



7th MEETING OF THE AEWA STANDING COMMITTEE
26 – 27 November 2011, Bergen, Norway

**REPORT ON THE CONSERVATION STATUS OF MIGRATORY
WATERBIRDS IN THE AGREEMENT AREA**

FIFTH EDITION

INTRODUCTION

Article IV of the Agreement text introduces the AEWA Action Plan, which is attached as Annex 3 to the Agreement. Paragraph 7.4 of the AEWA Action Plan requires the Agreement Secretariat, in coordination with the Technical Committee and the Parties, to prepare a series of seven international reviews on the implementation of the Action Plan. These reviews shall be prepared at different frequencies, as per paragraph 7.5, and shall be submitted to the Meeting for the Parties (MOP) for consideration.

Amongst these seven international reviews is the Report on the conservation status of migratory waterbirds in the Agreement area (aka Conservation Status Report - CSR). This review has been produced regularly and submitted to each session of the MOP so far.

In accordance with paragraph 7.5, which determines the frequency of each international review, this report shall be produced for each session of the MOP. The 5th edition of the Report on the conservation status of migratory waterbirds in the Agreement area (CSR5), as per item 7.4(a) of the Agreement's Action Plan, shall be submitted to the 5th session of MOP in 2012.

The Secretariat contracted Wetlands International to produce CSR5 in September 2010. Wetlands International made a consultation draft available on its website on June 25th 2011. The report incorporates the comments received from the Technical Committee members and the expert network of Wetlands International in the consultation phase. In addition, it includes a completely new fact sheet format for the main report summarising the information contained in the Annexes¹. The report was reviewed by the Technical Committee at its 10th meeting in September 2011 and finalised by the compilers.

¹ Annex 1: *Population sizes and trends of waterbird species included in the agreement key to column headings* is being finalised and will be added to this document shortly as *Doc StC Inf 7.4 Rev. 1.*

**REPORT ON THE CONSERVATION STATUS OF
MIGRATORY WATERBIRDS IN THE AGREEMENT
AREA**

Fifth Edition

November 2011

Report prepared by Wetlands International

Simon Delany, Stephan Flink, Tom Langendoen, Szabolcs Nagy, Marc van Roomen, Erik van Winden, Jonas Sundberg, Ross Wanless, Stuart Butchart, Tim Dodman, Derek Scott.

Table of contents

Table of contents.....	3
Executive Summary	4
Introduction.....	7
Part 1. Taxonomic and geographic patterns of migratory waterbird populations included into the Agreement.....	8
Taxonomic distribution	8
Geographic distribution of waterbird populations	9
Part 2. Population sizes	10
Quality of population estimates	10
Populations with no population estimates.....	11
Quality of population size estimates by families	12
Geographic pattern of population size estimates	13
Changes in quality of population size estimates	14
Populations by size.....	15
Part 3. Population trends	16
Quality of trend estimates	16
Geographic patterns in quality of trend estimates.....	16
Taxonomic patterns of the knowledge of population trends.....	18
Patterns in population trends.....	19
Patterns of population trends by taxonomic groups.....	21
Patterns in trends by geographic regions	22
Patterns in population trends by habitats	23
Part 4. Threats to waterbird species in the AEWA region	24
Part 5. Species of global conservation concern.....	25
Red List status of AEWA species	25
Geographic patterns of the Red List status of populations	26
Part 6. Progress towards the targets set in the AEWA Strategic Plan	27
Part 7. Conclusions and recommendations	Fehler! Textmarke nicht definiert.
Annex 1 Population sizes and trends of waterbird species included in the Agreement	31
Appendix 1.1 Analysis of waterbird population trends in Europe, 1974-2005, based on data from the International Waterbird Census (IWC)	105
Appendix 1.2 Population trend graphs.....	128
Appendix 1.3 Analyzing population trends at the flyway level for bird populations covered by the African Eurasian Waterbird Agreement: details of a methodology.....	151
Appendix 1.4 Report on numbers, trends and conservation status of arctic seabird species included in The Agreement.....	177
Appendix 1.5 Report on numbers, trends and conservation status of tropical seabird species included in The Agreement.....	192
Annex 2 Report to Wetlands International on the status and trends of Red Listed AEWA species	233

Executive Summary

Status of knowledge: The majority of the AEWA populations have poor quality population trend estimates and most of the population size estimates are based on expert opinion extrapolating from geographically unrepresentative samples. The situation is especially bad in West Asia and in the Afrotropical region. The quality of population trend estimates is the worst for waders, rails, divers and auks. Overall, little improvement can be reported both in the knowledge of population sizes and trends and in the status of AEWA populations. This is partly due to the short time passed since the last assessment, but the fact that BirdLife International produces its Birds in Europe assessments, the main source of population estimates for breeding birds, only once every 10 years also plays a role.

Trends: Slightly fewer populations are declining and slightly more are increasing than reported in the previous assessment. The highest proportion of decreasing populations is in West Asia/East Africa and Central Asia while the highest numbers are in the Afrotropical region. In all habitat types except forest more populations are declining than increasing. The highest number of declining species is associated with inland wetlands. The analysis of trends based on the data collected through the International Waterbird Census (IWC) has identified the following populations as being in significant long-term decline:

- Great White Pelican – Europe, W Asia (bre)
- White-headed Duck – E Mediterranean, SW Asia
- Bewick's Swan – *bewickii*, NW Europe (non-bre)
- South African Shelduck – Southern Africa
- Mallard – *platyrhynchos*, C Europe, Black Sea, Mediterranean (non-bre)
- Common Pochard – NE & NW Europe (non-bre)
- Common Pochard – C Europe, Black Sea, Mediterranean (non-bre)
- Tufted Duck – C Europe, Black Sea, Mediterranean (non-bre)
- Greater Scaup – *marila*, W Europe (non-bre)
- Eurasian Oystercatcher (*ostralegus*)

In addition, literature review identified the following nine populations for the first time under AEWA processes as also being in significant long-term decline:

- Bean Goose *Anser fabalis fabalis* – North-east Europe / North-west Europe
- Long-tailed Duck *Clangula hyemalis* – Western Siberia / North Europe
- Velvet Scoter *Melanitta fusca fusca* – W Siberia & N Europe / NW Europe
- Common Scoter *Melanitta nigra nigra* – W Siberia & N Europe / W Europe & NW Africa.
- Lesser Black-backed Gull – *Larus fuscus fuscus*
- Kittiwake *Rissa tridactyla tridactyla* – North Atlantic
- Common Guillemot *Uria aalge aalge* – E North America, Greenland, Iceland, Faeroes, Scotland, S Norway, Baltic
- Brunnich's Guillemot *Uria lomvia lomvia* – E North America, Greenland, E to Severnaya Zemlya
- Black Guillemot *Cephus grylle islandicus* – Iceland

Eight additional populations in South-west Asia were identified in the analysis as being in short-term decline but the unrepresentative geographical distribution of the sites used in the analysis (nearly all being in Iran) means that caution is needed in interpreting these trends.

Threats: The most frequently recorded actual threat categories to AEWA waterbird species are biological resource use and natural system modifications. Agriculture and aquaculture have higher impacts than other threats. Climate change is the highest potential threat affecting more populations than any other threats, but the impact is still unknown in most cases.

Indicators: Most AEWA indicators show some progress towards the AEWA targets. However, the number of populations in favourable conservation status has decreased by 20 and the Red List Index has decreased by 1% compared to the previous assessment. On the other hand, 8% fewer populations are listed in Column A than in 2008, which means that the target has been achieved.

Recommendations: Based on the key conclusions above, we recommend:

Theme	Conclusions	Recommendations
Knowledge about the status	<ul style="list-style-type: none"> - 82% of the AEWA populations have a poor or worse population trend estimate, which does not yet provide a robust basis for decision-making concerning their conservation and management (Figure 8). - Population size and trend estimates are better in the Western Palearctic and in the East Atlantic flyways, both of which includes the European Union where not only monitoring capacity is higher, but also where the EU Birds Directive provides a legal framework which requires more regular monitoring of birds than in other regions (Figure 6 and Figure 9). - In many cases, the quality of estimates is undermined by unrepresentative geographic coverage. West Asia and the Afrotropical regions clearly stand out where quality of population size and trend estimates needs improvement (Figure 6 and Figure 9). - One-off capacity building and irregular/unpredictable support to national bird monitoring activities is insufficient to produce better quality population size and trend estimates. - Populations that cannot be monitored through generic schemes such as the IWC or common breeding bird survey but would require special surveys generally have poorer population size and trend estimates (Figure 5Figure 10). 	<ul style="list-style-type: none"> - Parties should ensure that all AEWA populations are covered by international monitoring schemes which are appropriate both in their scopes and methods to produce reliable international population size and trend estimates. The AEWA Secretariat and the Technical Committee, in collaboration with the relevant international organisations, should provide additional guidance for the Parties in this respect by MOP 6. This guidance should also consider how to address the issues raised in relation to seabird monitoring in Appendix 1.4. - AEWA Parties individually should develop monitoring programmes which are appropriate in their scope and methods to obtain reliable estimates of population sizes and trends of waterbird populations breeding or wintering in their territories. - Reaching the target of 50% increase in the number of populations whose status is assessed on the basis of regular monitoring requires coordinated efforts of several countries along the same flyway. To this end, the AEWA Technical Committee should identify priorities for the systematic development of waterbird monitoring taking into account the conservation status of the populations, their geographic representativeness and other factors. - AEWA Parties with more technical and financial capacity, under the framework of the AEWA Africa Initiative, should support other Range States, particularly in West Asia and in the Afrotropical region, in designing appropriate monitoring schemes and developing their capacity to collect reliable data. - Parties and other organisations are encouraged to use the AEWA Conservation Guidelines and the monitoring training programme developed under the Wings Over Wetlands Project. - Parties should take precautionary measures to facilitate the adaptation of waterbird populations to climate change in accordance with the available guidelines.
Threats to waterbird populations	<ul style="list-style-type: none"> - Climate change is the most frequently recorded threat, but its impact at species level is mostly not yet known (Figure 15). - Biological resource use, which includes hunting, trapping, logging and harvesting aquatic resources, is the most frequently recorded threat with known impact (Figure 15). - Natural system modifications, which include various water management activities such as construction of dams and abstraction of water, are the second most frequently recorded threat (Figure 15). - Agriculture and aquaculture affect fewer species, but their impacts tend to be stronger (Figure 15). 	<ul style="list-style-type: none"> - The AEWA Secretariat and the Technical Committee should facilitate the distribution of knowledge in relation to climate change adaptation and advise Parties how to maintain a coherent network of key sites - Parties should take more effective measures to reduce the impacts of various forms of biological resource use and to coordinate the sustainable use of shared populations especially the ones with declining population trend. - Parties shall take more concerted actions to reduce the impacts of water management activities in accordance with the requirements of the AEWA Action Plan. - Parties acting as donors in international development co-operations should take into consideration the AEWA requirements in the implementation of their external aid policies to

Theme	Conclusions	Recommendations
Geographic priorities	<ul style="list-style-type: none"> - The largest numbers of declining populations are associated with the East Atlantic flyway (41) and with the Afrotropical ecoregion (39, Figure 13). - The highest proportions of declining populations occur in the Central Asian (66%) and West Asia/East Africa flyways (62% of the populations with known trends, Figure 13). - However, as the example of meadow birds breeding in Europe, but also facing limitations along their migration routes clearly demonstrates, problems are unlikely to be linked only to one part of the flyway. Hence, coordinated conservation measures are needed along the flyways rather than just individual countries. 	<p>address the negative impacts of water management, agriculture and aquaculture developments.</p> <ul style="list-style-type: none"> - Africa and Asia should enjoy priority in recruiting new AEWA Parties and in providing training about the conservation of migratory waterbird (i.e. implementation of the WOW Training Programme) and about AEWA. - The AEWA Secretariat, in collaboration with other MEAs and with relevant Parties, including the European Union, should be promoting more favourable conditions for flyway-scale multi-country projects for migratory species because the current rules of international biodiversity funding mechanisms outside of the boundaries of the European Union, such as GEF and LIFE+, are not conducive for flyway-level projects.

Introduction

Article IV of the Agreement text introduces the AEWA Action Plan, which is attached as Annex 3 to the Agreement. Paragraph 7.4 of the AEWA Action Plan requires the Agreement Secretariat in coordination with the Technical Committee and the Parties to prepare a series of seven international reviews on the implementation of the Action Plan. These reviews shall be prepared at different frequencies, as per paragraph 7.5, and shall be submitted to the Meeting for the Parties (MOP) for consideration.

Amongst these seven international reviews is the Report on the conservation status of migratory waterbirds in the Agreement area (aka Conservation Status Report - CSR). This review has been regularly produced and submitted to each session of MOP so far². The last two editions follow an enhanced format with increased analytical content.

Wetlands International was contracted by the AEWA Secretariat in September 2010 to produce the 5th edition of the Conservation Status Report. In turn, Wetlands International has subcontracted BirdLife International to assess the Red List status of the AEWA species, BirdLife South Africa, on behalf of the Global Seabird Group of BirdLife International, to assess the status of 'tropical' seabirds, and Jonas Hentati Sundberg, on behalf of the CAFF CBird Group, to assess the status of 'northern' seabirds. SOVON, Dutch Centre for Field Ornithology, has also been contracted to assist with the development of a new methodology for the assessment of flyway trends.

This report largely follows the format of the last two reports, but with slight modifications and simplifications to increase its usability.

Executive summary: This section includes the key conclusions of the report concerning the available knowledge about the status of waterbird populations, the threats affecting them and the geographic areas which deserve special attention because of the high number or proportion of declining populations. It also contains a summary of the key policy relevant recommendations.

Part 1: summarizes the taxonomic and geographic patterns of waterbird populations included into the Agreement.

Part 2: summarizes the information concerning population size estimates and their taxonomic and geographic patterns.

Part 3: summarizes the information concerning population trends, their patterns by taxonomic groups, geographic areas and, for the first time, by habitats.

Part 4: for the first time, summarizes the information available about threats affecting the species listed on Annex 2 of the Agreement.

Part 5: summarizes the Red List status information for the species listed on Annex 2 of the Agreement.

Part 6: reports the current status of the AEWA indicators against the 2008 baseline.

Annex 1: contains the table documenting the population sizes and trend of waterbird populations included into the agreement.

Annex 2: Red List status assessment of AEWA populations.

² Its four previous editions are available on the AEWA web site under "Publications".

Part 1. Taxonomic and geographic patterns of migratory waterbird populations included in the Agreement

Taxonomic distribution of waterbird populations

This report allocated species to families according to the taxonomy used in the checklist of BirdLife International³.

The Agreement includes 553 populations of 255 species belonging to 26 families (penguins *Spheniscidae*, loons or divers *Gaviidae*, grebes *Podicipedidae*, tropicbirds *Phaethonitidae*, pelicans *Pelicanidae*, gannets and boobies *Sulidae*, cormorants *Phalacrocoracidae*, frigatebirds *Fregatidae*, herons and egrets *Ardeidae*, storks *Ciconiidae*, shoebill *Balaenicipitidae*, ibises and spoonbills *Threskiornithidae*, flamingos *Phoenicopteridae*, ducks, geese and swans *Anatidae*, cranes *Gruidae*, rails, crakes and allies *Rallidae*, crab plover *Dromadidae*, stilts and avocets *Recurvirostridae*, oystercatchers *Haematopodidae*, thick-knees *Burhinidae*, coursers and pratincoles *Glareolidae*, plovers *Charadriidae*, sandpipers and allies *Scolopacidae*, skuas and jaegers *Stercorariidae*, gulls and terns *Laridae* as well as auks *Alcidae*).

The vast majority of populations belong to the families of ducks, geese and swans (23%), gulls and terns (16%) and to the sandpipers and allies (13%, Figure 1).

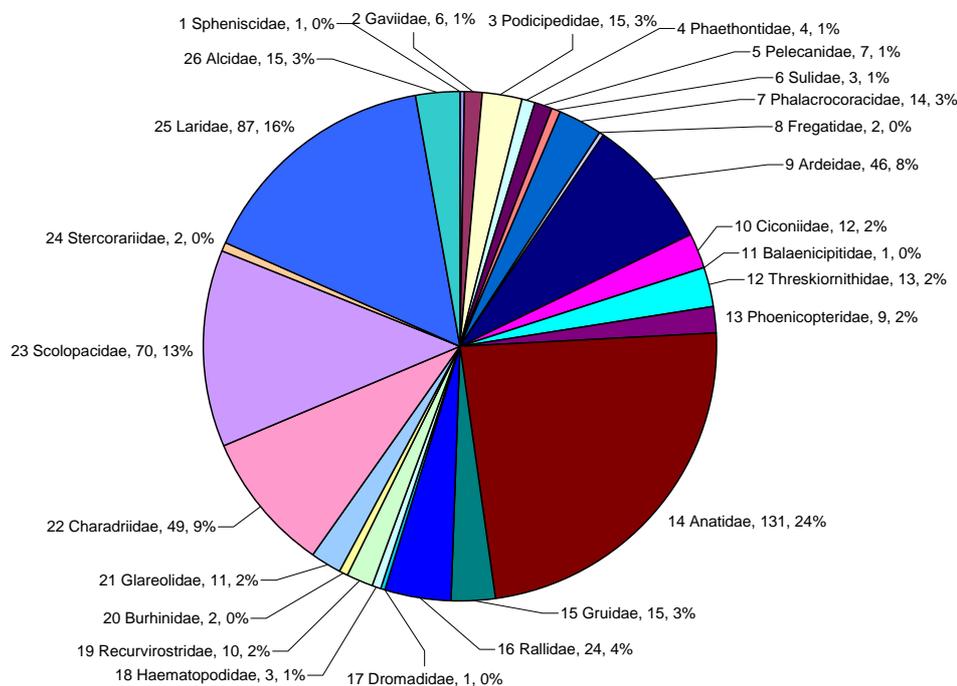


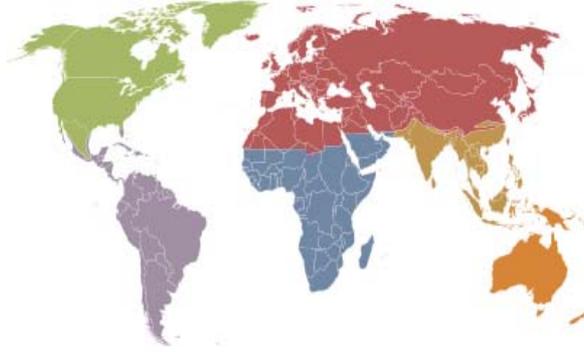
Figure 1. Taxonomic composition of waterbird populations included into the AEWA

³ <http://www.birdlife.org/datazone/info/taxonomy>

Geographic distribution of waterbird populations

The earlier editions of the Conservation Status Report have assessed the geographic patterns of waterbird population by the Ramsar regions of Africa, Asia and Europe. To overcome the analytical problem caused by the fact that the majority of waterbird populations belong to multiple regions, this report introduces a new geographic classification which is based on the WWF terrestrial ecoregions for dispersive and short distance migrant populations and on the wader/shorebird flyways for long-distance migrants (Figure 2). Populations were allocated only to a biogeographic region or a flyway that best overlaps with their distribution.

a) Biogeographic regions



b) Flyways

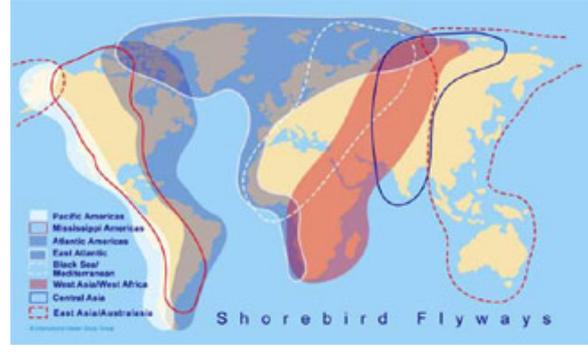


Figure 2. Geographic definitions used in this report

31% of all populations are restricted to the Afrotropical region and another 13% are short distance migrants within the Western Palearctic. The majority of the long-distant migrant populations use the East Atlantic flyway (24%), while the Mediterranean and the West Asia/East Africa ones support 15% and 14% respectively (Figure 3).

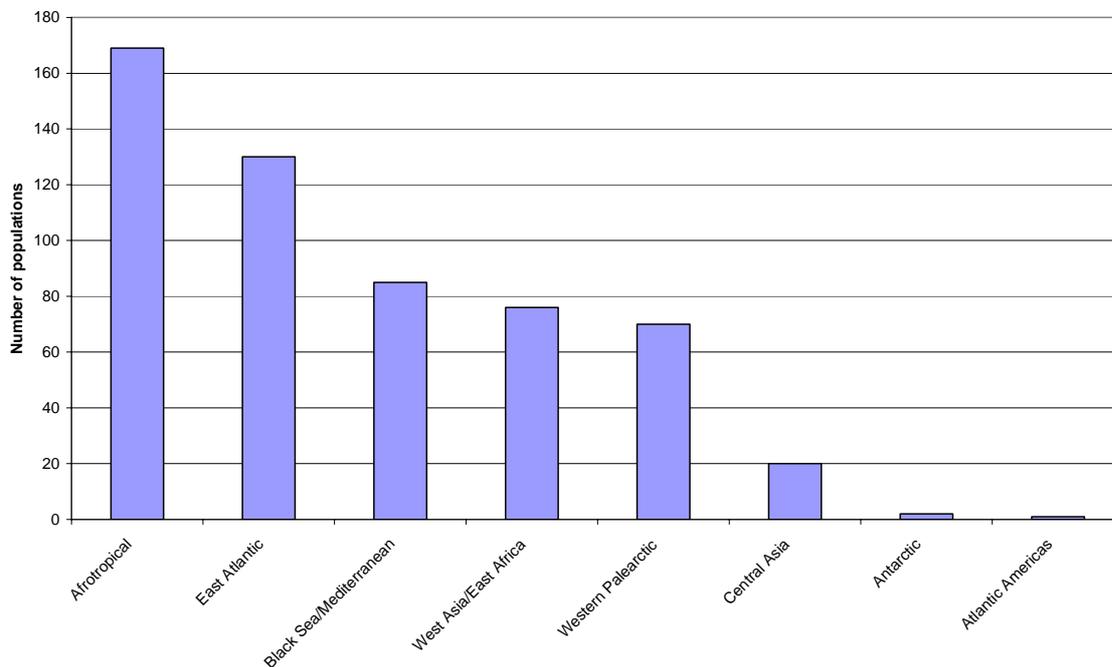


Figure 3. Distribution of waterbird populations covered by the AEWA according to their migration patterns

Part 2. Population sizes

Quality of population estimates

Quality of population estimates was assessed following the principles of the categories developed by the International Wader Study Group to assess the quality of trend estimates for waders. Four categories were identified.

1. No estimate: No population estimate is available;
2. Best guess: Population estimate is only possible in letter coded ranges;
3. Expert opinion: Population estimate is based on incomplete survey and monitoring data and population size has been involved employing some expert opinion for extrapolating from this data with more accuracy than the letter codes;
4. Census based: Population estimate is based on almost complete census or statistically adequate sampling.

The majority of the population estimates are based on counts, but extrapolated using expert opinion instead of any formal statistical procedures. Only 5% of the population estimates are based on comprehensive censuses. This group consists of either localised goose or swan populations in Northwest Europe or concerns highly localised species subject to intensive conservation efforts (e.g. Northern Bald Ibis). Population estimates for 20% of the AEWAs populations is only possible in broad ranges such as 1-25,000, 25,000-100,000, etc.

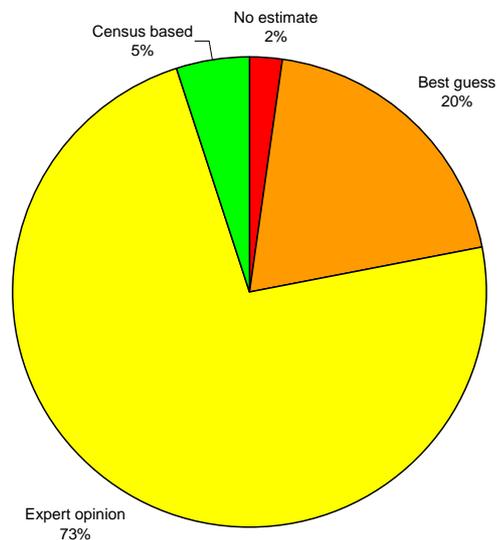


Figure 4. Quality of population size estimates

Populations with no population estimates

Some population size estimates are now available for 98% of the AEWA populations. Table 1 lists those populations with no population estimates.

Table 1. Populations with no estimates

<u>Population</u>
<i>Numenius arquata suschkini</i> , South-east Europe & South-west Asia (bre)
<i>Lymnocyptes minimus</i> , Western Siberia/SW Asia & NE Africa
<i>Scolopax rusticola</i> , Western Siberia/South-west Asia (Caspian)
<i>Crecoptis egregia</i> , Sub-Saharan Africa
<i>Rallus caerulescens</i> , Southern & Eastern Africa
<i>Rallus aquaticus korejewi</i> , Western Siberia/South-west Asia
<i>Sarothrura elegans reichenovi</i> , S West Africa to Central Africa
<i>Sarothrura elegans elegans</i> , NE, Eastern & Southern Africa
<i>Pluvialis apricaria altifrons</i> , Northern Siberia/Caspian & Asia Minor
<i>Charadrius dubius curonicus</i> , West & South-west Asia/Eastern Africa
<i>Gavia arctica suschkini</i> , Central Siberia/Caspian
<i>Larus heuglini</i> , NE Europe & W Siberia/SW Asia & NE Africa
<i>Larus (heuglini) barabensis</i> , South-west Siberia/South-west Asia

These populations lack knowledge about their size for one or more of the following reasons:

- a) cryptic species, e.g. rails or snipes;
- b) occur in habitats difficult to access, e.g. divers,
- c) difficult to separate from other species or populations on the field, e.g. Heuglin's Gull (*Larus heuglini*).

Quality of population size estimates by families

The families with the highest percentage of highly uncertain population estimates include penguins *Spheniscidae*, thick-knees *Burhinidae*, rails *Rallidae*, divers *Gaviidae*, skuas *Stercorariidae*, pratincoles *Glareolidae* and herons *Ardeidae*. The reasons for the poor population estimates of these groups are generally similar to those listed for the populations with no estimates above.

On the other hand, the families in which population sizes are better known include ducks, geese and swans which have a large number of populations concentrated in Northwest Europe, a region with high monitoring capacity. In addition, many of these populations have targeted management measures. The population size of cormorants is relatively well known, largely because the great cormorant (*Phalacrocorax carbo*) populations are intensively surveyed in Europe due to their impacts on fisheries. The families of ibises and spoonbills *Threskiornithidae* as well as cranes *Gruidae* are also relatively better monitored than other groups due to ongoing focused conservation measures targeted at a few populations in these relatively small taxa.

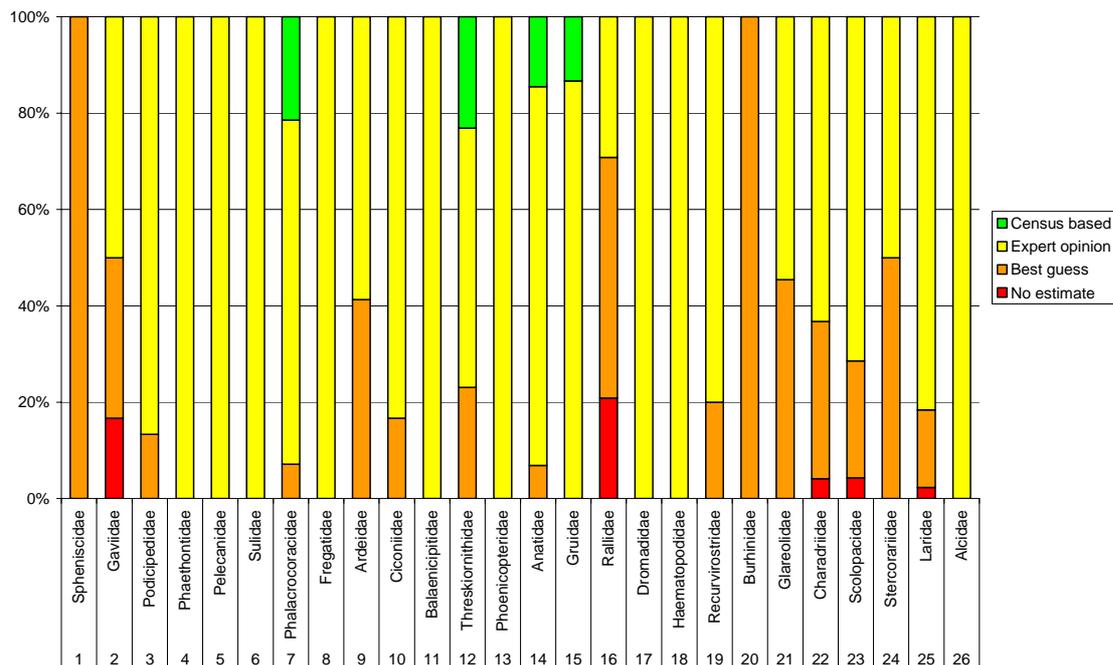


Figure 5. Quality of population estimates by families

Geographic pattern of population size estimates

The quality of the population estimates is best in the East Atlantic and Western Palearctic, while the worst is in the West Asia/Central Asia and Central Asia (Figure 6). This reflects the intensity of monitoring activities in these regions.

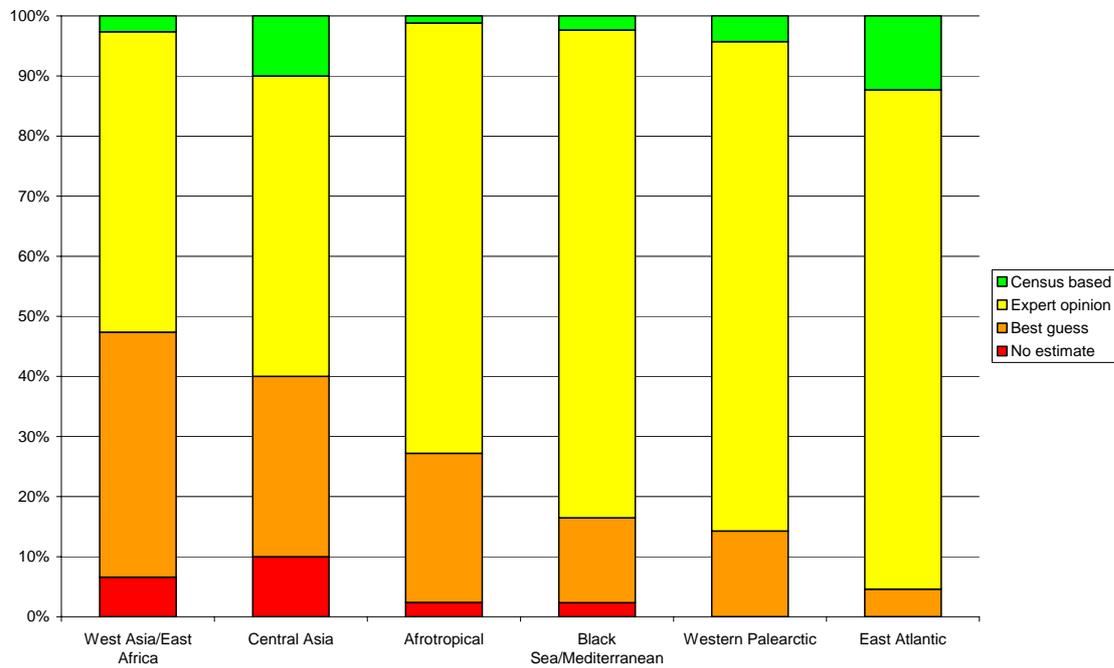


Figure 6. The quality of population size estimates by flyways

Changes in quality of population size estimates

There has been little improvement in the quality of population estimates between this report and the previous one. This is partly due to the fact that for the majority of the populations no new estimates have been made since the previous status review and so data presented here are unchanged. However, it also reflects the relative insensitivity of such broad categories to piecemeal improvements in monitoring. This finding highlights the importance of making concerted efforts to build monitoring capacity, establish and maintain waterbird monitoring schemes in regions that are still poorly covered by such schemes.

Table 2. Changes in quality of population size estimates between the previous and current report

Previous report	Current report				Grand Total
	No estimate	Best guess	Expert opinion	Census based	
No estimate	12	1	1		14
Best guess		108	1		109
Expert opinion			403		403
Census based				27	27
Grand Total	12	109	405	27	553

Populations by size

The same classes are used to summarise sizes of AEWA populations as previously. These correspond to the criteria listing populations in categories A1c, A2, A3, B1, B2 and C1 except of that the population size class over 100,000 has been split into two: one for 100,001 -1,000,000 and another one over 1,000,000.

Only 38 populations (7% of the AEWA populations) have more than 1 million individuals. The size of most populations (35%) is between 100,001 and 1,000,000 individuals, whilst 155 (29%) populations have between 25,001 – 100,000. The size of 57 populations is estimates to be between 10,001 and 25,000, and 95 populations (18%) have less than 10,000 individuals (Figure 7).

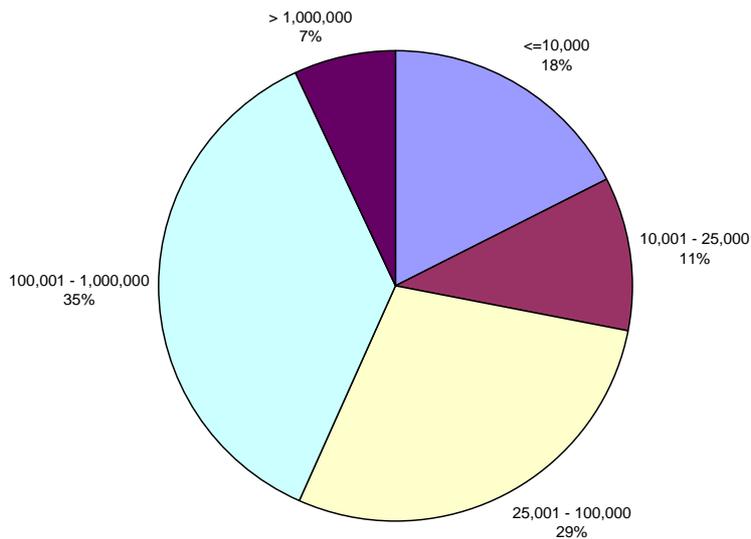


Figure 7. AEWA populations by population size

Part 3. Population trends

Quality of trend estimates

The quality of trend estimates was assessed following the methodology developed by the International Wader Study Group⁴. The categories were defined as follows:

- No idea:* No monitoring at international scale in either breeding or wintering periods. Trends unknown. This category also includes populations where trends are uncertain.
- Poor:* Some international monitoring in either breeding or wintering periods although inadequate in quality or scope. Trends assumed through partial information.
- Reasonable:* International monitoring in either breeding or wintering periods that is adequate in quality or scope to track direction of population changes.
- Good:* International monitoring in either breeding or wintering periods that is adequate in quality or scope to track direction of population changes with defined statistical precision.

Only a small fraction of the AEWA populations have good (7%) or reasonable trend estimates (11%), the majority are either poor (45%) or simply non-existent (37%, Figure 8).

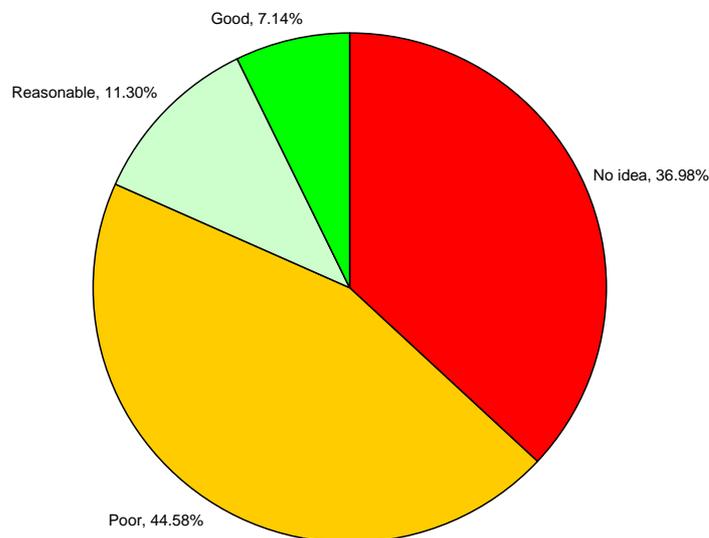


Figure 8. Quality of trend estimates of the AEWA populations

Appendix 1.1 of this report contains short- and long-term population trend estimates for 128 migratory waterbird populations based on the International Waterbird Census. For 76% of the populations, the analysis managed to track the direction of change with defined statistical precision in long-term trends. However, in many cases lack of information from part of the wintering range introduced some uncertainties as highlighted in Annex 1. This highlights the importance of systematic and internationally coordinated development of waterbird monitoring schemes. Unfortunately, analysis of short-term trends produced statistically uncertain results.

Geographic patterns in quality of trend estimates

No trend estimates are available for 75% of the populations in the West Asia/East Africa flyway, 65% in the Central Asian flyway, 42% in the Black Sea/Mediterranean flyway, 33% in the Afrotropical region, 26% in the Western Palearctic and for only 16% in the East Atlantic flyway (Figure 9).

In terms of absolute numbers, the West Asia/East Africa flyway has the highest numbers of populations with no trend estimates but the Afrotropical region also has a similar number of populations without trend estimates.

⁴ see International Wader Studies No. 15 (URL: <http://www.waderstudygroup.org/pubs/iws15.php>)

Taking also account of the populations with poor population estimates, the priority regions for developing monitoring activities in the future are West Asia and the Afrotropical region.

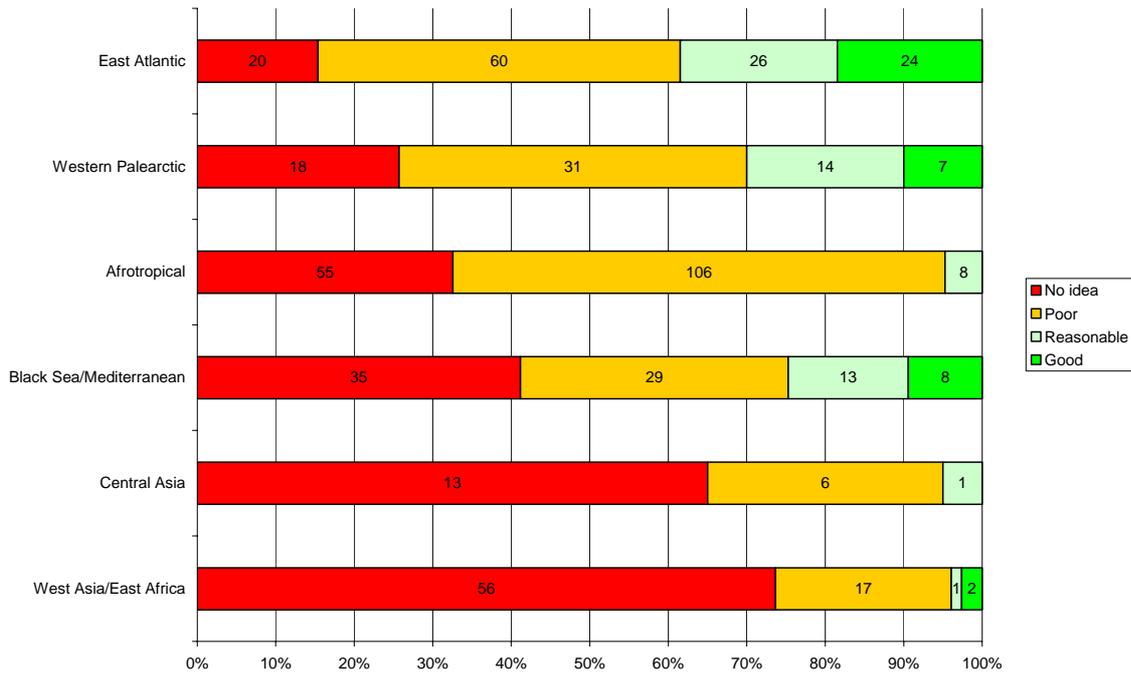


Figure 9. Quality of population trend estimates by flyways

Taxonomic patterns of the knowledge of population trends

Apart from crab plovers *Dromadidae* and thick-knees *Burhinidae*, with only one or two populations respectively, the families with particularly high percentage (>50%) of the populations without any trend estimates include the plovers *Charadriidae*, divers *Gaviidae*, pratincoles *Glareolidae*, auks *Alcidae*, sandpipers and their allies *Scolopacidae*. The proportion of populations with no trend estimates exceed 20% in case of skuas *Stercorariidae*, a group represented on Table 1 of Annex 3 of the AEWa Agreement only by two populations), stilts *Recurvirostridae*, gulls and terns *Laridae*, rails and crakes *Rallidae*, oystercatchers *Haematopodidae*, herons *Ardeida*, ibises and spoonbills *Threskiornithidae* (Figure 10).

The largest numbers of populations with no or very tentative trend estimates are the plovers (34), the sandpipers *Scolopacidae* (37) and the gulls and terns *Laridae* (40).

There is only one taxonomic group where the majority of the populations have reasonable or good trend estimates, the small family of oystercatchers *Haematopodidae*. The only larger family with a higher proportion of trend estimates is the ducks, geese and swans *Anatidae*. In this group 36% of the populations have reasonable or good trend estimates. Other groups with more than 20% reasonable or good estimates include the relatively small families of storks *Ciconiidae*, grebes *Podicipedidae*, flamingos *Phoenicopteridae* and frigatebirds *Fregatidae*.

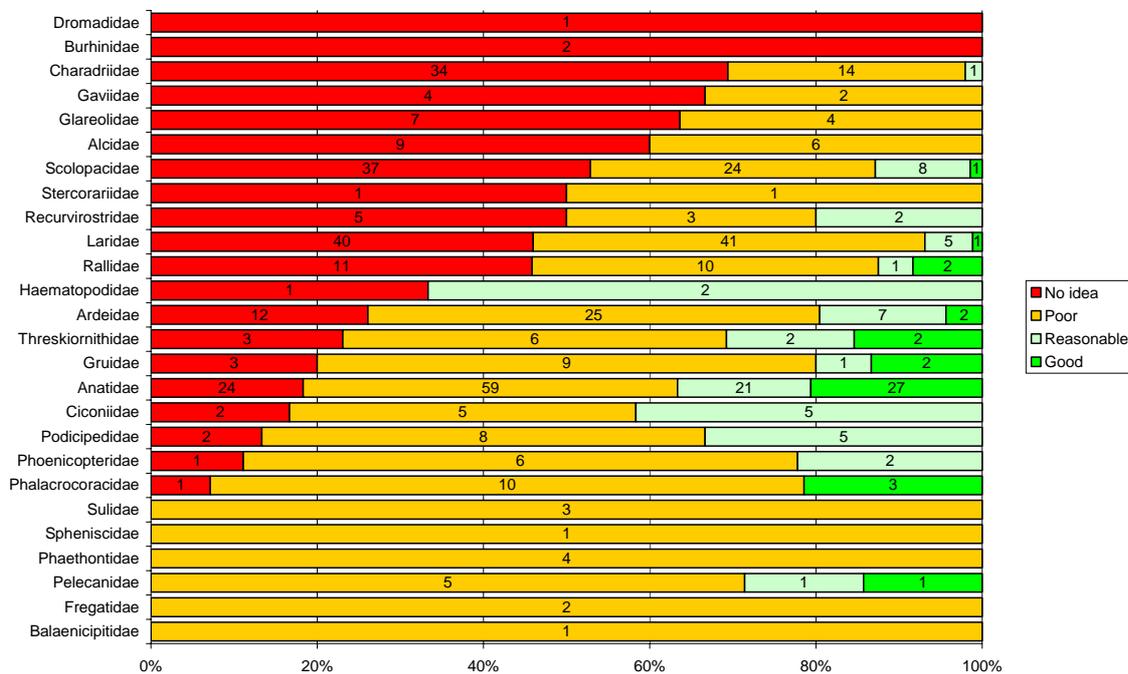


Figure 10. Quality of trend estimates by family

Patterns in population trends

38% of the populations with trend information are declining, 35% are stable or fluctuating and only 27% are increasing. This means that nearly 40% more populations are declining than increasing (Figure 11).

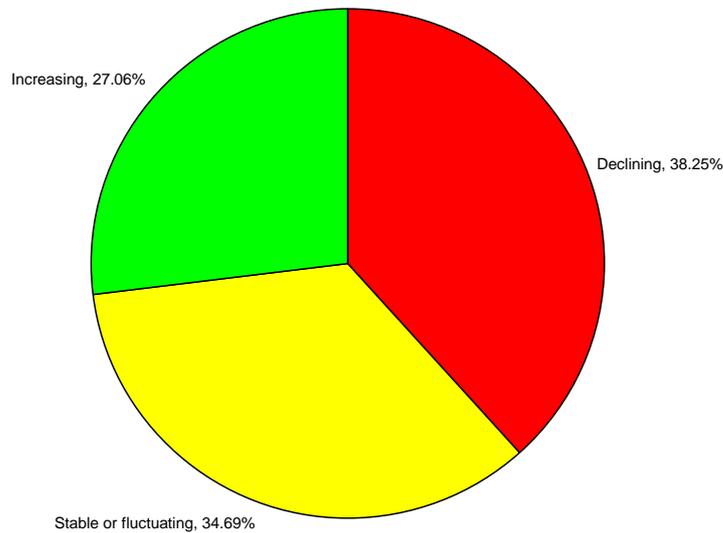


Figure 11. Distribution of trends amongst populations with trend estimates

Comparing the current assessments of population trends with the trends in the previous assessment, the number of decreasing populations has decreased from 152 in the previous status report to 149 populations. The status of six formerly decreasing population is now assessed as stable or fluctuating and another six as increasing now. On the other hand, the trend of 7 formerly stable or fluctuating and 2 formerly increasing populations is now assessed as decreasing.

Table 3. Changes in population trends between two assessments

Previous report	Current report				Grand Total
	Decreasing	Stable or fluctuating	Increasing	Unknown or uncertain	
Decreasing	137	6	6	3	152
Stable or fluctuating	7	121	17	1	146
Increasing	2		91	5	98
Unknown or uncertain	3		1	153	157
Grand Total	149	127	115	162	553

It should be noted, however, that the status of AEWA populations has deteriorated in the longer terms. The proportion of declining populations has increased from 33% in 1999 to 38% in 2011.

Population trend analyses based on International Waterbird Census data collected within the flyway boundaries of each population and using rigorously defined criteria identified 10 populations as being in significant long term decline that had not previously been recognised as such by AEWA processes, as follows:

- Great White Pelican *Pelecanus onocrotatus* – Europe, W Asia (bre)
- White-headed Duck *Oxyura leucocephala* – E Mediterranean, SW Asia
- Bewick's Swan *Cygnus columbianus bewickii*, NW Europe (non-bre)
- South African Shelduck *Tadorna cana* – Southern Africa
- Mallard *Anas platyrhynchos platyrhynchos*, C Europe, Black Sea, Mediterranean (non-bre)
- Common Pochard *Aythya ferina* – NE & NW Europe (non-bre)
- Common Pochard *Aythya ferina* – C Europe, Black Sea, Mediterranean (non-bre)
- Tufted Duck *Aythya fuligula* – C Europe, Black Sea, Mediterranean (non-bre)
- Greater Scaup *Aythya marila marila*, W Europe (non-bre)
- Eurasian Oystercatcher *Haemantopus ostralegus ostralegus*)

In addition, literature review identified the following nine populations for the first time under AEWA processes as also being in significant long-term decline:

- Bean Goose *Anser fabalis fabalis* – North-east Europe / North-west Europe
- Long-tailed Duck *Clangula hyemalis* – Western Siberia / North Europe
- Velvet Scoter *Melanitta fusca fusca* – W Siberia & N Europe / NW Europe
- Common Scoter *Melanitta nigra nigra* – W Siberia & N Europe / W Europe & NW Africa.
- Lesser Black-backed Gull – *Larus fuscus fuscus*
- Kittiwake *Rissa tridactyla tridactyla* – North Atlantic
- Common Guillemot *Uria aalge aalge* – E North America, Greenland, Iceland, Faeroes, Scotland, S Norway, Baltic
- Brunnich's Guillemot *Uria lomvia lomvia* – E North America, Greenland, E to Severnaya Zemlya
- Black Guillemot *Cephus grylle islandicus* – Iceland

Eight additional populations in South-west Asia were identified in the analysis as being in short-term decline but the unrepresentative geographical distribution of the sites used in the analysis (nearly all being in Iran) means that caution is needed in interpreting these trends. Efforts should also be made to obtain more representative and consistent data from this region, where there are signs that many waterbird populations are in trouble.

Patterns of population trends by taxonomic groups

Taxonomic groups with a particularly high proportion (over 50%) of declining populations include the shoebills *Balaenicipitidae* (an evolutionary unique population), pratincoles *Glareolidae*, bobbies *Sulidae*, oystercatchers *Haematopodidae*, grebes *Podicipedidae*, ibises and spoonbills *Threskiornithidae* and cranes *Gruidae*. However, the largest numbers of declining populations are amongst ducks, geese and swans *Anatidae* (38), sandpipers and allies *Scolopacidae* (24). Although, there are also a number of gulls and terns *Laridae* (13) as well as herons *Ardeidae* (9) populations declining, in both of these groups the number of increasing populations with known trends exceeds the declining ones (Figure 12).

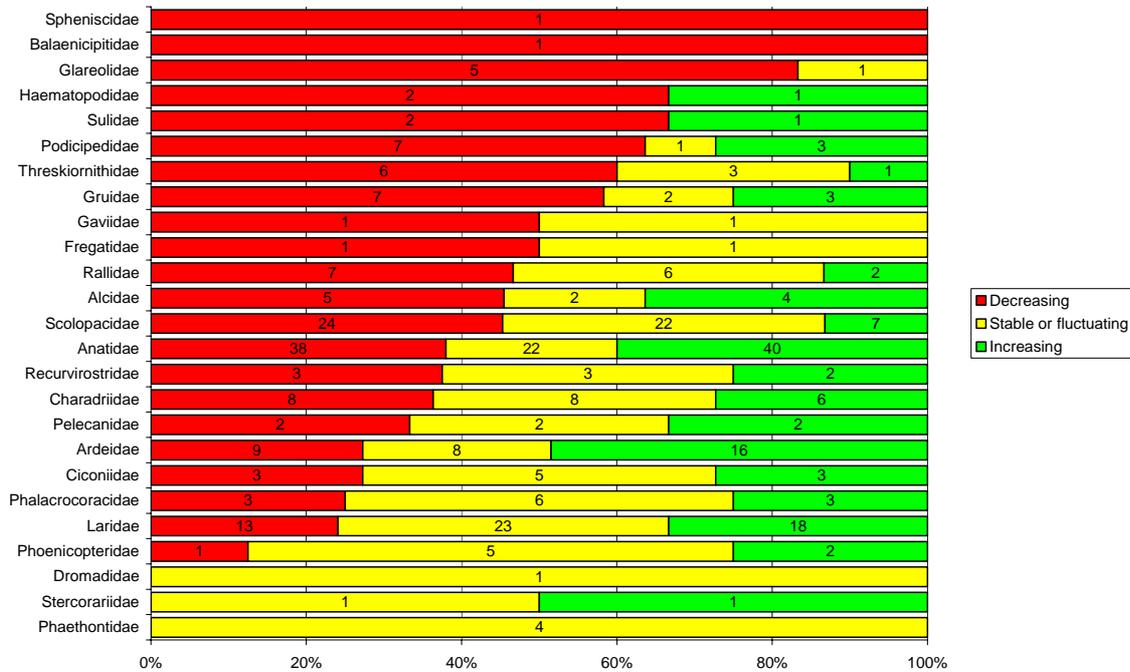


Figure 12. Population trends by families

Patterns in trends by geographic regions

The highest proportions of declining populations occur in the Central Asia and West Asia/East Africa flyways followed by the Black Sea/Mediterranean and Western Palearctic ones (Figure 13). However, in absolute terms, the Afrotropical region and the East Atlantic flyway hold the largest numbers of declining populations. The highest proportion of increasing populations can be found in the Western Palearctic region (22) and East Atlantic flyway (40). The latter also holds the largest number of increasing populations.

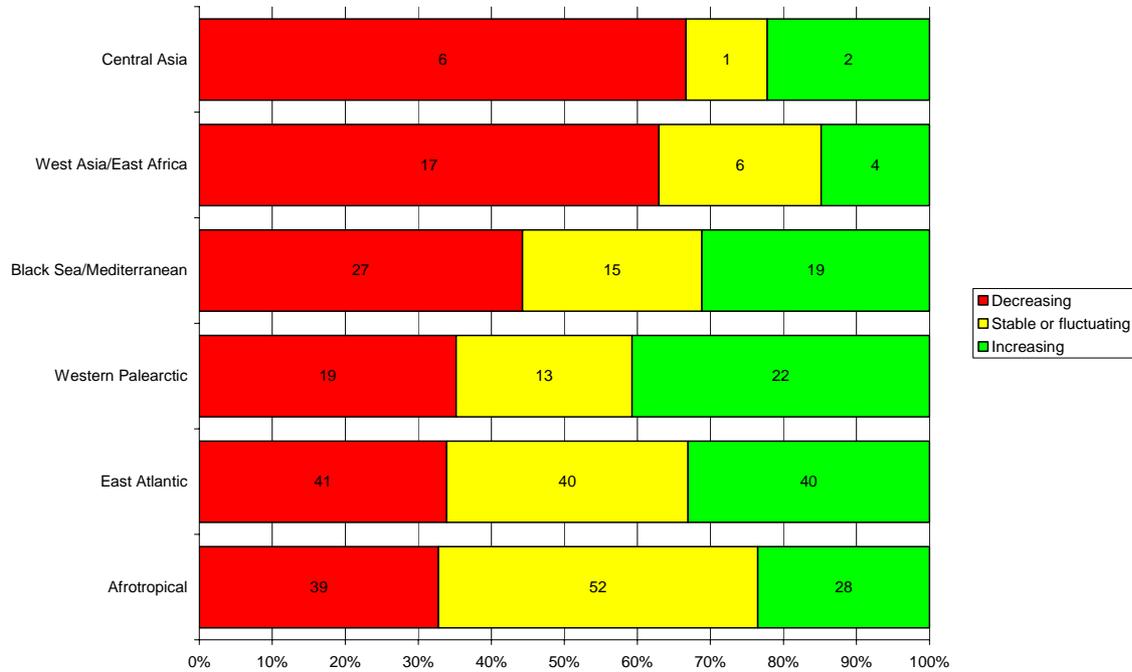


Figure 13. Population trends by flyways

Patterns in population trends by habitats

For the first time, this report attempts to assess trends in relation to habitat types used by the AEWAs populations. This assessment is based on the information compiled by BirdLife International in the World Bird Database. It contains information on the importance of level 1 and 2 IUCN habitat categories for 236 of the 255 species listed on Annex 2 of the Agreement. Importance of the habitats are recorded in the database as ‘unset’, ‘marginal’, ‘suitable’ and ‘major’ for any particular season. In this assessment only species-habitat relationships with suitable or major were taken into account both for the breeding and non-breeding seasons. The dataset consists of 69 level 2 habitat classes. To reduce the number of categories, the information has been aggregated by level 1 habitat categories⁵.

The analysis of these data shows that the highest proportions of populations with unknown trend are in deserts, rocky, oceanic marine, forest and savannah habitats (Figure 14) which are not well covered by the IWC. The highest proportions of populations with known trend and which are declining can be found in oceanic marine (60%), deserts (57%) and rocky (55%) habitats. However, the proportion of decreasing populations exceeds the increasing ones in all habitat types but forest. In terms of absolute numbers, the largest numbers of declining populations are associated with inland wetlands (124), which simply represents the waterbird focus of the Agreement. Grasslands, neritic marine, aquatic artificial landscapes, coastal, intertidal, neritic marine areas and artificial landscapes, both terrestrial and aquatic, all contain similar numbers of declining populations.

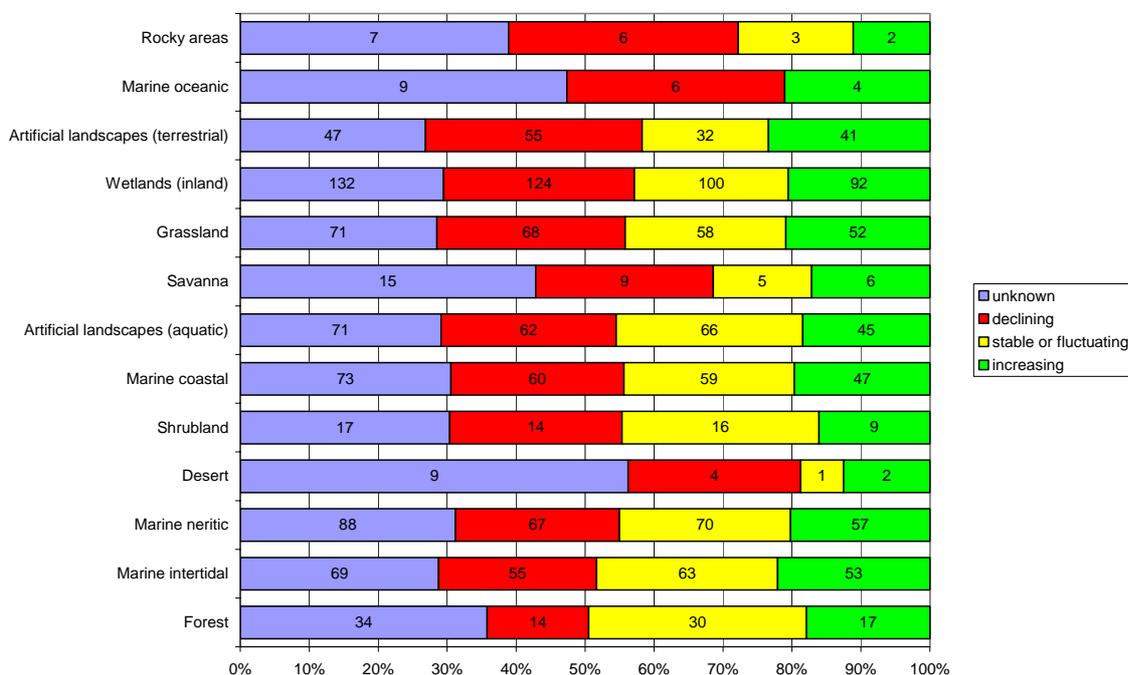


Figure 14. Population trends by main (level 1) habitat types

⁵ Further information on the habitat classification system can be found at <http://www.birdlife.org/datazone/info/spchabalt>.

Part 4. Threats to waterbird species in the AEWA region

This report also makes a first attempt to assess the threats to AEWA species. This analysis uses the threat information collected by BirdLife International under the framework of the Wings Over Wetlands Project and stored in the World Bird Database. The impacts of threats are assessed by scoring the timing (i.e. when it happens), the scope (i.e. the proportion of the global population of the species affected) and severity (the magnitude of decline caused) of the threat and adding up these scores⁶. Past threats were not included into this analysis.

Climate change is clearly one of the most often recorded threats (Figure 15). However, its impacts on the populations of species are not yet known. Climate change is closely followed by biological resource use and natural system modifications⁶. Although agriculture and aquaculture have been recorded less often, they have more medium and high impacts than any other threat category, which matches well the findings of the habitat-based analysis. Biological resource use includes hunting and trapping in the form of intentional and unintentional use, persecution, logging, harvesting aquatic resources. Natural system modifications include various water management activities such as construction of dams, abstraction of surface and ground water.

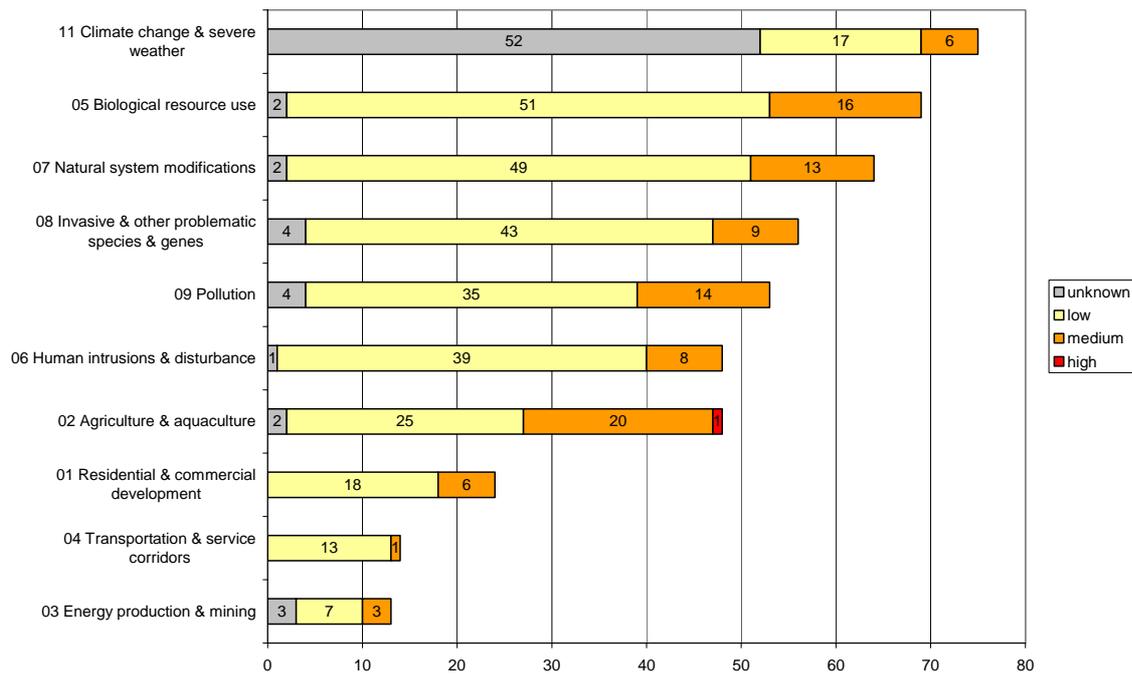


Figure 15. Number of species affected by various threats and their level of impact

⁶ See details of the methodology and threat categories at <http://www.birdlife.org/datazone/info/spcthreat>

Part 5. Species of global conservation concern

Red List status of AEWA species

The Red List status of the 255 species listed on Annex 2 of AEWA has been reviewed by BirdLife International, the Red List authority for birds, in 2010. The full report is presented in Annex 2.

24 AEWA species (9%) are globally threatened, i.e. Critically Endangered (4), Endangered (6) or Vulnerable (14) and thus qualify to be listed under Category 1b under Colum A. In addition, 16 species are included into the Red List as Near Threatened.

No AEWA-listed species underwent genuine category changes during 2008-2010. However, in the absence of a full reassessment until 2012, this may be a consequence of time-lags in information flow, and some such species may have undergone deteriorations in status that had not been detected through the Red List by the time of writing this report. However, a total of 12 AEWA-listed species qualified for higher or lower Red List categories owing to genuine deterioration or improvement in status during 1988-2010.

The families with the largest number of Globally Threatened species include the ducks, geese and swans and the cranes. In case of the latter, the proportion of Globally Threatened species is also high. Only families represented by a single species on Annex 2 of the Agreement have higher proportions of Globally Threatened species than cranes. Considering also the Near Threatened species, the proportion of Red Listed species is also especially high amongst cormorants. Sandpipers and their allies as well as the gulls and terns also include a relatively large number of Red Listed species.

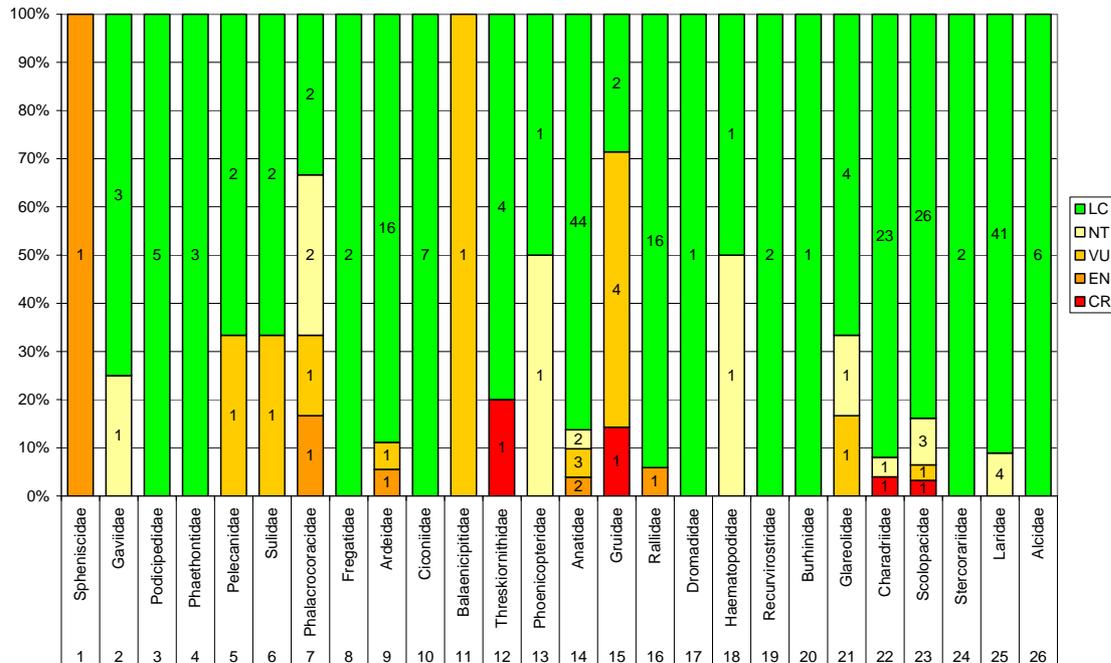


Figure 16. Proportion and number of species by their Red List status and by families

Geographic patterns in the conservation status of AEWA populations

The geographic patterns in the conservation status of AEWA populations were assessed on the basis of the classification of the populations in Table 1 of the AEWA Action Plan, i.e. considering their population size, trend. .

Both the highest number and highest proportion of populations classified in Column A of table can be found in the Afrotropical region. Here and also in the Black Sea–Mediterranean and Central Asian flyways at least half or more of the populations are in unfavourable conservation status.

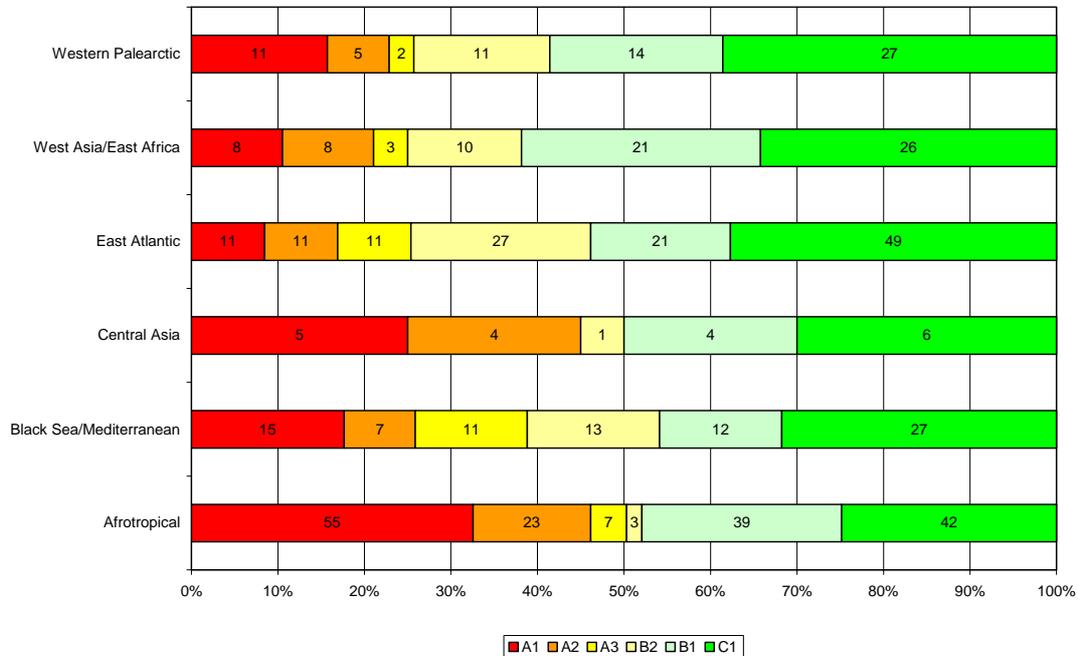


Figure 17. Proportion and number of populations by their conservation status assessment and by flyways

Part 6. Progress towards the targets set in the AEWA Strategic Plan

The logical framework to the AEWA Strategic Plan 2009-2017 has identified a number of indicators in relation to the goal and relevant actions to be reported in the CSR:

Goal: To maintain or to restore migratory waterbird species and their populations at a favourable conservation status throughout their flyways

At the Agreement level, within the period of the Strategic Plan 2009-2017 the following indicators were defined:

- G.1 No AEWA waterbird population has become extinct in the Agreement area.
 - G.2 All AEWA waterbird populations currently at favourable conservation status have retained that status.
 - G.3 At least 75% of the AEWA waterbird populations have a positive trend (growing or stable).
 - G.4 Overall status of indicator species has improved, as measured by the Waterbird Indicator.
 - G.5 Overall extinction risk of waterbirds reduced, as measured by the Red List Index.
 - G.6 20% of threatened and Near Threatened species downlisted to lower categories of threat.
 - G.7 Fewer populations to be listed in Category 1 in Column A (20% reduction).
 - G.8 Fewer populations to be listed in Column A (5% reduction).
- 3.1 Necessary resources are in place to support, on a long-term basis, the international processes for gathering monitoring data for status assessment
- 3.1.2 50% increase of species/ populations whose international status is being assessed with regular monitoring data

Table 4 presents the results of the assessments of the AEWA indicators. In addition, short technical notes on the calculation of these indicators are provided below:

- G.2:** As a proxy to the more complex definition of favourable conservation status in Art. 2 of the Convention on Migratory Species, populations listed in Category 1 of Columns B and C in 2008 were considered to be in favourable status. Populations that are listed on Appendix 1 of the Convention on Migratory Species (A1a) or which are Globally Threatened (A2) or which have small and therefore vulnerable (A1c and A2) or which are vulnerable because of being concentrated on a small number of sites (A3a or B2a), depending on a certain habitat type (A3b or B2b), undergoing a significant long-term decline (A3c or B2c) or undergoing large fluctuations (A3d or B2d) were considered as not having a favourable conservation status.
- G.4:** As explained in Appendix 1.1. of this report, currently annual indices can only be calculated for 128 populations and many of these are not representative for the population itself. In addition, there is a substantial bias in the distribution of populations with good quality trends. Therefore, a composite index similar to the ones generated by the Pan-European Common Bird Monitoring scheme cannot be applied for the AEWA region yet. Therefore a more qualitative Waterbird Indicator was developed using a similar approach as in the *State of the World's Waterbirds* publication calculating an average of the trend scores assigned to increasing (+1), stable or fluctuating (0) or declining (-1) populations for a given period, i.e. in this case for CSR4 and CSR5.
- 3.1.2:** The assessment of this indicator is based on scoring the quality of population size and trend estimates for this and the previous report. For each time period, the minimum of the score for the quality of population size and trend was taken and the resulting values were converted into yes/no scores considering scores 1 and 2 as 'no' and 3 and 4 as 'yes'.

Table 4. Summary results of AEWA indicators. Green indicates that the target was met, yellow indicates some progress towards target or risk of failing to reach the target while red indicates tendency into the opposite direction than the target

Indicator	Status	Assessment
G.1 No AEWA waterbird population has become extinct in the Agreement area	Based on the 2010 Red List assessment by BirdLife International and the trend data collected for this report, no AEWA listed population became extinct. However, extensive surveys to find Slender-billed Curlews were unsuccessful, which indicates the risk that this target will be not met by the end of the period covered by the Strategic Plan.	Yellow
G.2 All AEWA waterbird populations currently at favourable conservation status have retained that status	20 populations formerly listed in categories B1 and C1, hence can be considered being in favourable conservation status, are now in other categories. The reason of changing category is significant long-term decline in case of 11 of these populations, lower population estimates in case of 8 populations, small number of sites in case of 1 population.	Red
G.3 At least 75% of the AEWA waterbird populations have a positive trend (growing or stable)	61% of the AEWA populations with known population trends have a positive trend. Although it is 2% higher than it was in the 2008 assessment, it is still much lower than the target.	Yellow
G.4 Overall status of indicator species has improved, as measured by the Waterbird Indicator	The value of the Waterbird Indicator has increased from -0.1363 (N ₂₀₀₈ = 396) to -0.1118 (N ₂₀₁₁ = 391), which represents some improvement compared to the previous report, but still more populations are declining than increasing.	Yellow
G.5 Overall extinction risk of waterbirds reduced, as measured by the Red List Index	The Red List Index has declined by 1% since 1988. However, no full review will take place until 2012. The direction of change is opposite to what has been identified in the target.	Red
G.6 20% of threatened and Near Threatened species downlisted to lower categories of threat	No Threatened or Near Threatened species has been downlisted between 2008 and 2010 in the absence of full status review.	Red
G.7 Fewer populations to be listed in Category 1 in Column A (20% reduction)	Number of populations listed in Category 1 of Column A has decreased by 7 from 99 to 92, i.e. by 7%.	Yellow
G.8 Fewer populations to be listed in Column A (5% reduction)	Number of populations listed in Column A has decreased by 15 from 198 to 183, i.e. by 8%. In most cases, this the result of reclassifying populations from Category A2 to B1.	Green
3.1.2 50% increase of species/populations whose international status is being assessed with regular monitoring data	Number of populations whose international status is being assessed with regular monitoring increased from 102 to 107, i.e. by 5%. Taking into account the time needed for monitoring programmes to start producing data that can be used in trend assessments, concerted efforts in the most poorly covered regions are urgently needed if this target to be met.	Yellow