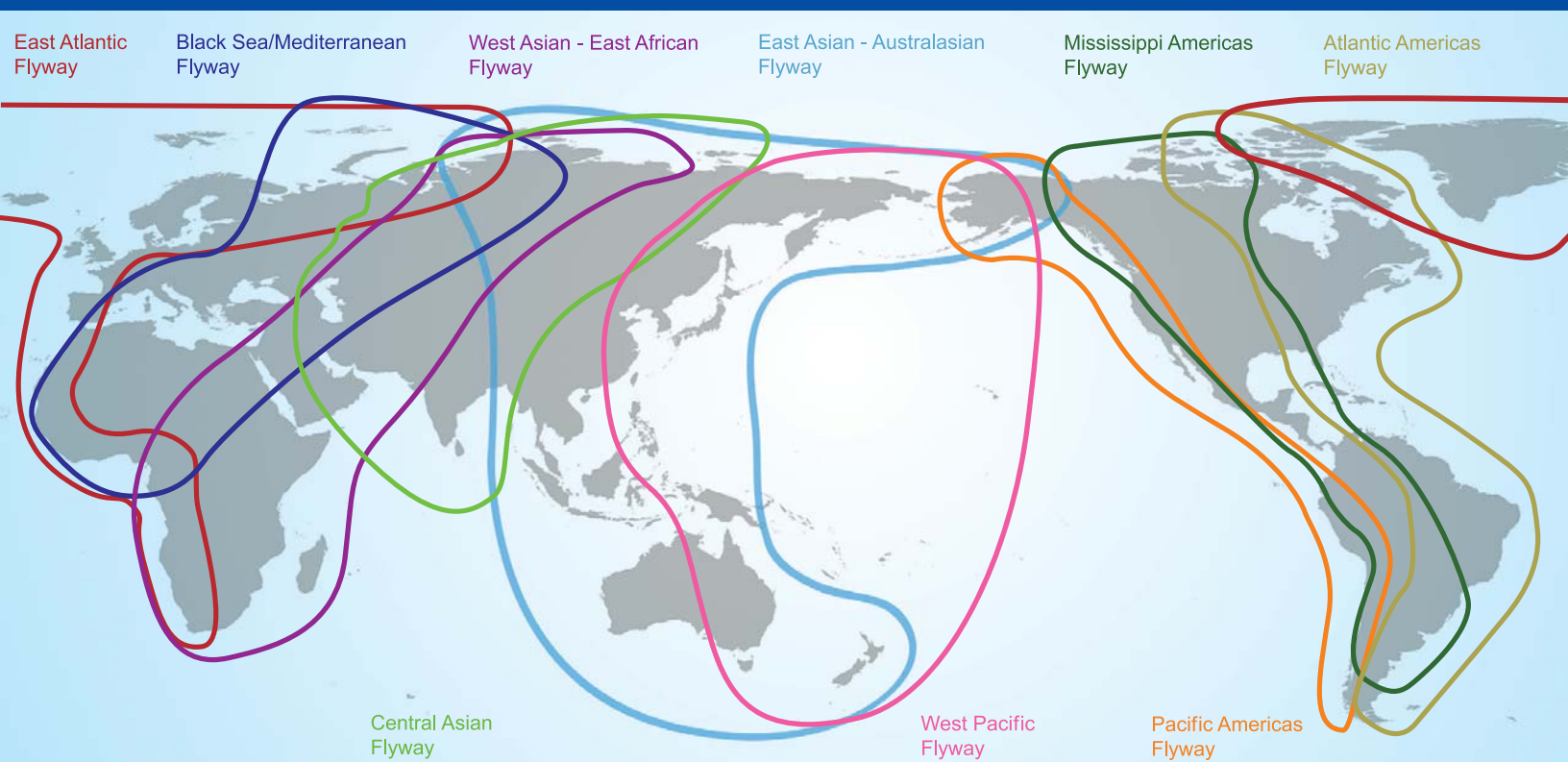


# Waterbird Flyway Initiatives:

## Outcomes of the 2011 Global Waterbird Flyways Workshop

to promote exchange of good practice and lessons learnt

### Global Interflyway Network



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### to promote exchange of good practice and lessons learnt

#### Seosan City, Republic of Korea, 17-20 October 2011



### Editors:

Chang Yong Choi, Nicola Crockford, Nick Davidson, Vicky Jones, Taej Mundkur, Crawford Prentice & David Stroud

Global Interflyway Network

### Logos

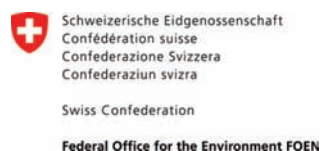


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## Dedicated to Mark Barter

### A champion of migratory waterbird conservation



**Mark Barter in northern Bohai Wan (China) – waterbird surveys and training (14 May 2005)**

The world of waterbird and wetland conservation along the East Asian – Australasian Flyway lost a pioneering figure and a role model with the passing of Mark Barter on 21 November 2011. Mark held a passion for shorebirds throughout his life, helping to guide development of the *National Plan for Shorebird Conservation in Australia* (1987), before becoming Chairman of the Australasian Wader Studies Group from 1987 to 1997. At the regional level, Mark played an active role in the development of the Asia-Pacific Migratory Waterbird Conservation Strategy (1996) and Asia-Pacific Shorebird Action Plan 1996-2001, and participated as Chair of the Shorebird Working Group and member of the Asia-Pacific Migratory Waterbird Conservation Committee.

Among his greatest achievements were: promoting global recognition of the critical importance of the Yellow Sea for migratory shorebirds in the East Asian – Australasian Flyway; advancing our understanding of the importance of the Middle and Lower Yangtze wetlands in Central China for Anatidae, by establishing a waterbird monitoring program for the Yangtze wetlands, and encouraging waterbirds and wetland research at Chinese universities; and facilitating development of international collaborative waterbird research programs that linked scientists in Asia, Europe and North America.

Mark was a leader, a scientist, a trainer and mentor. His work in the Flyway established a greatly expanded body of researchers, site managers and community members with a passion for waterbirds and their conservation who now motivate others and collectively ensure a lasting legacy built on Mark's foundational work. Mark's achievements would have been outstanding for any full time ecologist. However, he worked as a volunteer, initially in his spare time and then in his retirement, often at his own expense. Mark was a true quiet achiever and his selfless model can only inspire others to contribute in a similar way. To leave a lasting legacy in recognition of Mark's contribution, an award program is being developed by the East Asian – Australasian Flyway Partnership for the conservation of migratory waterbirds and their habitats in the East Asian – Australasian Flyway.

## ACKNOWLEDGEMENTS

The organising committee of the Global Flyways Workshop would like to thank Seosan City, the Government of Switzerland and the Secretariat of the EAAFP for their generous funding for this workshop. We would also like to thank Seosan City hosting the workshop at Hanseo University and for the very interesting and informative field trip to Cheonsu Bay, the EAAFP Secretariat for all their excellent logistical work and organisation before, during and after the workshop, and Roger Jaensch for his help and guidance in the earlier stages of planning for this workshop.



Participants at Hanseo University, Seosan, South Korea



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## LIST OF ACRONYMS AND ABBREVIATIONS

AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
AI	Avian Influenza
CEPA	Communication, Education, Participation and Awareness (sometimes used as Communication, Education and Public Awareness)
CBD	Convention on Biological Diversity
CMS	Convention on Conservation of Migratory Species of Wild Animals
COP	Conference of the Parties
CSN	Critical Site Network
EAAFP	East Asian – Australasian Flyway Partnership
EIA	Environmental Impact Assessment
GFN	Global Flyways Network (of shorebird flyways researchers)
GIN	Global Interflyway Network
HPAI	Highly Pathogenic Avian Influenza
IBA	Important Bird Area
IGO	Inter-governmental Organization
INGO	International Non Governmental Organization
IOP	International Organization Partner (of the Ramsar Convention)
MEA	Multilateral Environmental Agreement
MoP	Meeting of the Parties
MoU	Memorandum of Understanding
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non Governmental Organization
Ramsar	Ramsar Convention on Wetlands of International Importance
RoK	Republic of Korea
SEA	Strategic Environmental Assessment
SCWP	UNEP/GEF Siberian Crane Wetland Project
WHSRN	Western Hemisphere Shorebird Reserve Network
WHMSI	Western Hemisphere Migratory Species Initiative
WOW	Wings Over Wetlands – the UNEP-GEF African-Eurasian Flyways Project

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## 1. BACKGROUND AND INTRODUCTION

With the generous support of Seosan City, Republic of Korea, the government of Switzerland and the Secretariat of the East Asian – Australasian Flyway Partnership (EAAFP), an international workshop to review good practice in international initiatives for the conservation of migratory waterbirds and other migratory bird taxa was convened by the Ramsar Convention, the Convention on Migratory Species (CMS), BirdLife International, Wetlands International and the EAAFP Secretariat. It was attended by 35 representatives and observers from 14 international organisations and seven Korean organisations (see the participants' list in **Annex 1** and summary biographies in **Annex 5**). The Workshop was hosted by Seosan City at Hanseo University. The programmes for the workshop's public and technical sessions are given in **Annexes 2 and 3** respectively.

An increasing number of flyway-scale initiatives for migratory bird conservation have been established around the globe, with varied approaches and status, and with considerable and valuable experience to share. However the experiences of these initiatives, while often well publicised within their own flyway, are often poorly known elsewhere. This has led to independent evolution of approaches in different flyways and relatively little exchange of experience between flyways, or between flyway initiatives for different groups of birds e.g. waterbirds, landbirds, soaring birds and seabirds. While many of the challenges faced are similar, different approaches have been taken to tackle them.

The workshop was the first to bring together these flyway initiatives so as to share lessons learned from these different approaches, assess their strengths and weaknesses, and so provide a more global view of our flyway conservation efforts thus far.

Contracting Parties to both the Ramsar Convention and the Convention on Migratory Species have recognised the need for this inter-flyway approach, and have called for such a workshop process, focusing largely, in this first instance, on waterbirds, the taxa for which the flyway approach is most widely developed. The workshop also included representatives from raptor, landbird and seabird flyway initiatives to maximise the breadth of experience-sharing and with a view to subsequent meetings potentially covering initiatives relating to those taxa in greater depth.

The workshop was called in response to the request made by Ramsar Contracting Parties at its 10<sup>th</sup> Conference of the Contracting Parties (Changwon, RoK, 2008) [Resolution X.22](#), which urged “the governing bodies of flyway initiatives to take steps to share knowledge and expertise on best practices in the development and implementation of flyway-scale waterbird conservation policies and practices, including successful means of disseminating critical supporting data and information to stakeholders and others, and ENCOURAGES the Secretariats of Ramsar, CMS, AEWA and the biodiversity programme of the Arctic Council to work together with their governance and scientific subsidiary bodies and other interested organizations to establish a mechanism for such sharing of knowledge and experience;”.

The Workshop was also designed to respond to [CMS Resolution 9.2](#) that called for the establishment of: “..an open-ended working group on global bird flyways within the framework of the Scientific Council to act as a think tank on flyways and frameworks, and tasked with reviewing scientific and technical issues for conservation of migratory birds and their habitats, and relevant international instruments, initiatives

and processes, as the basis for future CMS policy on flyways and contributing to the work on the future shape of CMS."

This Workshop was designed to be complementary to the work of the above-mentioned Convention on Migratory Species (CMS) Working Groups on Flyways and on Future Shape, which reported to CMS COP10 in Bergen, Norway in November 2011.

Workshop presentations and discussions are organised under three areas:

- a) highlighting the objectives, operations and experiences of a range of statutory and voluntary flyway initiatives
- b) examining seven common and cross-cutting themes, with the conclusions related to each provided in **Section 3** and recommendations in **Section 4** of this report.
- c) highlighting a number of broader, general conclusions reached by the Workshop participants which are provided in **Section 2** and at the **end of Section 3**.

The flyway-relevant initiatives examined during the Workshop were as follows:

#### A. Statutory intergovernmental initiatives

- The Convention on the Conservation of Migratory Species of Wild Animals (CMS) and its Memoranda of Understanding
- The African-Eurasian Migratory Waterbird Agreement (AEWA)
- The Ramsar Convention on Wetlands

#### B. Public/Private Sector Partnerships

- East Asian – Australasian Flyway Partnership

#### C. Voluntary Initiatives

- Western Hemisphere Shorebird Reserve Network (WHSRN) (Americas)
- Partners in Flight (North American landbirds)
- Western Hemisphere Migratory Species Initiative (WHMSI)
- Siberian Crane flyway initiatives (Asia)
- Raptor flyway initiatives
- BirdLife International's Global Seabird Programme
- Wings Over Wetlands (WOW) partnership (Africa-Eurasia)

These initiatives were presented during the public session involving the Ministry of Environment of the Republic of Korea, and Seosan City government, and also included in an introductory session on the first day of the technical workshop.

The seven cross-cutting themes for flyway conservation considered by the Workshop were:

1. National engagement and implementation

2. Species conservation
3. Site/habitat conservation
4. Role of science
5. Innovative approaches
6. Developing capacity
7. Partnerships and stakeholder involvement

For each of these themes, the workshop process involved a series of short presentations to inform participants about relevant examples of practices across different flyways or regions, combined with structured discussions on specific questions or issues considered to be of particular relevance to the overall aims of the workshop. The conclusions are presented for each of these themes, and the recommendations have been compiled and synthesized in the following section.



## 2. GENERAL CONCLUSIONS

### 2.1 CONCLUSIONS ABOUT THE VALUE OF THE WORKSHOP AND FUTURE NETWORKING

The Workshop concluded that:

1. Mechanisms, including this workshop, for sharing flyway initiatives' approaches, experiences and achievements are long overdue, much needed and of great value to inform the wide variety of organizations involved in flyway conservation at multiple levels;
2. Each participant had gained in understanding of, and the applicability of, aspects of other flyway initiatives' approaches and mechanisms, for potential future enhancement of their own contributions to flyway conservation, often through one specific initiative;
3. There is much common ground in the approaches, challenges and opportunities for implementation across all flyway initiatives discussed, regardless of their geographical location or taxonomic coverage, but each initiative needs to continue to be responsive to the national and regional specificities within its geographical scope for the focus of its attention and approach;
4. The time available for, and the scope of, this first flyway initiatives workshop did not allow for an in-depth consideration of the themes addressed, and there would be merit in holding similar workshops in future to further address some of the specific cross-cutting themes considered in this first workshop (such as innovative financing mechanisms), to focus on other migratory taxa beyond waterbirds (such as raptors and landbirds), and to consider other themes not covered in this first workshop; and
5. There is great merit and value in the establishment of an ongoing networking mechanism so as to build on the workshop's conclusions and to support the implementation of its recommendations, through drawing upon the expertise and experience of flyway conservation practitioners worldwide.

Accordingly the participants at the Workshop agreed to:

1. Establish an open and inclusive network of flyway-scale initiatives, so as to facilitate future networking, sharing of knowledge and approaches, and improving collaboration and synergies between the increasing number of flyway conservation initiatives across the world.
2. Entitle this network the "Global Interflyway Network" (GIN);
3. Promote establishment of electronic information-sharing and dialogue mechanisms to operationalize the GIN and to meet the communications needs of its partners;
4. Make the capacity of the GIN partnership, resources permitting, available to support and provide input to the work of multilateral environmental agreements (MEAs) addressing flyway issues, including *inter alia* CMS (and any ongoing work requested of its Flyways Working Group), AEWA

and the Ramsar Convention; and to support the future implementation of partnerships and voluntary flyway initiatives; and

5. Encourage other relevant flyway-scale initiatives that were not represented at the October 2011 workshop to participate in the GIN.

## 2.2 CONCLUSIONS ABOUT THE INGREDIENTS OF SUCCESSFUL FLYWAY CONSERVATION INITIATIVES

1. Successful conservation of migratory birds – from global to flyway to local levels – depends to a large degree on networks of key individuals with vision, passion, commitment and drive and the networks they create, attracting others with sufficient momentum that subsequent generations of such people have extended and perpetuated the implementation of these networks through more or less formalised frameworks.
2. These frameworks vary substantially in their origins, ranging from intergovernmental to voluntary; there is no single recipe for a successful framework for delivering flyway conservation, as different approaches work for different situations.
3. The main challenge now involves reaching out and gaining the support of stakeholders beyond the core flyway networks of like minded-people, who may be involved in driving the pressures that conservationists seek to reverse.



## 3. THEMATIC CONCLUSIONS AND RECOMMENDATIONS

### 3.1 INTRODUCTION TO DIFFERENT FLYWAY INITIATIVES

The public session and introductory session of the workshop featured a series of short presentations, introducing waterbird flyway conservation and profiling the variety of flyway scale initiatives represented by the participants (see **Annex 4** for summaries). The introductions covered the legal basis, governance arrangements, funding and strengths and weaknesses of each initiative.

Scene-setting presentations during the public session included a global overview of migratory waterbird status, an introduction to flyways and the history of international cooperation for waterbird conservation, pressures and threats faced by migratory waterbirds including habitat loss / land claim, avian influenza and barriers to migration, opportunities for conservation including the roles of major INGOs and birding tourism, and national and local activities for migratory waterbird and wetland conservation in the Republic of Korea. Summaries of the keynote presentations follow here, with the organizational and flyway initiative summaries given in **Annex 4**.

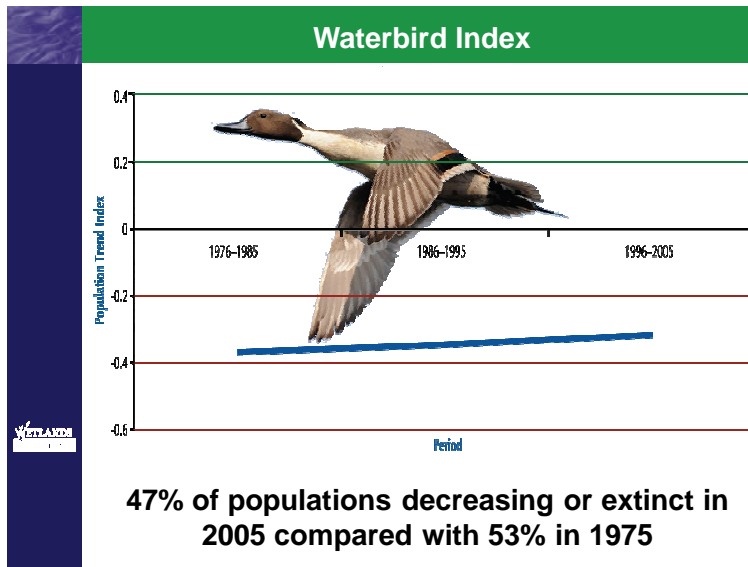
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#### A. OVERVIEW OF THE STATUS OF MIGRATORY WATERBIRDS: TAKING STOCK IN THE DECADE OF BIODIVERSITY, TAEJ MUNDKUR, WETLANDS INTERNATIONAL

The booklet *State of the World's Waterbirds 2010* (Wetlands International, 2010), aims to summarise in an attractive way what is known about the status of waterbird populations in different parts of the world. It shows how numbers and population trends compare from region to region, and how they have changed since the 1970s. The publication goes on to outline the pressures which threaten these populations, and responses to these pressures which have been effective in conserving the status of many populations in some parts of the world.

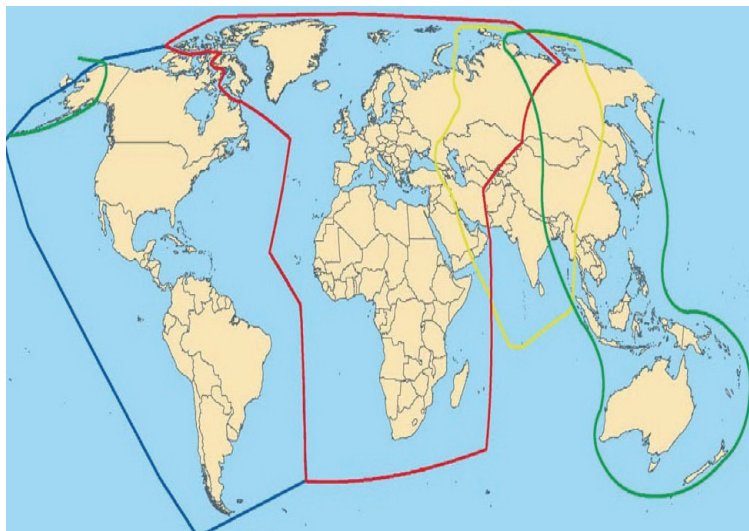
An analysis of status and trends carried out for a total of 2,274 CMS-defined migratory species (23% of the world's birds) found that 14% are threatened or near-threatened as per the IUCN Red List (Kirby 2010).

The Waterbird Population Estimates series, now in its 4<sup>th</sup> Edition (Wetlands International, 2006) includes an enormous amount of information about the world's waterbirds, covering 878 species and 2305 biogeographic populations worldwide, providing estimates for 79% of populations and trend estimates for 52%. It covers a large number of families encompassing the species traditionally considered as waterbirds.



**Figure 1. The Waterbird Index showing trends in the status of waterbird populations globally**

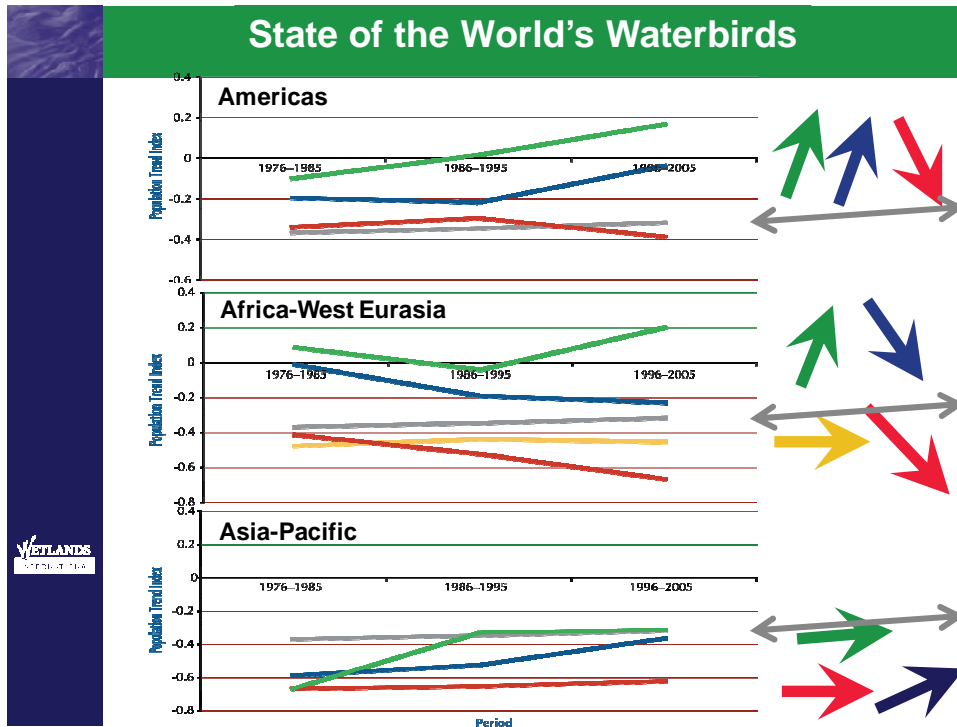
A Waterbird Index has been developed to provide an assessment of the past and present status of waterbird biogeographic populations worldwide. To produce the Waterbird Index, we converted the trend data for each population into a simple score. The resulting index gives the balance between increasing and decreasing populations. The graph in **Figure 1** shows the overall global index calculated for all the world's waterbird populations. It suggests that globally, the balance between increasing and decreasing populations has improved modestly, by about 5%, between 1976 and 2005. The situation is still very serious, with over 47% of populations decreasing or extinct in 2005 compared with 53% in 1975. There are geographic and taxonomic variations, as explained below.



**Figure 2. Major waterbird flyway systems**



We wanted to look in more detail at how waterbird trends vary around the world, and for this it is better to use the flyway approach, grouping species according to the total geographical regions used during their annual cycles. To do this we divided the world into three major flyway systems as shown in **Figure 2**. The overlap in the Arctic is clear because of the global tendency for the huge numbers of waterbirds of hundreds of species breeding in the Arctic to migrate to temperate and tropical regions to the south outside the breeding season. The Central Asian flyway (outlined in yellow) is smaller than the others, overlaps extensively with its neighbours and remains rather poorly known. For these reasons, populations occurring in this flyway were merged with their neighbours (often the East Asian – Australasian flyway in green) collectively referred to as the Asia-Pacific here.



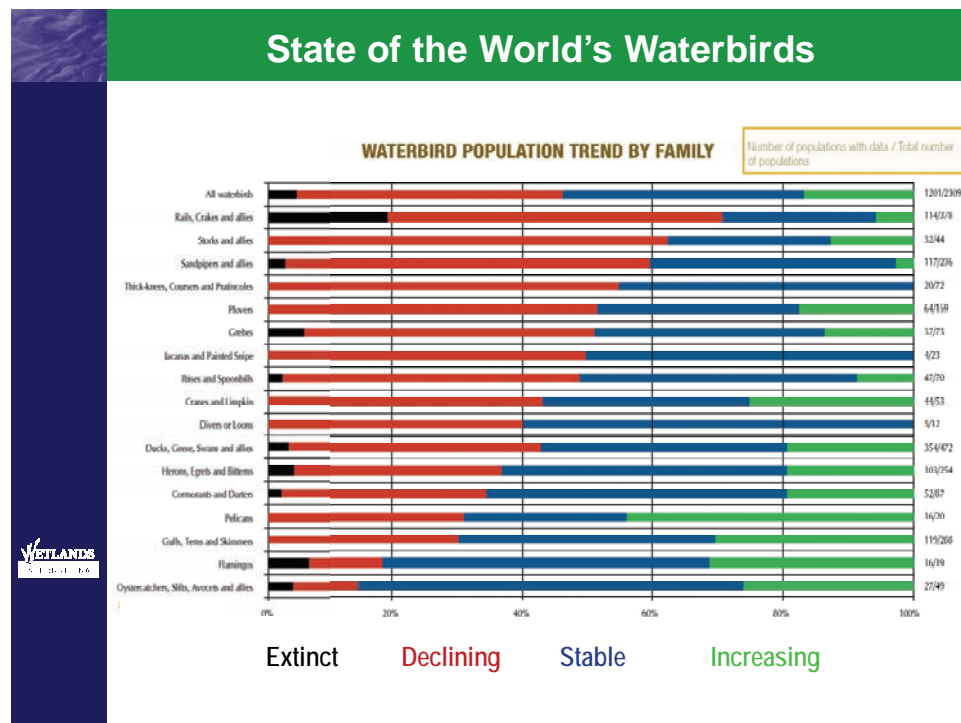
**Figure 3. Trends in the status of waterbird populations across the three major flyways** (see Wetlands International, 2010 for further information)

Waterbirds in North America are recovering well from a poor situation in the 1970s, and now more populations are increasing than decreasing. In contrast, the status of populations in South America is poor and worsening, with 58% of populations decreasing in 2005, leading to an index well below the global average.

The status of European residents and short-distance migrants and populations using the East Atlantic Flyway is better than the global average. In contrast, African residents and short-distance migrants, and especially long-distance migrants from West and Central Asia, have fared worse, with decreasing populations compared to the global average. Strong decreases in long-distance migrant populations are a feature of this flyway system.

Waterbirds in the Asia-Pacific region have a worse status than elsewhere. 71% of Asian residents and short-distance migrant populations are now decreasing and only 9% increasing. As well as having the worst status, waterbird populations in this region are the most data deficient, and assessments of change since the 1970s are based on a small number of conspicuous species. It seems unlikely that the increases shown between the 1970s and the 2000s are representative of the situation for all waterbirds. The most important point to notice is that all categories are below or equal to the global average.

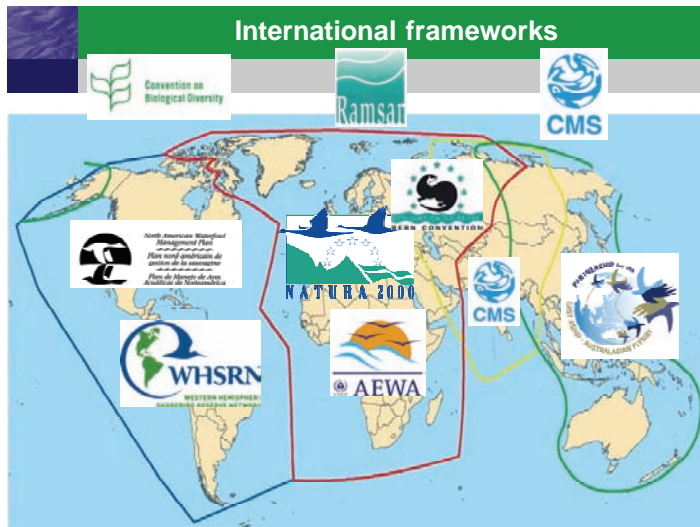
When the three graphs are compared (see **Figure 3**), the very poor status of waterbird populations in the Asia-Pacific compared with the other regions becomes clear. The relatively low proportion of decreasing populations in North America and Europe is also very apparent.



**Figure 4. Waterbird population trend by family (see Wetlands International, 2010 for further information)**

Focusing on population trends by families, the top bar shows the overall situation for all waterbird families in 2005. Looking at this bar, globally, nearly 5% of waterbird populations are extinct (black bar), 40 % are decreasing (red bar), 37% are stable or fluctuating (blue) and just 17% are increasing (green bar). Families that are worse off than average include Rails and Crakes, with 20% of its populations already extinct – these are mostly specialised island forms unable to cope with the arrival of man and associated cats and rats. Other families with higher than average proportions of decreasing populations include Storks, Sandpipers, Thick-knees, Coursers & Pratincoles, Plovers and Grebes. Focusing on the 117 populations of Sandpipers and their close relatives the woodcocks, curlews, godwits and phalaropes, the proportion of decreasing populations increased steadily between the 1970s and the 2000s so that in 2005, 70% of populations were decreasing and only 10% increasing.

Waterbirds are threatened by a wide range of man-made and natural causes. The main man-made threats include biological resource use followed by modification of natural systems, agriculture, pollutions and human intrusions. Invasive alien species are a big problem for many waterbird species. The Buff-banded Rail has over 20 subspecies on different groups of Pacific islands. Most of these are very rare and at least two have gone extinct since the arrival of man. Introduced fish often disrupt wetland ecosystems and the Hooded Grebe of Patagonia recently had its red-list status upgraded to Endangered, the principal threat to its survival being competition with non-native fish.



**Figure 5. Coverage of flyways by international policy frameworks**

Global policy instruments such as the CMS, Ramsar Convention and CBD make important contributions to international policy frameworks that support the protection of waterbirds. Good policy is essential to provide frameworks for action in support of biodiversity at different scales, and legally binding policies can be powerful and effective. The North American Waterfowl Management Plan has generated billions of dollars for waterbird and wetland conservation and resulted in the protection of over 120,000 square km of wetlands, benefitting birds and people. In Europe, the Bern Convention and European Union's Birds Directive provide a strong basis for conservation, the latter requires member states to designate protected areas and protect threatened species. The effectiveness of these instruments is one of the principal reasons why waterbirds in North America and Europe enjoy a more favourable conservation status than anywhere else in the world.

The flyway approach is now well-established in the region covered by AEWA. A very effective project under AEWA, part-funded by the UNEP and GEF was the Wings Over Wetlands (WOW) Project. One major output was the Flyway Training Kit, designed for use particularly in Africa, the Middle East and Central Asia and available in a selection of languages.

There are many non-statutory instruments as well, and in the Asia-Pacific region, the Partnership for the East Asian – Australasian Flyway provides countries and other partners a mechanism for flyway cooperation in the face of big challenges in a region occupied by about half of the world's human population which is undergoing unprecedented (and many would say, unsustainable) economic development. Another major outcome of the WOW project in the AEWA region was development of a web-based tool for use by practitioners engaged in site-based waterbird conservation and working at

international, national and site levels. The Critical Site Network Tool gives practitioners access to a huge amount of data and information about 250 waterbird species at over 3,000 sites.

#### **Recommendations:**

- Support and ensure full implementation of existing international commitments and mechanisms
- Strengthen legislative and financial frameworks for national level implementation, particularly in Asia, South America and Africa.
- Identify all critical important sites (current and future) for waterbird populations and ensure adequate protection.
- Ensure sustainable management of these critically important sites in cooperation with local communities and other users.
- Halt and reverse the loss of wetlands and other key habitats outside protected areas - in collaboration with governments, industry, local communities and other users.
- Coordinate management of waterbird hunting at the flyway scale to eliminate the risk of overharvesting of populations.
- Improve local capacity for monitoring of waterbird populations - as a basis for the planning and implementation of their wise use and conservation.

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#### B. WHAT FLYWAYS ARE, AND THE HISTORY OF INTERNATIONAL CO-OPERATION FOR WATERBIRD CONSERVATION, NICK DAVIDSON, RAMSAR SECRETARIAT AND DAVID STROUD UK JOINT NATURE CONSERVATION COMMITTEE

The term “flyway” is broadly used to indicate the geographical region along which a migratory species or population moves. A general definition of a flyway, applicable not only for waterbirds, is: “A flyway is the entire range of a migratory bird species (or groups of related species or distinct populations of a single species) through which it moves on an annual basis from the breeding grounds to non-breeding areas, including intermediate resting and feeding places as well as the area within which the birds migrate.” See Boere & Stroud (2006) for further information on flyways.

Flyways can be considered at different scales:

**Single species migration systems:** the distributional extent of the annual migration of a species, or population within a species, encompassing breeding staging and non-breeding areas. Whilst often described as the flyways of the species concerned, such annual distributional ranges are better described as the migration system of the species concerned.

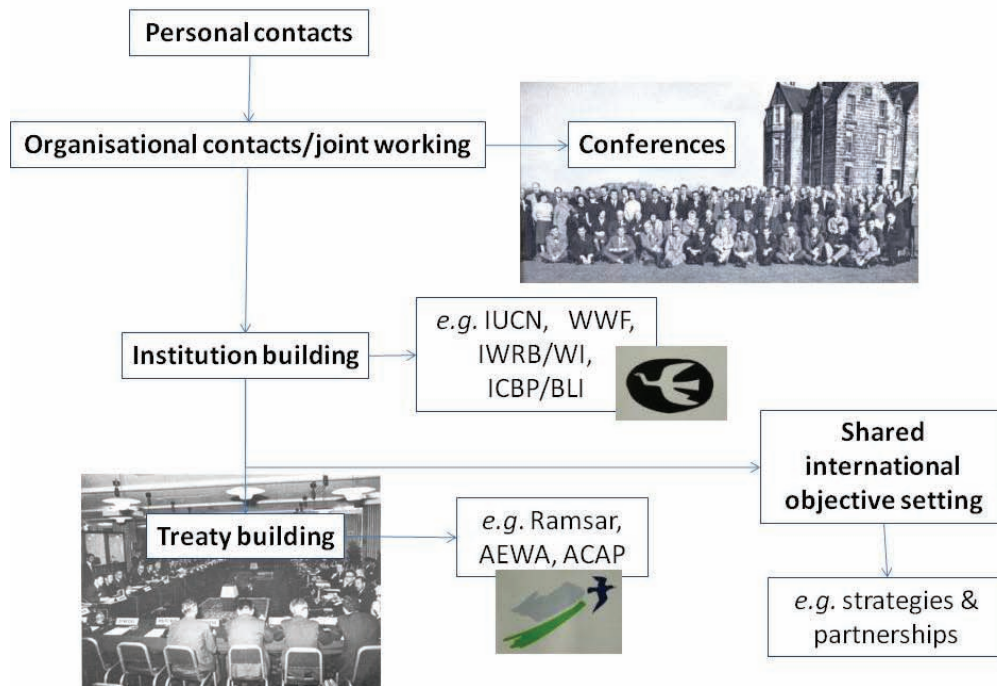
**Multi-species flyways** are defined by the Ramsar Convention as follows: “A single flyway is composed of many overlapping migration systems of individual waterbird populations and species, each of which has different habitat preferences and migration strategies. From knowledge of these various migration systems it is possible to group the migration routes used by waterbirds into broad flyways, each of which is used by many species, often in a similar way, during their annual migrations. Recent research into the migrations of many wader or shorebird species, for example, indicates that the migrations of waders can broadly be grouped into eight flyways.

**Global regions for waterbird conservation management:** at a larger scale still are global regions containing species with similar migration systems that are the subject (actual or potential) of shared international conservation activity i.e. “geo-political flyways”. Thus, the Agreement area for the African-Eurasian Agreement on the conservation of migratory water-birds (AEWA) is the area that contains the migration systems of all migratory waterbirds that occur in Africa and western Eurasia. A similar approach has been applied to the main flyway systems of the Asia-Pacific region. It contains multiple flyways of

different waterbird taxa, and its value is in terms of the political and governmental processes of international co-operation.

There are different categories of flyway initiative. They may be facilitative, formal or legally-binding; some are bilateral, others multilateral. In general, the development of different waterbird flyway 'initiatives' has followed a similar pathway, illustrated in **Figure 6**.

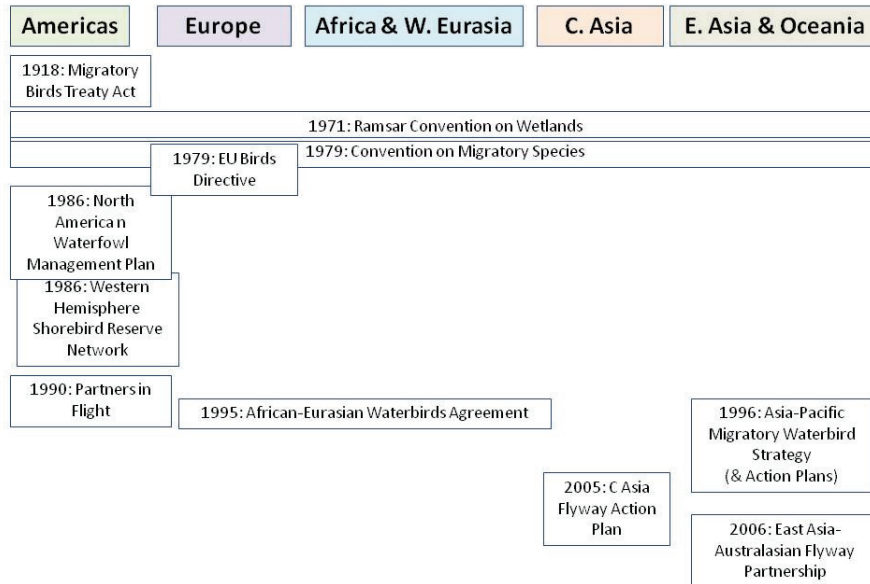
### General evolution of flyway initiatives



**Figure 6. The general evolution of flyway initiatives**

Flyway initiatives have a long history, some dating back to the early 20<sup>th</sup> century, although most have been developed since the early 1970s (**Figure 7**). What do such initiatives try to achieve? Generally a range of outcomes, including: high-level acknowledgement of shared international heritage/resources; agreement by governments on common conservation objectives and goals (leading to common policies and laws (e.g. lists of protected species) and joint actions); establishing international standards for national conservation action; data and information exchange; formal trans-boundary co-operation (e.g. for Ramsar Sites); joint working/ surveys/ monitoring; and joint funding of international scale initiatives.

## Geographical extent and dates of some flyway initiatives



**Figure 7. The dates and geographical scope of different flyway initiatives.**

Working with governments, international and national NGOs have played, and continue to play, key roles in flyway initiatives, including: *Initiating* (e.g. Ramsar, CBD); *Supporting* (e.g. Ramsar's International Organisation Partners) through providing access to science; *Facilitating* (e.g. encouraging formal trans-boundary co-operation); *Encouraging* (reminding governments of the obligations they have assumed); *Joint working* with governments (e.g. International Waterbird Census); and *Monitoring and assessing* sites (e.g. Important Bird Areas) and species (e.g. IUCN Red List).

### C. DRIVERS OF MIGRATORY WATERBIRD STATUS: HABITAT LOSS, LAND-CLAIM ... AND HUNTING, NICK DAVIDSON, RAMSAR CONVENTION SECRETARIAT

Destruction, conversion and degradation of wetlands has been happening for many centuries ... and is continuing. It is often called “**reclamation**” but that is incorrect since this is not “claiming back” what we had before ... it is destroying what we depend upon for our human well-being and livelihoods: so it is better termed “**Land-claim**”. There are multiple purposes and reasons for coastal and intertidal land-claim. In earlier centuries it was largely for agriculture; and over the last century or two not only for agriculture but also for urbanisation, tourism, industrial & port developments – often because claiming coastal areas is seen as easier and cheaper, especially with terrestrial areas becoming increasingly populated. However, we lack good wetland change data: there is scattered information, but little overall on the areas of different wetland types, changes/losses of different wetland types or the deterioration of remaining wetlands. There is an urgent need to compile wetland area (and condition) change data, and Ramsar and its Scientific & Technical Review Panel (STRP) are working to develop a Global Wetland Observing System (G-WOS) to improve access to available information.

Some examples of known inland and coastal wetland losses are as follows. Globally, mangroves (FAO data) are continuing to decline in area, at a rate of almost 0.7% per annum (p.a.), but that rate of loss has slowed compared with over 1% per year in the 1980s. But whilst globally slowing, the rate of loss in Asia (the region with the largest mangrove area) has accelerated. Other examples of long-term wetland losses include 68% of Danube River basin floodplains, 41% (minimum) of UK estuaries, 57% (since 1930) of UK coastal grazing marshes, 87% (since 1840) of UK lowland raised bogs (peatlands), and 53% (between 1780s-1980s) of conterminous USA inland wetlands. Long-term area trend data (since before the 17<sup>th</sup> century) for UK estuaries show very variable rates of land-claim but with rates generally in the late 19<sup>th</sup> and late 20<sup>th</sup> centuries. Rates for most estuaries have been <0.2% p.a. but was up to 1.3% p.a. on one industrializing estuary in the late 20<sup>th</sup> century. 20<sup>th</sup> century rates of coastal losses in the USA were similar to average rates in the UK. These rates of land-claim are, however, generally much slower than for example, recent and on-going land-claims in the Yellow Sea, of up to 1.6% p.a.

On many flyways migratory waterbirds are increasingly in decline: for shorebirds, the status of all distance categories of migrant was worse in the 2000s than in the 1980s, but the decline in status has been most severe for long-distance arctic-breeding populations, which are often dependent on a small number of key staging areas, particularly in spring. Flyway status was relatively good on African/Eurasian flyways, but particular poor on the East Asia – Australasia flyway, where there was a major status decline from 1990s-2000s with almost all populations now in decline. Declining status appears to be linked with the level of population staging dependency on Yellow Sea shores, especially in spring and in the eastern Yellow Sea (see also Amano *et al.* 2010). There is increasing evidence across flyways that arctic-breeding shorebirds depend on high quality spring staging areas for their survival and successful breeding, and that when such key staging areas are damaged or destroyed there are sharp falls in adult survival and population sizes. Given the scales and rates of Yellow Sea coastal land-claim, it is highly unlikely that this is not at least contributing to (if not driving) waterbird population declines throughout the flyway.

But is there evidence that coastal land-claim has been a major driver of past waterbird population trends on other flyways? This is hard to assess, because: a) long-term estuarine area change data are lacking, and, b) although population trend monitoring started in some places in the mid-20<sup>th</sup> century, increasing population sizes in the late 20<sup>th</sup> century in geese and shorebirds appear to be largely a consequence of hunting (wildfowling) regulation, with waterbird populations prior to that depressed by hunting take levels. It is not easy to establish to what population sizes such species would have recovered to, had the remaining intertidal areas not have been reduced.

Overall there appear to be continuing multiple drivers of waterbird population decline, and that these are chiefly land-claim and conversion, especially of major spring staging areas; deterioration of the ecological character of remaining areas (although habitat loss also appears to be in some places to have been partly buffered by coastal eutrophication leading to artificially high benthic biomass), and unsustainable hunting levels – subsistence and commercial – in some regions in the past (e.g. Europe, North America) and others currently (e.g. Asia, Africa), although still not well quantified. Impacts of climate change, like hunting, are likely to be additive but seems so far to be leading to distributional, rather than population size, changes.

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D. FLYWAY SCALE RESPONSES TO THE SPREAD OF HIGHLY PATHOGENIC AVIAN INFLUENZA H5N1, DAVID STROUD, UK JOINT NATURE CONSERVATION COMMITTEE AND BORIPAT SIRIAROONRAT, UN FOOD AND AGRICULTURE ORGANISATION

The impacts in the last decade of Highly Pathogenic Avian Influenza (HPAI) H5N1 of Asian lineage include:

- Human health (606 confirmed infections, 357 deaths as of 7 June 2012)
- Poultry industry (over 400 million domestic poultry deaths/culled)
- Economies: at least \$20 billion of economic damage

The conservation impacts of HPAI H5N1 include direct mortality of birds including deaths of threatened species and over 10% of the global population of Bar-headed Geese (*Anser indicus*) at the initial large scale wild bird outbreak at Lake Qinghai, China, in 2005. Indirect negative impacts, unfortunately fuelled by inaccurate and often sensationalist media reporting, include:

- killing wild birds as part of ill-advised disease control measures;
- negative perception and fearfulness of wild birds leading to killing of wild birds and habitat destruction;
- suspension of existing conservation projects;
- reduction in garden bird feeding, reduction of visitation at nature reserves; and
- massive diversion of resources for conservation organisations from existing conservation projects into tackling the various consequences of this disease.

Infection is spread by many routes including poultry and poultry products movements, trade and/or release of pet, farmed and wild birds, wild birds and people. While the relative importance of these routes is difficult to determine, the poultry route represents the main transmission risk especially in Asia.

The waterbird conservation community responded by establishing the Scientific Task Force on Avian Influenza and wild birds in 2005. The Task Force actively supported coordination and facilitated complementary MEA actions by providing a formal platform for the exchange of experiences and knowledge, including a website for quality assured information (see [www.aiweb.info](http://www.aiweb.info)). As such, it provides an excellent model for cross-MEA liaison on other emerging conservation issues (Cromie *et al.* 2011). The Task Force continues to work on reviewing the role of wild birds; reviewing the impact of the disease on wild birds; and promoting a balanced opinion based on currently available evidence.

Substantial guidance has also been provided through resolutions of the biodiversity related multi-lateral environment agreements (MEAs), including: the Ramsar Convention on wetlands' Resolution 9.23 (2005) and Resolution X.21 (2008); the Convention on Migratory Species' Resolution 8.27 (2005) and Resolution 9.8 (2008); and the Africa-Eurasian Waterbird Agreement's Resolution 3.18 (2005) and Resolution 4.15 (2008). Cromie *et al.* (2011) describe the background to the content and adoption of these Resolutions, and outline the effectiveness of these MEAs in responding to this emerging issue. For instance, it is noted that the development of a significant body of guidance in a short time reflected the ability of organizations and MEAs to recognise an emerging situation, which potentially had major consequences for wetland and bird conservation. In particular, organizational flexibility to allow rapid responses, especially through the allocation of staff time, was crucial.



Practical guidance for wetland managers is also available in the form of manuals and handbooks, such as Ramsar Handbook 4 on *Avian influenza and wetlands* (Ramsar Convention Secretariat 2010) as well as the more recently published *Ramsar Wetland Disease Manual* which gives more generic guidelines for the assessment, monitoring and management of animal diseases in wetlands (Cromie *et al.* 2012).

In terms of education and public awareness, HPAI H5N1 remains a ‘celebrity disease’ for the media and public perception of waterbirds and wetlands has been affected. There is a continuing need for expert information in accessible languages, and to make available positive literature and images of wetlands and waterbirds.

New developments include a possible increase in the number of wild bird cases since 2008, and the emergence of a new strain within clade 2.3.2.1 in China and Viet Nam, noting the following points: there are many strains and this not unexpected, some consider current vaccines not as effective against this as other strains, and there is currently no increased public health risk posed by any circulating H5N1 virus. These two issues prompted a warning in late 2011 from the Chief Veterinary Officer of the UN Food and Agriculture Organisation about need for preparedness.

#### **Key Messages:**

- HPAI H5N1 remains significant threat to human, domestic and wild animal health, national economies, livelihoods and conservation.
- Increase in cases has prompted renewed warnings of the importance of heightened readiness and surveillance.
- Wild birds both victims and occasional vectors of the disease –often disproportional blame of wild birds for spread of infection in the media and elsewhere.
- Despite extensive surveillance, no obvious reservoir of infection has been found in wild birds. Outbreaks seem self-limiting.
- The new strain within the 2.3.2.1 clade is no more associated with spread by wild birds than any other prevalent strains.
- Further surveillance in domestic poultry and wild birds is required to monitor the situation and to direct and focus response measures.
- Rapid communication of outbreaks and results of surveillance is needed to support fact-based decision making.
- National and international conservation organizations should retain sufficient flexibility to respond rapidly to future emerging issues such as disease outbreaks and other unexpected events.

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#### **E. BARRIERS TO MIGRATION, SERGEY DERELIEV, AEWAS SECRETARIAT**

The routes used by migratory birds have evolved over thousands of years, following broad flyways across and between the continents. Within each flyway, there are complex migration systems consisting of the routes followed by individual species. Species have evolved a variety of migration strategies, some making relatively short hops between staging areas, while others such as the Bar-tailed Godwit *Limosa lapponica* undertake almost unimaginably long flights between Arctic breeding grounds and southern

hemisphere non-breeding areas, with a range of intermediate strategies (for example, see Piersma 1987 and Gill *et al.* 2005).

In undertaking these long journeys between breeding and non-breeding grounds, migratory birds cross major obstacles such as large waterbodies, deserts and high altitude mountain ranges. Barriers to migration are defined as: *factors which can cause physical or functional disruption of the migration of species along their flyways*. Aside from the above-mentioned natural barriers, birds must also negotiate a range of human-induced barriers. These barriers arise from human activities, including construction (urban areas and physical infrastructure), habitat destruction and degradation, environmental “modification”, overexploitation of natural resources, and climate change (due to natural and human factors).

Physical barriers such as wind farms and overhead powerlines can pose significant hazards to migrating birds, depending on location. Habitat destruction has had severe impacts on migratory shorebird populations in East Asia through loss of staging areas due to land claim of intertidal habitats. Habitat deterioration and reduced food availability through overharvesting of food resources for migratory birds, such as horseshoe crabs in Delaware Bay (USA), can also seriously impact their ability to regain enough weight to continue their journeys and breed successfully. Environmental modification may result in changes in migratory habits, as recorded for White Storks *Ciconia ciconia* along the western European/western African flyway, which are shortstopping in Spain and not reaching Africa any longer. Over-exploitation of migratory birds through excessive hunting and trapping can also result in population declines, for example in the case of the Lesser White-fronted Goose *Anser erythropus*, a globally threatened species whose decline has been largely associated with hunting practices in staging and over-wintering areas. Observed changes and predicted trends for habitat conditions as a result of climate change indicate that barriers are likely to be exacerbated, especially in relation to water availability for wetland habitats across various parts of migration cycles.

Impacts of barriers can be mitigated to some extent through measures such as establishing protected areas at key sites along flyways, maintenance and restoration of habitats, siting windfarms, powerlines and other infrastructure away from key sites and migration corridors, installing insulating and other devices on powerlines. Surveys, monitoring and information sharing making use of the Critical Site Network tool for waterbirds within the African-Eurasian flyways ([www.wingsoverwetlands.org](http://www.wingsoverwetlands.org)) and other mechanisms can inform planning and development processes in order to prevent and mitigate human-induced barriers, thereby helping persistence of bird populations.

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#### F. DEVELOPING BIRDING TOURISM IN SOUTH AFRICA, DANIEL MARNEWICK (ON BEHALF OF MARTIN TAYLOR), BIRDLIFE SOUTH AFRICA

In South Africa the economic gap between rich and poor forces national government to prioritise social and economic development. Therefore, sectors which stimulate the economy and create jobs, such as mining, are given preference over industries with low economic returns. However, tourism does generate a large part of the country's GDP, and can therefore be used to mainstream nature conservation as an economic driver.

As with any item being sold, one has to assess whether you have a ‘**product**’ that people would buy. South Africa for instance has 841 bird species, a diversity of vegetation types, a strong cultural heritage, scenic landscapes, a diversity of other wildlife, existing infrastructure and a large protected areas network.

Secondly, once you have a product to sell, one has to assess if there is a 'market' to buy the product. "Avitourism" (birding tourism) is worth between one to two billion Rands per year in South Africa alone. South Africa has a strong domestic birding market. Avitourists spend more than any other tourist and is the fast growing sector of the tourism industry. Therefore, South Africa was confident it had a product and a market.

Once you understand the needs of your target market, you can engage relevant stakeholders who will be supporting the avitourism industry, i.e. accommodation facilities, birding site, tour operators, parks/reserves, tourism department and local communities. Through working with these stakeholders, you can develop a network of birding sites and associated tour operators, bird guides, accommodation facilities, all constituting a 'Birding Route' [www.birdingroutes.co.za](http://www.birdingroutes.co.za)

Promoting the birding routes is key to selling the product. Providing information is critical, and the right information needs to be provided through the most appropriate mediums (defined by your target market). They may include a specific website and linking or other webpages, birding fairs and various forms of social media (FaceBook and Twitter).

Birding events are important for growing the domestic birding market. Developing infrastructure such as breeding islands, forest canopy boardwalks, interpretive centres, will add value to sites.

## 3.2 NATIONAL ENGAGEMENT AND IMPLEMENTATION

### Issue

The success of flyway initiatives is dependent on strong national and local recognition, engagement, ownership and implementation of activities to conserve migratory waterbirds and their habitats. National participation in flyway initiatives is usually secured by the national government agencies with lead responsibility for biodiversity conservation. However, the effectiveness of national participation is strongly dependent on cross-sectoral support from related government agencies, as well as strong local government support for site conservation involving civil society stakeholders. This session reviewed different examples of national engagement and mechanisms for implementation of flyway conservation across different flyway situations, identifying strengths and weaknesses and ways forward.

### Process

Three case studies were presented, followed by structured discussion examining how to achieve national and local ownership of flyway conservation initiatives including how to engage with local communities using examples of success stories, how participatory national reporting can help to catalyse flyway conservation action, and identifying opportunities arising through crisis and other situations (as exemplified by Seosan City's support for flyway conservation).

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## CONCLUSIONS

- Establishment of a national committee for migratory bird species management involving government, technical institutions and NGOs is seen a positive development in Indonesia as a means to promote coordination for development and implementation of flyway initiatives. This could be regarded as a model for national flyway conservation partnerships in other countries.
- Such functional mechanisms for national coordination of flyway management involving governmental, non-governmental and technical stakeholders from the national to the local level are important to coordinate planning, development and implementation of these initiatives including through integration into NBSAPs, to share information and promote involvement in flyway initiatives, and to institutionalise engagement, including national networks for collecting information on waterbirds and habitats.
- Local governments are becoming more interested and supportive of local, national and international migratory species conservation efforts in recent years, especially where benefits to local people, for example through ecotourism, are better valued.
- While central governments can designate an area they consider relevant for flyway conservation in some countries, it may be difficult for local government to get such areas designated because of opposition from local people and due to concern of local administrators losing their support base.
- Engagement of local communities and local government needs to be based on a strong understanding of the values and perceptions of local communities towards migratory birds and addressing their basic issues. Development of conservation awareness raising programmes for local people is important to engender positive attitudes and support including both increased pride and a sense of ownership towards their migratory birds and supporting habitats, and an understanding of the value of conservation of waterbirds and their habitats in the context of sustainable development, for example the ecotourism opportunities they can provide.
- Institutionalized national reporting on flyway conservation can be used to catalyse implementation through a collective process that involves consultation and involvement of national, local and site level stakeholders including national, sub-national and local government (covering all relevant sectors).
- Public awareness and local involvement in conservation action can be enhanced through increased access to plain language materials based on national reports and recommendations from international synthesis reports on implementation of flyway activities.
- Opportunities that arise out of disasters to migratory birds or their habitats, such as oil spills or disease outbreaks, can be taken up to promote migratory species and habitat conservation through appropriate responses by a range of partners.

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## SUMMARIES OF THE PRESENTATIONS

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### A. IMPLEMENTING FLYWAY INITIATIVES IN KOREA, KIM JIN-HAN, NATIONAL INSTITUTE OF BIOLOGICAL RESOURCES, REPUBLIC OF KOREA

- Considerable progress has been made over the last few years in engaging a range of stakeholders in flyway conservation at national, provincial and local level.
- Involvement in the Asia-Pacific Migratory Waterbird Conservation Strategy, Site Networks and the East Asian – Australasian Flyway Partnership have provided an effective mechanism for promoting flyway conservation activities.
- Following disease outbreaks and poisoning of wild birds, local governments became more interested in waterbird and conservation issues.
- The national Crane Network involving central government officers (Ministry of Environment, Cultural Heritage Administration), local government officers, researchers, NGOs and local people has been an active forum to encourage habitat conservation for cranes. This online and offline network was established in 2002.
- For the first time, a national Shorebird Network has been established (in 2009) with financial support from Shinan county government. The network successfully published a report on the National Census on Shorebirds (2010)
- An MOU has been signed between local government and a NGO for wetland and wild bird conservation.
- Generating a positive attitude and support among mayors / city governors and local leaders is very important for the success of flyway initiatives and requires sensitization, awareness raising and development of pride and ownership.

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#### B. INDONESIAN EXPERIENCES ON IMPLEMENTING FLYWAY CONSERVATION, YUS RUSILA NOOR, WETLANDS INTERNATIONAL – INDONESIA PROGRAMME

- Local people consider migratory birds as belonging to no one, an important source of food, as helpful in controlling some pests while also taking fish.
- The government is in the process of establishing a National Secretariat on Migratory Birds for coordination and promotion of activities, hosted by Ministry of Forestry and involving a wide range of members and supporting organizations. This will have the aim of implementing international initiatives through national actions, including mainstreaming migratory birds into national policies.
- Outreach of the flyways programme to local government is very important to be able to obtain higher levels of policy and funding support (building on local pride and leadership success indicators).
- There is a need to provide ample space and opportunities for publication and information sharing and communication, training opportunities through joint (international) surveys and an understanding of the need for waterbirds and habitat conservation in the context of sustainable development.
- Online social media tools such as Facebook have been useful in awareness raising and communicating waterbird monitoring activities.

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#### C. WINGS OVER WETLANDS DEMONSTRATION SITE AT WAKKERSTROOM, SOUTH AFRICA, DANIEL MARNEWICK, BIRDLIFE SOUTH AFRICA

The Wakkerstroom Demonstration Site is important for its high biodiversity, ecological services in terms of water management, as an eco-tourism destination, for its historical and cultural richness, a bird species

list of ±200 bird species of which 37 are migrants. The intervention logic and development objective for this project was the “Conservation and sustainable use of the Wakkerstroom Wetland as a critical site for migratory waterbirds”. The immediate objectives were to improve tourism, provide education & awareness, improve habitats for AEWA and other waterbirds, and improve livelihoods of local, impoverished communities.

The main challenges faced by the site were poor management and lack of coordinated management of the catchment area (private land owners in the catchment managed their land in isolation causing erosion, grazing pressure, burning) including the wetland system, and invasive alien trees in the catchments; social tensions based on race, economic divide and skewed benefit sharing; and external threats from unsustainable development. The project interventions were focused on addressing these issues by establishing a coordinated and representative management structure, implementing a catchment management plan to address land use, develop livelihoods projects to empower the disadvantaged community and share benefits equally, and mitigate threats from unsustainable land use.

This Wings Over Wetlands project enabled BirdLife South Africa to: increase the value of the site through Flyways relevance; to mobilise and develop tourism at a time it was needed the most; instigate a co-management forum; initiate livelihoods projects with disadvantaged communities; initiate education in disadvantaged schools; develop better cooperation between BirdLife South Africa and other local organisations; assist BirdLife South Africa to cement its presence in area; assist in mobilising international support against mining; and play an important role in beginning to get the area formally protected.

For further information on this WOW Demonstration Project, see:

<http://wow.wetlands.org/HANDSon/SouthAfrica/tabid/152/language/en-US/Default.aspx>

### 3.3 SPECIES CONSERVATION

#### Issues

If the backbone of the flyway approach is conservation of a network of sites and other habitat, to what extent can planning action specifically to cater for the needs of specific migratory species (or suite of species) throughout its annual cycle provide a complementary contribution to flyway conservation?

Species action plans are one mechanism for facilitating such a species conservation approach; while species recovery plans tend to cater for threatened species, species management plans are developed for legally huntable species. But to what extent may multi species plans provide a more appropriate approach than single species plans and under what circumstances may a species approach not be useful?

What are the ingredients of the action planning process that are essential or desirable for achieving effective species conservation either universally, or at least in a particular flyway?

#### Process

The session was informed by presentations reviewing the success of species action plans in the African – Eurasian flyway, East Asian – Australasian Flyway and for the Western Hemisphere, each identifying implementation successes and failures. This was followed by discussion of species action plans in four

working groups, addressing: a) the basis for species action plan development (drivers, threats and responses; action for endangered species in decline); b) the development and approval of species action plans; c) Implementation of species action plans; and d) reporting and monitoring.

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## CONCLUSIONS

The species conservation approaches that work tend to be those that harness networks of committed people and which successfully persuade other stakeholders 'what's in it for them' to share objectives that also benefit species conservation. A backbone organization that coordinates key actors toward clear actionable management objectives is recognized as an important element of successful plans.

An extensive set of recommendations resulted from the workshop discussions, effectively providing systematic guidance for species action plans, informed by experience to date. Please refer to the recommendations section for details.

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## SUMMARIES OF THE PRESENTATIONS

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### A. SPECIES ACTION PLANNING AND IMPLEMENTATION UNDER THE AFRICAN-EURASIAN MIGRATORY WATERBIRD AGREEMENT, SERGEY DERELIEV, AEWAS SECRETARIAT

The species action planning under AEWA is based on Article 2.2.1 of the Agreement's Action Plan which stipulates that "*Parties shall cooperate with a view to developing and implementing international single species action plans for populations listed in Category 1 of Column A of Table 1 as a priority and for those populations listed with an asterisk in Column A of Table 1*".

This text defines the populations in need of action plans and the Meeting of the Parties has approved a priority list, based on Column A of Table 1, which currently involves 54 populations.

The species action planning process is usually initialized by the Secretariat or by interested stakeholders. The Secretariat commissions the compilation of the plan to an organisation which is in charge of convening an initial participatory stakeholder workshop. When the draft plan is available it is submitted by the Secretariat for official consultation with the AEWA Technical Committee and the governments of the Range States. The plan is then finalised by the compiler in consultation with the Secretariat and submitted for endorsement by the Meeting of the Parties (or on an interim basis by the Standing Committee).

The revised AEWA format for Single Species Action Plans (SSAP) was approved in 2008 and is a shortened and simplified template. It includes the following main chapters:

- Biological assessment (taxonomy, distribution, habitat requirements, survival & productivity, population size and trends);
- Threats (overview, critical and important threats, problem tree, PVA);
- Policies and legislation relevant for management (international conservation and legal status, national policies, legislation & ongoing activities);
- Framework for action (goal, objectives, results and activities);
- References and annexes.

Nationally the SSAP implementation and coordination are an obligation of the government and it involves endorsement of a national action plan and establishment of national working group.

Internationally the coordination of implementation is to be undertaken by an AEWA International Species Working Group. The objectives of such a group are to coordinate and catalyze the implementation of the SSAP, to stimulate and support Range States and National Focal Points to achieve implementation nationally and to monitor and report on the implementation.

Major areas of activity of the International Species Working Groups include implementation and priority setting, coordination and communication, fundraising, species monitoring, research, promotion of the protection of the network of critical sites, monitoring of the implementation and reporting.

Reporting is three-fold and is at first place done by the Contracting Parties through their national reports to each MOP (3-year cycle). For each second MOP a thorough implementation report is prepared by the Secretariat. Each Working Group establishes internal reporting process to inform short-term and mid-term prioritisation of work.

Each Working Group is chaired by a Range State elected by the group's members. A coordinator, usually a part or full-time paid post, hosted by a group member organisation supports activities on daily basis. National Focal Points - state representatives - are appointed by each Range State to stimulate and coordinate implementation, also nationally, while appointed national experts contribute expertise, advice and data. Other international experts with strong knowledge and involvement in the research/conservation of the species are also invited to participate.

To date, 15 SSAPs have been approved under AEWA and they are all at different stages of implementation. As a priority, the Secretariat facilitated the establishment of Working Groups for eight of them. At present, the most advanced coordination mechanism is the one for the Lesser White-fronted Goose (LWfG) *Anser erythropus*.

The LWfG SSAP was adopted in 2008 with a full-time coordinator based at the AEWA Secretariat since early 2008. The species presents a strong conservation interest in Nordic countries which are providing solid expertise and substantial funding for its implementation. The Working Group was convened in 2009 and its first meeting took place in late 2010 (decided on priority activities for the next two years) and the second meeting set for late 2012. There are ongoing small-scale projects in key countries (project proposals and funding organized by the Coordinator) and the Secretariat supports national action planning processes. Work is ongoing on the communication platforms (website/intranet), common monitoring scheme, training modules for LWfG identification and monitoring, new approaches to tackle main threats such as hunting.

In conclusion it can be summarized that AEWA has a structured SSAP process in place, involving all Range States (not only Contracting Parties), and the international coordination aspect is being actively developed. The revised AEWA SSAP format provides for an easier compilation, a more targeted SSAP and a better understanding by the target groups. The AEWA SSAP format is also recognised by other organisations and is used beyond AEWA and waterbird taxa. The AEWA SSAP process also includes clear reporting obligations. Operational International Species Working Groups are probably the critical ingredient for a successful implementation.

The following have been identified as key elements of the successful SSAP implementation:



- Government involvement and commitment (institutionalises conservation activities and can be useful for solving contentious issues);
- Championing Range States;
- Sufficient funding;
- Coordinator (full time if possible);
- Dedicated network of experts;
- Supervision and guidance by the AEWA Secretariat;
- Face-to-face meetings;
- Regular support through funding for projects, assistance in drafting NAP, etc.;
- Expert advice, guidance and involvement from international organizations (i.e. BirdLife International, WWT, BTO, Wetlands International, FACE);
- Giving people the feeling of ownership;
- International interest in key countries/preservation of key sites;
- Flyway level projects involving several Range States.

On the contrary, what would be counterproductive is leaving Range States to implement SSAPs on their own and underestimating the need for long-term government involvement.

#### B. EAST ASIAN – AUSTRALASIAN FLYWAY WATERBIRD SPECIES ACTION PLAN THREE SUCSESSES AND THREE FAILURES, SIMBA CHAN, BIRDLIFE INTERNATIONAL ASIA DIVISION

The public awareness on conservation in many countries along the East Asian – Australasian Flyway is not as deeply rooted as in those of other flyways. People in this region pay more attention to the use of wildlife than towards their ecological and aesthetic values. Cooperation between countries has been greatly hindered by political issues in the past (not totally resolved yet), and language barriers are still significant at present. Despite all these obstacles, there are still some significant conservation success stories, namely:

- Conservation of the Black-faced Spoonbill *Platalea minor* since the early 1990s, supported by a species action plan and international task force. The species was then a Critically Endangered species threatened mainly by habitat destruction and public indifference to their fate. Its main wintering sites are now protected and there is a high degree of awareness concerning this species in all range countries and territories. Its status has been down-listed to Endangered because of a significant and real increase in its population.
- Development of the North East Asian Crane Site Network since the early 1990s. It started with satellite tracking of cranes and establishment of protected areas. It has helped the protection of Suncheon Bay in Korea by encouraging dialogue between local people and conservationists. The Crane Working Group members have been working on identifying and preserving alternative wintering grounds for cranes to avoid the risks from over-concentration with some successes in Japan and the Korean Peninsula.
- The Chinese Crested Tern *Sterna bernsteini*, which was thought to be extinct for many decades but rediscovered at two island chains off the coast of eastern China. The biggest threats are egg collection for human consumption and the general ignorance of the status of this species. A CMS Species Action Plan has been published. An education program has also been conducted since the mid-2000s and egg collection has ceased at some sites. Several student volunteer groups have also been established at the breeding grounds of this species and the known breeding sites have all been protected, with increasing awareness of their status from the general public.

There are of course, some action plans that were not implemented due to lack of financial support. Lack of conservation personnel and public support are still some of the greatest problems in conservation in eastern Asia. Challenges for implementation include the need for greater national and local participation,

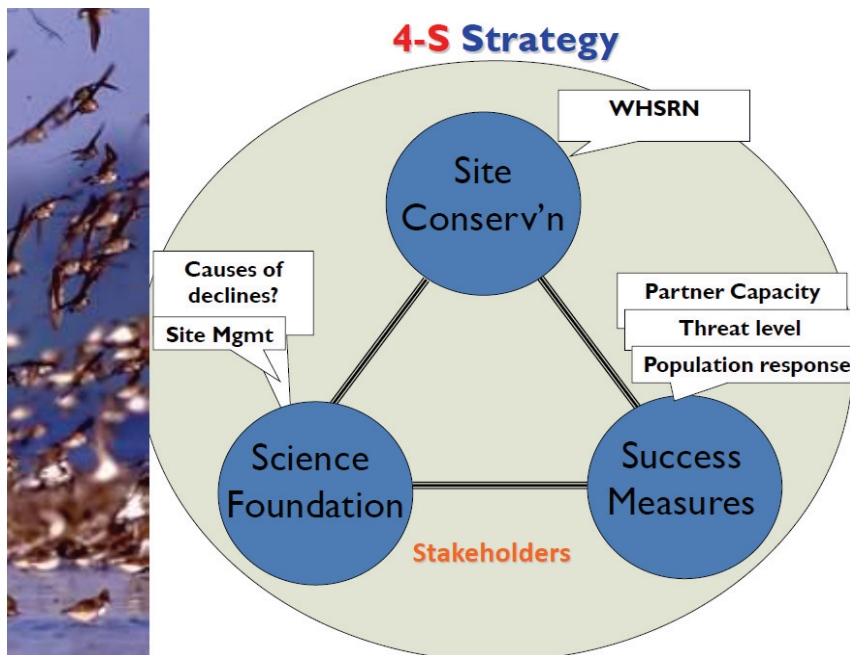
adequate funding to support conservation initiatives, strengthening international coordination, and ensuring that goals are clearly articulated.

In conclusion, working with local communities, allowing them to feel proud and take ownership of the project is essential. This should be supported by good education and monitoring programs. To counter the language and cultural barriers we have to identify more local workers in each country and improve our own communication skills.

C. EXPERIENCES WITH SPECIES ACTION PLANS IN THE WESTERN HEMISPHERE, CHARLES DUNCAN, WHSRN EXECUTIVE OFFICE

Manomet's Shorebird Recovery Project uses a "4-S" strategy in all its planning including its shorebird species conservation plans (see **Figure 8** below). The elements of this approach are:

- Building the **S**cience Foundation by investigating the causes of declines and the science of how best to manage sites.
- **S**uccess Measures at several temporal scales including partner capacity; threat status; indirect, and ultimately direct population responses.
- **S**ite-based conservation, most commonly through WHSRN.
- **S**takeholder involvement is the matrix and underpinning of the previous 3 S's.



**Figure 8. The 4-S Strategy employed by Manomet's Shorebird Recovery Project**

WHSRN and partners have completed plans for 15 of the 21 priority species showing significant declines in our Hemisphere, with 4 more in process. Seven have brief action summaries (2 pp). The plans (40-150 pp) have been written by species experts and/or working groups with summaries prepared by WHSRN

staff; reviewed by experts. GoogleEarth maps show all “important” sites, and these can be overlain to show site where action can benefit several species.

The American Oystercatcher *Haematopus palliatus* plan was used to identify elements leading to a successful plan: an active, motivated, collaborative working group; information-sharing & rapid implementation of research findings; full complement of partners; support & coordination by a respected backbone organization (Manomet); mid- / long-term funding in-hand; and a clear objective (“increase the population by 30% in 10 years”) with actionable management options. In contrast, plans that have not yet been implemented lacked specific conservation actions (not just “protect the wintering grounds”); a committed and coordinated group ready to implement collective rather than individual actions; and buy-in from a funder. Often these plans did not involve full suite of stakeholders (good governance), and in short were too academic and research-oriented.

### 3.4 ADDRESSING SITE/ HABITAT CONSERVATION THROUGH THE FLYWAY APPROACH

#### Issues

The conservation of networks of critical sites has consistently been a key element of the flyway approach to waterbird conservation. Securing the persistence of the network of important sites for a population is a very important tool for delivering waterbird conservation on the ground. There are a number of key steps in the process towards achieving that goal: site inventory, site designation, site management and site monitoring.

There are undoubtedly many more sites important for waterbirds that have not yet been identified, particularly in geographic areas of the different flyways where capacity to survey is low and there are many inaccessible sites. There are certainly many critical sites that are as yet undesignated or protected, and many sites are not managed appropriately and/ or not monitored. So what progress has been made in different flyways towards securing site networks, and where is further work most needed?

There is also a need to recognise that site-focused conservation will not be the most appropriate tool to promote the conservation of all species in all seasons. Some species disperse widely in their breeding season while others disperse when not breeding and many species are too dispersed year-round for the site-based approach to be appropriate. For these species, successful conservation must take place through measures applied at the scale of habitats/ ecosystems/ wider landscapes. But how well are we delivering at this scale in the different flyways and what mechanisms are at our disposal?

#### Process

The participants split into five sub-groups reflecting their experience in the different flyways. Each group then completed a rapid comparative



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assessment of the progress made in different elements of site/ habitat based conservation in the different flyways using the framework shown in **Figure 9** below, scoring their responses from 1 – little progress to 5 – excellent progress (see key to **Figure 10**). Five separate progress assessments were made for waterbirds in the African-Eurasian, Americas and Asian flyways and for raptors and landbirds in the Americas flyway.

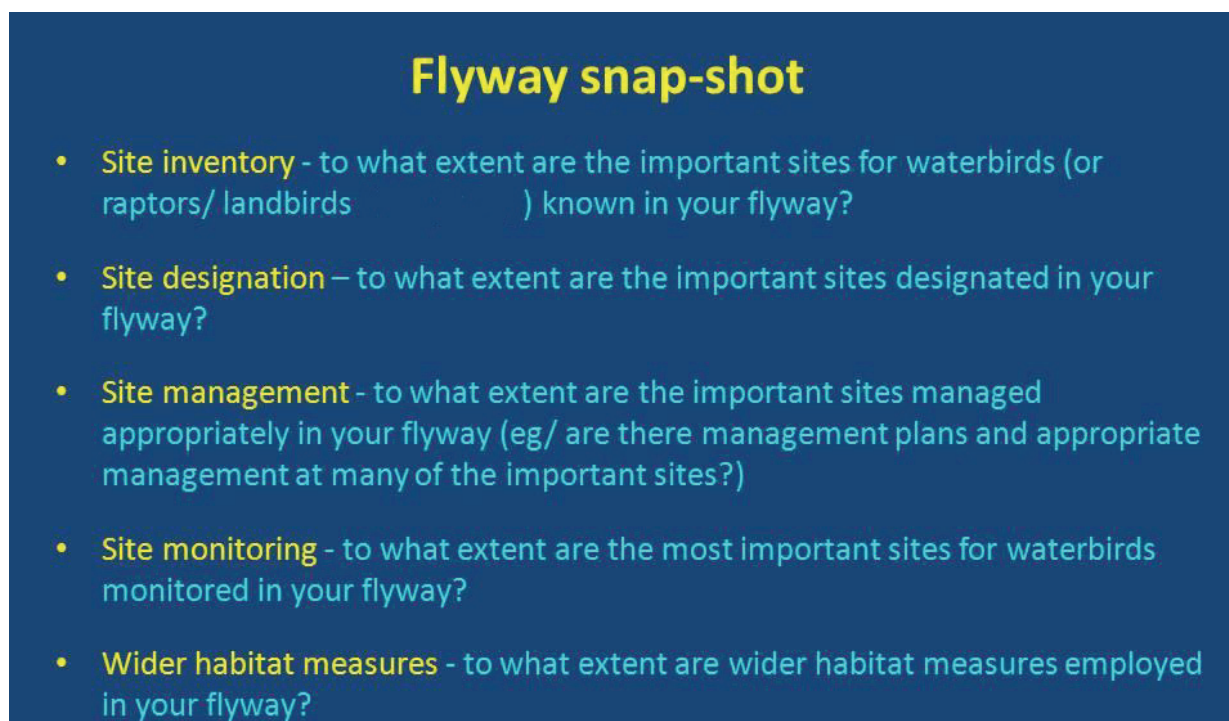
Following the progress assessment, participants heard three presentations:

1 Szabolcs Nagy on the 'Critical Site Network Tool' of the Wings Over Wetlands project, as an example of making scientific information available to support conservation decision-making.

2 Charles Duncan on 'Establishing and conserving national and international site networks' discussed four key lessons learnt in delivery of site network conservation for the Western Hemisphere Shorebird Reserve Network.

3 Crawford Prentice on site and habitat -based conservation tools and under what circumstances they could be applied.

The group was then shown the results of the progress assessment and moved into open discussion of the differences in progress on the different measures among flyways. Finally, focused on ingredients of best-practice in site and habitat conservation, the group moved into an open discussion session.

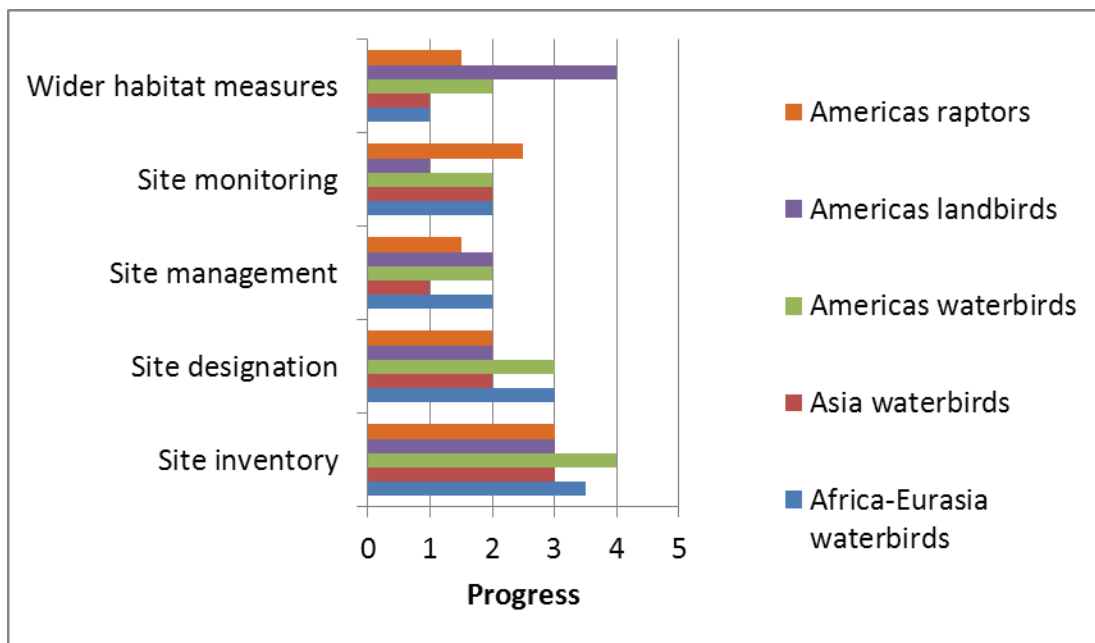


**Flyway snap-shot**

- **Site inventory** - to what extent are the important sites for waterbirds (or raptors/ landbirds ) known in your flyway?
- **Site designation** – to what extent are the important sites designated in your flyway?
- **Site management** - to what extent are the important sites managed appropriately in your flyway (eg/ are there management plans and appropriate management at many of the important sites?)
- **Site monitoring** - to what extent are the most important sites for waterbirds monitored in your flyway?
- **Wider habitat measures** - to what extent are wider habitat measures employed in your flyway?

**Figure 9. Assessment framework for progress on site/habitat conservation in different flyways**

Although the assessment of progress in site/ habitat conservation in the different flyways was qualitative in nature it produced some interesting results (**Figure 10**).



PROGRESS SCORE:	1	2	3	4	5
	Little progress	Some progress	Moderate progress	Good progress	Excellent progress

**Figure 10. Results of progress assessment on site/ habitat conservation in the different flyways with key to progress score.**

Participants felt that ‘moderate’ to ‘good’ progress had been made on the different flyways in site inventory. ‘Some’ to ‘moderate’ progress was deemed to have been made in site designation, while ‘little’ to ‘some’ progress had been made in site management. This indicates that a substantial proportion of designated sites are not being managed appropriately, and that designation in and of itself might not be delivering effective conservation on the ground. Progress in site monitoring was rated as ‘little’ to ‘some’, and as with site management, participants judged that considerably less progress had been made in site monitoring than in site inventory; clearly only a subset of the important sites are currently being monitored. The measure of progress in implementing wider habitat conservation measures revealed the greatest disparity between the different flyways’, with progress rated as ‘little’ to ‘some’ for most of the flyways, yet ‘good’ for Americas landbirds. Participants felt that there were considerable regional differences on these issues within a flyway, which were being masked with the use of a single score, and a more detailed analysis would be useful to undertake.

## CONCLUSIONS

- *The benefits of the flyway approach* include identification and drawing attention to priority sites/ landscapes / regions for waterbird conservation, raising awareness of the need for conservation action, and coordinating international response. It also provides a useful framework for assessment of whether existing conservation measures from site designation to habitat conservation are likely to be adequate to meet the conservation needs of migratory birds
- *Progress on site conservation* has been moderate in site inventory in all flyways, but rather less progress has been made in site designation and even less in management and monitoring. Of course designation per se does not necessarily mean that the site is protected and the majority of critical sites are probably not being effectively managed for migratory birds. While some sites are being regularly monitored, at many sites neither bird populations nor threats at sites are monitored and this not only hampers our ability to detect and react to change at the site level, but also impedes accurate estimates of population status.
- *Habitat wide or landscape scale conservation measures* are being applied to a greater extent for America's landbirds than for other groups or flyways. This is partly because the broad-front migration strategy of many landbirds means that the landscape scale approach is more appropriate. The landscape approach is probably employed more widely in the USA than elsewhere in the Americas, but it is also widely used in, for example, Panama, Mexico, and further south, where some of the best habitat protection derives from protection of watersheds to secure water quality and supply for human-use.
- *Agri-environment measures* are one of the ways in which conservation could be delivered at the habitat\ wider landscape scale, but in the Africa-Eurasia flyway agri-environment measures were not felt to be effective in most European countries (indeed they were often felt to be contributing to the threats faced by migratory birds) and were not widely used as a tool in Africa.

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## SUMMARIES OF THE PRESENTATIONS

### A. THE 'CRITICAL SITE NETWORK TOOL' AS AN AID TO DECISION-MAKING, SZABOLCS NAGY, WETLANDS INTERNATIONAL

Decision-making needs to be made at various levels in the flyway context. At site level, site managers need to consider and compare the international importance of various waterbird populations that the site supports. They also need to be aware of the ecological requirements of these populations in order to improve the conditions for the target populations and to defend them against adverse changes. At national level, decision-makers need to identify and safeguard sites of international and national importance, prioritise the effective use of the available financial and technical resources, but also need to be strategic about bi-lateral cooperation with other countries along the same flyway. At international level, decision-makers need to coordinate efforts towards maintaining a coherent network of sites and addressing factors that threaten the favourable conservation status of the population. In relation to sites, this involves monitoring progress in designation and management of the internationally important sites, identifying gaps both in knowledge and in management and assessing the collective effectiveness of the conservation efforts.

The Critical Site Network Tool, which was launched at the end of 2010, brings together digital and spatial information about Important Bird Areas, species, populations and waterbird counts with information on Ramsar Sites and other protected areas based on information gathered by BirdLife International, Wetlands International, the Ramsar Convention on Wetlands and the UNEP World Conservation Monitoring Centre and presents it in an integrated manner.

The CSN Tool presents the information by species or by sites, but the dataset can be also queried using various attributes related to taxonomy, conservation status, threats and habitat types. It also includes specific functions that address the specific needs of the Contracting Parties to the Ramsar Convention on Wetlands and the African-Eurasian Migratory Waterbird Agreement, such as the relevant 1% thresholds for any location or the list of species or populations for a certain country. For further information, see Wings Over Wetlands Project (undated).

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## B. ESTABLISHING AND CONSERVING NATIONAL AND INTERNATIONAL SITE NETWORKS, CHARLES DUNCAN, WHSRN EXECUTIVE OFFICE

WHSRN's growth in number of sites has been linear over its 25 years. The number of nations involved was constant from 1993 to 2003, but has been growing since.

Four lessons learned over the presenter's 8-year history with WHSRN have been:

- a. *Like politics, all conservation is local.* In other words, the situation at sites and the quality of life of the residents of and visitors to the site must be the foci of the efforts.
- b. *An expert is an ordinary person from two towns away.* By this we mean that local conservation is often advanced when WHSRN's Executive Office serves to endorse—sometimes in person—the concepts and arguments of the locally based site partner. International recognition by becoming a WHSRN site is a powerful attractant and motivator.
- c. *Duncan's Paradox of Fundraising:* It's easier to raise a lot of money than a little. Donors don't want to fund a website or a meeting. They want to solve a big problem that concerns them.
- d. *WHSRN is "a contingent fact of its history."* WHSRN's voluntary, non-regulatory approach was created to address the limited number of stopover sites used by highly aggregatory species of shorebirds in the Americas. This approach brings numerous strengths as well as required adaptations, and will not be automatically transferable in its entirety to other species or flyways.

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## C. HABITAT/ SITE MANAGEMENT WITHIN & BEYOND PROTECTED AREAS - WHAT CAN THE FLYWAY APPROACH ADD? CRAWFORD PRENTICE, INTERNATIONAL CRANE FOUNDATION

The Ramsar Convention, AEWA, EAAFP and WHSRN all include varying emphasis and approaches to developing site networks of protected or well managed wetlands for migratory waterbirds. Flyway site networks are an appropriate conservation approach when species are concentrated on key sites, but how can a flyway conservation approach help to conserve birds across wider landscapes? Some species (e.g. Northern Pintail *Anas acuta*) concentrate on key sites in winter, so a high percentage of populations can be conserved at that time using a site network approach. However, many waterbird species are highly dispersed during the breeding season, and some (e.g. Mallard) are widely dispersed throughout the migration cycle, therefore additional approaches are needed.

Experience during the UNEP/GEF Siberian Crane Wetland Project was used to review the conservation of waterbirds in the wider landscapes beyond individual sites. A flagship species approach can help

address habitat conservation needs using suitable species, for example, the Siberian Crane *Leucogeranus leucogeranus* for large shallow wetlands. Although this project focused on a chain of key sites along the Siberian Crane's long migration routes, conditions at these sites were broadly characteristic of wider landscapes in those parts of the flyway and subject to similar natural and anthropogenic influences (e.g. droughts, water diversion, conversion for agriculture). Management responses at these sites could, therefore, inform conservation across these wider landscapes.

Certain large "sites" or landscapes can be critical for the viability of the flyways in which they are located, in that they support large numbers of birds, high percentages of regional populations, and sometimes the entire wintering population of some species (e.g. Poyang Lake Basin in China supports 99% of the world's Siberian Cranes and over 95% of Oriental Storks *Ciconia boyciana*). This regional significance for habitat conservation is informed by the flyway approach, which can be used to identify priority sites and regions, raise awareness and focus attention on them, and coordinate international collaboration towards addressing related conservation issues. As an example, the EAAFP has formed Task Forces for the Yellow Sea and Amur/Heilong Basin.

Complexes of wetlands at a landscape scale in semi-arid regions (e.g. steppe Lakes of northern Kazakhstan) provide a diversity of hydrological conditions that allow birds to move between sites within and between seasons according to water availability. Under climate change, the availability of such complexes of wetlands will become increasingly important. Seasonal protection from hunting and disturbance is important to allow birds to rest and feed. Water management should take into account the needs of both waterbirds and humans. As landscapes are degraded and smaller wetlands are lost, or drought temporarily dries them up, birds are forced to concentrate on refuge sites, amplifying their importance. However, over-concentration increases risks of disease transmission (e.g. cranes at Izumi, in Japan).

Site management needs to consider water supply and quality from surrounding landscapes. Although habitats may receive legal protection at key sites, they remain insecure due to their reliance on external water sources. Therefore an approach is needed that connects the ecological needs of these sites to their wider landscapes through: linkage to river basin management planning; interagency collaboration on water management; determining ecological water needs and mechanisms for water delivery; and hydrological and ecological monitoring to fine-tune water delivery.

National policy and institutional measures for habitats are required, such as strengthening national policy on habitat conservation linked to NBSAPs, National Wetland Policies, etc.; mainstream biodiversity conservation into key sectors; and develop and strengthen national partnerships. In addition, site management plans should recognize the biological connectivity of network sites for individual species and their habitats; flyway initiatives should disseminate information on the distribution of migratory waterbirds across their migration cycles to inform policy makers about species conservation needs, and share information on best practices in habitat management.

### 3.5 THE ROLE OF SCIENCE

#### Issues



Much scientific research (including population monitoring) on migratory birds has been, and is being, undertaken by research institutes, universities and other institutions but key results are not always easily accessible to those implementing flyway initiatives and decision-makers influencing the state of flyways.

Conversely, flyway initiatives are not necessarily making clear to the research community what their research needs and priorities are, and engaging with researchers (and those responsible for funding research) so as to encourage research attention to these priorities. What needs to be done to close the flyways research needs and activities gap?

## Process

Two presentations covered:

a) how research can help in the practical application of the flyway approach and what priority research needs remain, focusing on the power of detailed information now being provided from satellite and related telemetry; and

b) the experience of preparing the AEWA Conservation Status Review and the science information needed for priority setting for waterbird flyway conservation.

Two break-out groups considered the following questions:

a) What does the research community need to do better to make its key results accessible to flyway practitioners/decision-makers, and in what forms?

b) How can flyway initiatives better get their research needs/priorities taken up by the research community? What are the barriers to this?

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## CONCLUSIONS

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### GENERAL

- The bottom line is that the emphasis must be on two-way communication, so as to enhance transmission of research needs and results, in language that both communities understand;
- There is a need to be responsive to emerging issues and to be opportunistic in capitalising on the research opportunities they may provide for synergistic purposes (e.g. HPAI assessment needs generated funds for flyway research/monitoring/satellite tracking etc. which increased science knowledge of flyways);

*What does the research community need to do better to make its key results accessible to flyway practitioners/decision-makers, and in what forms?*

- Improve researcher communications to flyway users, but users also need to be clearer to research community about what they need to know;
- It is not clear if all flyway initiatives have a person with clear enough connections to research community and understanding of research to proactively engage with researchers;

- Research projects are often financed from a national level, not necessarily with a view of international conservation needs.
- New technologies are revolutionising what we know and what we can potentially find out about migratory birds and can be harnessed to help public awareness and communication efforts through flyway initiatives. Migration connectivity can be made much easier to understand through these new techniques, including for species previously considered non-charismatic.
- NGOs often operate at the science policy interface and might have relevant skills to help improve the science –policy link.

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#### HOW CAN FLYWAY INITIATIVES BETTER GET THEIR RESEARCH NEEDS/PRIORITIES TAKEN UP BY THE RESEARCH COMMUNITY ... & WHAT ARE THE BARRIERS TO THIS?

- Research funds not necessarily directed at what flyway initiatives need to know, with much research funded as short-term time-limited research projects rather than research programmes able to deliver longer-term understanding needed by flyway conservation. Financing for critical long-term monitoring is particularly difficult to raise – donors are not generally interested, since this can imply long term commitments;
- Whilst MEAs identify international flyway conservation needs, they seldom accompany this with identification of priority research needed to deliver such conservation implementation;
- Masters' and PhD students are largely untapped resource, and often researching arcane topics, but academic research institutes are always looking for good research topics/projects for their upcoming students;
- Researchers need to see the benefits to them of producing outputs tailored to policy-makers – wider reach, more publicity, application for their research to help conservation of the spp/ systems they are interested in;
- Communications staff in the MEAs should be more active in seeking science stories to feed into policy (but perhaps aren't scientifically trained and don't have access to scientific journals – this could be a barrier to identifying such stories).

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#### SUMMARIES OF THE PRESENTATIONS

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##### A. FOCUSING INTERNATIONAL WATERBIRD SITE CONSERVATION THROUGH USE OF REMOTE SENSING TECHNOLOGY, ROBERT GILL, PACIFIC SHOREBIRD MIGRATION PROJECT

Managing sites for migratory birds begins with the basics of learning which species occur during each season, how many are there, and what their critical time periods of use are. Before the status of populations can be determined—whether through assessing demographic rates or trends in population size—representative samples of individuals and sites are needed. The site-based approach requires that

information comes from a network of sites representative of the seasonal use by birds (at the species, population, and individual level). Establishing site networks and assessing suitable samples of sites have until recently been challenging to say the least. With the recent and growing use of remote-sensing technology, we now have better capabilities. Here I describe the types of remote-sensing technology currently available and the potential uses and limitations of each. I use examples from work done with satellite telemetry and species of curlews and godwit that have been tracked throughout the Pacific Basin and in Europe. Our new and exciting information about bird movements has direct bearing on not only how managers might select and link sites but also how they might integrate sites into monitoring networks.

Four primary tools are currently being used to follow migratory birds: 1) color-ringing (identifying cohorts or individuals), 2) VHF telemetry, 3) geolocators, and 4) conventional and GPS satellite telemetry. [Use of stable isotopes, genetic markers, and radar are other tools not discussed here.] Each of the four 'tools' has limitations in terms of weight (*vis-à-vis* the size of the bird to which it can be applied), spatial resolution of signals, longevity of the units, and unit cost. Each type of tracking device and its capabilities need to be carefully matched to the questions being asked. In all applications an equally important consideration is the number of units to deploy. Satellite telemetry is attractive but expensive (US \$3,500-4,000 each) so users regularly opt to deploy only a few units. The data obtained may be new, relatively exact, and of course exciting, but with few samples one can say little about individual variation and almost nothing about population-scale movements. On the other hand, light-level loggers (geolocators) are small (~1-3 grams) and inexpensive (US \$80-150), but have a general location error of about 150 km—and most need to be retrieved from the bird so the stored data can be downloaded. And because position is based on ambient light, the quality of data is compromised for a period around the equinox and at far latitudes (north and south), where daylight in summer is persistent. By using one or more of these tracking tools managers can obtain basic, necessary information on the movements of birds to and from sites. Managers can then begin to determine how flexible individuals are in seasonal choices, to assess the relative quality of specific sites, and to decide which sites to include in an optimal network.

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## B. PRIORITY SETTING FOR WATERBIRD CONSERVATION: EXPERIENCES FROM AEWA'S CONSERVATION STATUS REVIEW, SZABOLCS NAGY, WETLANDS INTERNATIONAL

Under Article 7.4 of the AEWA Action Plan, the AEWA secretariat, in coordination with the Technical Committee and the Parties, shall prepare a series of international reviews necessary for the implementation of this Action Plan, including reports on the status and trends of populations.

The assessment determines whether a species will be listed under Column A, B or C according to its status, according to established criteria and with legal consequences.

Listing a species in Column A requires protection measures including prohibiting the taking of birds and eggs, deliberate disturbance and possession or utilization of, and trade in, birds or eggs.

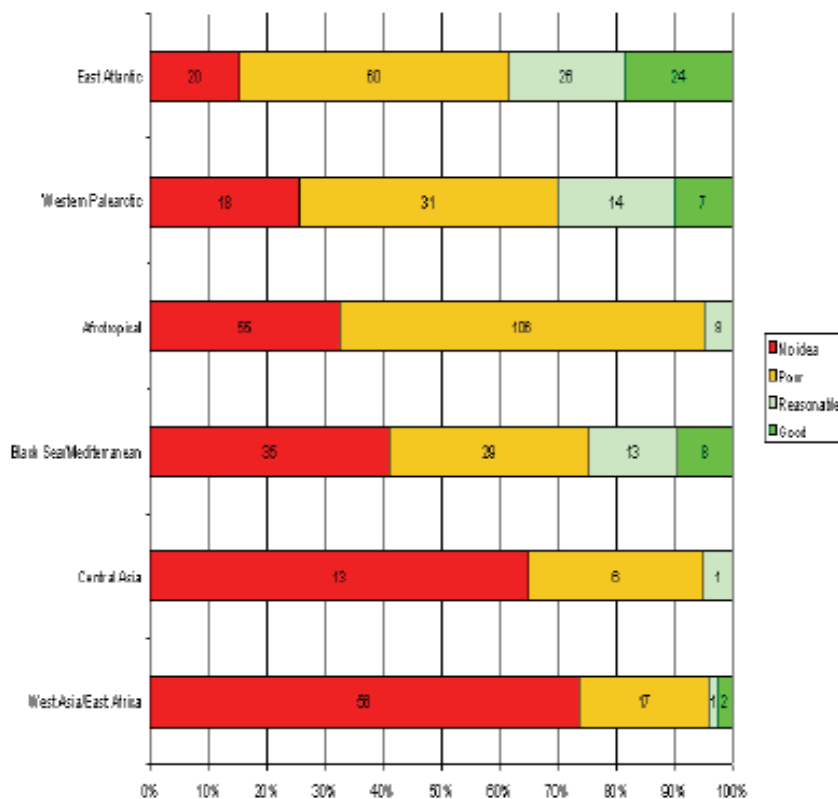
Listing a species in Column B requires regulation measures, including prohibiting the taking of birds belonging to the populations concerned during their various stages of reproduction and rearing and during their return to their breeding grounds; regulating the modes of taking; establishing limits on taking; and prohibiting the possession or utilization of, and trade in, birds and eggs.

The information needed for the assessment includes: CMS Appendix I status (from CMS COPs); IUCN Red List status (from BirdLife International); Population size - mostly no complete counts; Number of sites - e.g. IBA inventories; Dependence on threatened habitats - good methodology still needed; Significant long term decline – from IWC or other monitoring schemes, consider sampling design; Large fluctuation - definition only recently produced.

High priority species listed in Column A require an international species action plan, while all species in Column A require a national species action plan.

The review’s recommendations also included addressing gaps in monitoring (see **Figure 11**), identifying priority regions for conservation actions, identifying key threats and key conservation measures needed.

Issues included integrating the latest results, protocols for population size estimates, achieving representative sampling regimes, choosing the best methods for monitoring each population, and limited ability to identify causes of population changes.



**Figure 11. Status of monitoring for the AEWA region**

### 3.6 INNOVATIVE APPROACHES

#### Issues

Given that we know that the population status of many migratory waterbirds and other migratory taxa is deteriorating along many of the world’s flyways, and that status appears to be deteriorating faster than ever, addressing the major drivers of change to the ecological networks upon which species depend along their flyways has never been more pressing. Despite the many efforts by flyway initiatives to address this deterioration, it is clear that just carrying on business as usual is not an option.

Whilst approaches to collaborative management and engagement with multiple stakeholders (at different spatial scales) is generally well established under flyway initiatives, there is still an urgent need to develop and implement a range of more innovative approaches to delivering flyway-scale conservation. This includes stronger engagement with public and private sectors of society that are dependent upon, yet are often driving the deterioration and loss of, ecosystems and the benefits (services) they deliver to people and nature.

So can migratory species as flagships (and “integrative sentinels of global change”) be better used to influence local, national and international decision-making to help halt and reverse their declines and maintain the natural (green and blue) infrastructure upon which they depend? What innovative approaches should the flyway conservation community be exploring, or has at its disposal but is not yet using well, to improve this situation?

## **Process**

The workshop received presentations on a range of innovative approaches to flyway conservation delivery underway or being developed, looking at various geographical scales, from local to international, involving engagement with different sectors of society, and different aspects of implementing more effective flyway conservation. These included:

- Working more closely with the corporate sector to influence wetland management (Wetlands International/Shell);
- Engaging the corporate sector at the national level (Hyundai and Black-faced Spoonbill conservation in the Republic of Korea);
- Establishing marine International Bird Areas in Asia (BirdLife International);
- Innovative collaborations for soaring birds (BirdLife International);
- Establishing Species Champions and Guardians – involving public, private and corporate engagement – including the case of the Spoon-billed Sandpiper (BirdLife International); and
- Developing a “collective impact” approach (Kania & Kramer, 2011) to enhancing flyway conservation (WHSRN).

The workshop then had three break-out sessions to further identify opportunities and recommendations for further development of innovative approaches, focusing on:

- a) management and involvement;
- b) communications, awareness and science information; and
- c) financing and advocacy.

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## **CONCLUSIONS**

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### **A) MANAGEMENT AND INVOLVEMENT**

While participatory approaches for the effective engagement of stakeholders are now well developed, their application can be strengthened through more analytical approaches to mapping stakeholder relationships, and more work on advocacy to sharpen engagement with Ministries of Environment and corporate culture for greener thinking.

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## B) COMMUNICATIONS, AWARENESS AND SCIENCE INFORMATION

Capturing the values and benefits of birds and their habitats (e.g. ecosystem services) is important for effective communication towards conservation goals. At the local level, communications needs to be based on a sound understanding of the local situation and perspectives on birds, as well as local needs to inform appropriate conservation responses. Communications methods need to be appropriate for the target audiences, including the potential of new media such as Facebook, Twitter, Youtube, texting, etc.

Science is needed to accurately inform policy processes, tailored to country-specific cultural situations. Inter-disciplinary research involving partnerships between the science community and other fields can create new opportunities and innovative approaches (e.g. in tracking technology).

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## C) FINANCING AND ADVOCACY

New approaches to financing and advocacy are needed to overcome the limitations of working to a project cycle in achieving long term change, and related issues. These involve thinking big, diversifying into related fields such as development aid and disaster mitigation, and engaging with the corporate sector on investment planning, corporate sustainability planning and strategic partnerships. The example of developing “investment vehicles for flyways” was proposed, as a means of separating the management of investments from the individuals and organizations undertaking the technical implementation. An example of such a flyway scale initiative could be to capitalize on the pattern of industrial and economic development in the East Asian region driving rapid ecological changes, which involves billion dollar international trade and a flow of resources from south to north along the East Asian - Australasian Flyway. Opportunities and synergies associated with such transboundary trade and international relations should be considered in conservation strategy development.

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## SUMMARIES OF THE PRESENTATIONS

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### A. A COLLABORATIVE PARTNERSHIP WITH SHELL INTERNATIONAL AIMED AT ENHANCING THE CONSERVATION AND SUSTAINABLE USE OF WETLANDS BY SHELL AND ITS AFFILIATES, TAEJ MUNDKUR, WETLANDS INTERNATIONAL

The corporate sector plays an extremely important and increasing role in the use and management of our environment. Corporate actions can have long term impacts on habitats, on the ecosystem functions and services they provide, and on biodiversity. This can occur directly as a result of exploitation of natural resources, or through indirect impacts. Wetlands International has developed a collaborative partnership with Shell International aimed at enhancing the sustainability performance of Shell and its affiliates, in relation to wetlands. Under this partnership, Shell seeks to develop new strategies, policies and tools to improve its activities while Wetlands International provides its knowledge on wetland areas, their values

and provides sustainable management advice. Thus we are working together in innovative ways to minimize the loss of nature and negative impacts of oil and gas development on associated livelihoods in a variety of wetlands and at different scales.

Actions being implemented under the partnership that benefit migratory waterbirds and their habitats include:

1. Mobilizing knowledge and understanding of the long-term impacts of such developments on Arctic wetlands. This will provide a basis for improving planning and management of tundra and sub-tundra habitats, so important for breeding and moulting of migratory waterbirds;
2. Guidance for, and development of, Biodiversity and Sustainable Livelihood Action Plans (BSLAP) to improve management of coastal and inland Ramsar sites and other important wetlands in Nigeria, Brunei Darussalam and Iraq. These sites provide important breeding, moulting, staging and non-breeding habitats for waterbirds;
3. Demonstrating flyway linkages between wetlands through satellite tracking of Purple Heron from the Netherlands to West Africa. This project, with the objective of raising awareness of the potential long distance impacts on migratory waterbirds, reveals the connection between wetlands in 15 countries;
4. Development of a Wetland Pre-Impact Assessment Tool that supports improved planning and decision making for oil and gas developments.

Importantly, the partnership provides a unique mechanism to raise awareness internally within Shell through regular interaction and dialogue that helps to influence their policy and decisions.

## B. CORPORATE PARTNERSHIP AT NATIONAL LEVEL - HYUNDAI MOTOR COMPANY'S SUPPORT FOR BLACK-FACED SPOONBILL CONSERVATION IN THE REPUBLIC OF KOREA, LEE KISUP, WATERBIRD NETWORK KOREA

Hyundai is the biggest motor car manufacturing company in Korea. This was the first case in which Hyundai Motor Company provided support for endangered bird species. The fund was USD4,500 in 2010, increased to USD6,300 in 2011. While the amount is small, the company have promised to provide this support every year.

The key problems concerning the Black-faced Spoonbills were as follows:

- No place to breed: it is difficult to find a suitable island for the breeding
- Bad conditions for successful breeding: they can not breed due to insufficient nest space, many failures as a result of the scarcity of nesting materials
- Not enough information about their movements: where are the feeding sites, and where are the chicks going after leaving the nest?

Namdong flood-control reservoir and artificial island in Incheon city is a breeding site for the Black-faced Spoonbill, representing the only safe breeding site in this area following the reclamation of Songdo tidal flats. However, there was inadequate room for the nests, and eggs and young were falling down. At another site, Gaksiam in Ganghwa County (rocks near the coast), there is little or no room for the birds to breed or roost at high tide.

Accordingly the funds from Hyundai were used for the following purposes:

Rescue project:

- Provide nesting materials
- Construct suitable nest sites
- Rescue injured birds and hold releasing events

Research project:

- Color bands attached to the chicks
- Satellite transmitters attached to the chicks
- Newsletter using the internet website

Compared with only 6 chicks fledged in 2009, the result of these efforts was a major increase in breeding success: 53 chicks fledged in 2010, and 100+ chicks fledged in 2011. At Gaksiam, all 18 nests failed in 2010 - no chicks fledged, while 31 chicks fledged in 2011.

At another site, Suhaam, the breeding island was too small, with too many birds and very few nesting materials. Therefore we provided twigs several times for nest-building, resulting in improved breeding success.

Korea-Japan joint research was conducted on banding and satellite tracking, supported by funds from Hyundai. The local movements of one bird from the artificial island on Namdong were tracked, allowing us to determine that Black-faced Spoonbills use most of the Sondo intertidal flat - newly planned for reclamation - as feeding sites. Several injured birds were also treated and released.

A newsletter was distributed about the activity for Black-faced Spoonbills by internet, by sending regular emails about the activity for conserving Black-faced Spoonbills and movement of colour banded chicks to all the members of the webpage on Waterbird Network Korea, with reference that this project was sponsored by Hyundai motor company.

Plans for future activities with support from Hyundai motor company include: creating artificial islands for Black-faced Spoonbills, continuation of the rescue project for Black-faced Spoonbills, and expanding the work to include endangered species of cranes.

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### C. IDENTIFICATION OF MARINE IMPORTANT BIRD AREAS IN ASIA, MAYUMI SATO, BIRDLIFE INTERNATIONAL – ASIA DIVISION

The Important Bird Areas (IBA) Programme of BirdLife International uses standardised, globally agreed criteria to identify areas that are critical to the conservation of birds and biodiversity. With the success of the IBA approach in the terrestrial and freshwater environment, BirdLife is now extending the programme to the oceans. These sites, called Marine IBAs, will make a vital contribution to achieving protection and



sustainable management of the oceans, particularly by linking to the future designation of Marine Protected Areas (MPAs) and Ecologically and Biologically Significant Areas (EBSAs).

To input to this process, many BirdLife Partner organisations are now undertaking a project to produce an inventory of marine IBAs. In Asia, BirdLife International Asia Division, together with Partner organizations, began identifying marine IBAs in the region in 2010. Russia and Taiwan are planning to hold a first national workshop in 2012. In Japan, Wild Bird Society of Japan and BirdLife are identifying a suite of marine IBAs, using analysis of seabird foraging range data, for four species of seabirds: Roseate Tern (*Sterna dougallii*), Black-naped Tern (*Sterna sumatrana*), Japanese Murrelet (*Synthliboramphus wumizusume*) and Rhinoceros Auklet (*Cerorhinca monocerata*). To supplement this information a study on potential factors that may influence the at-sea distribution of the Japanese Murrelet in the breeding season is being undertaken.

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#### D. MAINSTREAMING CONSERVATION OF MIGRATORY BIRDS INTO KEY PRODUCTIVE SECTORS ALONG THE RED SEA/ RIFT VALLEY FLYWAY, VICKY JONES, BIRDLIFE INTERNATIONAL

Over 1.5 million soaring birds migrate through the Red Sea-Rift Valley each year, including five globally threatened species. On their journey through this area soaring birds face many threats including collision with powerlines and wind turbines, unsustainable and illegal hunting and poisoning. For many species mortality rates caused by threats in the Red Sea/ Rift Valley are having negative impacts at the population level.

Although conservation of bottleneck sites is one important conservation measure, the nature of the threats faced means that landscape-scale solutions are required to make this a safer route for soaring birds. Executed by BirdLife alongside national NGO partners and government agencies in Djibouti, Egypt, Eritrea, Ethiopia, Jordan, Lebanon, Palestinian Authority, Saudi Arabia, Sudan, Syria and Yemen, the Migratory Soaring Bird project is a four-year UNEP-GEF funded project, implemented by UNDP. The project aims to promote flyway-friendly practices by 'double mainstreaming' migratory bird conservation into relevant threatening sectors, using planned and existing reform processes/ projects targeting a related issue in that sector. Such projects include UNDP/ World Bank/ USAID power transmission, wind energy, national renewable energy strategies, waste management, rural development planning and agricultural reform projects. The 'double mainstreaming' approach is designed to maximise effectiveness and cost efficiency and allow migratory bird conservation issues to be addressed through specific measures applied within the sectors from which key threats originate.

If successful it is hoped that impacts on migratory birds will be considered in EIAs and negative impacts avoided, bottleneck areas will be excluded from development and mitigation measures will be adopted. At the same time conservation capacity will be developed in project partners.

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#### E. BIRDLIFE PREVENTING EXTINCTIONS PROGRAMME, NICOLA CROCKFORD, BIRDLIFE INTERNATIONAL / RSPB

The BirdLife Preventing Extinctions Programme (PEP) includes a number of innovative approaches. It aims to prevent any more species being added to the list of 20 species that went extinct in the last 30 years. Of the 189 Critically Endangered Species, 30 are migratory, 8 of which are waterbirds. Of these, Eskimo Curlew *Numenius borealis* is possibly extinct while Crested Shelduck *Tadorna cristata* and Slender-billed Curlew *Numenius tenuirostris* are both lost. The latter is the subject of a CMS MOU, while

the Siberian Crane *Leucogeranus leucogeranus*, Chinese Crested Tern *Sterna Bernsteinii* and Spoon-billed Sandpiper *Eurynorhynchus pygmeus* are all have CMS Species Action Plans adopted by the EAAFP. Sociable Lapwing *Vanellus gregarius* and Northern Bald Ibis *Geronticus eremita* have Flyway Species Working Groups under AEWA.

At the core of the PEP is the establishment of two new communities of conservation practitioners and donors, respectively named Species Guardians and Species Champions.

Species Guardians are organizations or individuals best placed to lead conservation action for a species. They are usually recommended by BirdLife Partners and usually have at least a national remit. They report annually to BirdLife. So far more than a third of species have appointed Species Guardians, with about another third in the pipeline, but for about a third, this approach is currently not appropriate. BirdLife provides Species Guardians with technical support, training, and the investment of funds for conservation action, based on mutually agreed Species Guardian Project Plans and by ensuring media coverage.

Species Champions are a community of benefactors, individuals, companies, foundations, governmental agencies and organizations, who make a regular commitment, usually at least three year, to contributing usually at least £10,000/year especially for conservation action by the Species Guardians. Eco-tourism is a key growth sector. Species Champions also raise awareness, for example encouraging the development of interactive websites that raise awareness of the species work while also promoting their products, and provide in kind conservation eg equipment, logistics, contacts.

A new innovation of PEP is 'Ghosts of Gone Birds', a series of arts events across England in 2011 involving more than 80 artists, plus many musicians, each 'breathing life back into' a species through art. These exhibitions have provided a new fundraising platform delivering multiple direct unrestricted funding opportunities, including through a percentage from art sales, contributions from sponsorships and donations and membership recruitment at the events.

An example is the Spoon-billed Sandpiper. The BirdLife Partners in Myanmar (BANCA) and Thailand (BCST) are both guardians. Heritage Expeditions is one of the Species Champions and, on their cruise ship in summer 2011, not only took surveyors to otherwise inaccessible potential breeding sites but transported eggs/chicks from the breeding site to the nearest airport for the establishment of a captive breeding populations.

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## F. "COLLECTIVE IMPACT" IN FLYWAY CONSERVATION, CHARLES DUNCAN, WHSRN EXECUTIVE OFFICE

- I. **What:** We present the notion of *Collective Impact* (Kania & Kramer, 2011) that many complex societal problems are not amenable to solution by a single organization or government, no matter how large or well-funded.

The critical elements of a successful collective impact (as opposed to individual impact projects) are:

- Common definition of problem and solution (including by funders)
- Shared success metrics

- Diverse group of stakeholders
- Continuous communication & trust-building
- Backbone organization & staff

We note that such a collective impact effort requires humility by partners and especially the backbone organization who must leave their ego at door. The backbone needs to be invisible-often to the dismay of development and communications staff within that organization. Additionally, the usual grant/contract funding system is disincentive; funders often act like a single entity can solve a complex problem by itself and are then disappointed by the lack of outcomes.

- II. **Who:** We believe that flyway-scale conservation is inherently a collective impact undertaking, and that each participant in our workshop is used to proceeding in this fashion.
- III. **Scale:** Is defined by the problem-from building a shorebird project by assembling all sectors of society in a coastal town in Chile (local scale) to the full flyway for species conservation.
- IV. **Why Innovative:** The collective impact notion formalizes what we've all already been doing and provides us with a vocabulary for understanding and communicating about it. Ensuring that our efforts contain all five of the key elements above, we have a checklist toward success.

### 3.7 DEVELOPING CAPACITY

#### Issue

Functioning networks of sites depend on functioning networks of people. Developing capacity of these networks is essential for the long-term success of flyway conservation. In many flyways, institutional and technical capacity is uneven and severely restricted in some areas, clearly limiting the ability for successful management of wetlands and waterbirds at the flyway level.

#### Process

The session, co-chaired by Doug Watkins and Tim Dodman, comprised four presentations, a card exercise in which participants were asked to identify institutional and capacity-building needs for flyway conservation, and two group sessions to identify solutions for sustaining these needs. Results from the group sessions were presented in a plenary on flip-charts and links between the two highlighted. The presentations were:

- The WOW Flyway Training Kit: putting this new tool into practice in Africa-Eurasia (Tim Dodman)
- Building capacity for flyways conservation in the Americas: linking sites, linking people (Rob Clay)
- Developing capacity for flyway conservation - some experiences from the Siberian Crane Wetland Project (Crawford Prentice)
- Regional initiatives and centres & Ramsar (Nick Davidson)

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## GENERAL CONCLUSIONS

- Capacity building needs to be appropriate: it should fulfil a need and be desired by the benefactor.
- Capacity building is an ongoing process; there will always be a training need, especially in flyway conservation, which requires the active engagement of partners of varying capacity along flyways.
- Long-term training and exchange programmes can yield lasting results.
- Key steps in planning capacity building include conducting a training analysis, developing a capacity-building plan or strategy, developing materials, implementation, and evaluation, which permits improvement and further development.
- The Wings Over Wetlands Flyway Training Kit provides a template for long-term capacity building and a practical tool for delivery of comprehensive training programmes reaching key target groups.
- Key elements of flyway level training in the Americas include training in project planning and management tools and site assessments, whilst also documenting best management practices, sharing and developing products, strengthening formal education and building capacity to engage with decision-makers and business.
- In a flyway context, regional training and exchange activities contribute to improved management and monitoring along the flyway, whilst networking benefits from multi-site participation.
- Regional training and capacity building centres have potential to deliver enhanced training at a flyway level, though some need development of their own capacity first.
- Wetland Link International is a global support network linking wetland education centres through regional networks, whilst the World Wetland Network raises awareness of wetland NGO activities.
- Language represents a barrier to capacity development that can be overcome through staff incentives, cultural training and improving the ability of presenters to speak clearly, especially for multi-language audiences.

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## INSTITUTIONAL CAPACITY BUILDING NEEDS FOR FLYWAY CONSERVATION

- Institutional and personal capacity building can result in commitment and ability along flyways.
- Key target groups for developing institutional capacity are technical institutions and government flyway focal points.
- Developing institutional capacity should engage different stakeholders through a multi-sector approach.
- Training in the processes of raising funds and financial sustainability is vital for institutions.
- Institutions engaged in flyway conservation require a practical knowledge of communication mechanisms and how and when to use them.

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## TECHNICAL CAPACITY BUILDING NEEDS FOR FLYWAY CONSERVATION

- Site managers represent a key target group for capacity building at the flyway level to promote sound management of key sites along the flyway.
- Developing capacity in monitoring and research is essential for understanding the status and trends of migratory birds and the threats they face along flyways, and for enabling the identification of networks of key sites and their functions.
- International collaboration in waterbird monitoring provides an excellent practical means for partners to gain field experience: exchange of staff and coordinated surveys increase connections between countries and can motivate, enhance exposure and assist vision.
- Key target groups for flyway training include local stakeholders, key site staff and community-based organisations. Empowering local groups can result in them becoming facilitators.
- Training of Trainers is vital for the sustainability and legacy of capacity building programmes.
- Short-term training courses should be carefully targeted to needs, and participants must be able to apply learning.

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## SUMMARIES OF THE PRESENTATIONS

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### A. THE WOW FLYWAY TRAINING KIT: PUTTING THIS NEW TOOL INTO PRACTICE IN AFRICA-EURASIA, TIM DODMAN, WETLANDS INTERNATIONAL

Capacity-building (the development of skills and activities of individuals in an organisation to their full capacity) comprises institutional and personal capacity building, and can result in commitment and ability along the flyway. It should fulfil a need and be desired by the benefactors. Key steps in planning capacity building include conducting a training analysis, developing a capacity-building plan or strategy, developing materials, implementation and evaluation, which permits improvement and further development.

Institutional capacity building needs identified in Africa-Eurasia include strengthening the capacity of technical and administrative institutions, improving wetland management structures, participatory management and enabling effective community engagement and advocacy through strengthening community based organisations. Personal needs including building capacity of key target groups, notably policy makers, site managers / protected area personnel, environmental NGOs, researchers / biologists and community leaders and volunteers.

Capacity building formed a major component of the Wings Over Wetlands (WOW) project of Africa-Eurasia. Activities were guided by four regional training boards, and the main output was the Flyway Training Kit, which was rolled out through a number of Training of Trainers courses. The kit aims to strengthen networks of people to understand and implement the flyway approach to conservation, and to provide a template for future training. It is a hard-cover ring-bound folder currently available in English, French, Arabic and Russian. It comprises two technical modules on flyway conservation, a trainer's module on communication, glossary, references and further reading, annexes, session plans for

organising and holding a workshop, PowerPoint presentations, workshop exercises and CDs with information on Ramsar and AEWA.

The kit is a unique user-friendly 'ready-to-go' resource comprising technical and practical information. The course plans are practical, interactive and adaptable: users can change PowerPoints, develop local / more relevant case studies or select components according to target group, level of trainees or duration. The kit is readily transferable to other flyway regions. Challenges include limited resources for courses, difficulties and expense of distribution, and limited awareness about it resulting in uneven availability. For successful implementation the kit requires competent and confident trainers at the regional level.

*Key messages:*

- Capacity building is an ongoing process; there will always be a training need, especially in flyway conservation, which requires the active engagement of partners of varying capacity along the flyways.
- There is a need to build training into institutional planning and to ensure strong local and regional institutions.
- Provision of resources / equipment is often insufficient and needs to be addressed.
- Long-term training and exchange programmes can yield lasting results.
- The Flyway Training Kit provides a template for long-term capacity building and a practical tool for delivery of comprehensive training programmes reaching key target groups.
- Implementation of the kit is now the major challenge, for which integration into educational structures needs to be investigated.

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**B. BUILDING CAPACITY FOR FLYWAYS CONSERVATION IN THE AMERICAS: LINKING SITES, LINKING PEOPLE, ROB CLAY, BIRDLIFE AMERICAS SECRETARIAT**

**Americas flyways objectives:**

- Save flagship globally-threatened migratory species from extinction;
- Address landscape-scale barriers to migration;
- Conserve networks of critical stop-over sites;
- Build capacity for flyway-scale conservation including the strengthening of local and national capacity at critical points on the flyways and the strengthening of collaboration and support between BirdLife Partners and others in the north and those in the south;
- Understand and address the wider land-use issues facing migratory birds.

**Linking sites, linking people**

**Overall objective:**

Conserve migrants of conservation concern through connecting key stakeholders and conservation action along a network of sites (IBAs) identified for those species

**Specific objectives:**

- Site conservation action (including ecotourism)
- Education and outreach
- Site assessment and monitoring
- Sharing experience and materials
- Engaging the private sector (Rio Tinto)

### Linking sites, linking people

- Builds on the “Linking Communities, Wetlands and Migratory Birds Project” - linking the WHSRN reserves of Chaplin Lake (Saskatchewan, Canada), Great Salt Lake (Utah, USA) and Marismas Nacionales (Nayarit, Mexico).
- Extended to IBAs selected for shared migrants in Peru, Chile, Argentina and Paraguay (Franklin’s Gull *Larus pipixcan*, Western Sandpiper *Calidris mauri*, Wilson’s Phalarope *Phalaropus tricolor*).
- Co-funded by: Rio Tinto – BirdLife Program; Rio Tinto Kennecott Utah Copper Corporation; USFWS- NMBCA (Neotropical Migratory Bird Conservation Act Fund).

### Capacity-building focus on:

- Sharing site conservation action experiences between partners, including:
- Working with local communities and authorities.
- Developing environmental education and outreach programs.
- Training in project planning and management tools (Miradi).
- Documenting best management practices (case studies).
- Training in site assessment (WHSRN Site Assessment Tool).
- Sharing products between partners and developing regional products.
- Strengthening formal education and the science behind conservation action.
- Building capacity to engage with decision-makers and business.

## C. DEVELOPING CAPACITY FOR FLYWAY CONSERVATION - SOME EXPERIENCES FROM THE SIBERIAN CRANE WETLAND PROJECT, CRAWFORD PRENTICE, INTERNATIONAL CRANE FOUNDATION

The UNEP/GEF Siberian Crane Wetland Project (SCWP) was implemented from 2003 – 2009, working primarily on three levels: site interventions to address key threats; national actions to support site management and to address wider issues for waterbird and wetland conservation; and strengthening coordination at the flyway level. While capacity building was addressed through specific actions at all three levels (training programmes, provision of equipment, international exchanges, etc.) in reality it was a cross-cutting issue through nearly all project activities; some examples follow.

Short term training courses were an important means of improving the skills of individuals, where subjects and delivery were carefully targeted to local needs. Selection of participants for these courses was a key issue, as trainees must be able to apply new knowledge, skills and attitudes in the workplace to really benefit. The networking benefits from multi-site participation in training courses were significant (e.g. involving other crane sites in NE Asia). Training also extended to key stakeholder groups, such as the Kostanay Hunters & Fishermens’ Association in Kazakhstan – who were trained in waterbird identification and species protection laws.

Formal university training was provided for some key site staff. For example, Chinese nature reserve staff often only have basic education, so the project supported a small number of key reserve staff to do

undergraduate and postgraduate university courses, with the expectation of post-training service at their sites.

Also at the site level, the project invested effort into capacity building for local stakeholder groups and community based organizations (CBOs). At project sites in Kazakhstan, new CBOs were established, officially registered and trained to develop grant proposals to support their activities. They were actively involved in organizing crane celebrations, producing awareness materials, networking, providing public services such as internet access, developing sustainable livelihood activities such as ecotourism and felt production, supporting waterbird monitoring, and maintaining small local impoundments. In Iran, training was provided to duck trappers associations for the operation of micro-credit schemes and administration of their affairs (to improve representation, information exchange, transparency), supporting the representation of trappers' interests through the Site Management Committee for Fereydoon Kenar Ramsar Site. Similarly, the project facilitated the empowerment of local interest groups, who were trained to facilitate the involvement of other stakeholders.

Partnerships between sites and local institutes and universities were fostered through the project, involving the provision of grants for student projects at sites (in Iran), and the formation of teams of reserve staff, contracted university professors & students assigned to tasks at Chinese nature reserves. At Zhalong Nature Reserve in Heilongjiang Province, a bird and plant ecological monitoring program was implemented to track wetland management and restoration efforts. Members of the field team came from three universities and one institute. Capacity building for reserve staff has been an important component of this work, with six PhD studies completed or in progress.

Another example involving collaborative research and ecological monitoring is a ten-year study of ecological relationships involving water levels, food plants and waterbird distribution at Poyang Lake Nature Reserve involving the International Crane Foundation. Training has been provided to reserve staff in sampling methods, data entry, and database management, with joint publications and presentation of results to international meetings. This programme has led to the development of an ongoing wider partnership involving both Chinese and international universities.

*Key Messages:*

- Short term training courses are an important means of improving the skills of individuals, as long as subjects and delivery are carefully targeted to local needs, and participants are carefully selected.
- Joint training efforts for several sites simultaneously brings added benefits from networking and exchanges of experience.
- Empowerment and capacity building for local stakeholder groups and community based organizations (CBOs) at sites is essential to enable effective participatory conservation involving local communities.
- The development of partnerships between sites, local institutes, universities and international organizations can provide a sustainable means of building and maintaining capacity for reserve management. These can be centered around collaborative research and monitoring programs.



## D. CAPACITY BUILDING: GLOBAL AND REGIONAL INITIATIVES, CENTRES, NETWORKS AND THE RAMSAR CONVENTION, NICK DAVIDSON, RAMSAR CONVENTION SECRETARIAT

The first Ramsar-approved and supported initiative was the Mediterranean Wetlands Initiative (MedWet) started following a 1992 wetlands conference in Grado, Italy: now 20 years old (a Grado+20 conference was held in Agadir in 2012). MedWet involves governments, the Palestine authority, IOPs and others concerned with Mediterranean wetlands. More recently, there has been increasing Ramsar emphasis on enhancing regional collaboration in implementation on common ground, and the establishment of an increasing number of 'regional initiatives' recognised by Ramsar Parties as operating under the framework of the Convention. "Regional" in this context is not at the scale of Ramsar's continental geopolitical regionalisation: initiatives are generally subregional groupings. Ramsar "Regional Initiatives" operate under set of "operational guidelines" established by Contracting Parties at COP. Some "seed funding" available from Ramsar core budget, if requested, for initial 3-year period, and initiatives are required to report on implementation delivery to Standing Committee and COP. They can be cancelled if non-delivery or breach of adopted principles occurs.

### Two broad categories:

1. Regional training and capacity building **centres**. Currently there are four: RRC-East Asia (Changwon, RoK); RRC-West Asia (Ramsar, IR. Iran), Panama centre (South and central Americas), and RRC-East Africa (Kampala, Uganda). There are many other wetland training and education centres, established under other processes which are waiting and willing to help.

2. Regional **networks**. There are currently nine: including the High Andes Initiative; NorBaltWet; BlackSeaWet; Carpathian Initiative; Caribbean Initiative; MedWet – and the East Asian – Australasian Flyway Partnership (EAAFP).

So far delivery of on the ground implementation capacity is best described as 'patchy'. Some initiatives have been over-ambitious regarding capacity and resources, and it takes time to build a 'comfort zone' of collaborations. A success assessment has been made by the Ramsar Secretariat, to be discussed by Standing Committee and COP11 in 2012. Regional Initiatives are not always connecting well with all countries in their initiative region, other than within the host country.

Regional Initiative Centres have the potential to deliver enhanced training/ capacity-building for Parties and others in applying Ramsar adopted guidelines, such as through using the "Wings over Wetlands" project Flyway Training Kit (FTK), but there is a need for "Training the Trainers" capacity-building process.

Two other Ramsar-related capacity-building networks have been established by the Wildfowl and Wetlands Trust (WWT): the Wetland Link International (WLI) network of wetland education centres, and the World Wetlands Network (WWN) of wetland-related NGOs.

## 3.8 PARTNERSHIPS AND STAKEHOLDER INVOLVEMENT

### Issue

Conservation of migratory waterbirds and their habitats requires a range of activities that need to be undertaken at local up to flyway levels, involving a variety of different players whose aims, roles and means of operation may be different. However, experience gained in the last decades has demonstrated that working through partnerships and involving stakeholders such as local and national governments, IGOs, NGOs, technical institutions, corporates and grass roots organizations can be very productive and provide some unique challenges.

## **Process**

The workshop presentations covered:

- a) The involvement of the hunting community in flyway conservation drawing on an example from Europe;
- b) Lessons learned from the Partnership established by the main NGOs and IGOs leading the Wings Over Wetlands project including its formation and management experience;
- c) The experiences from the Western Hemisphere Shorebird Reserve Network including the role of social marketing and work with RARE;
- d) An example of science partnerships for Avian Influenza surveillance and risk assessment; and
- e) A government perspective drawing on experiences of the Swiss government including their work with CMS.

Two break-out groups then considered priority areas for developing partnerships at the:

- International level
- National and site level

Each group considered barriers and challenges and identified examples of successes to build on.

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## **CONCLUSIONS**

A theme running throughout the workshop was how flyway conservation needs to involve a range of stakeholders. Different initiatives have dealt with diverse stakeholders and developed a variety of partnerships, some formal and some informal. Partnerships operate on multiple levels including:

- a) International (Flyway partnerships, Partners in Flight, WHSRN, among MEAs/ and among countries [CMS MoUs], international NGOs and others);
- b) National (BirdLife's national partners; South Korea – Crane Working Group)
- c) Site (Site Management Committees)
- d) Non-traditional (Corporate partnerships of Wetlands International with Shell and Korean Waterbird Network with Hyundai; academic - between project sites and local universities in the UNEP/GEF Siberian Crane Wetland Project; BirdLife - Species Guardians and Species Champions)

Partners increase the likelihood of each achieving their own missions and amplifying their reach through working in partnership. Partnerships present the involved parties with special challenges that must be navigated or negotiated with clear agreed protocols including agreement on overarching goals, achieving appropriate levels of give-and-take, and agreement on areas of responsibility and lines of authority.

It is critical that the future development of flyway initiatives draws on the expertise of diverse partners. It is also important that we examine how our unique skills and approaches can create synergy while improving efficiency and reducing duplication of effort.

The recently established flyway partnership (between AEWA, BirdLife International, Ramsar Convention and Wetlands International) that builds on the success of the Wings Over Wetlands (WOW) project combines the necessary enabling environment of intergovernmental instruments with the capacity and networking strength of international NGOs. It has shown how working together in a spirit of trust from the earliest stages of planning to coordinate policies, programmes, activities and fundraising efforts can promote healthy cooperation. It is designed to improve access to good flyway-scale information and sound science, strengthen capacity in understanding flyway conservation concepts, promote effective communication and create awareness among target audiences about flyways and the importance of conserving migratory waterbirds and their habitats, identify and maintain management of networks of sites for migratory species, and promote conservation and flyway-scale approaches across the network of Critical Sites in the African-Eurasian region.

Future financing was explored through the perspectives of one *donor*, a European Governmental Environment Office. For such a donor, support is generally provided through MEAs or IGOs and not directly to other countries or projects although bilateral agreements can be developed between countries where priorities are shared. Priority is given to initiatives with far reaching consequences rather than local initiatives; which support capacity building and which are of direct relevance to the donor country. It is becoming increasingly difficult to finance projects through voluntary contributions in addition to obligatory contributions to the core budget of MEAs and yet such voluntary contributions are becoming increasingly important for MEAs as Parties are tending to constrain activities to be financed through the core budget.

The break-out group exploring partnership at international level identified a number of barriers to successful flyway coordination, including:

- Languages and culture
- Capacity imbalances
- Human resource limitations
- Training inequalities
- Long term goals and processes versus short term financing
- Identifying appropriate partners and building trust

Owing to time limitations only the first two items were discussed to identify solutions. The remaining items are important and should be dealt with in future dialogues.

Barriers to successful partnerships within countries can include: traditions (e.g. some governments do not have a history of cooperation with NGOs); lack of inter-agency communication and cooperation; low priority given to waterbird or biodiversity issues; and distrust between different stakeholders.

Examples of successful national level partnerships are:

- Japan – annual national workshops for important site managers, engaging NGOs since the early 1990s.
- Australia - Wildlife Conservation Plan for Migratory Shorebirds, avian influenza wild bird network, Joint State/Territory – National Government committee, and local government workshops; active role for NGOs in most forums.
- China - networking of flyway sites led by universities; international NGOs.
- Indonesia – a new initiative being established to develop a secretariat in government (Ministry of Forestry) for all organizations including NGOs that are working on migratory birds. In addition, Indonesia involves NGOs in two other committees: a national wetlands committee dealing with all matters related to wetlands and a National Zoonosis Committee, including special task force on AI in relation to migratory waterbirds.
- Indonesia - many of government officials being seconded to NGOs to improve their capacity, and in return to bridge communication between government and NGO.
- South Korea – Korean Wetland NGO Network, Korean Waterbird Network, Korean Shorebird Network showed collaboration between partners on data collection including local government, the National Institute for Biological Resources, NGOs and researchers for the 2010 Fall Census on Shorebirds of Korea.

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## SUMMARIES OF THE PRESENTATIONS

### A. INVOLVEMENT OF HUNTING COMMUNITY IN FLYWAY CONSERVATION: AN EXAMPLE FROM EUROPE, ANGUS MIDDLETON, F.A.C.E.

The Federation of Associations for Hunting and Conservation of the EU (FACE) is an international NGO that brings together the national hunting associations of 38 countries in Europe including the EU27. FACE is made up of its Members, (representative national hunting associations) and its election processes means that FACE is one of the biggest civil society organisations in Europe, democratically representing over 7 million hunters. In this regard FACE operates mainly under a political leadership which represents a very strong European constituency for conservation.

For Flyway Conservation, FACE is involved in many of the relevant MEA's and has a very active role in AEWA as an observer organisation. At European level, one of the most significant partnerships has been the Birdlife-FACE Agreement which began 5 years ago as an agreement to respect the EU Birds Directive but has since developed through regular bilateral meetings to include joint activities in other conservation fields (e.g. reform of the EU Common Agricultural Policy). FACE and its Members also support research and monitoring of migratory birds with examples such as the active participation of

Nordic Hunters Associations in the *Nordic Waterbirds and Climate Network* (NOWAC) and support to the *European institute for the management of wild birds and their habitats* OMPO. At national and site levels there are many thousands of activities being undertaken by hunters such as the *Club International des Chasseurs de Bécassines* (CICB) in France which look into the habitats, research and hunting of snipe. There are also actions in respect of endangered species such as the Lesser White-fronted Geese (*Anser erythropus*) where - as an example from Hungary - a flagging system is employed with the full cooperation of the regional and local hunters associations to ensure that hunting is controlled at key sites during the migration period. However all these actions lack a greater coherence and FACE is embarking on an ambitious programme to address this through the recent launch of *The Biodiversity Manifesto*, which seeks to bring about a greater coordination and coherence in our conservation efforts. This will be further developed and reported on in line with EU and global processes up to 2020.

With regards to hunting, the term is often and rather unfortunately used as a blanket term to cover all types of consumptive resource utilization. This is often done in place of the BirdLife threats criteria Biological Resource Use which includes many aspects which are not at all related to hunting such as fisheries by-catch, harvesting of plants and forest products as well as forms of persecution (such as poisoning) which may involve hunters but is not hunting in itself. The term hunting also needs to be further understood as the motivation may vary from livelihoods to recreational and it may be of a voluntary or commercial nature, with many aspects in between. In this regard it is necessary to clearly delineate harvest take associated with various form of hunting and non-harvest mortalities associated with other resource uses or actions. Once this is better understood and formulated the challenges can perhaps be better addressed. As an example, livelihood harvesting essentially falls under the bushmeat trade for which there is already a very advanced debate, which is rarely acknowledged in migratory bird meetings. Other issues related to recreational hunting, such as information sharing (e.g. monitoring and harvest data) hunting tourism and even conflict management can also be better addressed.

There is much work to be done but the hunting and bird protection communities no matter how diverse have significant common points to work together for effective flyway conservation, which is in the interest of all.

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## B. WINGS OVER WETLANDS PARTNERSHIP OF NGO AND IGOS – ITS FORMATION AND MANAGEMENT EXPERIENCE, SZABOLCS NAGY, WETLANDS INTERNATIONAL

The Wings Over Wetlands (WOW) Project was the first international, flyway-scale wetland and waterbird conservation initiative ever to take place in the African-Eurasian region. The four year project (2006 - 2010) was a partnership among international conservation organizations and national governments, which aimed to improve and conserve healthy and viable populations of African-Eurasian migratory waterbirds. The area covered by this initiative included all 118 range states of the UNEP administered African-Eurasian Migratory Waterbird Agreement (AEWA), covering all of Africa, all of Europe, south-west Asia (including the Middle East and Central Asian States), Greenland and the Canadian Archipelago.

The Wings Over Wetlands Project was a joint effort between two international NGOs: Wetlands International and BirdLife International as well as two multilateral environmental agreements, the Ramsar Convention on Wetlands and the African-Eurasian Waterbird Agreement, supported by UNEP-GEF (the Global Environment Facility), The Government of Germany and a wide range of other donors and partners. The United Nations Office for Project Services (UNOPS) was engaged to support project implementation. UNEP-WCMC and many local partners along the African-Eurasian flyways were also involved in the implementation of the activities.

Following the completion of the project, the WOW Partnership Agreement was signed between the AEWA Secretariat, BirdLife International, Ramsar Secretariat, and Wetlands International in June 2010. The Partnership embraces the following principles:

- Combines the necessary authorising environment of intergovernmental instruments with the capacity and networking strength of international NGOs;
- Work together in a spirit of trust from the earliest stages of planning to coordinate policies, programmes, activities and fundraising efforts in a manner that promotes healthy cooperation;
- The products of the WOW project, including the CSN tool and the Flyway Training Kit, are the results of joint efforts by the WOW partners and will be promoted and further developed jointly;
- Shared actions taking place through implementing this Memorandum (...) should be supported by new and additional resources raised collectively by the WOW partners.

Areas of collaborative work are:

- Improving access to good flyway-scale information and sound science.
- Strengthening capacity in understanding flyway conservation concepts, what it entails and the tools available in the African-Eurasian region.
- Promoting effective communication and creating awareness among target audiences about flyways, the importance of conserving migratory waterbirds and their habitats.
- Stimulating and maintaining management of networks of sites for migratory species.
- Promoting conservation and flyway-scale approaches across the critical network of sites in the African-Eurasian region

Management experience as of October 2011 included two steering committee meetings and some joint projects which follow on from the WOW project but it is hard to see the added value compared to the situation before signing the Memorandum. The Steering Committee should analyse the situation and agree on more concrete steps to realise the potentials of the Partnership.

### C. EXPERIENCES FROM THE WESTERN HEMISPHERE SHOREBIRD RESERVE NETWORK (ROLE OF SOCIAL MARKETING, RARE), CHARLES DUNCAN, W.H.S.R.N.

Marketing principles used to sell products can "sell" behaviors; social marketing differs only with respect to its objectives. It is used to influence social behaviors to "benefit the target audience and the general society not the marketer." Social marketing is emphatically not the same as environmental education. Successful social marketing:

- understands, respects and uses the values of the audience
- uses a spokesperson respected by the audience
- provides the will and the way. In other words, social marketing not only provides the motivation, it removes barriers to changing behaviors to reduce targeted threats.

We describe a marketing example for smoking cessation that exemplifies the sequence of "heart-->head--> hands" in which an emotional hook (beauty) leads to knowledge and intellectual understanding (nicotine and addiction) and then to action (sign-up).

In our case, we sought to raise awareness of the benefits of shorebirds to host communities and promote collective action toward effective conservation. Partnering with Rare, [www.rareconservation.org](http://www.rareconservation.org), we

collaborated on Pride campaigns at three important sites for Red Knots *Calidris canutus* in Argentina with targeted behaviors that needed to be changed. Using campaign mascots, songs and events, we created awareness and motivation. By removing barriers (e.g. creating a new 4x4 trail through a less-sensitive area), we enabled the target audience to change the harmful behaviors. Longer-term positive impacts also include:

- declarations in two provinces that conservation of shorebirds and their habitat is “in the provincial interest” and that conversion of important habitat is prohibited with force of law.
- donation of land and construction costs by the city of Río Gallegos for a new Nature Center emphasizing shorebirds; opening date of 5 December 2011
- trained campaign coordinators continue to be effective in their communities

We note that for migratory species, the choice of success metrics is especially challenging as overall biological response will be strongly influenced by events remote to the campaign site.

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#### D. SCIENCE PARTNERSHIPS FOR AVIAN INFLUENZA SURVEILLANCE AND RISK ASSESSMENT, BORIPAT SIRIAROONRAT, FOOD AND AGRICULTURE ORGANIZATION

The Scientific Task Force on Wildlife and Ecosystem Health (STFWEH), co-convened by UNEP-Convention on Migratory Species and FAO, works to ensure that disease dynamics are considered in the broader context of sustainable natural resource management, agricultural production and food security, socio-economic development and environmental protection and conservation of migratory species, their habitats, and migration routes. The Task Force facilitates coordination, information-sharing, and communication between relevant organizations at an international level.

The STFWEH was created by Resolution 9.8 at the Ninth meeting of the Conference of the Parties of the Convention on Migratory Species in December 2008 which called upon FAO and UNEP-CMS to work together on transdisciplinary issues in wildlife health within a One Health context. The importance of the Task Force was again reiterated at the Conference of Parties of UNEP-CMS in November 2011. To date, the Task Force has over 20 members participating, continues to work through email, teleconference, and meeting, and presents information at various international conferences. The main working areas of the Task Force include:

1. Avian Influenza: Influenza viruses continue to undergo mutations and re-assortments over time making it imperative to monitor the situation closely both in wild birds and domestic species. The Task Force encourages work on all aspects of Avian Influenza epidemiology internationally as it relates to wild birds including surveillance and research activities.
2. Disease Ecology: Diseases affecting wildlife are widespread and have the potential to significantly impact wildlife, livestock and human health. The Task Force prepares fact sheets and case studies aimed at educating natural resource professionals and wildlife biologists on the diseases they may come in contact with.
3. Issues at the Human-Wildlife-Livestock-Ecosystem Interface: This work area includes sub-sections on Trans-Frontier Conservation Areas, Wild Meat Harvesting, and Captive and Farmed Wildlife. These three focus areas are highly complex with many stakeholders from varied disciplines. The Task Force encourages these groups to identify “win-win” solutions.

4. Migration Ecology: Migration refers to the seasonal movements of animals and the factors that affect these movements. The great challenge of migration ecology is to try to predict the movement of animals, similar to forecasting the weather. The Task Force will reach out to the large and active international scientific community studying animal movements and migration to encourage and support studies on animals during natural migrations.
5. Bridging the Gap between Natural Resource Professionals and both Veterinary and Public Health Professionals: The economic and social benefits of biodiversity, wildlife, and ecosystem services is often clear to natural resource managers, but often unknown to biomedical professionals such as veterinarians and physicians. The Task Force is connecting these diverse disciplines to help bridge the communication gap between natural resource and health professionals while encouraging multidisciplinary collaborative approaches to global health challenges.

More information about Task Force activities is available online at:

<http://www.wildlifeandecosystemhealth.org> or on facebook. Additionally the Task Force always welcomes new members, and interested persons should send an email to [wildlifeandecosystemhealth@gmail.com](mailto:wildlifeandecosystemhealth@gmail.com).

### 3.9 GENERAL NON-THEMATIC CONCLUSIONS

1. Increasing human population density and the imperative for economic growth are probably the main underlying causes of a wide range of threats to migratory birds. Solutions must be found that are sustainable in the long term, which in the flyway context are usually multi-level, multi-sectoral and participatory, especially involving the engagement of local communities in site conservation.
2. Climate change will undoubtedly impact migratory birds to some extent, however the results will be catastrophically worse in the face of:
  - a. continued habitat loss and degradation, which are ultimately the most serious threats to many migratory bird species;
  - b. climate change mitigation measures themselves impacting negatively on migratory birds, through development of renewable energy sources such as hydro-electric power, wave and tidal power, wind power, solar and biofuels in inappropriate locations with inadequate environmental safeguards in place. Sensitivity mapping and strategic environmental impact assessment to guide the early stages of planning of such development is vital to avoid damage that is of long term detriment not only to migratory birds and their ecosystems but also to people.
3. Language presents a major barrier to achieving common understanding in flyway conservation work, both between languages and within a language where different words and expressions may mean different things to different stakeholders. However, there are solutions:
  - e. Training should be provided to those using a dominant language, to speak in clear and simple terms that can be understood by non-native speakers, and to encourage the participation of non-native speakers, recognizing that they may need longer to formulate and express their thoughts in a different language.



- f. Training should be provided in handling cultural differences to aid the flow of communication, tailored to the relevant situations.
  - g. In situations where the mother tongue is shared, but the languages of different social groups or disciplines differ, agreement should be reached on a common terminology.
4. Flyway initiatives may have gaps in coverage in countries which are not fully part of the international community for political reasons. It should, however, be remembered that a fundamental reason for the existence of environmental treaties is to foster communication between nations on issues where the political stakes are considered by governments to be relatively low, in the interests of promoting peace and trade. This factor should be emphasised in seeking political support for flyway initiatives.
5. In order to achieve long term change, new approaches to financing and advocacy are needed to overcome the limitations of working to a project cycle. These involve thinking big, diversifying into related fields such as development aid and disaster mitigation, and engaging with the corporate sector on investment planning, corporate sustainability planning and strategic partnerships. Innovative approaches such as developing “investment vehicles for flyways” should be explored.



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## 4. RECOMMENDATIONS

The discussions during the workshop generated many recommendations, which related to the seven thematic sections of this report as well as general recommendations. The recommendations have been restructured in this section of the report, in view of the cross-cutting nature of some themes (e.g. on national engagement and implementation, innovative approaches, and partnerships and stakeholder involvement) and inevitable overlaps between discussions.

The recommendations have been grouped according to the subject headings shown in **Figure 12** below. The figure provides a general indication of the vertical relationship of these subjects, although the horizontal connections between the middle-level technical areas are not shown (as they are all highly interconnected and the diagram would become overly complex). The bullets indicate subheadings used for each technical area.

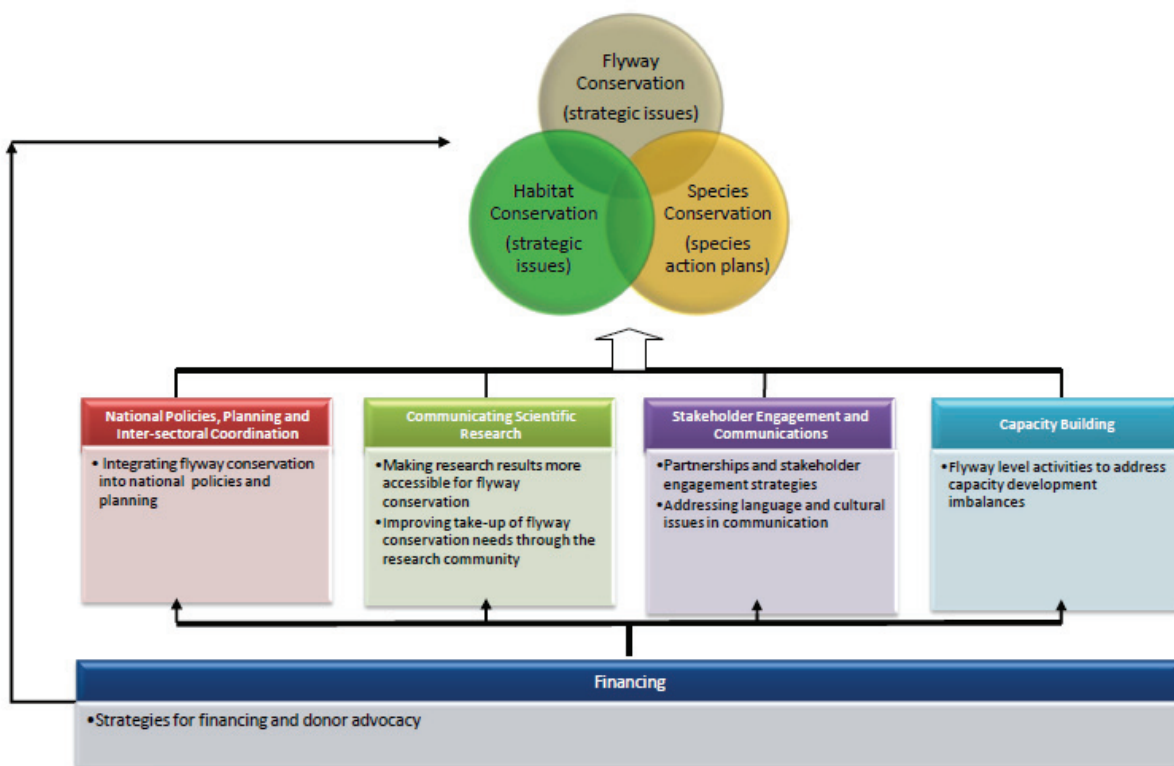


Figure 12. Structure of the recommendations section

#### 4.1 STRATEGIC CONSIDERATIONS FOR FLYWAY CONSERVATION

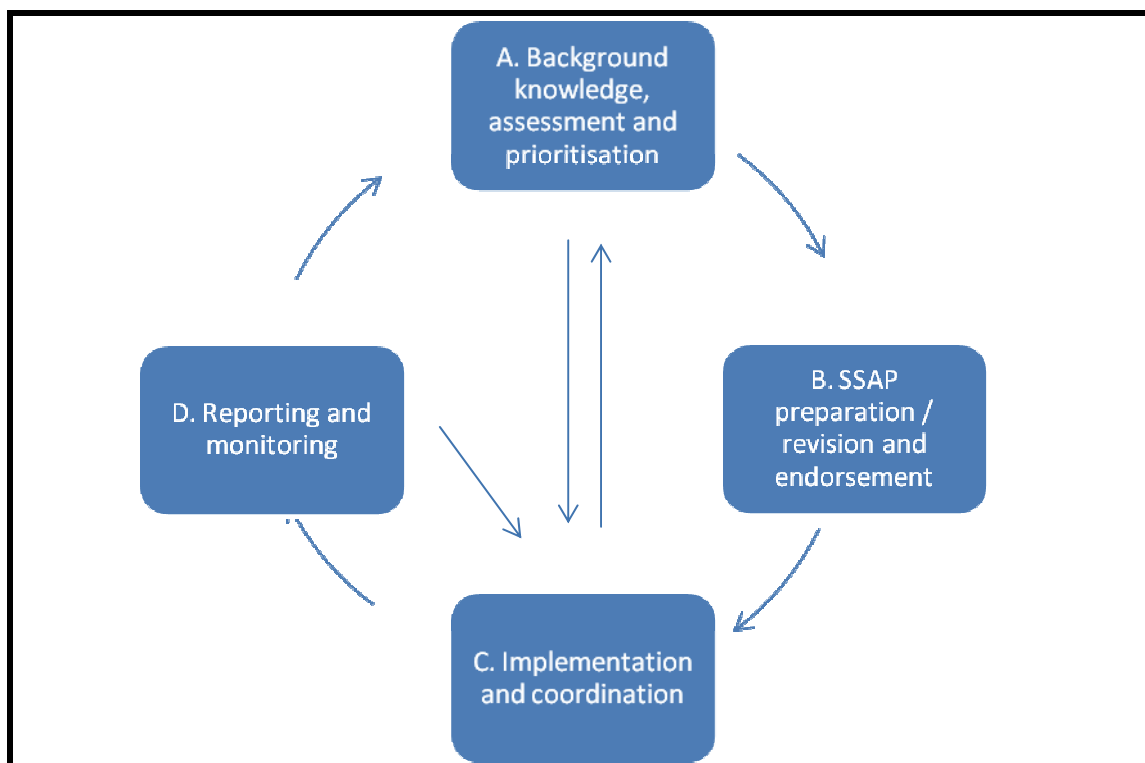
Flyway conservation embraces the conservation of both species and habitats in ways that go beyond national and local needs, and which challenge traditional sectoral approaches to economic development and land use planning. This section draws on material from different technical sessions during the workshop that reflect strategic aspects of flyway conservation.

1. *Proactive approaches to addressing threats* should be developed, for example using sensitivity mapping to proactively direct future development away from key regions and sites for migratory birds at an early stage of the process, rather than only engaging reactively with the EIA process once plans are already well-developed. This should be part of both flyway and national level planning processes, linked to strategic environmental assessment. This approach should be supported by information gained from monitoring of threats at sites of importance for migratory waterbirds, which should also serve as an early warning system for site protection.
2. *New approaches include thinking big, at least at landscape scale*, and in the context of wider society and economies. For example, industry and economic development in East Asian region driving rapid ecological changes involves billion dollar international trade and a flow of resources from south to north along the East Asian – Australasian Flyway. Opportunities and synergies associated with such transboundary trade and international relations should be considered in conservation strategy development.
3. *Flyway-scale initiatives can be attractive to donors* where proposals and projects at individual unconnected sites may seem too small, piecemeal and inadequate to solve the overall problem of species decline at a sufficient scale. However the current policies and structures of some funding sources (e.g. GEF) can limit their capability to fund multi-national flyway scale projects. This issue requires attention from related MEAs and donor agencies.
4. *To increase resilience of migratory waterbird populations to climate change:*
  - *the comprehensiveness and coherence of site networks* should be assessed at the flyway scale including through identifying and mapping sites of current or anticipated future importance. Such sites should be managed in the context of flyway-scale site networks.
  - *a diversity of hydrological conditions should be maintained across regional and local wetland complexes*, allowing birds to move between sites within and between seasons according to water availability, with some refuge areas usually being available.
5. *Over-concentration of waterbird populations* as a result of the widespread loss of smaller wetlands or their temporary unavailability due to drought conditions is an increasing problem that needs to be addressed. Birds are forced to concentrate on refuge sites, which puts pressure on limited resources, increases the risk from disease transmission and unsustainable hunting practices, and can also give a misleading impression of population trends (if numbers at remaining sites are augmented by birds from uncounted sites).
6. *Site/ habitat management plans should recognize the biological connectivity* of sites with other parts of the flyway network, including measures to address the above-mentioned problem of overconcentration of populations at refuge sites.
7. *Ephemeral wetland sites* important for migratory and nomadic species when intermittently flooded need to be identified and designated for flyway site networks and appropriate national protection, having often been overlooked despite being relatively common (e.g. in parts of Africa).
8. *Flagship species* can draw increased local, national and international attention to the need for habitat conservation, especially when coupled with a positive “feel-good” message about that species.

## 4.2 SPECIES ACTION PLANS

The thematic session on species conservation focused on species action plans as a mechanism for addressing the needs of migratory waterbird species throughout their annual migration cycles. The outcomes of the session's discussion are given below. Note that although the text overlaps with other sections in places, here the points are given in the context of species action plans. Please also see the various guidelines available on species action plans, including AEWA (2002).

1. The cycle of phases of a species action planning and implementation process considered to be applicable to all variations of species action planning are illustrated in **Figure 13**, with further detail on successful ingredients of each of the four components given below.



**Figure 13: The cycle of phases of a species action planning and implementation process**

### A. BACKGROUND KNOWLEDGE, ASSESSMENT AND PRIORITISATION

2. *Decisions on whether to launch a species action planning process* should be based on a preliminary assessment of background information covering the following elements:
  - population status and speed of decline (urgency for action)

- spatial and temporal ecology of the species (annual cycle, connectivity)
  - drivers of species demographic changes
  - identification of potential corrective actions (pilot management responses).
3. *Selecting the best approach to the conservation of species* can be done on the basis of:
- identifying any common drivers of demographic change
  - identifying any common potential corrective actions
  - assessing whether it is most economical, effective, sustainable and appropriate to address the issues within a single species action/management plan, multi-species action plan or a broader ecosystem or other flyway approach:
    - *multi-species plans may be more appropriate than single species plans* in complex ecosystems and capacity-poor countries, especially when species share common habitats and threats (eg the [Partners in Flight](#) approach in Mexico identifying hotspots where diversity of migrants overlaps with diversity of endemics;
    - in other situations, the tendency is for *multi-species plans to be less effective at delivering objectives* (e.g. the US Endangered Species Act recovery plans are more than four times less likely to deliver improved status trends for species covered by multi-species as opposed to single species plans (Boersma *et al.* 2001);
    - with audiences for which a species approach does not resonate, *a wise use/sustainable development type framework may more effectively deliver objectives.*
    - single species approaches may work well with charismatic species, where changing public perception is needed as an avenue to changing public behavior and may provide “umbrella” benefits to other species as well.
4. *The highest priority species for action planning*, once they have been assessed as suitable for applying this approach, are likely to be those with:
- a high threat status
  - potential to serve as a flagship species for other species and habitats (e.g. Spoon-billed Sandpiper for East Asian intertidal shorebirds and Chinese Crested Tern for East Asian Seabirds)
  - potential to serve as a flagship species to promote links between sites, for example to fight common threats or introduce common management approaches
  - high likelihood for the success of conservation interventions
  - see also criteria used in prioritising the AEWA populations for species action planning (AEWA 2008a; pages 84-98).

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## B. SPECIES ACTION PLAN PRODUCTION

5. *A focused participatory workshop* using an established structure is a more or less essential step in the development of any action plan to ensure the buy-in of relevant stakeholders. It is advisable for it to:
- *involve participation from all relevant stakeholder groups*, with the right balance of conservationists and experts to other stakeholders;
  - *involve all stakeholders right from the start of plan preparation*, although for political reasons involvement occasionally needs to be handed stepwise (e.g. invitations for one party may best come via another party once it has engaged with the process).

6. *Action plans need to be brief, or at least have brief summaries (two pages, perhaps published in an attractive format), not too academic / research-oriented, following extensive review and consultation, and produced to an established format (for example, see AEWA 2008b for guidelines on the contents of single species action plans). Guidance on the contents of action plans includes the following:*
  - *clear, specific, measurable, attainable, and prioritized objectives, with carefully chosen, meaningful indicators at several temporal scales against which to measure success ('more and better birds' i.e. in addition to population trends, indicators could be trends in mass at departure from spring stopover or trends in adult/juvenile ratio), through specified reporting requirements, to facilitate the monitoring and evaluation of subsequent implementation, linking threats, actions and measurable objectives;*
  - *agreed goal and priorities with universally understood terminology, by all working group members, thus engendering a strong sense of plan ownership;*
  - *management options/actions that are specific, actionable, based on the best available evidence and strictly prioritized so as to avoid over-ambitious and unfeasible species action plans;*
  - *a clearly agreed division of labour for implementation responsibilities.*

### **Species Action Plan Endorsement/Affiliation**

7. International flyway action plans are best endorsed by governments through Multilateral Environmental Agreements or other relevant international institutions e.g. the [East Asia – Australasian Flyway Partnership](#). In the US, the endorsement comes automatically with the decision to produce a plan under the Migratory Birds Treaty Act (1918). They can also be effective if endorsed through a formalized process within a backbone organization e.g. WHRSN.
8. Publicize plan endorsement to build awareness and support for its implementation.

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### **C. CRITICAL FACTORS FOR THE SUCCESSFUL IMPLEMENTATION OF SPECIES ACTION PLANS**

9. Action plan implementation needs to be based on the twin premises of sound science and collaboration. The following guidance takes account of these needs, broken down by subheadings.

#### **Good governance and stakeholder participation**

10. Stakeholder mapping identifies key actors, their skills and their legitimate interests.
11. Successful plans must understand the development interests and needs of communities that depend directly on the resources of an area, and of the actors that should make decisions in an area.
12. Management of critical habitat is conceived as an intervention into a "socio-habitat"
13. *Stakeholders should be empowered by the process, with clear allocation of roles/tasks to contribute to plan implementation; funds may not be needed to cover the costs of those who wish to offer in-kind conservation action.*

14. *Sensitivity* is needed in bridging cultural differences between range states, and in recognizing human and logistical capacity constraints for the implementation schedule.
15. *Building network capacity* to enable sound implementation should be an integral factor in the action planning process.

### **Government involvement**

16. A long term commitment to Government involvement institutionalises conservation activities and can be helpful for resolving contentious issues.
17. A political (i.e. governmental) chair of the species working group is advisable at least in intergovernmental frameworks, and may also be linked to funding.
18. Funding support from the Range States championing the action plan can be crucial.

### **Coordination**

19. A *working group/recovery team* should include a full suite of partners that includes representatives from all range states (as far as possible) and experts, to form a dedicated network of enthusiastic, highly motivated, multi-disciplinary key individuals and bodies that are committed to plan implementation. The team should be developed from the species action plan preparation workshop to ensure buy-in, a sense of ownership and coordination of collective action.
20. *Respected backbone organizations are generally the best choice for coordination of species working groups* if they are active, motivated and collaborative.
21. *The wholehearted, and ideally financial, backing of national or international non-governmental organisations* is often a crucial factor in determining the success or failure of Species Action Plans; generally governments should not be left to implement plans without such assistance.
22. A *dynamic coordinator with long-term commitment and organisational backing to drive the implementation process* is essential. Strong networking and fund-raising skills are more important than technical expertise on the species for the coordinator position, which may ideally be full time if adequate resources are available.
23. *Supervision, support and guidance of the coordinator is desirable by the secretariat of the framework/initiative* within which the species action plan has been developed and is being implemented.
24. *Regular communication among group members* is important to maintain team spirit, including through team meetings and list servers; face-to-face meetings are essential.
25. *The working group should facilitate information-sharing and rapid implementation of research findings.*

## **Operational and Resourcing Considerations**

26. *Momentum for implementation should be maintained by ensuring measurable short-term progress and demonstrating the success of plans to key stakeholders and funders at an early stage.*
27. *Inter-agency/cross-sectoral collaboration is essential for successful implementation.*
28. *Implementation should be based on annual work programmes and realistic funding plans including consensus actions with costs.*
29. *Sufficient mid/long-term financing (ideally with long term buy-in from a financier e.g. [BirdLife Species Champions](#), or with funding through national or international funding instruments e.g. the [EU LIFE fund](#)) increases the chance of successful implementation. Species recovery teams need to incorporate fund-raising expertise in order to make the most of these opportunities and to exploit all possible 'marketing' opportunities.*
30. *To overcome resource constraints for the implementation of species action plans, consideration may be given to the following, while ensuring that efficiency is not achieved at the expense of thoroughness and sound science:*
  - building fundraising strategy into the action plan
  - targeted fundraising effort
  - improving the prioritization approach on which plans should be developed
  - grouping single species action plans where appropriate and feasible
  - developing multi-species action plans where appropriate and feasible

### **Roll out to national and sub-national level can be facilitated by the following:**

31. *Support for the transcribing of international plans into national action plans to ensure government commitment and support; national action plans may best be enshrined in national legislation (e.g. to implement national biodiversity action plans).*
32. *Integration of species action plans into [National Biodiversity Strategies and Action Plans \(CBD\)](#) and other more binding structures/processes.*
33. *Affording significant priority to enhanced communication, education, participation and awareness activities at national level to raise awareness of species action plans and especially to promote participatory implementation, ownership of the process and to highlight the values of species and habitats.*
34. *Improving the engagement of sub-national level stakeholders by incorporating actions related to local community involvement in national action plans.*
35. *Changing local attitudes to a species from ignorance to pride through public awareness campaigns can be a powerful driver of conservation success when threats can be reduced by targeted behavioral change in one or more segments of society.*



36. *Use international action plans* to demonstrate and publicise international interest in key countries and/or sites.
37. *Involve range states in international level flyway projects*, such as satellite tracking research to increase exposure and understanding of flyway conservation needs.

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#### D. REPORTING AND MONITORING

*Note: This sub-section applies most strongly to flyways where official agreements provide the basis for legal mandate including reporting obligations. Much of it is less relevant to flyways where there is no current legal mandate and flyway conservation activities are largely voluntary (e.g. WHSRN, EAAFP), in which case reporting is self-generated for the purposes of coordination and funding agencies.*

38. *National reports are the preferred reporting level for species action plans*, while incorporating input from the various implementation levels within countries, e.g. sites and regions, the reports then being submitted to the international coordinator.
39. *Report preparation* should be conducted by the national coordinator by gathering input from all stakeholders involved in the implementation.
40. *Reporting is most effective when done against indicators specified in the action plan* and should be result-based, covering threats and actions, rather than process-oriented. Temporal scales and increments/targets should be specified for each indicator for reporting over the time span of the plan.
41. *Reporting schedules* should be agreed internationally by all Range States, usually on a two or three year cycle linked to the intermittent periods of implementation planning at international level.
42. *Reporting templates* need to be kept simple, intuitive and easy to fill out, structured on the basis of Status, Pressures and Responses for the target species. Review and quality assurance needs to be undertaken by all stakeholders before submitting the report.
43. *Compilation* of submitted national reports should be undertaken by the international coordinator to produce a summary in plain and comprehensible language, emphasizing necessary conservation responses. The information can also be summarized at different levels within the country, i.e. national, regional, site, etc, for example through the national working group for the species. Information entered into the national report of each individual range state can also be analysed.
44. *Dissemination of reports*, both the analysis and the summaries, should include the public as well as all relevant stakeholders and donors nationally and internationally.

#### **Plan, Review and Update**

45. *Plans should be viewed as “living or dynamic” rather than “static” documents* incorporating an iterative monitoring and re-evaluation process to flexibly refresh priorities. This allows weaknesses in achieving objectives to be addressed in a timely manner (e.g., as a result of evolving circumstances).

46. *Plans need to include a predetermined process for monitoring and regular updating* in order to learn from past successes and failures, i.e. an appropriate feedback mechanism for adaptive management.

#### 4.3 NATIONAL POLICIES, PLANNING AND INTER-SECTORAL COORDINATION

This section integrates recommendations from several themes during the workshop, including those on national engagement and implementation, site/habitat conservation, innovative approaches, and partnerships and stakeholder involvement. The main focus of these recommendations is on integrating flyway conservation into national planning processes

1. *Well functioning national committees for flyway management*, or other such active national mechanisms, involving governmental, non-governmental and technical stakeholders from the national to the local level are important to:
  - ensure national implementation of international flyway imperatives and provide capacity for the following points in addition to national representation at MEA meetings;
  - institutionalize engagement to maintain continuity of implementation in the face of personnel changes;
  - coordinate planning, development and implementation of these initiatives, for effective implementation rather than a piecemeal approach;
  - link national governmental focal points for flyway initiatives to the necessary range of implementing organizations;
  - share information on and promote flyway initiatives to achieve wider awareness, support and ownership for international commitments to flyway conservation, as well as participation in related activities;
  - incorporate sound science into policy development processes.
2. National workshops, and reporting on and discussion of national experiences at *international meetings can help to engage national partners more effectively in flyway conservation*.
3. *Networks of site partnerships*, for example, as achieved in Japan (linked to the EAAFP), can enable national governments to implement MEA obligations more efficiently and in a more participatory manner, and to gather information for national reporting.
4. *Awareness raising is needed for policy-makers and the private sector* in flyway conservation to positively influence policy and adoption of flyway concerns in development planning;
5. *National reporting can be used to catalyze implementation of flyway initiatives through institutionalized approaches to reporting to conventions, partnerships and other bodies on national implementation of flyway initiatives*. This is most effective when a collective process is followed that involves consultation and involvement of national, local and site level stakeholders including government (all related sectors), NGOs, academic bodies, technical institutions and local groups. Such reporting should recognise and encourage the participation of all important

players in implementing national and local actions that impact on conservation of migratory species and their habitats. Reporting on achievements should focus on outcomes as well as the actions taken.

6. *Implementation of flyway initiatives can also be catalyzed through increasing access to national reports (and recommendations from international synthesis reports) on flyway activities through online fora and in popular formats to raise public awareness about flyway initiatives and encourage local involvement in conservation action.*
7. *Flyway conservation imperatives need to be integrated into national planning agendas through measures including integration into NBSAPs, and mainstreaming of habitat/ landscape/ ecosystem-scale conservation objectives for migratory birds into key sectors from which many of the threats emanate, such as energy, agriculture, water resources, coastal zone management, economic planning, etc.*
8. *The development and activation of [Ramsar Regional Initiatives](#) should be promoted as an official mechanism for engaging national governments.*
9. *Flyway initiatives should work with governments towards ensuring the allocation of adequate financial resources for national implementation of MEAs according to their obligations and in relation to COP/MOP decisions.*
10. *Regional river basin policies, plans and management practices should be linked to conservation planning for important wetland sites and habitats to ensure that hydrological processes underpinning the wetland are maintained/ restored including water supply and quality from surrounding landscapes.*
11. *Opportunities that arise out of disasters to migratory birds or their habitats, such as oil spills or disease outbreaks, should be taken up in a responsible and creative manner through involvement of local and national agencies, business and NGOs to promote migratory species and habitat conservation.*
12. *National networks for collecting information on waterbirds and habitats on an ongoing basis (such as the [International Waterbird Census](#)) will benefit from greater institutionalization within government and from capacity building of local participants through joint surveys with international bird counters and other activities.*
13. *Making up to date, accurate information available to decision makers is an important step towards achieving more effective conservation for migratory species and their habitats. The [Critical Site Network Tool](#) (WOW undated) provides a useful open-access portal for decision-makers to access information on waterbirds and their Critical Sites in the African-Eurasian flyway, and should, where possible, be replicated in other flyways.*
14. *Opportunities for “double mainstreaming” should be identified, in which flyway conservation objectives (or compatible actions) can be piggy-backed on to existing or planned initiatives to reform or develop policies in relevant sectors. For example, the [BirdLife GEF Soaring Birds project](#) is working with ministries and the private sector targeting power transmission, renewable energy, waste management, rural development, tourism, land-use planning, hunting and agricultural reform programmes.*

15. *Innovative approaches* should be considered such as diversifying activities, reaching beyond the usual natural resource focus and partnering with other sectors e.g. the human development/ aid sector to develop projects that are 'win-win' for local communities, migratory birds and broader biodiversity.

#### 4.4 COMMUNICATING SCIENTIFIC RESEARCH TO SUPPORT FLYWAY CONSERVATION

##### WHAT DOES THE RESEARCH COMMUNITY NEED TO DO BETTER TO MAKE ITS KEY RESULTS ACCESSIBLE TO FLYWAY PRACTITIONERS/DECISION-MAKERS, AND IN WHAT FORMS?

1. In general, communications between the research community and flyway conservation users need to be improved;
2. Staffing for each flyway initiative should include a science communicator to work with researchers who may have good flyway-relevant stories, and to identify and work with researchers who have natural communication skills and understand the information needs of non-specialists;
3. Develop ways of enhancing quick and more public access to information based on flyway research through new communications technologies e.g. iphone applications, facebook, twitter, etc.;
4. Work with flyway initiative communicators to help prepare short (1-page) plain language Policy briefs on key issues and research findings for decision-makers;
5. The "Global Flyways Network\*" (GFN) of shorebird flyways researchers can potentially contribute their research findings more directly for uptake by flyway initiatives; [*\*Note – GFN is a different entity to the Global Interflyway Network (GIN) proposed as an outcome of this workshop*]
6. Ensure that research funding includes resources for researcher capacity building, including skills for the effective communication of research results;
7. Promote ways for reducing the cost of new remote sensing tools (e.g. GPS tracking), for example through developing partnerships with industry sector innovators and manufacturers that would provide publicity for their work and new products;
8. [Movebank](#) (a free, online database of animal tracking data) could be a valuable tool to apply more widely to migratory species in order to make research data available.

##### HOW CAN FLYWAY INITIATIVES IMPROVE TAKE-UP OF THEIR RESEARCH NEEDS AND PRIORITIES BY THE RESEARCH COMMUNITY AND WHAT ARE THE BARRIERS TO THIS?

9. Flyway initiatives should advocate their research and information needs to the research community and be pro-active in helping to locate the required funding;
10. Flyway initiatives should develop larger projects jointly with researchers in order to attract more serious attention from donors, with due attention to project portfolio packaging;

11. MEAs should enable flyway initiatives to address their research needs and priorities by building appropriate funding mechanisms into their processes (e.g. through establishing a CMS core budget line for research needs; use the Scientific Council to make an assessment of research needs and priorities, and then match such a budget to a list of priority projects for funding);
12. *Gaps in monitoring* should be addressed by MEAs and other flyway initiatives by directing more sustained finance for monitoring and related capacity building towards the geographic areas in greatest need, drawing on skills available within that region where possible;
13. Publish flyway research needs assessments in research journals (e.g. as letters to the editor) in order to communicate flyway initiatives' priorities to the research community and related financial mechanisms;
14. International NGOs (e.g. Ramsar IOPs) gain from flyway research for their knowledge bases, but lack funds for such research; rather they should improve their engagement and collaboration with the professional research community;
15. MEAs and other flyway initiatives should establish stronger collaborations with tertiary education institutes, and approach universities and institutes with project packages to offer Masters and PhD students as research topics with direct flyway conservation relevance;
16. Research funders are increasingly making it a condition of their funding to write popular articles as well as scientific publications – the flyway conservation community should capitalise on this and make use of such articles for policy purposes.
17. *Interdisciplinary research* through partnerships of the science community with engineers, architects and other practitioners (e.g. designing bird-friendly buildings and technology such as tracking devices to support conservation aims) can be valuable, with potential to mitigate impacts of economic development (e.g. infrastructure) on species and habitats.

#### 4.5 STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS

This section combines recommendations around themes explored during several sessions, in particular Partnerships and Stakeholder Involvement, Innovative Approaches, and Habitat Conservation.

##### IMPORTANT QUALITIES FOR FLYWAY CONSERVATION PARTNERSHIPS

1. *In terms of principles*, it is important to look for *win-win* solutions and accept that sometimes there is a need to *agree to disagree*. It is also imperative to deal openly, respectfully and constructively with diverse stakeholders, engaging *heart, head, and hands* so that people feel and care enough that shared knowledge can motivate them to take appropriate action.
2. *Interdisciplinary information sharing* should be a key element of partnerships, including the development of novel ways to share information across disciplines and internationally. It is important to collate and utilize information resources that are already available, to make them accessible to stakeholders.
3. *Partnerships of experts* can usefully create products that bring together knowledge from various disciplines, for example the [Scientific Task Force on Wildlife Diseases](#)

##### STAKEHOLDER ENGAGEMENT CONSIDERATIONS FOR FLYWAY PARTNERSHIPS

1. *Stakeholder mapping* is an important first step to understand who the stakeholders are; followed by
2. *Securing their engagement* by informing them that they have been identified as stakeholders, briefing them on the issues and then:
  - using positive messages (for example engendering pride rather than issuing criticism);
  - speaking to the values the stakeholders hold, in their language, identifying common interests; and
  - building trust through measures including continuous communication.
3. *Forming stable alliances* is important, between ‘backbone’ organizations and other active stakeholders; MEAs or other intergovernmental bodies often provide a logical starting point for this.
4. *Well coordinated consortia* are vital where multiple NGOs and other non-profit organizations, including networks of networks, are involved. Such consortia should agree on common definitions of the problems and solutions; follow agreed road maps towards clear, easily understood, measurable objectives; and speak with a single voice. This is especially important in relation to supporting ministries of environment in their delivery of environmental commitments, and in approaching financiers.
5. *Enshrining greener thinking and delivery in the institutional culture* of government agencies, corporations and other organisations, including a commitment to key flyway conservation initiatives. Embedding mechanisms for engagement with conservation issues into corporate culture is an effective means of tackling the significant challenge of staff turnover; positive change can be reinforced when rewarded through positive publicity, including awards.
6. *The concept of collective impact (see Innovative Approaches section above)* can assist in achieving large-scale social change through broad cross-sectoral coordination that allows organizations to extend their reach. For example, intergovernmental and governmental organizations can work with NGOs to have an impact at local level. Central to the concept of collective impact is that the backbone organization involved needs to be relatively invisible and humble - although the funding system works against this premise.
7. *The use of non-local contacts* to convey messages to stakeholders in potentially contentious situations can be effective, as they are more likely to be heard objectively (expressed in the workshop as “*The two towns away principle*”).

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## STAKEHOLDER ENGAGEMENT AT THE LOCAL LEVEL

1. *Conservation action is frequently site-based and often site-specific*, even if carried out in the context of the wider flyway. As such, it must engage the full suite of local stakeholders through a process of “good governance”. Active site champions delivering positive messages to local communities are important in engendering the support of stakeholders in the conservation of individual sites. Outside experts can also encourage local support for site protection and participatory management.
2. *Assessment of local needs* is important to inform the development of conservation responses that are appropriate to the local context and can be quite innovative. For example, the organization of inter-village football matches in South Thailand has been used effectively to reduce shorebird hunting as a leisure activity (providing not only the will to stop killing shorebirds, but the way to redirect that energy, or removal the barrier to changing behavior).

3. *A strong understanding of the values and perceptions of local communities* towards migratory birds and addressing their basic issues (e.g. concern about birds being pests or carriers of disease) and needs (e.g. perceived competition with waterbirds for fish resources) at important waterbird sites is required to enable greater engagement of local people in finding lasting conservation solutions.
4. *Development of conservation awareness raising programmes for local people*, including local administrators and local leaders, to engender positive attitudes and support including: a) pride and a sense of ownership towards their migratory birds and supporting habitats – flyway relevance can increase the perceived importance of a site, and b) an understanding of the value of conservation of waterbirds and their habitats in the context of sustainable development, for example the ecotourism opportunities they can provide.
5. *Working with local people to enhance the benefits they get from the use (sustainable livelihoods) and conservation of important waterbird habitat* (e.g. management to increase attractiveness as a tourism site, using alien plant species from the habitat to produce crafts attractive to tourists).
6. *Empowering local communities* with the help of NGO facilitators and materials can provide incentives for sustained conservation efforts, for example:
  - Locally organized festivals in celebration of particular flagship species such as cranes or key sites, supported by materials (translated as appropriate) produced at regional level, attract significant attention from politicians and local government as well as other audiences;
  - *Events held to celebrate the designation of sites (e.g. in flyway site networks)*;
  - *Rewarding and publicizing local conservation achievements* by senior local administrators, local leaders or other local champions through accolades such as certificates, official congratulatory letters or prizes.
  - *Developing ways of communicating with existing (national) networks of local administrators* to provide an effective mechanism to publicise the importance of flyway issues and to build more widespread support and participation at local levels.
  - *Face-to-face engagement*, organizing parties / events leading to involvement in bird counts with support from NGOs and followed up with twitter / facebook / texting (e.g. as used for crane network in Korea);
  - *Youth ecoclubs*, especially in communities where there are few activities for young people, and where clubs are used to teach young people to organise themselves e.g. into a campaigning voice.

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## APPROACHES TOWARDS CHANGING ATTITUDES AND ACTIONS IN SUPPORT OF FLYWAY CONSERVATION

1. *Effective communication of the economic, ecological and cultural values of birds and their habitats* is important. For example:
  - a. placing economic values on ecosystem services, such as pest control services provided by waterbirds like cattle egrets in Indonesian rice fields;
  - b. emphasizing opportunities for developing livelihoods from e.g. birdwatching tourism. However, it can be challenging to express these where such benefits are less tangible or, for example, where birds are seen to be in competition (e.g. Great Knot eating shellfish in Korea).

2. *Employ social marketing tools* to promote behavioural changes for key target audiences, using marketing principles to “sell” social behaviours that benefit the target audience and society in general (rather than the marketer in a typical commercial environment). This approach provides “the will and the way”, changing people’s attitude to nature through the following sequence: Knowledge > Attitudinal Change > Inspiring Conservation > Barrier Removal > Behavioural Change > Threat Reduction > Conservation Results. The WHRSN campaign to raise awareness of the benefits of shorebirds to host communities and promote collective action towards effective conservation is an example of this approach.
3. *Understand, respect and use the values of the audience*, using a spokesperson who they respect. Engage in programmes to build local capacity for improving public awareness and changes in attitudes and behaviours to promote conservation, eg the [RARE Pride Campaign](#).
4. *Enhanced use of new media* e.g. Facebook, Twitter, Youtube, Podcasts to get messages across to suitable audiences (while noting that other audiences need different approaches)
5. *Cultural messages should increasingly be deployed* where they are likely to have more resonance than scientific ones, for example engage the arts community more in helping to raise awareness and funds (e.g. BirdLife International’s Preventing Extinctions Programme [Ghosts of Gone Birds](#) project).
6. *Provide stakeholders with the opportunity to contribute to communications campaign*.
7. *Developing a sense of community* among diverse players that have made a commitment to protecting particular species or sites

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#### IMPROVING COMMUNICATION AND OUTPUTS THROUGH ADDRESSING THE CHALLENGES OF LANGUAGES AND CULTURE

1. *Improve understanding of cultural differences in conservation approaches and attitudes*, for example, through grassroots approaches including local needs analysis. *Local perspectives* on birds can vary between cultural systems (e.g. different Indonesian islands), therefore it is important to listen and tailor conservation responses to local traditional knowledge and cultural characteristics.
2. *Build capacity for culturally sensitive communications, including:*
  - a. *Training for flyway conservation practitioners* to help remove the barrier of unintended messages resulting from national or regional cultural differences;
  - b. *Awareness-raising and training for native English speakers in workshop participation* so that they do not dominate by default due to language skills;
  - c. *Language training* as a staff incentive to those involved in international flyway activities.



3. Enable the availability of materials and tools in relevant languages and provide simultaneous *translation for workshops / meetings where necessary*. Project proposals should anticipate and factor in *adequate costs for translation and interpretation*.
4. Adapt use of *terminology* to avoid misunderstanding by different stakeholders, for example, when communicating with the hunting community, it is important to acknowledge differences between harvest for recreation, commercial purposes and livelihoods and to separate legal harvest from illegal take/poaching.

#### 4.6 CAPACITY BUILDING

The recommendations in this section are derived mainly from the session on Developing Capacity, supplemented by material from Habitat Conservation and Partnerships and Stakeholder Participation.

1. Training / capacity building should be integrated into flyway programmes and project proposals to ensure that capacity building benefits are achieved through related activities.
2. The need for long-term capacity development against short-term individual projects should be emphasized with donors, for both public and civil sectors.
3. The flyway partnership for the AEWA region should lead on coordinating and locating financing for the roll out of products of the WOW project, including promotion, further development and capacity building for use of the Critical Site Network Tool and the Flyway Training Kit within the AEWA region and their application to other flyways. The Flyway Training Kit should be implemented in the Africa-Eurasia region through targeted capacity building interventions and integration into educational structures.
4. Priority regions, especially in Africa, South America and parts of Asia, should be identified and targeted for flyway conservation action that include capacity building for site and habitat conservation measures.
5. Resource imbalances along flyways should be addressed through financing, knowledge sharing and capacity building. Relationships built between organisations in different countries provide a long-term, effective means of sharing finance, knowledge and capacity.
6. Imbalances in capacity levels can be addressed through exchange programmes, including between regions / flyways. Links made between individuals can promote and cement links between organisations and enhance technical capacity.
7. Capacity building activities should draw on the knowledge and skills available in other countries within the region where possible.
8. Along flyways, networks of competent trainers should be developed at the regional level, and the training of trainers institutionalized.
9. At the regional level, capacity building should be provided for national MEA focal points on a regular basis (e.g. every 3-5 years).
10. Capacity building should be institutionalized within key agencies and administrations, including promotion of inter-ministerial training, and addressing resource and equipment constraints in order to strengthen local and regional institutions along flyways.
11. Capacity should be developed at leadership and policy makers level, including ability in conflict management.

12. The capacity of technical staff in communications and participatory planning should be developed to enable them to work effectively with stakeholders.
13. The establishment of long term partnerships between key sites, local institutions and universities provides an effective means of developing capacity for site management including the research information base.
14. Relevant information, results and monitoring protocols should be exchanged and disseminated in appropriate languages.
15. A guide map of available resources for capacity building should be developed, especially for training resources.

#### 4.7 FINANCING FLYWAY CONSERVATION

Financing flyway conservation is a cross-cutting issue (see **Figure 12**), which featured to some extent in all of the workshop discussions. It was also discussed specifically during the session on innovative approaches in the context of financing and advocacy for flyway conservation.

1. In general, *Flyway-scale initiatives can be attractive to donors* where proposals and projects at individual unconnected sites can seem small, piecemeal and inadequate to solve the overall problem of species decline at a sufficient scale. However, the structure of some funding sources can limit their ability to support multi-national flyway projects.
2. The workshop noted that new approaches are needed towards financing and advocacy for flyway conservation, overcoming the limitations of working to a project cycle, which is rarely the way to achieve real, long-term change at this scale. These include:
  - a. *Endowments, micro-credits* and other financing mechanisms;
  - b. *“Investment Vehicles for Flyways”* for financing of innovative approaches should be developed to separate the management of investments from the individuals and organizations undertaking the technical work, and to provide independence, transparency and technical advice, e.g. regarding EIA offsets;
  - c. *Develop larger programs with commodity suppliers* and their customers, encouraging flyway-scale offsetting to maximise the biodiversity returns on financial investments;
  - d. *Develop relationships with advertising and marketing organisations*, harnessing their skills to promote conservation and influence behaviour.
  - e. *Flyway initiatives should increase the scope and depth of donor-relationship building*, for example to advise on strategic investments and engage with *corporate social responsibility programmes*.
3. *Benefits of partnerships with corporate donors can include:*
  - a. *enhanced access to high levels of management* to discuss key issues impacting on species and habitats;
  - b. *helping to improve and develop new policies*, e.g. the [Wetlands International partnership with Shell](#), which seeks to reduce the impacts of oil, gas and biofuel development on the environment and livelihoods;
  - c. *development of projects*, including those that make linkages along flyways;

- d. *encouraging corporate engagement* with flyway initiatives; and
  - e. *encouraging corporate pride* through involvement in saving flagship species / sites.
4. In line with the above points, *a range of donors should be invited to participate in future meetings of the Global Interflyway Network (GIN).*



## 5. FINAL REMARKS FROM THE PARTICIPANTS

In the final session of the workshop, all participants were invited to give their opinions about the usefulness of the workshop and any key messages. In general, the participants concluded that the workshop had been highly beneficial, that much had been learned about different approaches taken across the different flyways, and also that there was much common ground in relation to the threats faced by migratory birds in the different flyways. The workshop provided a valuable opportunity to share lessons learned, develop clearer ideas on where we need to improve and how to find solutions, stimulating us to think and act more collectively. Other take home messages were that financing should be targeted towards integrated ambitious projects that can be linked to tangible solutions, and that the Western / Central Asian Flyway region needs urgent attention as a weak link in global coverage.

Sources of inspiration for the participants included having the opportunity to share a vision for flyway conservation, the support of a network of dynamic flyway experts, and the array of innovative solutions being implemented to tackle flyway conservation problems including new technologies that are lifting the veil on what these incredible migratory birds are doing.

In conclusion, the participants clearly felt that this workshop marked the start of a new process of inter-flyway experience sharing, and the establishment of the Global Interflyway Network (GIN) provides an exciting new mechanism for continued engagement into the future.



**Participants after the workshop at Hanseo University, Seosan, Korea**

## 6. TAKING THE WORKSHOP OUTCOMES FORWARD

The Global Waterbird Flyways Workshop outcomes and aspirations for the GIN to provide an ongoing mechanism of exchange have been welcomed by various relevant policy instruments:

### **CMS Scientific Council Meeting and CMS COP10 (Bergen, Norway, November 2011)**

The outcomes of the workshop were taken forward rapidly to the 17<sup>th</sup> Meeting of the CMS Scientific Council, summarized as an information note [UNEP/CMS/Inf.10.41](#). This document was subsequently referred to in [CMS Resolution 10.10](#) *Guidance on Global Flyway Conservation and Options for Policy Arrangements*, which also acknowledged the broad participation and inputs from many of the organizations and initiatives represented at the Global Flyways Workshop to the workings of the CMS Scientific Council. Resolution 10.10 calls for various actions, including: *12. Calls upon the Secretariat, in collaboration with Parties and relevant international organizations (subject to the availability of funds) to organize regional workshops aimed at sharing best practice and lessons learnt, and to promote flyway conservation and policy options, including for American Flyways, the East Asian – Australasian Flyway, the Central Asian Flyway, seabird flyways and birds of prey of the Americas and land birds in the African-Eurasian region.* CMS Resolution 10.10 also refers to three reviews commissioned by the CMS Scientific Council Flyways Working Group (see Galbraith (2010), Jones and Mundkur (2010) and Kirby (2010); and summary A on *Conservation of migratory birds globally – outcomes from the Flyways Working Group reviews* in Annex 4).

### **AEWA MoP 5, La Rochelle, France, May 2012**

AEWA Resolution 5.19 concerning *Encouragement of further joint implementation of AEWA and the Ramsar Convention* acknowledges the joint initiative of the Ramsar STRP, CMS, BirdLife International and Wetlands International in collaboration with the EAAFP and AEWA established under Ramsar Resolution X.22 to bring together experiences and lessons learned from flyway initiatives worldwide; the outcome of the present workshop in establishing a Global Interflyway Network (GIN); and the report and recommendations of the workshop in this publication.

### **Ramsar COP11, Bucharest, Romania, July 2012**

This workshop report will be launched at COP11.

### **The Future of the Global Interflyway Network**

The workshop participants recognized that this first bringing together of flyway conservation practitioners from around the world was long overdue, and very valuable to all participating. The workshop agreed that establishing a mechanism for continued exchange of experience, best practice and information between flyway experts (including those not able to participate in the workshop) would have great value. As described in **section 2.1** of this report, the workshop agreed to establish a “*Global Interflyway Network*” (GIN) to fulfill this purpose, to support the implementation of the recommendations from this workshop and to improve collaboration between different flyway practitioners and synergies between the different flyway initiatives globally.

It is anticipated that in the initial stages of its development the GIN may operate as a basic e-mail group, but there would be much added benefit in establishing a more sophisticated communication mechanism

to facilitate networking, to exchange documents and to provide a single point where others could join the group or access the group's expertise on issues of relevance to flyway conservation. This would clearly require an injection of funding and capacity, and participants in the Global Waterbird Flyways Workshop are exploring ways of securing this. The network should be open and inclusive, both geographically and taxonomically, and would welcome the participation of any initiatives or flyway conservation practitioners not present at the Global Waterbird Flyways Workshop. The GIN will be complementary to, and a potential resource for, the CMS Working Group on Flyways and would remain in close contact with all relevant policy instruments and processes.



**Workshop participants at the *Birdland centre* at Cheonsu Bay, Seosan, South Korea**

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## ANNEX 1: PARTICIPANTS LIST FOR THE GLOBAL WATERBIRD FLYWAY WORKSHOP

Organisation 기관	Position/role 직책/담당업무	Name 참석자 이름	E-mail 전자우편
<b>Representatives of flyway agreements/ initiatives/ networks/ projects   철새이동경로 관련 협정/협의체/네트워크/프로젝트</b>			
African – Eurasian Migratory Waterbird Agreement (AEWA) 아프리카-유라시아 물새협정	Technical Officer 연구담당관	<b>Sergey Dereliev</b>	<a href="mailto:sdereliev@unep.de">sdereliev@unep.de</a>
East Asian – Australasian Flyway Partnership (EAAFP) 동아시아-대양주 철새이동경로 파트너십	Science Officer 과학담당관	<b>Choi Chang-yong</b>	<a href="mailto:subbuteo95@gmail.com">subbuteo95@gmail.com</a>
East Asian – Australasian Flyway Partnership (EAAFP) 동아시아-대양주 철새이동경로 파트너십	Communications and Information Officer 대외협력 담당	<b>Aram Lee</b>	<a href="mailto:aram0124@gmail.com">aram0124@gmail.com</a>
Western Hemisphere Shorebird Reserve Network (WHSRN) 서구 도요물떼새 보호 네트워크	Executive Director, WHSRN Executive Office 사무국장, 서구 도요물떼새 보호	<b>Charles Duncan</b>	<a href="mailto:cduncan@manomet.org">cduncan@manomet.org</a>

International Crane Foundation (ICF) 국제두루미재단	Senior Director of Conservation Networking International Crane Foundation 과장, 보전활동 네트워크담당과 국제두루미재단	<b>Claire Mirande</b>	<a href="mailto:mirande@savingcranes.org">mirande@savingcranes.org</a>
International Crane Foundation (ICF) 국제두루미재단	Former International Technical Advisor to UNEP GEF Siberian Crane Wetland Project UNEP GEF 시베리아 흰두루미 서식지보전 프로젝트 자문위원	<b>Crawford Prentice</b>	<a href="mailto:Crawford.prentice@gmail.com">Crawford.prentice@gmail.com</a>
Partners in Flight (North American Landbird Conservation Plan) 철새의 동반자 (북미 산새류 보전계획)	Partners in Flight National Coordinator; US Fish & Wildlife Service 철새의 동반자 국내 간사, 미국 어류 및 야생동물 관리국	<b>Terry Rich</b>	<a href="mailto:terry_rich@fws.gov">terry_rich@fws.gov</a>
BirdLife International Asia Division 버드라이프 인터네셔널 아시아지부	Global Seabird Programme Asia Coordinator 국제 해양조류 프로그램 아시아지역 담당	<b>Mayumi Sato</b>	<a href="mailto:sato@birdlife-asia.org">sato@birdlife-asia.org</a>
<b>Representatives of MEAs addressing flyways   철새이동경로 관련 국제환경협약</b>			
Ramsar Convention Secretariat 람사르협약 사무국	Deputy Secretary General 부사무총장	<b>Nick Davidson</b>	<a href="mailto:Davidson@ramsar.org">Davidson@ramsar.org</a>

<p>Convention on Migratory Species (CMS) Flyways Working Group 이동성야생동물보호협약(CMS) 철새이동경로 워킹그룹</p>	<p>Chair, CMS Flyways Working Group &amp; Head, International Biodiversity Unit, Swiss Federal Office for the Environment, Switzerland CMS 철새이동경로 워킹그룹 의장 &amp; 스위스연방 환경청 국제생물다양성협약 팀장</p>	<p><b>Olivier Biber</b></p>	<p><a href="mailto:olivier.biber@buwal.admin.ch">olivier.biber@buwal.admin.ch</a></p>
<p>Convention on Migratory Species (CMS) Flyways Working Group 이동성야생동물보호협약(CMS) 철새이동경로 워킹그룹</p>	<p>CMS Scientific Council member; also Flyways Programme Manager for Wetlands International CMS 과학자문위원 &amp; 국제습지위원회 철새이동경로 프로그램 담당</p>	<p><b>Taej Mundkur</b></p>	<p><a href="mailto:taj.mundkur@wetlands.org">taj.mundkur@wetlands.org</a></p>
<p>Convention on Migratory Species (CMS) Flyways Working Group 이동성야생동물보호협약(CMS) 철새이동경로 워킹그룹</p>	<p>International Species Policy Officer, BirdLife International 버드라이프 인터네셔널 국제 종 정책 담당</p>	<p><b>Nicola Crockford</b></p>	<p><a href="mailto:nicola.crockford@rspb.org.uk">nicola.crockford@rspb.org.uk</a></p>
<p><b>Organisations working on flyway issues/activities   철새이동경로 관련 기관 및 국제단체</b></p>			
<p>BirdLife International Global Secretariat 버드라이프 인터네셔널 본부 사무국</p>	<p>Global Flyways Officer 철새이동경로 담당</p>	<p><b>Vicky Jones</b></p>	<p><a href="mailto:Vicky.Jones@birdlife.org">Vicky.Jones@birdlife.org</a></p>
<p>BirdLife International Asia Division 버드라이프 인터네셔널 아시아지부</p>	<p>Senior Conservation Officer 버드라이프 인터네셔널 아시아지부</p>	<p><b>Simba Chan</b></p>	<p><a href="mailto:simba@birdlife-asia.org">simba@birdlife-asia.org</a></p>

	보전활동 담당		
BirdLife South Africa 남아공 버드라이프	Manager, Community Based Conservation Division 공동체보전 활동담당	<b>Daniel Marnewick</b>	<a href="mailto:community@birdlife.org.za">community@birdlife.org.za</a>
Wetlands International 국제습지연합	Head of Programme and Strategy - Biodiversity and Ecological Networks 국제습지연합 생물다양성 및 생태계 네트워크 프로그램 담당 팀장	<b>Szabolcs Nagy</b>	<a href="mailto:Szabolcs.Nagy@wetlands.org">Szabolcs.Nagy@wetlands.org</a>
Wetlands International 국제습지연합	Associate Expert 박사, 전문가	<b>Tim Dodman</b>	<a href="mailto:tim@timdodman.co.uk">tim@timdodman.co.uk</a>
Wetlands International 국제습지연합	Manager, Wetlands International Oceania 국제습지연합 오세아니아 지부장	<b>Doug Watkins</b>	<a href="mailto:doug.watkins@wetlands-oceania.org">doug.watkins@wetlands-oceania.org</a>
Wetlands International 국제습지연합	Biodiversity Officer, Wetlands International Indonesia 국제습지연합 인도네시아 지부 생물다양성 프로그램 담당	<b>Yus Rusila Noor</b>	<a href="mailto:noor@wetlands.or.id">noor@wetlands.or.id</a>
Food and Agriculture Organization of the United Nations (FAO)	Emergency Prevention System (EMPRES) Wildlife Unit Coordinator 긴급재해방지시스템 야생동식물 담당	<b>Boripat Siriaroonrat</b>	<a href="mailto:boripat.siriaronrat@gmail.com">boripat.siriaronrat@gmail.com</a>

유엔식량농업기구	간사		
Federation of Associations for Hunting & Conservation of the EU [FACE] 유럽연합 사냥/보전협회	CEO & Director of Conservation 사무국장 & 보전과장	<b>Angus Middleton</b>	<a href="mailto:angus.middleton@face.eu">angus.middleton@face.eu</a>
U.S. Geological Survey (USGS) 미국지질조사국	Research Wildlife Biologist 야생동물 연구원	<b>Robert Gill</b>	<a href="mailto:rgill@usgs.gov">rgill@usgs.gov</a>
Hawk Mountain 호크 마운틴 맹금류 재단	Director of Conservation Science, Hawk Mountain Sanctuary 호크 마운틴 보호구 보전과장	<b>Keith Bildstein</b>	<a href="mailto:bildstein@hawkmtn.org">bildstein@hawkmtn.org</a>
<b>Korean organizations working on flyway issues/activities   국내 철새이동경로 관련 연구기관 및 단체</b>			
National Institute of Biological Resources, Republic of Korea 국립생물자원관	Senior Researcher, Division of Vertebrate Research 척추동물과 연구관	<b>Kim Jin-han</b>	<a href="mailto:birdkr@korea.kr">birdkr@korea.kr</a>
Seosan City 서산시	Researcher, Department of regional resources 지역자원과 연구원	<b>Park Min-cheol</b>	<a href="mailto:osilot@seosan.go.kr">osilot@seosan.go.kr</a>
Waterbird Network Korea 한국물새네트워크	Representative 대표	<b>Lee Kisup</b>	<a href="mailto:larus@hanmail.net">larus@hanmail.net</a>

<b>Observers   참관인</b>				
Birds Korea 새와 생명의 터	Director 대표	Nial Moores	<a href="mailto:nial.moores@birdskorea.org">nial.moores@birdskorea.org</a>	
Chounbuk National University 전북대학교	Special researcher 전임연구원	Ju Yung-ki	<a href="mailto:juyki@hanmail.net">juyki@hanmail.net</a>	
<b>EAAFP Secretariat Staff   동아시아-대양주 철새이동경로 파트너십 사무국 직원</b>				
East Asian – Australasian Flyway Partnership (EAAFP) 동아시아-대양주 철새이동경로 파트너십	Deputy director	Lee Eui-Yoen	<a href="mailto:Kkk888@korea.kr">Kkk888@korea.kr</a>	
East Asian – Australasian Flyway Partnership (EAAFP) 동아시아-대양주 철새이동경로 파트너십	Finance Officer	Kim Hyeong-mun	<a href="mailto:dandyace@korea.kr">dandyace@korea.kr</a>	
East Asian – Australasian Flyway Partnership (EAAFP) 동아시아-대양주 철새이동경로 파트너십	Public Information Officer	Kim Minseon	<a href="mailto:min-seon.kim@eaaflyway.net">min-seon.kim@eaaflyway.net</a>	

## ANNEX 2: PROGRAMME FOR THE PUBLIC SESSION OF THE GLOBAL WATERBIRD FLYWAYS WORKSHOP

Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt

18-20 October 2011, Seosan City, Republic of Korea

Time	Public Session/Presentation Titles	Speaker/Affiliations
13:00	<b>Formal opening and welcome by hosts</b>   개회/환영사 및 축사	
	Opening remarks 개회사	Kim Seung-hee, Director General, Nature Conservation Bureau, Ministry of Environment, Republic of Korea 대한민국 환경부 자연보전국장
	Welcoming remarks 환영사	Seo Yong-jei, Seosan City Acting Mayor 서산시장 직무대행 부시장
	Congratulatory remarks 축사	Olivier Biber, Head, International Biodiversity Unit, Swiss Federal Office for the Environment, Switzerland 스위스연방 환경청 국제생물다양성

**Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt**

**18-20 October 2011, Seosan City, Republic of Korea**

Time	Public Session/Presentation Titles	Speaker/Affiliations
	<p align="center">Congratulatory remarks</p> <p>축사</p>	<p>팀장</p> <p>Nick Davidson, Ramsar Secretariat; Organising committee representative, Switzerland</p> <p>람사르협약 부사무국장, 세계 철새이동경로 워크숍 운영위대표</p>
13:20	<p><b>Global overview of migratory waterbird status</b></p> <p>이동성물새 현황 및 개요</p>	<p>Taej Mundkur, Wetlands International, Netherlands</p> <p>국제습지연합, 네덜란드</p>
13:40	<p><b>Major flyway initiatives from a range of different flyways</b></p> <p>세계 주요 철새이동경로 관련 기구/협의체</p> <p>1. What flyways are and the history of international co-operation for waterbird conservation</p> <p>세계의 철새이동경로 및 물새보전을 위한 국제협력의 역사</p>	<p>Nick Davidson, Ramsar Secretariat, Switzerland</p> <p>람사르협약 사무국, 스위스</p>



**Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt**

**18-20 October 2011, Seosan City, Republic of Korea**

Time	Public Session/Presentation Titles	Speaker/Affiliations
	2. East Asian – Australasian Flyway Partnership  동아시아 – 대양주 철새이동경로 파트너십	Chang-Yong Choi,  EAAFP Secretariat, Korea  동아시아 – 대양주 철새이동경로 파트너십 사무국, 대한민국
	3. Western Hemisphere Shorebird Reserve Network  서구 도요물떼새 보호 네트워크	Charles Duncan,  WHSRN Executive Office, USA  서구 도요물떼새 보호네트워크, 미국
	4. Partners in Flight (landbirds in North America)  철새의 동반자 (북미)	Terry Rich,  US Fish and Wildlife Service, USA  어류 및 야생동물 관리국, 미국
	5. African-Eurasian Waterbird Agreement  아프리카-유라시아 물새협정	Sergey Dereliev,  AEWA Secretariat, Germany  아프리카 – 유라시아 물새협정 사무국, 독일
15:00	Tea break   휴식	

**Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt**

**18-20 October 2011, Seosan City, Republic of Korea**

Time	Public Session/Presentation Titles	Speaker/Affiliations
15:30	<p><b>Pressures and threats faced by migratory waterbirds</b></p> <p>이동성물새 위협요인</p>	
	<p>1. Habitat loss/land claim</p> <p>서식지 소실/매립</p>	<p>Nick Davidson,</p> <p>Ramsar Secretariat, Switzerland</p> <p>람사르협약 사무국, 스위스</p>
	<p>2. Avian influenza: issues for waterbird conservation and international responses and guidance</p> <p>조류인플루엔자: 물새보전과 국제적 대응 및 지침</p>	<p>Boripat Siriaroonrat,</p> <p>Food and Agricultural Organisation, Thailand</p> <p>유엔식량농업기구, 태국</p>
	<p>3. Barriers to migration</p> <p>철새이동의 장애물</p>	<p>Sergey Dereliev,</p> <p>AEWA Secretariat, Germany</p> <p>아프리카 – 유라시아 물새협정 사무국, 독일</p>
	<p>Questions/discussion 질의응답</p>	
16:00	<p><b>Opportunities for conservation and cooperation</b></p>	

**Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt**

**18-20 October 2011, Seosan City, Republic of Korea**

Time	Public Session/Presentation Titles	Speaker/Affiliations
	보전활동 및 협력 기회	
	<p>1. Role of BirdLife International in promoting migratory waterbird and wetland management/conservation</p> <p>이동성물새 및 습지관리/보전에 대한 다양한 국제환경기구의 역할</p>	<p>Vicky Jones, BirdLife International, UK</p> <p>버드라이프 인터네셔널, 영국</p>
	<p>2. Role of Wetlands International in promoting migratory waterbird and wetland management/conservation</p>	<p>Doug Watkins, Wetlands International, Australia</p> <p>국제습지연합, 호주</p>
	<p>3. Development of birding tourism in South Africa</p> <p>남아프리카공화국 철새관광 프로그램 개발</p>	<p>Daniel Marnewick, BirdLife International, South Africa</p> <p>버드라이프 인터네셔널, 남아공</p>
	Questions/discussion 질의응답	
16:30	<p><b>Activities for migratory waterbird and wetland conservation in South Korea</b></p> <p>대한민국의 이동성물새 및 습지보전활동</p>	

**Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt**

**18-20 October 2011, Seosan City, Republic of Korea**

Time	Public Session/Presentation Titles	Speaker/Affiliations
	<p>Nationwide activities for the conservation of migratory waterbirds and wetlands in Korea</p> <p>한국의 이동성물새 및 습지 보전 활동</p>	<p>Kim Jin-han,</p> <p>National Institute of Biological Resources</p> <p>국립생물자원관, 대한민국</p>
	<p>Local activities in Seosan for conservation of migratory Waterbirds and their habitats</p> <p>이동성 물새 및 습지 보전을 위한 지역활동:</p> <p>서산시의 사례</p>	<p>Lee Jong-chun,</p> <p>Seosan City Office</p> <p>서산시, 대한민국</p>
	<p>Questions/discussion 질의응답</p>	
<p>17:30</p>	<p><b>Closing of public session and final conclusions by Chair</b></p> <p>의장 폐회사</p>	
<p>17:45</p>	<p>End of the public session   폐회</p>	



**ANNEX 3: PROGRAMME FOR GLOBAL WATERBIRD FLYWAYS WORKSHOP 18-20 OCTOBER 2011**

<p><b>Global Waterbird Flyways Workshop to promote exchange of good practice and lessons learnt</b></p> <p><b>18-20 October 2011, Seosan City, South Korea</b></p>		Co-Chair/facilitator:
Tuesday 18 <sup>th</sup>		
09:00	<p><b>Introduction and welcome to workshop</b></p> <p>Outline of objectives of workshop by Nick Davidson</p>	<p>Nick Davidson</p> <p>Olivier Biber</p>
09:15	<p><b>Participants' introductions</b></p>	<p>Note-taking: Nicola Crockford</p>
10:00	<p><b>Short introduction to different flyway initiatives, summarising:</b></p> <ul style="list-style-type: none"> <li>• Legal basis</li> <li>• Governance arrangements</li> <li>• Funding</li> <li>• Three strong points</li> <li>• Three weak points</li> </ul>	

	<ol style="list-style-type: none"> <li>1. Conservation of migratory birds globally – outcomes from the Flyways Working Group reviews Taej Mundkur, CMS Flyways Working Group Chair</li> <li>2. Ramsar Convention Nick Davidson, Ramsar Secretariat</li> <li>3. African-Eurasian Waterbirds Agreement Sergey Dereliev, AEWA Secretariat</li> <li>4. An example of the single species approach: Siberian Crane Conservation mechanisms past and present, Claire Mirande, International Crane Foundation</li> </ol>		
10:55	Questions		
11:00	Tea/ coffee		
11:30	<ol style="list-style-type: none"> <li>5. East Asian – Australasian Flyway Partnership, Chang-Yong Choi, EAAFP Secretariat</li> <li>6. Waterbird Conservation across the Americas, Terry Rich, USFWS</li> <li>7. Western Hemisphere Shorebird Reserve Network: a look under the bonnet. Charles Duncan, WHSRN Executive Office</li> <li>8. Partners in Flight (North Americas), Terry Rich</li> <li>9. Overview of raptor flyway initiatives, Keith Bildstein</li> <li>10. The BirdLife Global Seabird Programme, Mayumi Sato</li> </ol>		
12:25	Group discussion: brainstorm to come up with a list of institutional arrangements that have worked and those that have not and a discussion of why what works in one flyway may not work in another		

13:15	Lunch	
14:15	<p><b>Theme 1. Achieving effective flyway-scale implementation through national engagement and implementation</b></p> <p>Introduction to session by Nick Davidson</p>	Nick Davidson Taej Mundkur
14:20	<ol style="list-style-type: none"> <li>1. South Korean experiences with implementing flyway initiatives, Kim Jin-han</li> <li>2. Indonesian experiences with implementing flyway initiatives, Yus Rusila Noor</li> <li>3. South Africa case study; ecotourism at Wakkerstroom WOW project, Daniel Marnewick</li> </ol>	Note-taking: Vicky Jones
15:00	Group discussion: itemisation of best ways of ensuring national engagement and implementation	
16:00	Tea/ coffee	
16:30	<p><b>Theme 2 – Species conservation and the flyway approach</b></p> <p>Introduction to session by Nicola Crockford</p>	Nicola Crockford Sergey Dereliev
16:35	1. African- Eurasian waterbird Species Action Plans; 3 successes, 3 failures, Sergey Dereliev	
16:50	2. EAAF waterbird Species Action Plans ; 3 successes and 3 failures, Simba Chan, (15 mins)	
17:05	3. Western Hemisphere waterbird Species Action Plans; 3 successes, 3 failures Charles Duncan	



17:20	Group discussion: what are the key ingredients of effective species action plans (development/implementation)	Sergey Derliev
18:20	<b>End of day 2</b>	
<b>Wednesday 19</b>		
09:00	<b>Introduction to Day 3</b> Nick Davidson	Note-taking: Doug Watkins
09:05	<b>Theme 3 – Addressing site/habitat conservation through the flyway approach</b> Introduction to session by Vicky Jones	Vicky Jones Charles Duncan
09:10	1. Critical Sites Network Tool as an aid to decision making, Szabolcs Nagy	
09:20	2. Establishing and conserving national and international site networks Charles Duncan	
09:30	3. Habitat/ site management within & beyond protected areas - what can the flyway approach add? Crawford Prentice	
09:40	Group discussion – Card exercise	
10:50	Tea/coffee	
11:20	<b>Theme 4 – Contributions of science to the application of the flyway approach</b>	Sergey Derliev

	Introduction to session by Nick Davidson	Nick Davidson
11:25	4. How can research help in practical application of the flyway approach & what priority research needs remain? Bob Gill	
11:40	5. Priority setting for waterbird conservation: experiences from AEWA's Conservation Status Review. Szabolcs Nagy	
11:55	Group discussion: Guided by discussion points/key questions including issues of: a) how to improve the rapid application of key research results into conservation action b) key research needs c) brainstorm on how technological innovation can contribute to research needs	
13:00	Lunch	
14:00-	<b>Field excursion to Cheonsu Bay and cultural sites</b>	
19:30	<b>End of day 3</b>	
<b>Thursday 20</b>		
09:00	<p><b>Theme 5 – Innovative approaches to flyway conservation</b></p> <p>Introduction to session by Angus Middleton, FACE, Belgium</p> <p>A series of 5 minute summaries of innovations and partnerships from international programs and frameworks for conservation or change</p> <ul style="list-style-type: none"> <li>• At various scales: regional, national and local levels</li> </ul>	<p>Angus Middleton</p> <p>Nick Davidson</p> <p>Note-taking: Nick Davidson</p>

	<ul style="list-style-type: none"> <li>• With varying sectors: business, industry, health, education</li> <li>• For different purposes: project design, implementation, ownership</li> </ul> <ol style="list-style-type: none"> <li>1. Working with the corporate sector to influence wetland management – the Wetlands International – Shell Partnership, Taej Mundkur</li> <li>2. Corporate partnership at national level - Hyundai Corporate and Black-faced spoonbill in Korea, Lee Kisup,</li> <li>3. Identification of Marine Important Bird Areas in Asia., Mayumi Sato, BirdLife</li> <li>4. Soaring birds, Vicky Jones, BirdLife</li> <li>5. Species champions &amp; guardians Nicola Crockford</li> <li>6. Spoon-billed Sandpiper case study Nicola Crockford</li> <li>7. Collective impact in implementing flyway conservation Charles Duncan</li> </ol>	
09:45	Group discussion: Guided by key questions: best practice in engaging outside normal sphere of influence, e.g. integration of biodiversity into the development agenda and other aspects of 'mainstreaming'	
10:50	Tea/coffee	
11:20	<p><b>Theme 6 – Developing capacity for flyway conservation</b></p> <p>Introduction to session by Doug Watkins</p>	Doug Watkins Tim Dodman
11:25	1. The WOW Flyway Training Kit: putting this new tool into practice in Africa-Eurasia Tim Dodman	
11:35	2. At the flyway scale: an example from the Americas, Rob Clay (Remote presentation by SKYPE)	Notes: Vicky Jones

11:45	3. At the flyway scale: an example from Asia, Crawford Prentice, International Crane Foundation	
11:55	4. At regional centres, Nick Davidson	
12:05	<p>Group discussion: Guided by discussion points/key questions including issues of:</p> <ul style="list-style-type: none"> <li>• Institutional capacity building needs for flyway conservation</li> <li>• Technical capacity building needs for flyway conservation, including monitoring</li> <li>• Solutions for sustaining capacity building programmes and flyway networks</li> </ul>	
13:00	<b>Lunch</b>	
14:00	<p><b>Theme 7 – Partnerships and stakeholder involvement within flyway initiatives</b></p> <p>Introduction to session by Claire Mirande, International Crane Foundation</p>	<p>Claire Mirande Taej Mundkur,</p>
14:05	1. Involvement of hunting community in flyway conservation: an example from Europe, Angus Middleton	<p>Note-taking: Nicola Crockford</p>
14:15	2. Wings Over Wetlands partnership of NGO and IGOs – its formation and management experience, Szabolcs Nagy	
14:25	3. Experiences from the Western Hemisphere Shorebird Reserve Network (role of social marketing, RARE), Charles Duncan, WHSRN	
14:35	4. Science partnerships for Avian Influenza surveillance and risk assessment, Boripat Siriaronrat	

14:45	5. From a donor's perspective, Olivier Biber, Switzerland	
14:55	Group discussion: Types of partnership including non-traditional sectors, characteristics of productive partnerships, formality vs informality	
15:45	Tea/coffee	
16:15	<b>Review and conclusions - Priorities for flyway conservation and initiatives</b> Introduction to session by Nick Davidson	Nick Davidson Taej Mundkur
16:20	Consideration of conclusions including main elements of a summary document. Guided discussion: <ul style="list-style-type: none"> <li>• What different components are needed to make a flyway initiative successful?</li> <li>• What needs to be in place to make flyway-scale conservation work?</li> <li>• How to structure flyway initiatives to achieve effective collaboration?</li> <li>• How to improve facilities and options for regional scale networking among partners and stakeholders?</li> <li>• How to engage new partners?</li> </ul>	
17:45	Vote of thanks on behalf of the Organising Committee - Nick Davidson	
18:00	<b>End of day 4 - workshop closes</b>	

## ANNEX 4: SUMMARIES OF PRESENTATIONS FROM THE INTRODUCTORY SESSION

Summaries of the following presentations are given in this Annex:

- A. Conservation of migratory birds globally – outcomes from the Flyways Working Group reviews, by Taej Mundkur, CMS Flyways Working Group Chair
- B. Ramsar Convention, by Nick Davidson, Ramsar Secretariat
- C. African-Eurasian Waterbirds Agreement, by Sergey Dereliev, AEWA Secretariat
- D. An example of the single species approach: Siberian Crane conservation mechanisms past and present, by Claire Mirande, International Crane Foundation
- E. East Asian – Australasian Flyway Partnership, by Chang-Yong Choi, EAAFP Secretariat
- F. Waterbird Conservation across the Americas, by Rob Clay, Waterbird Conservation Council
- G. Western Hemisphere Shorebird Reserve Network: a look under the bonnet, by Charles Duncan, WHSRN Executive Office
- H. Partners in Flight (North Americas), by Terry Rich
- I. Overview of raptor flyway initiatives, by Keith Bildstein, Hawk Mountain Sanctuary
- J. The BirdLife Global Seabird Programme, by Mayumi Sato
- K. Role of international environmental organisations in promoting migratory waterbird and wetland management and conservation: BirdLife International, by Vicky Jones
- L. Role of international environmental organisations in promoting migratory waterbird and wetland management and conservation: Wetlands International, by Doug Watkins
- M. Conservation of Migratory Waterbirds and Wetlands in Korea, by Kim Jin-Han, National Institute of Biological Resources

### A. CONSERVATION OF MIGRATORY BIRDS GLOBALLY – OUTCOMES FROM THE FLYWAYS WORKING GROUP REVIEWS, TAEJ MUNDKUR, CHAIR OF THE CMS FLYWAYS WORKING GROUP, WETLANDS INTERNATIONAL

The conservation of migratory birds and their habitats is a major focus of the UNEP/Convention on the Conservation of Migratory Species of Wild Animals (CMS). To direct the work of the Convention in promoting the conservation of migratory birds into the future, Resolution 9.2 of the 9<sup>th</sup> Meeting of the Conference of the Parties (COP9, Rome, December 2008), called “*for the establishment of an open-ended working group on global bird flyways within the framework of the Scientific Council to act as a think tank on flyways and frameworks, and tasked with reviewing scientific and technical issues for conservation of migratory birds and their habitats and relevant international instruments, initiatives and processes, as the basis for future CMS policy on flyways and contributing to the work on the future shape of CMS*”. As a result, an international Flyways Working Group was established in late 2009, which has brought together representation from governments, multilateral environmental agreements, flyway initiatives, key NGO partners and experts to ensure broad coverage both in terms of expertise on bird flyway issues and geographical representation.

During 2010 – 2011, the FWG has undertaken three major reviews, namely: a) a review of existing administrative/ management instruments for migratory bird flyways (waterbirds, non-waterbirds and seabirds) globally; b) a review of scientific/ technical knowledge of migratory bird flyways and conservation priorities, including identification of major gaps; and c) a review on policy options for flyway conservation and management to feed into an intersessional process regarding the Future Shape of CMS.

The outcomes of these reviews have provided the basis for the development of a draft resolution 10.10 *Guidance on global flyway conservation and options for policy arrangements* which will be considered at the forthcoming 10<sup>th</sup> COP in November 2011 in Norway. The resolution aims to identify the strategic priorities for the CMS to provide a framework for migratory bird conservation and to cover the needs for all migratory bird species across all the world's flyways (African-Eurasian, American, Central Asian, East Asian – Australasian, Seabirds and Pacific). It is clear that this resolution will need to be taken forward through building and strengthening of synergy with all stakeholders and partners.

## B. THE RAMSAR CONVENTION ON WETLANDS ...AND WATERBIRDS, NICK DAVIDSON, RAMSAR CONVENTION SECRETARIAT

Why a Convention on Wetlands? The Ramsar Convention was developed in the 1960s because of concerns over destruction of wetlands and its impact on people and biodiversity – especially waterbirds. It opened for signature in the town of Ramsar, I.R. Iran on 3 February 1971, and so was the first of the modern global intergovernmental environmental agreements, pre-dating significant UN environmental attention. Now 162 Contracting Parties (member governments) globally [as at 15 June 2012]. There are three main implementation 'pillars' in the Convention text: the "wise use" of all wetlands; designation & management of Wetlands of International Importance (Ramsar sites) to maintain their *ecological character*; and international cooperation – on knowledge and expertise, on share wetlands and water resources, and on migratory wetland-dependent species.

The 1971 Convention text was (and still is) inspirational and far-sighted. It identifies the Convention's scope as *wetlands & water; ecosystems & people, and placed an initial implementation focus on waterbirds, and Ramsar site designations*. It has taken 40 years of evolution of implementation to respond to the full scope of water and wetlands. Ramsar was the first intergovernmental agreement to combine conservation and sustainable use of resources. Its text recognises that "wetlands constitute a resource of great economic, cultural, scientific, and recreational value, the loss of which would be irreparable"; and "the fundamental ecological functions of wetlands as regulators of water regimes". So to deliver "wise use" requires landscape and waterscape-scale, ecosystem-based, approaches to decision-making and management, and managing wetlands to support basin-scale water management and delivery is essential.

There are now 2026 Ramsar Sites (as of late June 2012) covering >19 million hectares, with sizes ranging from <1 ha to >6 million ha. Contracting Parties identify and designate Sites based on nine Criteria (each Site must meet at least one Criterion). Of these two Criteria are specifically for waterbirds: #5: >20,000 waterbirds; and #6: > 1% of a biogeographic waterbird population. Three others can be (and are regularly) applied to waterbirds: #2: threatened species (globally/nationally); #3: maintaining regional biodiversity; and #4: critical stages in life-cycle. 35-60% of All Ramsar Sites in different regions are designated for waterbirds under Criterion 5 &/or 6, with 45% (912 Sites) globally. Despite this there are still many gaps in the network of key flyway sites for waterbirds designated under Ramsar. For example by 2002 only 14% of Important Bird Areas (IBAs) qualifying for waterbirds had been designated as Ramsar sites. The WOW Critical Sites Network (CSN) Tool will help Parties identify remaining key site gaps for priority designation.

Ramsar Site designation does not in itself stop continuing human pressures on these wetlands, and by far the most frequent threats reported by governments are from water regulation, agriculture and overall land-use change. So does Ramsar site designation help maintain wetland health? In recent surveys

conducted by the World Bank, WWF, academics and the Ramsar Secretariat, Ramsar site managers have reported that designation has helped maintain the conservation status of wetlands Listed as Ramsar sites, with benefits of designation including: increased public awareness about the importance of the sites, increased participation by local stakeholders in management, greater support for protection of the site and surrounding (buffer) areas, increased conservation funding (both domestic and international), and enhanced opportunities for promoting scientific research and ecotourism. Also, from reports by Ramsar Parties, Ramsar Sites are in relatively better health than wetlands in general.

**Ramsar Legal status & governance.** The Convention is a UN-registered treaty under international law, governed by its Contracting Parties (member states) meeting in a Conference of the Contracting Parties (COP) triennially to set budgets and future implementation actions. Intersessionally, governance is by the Standing Committee (with pro-rata Party membership by Ramsar geopolitical region). The Convention has a strong scientific and technical advisory body (Scientific & Technical Review Panel – STRP), with 15 members appointed for expertise in own right, Ramsar’s International Organisation Partners are also members, plus a number of COP-invited observer organisations and invited experts. The Ramsar Secretariat (hosted by IUCN) provides the executive for the Convention, delivers responsibilities instructed by Convention text, and COP decisions, and manages the Convention core budget. The Secretariat is relatively small for the size and scope of the Convention, with 21 technical and administrative staff. Although it has grown since established in the late 1980s, this has not been at pace with overall Convention growth. The 2012 core budget is CHF5.1 Million.

#### C. AFRICAN-EURASIAN MIGRATORY WATERBIRD AGREEMENT – THE FLYWAY APPROACH AT WORK, SERGEY DERELIEV, AEWAS SECRETARIAT

The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) was concluded on 16 June 1995 in The Hague, the Netherlands, and entered into force on 1 November 1999. AEWA is a legally-binding Multilateral Environmental Agreement (MEA) which has been established in accordance with the provisions of Article IV of the Convention on Migratory Species (CMS). It covers 119 Range States of which 65 have already ratified the Agreement. Currently 255 species are listed under AEWA, belonging to 28 families and represented by 554 populations.

The Agreement’s Action Plan outlines the measures which Contracting Parties shall put in place for the conservation and management of the populations listed in Table 1 of the Action Plan. All populations are assessed individually against a set of criteria and placed on one of the three columns of Table 1 of the Action Plan in accordance with their conservation status (from strictly protected to relaxed regimes). The measures to be implemented by the Contracting Parties and to contribute to the maintenance or the restoration of the waterbird populations to a favourable conservation status fit within six broad areas of work:

- Species conservation (such as species action and management plans, reintroduction, tackling alien species, etc.);
- Habitat conservation (such establishing a protected and managed network of sites, rehabilitation and restoration of habitats, etc.);
- Management of human activities (phasing out the use of lead shot, regulation of other hunting-related issues and eco-tourism activities, etc.);



- Research and monitoring (such as maintaining a regular waterbird monitoring programme, establishing a Pan-African ringing scheme, research projects on ecology, demography and migration, etc.);
- Education and information (such as delivering training and increasing public awareness, etc.);
- Implementation (such as providing guidelines and reviewing implementation and progress achieved).

In 2008 the AEWA Strategic Plan for 2009-2017 was approved, which further prioritises implementation activities and incorporates indicators of the effectiveness of the Agreement.

The Contracting Parties are obliged to submit a national report on the implementation of the Agreement to each session of the Meeting of the Parties. A newly developed online reporting system offers versatility in maintaining reporting templates, entering information and analyzing submitted data.

AEWA is governed by the Meeting of the Parties (MOP) which holds its session once every three years. During the intersessional periods the Agreement is steered by a Standing Committee (StC) of seven members elected on a regional basis who meet twice per triennium. A Technical Committee of 15 members advises the MOP, the StC and the Secretariat on scientific and technical matters. This group of experts meets twice between MOPs and works between meetings through a virtual Workspace. A small permanent UNEP-administered secretariat is hosted by Germany and is located in Bonn. It serves all governing bodies, assists Contracting Parties, coordinates international activities, administers the Small Grants Fund, etc.

AEWA's core budget is approved by the MOP and is provided by the Contracting Parties. Contracting Parties allocate voluntary contributions for covering priority activities. The Secretariat fundraises with a variety of donors, including the private sector, to further the implementation of the Agreement.

Some of the strengths of AEWA are, no doubt, its legally-binding context, the moderate coverage (area-wise and species-wise), clear focus and priorities, targeted objectives, dedicated and active constituency and operation within the UNEP framework.

Addressing some challenges will be helpful in strengthening the effectiveness of the Agreement. These include a larger number of acceding Parties, stronger enforcement and compliance mechanisms, recognition beyond the nature conservation community and stronger engagement with other sectors and sufficient funding.

For over 15 years, AEWA has proved to be a working and delivering model for flyway conservation in the African-Eurasian context. It presents a viable option for similar initiatives on other bird taxa in the region.

#### D. AN EXAMPLE OF THE SINGLE SPECIES APPROACH: SIBERIAN CRANE CONSERVATION MECHANISMS PAST AND PRESENT, CLAIRE MIRANDE, INTERNATIONAL CRANE FOUNDATION

Crane conservation has been undertaken on 5 levels including: 1) Global (WI/IUCN Crane Specialist Group), 2) Flyway (UNEP/GEF Siberian Crane Wetland Project), 3) Watershed (ICF's 7 Rivers Campaign), 4) Ecosystem (Poyang Lake), 5) Species (Whooping Crane Recovery Plan, CMS MoU for Siberian Crane). The key to success on all levels is effectively linking birds, places, and people, and connecting to people in ways that address what is important to them.

The species conservation approach is reviewed here, through the *CMS Memorandum of Understanding (MoU) concerning Conservation Measures for the Siberian Crane* and the *UNEP/GEF Siberian Crane Wetland Project (SCWP)*.

**The CMS MoU:** The first MoU developed under CMS, it was concluded in 1993 and revised in 1999. All eleven range states are signatories and seven meetings have been held, at which the MoU Conservation Plan is reported on and updated. See [http://www.cms.int/species/siberian\\_crane/sib\\_bkrd.htm](http://www.cms.int/species/siberian_crane/sib_bkrd.htm)

*The Western/Central Asian Site Network for the Siberian Crane and Other Waterbirds* has been established under the MoU with twelve sites in six countries and an action plan has been endorsed. There is a need to build national support for this site network, while the proposed long term strategy is to place it under the Central Asian Flyway (CAF) initiative as a first step towards a CAF waterbird site network.

MoU meetings have been jointly financed by CMS and ICF, with increasing support required from host countries. A coordinator for the MoU is jointly funded by ICF and CMS. Grants are primarily raised by ICF with some co-financing from partners. To date, country contributions have been limited, and CMS has limited funds to share across a growing number of agreements (now 18). The potential to establish a CMS Trust Fund to support the MoU was explored, but not considered viable. However CMS has the facility to set up a budget line for countries to earmark funds for MoU activities.

Strong points of the single species approach include: 1) the MoU provides an official mechanism for facilitating international cooperation, including government-NGO collaboration; 2) cultural connections and shared issues provide a platform to bring people together around mutual objectives; and 3) more effective protection for individual species through a focus on monitoring and managing specific threats.

Weak points include: 1) the narrow focus can lead to missed opportunities to have broader impact; 2) limited staff and funds are not used efficiently; 3) the number of species can become unmanageable unless we focus only on critically endangered species; 4) if the population becomes too small it can be difficult to maintain support; and 4) countries have not been willing to invest adequate resources for implementation.

**UNEP/GEF Siberian Crane Wetland Project (2003-2009):** This project was developed in response to widespread and continuing loss and degradation of wetlands across Asia and the precarious state of waterbird populations, using the Siberian Crane as a flagship species. The project sites supported more than 27 threatened bird species dependent on wetlands and sustain millions of migratory waterbirds along their migration routes. See [www.scwp.info](http://www.scwp.info) for further information.

Strong points of the project included: 1) upgraded conservation and expanded size of protected areas along flyways (new World Heritage Site, 5 new Ramsar sites, management effectiveness improved at 16 sites totaling seven million ha, and improved legal protection of over 1.8 million ha); 2) countries found connections through shared goals and vision which allowed the group as a whole to set expectations, compare goals, allocate resources, assess what is not working and propose solutions.

Weak points were: 1) it is easier to think at the site or national level than at flyway level; 2) the increased complexity and cost of administering a multi-country and multi-site project; and 3) although other waterbirds benefited, the focus was often too strongly on the flagship species.

**Future of the MoU:** Discussions are being held with CMS and the range states on the future shape of the MoU to determine how to efficiently and effectively coordinate resources. This may involve linking implementation more closely with EAAFP and CAF flyway approaches, or expanding the MoU's scope to

encompass other threatened crane species. The MoU Conservation Plan may be streamlined with the AEWA Single Species Action Plans. Species level conservation needs, challenges, and priorities will be assessed through an update of the WI/IUCN Crane Specialist Group Crane Conservation Plan.

#### E. CHALLENGES FACING THE PARTNERSHIP FOR THE EAST ASIAN – AUSTRALASIAN FLYWAY, CHANG-YONG CHOI, EAAFP SECRETARIAT

The East Asian – Australasian Flyway Partnership was launched in November 2006 as one of the WSSD (World Summit on Sustainable Development) Type II initiatives. The Partnership Document (available at <http://www.eaaflyway.net/partnership-document.php>) outlines the nature and functioning of the Partnership such as the legal status, membership, finance, taxonomic groups, and organizational structures. The Partnership is an informal and voluntary initiative of the Partners. Though Partners are encouraged to provide resources to support activities of the Partnership, there is no obligation of financial support. The Secretariat, based at Incheon in the Republic of Korea since 2009, will be fully funded by the Incheon City Government until 2013.

The East Asian – Australasian (EAA) Flyway encompasses 22 range states, and nearly half of the total world human population shares the flyway with migratory birds. This high human population in the flyway causes strong interaction and diverse conflicts between humans and birds. Rapid habitat loss and degradation (i.e. land claims of tidal flats, loss of high tide roosts due to coastal development) is the most significant threat to the migratory waterbirds. Other threats such as overexploitation, pollution, invasive species, and man-made structures are also recognized in the flyway. Along with these threats to the conservation of migratory waterbirds and their habitats in the EAA Flyway, the low level of recognition and large knowledge gaps for conservation, waterbirds, wetlands, and biodiversity are challenges in this region. In spite of the strong needs of CEPA activities, the significant language barrier and relatively low socio-economic conditions are also major challenges.

On the other hand, the Partnership has several strong points. The EAAF Partnership is the unique representative initiative in this region with a long history of conservation efforts and low barrier to join. The Partnership was developed based on the achievement of the Asia-Pacific Migratory Waterbird Conservation Committee which had been active since 1996. Diverse, active, and expert Partners from governments, inter-governmental organizations, international non-governmental organizations, and business sectors can work together to benefit migratory waterbirds, their habitats, and people.

#### F. WATERBIRD CONSERVATION FOR THE AMERICAS, ROB CLAY, WATERBIRD CONSERVATION COUNCIL

Vision: The distribution, diversity and abundance of populations and habitats of breeding, migratory, and non-breeding waterbirds are sustained or restored throughout the lands and waters the Americas.

Focus:

- Meet the needs of short-term conservation of priority habitats and populations of waterbirds; and
- Work to institutionalize long-term conservation of waterbirds within governments, environmental communities and partners throughout the Americas.

Waterbird Conservation for the Americas is a voluntary network of public and private partners. At the local level, projects are conducted on population and habitat conservation, research and monitoring, law enforcement and outreach and education. Regional working groups / species working groups provide guidance and plans, under the overall guidance of the Waterbird Conservation Council, which has an Executive Committee and Working Groups, facilitated by an international coordinator.

Waterbird Conservation for the Americas supports a “Flyway Approach”, i.e. the partnership embraces the concept of working in a hemispheric context, looking beyond political and taxonomic divisions, to address the needs of shared species and also address shared conservation issues while integrating waterbird conservation with the needs of ecosystems and human communities.

Waterbird Conservation for the Americas promotes but has not led a “flyway initiative”: that is, the partnership envisions a formal alliance of partners and programs, but it has not had the capacity to undertake the massive diplomacy effort required to develop either a shared legal mandate or attain significant new funds for an overarching multi-faceted coordination project that could serve as the cement for such an alliance. Governance is voluntary and multi-scale, loose confederations at regional scale with international guidance from a council. Funds for projects and plans are brought in by the members.

Strong points have been: very international, good participation, useful products, and awareness heightened. Weak points have been the voluntary nature of the partnership, lack of dedicated funding, and most funds come from the “North”. For further information see: [www.waterbirdconservation.org](http://www.waterbirdconservation.org)

#### G. WHSRN: A LOOK UNDER THE BONNET, CHARLES DUNCAN, WHSRN EXECUTIVE OFFICE

The mission of the Western Hemisphere Shorebird Reserve Network (WHSRN, pronounced “whissern”) is to conserve shorebird species and their habitats through a network of key sites across the Americas. Sites are designated when landowners make simple but specific good-faith commitments to shorebird conservation and meet the minimum biological criterion of at least 20,000 shorebirds or 1% of a biogeographic population of shorebirds using the site. There are currently 85 sites in 13 nations. WHSRN is ultimately a partner-driven international strategy for local conservation, based on best science and information, and thus, a “collective impact” project. It is not a direct source of funds or a purchaser of lands. An example is described for the newly designated “Eastern Wetlands of Chiloé [Chile]” WHSRN Site of Hemispheric Importance. Local stakeholders were mapped and then positively engaged leading to buy-in from local mayors, and the Chilean Ministry of the Environment and NGOs both local and international. The most recent success there is agreement just signed between the Ministry of the Environment and Chilote mayors for a “Heritage Trail for Wetlands, Migratory Birds and Culture.”

- I. **Legal basis:** None. It is entirely voluntary and non-binding
- II. **Governance:** The basis of WHSRN is the site partners and these are sometimes organized into national or regional councils. There are also network partners, being entities interested or involved at multiple sites. All these are represented on the Hemispheric Council, the ultimate “keeper of the program.” The role of secretariat, in our case called the Executive Office, is to support the sites and the several councils. It is a program of the Manomet Center for Conservation Sciences, a U.S. non-profit organization.
- III. **Funding:** Operational funding comes from Canadian Wildlife Service, Manomet’s endowment and individual donors and the U.S. Forest Service--International Program. Project-specific funding has come from the David & Lucille Packard Foundation, the National Fish & Wildlife

Foundation of the U.S., the Neotropical Migratory Bird Conservation Act of the U.S., and the M/T Anitra Oil Spill Settlement, administered by the USFWS.

#### IV. Three strong points

- a. Being voluntary and non-controversial attracts unexpected partners
- b. Low barrier to entry
- c. Collective impact approach, at scale, NGO backbone organization, capable of raising funds.

#### V. Three weak points

- a. Under-staffed Executive Office
- b. Often functions as hub-and-spokes, not a true network;
  - Some national councils weak
- c. Some site partners have become “dormant” since designation

## H. PARTNERS IN FLIGHT, TERRELL D. RICH, US FISH AND WILDLIFE SERVICE

Partners in Flight was created in 1990 due to concern over declines in the populations of birds that breed in the deciduous forests of the northeastern U.S. and southeastern Canada and which winter in the Neotropics. Concern over this group of species actually emerged earlier, notably during a symposium, *The Avifauna of Northern Latin America*, at the Smithsonian Institution in Washington, DC, in 1966. Since then, Partners in Flight has expanded its species scope to all landbirds in the U.S., Canada and Mexico. Work is currently underway to expand the geographic scope to include the entire avifauna of Central America. The Partners in Flight mission is expressed in three related concepts:

**Helping Species at Risk** – Species must be conserved before they become imperiled. Allowing species to become threatened or endangered results in long-term and costly recovery efforts whose success is far from guaranteed. Endangered species must not only be protected from extinction but must be recovered to once again play their roles in ensuring the future of healthy ecosystems.

**Keeping Common Birds Common** – Common native birds, both resident and migratory, must remain common throughout their natural ranges. These species comprise the core of our avian diversity and are integral to the integrity of the ecosystems of which they are a part.

**Voluntary Partnerships for Birds, Habitats and People** – Conservation of landbirds and their habitats is not a task that can be undertaken alone. Partnerships must be formed with others who are working for conservation on the same landscapes as well as those who depend on those landscapes for their economic and social well-being. The conservation of natural systems is fundamentally necessary for life on earth, including that of humans.

The foundation for Partners in Flight is the Species Assessment Database whereby the future vulnerability of all bird species are evaluated according to six factors. Major publications include the *PIF North American Landbird Conservation Plan* (Rich et al. 2004) and *Saving Our Shared Birds: Partners in Flight Tri-National Vision for Landbird Conservation* (Berlanga et al. 2010). These assessments and much additional information can be found at [www.PartnersInFlight.org](http://www.PartnersInFlight.org) and at [www.SavingOurSharedBirds.org](http://www.SavingOurSharedBirds.org). International conferences with proceedings have been held in 1992, 1995, 2002 and 2008. The next conference will be held in the U.S. in late summer 2013. A Strategic Action Plan with specific tasks for the period 2013-2016 is nearing completion. Contact the U.S. National Coordinator, Terrell D. Rich, for further information ([terry\\_rich@fws.gov](mailto:terry_rich@fws.gov)).

## I. RAPTOR FLYWAYS: THE VIEW FROM HAWK MOUNTAIN, KEITH L. BILDSTEIN, HAWK MOUNTAIN SANCTUARY, USA

Hawk Mountain Sanctuary is the world's oldest and largest member-based raptor conservation organization. Founded in 1934 to stop the slaughter of birds of prey by local hunters along a significant raptor-migration flyway in the central Appalachian Mountains of eastern Pennsylvania, the site began documenting the magnitude of its autumn flight in 1934. In the early 1960s conservationist and author Rachel Carson used declines in the ratio juvenile-to-adult Bald Eagles *Haliaeetus leucocephalus* seen at Hawk Mountain in the 1940s and 50s to support her claims of organochlorine pesticide impacts on eagles and other birds in her conservation classic *Silent Spring*. A rebound in eagle numbers that began in mid 1970s after the use of DDT was banned in North America, helped confirm her argument. In 2000 Hawk Mountain and Birdlife International co-published *Raptor Watch: a Global Directory of Raptor Migration Sites* that described the location of 388 active and historic migration watchsite across six continents.

Together with the National Audubon Society, Hawk Mountain helped create the Hawk Migration Association of North America, a migration watchsite network that in 2003 joined Hawk Mountain and several other bird conservation organizations in the United States and Canada, in adopting a flyways approach to monitoring migratory populations of raptors in North America. This partnership resulted in the publication of the first continental assessment of the conservation status of raptors, *The State of North America's Birds of Prey* in 2008. In 2006 Hawk Mountain published the first accurate map of the world's five principal long-distance raptor migration corridors: the Trans-American, European-West African, Eurasian–East African, East-Asian Continental and East-Asian Oceanic flyways in *Migrating Raptors of the World: their Ecology and Conservation*.

Today, Hawk Mountain is working with *Euromigrans*, a network of European migration watchsites, to develop a flyways approach to monitoring and studying populations of birds of prey migrating along flyways between Europe and Africa. The flyways approach for monitoring raptors offers a cost effective method for assessing the conservation status of individual geographic populations of the worlds migratory birds of prey, a group of birds that are secretive and widespread and, otherwise, difficult to survey and monitor. Hawk Mountain Sanctuary plans to continue working with other bird conservation organizations in promulgating this important tool in natural-resource conservation.

## J. THE BIRDLIFE GLOBAL SEABIRD PROGRAMME, MAYUMI SATO, BIRDLIFE INTERNATIONAL ASIA DIVISION

Seabirds, particularly albatrosses, are rapidly declining in numbers at a faster rate than any other species-groups of birds. Although they face a wide variety of threats including marine pollution, habitat degradation and invasive alien species at nesting colonies, many declines are closely linked to bycatch in commercial longline fisheries. Seabirds, especially albatrosses, petrels and shearwaters, are attracted to fishing vessels to feed on discarded fish and bait. These foraging birds are often caught on hooks, drowned and killed. It is estimated that over 300,000 seabirds are killed as bycatch every year including 100,000 albatrosses. With the fact that 18 out of the 22 species of albatross are classified as being under threat of extinction by IUCN, this scale of loss is unsustainable for many species.

In 1997, BirdLife International established the Global Seabird Programme to support BirdLife Partners to: 1). promote the collaborative international action that is vital to arrest seabird declines, 2). advocate the conservation of seabirds, 3). work directly with fishermen and other stakeholders to reduce seabird bycatch and other threats to seabird populations.

We are working at national, regional and global levels to deliver solutions for reducing seabird bycatch. For example, through the Albatross Task Force (AFT), we work with local fishing communities to raise awareness of seabird bycatch and demonstrate to fishermen the use of simple and effective mitigation measures. We also report Tracking Ocean Wanderers, summarizing remote tracking data for albatrosses and petrels to identify crucial areas for the conservation of albatrosses across the world's oceans where seabird distributions overlap with fishing efforts (bycatch hotspots). Another example of conservation activities we have been promoting is the Marine Important Bird Areas (marine IBA) Programme that uses standardised, globally agreed criteria to identify marine areas that are critical to the conservation of seabirds and marine biodiversity. These sites will make a vital contribution to achieving protection and sustainable management of the oceans, particularly by linking to the future designation of Marine Protected Areas (MPAs).

#### K. ROLE OF INTERNATIONAL ENVIRONMENTAL ORGANISATIONS IN PROMOTING MIGRATORY WATERBIRD AND WETLAND MANAGEMENT AND CONSERVATION: BIRDLIFE INTERNATIONAL, VICKY JONES, BIRDLIFE INTERNATIONAL

BirdLife International is a global partnership of more than 115 national NGOs which share a common mission 'To conserve wild birds, their habitats and global biodiversity, by working with people towards sustainability in the use of natural resources'.

BirdLife has a long track record of working for waterbird and wetland conservation in collaboration with other conservation organisations, governments, MEAs, industry and local communities. More than 10 000 Important Bird Areas have now been identified, representing a core set of the most important sites for biodiversity conservation across the globe. A significant proportion of these IBAs are wetland sites important for waterbirds and other biodiversity.

BirdLife is a member of the EAAFP, and an International Organisation Partner for the Ramsar Convention, with which it has an MOC. BirdLife provides scientific data to Ramsar, including shadow lists of potential Ramsar sites, and many BirdLife Partners work closely with their national governments on implementation of Ramsar. BirdLife engages in casework to facilitate international attention where legal requirements are not being upheld at particular Ramsar sites/ Important Bird Areas. BirdLife also works closely with CMS and AEWA and is part of an MOC between partners of the Wings Over Wetlands project to continue collaboration towards improving conservation of waterbirds in the African-Eurasian region.

BirdLife Partners are involved in a range of activities related to waterbird and wetland conservation from waterbird species conservation, to wetland site management and safeguard, site and landscape scale restoration, education and training promoting sustainable resource use, and working to tackle climate change vulnerability.

Successful flyways projects are built on effective collaboration and BirdLife's network of national Partners are ideally placed to engage in collaborative flyway-scale conservation. The Wings Over Wetlands project in the Africa-Eurasia flyway, the Rio Tinto & BirdLife Western Hemisphere Flyways Programme in the

Americas flyway and the 'Soaring Birds project' in the Red Sea-Rift Valley flyway are good examples of collaborative flyway conservation projects involving BirdLife working with MEAs, other conservation organisations, industry and national governments.

#### L. ROLE OF INTERNATIONAL ENVIRONMENTAL ORGANISATIONS IN PROMOTING MIGRATORY WATERBIRD AND WETLAND MANAGEMENT AND CONSERVATION: WETLANDS INTERNATIONAL, DOUG WATKINS, WETLANDS INTERNATIONAL - OCEANIA

Wetlands International is one of the world's leading conservation NGOs dedicated to sustain and restore wetlands, their resources and biodiversity. With its head office in the Netherlands, Wetlands International has offices in 20 countries in all continents. It is a small organisation that believes it can achieve its mission through strong partnership at the global, regional, national and local level through working in close partnership with a wide range of partners, including government, technical institutions, local people and business.

Wetlands International's approach is to promote sustaining of ecosystems, building capacity or enabling of people and influencing of policy. Wetlands International assists and supports Governments to implement Conventions, Agreements, and deliver national programs.

Wetlands International provides much of the "push" for global and flyway conservation frameworks such as the East Asian – Australasian Flyway Partnership and have been actively working on this for over two decades.

Recognising the need for water to sustain human life, Wetlands International works to improve management of water and build an understanding of the interconnected links between water supply and wetland management.

To improve our understanding of the status of waterbird species, Wetlands International has been working with a range of national organisations and volunteers in over 100 countries to monitor waterbirds. The International Waterbird Census, launched in 1967, and has provided information to local people and governments to support identification of important wetlands and promoting their management.

Wetlands International believes that the corporate sector can play a more important role in environmental management. It has developed a strategic partnership with Shell International to enhance the conservation and sustainable use of wetlands by Shell and its affiliates. Under this partnership, Shell seeks to develop new strategies, policies and tools to improve its activities while Wetlands International provides its knowledge on wetland areas, their values and provides sustainable management advice. Thus we are working together in innovative ways to minimise the loss of nature and negative impacts of oil and gas development on associated livelihoods and wetlands. A few quick examples of work on the ground include Arctic wetlands – Russia, Canada, Tropical wetlands - Nigeria, Brunei, Iraq. In addition we are working to find ways to minimise impacts of biofuel development on wetlands. The partnership provides a unique mechanism to raise awareness internally within Shell management through talks and dialogue and help influence policy.



## M. CONSERVATION OF MIGRATORY WATERBIRDS AND WETLANDS IN KOREA, KIM, JIN-HAN, NATIONAL INSTITUTE OF BIOLOGICAL RESOURCES

Wintering waterbirds census has been conducted since 1999. 192 sites were selected (Cheorwon, Han river, Geum river, Nakdong river, etc.), covered by participants: 4 ornithologists from NIBR, plus 179 surveyors (professors, teachers, NGOs, graduate students, etc. Each team consisted of two people, counting all birds seen at the sites and maintaining communication between adjacent sites to avoid overlapping counts. Coverage increased from 143 sites and 73 survey teams in 2009, to 172 sites and 88 teams in 2010, to 192 sites and 92 teams in 2011. Results of the census have allowed total numbers to be recorded, key sites identified, numbers of endangered and nationally protected species to be monitored, and trends indicated for some species. In 2011, 1,267,630 birds from 204 species were counted. The results have been published in the survey report, representing a unique collaboration between administrations, assembly, local government, universities and research institutes, local specialists, NGOs, international organizations, etc. The results will be included in regional analyses through the Asian Waterbird Census.

Bird banding and colour flagging was conducted at more than 7 locations in the Republic of Korea, with a total of 27,521 birds of 236 species/subspecies banded in 2010. In addition, a total of 116 shorebirds were banded and 96 birds were colour flagged during northern migration period in 2011 (mainly at Yubu Is.). A variety of recoveries of Korean-banded birds were presented, including for Spot-billed Duck *Anas poecilorhynchus*, Great Knot *Calidris tenuirostris*, Terek Sandpiper *Xenus cinereus*, Greater White-fronted Goose *Anser albifrons*, Mandarin Duck *Aix galericulata*, Eurasian Teal *Anas crecca*, Mallard *A. platyrhynchos*, Northern Pintail *A. acuta*, and Eurasian Wigeon *A. penelope*. Korean recoveries of birds banded elsewhere included Bar-tailed Godwit *Limosa lapponica* (from Victoria and 80 Mile Beach, Australia), Great Knot (from Broome, Australia and Chongming Island, China), Ruddy Turnstone *Arenaria interpres* (Tasmania, Australia), Red-necked Stint *Calidris ruficollis* (Japan), and Whooper Swan *Cygnus cygnus* (Sharga Nurr and Hoh Nurr, Mongolia).

Satellite tracking results were given for several raptor species and Black-faced Spoonbill *Platalea minor*. The Black-faced Spoonbill was marked at Gooji Island (Yeonpyong Island) on 1 July 2010 and its migration route tracked through China and Vietnam to Cambodia where it over-wintered (12 December 2010 to 21 April 2011). During northwards migration it stopped at Gia Lai, Vietnam (April 23-25) and Da Nang, Vietnam (April 27) before moving to Yangjang, in China (last signal).

The Convention on Wetlands came into force for the Republic of Korea on 28 July 1997. The Republic of Korea presently has 17 sites designated as Wetlands of International Importance, with a surface area of 17,677 hectares. The Republic of Korea hosted Ramsar COP10 in October 2008 at Changwon City.

In conclusion, the conservation of migratory waterbirds and wetlands in Korea has been improved by the following activities:

- **Bilateral Agreements:** Korea-Russia (1994), Korea-China (2007), Korea-Australia (2007) and Korea-Japan (soon)
- **Multilateral Agreements & Cooperation:** Ramsar, CBD, EAAFP, IUCN, etc.
- **Education & Public awareness raising activities**
- **Institutional activities of government:** National Institute of Biological Resources (2007, Incheon), Ramsar Regional Center (2009, Changwon), National Wetland Center (2012, Changnyung), and the National Institute of Ecology (2012, Seocheon).

## ANNEX 5: BIOGRAPHICAL SUMMARIES OF WORKSHOP PARTICIPANTS

(In alphabetical order by family name)



**Olivier Biber:** Born in Bern (Switzerland). Studies in biology, psychology and natural sciences at universities of Montpellier (France), Bern (MSc) and Basle (PhD). Stay as an ornithologist at Biological Field Station of La Tour du Valat from 1968-1970 (Camargue, France, director Dr Luc Hoffmann).: Ornithological field studies in the newly founded Cévennes National Park (Southern France) under the direction of Dr Jacques Blondel (Montpellier) from 1971 – 1974.: Head of the field study centre Observatoire ornithologique du Chasseral (Swiss Jura) from 1967 – 1976: studies on

bird migration and the ecology of bird communities in agricultural ecosystems. Participated in International Waterfowl and Wetlands Research Bureau (IWRB, now Wetlands International) expeditions to Yugoslavia, Romania, Bulgaria, Greece, Portugal and Morocco in the early 1970s. Studies on behaviour and ecology (bioclimatology) of seabirds on Lofoten Islands (Norway) as an assistant of Prof. Beat Tschanz (Zoological Institute of the University of Bern, 1975).: Co-ordinator of a national census of endangered bird species at the Swiss Ornithological Institute from 1977 – 1979 . Assistant ornithologist at the Natural History Museum of Bern from 1978 – 1984.

Full staff member of the Swiss Ornithological Institute from 1985 – 1998 as a scientist ; amongst others, director of the White Stork Ecology Project (1993 – 1998); also in charge of international relationships (e.g. with IUCN, BirdLife International and international and regional ornithological congresses); Expedition to Egyptian Sahara on bird migrations; organisation in 1994 of an international Symposium on the White Stork.

Since 1998, Head of International Biodiversity Affairs at the governmental Swiss Federal Office for the Environment (FOEN) in charge of biodiversity related conventions and international organisations (CBD, focal point for Ramsar Convention, CMS, AEWA, Bern Convention, IUCN, Wetlands International). From 1979 – 1987, Vice-president of the Swiss Council for the Protection of Birds (former Swiss section of the ICBP, now BirdLife International) and chairman of its International Affairs Commission. Member of the Board (since 1979) and president (since 1995) of the Ornithological Society of Western Switzerland Société romande pour l'étude et la protection des oiseaux „Nos Oiseaux“. Member of the Scientific Authority of CITES for Switzerland (1993 – 1998). Vice-chair of the Board of the Swiss Ornithological Institute (since 1999). Member of the Swiss Academy of Sciences, British Ecological Society and numerous ornithological societies.



**Keith L. Bildstein:** is Sarkis Acopian Director of Conservation Science at Hawk Mountain Sanctuary in Orwigsburg, Pennsylvania and Adjunct Professor of Wildlife Biology at the State University of New York-Syracuse. He is a Fellow of the American Ornithologists' Union, and has been President of the Waterbird Society and the Wilson Ornithological Society, and Vice-president of the Raptor Research Foundation. Bildstein edited the *Wilson Bulletin*, a quarterly journal of ornithology, from 1984 through 1987, and was a member of the editorial board of *The Auk*, in 1997-2000. He has authored or coauthored more than 100 papers in ecology and conservation, including more than 50 on birds of prey. His books include *White Ibis: wetland wanderer* (1993), *The raptor migration watch-site manual* (1995 [with Jorje Zalles]), *Raptor watch: a global*

*directory of raptor migration sites* (2000 [with Jorje Zalles]), and *Migrating raptors of the world: their ecology and conservation* (2006). His co-edited works include *Conservation Biology of Flamingos* (2000), *Hawkwatching in the Americas* (2001), *Neotropical Raptors* (2007), *Raptor Research and Management Techniques* (2007), and *The State of North America's Birds of Prey* (2008). His current research interests include the global geography of migratory raptors and the conservation of vultures.



**Simba Chan:** Born and educated in Hong Kong. First started his conservation career as the Education Officer (1987) and later (1990) Training Officer for WWF Hong Kong at Mai Po Marshes Nature Reserve in Hong Kong. Has also worked for TRAFFIC East Asia for one year (1994-95). In 1995 he moved to Japan and work as the Head of International Cooperation Section of the Wild Bird Society of Japan. During this period (1995 – 2005) he participated in the compilation of BirdLife International Red Data Book of Threatened Birds of Asia and Important Bird Areas of Asia as one of the main editors. He has also been implementing a Japanese Environment Agency (later known as Ministry of Environment)

wetland project in South East Asia since 1995, including a survey in Myanmar (2001-2003) and supported the country to ratify the Ramsar Convention. Since the establishment of the North East Asian Crane Site Network (1997) he has been serving as the Flyway Officer of the Network and from 2007 the coordinator and a member of the Crane Working Group under the East Asian – Australian Flyway Partnership. In 2005 he moved to work for BirdLife International Asia Division in Tokyo as the Senior Conservation Officer. He is also the editor-in-chief of two CMS Action Plans for Black-faced Spoonbills and Chinese Crested Tern.



**Chang-Yong Choi:** served the East Asian – Australasian Flyway Partnership (EAAFP) as the Science Officer at the beginning of the Secretariat. As an experienced bird bander and scientific researcher, he had involved in diverse issues for the conservation of migratory waterbirds and their habitats both in local and flyway levels. Particularly, he collected published/unpublished materials for knowledge dissemination and information on color-marked waterbirds to encourage flyway-wide migration studies in the East Asian – Australasian Flyway (EAAF). He is currently leading a surveillance program for exotic infectious diseases

from migratory birds and prepares further studies on the conservation of threatened birds in NE Asia.



**Nicola Crockford:** is the International Species Policy Officer of the Royal Society for the Protection of Birds (RSPB), BirdLife in the UK. She is the BirdLife International focal point for the Convention on Migratory Species (CMS) and its daughter instruments, the African-Eurasian Waterbird Agreement and African Eurasian Bird of Prey Memorandum of Understanding (MoU). As the chair to the Slender-billed Curlew working group of the CMS MoU for the species, she organized a coordinated two year search for the species across its Western Palearctic non-breeding range which was unable to relocate the species. She coordinated the first year of the RSPB's input to the Spoon-billed Sandpiper captive-breeding programme and other conservation activities. She continues to

lead for the RSPB on work on East Asian intertidal habitats, including coordinating BirdLife input to the IUCN initiative on this issue. Since starting work at the RSPB at national level in 1992, before moving to work at European level in 1997, and previously when working for the Joint Nature Conservation Committee, she has led work on species action planning. She has had a particular interest in waders and migratory waterbirds since school days.



**Prof. Nick Davidson:** has been Deputy Secretary General of the Ramsar Convention on Wetlands since 2000, and has overall responsibility for the Convention's global development and delivery of scientific, technical and policy guidance and advice and communications as the Convention Secretariat's senior advisor on these matters. He has over 30 years experience of research on the ecology, assessment and conservation of coastal and inland wetlands and the ecology and ecophysiology of migratory waterbirds, with a 1981 PhD from the University of Durham (UK) on this topic, and continues to publish on these issues. Prior to his current post he has worked for the UK's national conservation agencies, particularly in coastal wetland inventory, assessment, information systems and communications, and as International Science Coordinator for the global

NGO Wetlands International. He is an Adjunct Professor at the Institute of Land, Water and Society, Charles Stuart University, Australia, and was awarded the Society of Wetland Scientist's International Fellow Award 2010 for his contributions to wetland science and policy. He has a long-standing interest in, and a strong commitment to, the transfer of environmental science into policy-relevance and decision-making at national and international scales.



**Sergey Dereliev:** has been serving as the Technical Officer for the African-Eurasian Migratory Waterbird Agreement (AEWA) since 2004 and has been in charge of facilitating the implementation and compliance by Contracting Parties and other stakeholders, providing scientific and technical advice and supporting the operations of the AEWA Technical Committee. He is a biologist by training and has been involved in research, monitoring and conservation of waterbirds for more than 20 years. He holds particular scientific interest in geese, more specifically the Red-breasted Goose. Sergey has graduated from the University of Sofia in his country of origin Bulgaria. Previously he has worked as Assistant Advisor for Europe at the Secretariat of the Ramsar Convention on Wetlands and has held various positions at BSPB/BirdLife

Bulgaria, the last of which was as Director of Conservation before moving to the UNEP/AEWA Secretariat.



**Tim Dodman:** is a freelance conservationist based on the remote Scottish island of Papa Westray. Tim's main work has focused on wetlands conservation in Africa, where he has lived in Somalia, Zambia and Senegal, with missions in over 30 other countries. His longest engagement was with Wetlands International, setting up their Africa Programme in the 1990s and now serving as an Associate Expert. He has coordinated the African Waterbird Census, developed many of the population estimates of African waterbirds, (co-)authored

numerous publications, including the IBA inventory for Guinea-Bissau, the Atlas of Wader Populations in Africa and Western Eurasia and the CMS Species Action Plan for the West African Manatee. He was closely involved in the Wings Over Wetlands project, leading production of the Flyway Training Kit and several training workshops. Tim remains closely involved in flyway conservation initiatives, especially in relation to Africa.



**Charles Duncan:** is Director of the Shorebird Recovery Project at the Manomet Center for Conservation Sciences and also serves as Director of the Executive Office of the Western Hemisphere Shorebird Reserve Network, a coalition of 87 sites in thirteen nations committed to the conservation of shorebird species and their habitats across the Americas. Charles's professional training was in organic chemistry (B. A., Rice University; Ph. D., Yale University; postdoctoral fellowship, the University of Virginia), and he had a long career in academia at the University of Maine at Machias (UMM). Along the way, his passion for birdwatching in the Americas grew in more rigorous directions. He founded and ran the

Institute for Field Ornithology at UMM for many years, and served as president of the Association of Field Ornithologists from 1998-2000. In 1999, he made a career shift and joined The Nature Conservancy's Migratory Bird Program as conservation ornithologist. In 2002, the American Birding Association honored him with their "Chandler Robbins Award for Education and Conservation," and in 2003, he began at Manomet. Charles lives in Portland, Maine, USA. He is fluent in Spanish as well as his native English.



**Robert Gill:** is the project leader for shorebird research with the U.S. Geological Survey's Alaska Science Center. Through this position and prior to that with the U.S. Fish and Wildlife Service he has over 35 years experience working with shorebirds throughout the Pacific Basin. His work includes long-term studies on the reproductive and population biology of several species of conservation concern and since 2005 he has coordinated a major program that is using the latest satellite tracking technology to assess the migration ecology of several species of curlews and godwits. This work has involved numerous and extensive collaborations with colleagues throughout Pacific Rim countries and Europe. He received an MSc degree from the Avian Biology Laboratory at San Jose State University and is currently a PhD candidate through Groningen

University, The Netherlands. He is a Fellow of the American Ornithologists Union and has a publication list of over 100 peer-reviewed titles. Gill's focus on applied research has lead to several leadership roles in developing regional, national, and international conservation and policy efforts for migratory birds.



**Vicky Jones:** co-ordinates the science element of BirdLife International's evolving global flyways programme, and coordinated BirdLife's scientific/ technical input into the Wings Over Wetlands project, including the Critical Site Network Tool. Vicky is a member of the Ramsar Scientific and Technical Review Panel and her previous experience with waterbirds includes conservation, research, monitoring and habitat restoration. Vicky also has ten years' practical experience working on endangered bird species recovery, invasive species eradication and bird conservation research in Mauritius, New Zealand, Ireland and Cyprus. Vicky's interest in flying things extends to bat conservation and she has carried out research on several species of insectivorous bat, as well as the endemic Rodrigues Fruit Bat, the focus of her MSc. research. She holds a BSc. in Zoology (University of Bristol), an MSc. in Conservation Biology (Durrell Institute, University of Kent) and a PhD. (University of Cambridge) in Zoology, focused on conservation of the endemic Cyprus Warbler.



**Yung Ki Ju:** is an active environmentalist (NGO) and Special Researcher of Chonbuk University on migratory birds, conservation and wise use of wetlands in South Korea. He is especially active in conservation and wise use of the Saemangeum Tidal Flat, in which two river estuaries and its tidal flats adjacent were destroyed by the Saemangeum reclamation project (initial area 40,100ha in 1991) from 1994. He participated in publishing the National Report of Ramsar COP7 edited by Korean Wetlands Alliance (NGO) in 1999. He was also co-writer of Saemangeum Book edited by Dolbegae Publishing Company in 2004. He joined in The Saemangeum Shorebird Monitoring Program in 2006-2008 with AWSG-BirdLife Australia and BirdsKorea. He consistently monitors waterbirds, especially shorebirds, to demonstrate how the sites are internationally important for, visiting various sites such as the Saemangeum Tidal Flat, Geum River Estuary, Gomso Bay as well as other wetlands from 2006. He was the co-writer for The Invisible Connections of Shorebird in EAAF edited by Wetlands International, The Guide-Book for Korea's Tidal Flats published by the Ministry of Land, Transport and Maritime Affairs (MLTM) of the Korean Government for the Ramsar COP10 in 2008, and The Blueprint 2010 for the conservation of the avian biodiversity of Yellow Sea of South Korea edited by BirdsKorea for the CBD COP10 in 2010. He is a member of the Getbol Forum Korea the BirdsKorea, the Korea Shorebird Network, the Waterbird Network Korea, the Ecotourism Korea, and the Korea Wetland NGO Network. He is conducting life-history research, studying local ecology and traditional knowledge with local people and other researchers, starting in 2006. He participated in the MoU between the Common Wadden Sea Secretariat and MLTM and provides technical support.



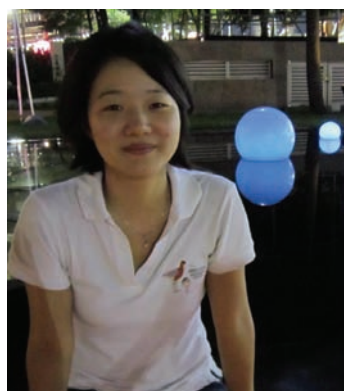
**Hyeong-mun Kim:** is currently an environmental officer of Maritime and Fisheries Division in Incheon City Government in Korea. He served the East Asian – Australasian Flyway Partnership (EAAFP) as the finance officer during the beginning years of the Secretariat. As an experienced administrator, he fulfilled financial works and contributed in organizing many events for the EAAF Partnership. Hyeong-mun was recently awarded from Minister of the Ministry of Environment Korea at World Biodiversity Day event for

his contribution to the EAAFP in May 2012. Hyeong-mun's professional training was in environmental engineering, so he has been working for environmental conservation, focusing on nature reserve, air pollution and contamination of water. He is now struggling to stop the tidal power plant project in Incheon in order to the preserve potential Ramsar Network Site.



**Minseon Kim:** has served as the Public Information Officer of the Secretariat of the East Asian – Australasian Flyway Partnership, based in Incheon, South Korea since 2009. She has led and developed the EAAFP publications including the newsletters and the website, and has contributed in organising the Meetings of Partners of the EAAFP including its various workshops. Now she is also involved in the EAAFP site nomination of the Flyway Site Network as well as Sister Site Arrangement with relevant Government Partners and their local site managers. Minseon is a native of South Korea, however is fluent in English. After joining the EAAFP Secretariat, she found her work as well as migratory waterbirds very interesting and even became a birdwatcher. Minseon has a B. S. in Animal Science from the Konkuk University, South

Korea on several Biology Scholarships. She has experience in working as communication support in Australia as well as in Incheon City Government, South Korea from 2007-2009.



**Aram Lee:** served as Communications & Information Officer at the East Asian – Australasian Flyway Partnership (EAAFP) Secretariat from 2009 to 2011 networking with national focal points, birders and their friends. Before joining the Secretariat, she worked for the Ministry of Environment of the Republic of Korea, where she developed her professional experience on multilateral environmental agreements including Ramsar Convention. Having her academic background in ecology and environmental management, she is interested in biodiversity conservation through international collaboration. She believes that “I am connected, therefore I exist.” To build upon her experience at the Ministry of Environment and the EAAFP Secretariat, she is planning a further study to

specialize her area of expertise in environmental policy.



**Eui-yeon Lee:** served the Secretariat of the East Asian – Australasian Flyway Partnership as Deputy Director from 2009-2011. In early 2009, he was involved in hosting the EAAFP Secretariat as the government officer of the Incheon City, which is the Secretariat's host city. As an experienced environment administrator of the Incheon City, he was seconded to the Secretariat from Incheon City for administrative and logistical support of the Secretariat. He was also involved in organising domestic meetings with the Ministry of Environment Korea, Incheon City as well as relevant Korean institutes for tidal flat conservation issues for migratory waterbirds. He is now the Deputy Director of Water Quality Conservation & River Division of Incheon City.



Network Korea (WNKorea).

**Kisup Lee:** has been serving as the director for Korea Institute of Environmental Ecology since 2003 and has been in charge of the research and conservation strategy for waterbirds, specially about cranes on DMZ. He is a biologist by training and has been involved in monitoring, research and education of waterbirds for more than 10 years. He holds particular scientific interest of the conservation of the endangered species more specifically the Black-faced Spoonbill and Red-crowned Crane. Kisup has graduated from the University of Kyunghee in his country of origin Korea. He has worked for the strength the network for the conservation of cranes in Korea for several years and now focusing on the conservation of endangered waterbirds as the representative director on (NPO) Waterbird



Network Korea (WNKorea).

**Daniel Marnewick:** has been working for BirdLife South Africa since 2006, and has been heading up the Important Bird Area and Regional Conservation Programmes since 2009. Daniel is responsible for the assessment and revision of South Africa's 124 Important Bird Areas, and for coordinating conservation action at priority sites. Before this, he was responsible for BirdLife South Africa's community based conservation work from 2006 to date. Daniel has 13 years experience in conservation, of which 10 years were spent working in the conservation NGO sector. He has studied in the fields of nature conservation, environmental sociology and wildlife management. From 1998 – 2009, he has worked on various aspects of community based conservation, from community economic development, benefit sharing, transboundary parks, conservation training, environmental education, natural resource use and community owned tourism initiatives. More recently Daniel has moved into the field of conservation planning, a discipline he uses to plan and conserve Important Bird Areas, along with his experience in working with local communities as a tool to conserve sites.



**Angus Middleton:** is the Chief Executive of the European Hunters' Federation [FACE] based in Brussels. He holds a first degree in Ecology from Newcastle University and a Masters Degree from Imperial College London in Environmental Economics and Policy. He has over 15 years of management experience in conservation in Europe and southern Africa. His experience on both continents is wide ranging from field work through to policy development and implementation, from local level to large multi nationals and governments. Since joining FACE in 2008 as Director of Conservation and later that year as Chief Executive, he has been actively involved in EU nature policy issues related to hunting and conservation. The Federation represents the national hunting associations of 38 European countries at European and international levels and as the voice for Europe's 7 million hunters is one of the biggest civil society organisations in Europe. Previously he led the sustainable development of the Zimbabwe Sugar Industry and new approaches to natural resource management. This included wildlife and livelihoods management within the framework of the Kruger National Park/Gona re Nzhou trans-frontier conservation initiative. Through FACE he is actively involved in a large number of initiatives and multilateral environmental agreements including the African Eurasian Waterbird Agreement and the Convention on Migratory Species.





**Claire Mirande:** responsible for developing the International Crane Foundation programs to promote flyway level management in Asia, to build capacity and transfer technical knowledge and skills to professional colleagues, and to facilitate partnerships with international organizations. Coordinates implementation of the Convention for Migratory Species MOU concerning Conservation Measures for the Siberian Crane including overseeing development and implementation of Conservation Plans in coordination with 11 Range States. Served as Project Director for the UNEP/GEF Siberian Crane Wetland Project aimed at sustaining ecological integrity of a network of globally important wetlands in Asia and the migratory waterbirds that depend on them. Serves as Program Officer for WI/IUCN Species Survival Commission Crane Specialist Group.



**Nial Moores:** is Director of Birds Korea. He has a Masters degree in ecological planning (Kyushu University, Japan) and a PhD from the University of Newcastle (Australia) - both focused on the conservation of avian biodiversity in Yellow Sea habitats. Moores has worked for bird conservation in East Asia since 1990, first for the Hakata Bay Citizen's Alliance in Japan and then from 1998 in the Republic of Korea. In the early 2000s work included assessment of ROK Yellow Sea biodiversity for WWF-Japan; shorebird survey in the Vietnamese Mekong for Wetlands

International; design of wetland restoration projects, including in the Nakdong Estuary (ROK); and consultancy for the MOE/UNDP-GEF Wetlands Biodiversity project (ROK). Moores joined Birds Korea in 2004, a legally-registered NGO dedicated to the conservation of birds and their habitats in Korea and the wider Yellow Sea Eco-region ([www.birdskorea.org](http://www.birdskorea.org)), and the Korean representative of the international Spoon-billed Sandpiper Task Force. On behalf of Birds Korea, Moores received the Chosun Ilbo/Mainichi Asian Environmental Award in 2011 for work on East Asian tidal-flat and shorebird conservation. He is a regular contributor to regional species assessments and an active member of the IUCN SSC group on Threatened Waterbirds.



**Taej Mundkur:** has a PhD in waterbird ecology from Saurashtra University, Rajkot in west India. He has started his career with Wetlands International in Malaysia (then Asian Wetland Bureau) in 1990 where he was responsible for coordination of the Asian Waterbird Census. From 2009, he serves as Programme Manager – Flyways, based in the Netherlands, to develop a flyways programme in Africa-Eurasia, the Americas and the Asia-Pacific in partnership with conventions, governments, NGOs and others. He currently serves as a CMS Councillor and Chair of the CMS Flyways Working Group. Taej

has spearheaded the development and coordination of the Asia-Pacific Migratory Waterbird Conservation Strategy – the largest international cooperation framework for migratory waterbirds and their habitats in the region between 1996 and 2006, through three site networks for shorebirds, cranes and Anatidae in East Asia-Australasia. Taej has advised the development of the East Asian – Australasian Flyway Partnership that involves governments, Convention on Migratory Species, Ramsar Convention, NGOs, technical experts and others. He has led development of a CMS action plan for migratory waterbirds in the Central Asian Flyway and has supported establishment of the West/Central Asian Site Network for Siberian Cranes and other waterbirds.



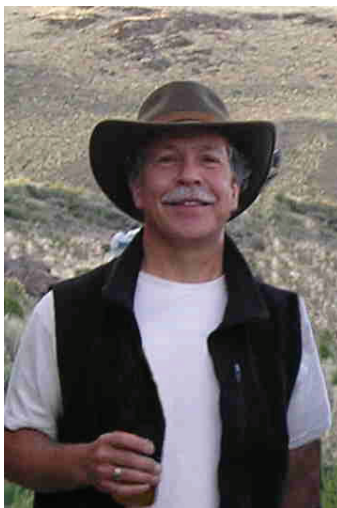
**Szabolcs Nagy:** has been the Head of Strategy and Programme for Biodiversity and Ecological Networks at Wetlands International since 2010. He is primarily responsible for monitoring, assessing and addressing the conservation needs of wetlands and wetland related biota with a strong focus on the conservation and sustainable management of migratory waterbirds. Prior to his current position, he has worked as Programme Manager and Senior Technical Officer at Wetlands International and has coordinated the development of the Critical Site Network Tool under the Wings Over Wetlands (WOW): the African-Eurasian Flyway Project, which is an innovative web-based information system that supports conservation planning and

management in the flyway context. Before joining to Wetlands International he has worked for BirdLife International as European Conservation Manager being responsible for the coordination of the species and site conservation work of the BirdLife Partnership in the region.



**Crawford Prentice:** is a consulting ecologist with more than 25 years experience, primarily on the conservation of wetlands and migratory waterbirds. Flyway conservation has been threaded throughout his career, starting with an analysis of International Waterfowl Census data for IWRB in the 1980s; programme management roles with the Asian Wetland Bureau (1980s) and IWRB / Wetlands International (1990s); as International Technical Advisor for the UNEP/GEF Siberian Crane Wetland Project with the International Crane Foundation (2000 – 2009); and most recently as an independent consultant, with assignments for CMS and the East Asian – Australasian Flyway Partnership. His interest in migratory waterbirds is intertwined with wetland

management and conservation, including leading a bilateral project on the integrated management of Malaysia's first Ramsar site (Tasek Bera); and consultancy assignments on GEF project development, evaluations and technical advice. Crawford completed his BSc in Zoology at Aberdeen University and MSc in Aquatic Resource Management at Kings College, University of London. He is based in Kuala Lumpur, Malaysia.



**Terrell D. Rich:** Terry received a BS in Wildlife Ecology from the University of Wisconsin - Madison and an MS in Zoology from Idaho State University. He worked as a wildlife biologist for the U.S. Bureau of Land Management (BLM) for 20 years in Colorado, Idaho and North Dakota. For the last 10 years with BLM, he served as the National Nongame Bird Program Leader. In 2000, Terry accepted the position of Partners in Flight National Coordinator with the U.S. Fish and Wildlife Service. Over his career, he has participated in many projects that involve conservation planning at large geographic scales for multiple species. He has served as a board member and president of the Cooper Ornithological Society and served on the council of the American Ornithologists' Union. Terry's recreational interests include birding, hiking, bicycling, skiing, reading, and listening to music. Terry and his family live in Boise, Idaho.



**Mayumi Sato:** has worked as the BirdLife International Global Seabird Programme (GSP) Regional Coordinator for Asia, based in the BirdLife International Asia Division in Tokyo since 2009. She facilitates seabird/marine conservation activities with a focus on the identification of Marine Important Bird Areas (Marine IBAs) and the mitigation of seabird interactions in fisheries. She received her MRes degree in ecology and environmental management from the University of York (UK) and a doctorate in conservation/landscape ecology in 2008 from Kyoto University (Japan). She conducted researches for conservation on various organisms, including waterfowls, badgers, dragonflies and freshwater fish during and after her postgraduate

study.



**Boripat Siriaronrat:** is currently a 'Wildlife Health and Ecology Coordinator' at the Food and Agriculture Organization of the United Nations based at the Regional Office for Asia and Pacific in Bangkok. He received his veterinary degree from Chulalongkorn University in 1994 and Master of Science in Zoology in 1998. He received a PhD in Environmental Science and Policy from George Mason University in 2006. His extensive research experience integrated conservation with international partners and organizations became the major advocate for One

Health concept. He has supported the EAAFP on FAO capacity since MoP4.



**Doug Watkins:** is the Manager of Wetlands International – Oceania. He first became involved in migratory waterbird research in the late 1980's while obtaining his BSc in Biology at Murdoch University. In 1983 he was part of the formation of Interwader and its initial survey work in Malaysia and Singapore. In the late 1980's he worked with Asian Wetland Bureau leading shorebird banding workshops across north and south-east Asia. In 1994 he was part of the organising team for the Kurshiro Workshop (Japan) that called for the development of an Asia-Pacific Migratory Waterbird Conservation Strategy, Action Plans and Site Networks for three species groups. In 1995 he became a foundation staff member of Wetlands International – Oceania to work as the Asia-

Pacific Shorebird Flyway Officer. In the mid-2000's he worked with the Australian and Japanese Government to develop the East Asian – Australasian Flyway Partnership. In 2008 Wetlands International – Oceania provided the Interim Secretariat for the Partnership until the permanent Secretariat was established in Incheon (South Korea). Doug represents Wetlands International within the East Asian – Australasian Flyway Partnership and was a member of the initial Management Committee for the Partnership.



**Yus Rusila Noor**: is currently working at Wetlands International – Indonesia Programme as Programme Manager. He has a long experience working on waterbirds programme, especially migratory waterbirds, in Indonesia, back to 1989. He has been involved on the development of waterbirds conservation strategy for the country, coordinating the Asian Waterbird Census since the early implementation of the activity in the end of 1980s, as well as working on the country's Avian Influenza issues. Yus is also actively involved on bridging communication, at country level, between migratory waterbirds conservation and Ramsar-related actions. Yus is currently appointed as member of Board of Indonesia's Ornithological Union (IdOU), Indonesian Bird Banding Scheme (IBBS) and helping the "Stilt" on editorial works for Indonesian site/authors.

At flyway level, Yus was involved on the early stage development of Asia – Pacific Migratory Waterbirds Conservation Strategy 1996 – 2000 & 2001 – 2005, and then the establishment of East Asian – Australasian Flyway Partnership in 2006. He was actively assisted Government of Indonesia hosting MoP of EAAFP in 2006 and 2012. Yus is currently assisting Government of Indonesia on the running of "National Secretariat of Migratory Birds Conservation and Management", including development of strategy, fund raising, and communication with regional and global partners.

There are an increasing number of flyway initiatives for migratory bird conservation taking place around the globe, with varied approaches, and with considerable and valuable experience to share. However the experience of these initiatives, while often well publicised within their own flyway is often poorly known elsewhere. This has led to independent evolution of approaches in different flyways and relatively little 'inter-flyway' exchange of experience. While many of the challenges faced are similar, different approaches have been taken to tackle them.

The 2011 Global Waterbird Flyways Workshop held in Seosan City, Republic of Korea in October 2011 was the first time that these flyway initiatives had come together to share lessons learned from their different approaches, assess their strengths and weaknesses, and so provide a more global view of our flyway conservation efforts thus far. The workshop agreed that establishing a mechanism for continued exchange of experience, best practice and information between flyway experts would have great value. Accordingly, the workshop agreed to establish a "Global Interflyway Network" to fulfil this purpose, to support the implementation of the recommendations from this workshop and to improve collaboration between different flyway practitioners and synergies between the different flyway initiatives globally. This workshop report is the first product of the Global Interflyway Network.

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