
Australia	N	N	N	N	N	N	N	N	Y	N
Bangladesh	Y	Y	Y	Y	Y	Y		Y	Y	Y
Brunei Darussalam	Y	Y	Y	Y	Y	Y		Y	Y	Y
Cambodia	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
China: mainland	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
China: Hong Kong	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
China: Taiwan	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
India (NE)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indonesia	Y	Y	Y	Y	Y	Y		Y	Y	Y
Japan	N		N	N	N	Y	Y	N	Y	N
Laos	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Malaysia	Y	Y	Y	Y	Y	Y		Y	Y	Y
Mongolia	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Myanmar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nepal	Y		Y	Y	Y	Y		Y	Y	Y
New Zealand	N	N	N	N	N	N		N	Y	N
Philippines	Y	Y	Y	Y	Y	Y		Y	Y	Y
Russian Federation	Y		Y	Y	Y	Y	Y	Y	Y	Y
Singapore	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Korea	Y		Y	Y	Y	Y	Y	Y	Y	Y
South Korea	Y		Y	Y	Y	Y	Y	Y	Y	Y
Thailand	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Timor Leste	Y	Y	Y	Y	Y	Y		Y	Y	Y
Vietnam	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes:

United States (Alaska) is not participating in the AWC

Y - indicates Yes, where reports are received

N - indicates No, where reports are not received

A blank indicates that the group does not normally occur in the country

Table 4. Coordination and network implementing waterbird monitoring in the EAAFP region as implemented under the Asian Waterbird Census (as at Nov 2014)

Country/region	Coordinator(s)	National network, including	
		Individuals	Government
Australia	BirdLife Australia	+	
Bangladesh	Bangladesh Bird Club	+	
Brunei Darussalam	Panaga Natural History Society	+	
Cambodia	Wildlife Conservation Society	+	+
China: mainland	Wetlands International-China	+	+
China: Hong Kong	Hong Kong Bird Watching Soc	+	
China: Taiwan	Chinese Wild Bird Federation (CWBF)	+	
India (NE, A&N islands)	Wetlands International-South Asia & Bombay Natural History Society	+	+
Indonesia	Wetlands International-Indonesia	+	+
Japan	Ministry of the Environment	+	+
Laos	Currently no coordinator		
Malaysia	Malaysian Nature Society (BirdLife)	+	+
Mongolia	National University of Mongolia & Mongolian Ornithological Society	+	
Myanmar	Myanmar Bird and Nature Society	+	
Nepal	Himalayan Nature	+	
New Zealand	Ornithological Society of New Zealand	+	
Philippines	Department of Environment and Natural Resources	+	+
Russian Federation	Currently no coordinator	+	
Singapore	Nature Society	+	
North Korea	Currently no coordinator		
South Korea	Ministry of the Environment		+
Thailand	Department of National Parks, Wildlife and Plant Conservation (DNP) and Bird Conservation Society of Thailand	+	+
Timor Leste	Currently no coordinator		
Vietnam	BirdLife International Vietnam Programme	+	

Table 5: Overview of the triennial planning cycle for the review and production of the Waterbird Population Estimates 6th Edition

Global / regional instruments	2014	2015	Notes
Ramsar Convention		WPE6/ COP12	Triennial, WPE6 to be ideally delivered to COP
<i>WPE preparation</i>			
-WI-led collation working with flyway instruments and initiatives and partners	Regional consultation process initiated resulting in preparation of regional updates	Production and update of WPE website	Resources for WPE6 production to be raised
-Waterbird Specialist Groups and other experts		Review of populations and trends	
Convention on Migratory Species	COP11		Triennial COP, plan for reporting to Scientific Council
East Asian-Australasian Flyway Partnership		MOP8	Securing support of MOPs and participation for information review and resources
African-Eurasian Waterbird Agreement (AEWA)	CSR6	MOP6	CSR should be produced for AEWA Technical Committee review prior to MOP; resources allocated by Parties for CSR production by Wetlands International
Central Asian Flyway Action Plan			Plan for joint reporting to be developed after AEWA MOP6
Western Hemisphere Migratory Species Initiative			Plan for reporting to be developed
North American Waterfowl Management Plans			Plan for reporting to be developed
Others to be identified			

Notes

CSR - AEWA Conservation Status Review – periodic review undertaken of all migratory populations, status and trends in the AEWA region