

Report on the Conservation Status of Migratory Waterbirds in the Agreement Area

Ninth Edition



Volume 1: Full Report



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Report on the Conservation Status of Migratory Waterbirds in the Agreement Area, Ninth Edition

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Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)

Report on the Conservation Status of Migratory Waterbirds in the Agreement Area

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Volume 1: Full Report

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Compiled by

Wetlands International Europe

With contributions from

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Hartlaub's Gull (*Larus hartlaubii*)
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Ferruginous Duck (*Aythya nyroca*)
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LIST OF ACRONYMS

AECM	Agri-Environment-Climate Measure
AEMPLAP	African-Eurasian Migratory Landbirds Action Plan
AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
Af-SSah	Afrotropical: Sub-Saharan Flyway
Af-CW	Afrotropical: Central and Western Flyway
Af-ES	Afrotropical: Eastern and Southern Flyway
AFMP	Adaptive Flyway Management Plan
Br	breeding
BS-Sah	Black Sea – Sahelian Flyway
CAPP	Conservation of Arctic Flora and Fauna
CAP	EU Common Agricultural Policy
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COP	Conference of the Parties
CR	Critically Endangered (IUCN Red List Category)
CSN	Critical Site Network
CSR	AEWA Conservation Status Report
DNPW	Zambia's Department of National Parks and Wildlife
EAtl	East Atlantic Flyway
EGM IWG	European Goose Management International Working Group
EGMP	European Goose Management Platform
EN	Endangered (IUCN Red List Category)
EU	European Union
EU-POA	EU Plan of Action (EU-PoA) for reducing the incidental catches of seabirds in fishing gear
EWI	Endangered Wildlife Trust
FRP	Favourable Reference Population
FRV	Favourable Reference Value
ICF	International Crane Foundation
IBA	Important Bird and Biodiversity Area
ISAP	International Species Action Plan
ISEG	International Species Expert Group
ISMP	International Species Management Plan
ISWG	International Species Working Group
IUCN	International Union for Conservation of Nature
IWC	International Waterbird Census
GAEC	good agricultural and environmental conditions
GIZ	German Society for International Cooperation
IPM	Integrated Population Model
LIFE	EU's Funding Instrument for the Environment and Climate Action
LC	Least Concern (IUCN Red List Category)
MOP	AEWA Meeting of the Parties
MOU	Memorandum of Understanding
MU	management unit
Nbr	non-breeding
NGO	Non-governmental Organisation
NWI	national wetlands inventory
nPRS	Non-Party Range State
NT	Near Threatened (IUCN Red List Category)
SOVON	Sovon Dutch Centre for Field Ornithology
TC	AEWA Technical Committee
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VU	Vulnerable (IUCN Red List Category)
WAs-EAf	West Asian - East African Flyway
WP-Atl	Western Palearctic: Atlantic Flyway
WP-BSM	Western Palearctic: Black Sea – Mediterranean Flyway
WP-CSWAs	Western Palearctic: Central and Southwest Asian Flyway
WWF	World Wildlife Fund
WWT	Wildfowl & Wetlands Trust

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The 9th edition of the **Report on the Conservation Status of Migratory Waterbirds in the Agreement Area** results from collaborative efforts between Wetlands International and BirdLife International. Several sources specifically produced for previous editions of the CSR are available on the Wetlands International website (wetlands.org/publication/1304).

The assessment of threats to AEWA waterbird populations is based mainly on three sources: BirdLife International's species fact sheets, Birds of the World's species accounts, and national reports from EU Member States as required by Article 12 of the EU Birds Directive. We thank BirdLife International, Cornell University, and the European Commission for collecting these data.

We have utilised the national reports of AEWA Contracting Parties to assess the implementation of habitat conservation measures and international species action plans, as well as Parties' submissions to the AEWA Flyway Site Network. We extend our gratitude to the national focal points and their technical experts for compiling these reports and information.

Similarly, we thank the Ramsar focal points for completing their national reports for the Ramsar Convention's COP15, which allowed us to gather valuable information about wetland habitat conservation efforts within the Agreement Area.

We are thankful to Ruth Cromie for her contribution to Box 1, and to Kerryn Morrison and Richard Berridge of the Endangered Wildlife Trust and the International Crane Foundation for their input to Box 6. We are grateful to the AEWA Technical Committee for conceptualising and reviewing this report.

The production of this report was financially supported by the German Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety, the Swiss Federal Office for the Environment, the UK Department for Environment, Food & Rural Affairs, the Norwegian Environment Agency, and the EU LIFE NGO Operational Grant to Wetlands International Europe.



African Skimmer (*Rynchops flavirostris*)
© Sergey Dereliev



Great White Pelican (*Pelecanus onocrotalus*)
© Szabolcs Nagy

FOREWORD



The ninth edition of the *Report on the Conservation Status of Migratory Waterbirds in the Agreement Area* (CSR9) comes at a significant moment, as we mark thirty years of implementing AEWA – a treaty that has become a cornerstone of international cooperation for the conservation of migratory waterbirds and their habitats across Africa and Eurasia. As Contracting Parties, we share a collective responsibility for the stewardship of these species, whose

annual migrations connect our nations, our ecosystems, and our people in a way that few other natural phenomena can.

This latest AEWA status report is more than a compilation of data, it reflects our shared progress, challenges, and the urgent need for renewed commitment. For the first time, CSR9 goes beyond charting population trends to examine the pressures driving this change such as habitat loss, unsustainable use, agricultural intensification, development and the effects of climate change.

CSR9 serves as both a benchmark and a roadmap of the actions needed by Parties, NGOs and other AEWA stakeholders to ensure the recovery and conservation of AEWA waterbird populations by reducing the pressures and threats they face. It provides the evidence we can use to inform our national authorities and stakeholders to stimulate better implementation on the national and local level, but also to underline the importance of strengthening international cooperation for the conservation of migratory waterbirds.

Despite commendable progress made under AEWA, the latest population trends available show that too many AEWA populations continue to decline. It is clear our collective efforts must be intensified if we want to reverse these trends and secure the long-term survival of migratory waterbirds. Consequently, the 30th Anniversary of AEWA should mark a turning point for countries to step up their efforts and renew their commitment to the very vision and principles of flyway conservation.

Every AEWA Party, partner, and stakeholder has a role to play in turning the data and insights of CSR9 into coordinated and concerted action on the ground. So, as we reflect on three decades of achievements and lessons learned, let us reaffirm our joint commitment to the vision of AEWA: a connected network of nations and other dedicated actors actively working together to conserve migratory waterbirds and their habitats across the African-Eurasian flyways.

Simon Mackown

Chair of the AEWA Standing Committee

“ ”

CSR9 comes at a significant moment, as we mark thirty years of implementing AEWA – a treaty that has become a cornerstone of international cooperation for the conservation of migratory waterbirds and their habitats



**This edition of
AEWA's flagship
status report goes
beyond tracking
population trends
to analyse the
drivers behind
population changes
– the pressures
threatening
migratory
waterbirds**

FOREWORD



This ninth edition of the *Report on the Conservation Status of Migratory Waterbirds in the Agreement Area (CSR9)* comes at a pivotal moment in the history of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), as we celebrate AEWA's 30th Anniversary. It is both a stock-taking exercise and a call to action, providing us with the clearest picture yet of the pressures migratory waterbird populations face and the responses we need to take.

For the first time, this edition of AEWA's flagship status report goes beyond tracking population trends to analyse the drivers behind population changes – the pressures threatening migratory waterbirds and the steps governments and the wider conservation community need to take to reduce the pressures and threats on our species. This shift allows us to go beyond only tracking the trends and understand what is happening, but also *why* it is happening, enabling us to better refine our conservation strategies for the years ahead.

The newly presented threat analysis captured in the report shows that the main pressures facing our waterbirds in Africa and Eurasia are both widespread and interconnected, neither isolated nor local. AEWA waterbird populations are being impacted by three main threats: biological resource use – including unsustainable hunting and bycatch in fisheries, infrastructure development and agricultural expansion and intensification. These threats exist across all flyways, cutting across borders and affecting species and habitats alike. Addressing these threats requires collective, well-coordinated flyway-level action involving all governments and stakeholders actively working together under a shared vision and renewed commitment towards implementing the treaty.

Yet as CSR9 also confirms, implementation of the treaty has only been partial and more decisive collective action is urgently needed. We need to strengthen and accelerate our targeted interventions for the most threatened AEWA species, secure and restore critical waterbird habitats and ensure sustainable use as well as expand and build upon existing international partnerships to match the scale of the challenge.

Finally, on behalf of the entire AEWA community, I would like to express my sincere gratitude to the donors who made the CSR9 report possible. Their generous support has enabled the production of this vital document, which will serve as a blueprint for future conservation action under AEWA.

Dr Jacques Trouvilliez
AEWA Executive Secretary



Grey Crowned Crane (*Balearica regulorum*) © Sergey Dereliev



CSR9 marks the first attempt to identify key pressures affecting waterbird populations and the responses taken to address them

Common Cranes (*Grus grus*)
© Sergey Dereliev

EXECUTIVE SUMMARY



The **Agreement on the Conservation of African-Eurasian Migratory Waterbirds** (AEWA) is an independent inter-governmental treaty established following the provisions of Article IV of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). It is dedicated to the conservation and management of migratory waterbirds and their habitats across flyways spanning Africa, Europe, the Middle East, Central Asia, Greenland, and the Canadian Archipelago. AEWA covers a wide variety of 255 species, including divers, grebes, pelicans, cormorants, herons, storks, rails, ibises, spoonbills, flamingos, ducks, swans, geese, cranes, waders, gulls, terns, tropicbirds, auks, frigatebirds, as well as the Shoebill and the African Penguin.

The 8th edition of the AEWA Conservation Status Report, compiled in 2021, offered valuable insights into waterbird population trends. It identified that 41% of AEWA waterbird populations declined, while 30% increased, in the short term (2009-2018). Over the long term (spanning three generations), **43% of these populations have decreased, whereas 34% have shown positive growth.**

The present 9th edition of the AEWA Conservation Status Report (CSR9) marks the **first attempt to identify key pressures affecting populations and the responses taken to address them.** The report systematically assesses threats for the first time, showing that biological resource use, such as hunting and fisheries, infrastructure development, and agriculture each impact around 40% of AEWA-listed populations. Other frequently recorded pressures include climate change, invasive alien and problematic native species, as well as human-induced changes to hydrology, such as drainage. These drivers vary by flyway and species group, highlighting the need for tailored conservation strategies.

Significant progress has been made in developing **international species action and management plans.** AEWA has adopted 28 International Species Action Plans (ISAPs) and three International Species Management Plans (ISMPs). All AEWA-listed Critically Endangered (CR) and Endangered (EN) migratory waterbird species with the majority of their population in the Agreement Area are covered by ISAPs. However, 11 out of 19 Vulnerable (VU) AEWA species still do not have ISAPs. Implementation success is greatest where strong coordination mechanisms, such as International Species Working Groups, are in place. However, progress towards plan goals

has been limited overall: by 2025, only three plans had achieved or made measurable progress towards their goals, while in 14 cases, the conservation status of the target species continued to worsen. The effectiveness of plan implementation is often constrained by limited funding and regional disparities in capacity, particularly in Central Asia and sub-Saharan Africa. Based on the review, the report makes recommendations to extend the validity of plans that are set to expire by 2028 and proposes improvements for setting priorities for new plans, as well as revising and updating existing ones.

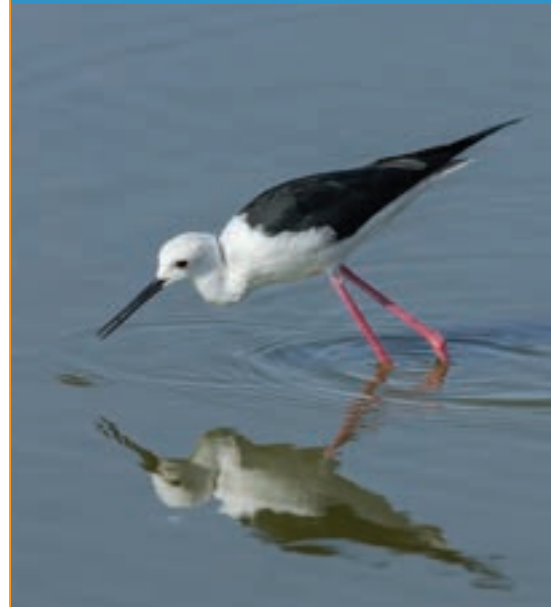
The report also assesses progress in site conservation through the **AEWA Flyway Site Network**. To date, 40% of the Contracting Parties have identified and communicated their nationally and internationally important waterbird sites to the AEWA Secretariat, and 92% of AEWA species have at least one site included in the network. However, coverage remains incomplete for many populations, especially outside the European Union (EU), and few countries have fully fulfilled their site identification obligations.

Habitat conservation in the wider environment has seen even more uneven implementation. While some positive examples exist, particularly within the EU, habitat loss and degradation continue to cause declines in waterbird populations. Widespread threats include wetland drainage, intensive farming, and infrastructure development. National reports to AEWA show that no more than a quarter of the AEWA Parties have taken habitat conservation measures. Conversely, reports to the Ramsar Convention on Wetlands indicate that many countries are also conserving wetlands outside designated Ramsar sites. In Europe, agricultural subsidies can help sustaining and restoring waterbird habitats, though their effectiveness is often questioned. Elsewhere, programmes involving carbon credits, landscape restoration, and livelihoods provide some examples of opportunities to protect waterbird habitats in farmland landscapes. The report urges the implementation of a series of actions already agreed upon in the AEWA Strategic Plan for 2019-2027, such as developing agreement-level habitat conservation action plans and identifying and integrating national habitat conservation priorities into relevant national sectoral policies. Additionally, it proposes applying the existing AEWA guidelines and exploring options for monitoring key land-use-related threats through remote sensing.

The report makes further recommendations on ensuring the waterbird harvest is sustainable, as well as on addressing the threats posed by invasive alien species, native problem species and highly pathogenic avian influenza, and on adapting to climate change.

Preserving and restoring habitats for waterbirds is vital for maintaining or enhancing their populations to a favourable conservation status. This should be achieved within a coherent and comprehensive AEWA Flyway Site Network, building on existing protection measures such as Ramsar sites and the EU Natura 2000 network, as well as in the wider environment.

After 30 years of pioneering work on species recovery and sustainable use at a flyway level, the Agreement must find ways to strengthen and expand these efforts, while complementing them with coordinated habitat and site conservation measures along the flyway to sustain waterbird populations within the African-Eurasian flyways.



Black-winged Stilt (*Himantopus himantopus*) © Sergey Dereliev

INTRODUCTION



African Penguins (*Spheniscus demersus*)
© Adobe Stock

The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) is an independent inter-governmental treaty established following the provisions of Article IV of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). It applies the flyway approach to the conservation and management of migratory waterbirds and their habitats across African-Eurasian flyways. AEWA covers 255 species of migratory waterbirds.

Article IV of AEWA's Agreement text introduces the AEWA Action Plan, which is attached as Annex 3. 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 implementing the Action Plan. These reviews shall be conducted at different intervals, as specified in Paragraph 7.5, and submitted to the Meeting of the Parties (MOP) for consideration.

Among 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 far¹. The last four editions follow an improved format with more analytical content.

In March 2019, the AEWA Technical Committee decided to implement a six-year alternating cycle for the CSR (document AEWA/TC 15.22). This cycle includes a comprehensive *Population Sizes & Trends Report* that follows the traditional format of the CSR for MOPs with an even number, alternating with a *Drivers & Responses Report* for MOPs with an odd number. The latter primarily focuses on the direct causes of observed population changes, as well as on conservation actions and policy responses. In March 2024, the

¹ Its eight previous editions are available on the AEWA web site under Meeting of the Parties: <https://www.unep-aewa.org/en/meetings/meetings-of-parties>

Technical Committee adopted the Terms of Reference for the 9th edition of the Conservation Status Report (CSR9), including an outline of its content (document AEWA/TC 19.16). In October 2024, the UNEP/AEWA Secretariat contracted Wetlands International to produce CSR9. After eight editions focusing on population sizes and trends in waterbird populations, this edition concentrates for the first time on the pressures and responses that drive population changes.

In practice, CSR9 amalgamates three of the seven international reviews required by Paragraph 7.4 of the AEWA Action Plan, namely the Conservation Status Report, the Report on the Site Network, and the Report on the Preparation and Implementation of Species Action Plans.

This report is organised as follows:

- **Executive summary.** This section includes the report's key conclusions about the available knowledge of the pressures on AEWA populations and the conservation responses to safeguard them and their habitats.
- **Key findings.** This section summarises the key conclusions of the threat analysis and the review of conservation actions.
- **Recommendations for priority actions.** This section outlines measures to respond more effectively to threats that AEWA populations are facing.
- **Part 1** provides a summary of the threats facing waterbird populations, along with an analysis of their taxonomic and geographic patterns.
- **Part 2** focuses on conservation responses. This section evaluates the advancements made in the development and implementation of international single and multi-species action and management plans, as well as the conservation of the flyway network of sites and the conservation of habitats in the wider environment.
- **Annexes** provide further details on the impact of threats to AEWA populations and the current status of AEWA international species action and management plans, and their coordination.



African Oystercatcher (*Haematopus moquini*) © Mark Anderson

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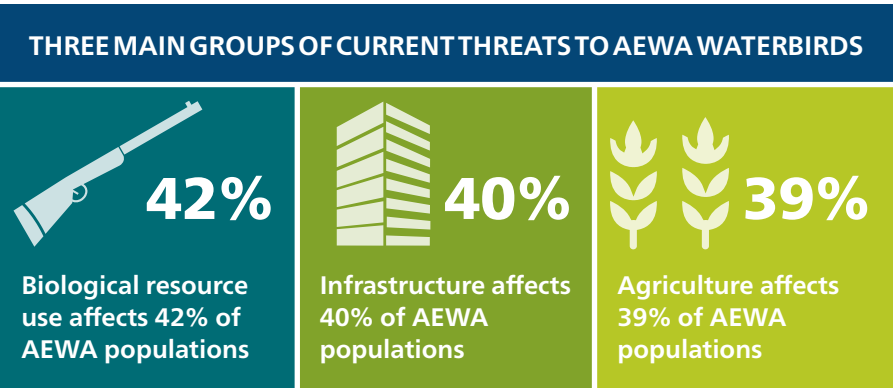
Shoebill (*Balaeniceps rex*) © Sergey Dereliev

KEY FINDINGS

The 8th edition of the AEWA Conservation Status Report (2021) indicated that, in the short term (2009-2018), 41% of AEWA waterbird populations have decreased, while 30% have increased. In the long term (over three generations), 43% of the populations have decreased and 34% have increased while the rest had stable, fluctuating or uncertain trends.

PRESSURES – THREATS TO MIGRATORY WATERBIRDS IN THE AGREEMENT AREA

The 9th edition of the Conservation Status Report focuses on identifying the drivers of population declines. The three main groups of current threats to AEWA waterbirds are biological resource use, infrastructure development, and agriculture. **Biological resource use affects 42% of AEWA populations, infrastructure development impacts 40%, and agriculture influences 39%.** Hunting, illegal shooting/killing, bycatch and incidental killing, fisheries, and other extraction of biological resources are the most frequently reported threats in the first group. Sports, tourism, and leisure activities, the conversion of wetlands into settlements and recreational areas, and the modification of coastal conditions are the main threats in the second group, while drainage for agricultural land use and the conversion from one agricultural land use to another are the most frequently reported pressures in the third. Habitat destruction due to drainage for agriculture and for the development of urban and industrial areas threatens about one-third of the AEWA populations. Other frequently recorded groups of pressures include climate change, invasive alien and problematic native species, as well as human-induced changes to hydrology. It is important to note, however, that the majority of sources on which this report is based contain threat data from before the rise of highly pathogenic avian influenza outbreaks in wild birds since the early 2020s. Therefore, this threat has not been adequately assessed.



For **grazers** (ducks, geese and swans) and **large wading birds** (flamingos, rails, gallinules, coots, cranes, storks, ibises, spoonbills, herons, and Shoebill), the primary threat is drainage for agricultural land, impacting 35% and 44% of their populations, respectively. For **waders** (thick-knees, oystercatchers, stilts and avocets, plovers, sandpipers, snipes, phalaropes, Crab-plover, coursers and pratincoles), the most significant threat is the disturbance caused by sport, tourism, and leisure activities, which affects 27% of their populations. For **seabirds** (grebes, tropicbirds, loons, penguins, pelicans, frigatebirds, gannets and boobies, cormorants, gulls, terns, and skimmers, skuas, and auks), invasive alien species pose the highest threat, significantly affecting 16% of their populations.

The highest number of threats affecting more than 10% of the populations in the flyway is reported in the European flyways (East Atlantic, Black Sea-Sahelian, and Western Palearctic: Atlantic and Black Sea-Mediterranean). In contrast, fewer threats are reported in the West Asian-East African, Western Palearctic: Central and Southwest Asian flyways, and the Afrotropical flyways. However, this may only reflect a **knowledge gap** in the absence of a threat reporting process similar to the one that exists under the EU Birds Directive.



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AEWA has developed and adopted 28 International Single- or Multi-species Action Plans to help the recovery of waterbird populations

RESPONSES – AEWA SPECIES ACTION AND MANAGEMENT PLANS

AEWA has developed and adopted 28 **International Single- or Multi-species Action Plans** to help the recovery of waterbird populations. All five Critically Endangered (CR) and eight Endangered (EN) migratory waterbird species with the majority of their population in the Agreement Area are now covered by ISAPs. However, 11 of 19 Vulnerable (VU) AEWA species still do not have ISAPs. AEWA also established three International Species Management Plans (ISMPs) to, amongst other objectives, control populations that cause significant damage to agriculture and effects on ecosystems due to increasing abundances. Although AEWA has led the way in adaptive harvest management across Europe, no ISMPs with recovery objectives have yet been developed. This is despite the development and implementation of such plans for all prioritised declining quarry populations being foreseen in Target 2.4 of the AEWA Strategic Plan for 2019-2027 and the Technical Committee having identified priority populations for the development of such plans.

The Agreement has established effective coordination mechanisms for implementing these plans through International Species Working and Expert Groups, although six plans have no such a group yet, and the level of functioning of the existing ones varies.

Three ISAPs have shown measurable conservation gains, such as stabilised or recovering populations. However, progress has been uneven. In the case of 14 plans the overall status has deteriorated. In addition, the Agreement faces a substantial backlog in evaluating, revising and updating existing plans and creating new ones due to limited staffing and financial resources.

RESPONSES – AEWA FLYWAY SITE NETWORK

A key obligation of Parties to AEWA is to identify and maintain a network of suitable habitats throughout the range of each AEWA population. Protecting these key sites is essential to safeguard them from the aforementioned threats. However, only 40 Range States, of which 34 are

Northern Lapwing (*Vanellus vanellus*)
© Szabolcs Nagy



**The EU Natura
2000 network
provides fairly
comprehensive
protection
for waterbird
populations;
however, a similar
level of protection
is lacking outside
the EU**

Contracting Parties (40% of the Parties), have submitted their national site inventory to the Secretariat in contribution to the **AEWA Flyway Site Network**, which should have been established by the 8th Session of the Meeting of the Parties (MOP8) as per the AEWA Strategic Plan 2019-2027.

Sites in the submitted inventories support 234 out of the 255 AEWA species (92%), but the AEWA Flyway Site Network remains incomplete. The EU Natura 2000 network provides fairly comprehensive protection for waterbird populations; however, a similar level of protection is lacking outside the EU. The incompleteness of the AEWA Flyway Site Network limits the ability to fully assess the overall comprehensiveness and coherence of the site network for each AEWA population.

RESPONSES – CONSERVING WATERBIRD HABITATS IN THE WIDER ENVIRONMENT

To date, the **conservation of waterbird habitats outside protected areas** has received relatively little attention under AEWA, despite its recognition in the Agreement Text, the AEWA Action Plan, and AEWA's Strategic Plan 2019-2027. Many AEWA populations are too dispersed during breeding and/or non-breeding seasons to be safeguarded solely by protected areas. The majority of the 255 AEWA species are associated with widespread inland wetlands (198 species), coastal/marine habitats (193 species), and grassland/agricultural habitats (142 species). Consequently, policies and conservation efforts focusing on these habitat types are essential for the preservation of AEWA species.

Although a Terms of Reference and a plan have been elaborated to assess the status of principal bird habitats and develop flyway-level habitat action plans in collaboration with other CMS flyway instruments, following on Target 4.1. of the AEWA Strategic Plan 2019-2027, this has not yet been launched due to the lack of funding.

Only 35% of the national reports submitted to AEWA MOP9 mention that the Contracting Party has identified its habitat conservation priorities. However, these priorities often do not relate to the conservation of waterbird habitats in the wider environment as per Target 4.3 of the AEWA Strategic Plan for 2019-2027.

Only 27% of AEWA national reports submitted to MOP8 and to MOP9 mention established international partnerships for habitat conservation in the wider environment, but some of these are actually related to transboundary conservation initiatives for sites. However, an examination of national reports to COP15 of the Ramsar Convention on Wetlands reveals that a majority of Ramsar Parties in the Agreement Area have encouraged the private sector to promote the sustainable use of wetlands and have implemented incentive measures for their conservation. 42% of the Ramsar Parties in the region have produced national wetland inventories and 44% have established national wetland restoration targets.

Similarly, habitat conservation measures are embedded within the national strategic plans for implementing the Common Agricultural Policy in EU member states through conditionality requirements, supplementary schemes, and agri-environmental and climate measures. Similar initiatives exist in some other European countries.

Outside Europe, habitat conservation measures are less integrated into agricultural policies but are more common in carbon trading, livelihood projects, and landscape-scale restoration programmes.



Common Redshank (*Tringa totanus*) ©Sergey Dereliev



Eurasian Curlew (*Numenius arquata*)
© Szabolcs Nagy

RECOMMENDATIONS FOR PRIORITY ACTIONS

Based on the findings in Parts 1 and 2 of this report, the following priority actions are recommended:

ENHANCE EFFORTS TO RECOVER THE MOST THREATENED MIGRATORY WATERBIRDS

Paragraph 2.2.1 of the AEWA Action Plan requires that Parties cooperate with a view to developing and implementing International Species Action Plans (ISAPs) for the populations listed in Category 1 of Column A as a priority, as well as for populations listed in Categories 2 or 3 of Column A and marked with an asterisk. Paragraph 2.1.1 additionally stipulates that the existence of such Plans is a precondition for hunting populations that are marked with an asterisk or listed in Category 4 of Column A under the exception permitted by this provision.

These Plans constitute one of the principal tools used by AEWA to coordinate conservation actions towards the recovery of priority populations of migratory waterbirds, thereby also contributing to the achievement of Target 4 of the Global Biodiversity Framework.

To deal with the urgent decisions relating to the current AEWA ISAPs, it is recommended that the AEWA Meeting of the Parties (MOP):

- **Extend** the validity of the ISAP for the Bewick's Swan for the next three years (2026-2028) to allow for an evaluation of the plan, including an assessment of its implementation and whether Range States still consider it a priority for concerted action, and for the plan to be updated or revised if the evaluation finds this necessary.
- **Extend** the validity of the ISAP for the Black-winged Pratincole for the next three years (2026-2028) to allow for its revision should Range States confirm that it remains a priority for concerted action and a champion Range State or organisation become available, and discontinue this plan in 2028 if it is not confirmed to be a priority and no champion is found.
- **Extend** the validity of the following four ISAPs until 2028 to allow for their evaluation and, if necessary, update or revision:
 - *Eurasian Curlew*
 - *Northern Bald Ibis*
 - *Dalmatian Pelican*
 - *White-headed Duck*
- **Extend** the validity of the following two ISAPs until 2034, as there is currently no indication that their frameworks for action require revision, priority needs to be given to their implementation, and it is desirable to align the timelines for their future evaluation. Evaluate them by 2031 to inform subsequent decisions about their extension, revision, update or retirement at MOP11:
 - *Long-tailed Duck*
 - *Velvet Scoter*
- **Extend** the validity of the following three ISAPs for another 12 years (until 2037), as there is currently no indication that their frameworks for action require revision and priority needs to be given to their

implementation. Evaluate them by 2034 to inform subsequent decisions about their extension, revision, update or retirement at MOP12:

- *Shoebill*
- *Grey Crowned Crane*
- *Benguela Upwelling System Coastal Seabirds*

- **Retire** the ISAPs for the Great Snipe and the Lesser Flamingo in 2028 if Range States fail to confirm that these species remain priorities for concerted action and no Range State or organisation is willing to champion the development and implementation of revised ISAPs.
- **Increase the lifespan of ISAPs from 10 to 12 years** to better align with AEWA's triennial MOP cycles and the lifespan of International Species Management Plans (ISMPs).

It is further recommended that the following set of measures be taken by the time of MOP10 to streamline the AEWA species action planning process:

- **Catch up with the backlog of outdated ISAPs by evaluating and, where necessary, updating or revising** the following 11 ISAPs by 2028:
 - *Bewick's Swan*
 - *Eurasian Curlew*
 - *Northern Bald Ibis*
 - *Ferruginous Duck*
 - *Eurasian Spoonbill*
 - *Black-tailed Godwit*
 - *Maccoa Duck*
 - *White-winged Flufftail*
 - *Madagascar Pond Heron*
 - *Dalmatian Pelican*
 - *White-headed Duck*

The feasibility of undertaking these evaluations (and any resulting ISAP updates/revisions) will depend on the existence and capacity of an organisation to lead the review process, the capacity of the AEWA Secretariat to oversee it, and the engagement and timely input from Range State governments. It is recommended that the AEWA Technical Committee consider revising and simplifying the existing Evaluation Report Template with a view to further streamlining the evaluation process, drawing from lessons learned in previous evaluation processes.

- **Revise the formats and guidelines for AEWA ISAPs and ISMPs** to create a more efficient process for updating and revising plans, based on lessons learned from previous revision efforts.
- **Consider discontinuing action plans that are not explicitly prioritised in Paragraph 2.2.1 of the AEWA Action Plan.** It is recommended that the AEWA MOP only extend these ISAPs' validity if there is an existing or willing coordinating organisation, and the Range States have confirmed that they still view the species or population as a priority for concerted action. This is particularly relevant for Near Threatened species that do not additionally qualify for listing in Category 1 of Column A in Table 1 of AEWA's Annex 3. For ISAPs concerning Near Threatened species that are hunted, Contracting Parties that intend to utilise the exception allowed by Paragraph 2.1.1 will need to invest in implementing these plans, including necessary revisions and establishing internationally coordinated harvest management. Otherwise, those plans should be retired, and hunting should be prohibited, in accordance with the Parties' obligations under AEWA.

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Catch up with the backlog of outdated ISAPs by evaluating and, where necessary, updating or revising them



Revitalise and address gaps in the international coordination of AEWA ISAPs

- **Revitalise and address gaps in the international coordination of AEWA ISAPs.** Many ISAPs lack coordination, although experience shows that effective international collaboration is vital for species' recovery across flyways. Such coordination is contingent upon the availability and capacity of a coordinating organisation, the capacity of the AEWA Secretariat to provide oversight and guidance, and the active participation of Range States in the applicable coordination mechanisms.
- **Discontinue the practice of developing Conservation Briefs for ISAPs without coordination mechanisms** and instead engage Range States through the evaluation and (where appropriate) formal update or revision of such ISAPs.
- **The AEWA Technical Committee should carefully reassess the prioritisation of ISAPs.** The current prioritisation does not entirely adhere to the prioritisations specified by the treaty, insofar as the former includes populations of Near Threatened species that are listed solely in Category 4 of Column A in AEWA's Table 1. It is recommended that these species only be prioritised for action planning if the Parties intend to continue their harvest sustainably as part of an ISAP. Additionally, although the current prioritisation produces a ranked list, it still results in a roster that does not guarantee the development of action plans for the highest-priority species/populations.
- **The Secretariat should distribute the list of priority populations for action and management planning to Contracting Parties and make this list available on the AEWA website.** Once the Technical Committee identifies a focused set of priority populations for action and management planning, these priorities should be communicated by the Secretariat to the relevant Contracting Parties as well as potential donor Parties. Contracting Parties are strongly encouraged to invest in the development and implementation of action plans for the highest priority species/populations to close the gaps in concerted actions.

In the longer term, it is recommended to:

- **Complete evaluations before the ISAP expires.** These evaluations of the plans would (i) inform future MOPs' decisions about the extension, update, revision, or retirement of the plans and (ii) better inform both the Secretariat and Parties about the resourcing needs for possible revisions before the plans expire. It is recommended that evaluations ideally commence 5 years before each ISAP is due to expire. This would enable sufficient time to complete the evaluation before the final Technical Committee meeting of the triennium so that recommendations can be made to the MOP regarding whether an update or revision is required in the final triennium of each ISAP's validity.
- **Consider prioritising the development of multi-species action plans** whenever relevant unifying factors across the species concerned justify this², to make the development and implementation of new action plans more efficient. The African cranes (Wattled Crane, Blue Crane, Black Crowned Crane) and coastal waders (the Vulnerable Grey Plover, Broad-billed and Curlew Sandpipers, and possibly with the Near Threatened but huntable Red Knot and Bar-tailed Godwit) could be good candidates for such plans.
- **Increase the effectiveness of ISAPs through joint or other forms of collaborative coordination**, particularly in cases of overlapping

² Resolution 2.1 encouraged Parties to 'consider, where appropriate, the development and implementation of international multi-species action plans for populations of two or more species listed in column A of Table 1 when those populations share the same habitat (ecosystem), are exposed to similar threats, and require similar measures for their conservation'.

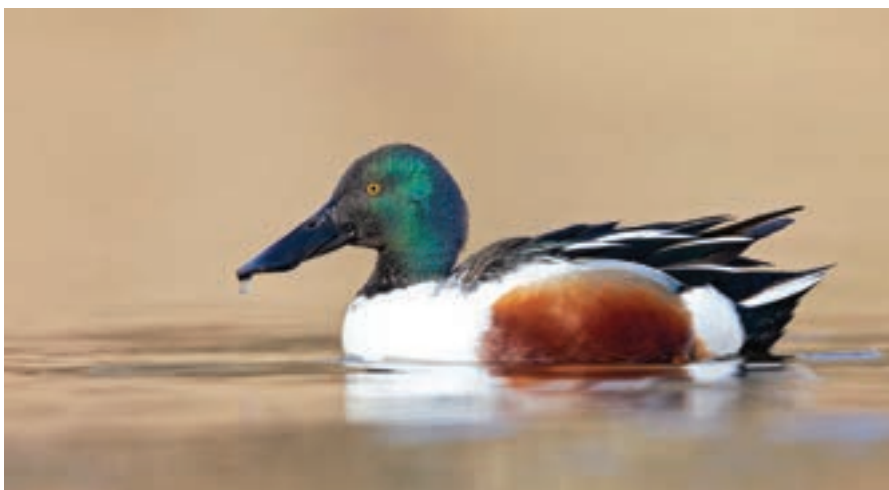
geographic and thematic areas. For example, joint coordination has already been established for the seaducks, while other forms of collaboration occur in respect of the Black-tailed Godwit and Eurasian Curlew.

ENSURE THAT THE HARVEST OF WATERBIRDS IS SUSTAINABLE

Parties to AEWA are required to ensure that *"any use of migratory waterbirds is based on an assessment of the best available knowledge of their ecology and is sustainable for the species as well as for the ecological systems that support them"* (Article III.2(b)), and Paragraphs 2.1 and 4.1 of the AEWA Action Plan specify various measures to ensure that hunting and other forms of taking occur sustainably. The importance of sustainable use is also reflected in the second objective of the AEWA Strategic Plan 2019-2027 and is echoed in various other international frameworks, including in targets 5 and 9 of the Global Biodiversity Framework and target 12.2 of the Sustainable Development Goals.

To better implement AEWA's mandate in this area, it is recommended that Contracting Parties take the following measures:

- **Extend** the validity of the following two ISMPs until 2031 to align with the six-year cycles of these plans' adaptive flyway management programmes and the current format and guidelines for AEWA ISMPs:
 - *Barnacle Goose*
 - *Greylag Goose*
- **Ensure that harvest is appropriately regulated through domestic legislation that aligns with AEWA's provisions.** Future editions of the *"Pressures and Responses"* type of CSRs should also include a chapter that reviews relevant hunting and trade legislation in each country. Although these reviews are required by Paragraph 7.4(d) of the AEWA Action Plan, only one has occurred so far, and this was undertaken almost two decades ago (in 2007).
- **Ensure compliance with harvest regulations** and address illegal taking (as required by Paragraph 4.1.6 of the AEWA Action Plan) through effective enforcement and by addressing socio-economic root causes of non-compliance.
- **Allocate the necessary resources and capacity to enable the establishment and implementation of additional processes for**



Northern Shoveler (*Spatula clypeata*)
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Marimetsa Nature Reserve, Estonia
© Szabolcs Nagy

coordinated adaptive harvest management on an international scale for prioritised declining huntable populations, and routinely collect and provide the data that these processes depend on (*inter alia*, harvest data, as required by Paragraph 4.1.3 of the AEWA Action Plan).

- **Do not allow harvesting when there is not sufficient data to ensure sustainability at flyway level.** This principle is particularly relevant to the populations covered by Paragraphs 2.1.1 and 2.1.2 of the AEWA Action Plan.
- **Make use of the AEWA Conservation Guidelines on Sustainable Harvest of Migratory Waterbirds** (Madsen *et al.* 2015) and other relevant AEWA guidance³.

DEVELOP A COHERENT AND COMPREHENSIVE NETWORK OF PROTECTED AND MANAGED SITES

The identification and protection of sites and habitats for migratory waterbird species and coordination of Parties' efforts to maintain (and, where appropriate, re-establish) a suitable network of habitats are among the key conservation measures required by AEWA (Article III.2(c) and (d) of the Agreement Text, Paragraphs 3.1.2 and 3.2.2 of the AEWA Action Plan). Site protection and management are essential tools for addressing threats to migratory waterbirds that concentrate in large numbers at a small number of sites. Use of these tools under AEWA also has the potential to contribute towards Parties' delivery of a variety of other international commitments – including the Ramsar Convention and Target 3 of the Global Biodiversity Framework.

To progress the implementation of these aspects of AEWA, the following measures are recommended:

- **Parties should complete and submit by MOP10 the national site inventories contributing towards the AEWA Flyway Site Network:** At MOP7 in 2018, AEWA Parties agreed to review and confirm an inventory of the known nationally and internationally important sites in their territory by MOP8, i.e. by 2021 (Target 3.1 of the AEWA Strategic Plan for 2019-2027). In Resolution 8.6, the MOP subsequently noted the low level of site inventory submissions and urged Parties to submit their site inventories as soon as possible and not later than 30 June 2023. However, this did not result in further notable increase of submissions.
- **Leverage existing capacity building initiatives and launch new ones to support the completion of the AEWA Flyway Site Network.** Ongoing capacity-building projects along the East Atlantic Flyway, the Mediterranean, and the Sahel are generating valuable new data that can help identify sites for the AEWA Flyway Site Network. Parties should utilise these projects and their findings when compiling their national site inventories. At the same time, capacity-building programmes should actively support the compilation of national site nominations by sharing collected data and applying site selection criteria to their datasets. Similar initiatives should be established by Parties and partner organisations along the West Asian-East African Flyway and Intra-African flyways.
- **Parties should minimise the impacts of threats from leisure activities, drainage, changing land use, and infrastructure development on nationally and internationally important sites through appropriate visitor management, zoning and permitting processes at the AEWA Flyway Network sites under national legislation.**

³ This includes: the AEWA Conservation Guidelines on National Legislation for the Protection of Species of Migratory Waterbirds and their Habitats (Slobodian *et al.* 2015); Guidance on Measures in National Legislation for Different Populations of the Same Species, Particularly with Respect to Hunting and Trade (AEWA/MOP 6.34); Guidance on Satisfying the Conditions of Paragraph 2.1.3 of the AEWA Action Plan (AEWA/MOP 7.32); and Guidance on Addressing the Risk of Accidental Shooting of Look-alike Species of Waterbirds in the Agreement Area (AEWA/MOP 8.34).

- **Parties should establish a site monitoring system.** A robust site monitoring system, based on the framework adopted at MOP8⁴, should be established and implemented to support the long-term effective conservation and adaptive management of the AEWA Flyway Network sites and the network overall. Parties should resource the development of the monitoring system and implement it as a routine practice once it has been rolled out. Objective 3 of the AEWA Strategic Plan seeks to create and sustain a coherent and comprehensive network of protected areas and other significant sites. Due to the rapid range shifts driven by climate change, the role of individual sites within the network is expected to evolve. This underscores the importance of coordinating Parties' efforts to maintain and restore these sites, as required by Article III.2(d) of the Agreement. Therefore, it is essential that AEWA Parties rise to the challenge of site conservation across the entire range of each migratory waterbird species.



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A robust site monitoring system ... should be established and implemented to support the long-term effective conservation and adaptive management of the AEWA Flyway Network sites

INTEGRATE THE NEEDS OF WATERBIRDS INTO SECTORAL POLICIES, LAND-USE AND MARINE SPATIAL PLANNING

Paragraphs 3.2.3 and 3.2.4 of the AEWA Action Plan require that Parties endeavour to make wise and sustainable use of all wetlands, avoid the degradation and loss of habitats for AEWA waterbird populations, and develop strategies for the conservation of these habitats, including those of dispersed species; while Objective 4 of the AEWA Strategic Plan 2019-2027 is *"to ensure there is sufficient quantity and quality of habitat in the wider environment for achieving and maintaining favourable conservation status for migratory waterbird populations"*.

The following measures are recommended in this regard:

- **Parties should resource the development of agreement-level habitat conservation action plans.** Target 4.1 of the Strategic Plan 2019-2027 anticipates the conducting of an agreement-level assessment of the status of principal waterbird habitats in the wider environment, along with the development of habitat conservation strategies. However, to date, no resources have been provided by the Parties for the delivery of these outputs.
- **Parties should accelerate the identification of national habitat conservation priorities and integrate them into relevant national sectoral policies** as envisioned by Target 4.3 of the AEWA Strategic Plan 2019-2027 for delivery by MOP9. During this process, Parties should

Fishing boat © Adobe Stock

⁴ <https://www.unep-aewa.org/en/document/draft-monitoring-framework-aewa-flyway-site-network-4>



Canada Goose (*Branta canadensis*) is an established invasive alien species in Northwestern Europe © Szabolcs Nagy

pay particular attention to addressing the problem of drainage, as well as various agriculture and infrastructure-related threats which affect a large number of AEWA populations.

- **Parties should make use of the existing AEWA guidelines** on mitigating the impacts of infrastructure on migratory birds⁵.
- **The Technical Committee should explore options for monitoring key land-use related threats through remote sensing across the Agreement Area** in collaboration with the European Union and the Scientific & Technical Review Panel of the Ramsar Convention on Wetlands. The most significant changes include wetland loss, drainage, and alterations in agricultural land use.

ADDRESS THE PROBLEMS CAUSED BY INVASIVE ALIEN SPECIES AND NATIVE PROBLEM SPECIES

Several of AEWA's provisions are directed towards preventing non-native species from posing a hazard to migratory waterbird populations and their habitats, or at addressing damage that has already been caused by such species (Article III.2(g) of the Agreement text and Paragraphs 2.5, 3.3, 4.3.10 and 4.3.11 of the AEWA Action Plan). AEWA's provisions make no explicit reference to *native* problem species. However, the Agreement's International Species Action Plans include actions aimed at addressing the threats posed by native species (e.g., displacement or predation), where the action planning process has identified these threats as priorities for intervention.

Parties should take the following measures:

- **Prevent introductions of non-native species.** Implement the preventive measures outlined in Article III.2(g) of the Agreement text and Paragraphs 2.5.1 and 2.5.2 of the AEWA Action Plan.
- **Restore habitats affected by invasive non-native species**, in accordance with Paragraph 3.3 of the AEWA Action Plan.
- **Establish appropriate measures to eliminate, or otherwise mitigate, the threat posed by non-native species (including non-native terrestrial predators)**, in accordance with Article III.2(g) of the Agreement text and Paragraphs 2.5.3 and 4.3.10 of the AEWA Action Plan.
- **Integrate AEWA priorities regarding tackling the pressures posed by invasive alien species into other overarching multilateral processes**, in line with Target 1.6 of the Strategic Plan 2019–2027.
- **Make use of the existing AEWA guidelines on the introduction, control and eradication of non-native species**⁶.
- **Establish appropriate, ecologically balanced control measures to address the threats posed by native problem species** if this is necessary for the recovery of AEWA populations (taking into account relevant International Species Action Plans and any applicable international legal provisions).

TACKLE THREATS TO HEALTH, SPECIFICALLY HIGHLY PATHOGENIC AVIAN INFLUENZA, IN WILD BIRDS

It is recommended that Parties take the following actions to tackle the highly pathogenic avian influenza (HPAI) in wild bird populations:

⁵ These include: the AEWA Conservation Guidelines on How to Avoid, Minimise or Mitigate the impact of Infrastructure Developments and Related Disturbance Affecting Waterbirds (Tucker and Treweek 2008); the AEWA Conservation Guidelines on How to Avoid or Mitigate Impacts of Electricity Power Grids on Migratory Birds in the African-Eurasian Region (Prinsen et al. 2012); and Renewable Energy Technologies and Migratory Species: Guidelines for Sustainable Deployment (AEWA/MOP 6.37).

⁶ These include: the AEWA Conservation Guidelines on Avoidance of Introductions of Non-native Waterbird Species (Owen, Callaghan, and Kirby 2006); Guidance on AEWA's Provisions on Non-native Species (AEWA/MOP 7.33).

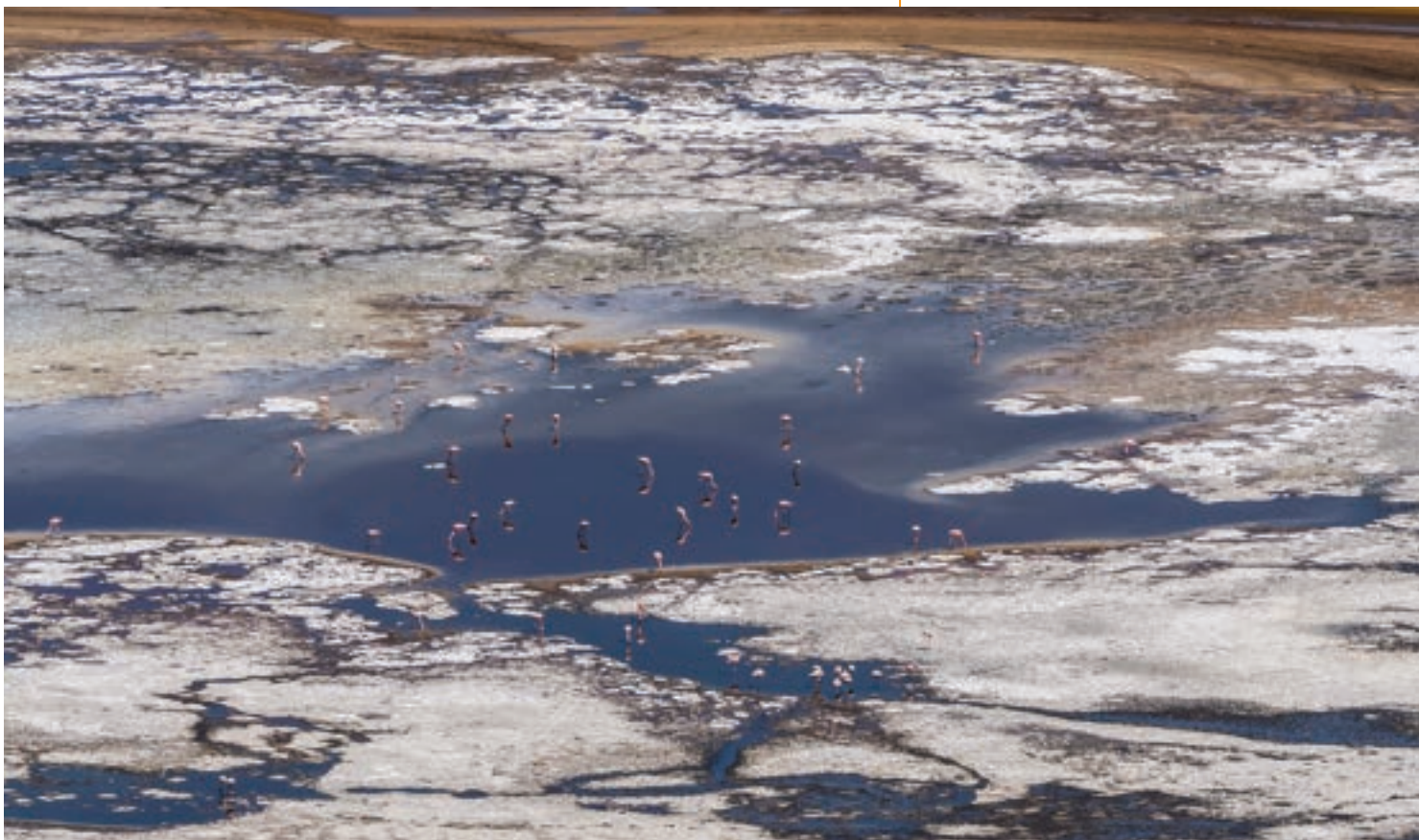
- **Effective cross-sectoral preparedness and response** to avian influenza outbreaks.
- **Long-term monitoring of migratory bird populations and movements**, with focus on enhanced assessment for those species affected by HPAI.
- **Robust surveillance programmes with conservation objectives for HPAI**, rather than just a focus on risks to poultry and public health.
- **Improving rapid wildlife reporting systems** so that they are timely and provide contextual data, and can be integrated with population monitoring data.
- **Research into HPAI in wild birds** including determining impacts of HPAI outbreaks.
- **Integrating and analysing existing data sets across flyways** to better understand migratory routes, population dynamics, and sharing data with other sectors to enhance multisectoral risk assessment.
- **International cooperation in surveillance and risk assessments** across flyways.
- **Greater focus and action to reduce other threats** to improve both resilience to the disease and possibilities of recovering from its impacts.

⁷ These include: the AEWA Conservation Guidelines on the Measures Needed to Help Waterbirds Adapt to Climate Change (Maclean and Rehfish 2008); an AEWA Guidance Framework for Climate Change Adaptation (Resolution 6.6, Appendix I); Complementary Guidelines on Climate Change Adaptation Measures for Waterbirds (AEWA/MOP 8.42).

ADAPT TO CLIMATE CHANGE

- **Parties should apply the existing AEWA guidance on climate change adaptation⁷.**

Lesser Flamingos (*Phoeniconaias minor*),
Lake Nakuru National Park, Kenya
© Sergey Dereliev





The availability of threat information is uneven across the Agreement Area. More threat information is available for populations that are subject to reporting under the EU Birds Directive

PART 1: PRESSURES – THREATS TO MIGRATORY WATERBIRDS IN THE AGREEMENT AREA

KEY FINDINGS

- Biological resource use, infrastructure development, and agriculture constitute the three most prevalent threats currently affecting AEWA waterbird populations.
- Biological resource use impacts 239 (42%) AEWA populations. Hunting is recorded as a threat to 106 populations, but illegal shooting/killing, bycatch and incidental killing, fisheries, and other extraction of biological resources also affect more than 5% of the AEWA populations.
- Infrastructure development and use threatens 226 (40%) waterbird populations. In this category, the main threats include sports, tourism, and leisure activities, which affect 100 populations, as well as the conversion of wetlands into settlements and recreational areas, and the modification of coastal conditions.
- Agriculture affects 219 (39%) AEWA populations, with drainage for agricultural land use affecting 144 AEWA populations, the highest threat category in this assessment. Other threats related to agriculture were linked to changes to land use.
- Drainage alone, for agriculture and for the development of urban and industrial areas, impacts the habitat of one-third of the AEWA populations.
- Other frequently recorded groups of pressures include climate change, invasive alien and problematic native species, as well as human-induced changes to hydrology. Highly pathogenic avian influenza has not been adequately assessed since the majority of data sources on which this report is based contain threat data from earlier than 2019, i.e. before the rise of outbreaks in wild birds since the early 2020s.
- Grazers along with large wading birds are most often threatened by drainage for agriculture, impacting 35% and 44% of their populations, respectively. The most frequently recorded threat to waders is disturbances caused by sport, tourism, and leisure activities, affecting 27% of their populations. Seabirds are most often threatened by invasive alien species, which significantly impact 16% of their populations.
- The availability of threat information is uneven across the Agreement Area. More threat information is available for populations that are subject to reporting under the EU Birds Directive than for those in other areas, resulting in a higher number of threats affecting more than 10% of the populations of the flyway in the European flyways (East Atlantic, Black Sea-Sahelian, and Western Palearctic: Atlantic and Black Sea-Mediterranean) than in the other flyways.

METHODS

8,661 threat⁸ records for 565 AEWA waterbird populations were compiled from BirdLife International's species fact sheets (BirdLife International 2025), the Birds of the World portal (Billerman et al. 2020) and the EU Member States Birds Directive Article 12 reports for the period of 2013-2018 (EEA 2021), along with other literature, including the AEWA International Species Action and Management Plans. Threats from these various sources were coded using the threat categories agreed under the EU Birds Directive Article 12 reporting⁹, as proposed in *Monitoring Priorities for Waterbird Species and Populations of AEWA* (document AEWA/MOP 8.29; Nagy, Crowe, and Roomen 2021) and adopted by AEWA Resolution 8.6, to facilitate the easier use of existing threat information collected under the EU Birds Directive Article 12 reporting process.

The list of threats and pressures includes a total of 225 threat categories spanning 14 policy-relevant groups of threats (hereafter: **threat groups**), such as:

- (A) Agriculture
- (B) Forestry
- (C) Extraction of resources (minerals, peat, non-renewable energy resources)
- (D) Energy production processes and related infrastructure development
- (E) Development and operation of transport systems
- (F) Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas
- (G) Extraction and cultivation of biological living resources (other than agriculture and forestry)
- (H) Military action, public safety measures, and other human intrusions
- (I) Alien and problematic species
- (J) Mixed source pollution
- (K) Human-induced changes in water regimes (when sectoral drivers are unclear)
- (L) Natural processes (excluding catastrophes and processes induced by human activity or climate change)
- (M) Geological events, natural catastrophes
- (N) Climate change

The scope, severity, and timing of each threat were evaluated using the IUCN Red List threat classification scheme (IUCN Species Survival Commission 2024).

Scope

The scope indicates the proportion of the population affected by the threat. Ideally, this is assessed based on the number of individuals. However, estimates of breeding or non-breeding population sizes at national or finer resolutions are mainly available only in Europe. In the absence of data on population sizes, the proportion of the population was approximated based on the proportion of the (seasonal) distribution area of the biogeographic or flyway population.

The following scope categories were applied:

- **Whole:** Affects the whole population (>90%)
- **Majority:** Affects the majority of the population (50–90%)
- **Minority:** Affects the minority of the population (<50%)
- **Negligible:** Affects a negligible proportion of the population (we applied a threshold of <10%)
- **Unknown:** Affects an unknown proportion of the population



Early mowing is a major threat to many meadow-breeding waders
© Szabolcs Nagy

⁸ The EU Article 12 and 17 reporting systems under the Birds and Habitats Directives clearly distinguish between pressures, which currently affect species or habitats, and threats, which may affect them in the future. However, this distinction is not made in the context of the AEWA species action and management plans, nor by the Red List, both of which use the term "threat". This document also adopts the latter terminology.

⁹ https://cdr.eionet.europa.eu/help/birds_art12/Reporting%202019/Pressures_Threats_Final_20180507.xls



Common Crane (*Grus grus*)
© Sergey Dereliev

Severity

The severity of a threat indicates the overall decline caused by the threat within the affected area.

The following severity categories were applied:

- **Very rapid decline:** Causing or likely to cause very rapid declines (>30% over 10 years or three generations; whichever is the longer).
- **Rapid decline:** Causing or likely to cause rapid declines (20–30% over 10 years or three generations; whichever is the longer).
- **Slow decline:** Causing or likely to cause relatively slow but significant declines (<20% over 10 years or three generations; whichever is the longer).
- **Negligible:** Causing or likely to cause negligible declines (<10% over 10 years or three generations; whichever is the longer).
- **No declines:** Causing or likely to cause no declines.
- **Unknown:** The rate of decline caused by the threat is unknown.

Waterbird populations are often affected by multiple threats that can combine additively. Therefore, the severity can usually only be estimated. When demographic studies are unavailable, a rapid decline is assumed with habitat loss, a slow decline with habitat degradation, and a negligible decline with disturbance.

Timing

The timing of the threat reflects when the threat occurred. The following categories of timing were applied:

- **Only in the past and unlikely to return**
- **In the past but now suspended and likely to return**
- **Ongoing**
- **Only in the future**
- **Unknown**

In this report, only ongoing threats to the AEWA populations were considered to avoid any speculation about future pressures.

Impact

The overall impact of ongoing threats was evaluated based on the combination of the scope and severity of the threat following the method developed by Garnett *et al.* (2019). See **Table 1**.

If either the scope or the severity of the threat was "unknown", then the threat impact assessment was also "unknown".

Table 1. Threat impact scores based on their extent and severity, following Garnett *et al.* (2019)

Extent	Severity (rate of decline)				
	Very rapid	Rapid	Slow	Negligible/ Fluctuation	No
Whole	High	Medium	Medium	Negligible	Negligible
Majority	High	Medium	Low	Negligible	Negligible
Minority	Medium	Low	Low	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Multi-species flyway definitions

In this report, the following multi-species flyways were used (**Figure 1**):

- **Intercontinental flyways:** These intercontinental flyways connect the Western Palearctic to the Afrotropical region. These are based on the shorebird flyways identified by the International Wader Study Group (cited by Boere and Stroud 2006) and shown on Panel (b). Waterbird populations in these flyways are exposed to vastly different socio-economic conditions and threats during their annual cycle. Three intercontinental multispecies flyways are recognised in the Agreement Area.
 - **East Atlantic:** Birds in this flyway breed in the Western Palearctic and migrate along the eastern coast of the Atlantic Ocean to the western part of the Afrotropical realm.
 - **Black Sea – Sahelian¹⁰:** Populations in this flyway breed in the Western Palearctic and winter mainly in the Sahel.
 - **West Asian – East African:** Birds in this flyway breed in the eastern part of the Western Palearctic and winter mainly in Eastern and Southern Africa.
- **Western Palearctic flyways:** These flyways represent the Western Palearctic section of the above-mentioned intercontinental flyways. The associated populations remain entirely within this biogeographic realm.
 - **Atlantic:** The Western Palearctic section of the East Atlantic flyway.
 - **Black Sea – Mediterranean:** The Western Palearctic section of the Black Sea – Sahelian flyway.
 - **Central and Southwest Asian:** The Western Palearctic Section of the West Asian – East African flyway.
- **Afrotropical flyways:** These flyways are restricted to the Afrotropical biogeographic realm and include intra-African migrants and dispersive species listed in Table 1 of AEWA.
 - **Central and Western:** This flyway includes populations that migrate within Western and Central Africa.
 - **Eastern and Southern:** This flyway includes populations that migrate within Eastern and Southern Africa.
 - **Sub-Saharan African:** This flyway includes populations that either migrate within Sub-Saharan Africa between the above-mentioned regions (e.g. the Abdim's Stork), or populations of widespread species that are not subdivided into biogeographic populations within the Afrotropical realm (e.g. Sub-Saharan populations of the Glossy Ibis or Great White Egret).



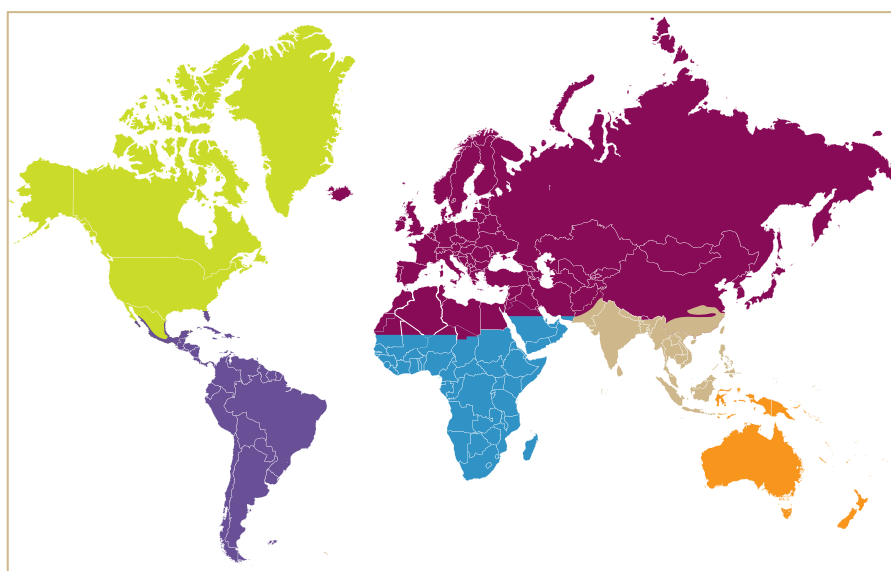
Mangroves, Senegal
© Wetlands International

¹⁰ Originally, this flyway was called Black Sea/Mediterranean by the International Wader Study Group, but that name is more suitable for only the Western Palearctic part of this flyway

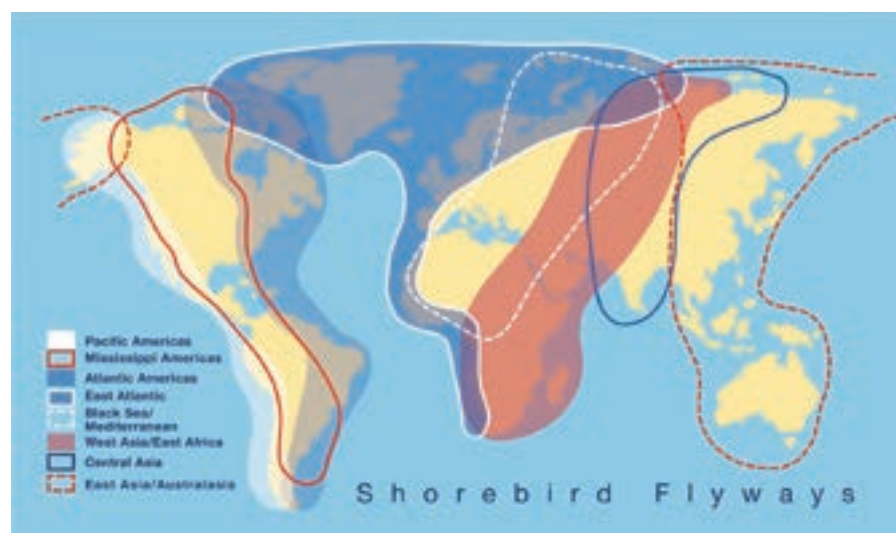
“ ”
The different impact scores of threats are shown in the Critical Site Network Tool which now includes the results of the CSR9 threat analysis in a searchable database by population and by threat

Figure 1: (a) Biogeographic realms based on Olson et al. (2001) and (b) intercontinental flyways based on the shorebird flyways defined by the International Wader Study Group (from Boere and Stroud 2006). In Panel (a), burgundy indicates the Palearctic biogeographic realm and blue the Afrotropic one. In the context of AEWA, the Western Palearctic also includes Central and Southwest Asia within the limits of the Agreement Area. For further details, see the previous page.

a)



b)



OVERVIEW

After excluding threats with negligible and unknown impact, 2,717 threat records remained. The vast majority (93%) of these were assessed as low-impact threats. Therefore, in the remainder of the analysis, no distinction was made between high, medium, and low impact scores of threats. The different impact scores of threats are shown in the Critical Site Network Tool¹¹ which now includes the results of the CSR9 threat analysis in a searchable database by population and by threat.

¹¹ <https://criticalsites.wetlands.org/en>



The most frequently recorded threat groups are (G) *Biological resource use* (239 populations), (F) *Infrastructure* (226 populations), and (A) *Agriculture* (219 populations). Each affects around 40% of the AEWA populations.

These are followed by (K) *Human-induced changes in water regimes* (141 populations), (I) *Alien and problematic species* (138 populations), (N) *Climate change* (132 populations) and (E) *Transport* (113 populations). Each affects over 20% of the AEWA populations.

Over 10% of the populations are threatened by (D) *Energy production* (82 populations), (C) *Extraction of resources* (81 populations) and (B) *Forestry* (73 populations).

(J) *Mixed source pollution* (53 populations), (L) *Natural processes* (48 populations), (H) *Military action, public safety measures, and other human intrusions* (38 populations) and (M) *Geological events, natural catastrophes* (18 populations) are the only four threat groups affecting less than 10% of the AEWA populations; all other threat groups affect more than 10% of the populations (Figure 2).

THE MOST IMPORTANT THREATS BY THREAT GROUPS

This section highlights the most significant threats within each threat group that affect more than 10% of the AEWA populations, while also noting additional threats that impact over 5% of these populations. The threat groups are organised in descending order based on the number of waterbird populations affected.

Some graphs in the following chapter exclude the threat name and only display the threat code. Full names of threats impacting more than 5% of AEWA populations are provided in the text. For a complete list of threats along with detailed definitions, please refer to the link provided here: https://cdr.eionet.europa.eu/help/birds_art12/Reporting%202019/Pressures_Threats_Final_20180507.xls

Agriculture is a frequently recorded threat to AEWA populations © Szabolcs Nagy

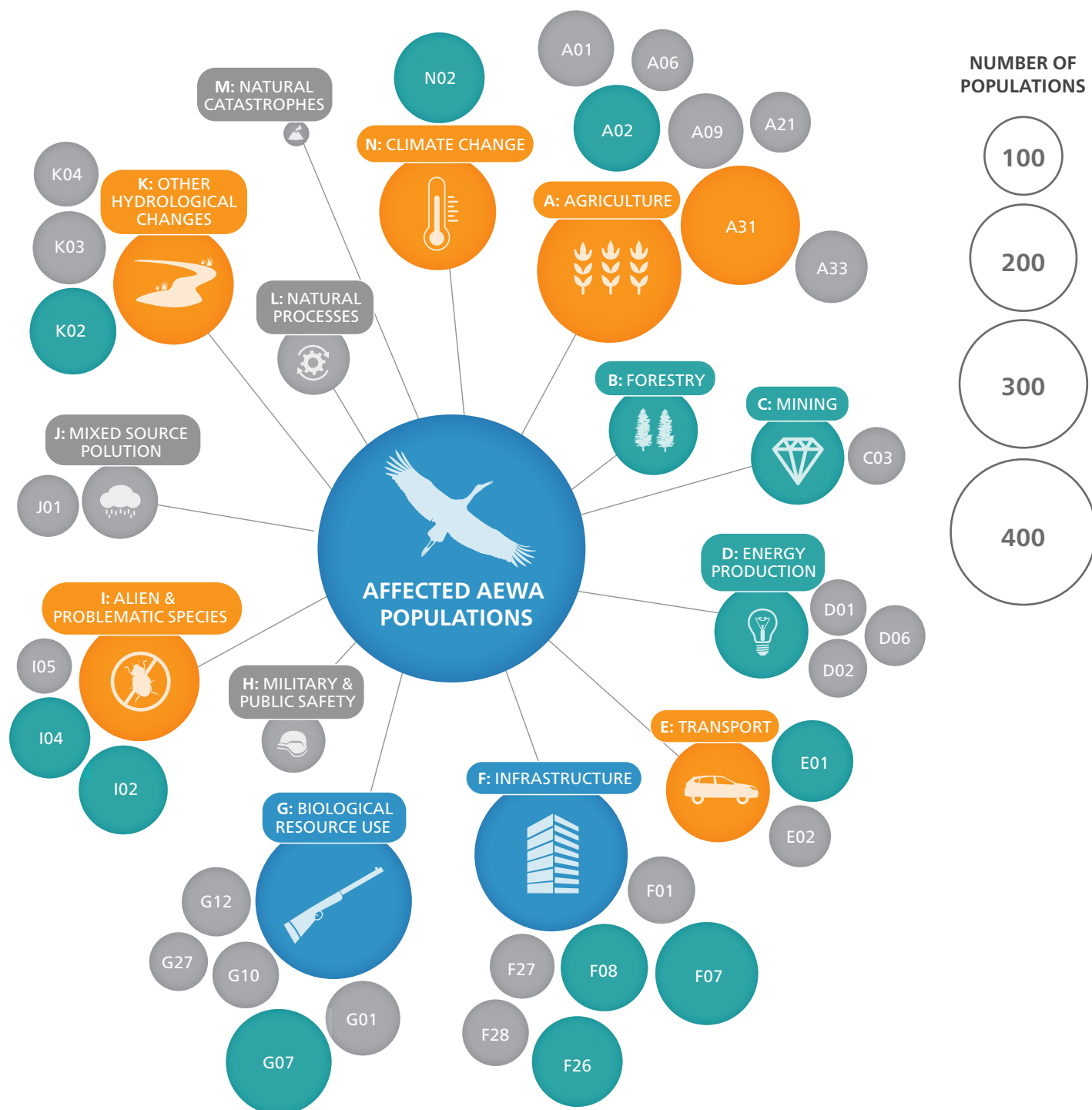


Figure 2: The number of affected AEWA populations by threat groups and threat categories. Blue indicates >40% of the AEWA populations, orange >20%, teal >10% and grey >5%. Threat categories with 5% or less of the AEWA populations are omitted from this graph.

(A01) Conversion to agriculture	(E01) Roads and railroads	(G10) Illegal shooting/killing
(A02) Changing agricultural use	(E02) Shipping	(G12) Bycatch and incidental killing
(A06) Abandonment of grasslands	(F01) Conversion to settlements	(G27) Other extraction of biological resources
(A09) Overgrazing	(F07) Leisure activities	(I02) Invasive alien species (non-EU concern)
(A21) Pesticides	(F08) Modification of coastal areas	(I04) Problematic native species
(A31) Drainage for agriculture	(F26) Conversion of wetlands to settlements	(I05) Diseases, pathogens and pests
(A33) Hydrological changes for agriculture	(F27) Conversion of wetlands to industrial/commercial areas	(J01) Mixed source pollution
(C03) Oil and gas	(F28) Flood protection for residential or recreational areas	(K02) Other drainage
(D01) Wind, wave and tidal power	(G01) Marine fisheries	(K03) Other dams
(D02) Hydropower	(G07) Hunting	(K04) Modification of hydrological flow
(D06) Power lines and telecommunications		(N02) Droughts



Lesser Flamingo (*Phoeniconaias minor*) © Mark Anderson



Hunting is the most frequently reported threat within the *Biological resource use* threat group © Adobe Stock

(G) Biological resource use

Figure 3 shows the absolute number of populations affected by these threats categorised by flyways and waterbird families, respectively. Annexes 1 and 2 show the names of the threat categories and the proportions of all populations affected by the threat by flyways and families, respectively.

The most frequently reported threat within the (G) *Biological resource use* threat group is (G07) *hunting*. Its effects include both direct mortality of huntable species and indirect impacts, such as reduction of prey populations or disturbance. Hunting reportedly affects 106 waterbird populations. These populations mainly belong to the families of ducks, geese, and swans (39 populations), as well as sandpipers, snipes, and phalaropes (15 populations). However, this threat was also reported for all other families except cormorants, crab-plover, gannets, boobies, loons, pelicans, penguins, and skuas. Most affected populations (23) are in the Western Palearctic: Atlantic flyway, representing 22% of the AEWA populations in that flyway. The total number of affected populations is lower in other flyways, but their share of the overall populations is similar or larger: 10 populations (29%) in the Afrotropical: Sub-Saharan flyway; 9 populations (22%) in the Black Sea – Sahelian; and 11 populations (22%) in the Western Palearctic: Central and Southwest Asian flyway.

Other threats in this group affecting more than 5% of the AEWA populations include (G01) *marine fish and shellfish harvesting*, (G10) *illegal shooting/killing*, (G12) *bycatch and incidental killing* and (G27) *other extraction of biological resources*.



Fisheries threaten seabirds through bycatch, depleting food resources and damaging benthic habitats © Szabolcs Nagy

(G) Biological resource use

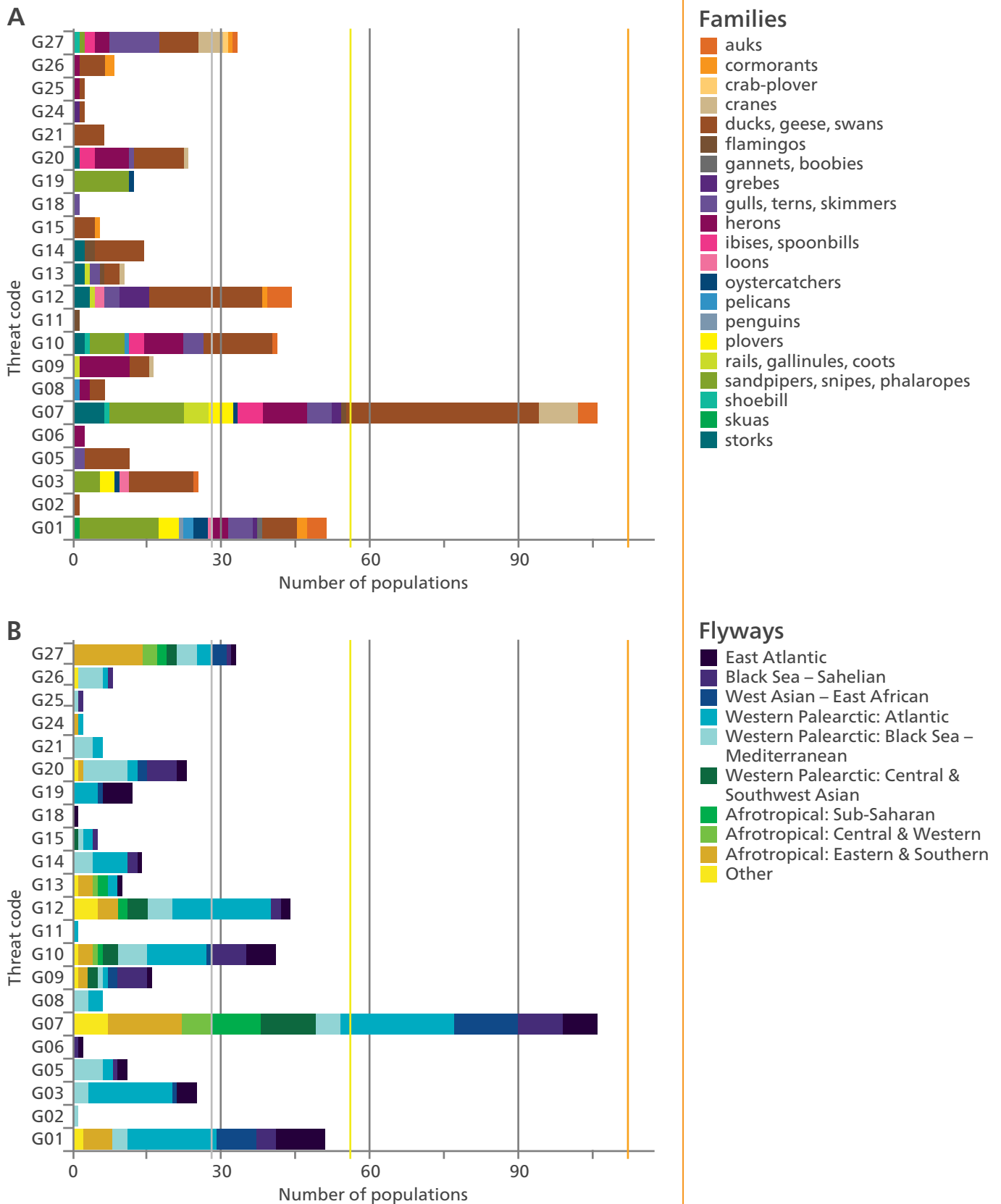


Figure 3: Frequency of threats in the (G) Biological resource use threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Coastal habitats are threatened by infrastructure development
© Szabolcs Nagy

(F) Infrastructure

Figure 4 illustrates the absolute number of populations of waterbirds affected by these threats categorised by flyways and families. Annexes 3 and 4 provide the names of the threat categories along with the proportions of all populations impacted by these threats, organised by flyways and families. This section describes the threats affecting more than 10% of the AEWA populations and lists those that impact more than 5%.

In the context of the development, construction, and use of residential, commercial, industrial, and recreational infrastructure, the threat category (F07) *sports, tourism, and leisure activities* was reported most frequently across 100 bird populations. This includes various groups such as sandpipers, snipes, and phalaropes (23 populations), herons (16 populations), gulls, terns, and skimmers (14 populations), and ducks, geese, and swans (13 populations). The threat was noted for 23 populations (22% of the flyway's total) from the Western Palearctic: Atlantic flyway; 21 populations (45%) from the East Atlantic; 16 populations (23%) from the West Asian – East African; 12 populations (29%) from the Black Sea – Sahelian; 8 populations (15%) from the Western Palearctic: Black Sea – Mediterranean and 13 (13%) populations from the Afrotropical: Eastern and Southern flyways. This data reflects the high exposure of these bird populations to mass tourism development along the Atlantic and Black Sea coasts.

The tourism and leisure activities are followed by the threat of (F26) *drainage, land reclamation, and conversion of wetlands, marshes, bogs, etc. into settlement or recreational areas*. This threat is reported to impact 76 populations of waterbirds listed by AEWA. It affects various waterbird families similar to those impacted by previous threats, including sandpipers, snipes, and phalaropes (20 populations), herons (15 populations), ducks, geese, and swans (15 populations), plovers (6 populations), as well as gulls, terns, and skimmers (5 populations). This threat is reported to affect 14 populations (20% of the total flyway populations) from the West Asian – East African, 13 populations (28%) from the East Atlantic, 13 populations (24%) from the Western Palearctic: Black Sea – Mediterranean, and 11 populations (11%) from the Western Palearctic: Atlantic flyways.

The third most significant threat category affecting over 10% of AEWA populations is (F08) *modification of coastline, estuary, and coastal conditions for the development, use, and protection of residential, commercial, industrial, and recreational infrastructures and areas, including sea defences or coastal protection works*. This threat has impacted 70 waterbird populations, primarily including sandpipers, snipes, and phalaropes (21 populations), ducks, geese, and swans (20 populations), as well as gulls, terns, and skimmers (15 populations). This threat is reported for 27 populations, which represents 26% of the flyway populations, in the Western Palearctic: Atlantic flyway. It affects also 19 populations (40%) from the East Atlantic and 10 populations (19%) from the Western Palearctic: Black Sea – Mediterranean flyways.

Additionally, other threats in this category that impact more than 5% of AEWA populations include (F01) *conversion of other land uses into housing, settlement, or recreational areas*, (F27) *drainage, land reclamation, or conversion of wetlands, marshes, and bogs into industrial or commercial areas*, and (F28) *modification of flooding regimes or flood protection for residential or recreational development*.

(F) Infrastructure

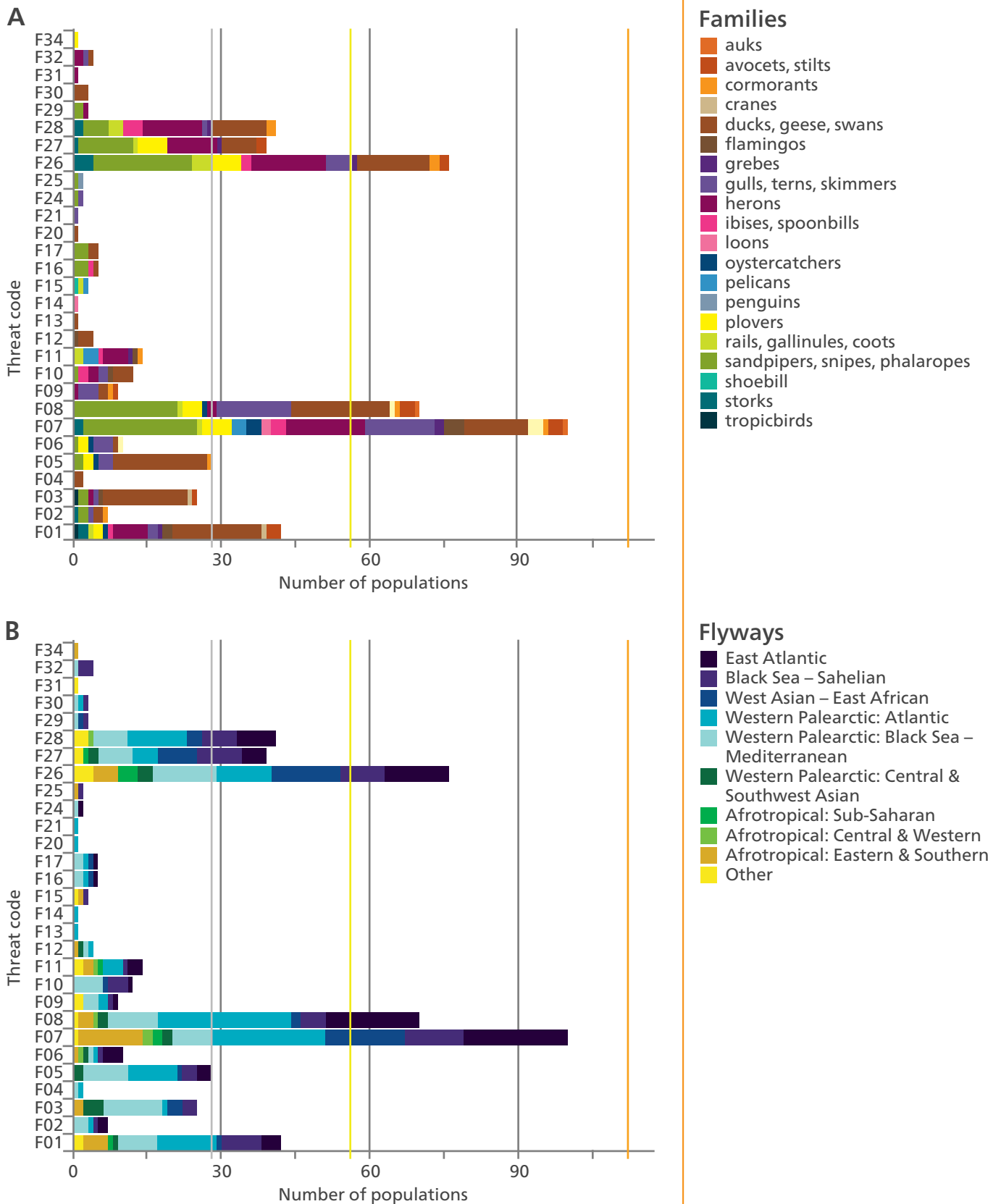


Figure 4: Frequency of threats in the (F) Infrastructure threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Drainage for agricultural land use affects 144 AEWA populations

(A) Agriculture

Figure 5 displays the absolute numbers of populations affected by these threats categorised by flyways and waterbird families. Annexes 5 and 6 provide the names of the threat categories and the percentages of all populations affected by these threats, organised by flyways and families, respectively.

In this group, the most frequently reported threat category is (A31) *drainage for agricultural land use*. This particular threat affects a total of 144 AEWA populations, which accounts for a quarter of them. The majority of the affected populations belong to the following families: 46 populations belong to ducks, geese, and swans; 25 populations to herons; and 22 populations to sandpipers, snipes, and phalaropes. In the Western Palearctic: 33 populations (32% of the flyway's populations) are impacted in the Atlantic, 28 populations (52%) in the Black Sea – Mediterranean flyway. An additional 22 populations (54%) are in the Black Sea – Sahelian, and 19 populations (40%) are in the East Atlantic flyways.

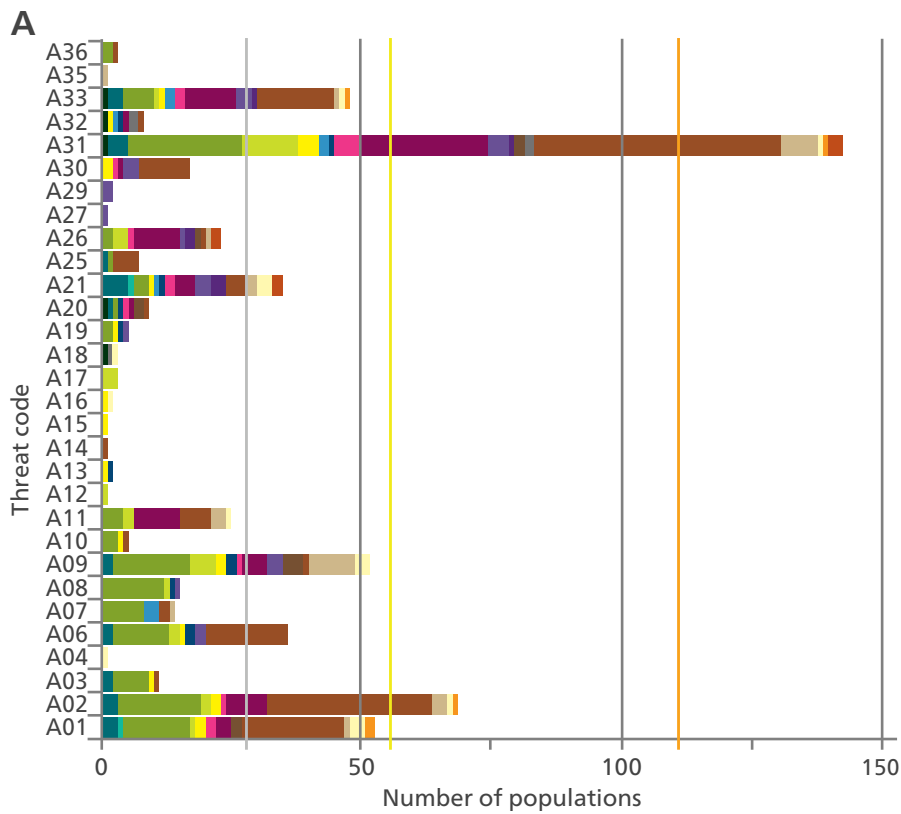
The (A02) *conversion from one type of agricultural land use to another (excluding drainage and burning)* affects 69 AEWA populations. Thirty of them belong to the ducks, geese, and swans, 16 to the sandpipers, snipes, and phalaropes. Twenty-four populations (23% of the flyway's populations) are impacted from the Western Palearctic: Atlantic, 18 (33%) from the Western Palearctic: Black Sea – Mediterranean, 13 (34%) from the Black Sea – Sahelian and 9 (19%) from the East Atlantic flyways.

Other threats in this group affecting more than 5% of the AEWA populations include (A01) *conversion into agricultural land*, (A06) *abandonment of grassland management*, (A09) *intensive grazing or overgrazing by livestock*, (A21) *use of plant protection chemicals in agriculture*, (A33) *modification of hydrological flow or physical alteration of water bodies for agriculture*.



Floodplains are often converted to rice fields across the flyways © Szabolcs Nagy

(A) Agriculture



Flyways

- Flyways**
- East Atlantic
 - Black Sea – Sahelian
 - West Asian – East African
 - Western Palearctic: Atlantic
 - Western Palearctic: Black Sea – Mediterranean
 - Western Palearctic: Central & Southwest Asian
 - Afrotropical: Sub-Saharan
 - Afrotropical: Central & Western
 - Afrotropical: Eastern & Southern
 - Other

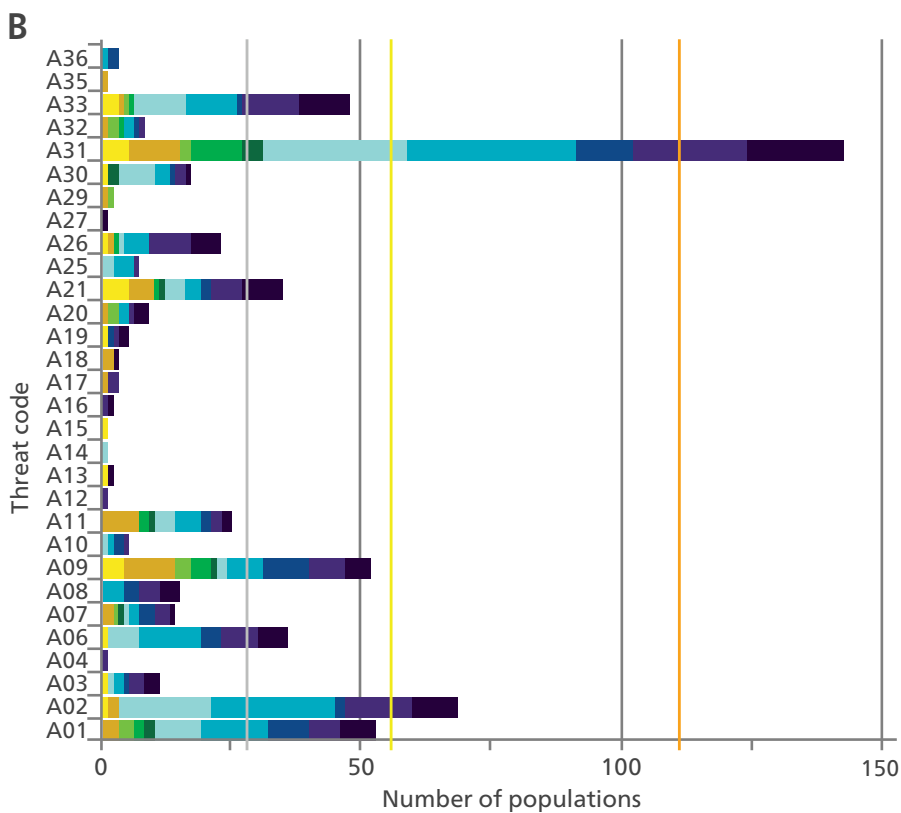


Figure 5: Frequency of threats in the (A) Agriculture threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



**Drainage impacts
69 populations
... Among, the
affected species,
waders experience
the most significant
impacts**

(K) Human-induced changes in water regimes

Figure 6 shows the absolute numbers of populations affected by these threats by flyways and waterbird families, respectively.

Drainage, classified as threat category (K02), is used only when the key driver of the change is unclear or when multiple causes are involved. In other situations, it is reported under different categories such as A31 or F26. This type of drainage impacts 69 AEWA populations, with non-negligible effects observed in 13 out of the 27 waterbird families. Among the affected species, waders experience the most significant impacts: 50% of thick-knee populations, 33% of Egyptian plovers and oystercatchers, 25% of coursers and pratincoles, 21% of sandpipers, snipes, and phalaropes, and 20% of avocets and stilts are impacted. Additionally, large wading birds are also affected: 26% of herons, 25% of storks, 14% of ibises and spoonbills, and 13% of cranes are impacted. 12% of ducks, geese, and swans experience impact as well. This threat is reported for 23 populations (22% of the flyway's populations) from the Western Palearctic: Atlantic, for 14 (34%) from the Black Sea – Sahelian, 12 (26%) from the East Atlantic, 10 (19%) from the Western Palearctic: Black Sea – Mediterranean flyways.

Other threats in this group affecting more than 5% of the AEWA populations include (K03) *development and operation of dams* and (K04) *modification of hydrological flow*.



Drainage changes the water regimes of wetlands, threatening the waterbirds reliant on those habitats © Adobe Stock

(K) Human-induced changes in water regimes

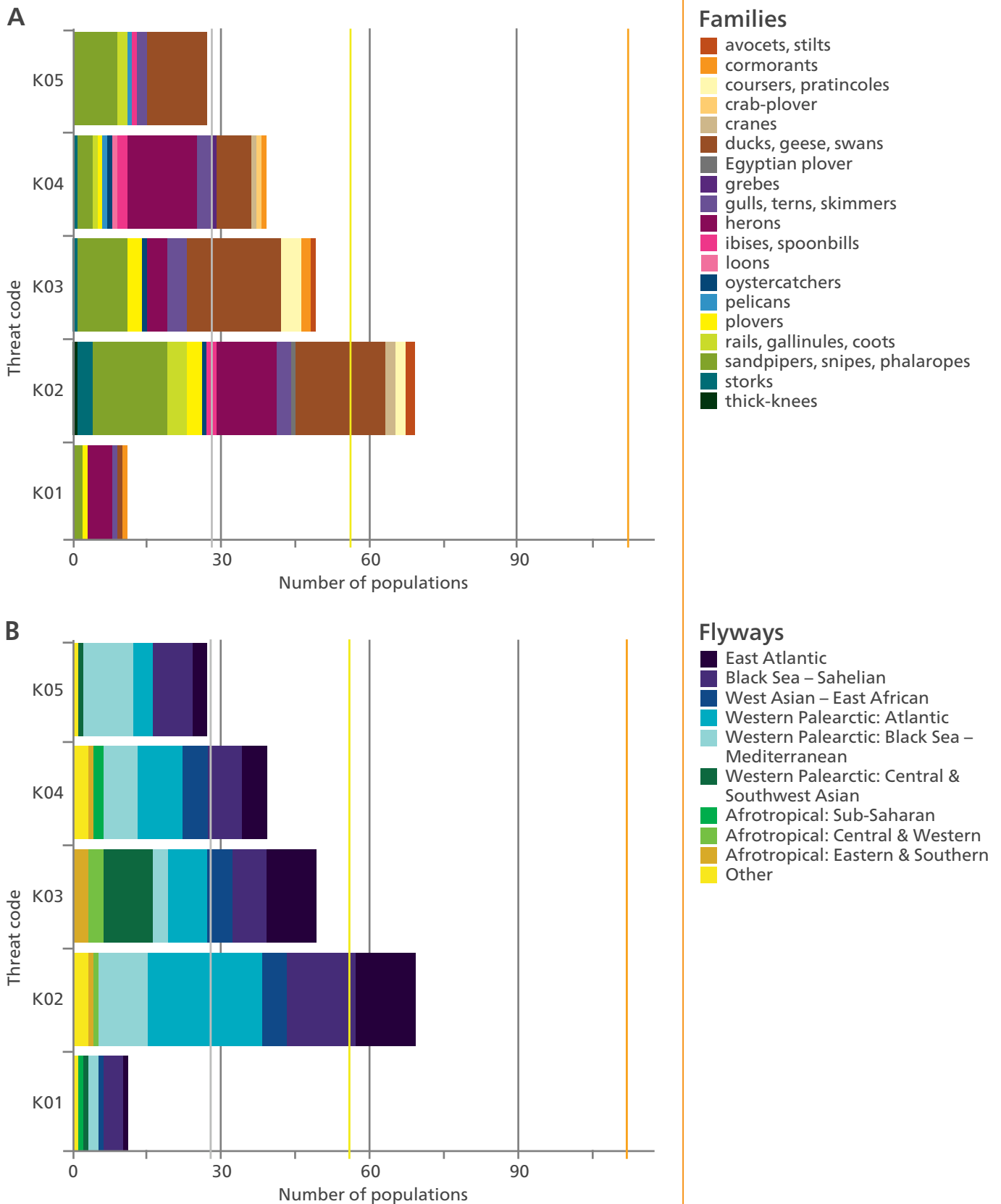


Figure 6: Frequency of threats in the (K) Human-induced changes in water regimes threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Droughts and decreases in precipitation due to climate change is the most frequently mentioned climate-related threat

(N) Climate change

Figure 7 shows the absolute number of populations affected by these threats by flyways and waterbird families, respectively.

Droughts and decreases in precipitation due to climate change (N02) is the most frequently mentioned threat in the threat group *(N) Climate change*. It affects 76 AEWA populations. Non-negligible impacts are recorded for 13 of the 27 waterbird families. Wading birds (44% of flamingo populations, 34% of herons, 29% of ibises and spoonbills, 17% of storks, 13% of cranes), waders (17% of sandpipers, snipes, and phalaropes) and ducks, geese, and swans (21%) are in particular often affected. This threat is reported for 17 populations (41% of the flyway's populations) from the Black Sea – Sahelian, the same number of populations (31%) from the Western Palearctic: Black Sea – Mediterranean, 11 (23%) from the East Atlantic, 10 (10%) from the Western Palearctic: Atlantic, and 8 (11%) from the West Asian – East African flyways.

There are no other threats in this group affecting more than 5% of the AEWA populations.



Wetland loss is accelerated by droughts and decreases in precipitation© Adobe Stock

(N) Climate change

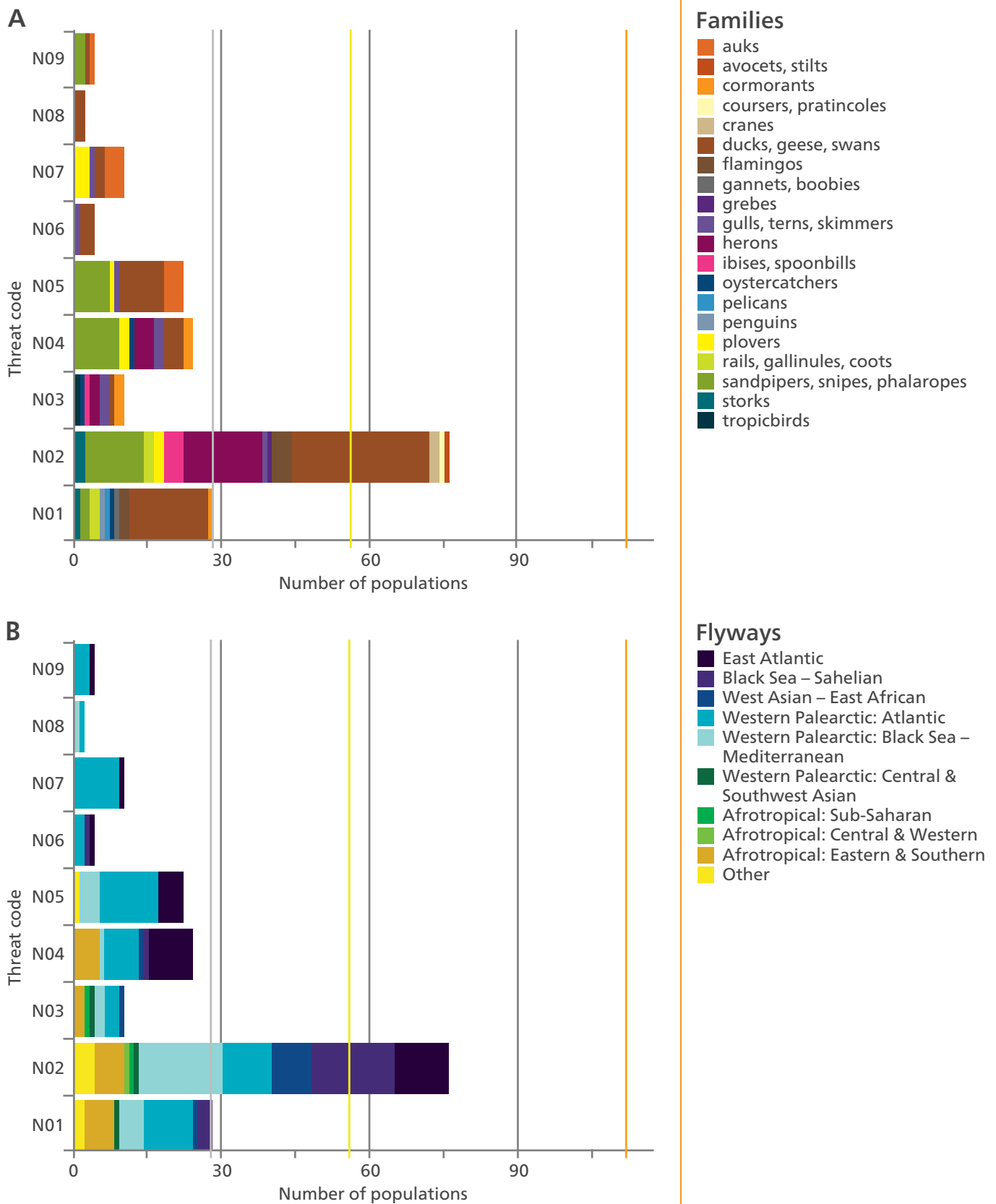


Figure 7: Frequency of threats in the (N) Climate change threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



The impact of the rise of the highly pathogenic avian influenza outbreaks since the early 2020s has not been adequately assessed yet

(I) Alien and problematic species

Figure 8 shows the absolute number of populations affected by these threats by flyways and waterbird families, respectively.

The *(I02) other invasive alien species (other than species of European Union Concern)* refers to threats caused by invasive species that are not classified as being of European Union Concern, as defined in EU Regulation 1143/2014. Due to the Agreement's broader geographic scope, the number of AEWA populations impacted by invasive species not considered of European Union Concern is significantly higher, at 73 populations, compared to the 22 populations affected by invasive species of European Union Concern. Invasive species in the I02 category impact 20 populations of sandpipers, snipes, and phalaropes, 13 populations of gulls, terns, and skimmers, and 10 populations of herons. Furthermore, seabirds are particularly vulnerable to invasive species, with six populations of auks, one population of frigatebirds, and three populations of tropicbirds being affected. Five populations of rails, gallinules, coots also face this threat. This threat is reported for 22 populations (21% of the populations in the flyway) from the Western Palearctic: Atlantic, 12 populations (12%) from the Afrotropical – Eastern and Southern, 10 populations (21%) from the East Atlantic, and nine populations (22%) from the Black Sea – Sahelian flyways.

The *(I04) problematic native species* threat affects 60 AEWA populations. Problematic native species have a particularly negative impact on waders (19 populations of sandpipers, snipes, and phalaropes, as well as all three populations of oystercatchers) and gulls, terns, and skimmers (13 populations). This threat is reported for 12 populations (12% of the flyway's populations) from the Western Palearctic: Atlantic, 11 populations (11%) from the Afrotropical: Eastern and Southern, 10 populations (21%) from the East Atlantic, and eight populations (20%) from the Black Sea – Sahelian flyways.

Other threats in this group affecting more than 5% of the AEWA populations include *(I05) diseases, pathogens and pests*. Since the threat data contained in the majority of sources on which this report is based are from before 2019, i.e. before the rise of highly pathogenic avian influenza outbreaks since the early 2020s (see **Box 1**), this threat has not been adequately assessed.



Predation by Red Fox (*Vulpes vulpes*) presents an increasing threat to the breeding success of many ground-nesting waterbirds in Europe © Helen Walsh

(I) Alien and problematic species

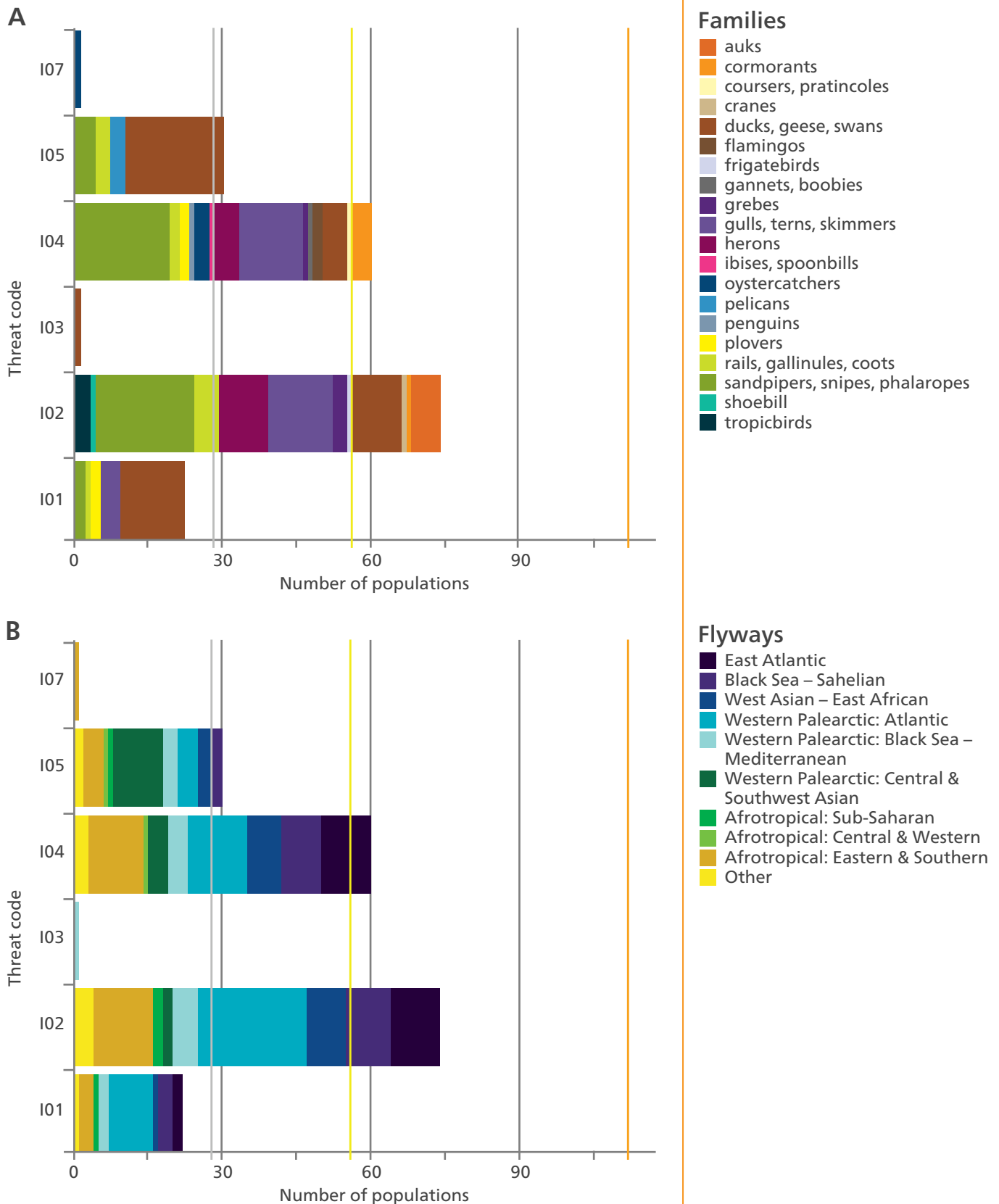


Figure 8: Frequency of threats in the (I) Alien and problematic species threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.

BOX 1: HIGHLY PATHOGENIC AVIAN INFLUENZA OUTBREAKS IN THE 2020s *Contributed by Ruth Cromie*

The emergence of clade 2.3.4.4b H5N1 highly pathogenic avian influenza (HPAI) in 2020 has dramatically shifted the epidemiology of the disease in wildlife. First detected in Europe, with spread to Africa, Asia, the Americas and Antarctica, there has been resultant significant mortality in both bird and marine mammal populations. The virus has been detected in over 500 species of wild birds, though global estimates of some ~300 million bird deaths to date are mainly based on carcasses recorded, which clearly represents a significant underestimate.

Examples of the scale of mortality include:

- Over 2,200 deaths of Great Skuas in Scotland during late 2021, representing approximately 5% of the global population.
- Around 13,200 Barnacle Geese, approximately one third of the Svalbard breeding population, died in Scotland.
- An additional 5,000 Greenland breeding Barnacle Geese died in the following winter, representing almost 10% of that population.
- The death of 5,200 Common Cranes in Israel were also recorded at the end of 2021, representing over 5% of the Eastern Europe/Türkiye, Middle East & NE Africa population.
- Unusually high mortality was recorded in 40 colonies of Northern Gannets (75% of global total colonies). At Bass Rock in the UK, the occupied nests decreased by 71% and breeding success declined by 55% compared with the long-term UK mean. However, Tyndall *et al.* (2024) recorded a 166% increase in breeding numbers in 2023 (following the outbreak) in comparison to 2022, which is still lower than the population size before the outbreak.
- Over 20,500 carcasses of Sandwich Terns in Northwest Europe during the 2022 breeding season, representing more than 11% of the regional breeding population.
- 2,286 Dalmatian Pelicans, c. 25% of the Black Sea-Mediterranean population, died in the spring of 2022, including some 60% of the breeding colony at Greece's Prespa Lake.
- In Senegal's Djoudj National Bird Sanctuary, 750 Great White Pelicans were found dead in early 2021, representing 1% of the West African population.
- Over 26,000 Cape Cormorants died in South Africa's Western Cape and the Namibian coast during 2021–2022, representing 7% of the population.



A key priority is understanding the effects on demography and the long-term impacts on populations, recognising that the disease adds an extra threat to species already facing other pressures. The absence of robust wildlife health reporting systems and integrated population monitoring has hindered understanding of the disease's impact on most affected populations. Analyses and vulnerability assessments are helpful in predicting which species are most at risk (Pearce-Higgins *et al.* 2025). Where good data are available and research and modelling have been conducted, such as for Northern Gannets (Lane *et al.* 2024), it is evident that this disease could have serious long-term consequences for some species.

The previous 'seasonality' of the virus in wild bird populations has been lost and instead it is expected that it will continue to circulate with ongoing mutation and reassortment with unpredictable consequences.

HPAI is estimated to have killed 30% of the Svalbard population of Barnacle Geese in Scotland, UK, in winter 2021/22 © David Pickett/WWF



Northern Gannets (*Morus bassanus*)
© Sergey Dereliev



**Roads, paths,
railroads
and related
infrastructure
impacts more than
10% of the AEWA
populations**

(E) Transport systems

(E01) Roads, paths, railroads and related infrastructure is the only threat category that impacts more than 10% of the AEWA populations in this threat group (**Figure 9**). It affects 61 AEWA populations mainly through disturbance which can extend well beyond the actual transit corridor (Reijnen and Foppen 2006; Dijk et al. 2025). Non-negligible impacts are recorded for 12 of the 27 waterbird families. Ducks, geese, swan are particularly affected (24% of the populations). 22% of the flamingos, 17% of the storks, 16% of the ibises, spoonbills, 13% of the sandpipers, snipes, phalaropes, 12% of the coursers, pratincoles, and of the rails, gallinules, coots, as well as 11% of the plovers also suffer from this threat. This threat is reported to have an impact on 23 populations (22% of the flyway's populations) from the Western Palearctic: Atlantic, 16 (30%) from the Western Palearctic: Black Sea – Mediterranean and nine (22%) from the Black Sea – Sahelian flyways.

The only other threat in this group affecting more than 5% of the AEWA populations is *(E02) shipping lanes and ferry lanes transport operations*.



Roads and railroads cause disturbance and
habitat fragmentation © Adobe Stock

(E) Transport systems

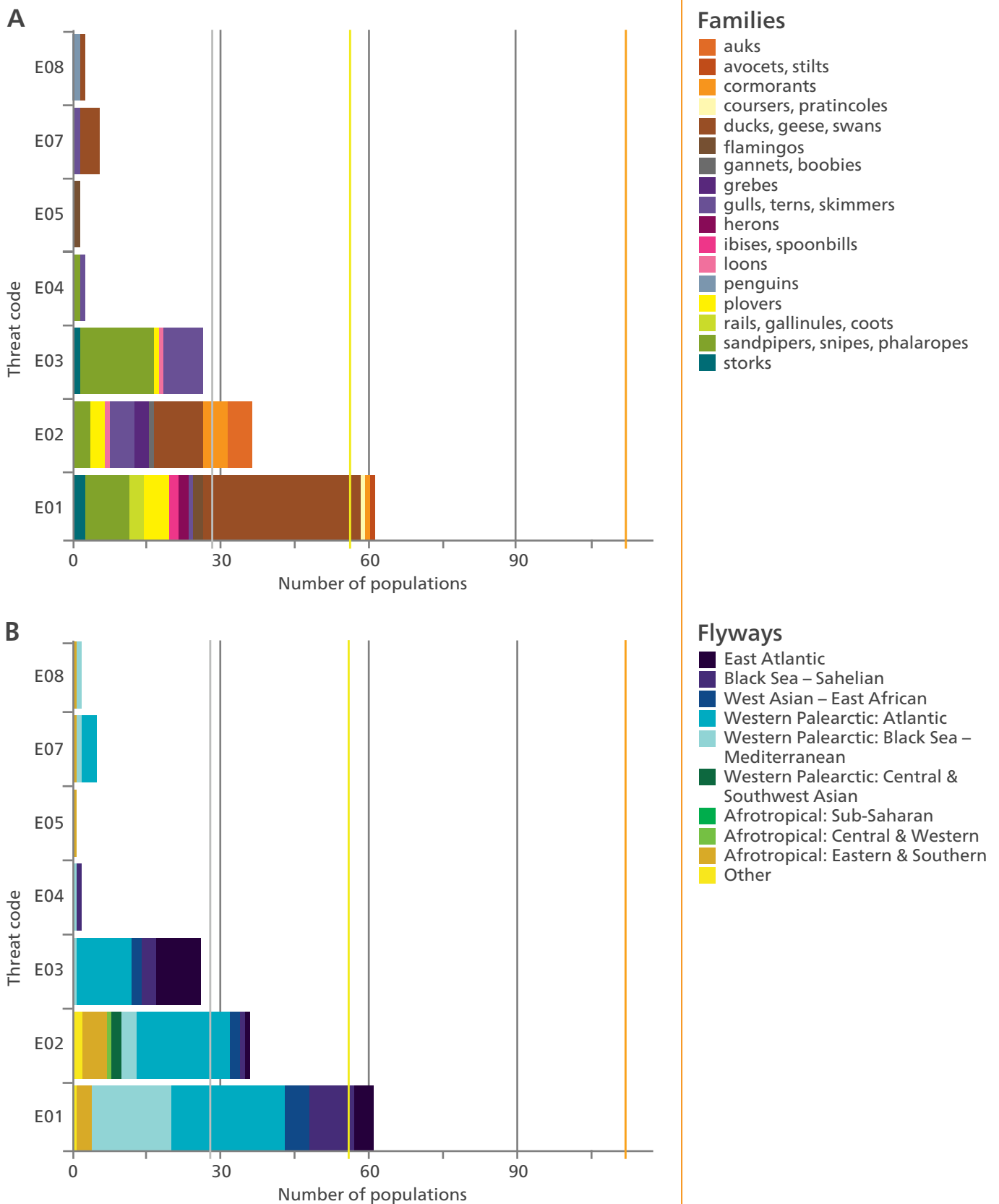


Figure 9: Frequency of threats in the (E) Development and operation of transport systems threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Energy production affects 15% of the AEWA populations

(D) Energy production

This threat group affects 82 populations, i.e. 15% of the AEWA populations (**Figure 10**). It includes three threats that affect more than 5% but less than 10% of the AEWA populations, namely *(D01) wind, wave and tidal power, including infrastructure*, *(D02) hydropower*, and *(D06) transmission of electricity and communications (cables)*.



Windfarms at migratory bottlenecks
threaten storks and pelicans
© Sergey Dereliev

(D) Energy production

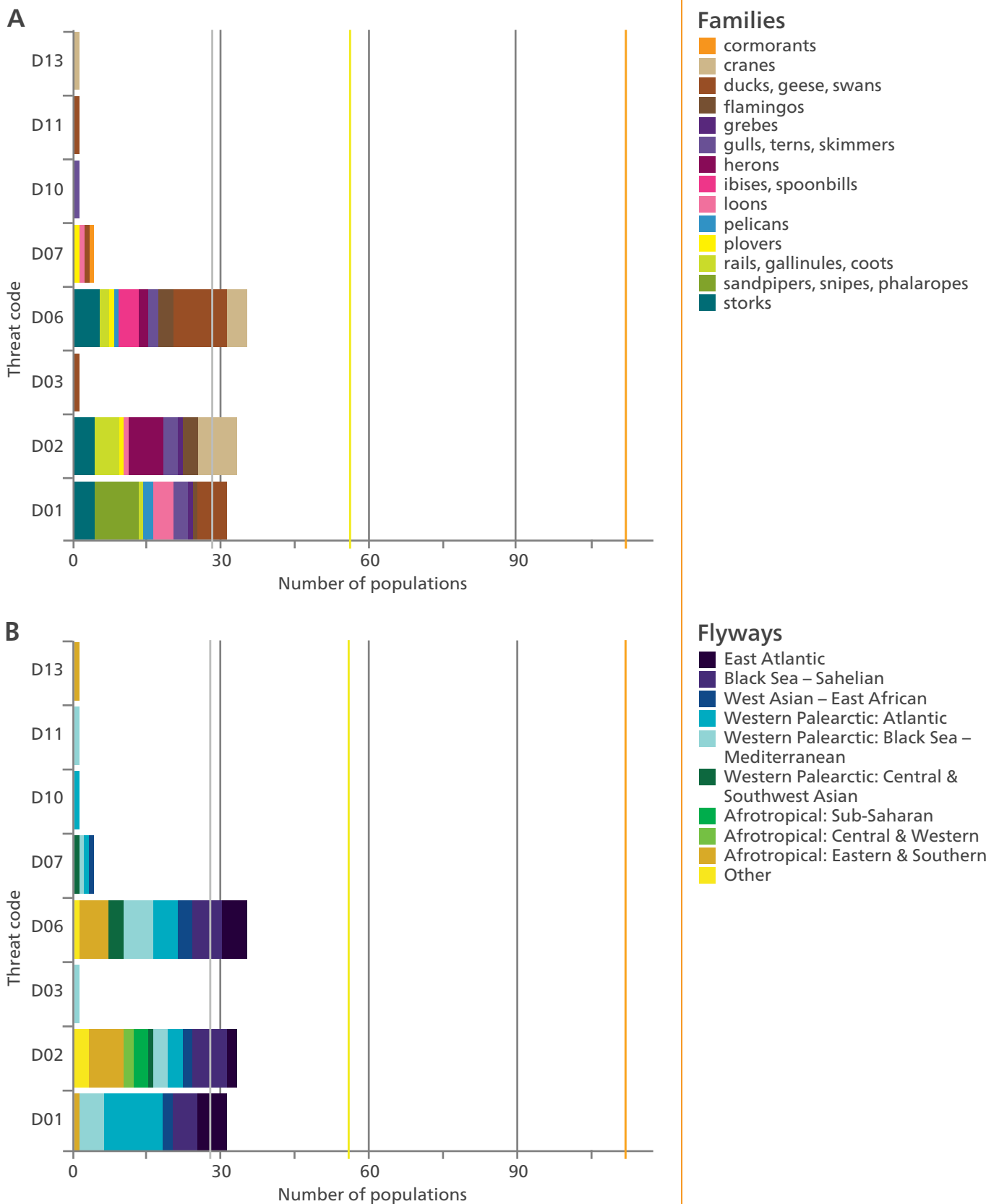


Figure 10: Frequency of threats in the (D) Energy production processes and related infrastructure development threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Extraction of resources affects 14% of the AEWA populations

(C) Extraction of resources

This threat group affects 81 populations, i.e. 14% of the AEWA populations (Figure 11). It includes only one threat category, (C03) *extraction of oil and gas, including infrastructure*, that affects more than 5% of the AEWA populations.



Oil and gas extraction is the most
widespread extraction-related threat to
waterbirds © Adobe Stock

(C) Extraction of resources

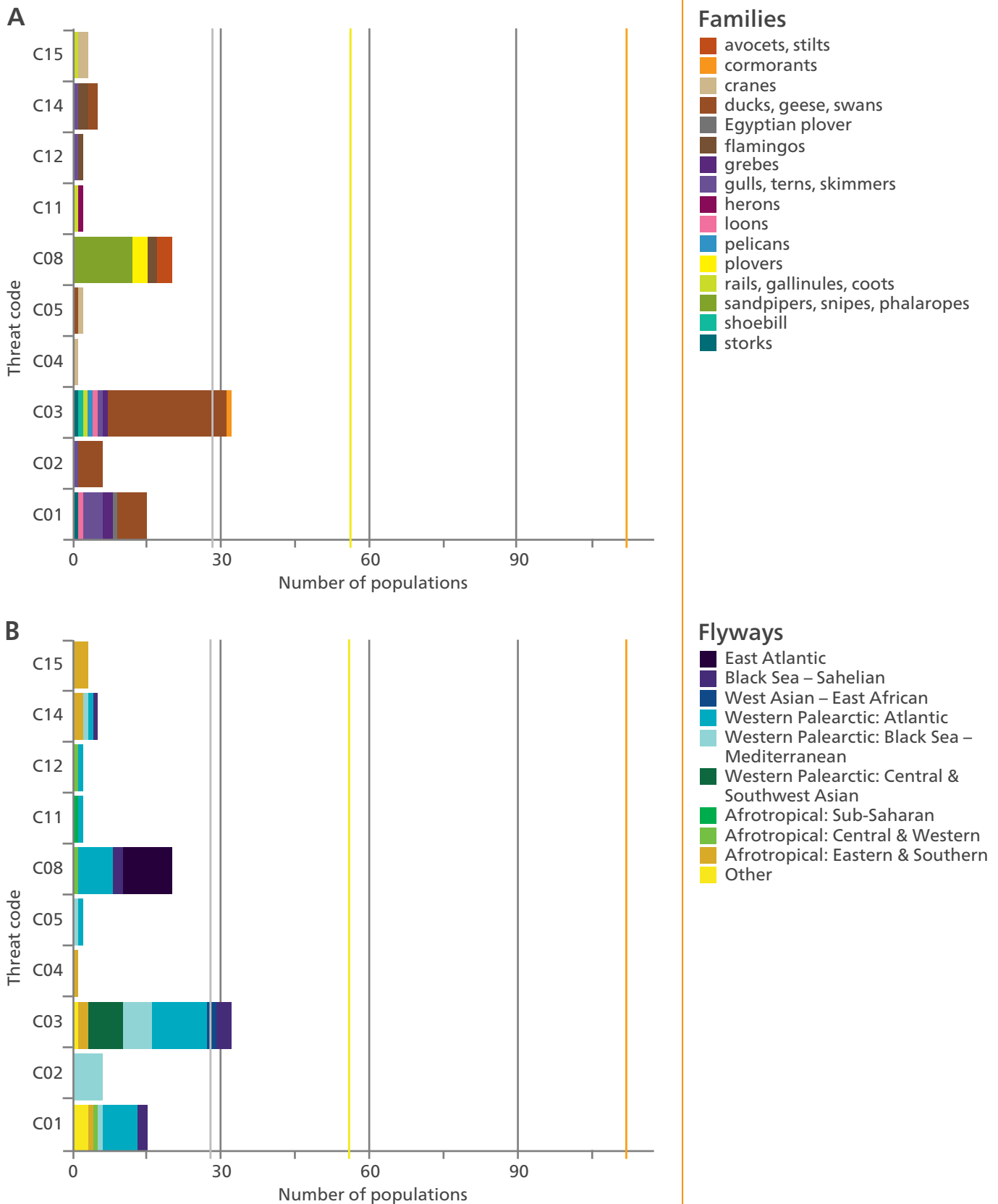


Figure 11: Frequency of threats in the (C) Extraction of resources (minerals, peat, non-renewable energy resources) threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Forestry affects 13% of the AEWA populations

(B) Forestry

This threat group affects 73 populations, i.e. 13% of the AEWA populations, but no threats affect more than 5% of them (Figure 12).



Afforestation and associated drainage
cause loss of waterbird habitats
© Adobe Stock

(B) Forestry

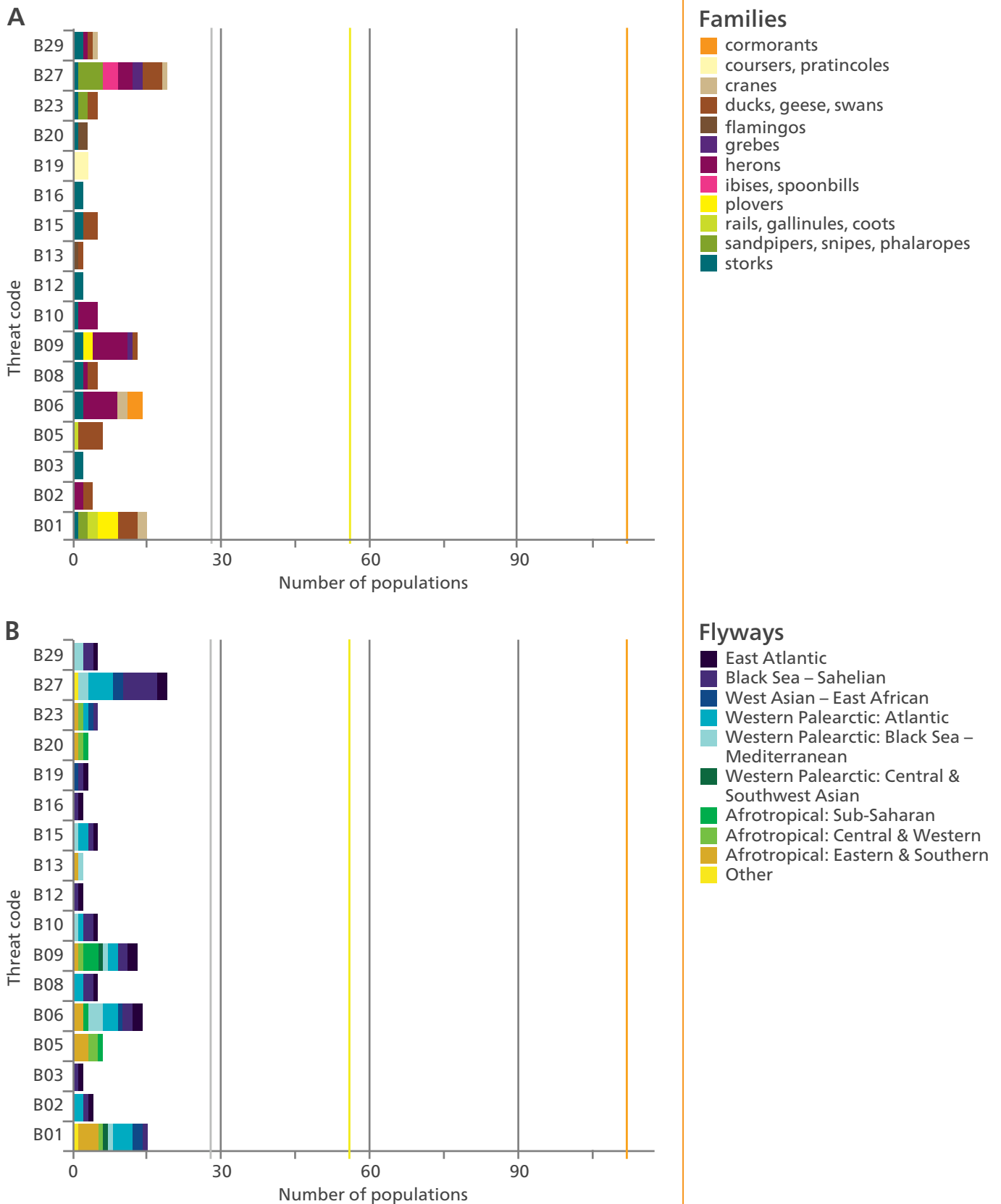


Figure 12: Frequency of threats in the (B) Forestry threat group by (A) families and (B) flyways. Grey lines indicate 5% of the AEWA populations, yellow 10% and orange 20%.



Red-breasted and Greater White-fronted Geese
(*Branta ruficollis* and *Anser albifrons*) © Nicky Petkov

MAIN THREATS BY ECOLOGICAL GROUPS

The Agreement encompasses 27 families of waterbirds. Some of these families comprise only one or a few species, each with only a small number of populations. Assessing such small groups may divert attention from the broader trends. To address this, the waterbird families listed under AEWA have been organised into four larger ecological clusters – grazers, waders, large wading birds, and seabirds.

Grazers

This group comprises 136 populations that all belong to the family of ducks, geese, swans. Although some species, such as goosanders, mainly feed on fish and aquatic invertebrates, most species consume submerged or emerged aquatic and terrestrial plants.

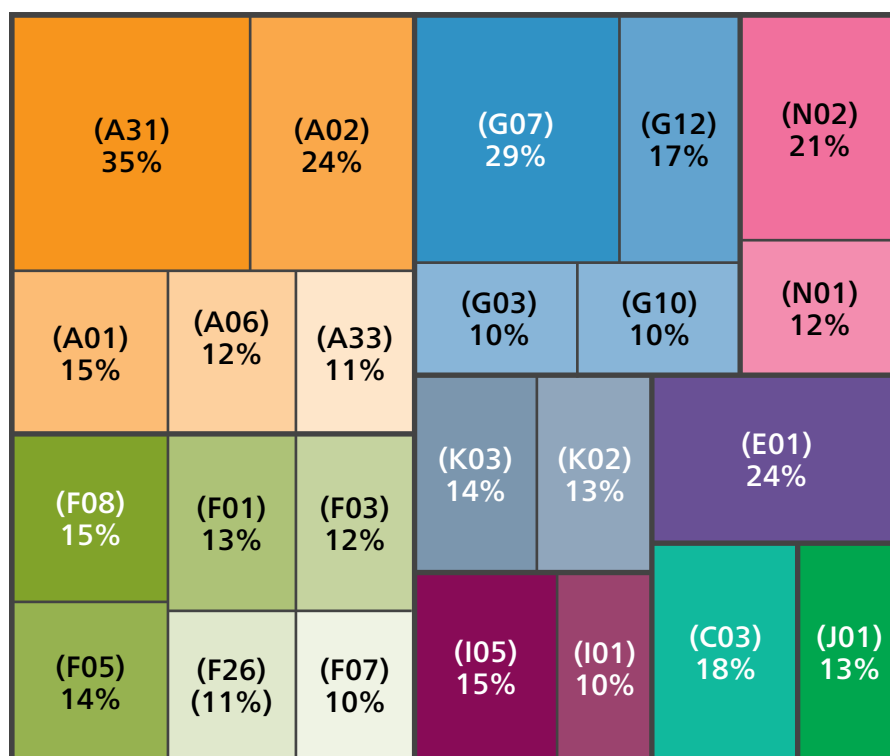


Figure 13: Threats affecting more than 10% of the grazer populations.

There are 24 threats impacting more than 10% of the populations at a non-negligible level (Figure 13).

This group of species is significantly affected by agriculture-related threats. *Drainage for agricultural land (A31)* and the *conversion from one type of agriculture to another (A02)*, such as from grassland to arable cultivation, impact 35% and 24% of their populations, respectively. Additionally, ducks and geese, being prized quarry species, face threats from (G07) *hunting*, which affects 29% of their populations. *Bycatch and incidental killing (G12)* – reflecting accidental captures by coastal and inland fisheries and the unintended killing of ducks and geese due to misidentification – impact 17% of their populations. Furthermore, (N02) *drought and decreased precipitation caused by climate change* affect one in five populations in this group. Additionally, there are six *infrastructure-related threats* that impact more than 10% of the Anatidae populations.

Threat groups

- (A) Agriculture
- (B) Forestry
- (C) Mining
- (D) Energy Production
- (E) Transport
- (F) Infrastructure
- (G) Biological resource use
- (H) Military and public safety
- (I) Alien and problematic species
- (J) Mixed source pollution
- (K) Other hydrological changes
- (L) Natural processes
- (M) Natural catastrophes
- (N) Climate change

Threat codes

- (A01) Conversion into agricultural land
- (A02) Conversion from one type of agricultural land use to another
- (A06) Abandonment of grassland management
- (A31) Drainage for use as agricultural land
- (A33) Modification of hydrological flow or physical alteration of water bodies for agriculture
- (C03) Extraction of oil and gas, including infrastructure
- (E01) Roads, paths, railroads and related infrastructure
- (F01) Conversion from other land uses to housing, settlement or recreational areas
- (F03) Conversion from other land uses to commercial/industrial areas
- (F05) Creation or development of sports, tourism and leisure infrastructure
- (F07) Sports, tourism and leisure activities
- (F08) Modification of coastline, estuary and coastal conditions for development
- (F26) Drainage, and conversion of wetlands to settlement or recreational areas
- (G03) Marine fish and shellfish harvesting activities causing physical loss and disturbance of seafloor habitats
- (G07) Hunting
- (G10) Illegal shooting/killing
- (G12) Bycatch and incidental killing
- (I01) Invasive alien species of Union Concern
- (I05) Plant and animal diseases, pathogens and pests
- (K02) Drainage
- (K03) Development and operation of dams
- (N01) Temperature changes
- (N02) Droughts and decreases in precipitation due to climate change

Threat groups

- (A) Agriculture
- (B) Forestry
- (C) Mining
- (D) Energy Production
- (E) Transport
- (F) Infrastructure
- (G) Biological resource use
- (H) Military and public safety
- (I) Alien and problematic species
- (J) Mixed source pollution
- (K) Other hydrological changes
- (L) Natural processes
- (M) Natural catastrophes
- (N) Climate change

Threat codes

- (A01)** Conversion into agricultural land
- (A02)** Conversion from one type of agricultural land use to another
- (A06)** Abandonment of grassland management
- (A09)** Intensive grazing or overgrazing by livestock
- (A31)** Drainage for use as agricultural land
- (C08)** Abandonment or conversion of salt pans
- (E01)** Roads, paths, railroads and related infrastructure
- (E03)** Shipping lanes, ferry lanes and anchorage infrastructure
- (F07)** Sports, tourism and leisure activities
- (F08)** Modification of coastline, estuary and coastal conditions for development
- (F26)** Drainage, and conversion of wetlands to settlement or recreational areas
- (F27)** Drainage and conversion of wetlands to industrial/commercial areas
- (G01)** Marine fish and shellfish harvesting causing reduction of species/prey populations and disturbance of species
- (G07)** Hunting
- (I02)** Other invasive alien species
- (I04)** Problematic native species
- (K02)** Drainage
- (K03)** Development and operation of dams
- (N02)** Droughts and decreases in precipitation due to climate change

Waders

This group comprises 141 populations belonging to the families of thick-knees (2 populations), oystercatchers (3 populations), stilts and avocets (10 populations), plovers (44 populations), sandpipers, snipes, phalaropes (70 populations), Crab-plover (1 population), and coursers and pratincoles (11 populations). They are mainly small wading birds that feed in shallow waters or terrestrial habitats, primarily foraging on invertebrates. Only the pratincoles are predominantly aerial feeders.

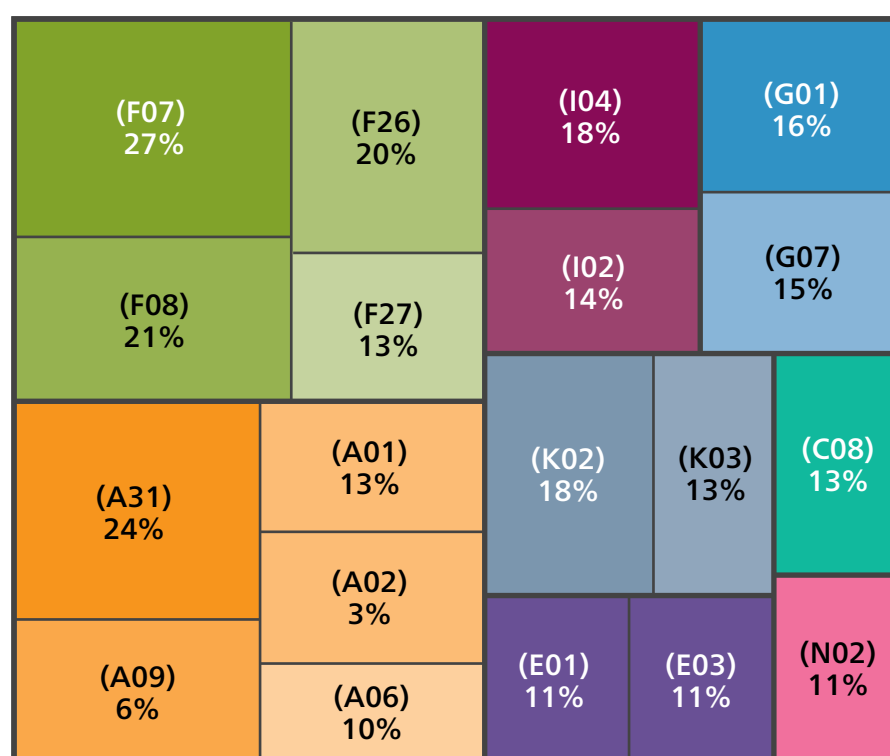


Figure 14: Threats affecting more than 10% of the wader populations.

Nineteen threats affect more than 10% of the populations at a significant level (**Figure 14**). This group is closely associated with coastal habitats, which is reflected in their sensitivity to *(F08) modification of coastline, estuary and coastal conditions*, and mainly *(G01) fisheries and shellfish harvesting*, impacting 21%, and 16% of the populations, respectively. They are also highly exposed to *(F07) sports, tourism and leisure activities* affecting 27% of the populations. Additionally, threats include *drainage for various purposes (A31, F26, K02)*, *(A09) intensive grazing* and *(G07) hunting*. As ground nesting birds, they are often exposed to *native and alien predators (I02 and I04)*.

Large wading birds

This group comprises 122 populations belonging to the families of flamingos (9 populations), rails, gallinules, coots (24 populations), cranes (15 populations), storks (12 populations), ibises, spoonbills (14 populations), herons (47 populations), and Shoebill (1 population).

Twenty-three threats are impacting more than 10% of the populations at a significant level (**Figure 15**). This group appears to be particularly affected by threats that relate to *(A) Agriculture* and *(F) Infrastructure development*, and

(G) Biological resource use, but (N02) droughts and decreases in precipitation due to climate change also affects 25% of the wading bird populations.

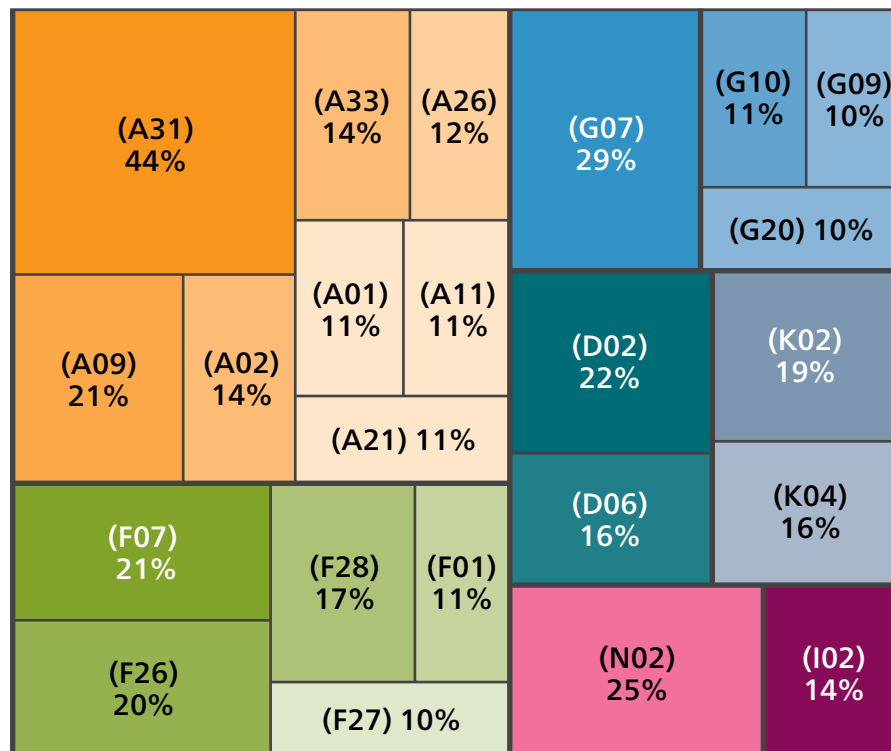


Figure 15: Threats affecting more than 10% of the large wading bird populations.

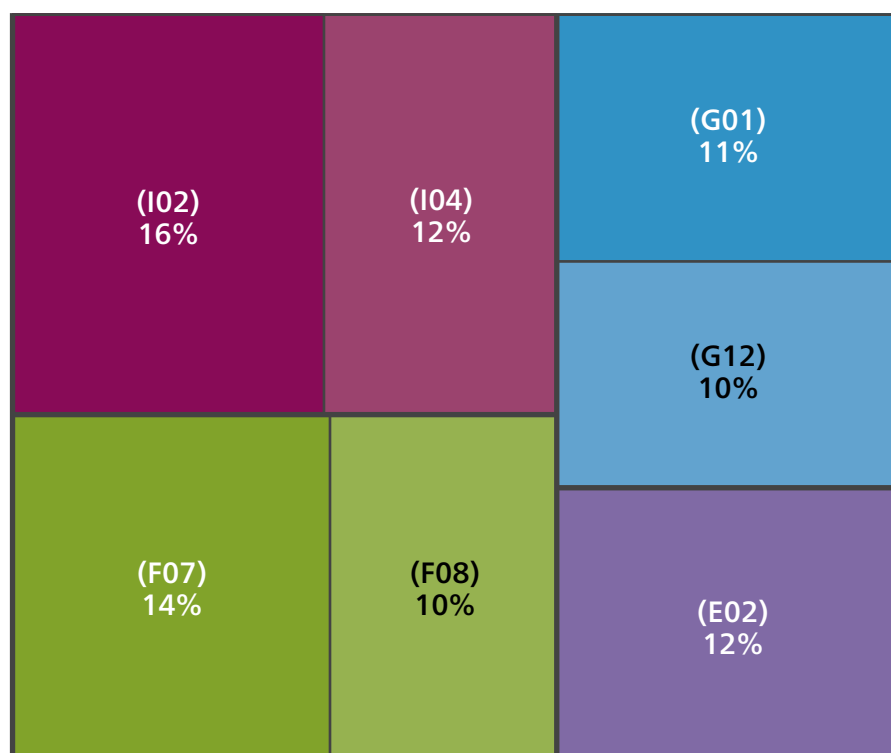


Figure 16: Threats affecting more than 10% of the seabird populations.

Threat groups

- (A) Agriculture
- (B) Forestry
- (C) Mining
- (D) Energy Production
- (E) Transport
- (F) Infrastructure
- (G) Biological resource use
- (H) Military and public safety
- (I) Alien and problematic species
- (J) Mixed source pollution
- (K) Other hydrological changes
- (L) Natural processes
- (M) Natural catastrophes
- (N) Climate change

Threat codes

- (A01) Conversion into agricultural land
- (A02) Conversion from one type of agricultural land use to another
- (A09) Intensive grazing or overgrazing by livestock
- (A11) Burning for agriculture
- (A21) Use of plant protection chemicals in agriculture
- (A26) Agricultural activities generating diffuse pollution to surface or ground waters
- (A31) Drainage for use as agricultural land
- (A33) Modification of hydrological flow or physical alteration of water bodies for agriculture
- (D02) Hydropower
- (D06) Transmission of electricity and communications
- (E02) Shipping lanes and ferry lanes transport operations
- (F01) Conversion from other land uses to housing, settlement or recreational areas
- (F07) Sports, tourism and leisure activities
- (F08) Modification of coastline, estuary and coastal conditions for development
- (F26) Drainage, and conversion of wetlands to settlement or recreational areas
- (F27) Drainage, and conversion of wetlands to industrial/commercial areas
- (F28) Modification of flooding regimes, flood protection for residential or recreational development
- (G01) Marine fish and shellfish harvesting causing reduction of species/prey populations and disturbance of species
- (G07) Hunting
- (G09) Harvesting or collecting of other wild plants and animals
- (G10) Illegal shooting/killing
- (G12) Bycatch and incidental killing
- (G20) Water abstraction and other freshwater hydrological modifications for aquaculture
- (I01) Invasive alien species of Union Concern
- (I02) Other invasive alien species
- (I04) Problematic native species
- (K02) Drainage
- (K04) Modification of hydrological flow
- (N02) Droughts and decreases in precipitation due to climate change



Little Auk (*Alle alle*) © Sergey Dereliev

Seabirds

This group comprises 166 populations belonging to various bird families: grebes (15 populations), tropicbirds (4 populations), loons (6 populations), penguins (1 population), pelicans (7 populations), frigatebirds (2 populations), gannets and boobies (3 populations), cormorants (15 populations), gulls, terns, and skimmers (91 populations), skuas (2 populations), and auks (20 populations).

Seven threats impact more than 10% of these populations at a significant level (**Figure 16**). AEWA populations within this group are particularly affected by (I02) *invasive alien species* and (I04) *problematic native species*, especially at nesting sites, (F07) *sports, tourism, and leisure activities*, (E02) *shipping lanes and ferry lanes transport operations*, by fisheries activities (G01 and G12), and (F08) *modification of coastlines, estuaries, and coastal conditions*.

MAIN THREATS BY FLYWAYS

Intercontinental flyways: East Atlantic Flyway

This flyway includes 47 AEWA populations. There are 32 threats that affect more than 10% of the populations in the flyway (**Figure 17**).

In this flyway, migratory waterbird populations face a range of significant threats. The most frequently mentioned one is (F07) *sports, tourism, and leisure activities*, which affect 21 populations, or 45% of the total. The growing trend of recreational development places immense pressure on natural areas, mainly on the Atlantic coast, that are critical for these species.

Another critical threat arises from (A31) *drainage for agricultural land use*, which impacts 19 populations, accounting for 40%. This practice not only transforms natural landscapes but also disrupts the ecosystems essential for waterbirds. Additionally, the (F08) *modification of coastlines, estuaries, and coastal conditions for the purpose of developing and protecting residential, commercial, industrial, and recreational infrastructure* is similarly detrimental, affecting 13 populations, representing 28% of the waterbird populations in the flyway.

Beyond these primary threats, other significant challenges emerge. For instance, (F26) *drainage, land reclamation, and the conversion of wetlands, marshes, and bogs into settlement or recreational areas* contribute to habitat loss and degradation, which affects 13 waterbird populations (28%). This is exacerbated further by (K02) *drainage* for unspecified reasons that affect 12 populations or 26% of the populations in the flyway.

Moreover, there is a tied impact from several threats that each affect ten populations, which translates to 21% of all populations in the flyway. These include (A33) *modifications of hydrological flow or physical alterations of water bodies for agricultural purposes*, (C08) *abandonment or conversion of saltpans*, and (G01) *marine fish and shellfish harvesting*. The presence of (I02) *other invasive alien species, apart from those of Union concern*, and (I04) *problematic native species* also threaten waterbird populations in this flyway. Lastly, the (K03) *development and operation of dams* create significant alterations in habitats.

Intercontinental flyways: Black Sea – Sahelian Flyway

This flyway includes 41 AEWA populations. There are 40 threats that affect more than 10% of the populations in the flyway (**Figure 18**).

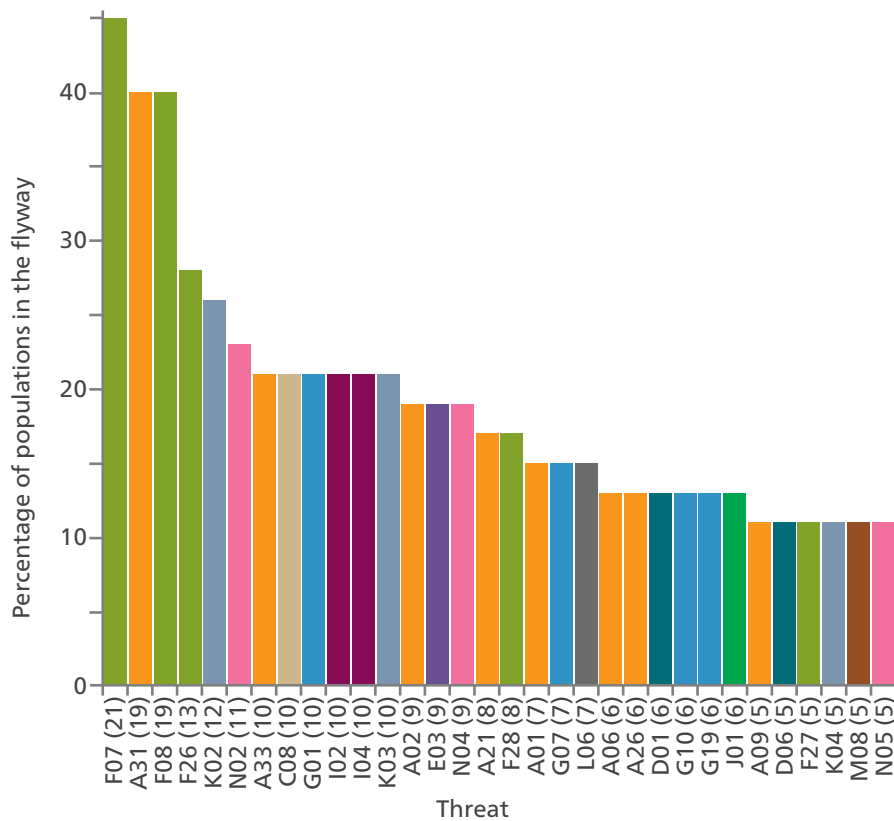


Figure 17: Threats affecting more than 10% of the populations in the East Atlantic Flyway.

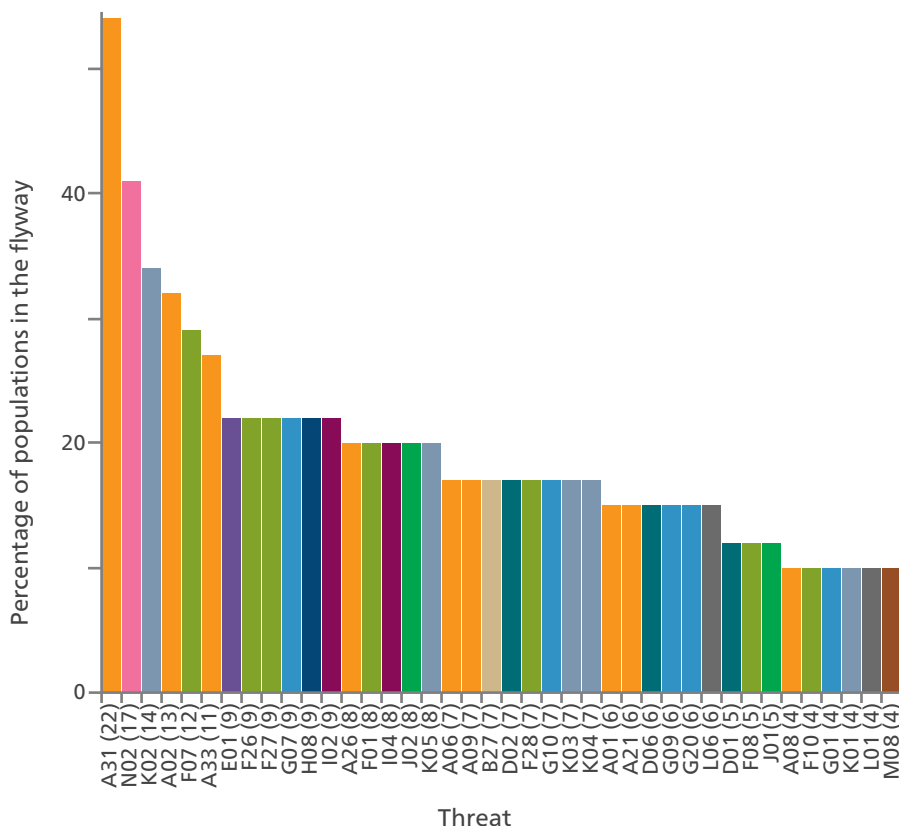


Figure 18: Threats affecting more than 10% of the populations in the Black Sea – Sahelian Flyway.

Threat groups

- (A) Agriculture
- (B) Forestry
- (C) Mining
- (D) Energy Production
- (E) Transport
- (F) Infrastructure
- (G) Biological resource use
- (H) Military and public safety
- (I) Alien and problematic species
- (J) Mixed source pollution
- (K) Other hydrological changes
- (L) Natural processes
- (M) Natural catastrophes
- (N) Climate change

The numbers in brackets indicate the number of populations affected.



Red-necked Phalarope (*Phalaropus lobatus*)
© Sergey Dereliev

In this flyway, the most significant threat to migratory waterbirds is (A31) *drainage for agricultural land use*, which affects 22 populations, representing 54% of all populations in the flyway. Fourteen populations (34%) are impacted by (K02) *drainage for unspecified reasons*, while 11 populations (27%) are also affected by (A33) *modification of hydrological flow or physical alteration of water bodies for agriculture*. In the meantime (N02) *droughts and decreases in precipitation due to climate change* already impacts 17 populations (41%).

Additionally, (A02) *conversion from one type of agricultural land use to another* affects 13 populations (32%). Moreover, (F07) *sports, tourism, and leisure activities* threaten 12 populations (29%).

Nine populations (22%) are affected by each of the following issues: (E01) *roads, paths, railroads, and related infrastructure (such as bridges, viaducts, and tunnels)*; (F26) *drainage, land reclamation, and conversion of wetlands, marshes, bogs, etc., to settlement or recreational areas*; (F27) *drainage, land reclamation, or conversion of wetlands, marshes, bogs, etc., to industrial/commercial areas*; (G07) *hunting*; (H08) *other human intrusions and disturbances*; and (I02) *other invasive alien species (other than species of Union concern)*.

Intercontinental flyways: West Asian – East African Flyway

This flyway includes 70 AEWA populations. There are 11 threats that affect more than 10% of the populations in the flyway (Figure 19).

In this flyway, the most significant threat affecting 16 populations (23% of all populations in the flyway) comes from (F07) *sports, tourism, and leisure activities*. This is followed by *drainage, land reclamation, and the conversion of wetlands, marshes, bogs, etc., into settlement or recreational areas* (F26), which threaten 14 populations (20%). Both of these threats primarily impact wading birds. *Drainage for agricultural use* (A31) also affects 11 populations (16%).

Hunting (G07) poses a threat to 13 populations (19%). Additionally, *intensive grazing or overgrazing by livestock* (A09) threatens 9 populations (13%), which affect mainly birds breeding in the steppe zone.

Eight populations (11%) are threatened by each of the following issues: *conversion into agricultural land* (A01), *drainage, land reclamation, or conversion of wetlands, marshes, bogs, etc., into industrial or commercial areas* (F27), *marine fish and shellfish harvesting* (G01), *the impact of other invasive alien species* (I02), and *droughts along with decreases in precipitation due to climate change* (N02).

Western Palearctic flyways: Atlantic Flyway

This flyway includes 104 AEWA populations. There are 27 threats in this flyway that affect more than 10% of the populations (Figure 20).

Threats in this flyway are very similar to the ones in the East Atlantic flyway, with which it overlaps in Europe. Among the ten most important threats is (A31) *drainage for agricultural land use*, which affects 33 populations, representing 32% of all populations in the flyway. This is followed by (F08) *modification of coastlines, estuaries, and coastal conditions for the development, use, and protection of residential, commercial, industrial, and recreational infrastructure*, which impacts 27 populations or 26%. The *conversion of agricultural land from one type to another* (A02)

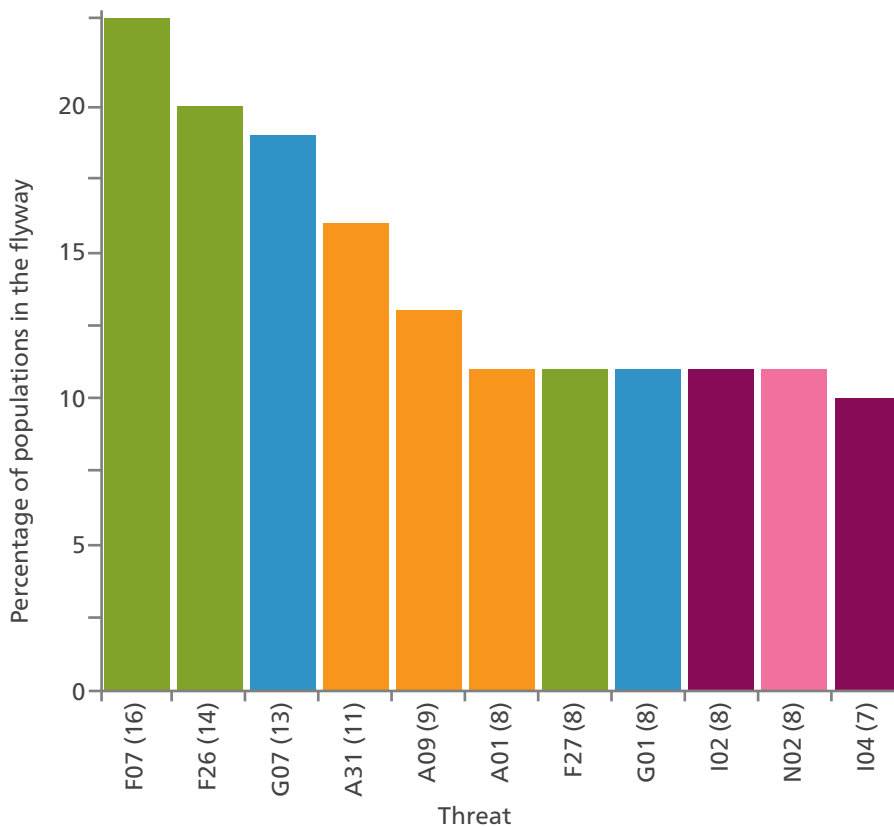


Figure 19: Threats affecting more than 10% of the populations in the West Asian – East African Flyway.

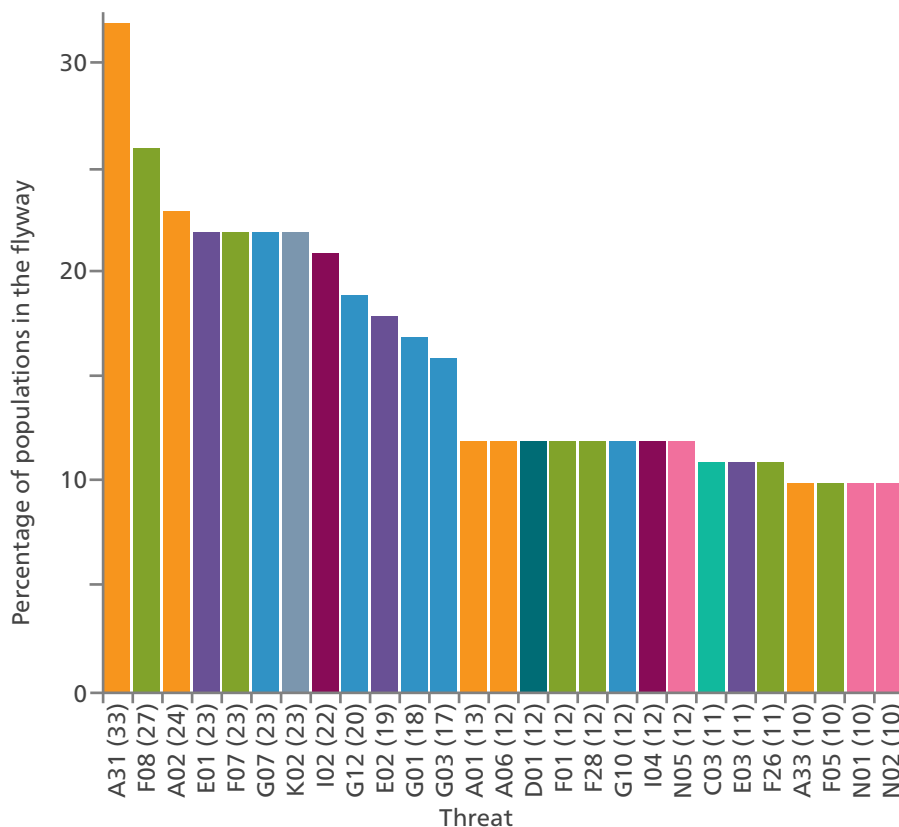


Figure 20: Threats affecting more than 10% of the populations in the Western Palearctic: Atlantic Flyway.

Threat groups

- (A) Agriculture
- (B) Forestry
- (C) Mining
- (D) Energy Production
- (E) Transport
- (F) Infrastructure
- (G) Biological resource use
- (H) Military and public safety
- (I) Alien and problematic species
- (J) Mixed source pollution
- (K) Other hydrological changes
- (L) Natural processes
- (M) Natural catastrophes
- (N) Climate change

The numbers in brackets indicate the number of populations affected.



Dalmatian Pelican (*Pelecanus crispus*)
© Szabolcs Nagy

affects 24 populations, making up 23%. Twenty-three populations, or 22%, are affected by each of (E01) roads, paths, railroads, and associated infrastructure, (F07) sports, tourism, and leisure activities, (G07) hunting, and (K02) drainage for unspecified reasons. Invasive alien species that are not EU concern (I02) impact 22 populations, accounting for 21%. (G12) Bycatch and incidental killing due to fishing and hunting activities affects 20 populations or 19%. Lastly, (E02) shipping lanes and ferry lane transport operations, influence 19 populations, constituting 18% of the populations in the flyway.

Western Palearctic flyways: Black Sea – Mediterranean Flyway

This flyway includes 54 populations that breed in the central and eastern parts of the Western Palearctic and winter in the Black Sea and Mediterranean regions. There are 26 threats that affect more than 10% of the populations in the flyway (Figure 21).

In this flyway, conversion of marshes, bogs, and similar wetland areas into settlement or recreational spaces (F03) impacts 13 populations, which represents 24% of the populations in the flyway. This is followed by the conversion from other land uses to commercial and industrial areas (F03), which affects 12 populations, or 22%. These two threats reflect the rapid urban development of the region.

Agriculture also poses significant challenges through the modification of hydrological flow and physical alterations of water bodies (A33). It affects 10 populations, accounting for 19%.

Coastal areas are similarly under threat from modifications to coastlines and estuaries for the development, use, and protection of infrastructure (F08), impacting another 10 populations.

Additionally, (K02) drainage for unspecified reasons further exacerbate wetland loss for 10 populations.

Finally, the physical alteration of water bodies (K05) is more dominant in this flyway than elsewhere affecting also 10 populations.

Western Palearctic flyways: Central and Southwest Asian Flyway

This flyway includes 49 AEWA populations. There are four threats that affect more than 10% of the populations in the flyway (Figure 22).

Hunting (G07) affects 11 populations, representing 22% of all waterbird populations in the flyway. Additionally, the spread of (I05) plant and animal diseases affects 10 populations, or 20%. Development and operation of dams (K03) further exacerbate the situation, impacting another 10 populations. These projects alter natural hydrology and reduce the availability of crucial wetland habitats. Finally, the (C03) extraction of oil and gas, including related infrastructure, threatens 7 populations, accounting for 14% of all populations in the flyway.

The low number of recorded threats probably indicates a knowledge gap rather than a genuinely favourable conservation situation, since this flyway has one of the highest proportions of declining populations (Wetlands International 2021).

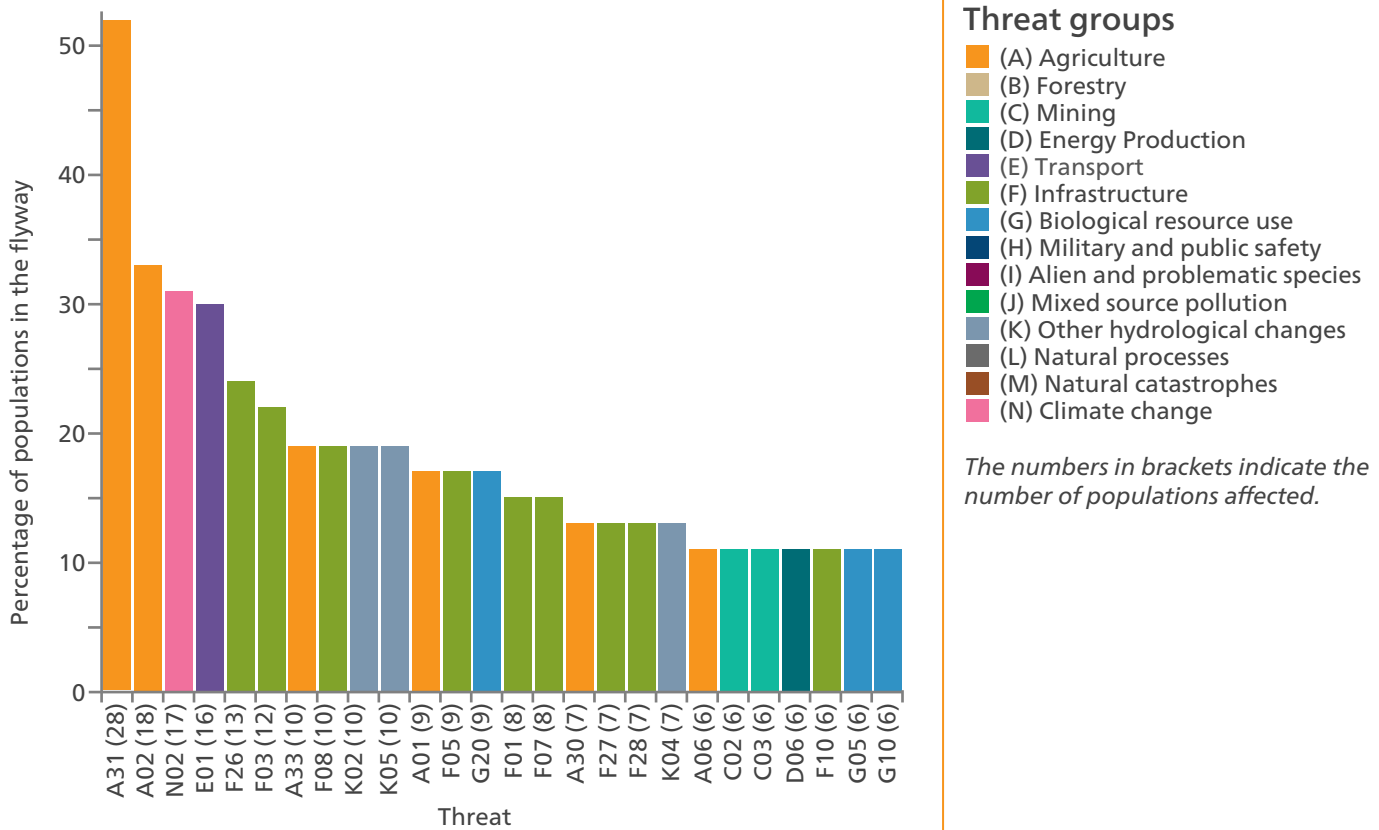


Figure 21: Threats affecting more than 10% of the populations in the Western Palearctic: Black Sea – Mediterranean Flyway.

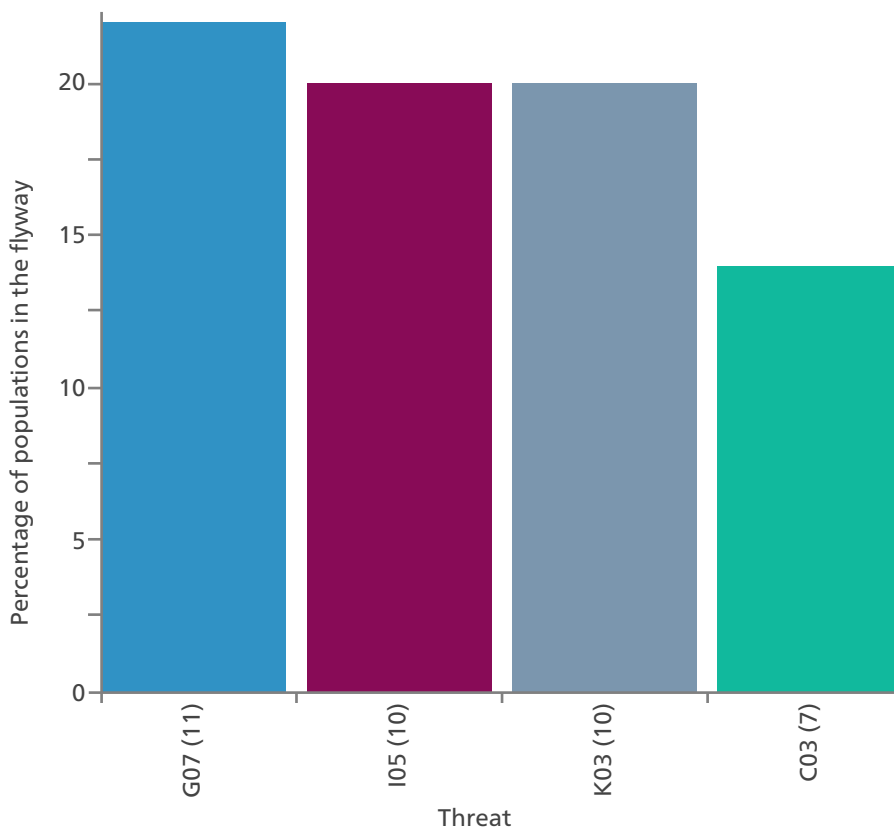


Figure 22: Threats affecting more than 10% of the populations in the Western Palearctic: Central and Southwest Asian Flyway.



Marabou Stork (*Leptoptilos crumenifer*)
© Szabolcs Nagy

Afrotropical flyways: Central and Western Flyway

This flyway includes 40 AEWA populations. There is only one threat, (G07) *Hunting*, in this flyway that affects more than 10% of the populations in the flyway. A total of 48 threat categories were identified for the AEWA populations within the flyway. However, only 32 of these categories were assessed as having a non-negligible impact on 24 populations. It remains unclear whether this situation is due to still relatively favourable conditions (in comparison to Europe) or if it indicates a gap in knowledge.

Afrotropical flyways: Eastern and Southern Flyway

This flyway includes 98 populations that breed in Eastern and Southern Africa. There are seven threats that affect more than 10% of the populations in the flyway (**Figure 23**).

Hunting (G07) is impacting 15 populations, constituting 15% of all populations within the flyway.

Other activities related to *extraction and cultivation of biological living resources* (G27) also warrant attention, with 14 affected populations representing 14% of the total populations in the flyway. This category reports trade in captive birds, egg collection, and their use in traditional medicine.

Sports, tourism, and leisure activities (F07) affect 13 populations (13%).

Other invasive alien species (I02) impact 12 populations, which makes up 12% of the populations within the flyway.

Problematic native species (I04) have been identified as a concern, impacting 11 populations, or 11% of the total populations in the flyway.

Intensive grazing or overgrazing by livestock (A09) has influenced 10 populations, representing 10% of all populations in the flyway.

Drainage for use as agricultural land (A31) has affected another 10 populations, which corresponds to 10% of the total populations in the flyway.

Afrotropical flyways: Sub-Saharan African Flyway

This flyway includes 35 AEWA populations. There are four threats in this flyway that affect more than 10% of the populations (**Figure 24**).

Both (A31) *drainage for agricultural land use* and (G07) *hunting* impact 10 AEWA populations, which account for 29% of all populations in the flyway.

Additionally, (A09) *intensive grazing or overgrazing by livestock*, along with (F26) *drainage, land reclamation, and the conversion of wetlands, marshes, and bogs to settlement or recreational areas*, each threatens four populations, representing 11%.

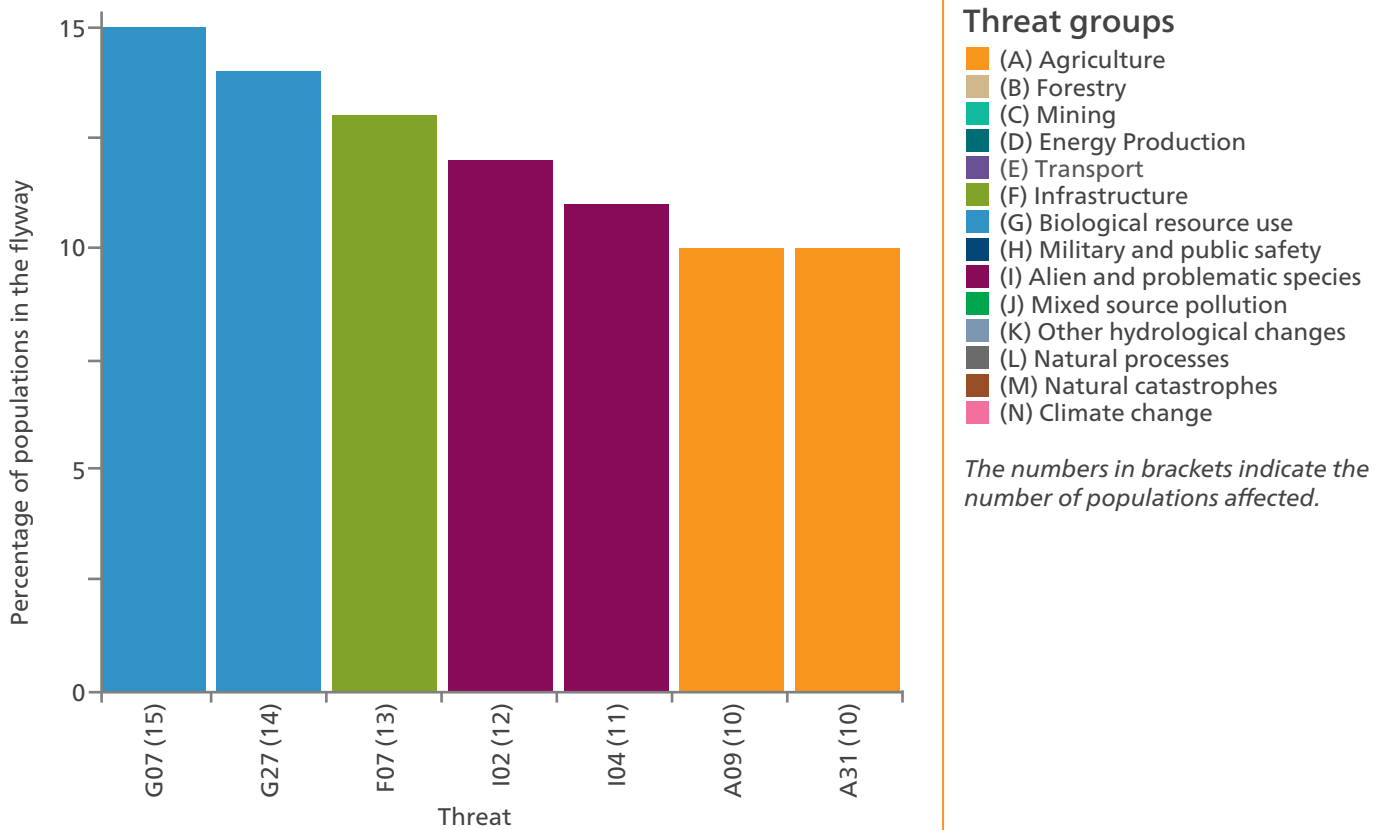


Figure 23: Threats affecting more than 10% of the populations in the Afrotopical: Eastern and Southern Flyway.

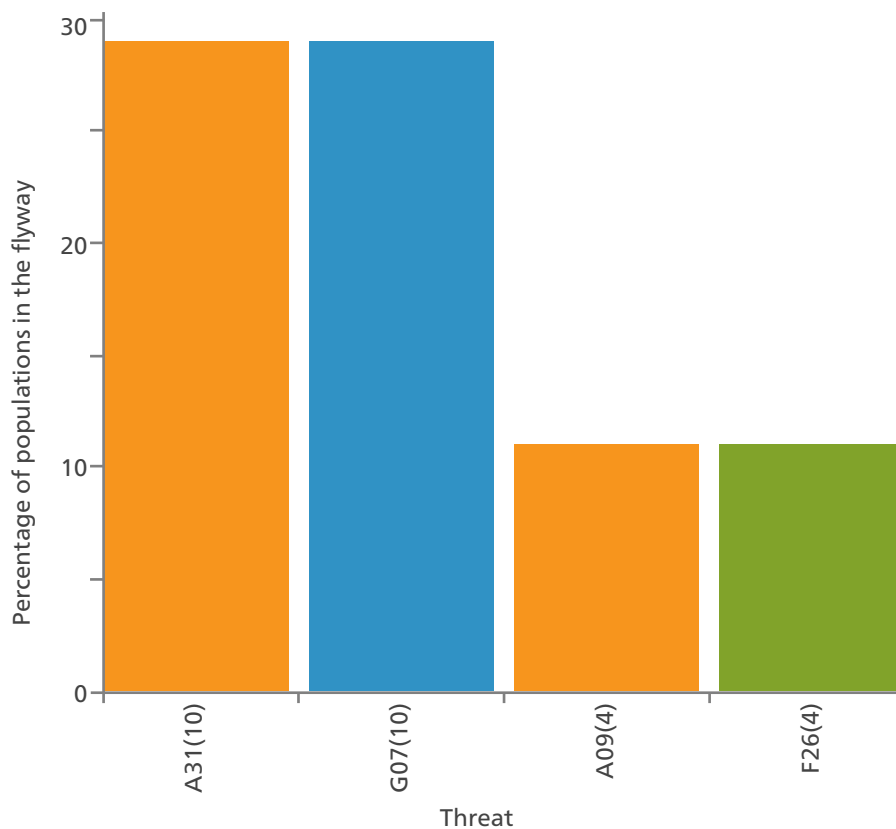


Figure 24: Threats affecting more than 10% of the populations in the Afrotopical: Sub-Saharan African Flyway.



AEWA has developed and adopted 28 International Single- or Multi-species Action Plans (ISAPs) covering some of the most threatened AEWA species and populations

PART 2: RESPONSES – COORDINATED CONSERVATION ACTIONS UNDER AEWA

AEWA SPECIES ACTION AND MANAGEMENT PLANS

KEY FINDINGS

- AEWA has developed and adopted 28 International Single- or Multi-species Action Plans (ISAPs) covering some of the most threatened AEWA species and populations, as well as three International Species Management Plans (ISMPs) to, amongst other objectives, control populations that cause significant damage to agriculture and effects on ecosystems due to increasing abundances. All five Critically Endangered (CR) and eight Endangered (EN) migratory waterbird species with the majority of their population in the Agreement Area are now covered by ISAPs. However, 11 of 19 Vulnerable (VU) AEWA species still do not have ISAPs. Furthermore, the development of ISAPs cannot keep pace with the increasing number of AEWA species being added to the threatened categories of the global IUCN Red List and thus becoming a priority for the development of AEWA ISAPs. Additionally, a significant backlog has accumulated in evaluating, revising, and updating existing plans.
- AEWA has established effective coordination mechanisms for implementing ISAPs through International Species Working and Expert Groups; however, six plans are not yet supported by such a group, and some of the existing groups are considerably more active than others.
- Recovering threatened species is a long-term process. Three plans have shown measurable conservation gains, such as stabilised or recovering populations. However, progress has been uneven, with 14 species' statuses deteriorating.
- AEWA has led the way in adaptive harvest management across Europe. The European Goose Management Platform includes representatives from all major stakeholder groups and bases management decisions on robust science.
- However, no ISMPs with recovery objectives have yet been developed for declining quarry populations, as is foreseen in Target 2.4 of the AEWA Strategic Plan for 2019-2027, despite the Technical Committee having identified priority populations for the development of such plans.

¹² Although AEWA's legal text doesn't explicitly mention multi-species plans, their development has been accepted by the MOP (*inter alia*, in the current AEWA Strategic Plan). A proposal was submitted to MOP9 to amend Paragraph 2.2.1 to reflect this practice.

According to Paragraph 2.2.1 of the AEWA Action Plan, Parties to AEWA shall cooperate with a view to developing and implementing international single- (or multi-¹²) **species action plans** for populations listed in Category 1 of Column A as a priority. Based on Paragraph 2.2.1, ISAPs should also be developed for populations listed in Categories 2 or 3 that are marked with asterisks. Furthermore, the existence of such plans is a requirement

for continuing to hunt populations marked with an asterisk or listed in Category 4 of Column A within the exception permitted by Paragraph 2.1.1.

According to Paragraph 4.3.4 of the AEWA Action Plan, Parties shall cooperate to develop single **species management plans** for populations that cause significant damage, especially to crops or fisheries, and the AEWA Secretariat shall coordinate the development and harmonisation of these plans. In practice, ISMPs are only established if requested by Parties.

International Species Action Plans (ISAPs)

ISAPs should generally be developed for AEWA populations listed in Appendix I of the Convention on Migratory Species (Category 1a of Column A of AEWA's Annex 3 Table 1), listed as threatened species on the IUCN Global Red List (Category 1b), or with populations smaller than 10,000 individuals (Category 1c). In total, 123 populations qualify for action planning because they are listed in Category 1 of Column A. Half of these (67) populations qualify solely due to their small population size. An additional four populations qualify because they are marked with an asterisk in AEWA's Table 1. A further 21 populations are listed in Category 4 of Column A (populations of Near Threatened species that do not meet the criteria for a higher Column A category). The AEWA Strategic Plan, under Target 1.2, prioritises populations for action planning if they are listed in Categories 1a or 1b of Column A or are marked with an asterisk.

Development of ISAPs

So far, AEWA has developed and adopted 28 ISAPs to coordinate species recovery, some of which have been revised once already. Three of these ISAPs were retired by MOP7 and MOP8, leaving 25 active ISAPs (**Table 2**). Two of these plans, those for the Corncrake and the Light-bellied Brent Goose, focused on species classified as Least Concern, while the Lesser White-fronted Goose is considered Vulnerable.

So far, AEWA has developed ISAPs for all Critically Endangered (CR) species (White-winged Flufftail, Sociable Lapwing, African Penguin) not already covered by CMS Memoranda of Understanding and action plans (Siberian Crane, Slender-billed Curlew). AEWA plans also cover most of the globally Endangered species except the Great Knot, which has only a marginal presence in the Agreement Area.

There is a larger gap in the case of the Vulnerable and Near Threatened species, where 11 of 19 Vulnerable and six of 17 Near Threatened species have no AEWA or any other international action plans (**Figure 25**) and three crane species (all Vulnerable) have plans adopted only by the International Crane Foundation (i.e., not by any inter-governmental fora). However, it should be noted that the development of an AEWA ISAP for a Near Threatened species not listed in Category 1 of Column A of Table 1 in AEWA's Annex 3 is only necessary if Contracting Parties wish to continue permitting its sustainable harvest.

Six Vulnerable species without an international action plan have been a global conservation concern for over 10 years. The Lesser White-fronted Goose and the Socotra Cormorant were added to the IUCN Red List in 1988. The limited number of AEWA Parties in the Middle East has previously hindered the development of an ISAP for the Socotra Cormorant. However, this has changed recently with Saudi Arabia's accession to AEWA. The Lesser White-fronted Goose had an AEWA ISAP, which was successfully implemented but was retired by MOP8. Four other species – the Common



Sociable Lapwing (*Vanellus gregarius*)
© Maxim Koshkin

Table 2: Status of AEWA International Single and Multi-species Action Plans.

Species/population name	IUCN Red List status	Adopted by	Status
Great Snipe (<i>Gallinago media</i>)	NT	MOP2 in 2002	Extended until 2028. Conservation Brief ¹³ compiled before MOP8.
Black-winged Pratincole (<i>Glareola nordmanni</i>)	NT	MOP2 in 2002	Extended until 2025 and request for revisions for MOP9, subject to the availability of a champion Range State or organisation, as well as adequate resources.
Corncrake (<i>Crex crex</i>)	LC	MOP3 in 2005	Retired by MOP8.
Ferruginous Duck (<i>Aythya nyroca</i>)	NT	MOP3 in 2005	Extended until 2028. Conservation Brief compiled before MOP8.
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) – East Canadian High Arctic population	LC	MOP3 in 2005	Retired by MOP7.
Lesser Flamingo (<i>Phoeniconaias minor</i>)	NT	MOP4 in 2008	Extended until 2028. Conservation Brief compiled before MOP8.
Eurasian Spoonbill (<i>Platalea leucorodia</i>)	LC	MOP4 in 2008	Extended until 2028.
Black-tailed Godwit (<i>Limosa limosa</i>)	NT	MOP4 in 2008	Extended until 2028.
Lesser White-fronted Goose (<i>Anser erythropus</i>)	VU	MOP4 in 2008	Retired by MOP8.
Maccoa Duck (<i>Oxyura maccoa</i>)	EN	MOP4 in 2008	Extended until 2028. Conservation Brief compiled before MOP8.
White-winged Flufftail (<i>Sarothrura ayresi</i>)	CR	MOP4 in 2008	Extended until 2028.
Madagascar Pond Heron (<i>Ardeola idae</i>)	EN	MOP4 in 2008	Extended until 2028. Conservation Brief compiled before MOP8.
Slaty Egret (<i>Egretta vinaceigula</i>)	VU	MOP5 in 2012	Extended until 2032.
Bewick's Swan (<i>Cygnus columbianus bewickii</i>) – Northwest European population	LC	MOP5 in 2012	Extended until 2025.
Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	LC	MOP5 in 2012	Extended until 2032. Conservation Brief compiled before MOP9.
Red-breasted Goose (<i>Branta ruficollis</i>)	VU	MOP5 in 2012	Extended until 2032.
Sociable Lapwing (<i>Vanellus gregarius</i>) (Revision of the 2002 ISAP)	CR	MOP5 in 2012	Extended until 2032.
Shoebill (<i>Balaeniceps rex</i>)	VU	MOP6 in 2015	
Grey Crowned Crane (<i>Balearica regulorum</i>)	EN	MOP6 in 2015	
Taiga Bean Goose (<i>Anser f. fabalis</i>)	LC	MOP6 in 2015	
Long-tailed Duck (<i>Clangula hyemalis</i>)	VU	MOP6 in 2015	
Eurasian Curlew (<i>Numenius a. arquata</i> , <i>N. a. orientalis</i> and <i>N. a. suschkini</i>)	NT	MOP6 in 2015	

Table 2 continued...

Species/population name	IUCN Red List status	Adopted by	Status
Northern Bald Ibis (<i>Geronticus eremita</i>) (revision of the 2005 ISAP)	EN	MOP6 in 2015	
Benguela Upwelling System Coastal Seabirds Multi-Species Action Plan for Bank Cormorant (<i>Phalacrocorax neglectus</i>), African Penguin (<i>Spheniscus demersus</i>), Cape Gannet (<i>Morus capensis</i>), Cape Cormorant (<i>Phalacrocorax capensis</i>), Crowned Cormorant (<i>Microcarbo coronatus</i>), Damara Tern (<i>Sternula balaenarum</i>), Caspian Tern (<i>Hydroprogne caspia</i>), Greater Crested Tern (<i>Thalasseus bergii bergii</i>), African Oystercatcher (<i>Haematopus moquini</i>)	CR, EN, LC	MOP6 in 2015	
Dalmatian Pelican (<i>Pelecanus crispus</i>)	NT	MOP7 in 2018	
Velvet Scoter (<i>Melanitta fusca</i>) – W Siberia & N Europe/NW Europe population	VU	MOP7 in 2018	
White-headed Duck (<i>Oxyura leucocephala</i>) (revision of the 2005 ISAP)	EN	MOP7 in 2018	
Common Eider (<i>Somateria mollissima</i>) – Baltic, North & Celtic Seas; Norway & Russia; Svalbard & Franz Joseph (bre) populations	NT	MOP8 in 2022	

Pochard, Horned Grebe, Curlew Sandpiper, and Atlantic Puffin – were first categorised as Vulnerable in 2015. In 2024, two more species, the Grey Plover and the Broad-billed Sandpiper, were listed as Vulnerable.

Among the Near Threatened species, the Northern Lapwing and the Eurasian Oystercatcher are listed in Part B of Annex II to the EU Birds Directive. They are subject to an EU multispecies action plan focused on conserving their breeding habitats. However, the plan does not include an adaptive harvest management component and does not meet the requirements for exceptions to continue hunting under the provisions of Paragraph 2.1.1. of the AEWA Action Plan.

Of the six Near Threatened species without an international action plan, the Madagascar Pratincole has been a species of global conservation concern since 2004; the Yellow-billed Loon since 2010; the Bar-tailed Godwit and the Red Knot since 2015; and the Ruddy Turnstone and Dunlin since 2024. Among these, the Bar-tailed Godwit and the Red Knot are listed as huntable species under the EU Birds Directive.

Four AEWA single species action plans target Least Concern species: Eurasian Spoonbill, Bewick's Swan, Greenland White-fronted Goose, and Taiga Bean Goose. Several populations of Eurasian Spoonbill are listed in Column A, category 1c of Table 1 in AEWA's Annex 3. The Greenland White-fronted Goose and one population of Taiga Bean Goose are marked with asterisks in AEWA's Table 1, signifying that their sustainable harvest can only continue within the framework of an ISAP. For the Taiga Bean Goose, AEWA has built on its experience with adaptive harvest management through the Svalbard Pink-footed Goose ISMP process, successfully pioneering its application in the context of population recovery within the Agreement Area. Additionally, the Benguela Upwelling System Coastal Seabirds Multi-Species Action Plan includes several Least Concern species such as the Caspian, Greater Crested, and Damara Terns, Crowned Cormorant, and African Oystercatcher. The last three species were listed as Near Threatened when the ISAP was developed.

13 Since 2018, the AEWA MOP has requested the Technical Committee to facilitate the production of conservation briefs for several ISAPs whose lifespans have been extended but which lack international coordination mechanisms. The purpose of these briefs is to highlight any new scientific information and/or threats, to boost implementation and re-engage relevant Range States. Although the MOP does not formally adopt these briefs, it has encouraged Parties, and invited non-Party Range States, to take them into account when implementing the associated ISAP. (See AEWA Resolutions 7.5 and 8.4.).

Plan by

- None
- Conservation of Arctic Flora and Fauna (CAFF)
- Convention on the Conservation of Migratory Species of Wild Animals (CMS)
- European Union (EU)
- AEWA

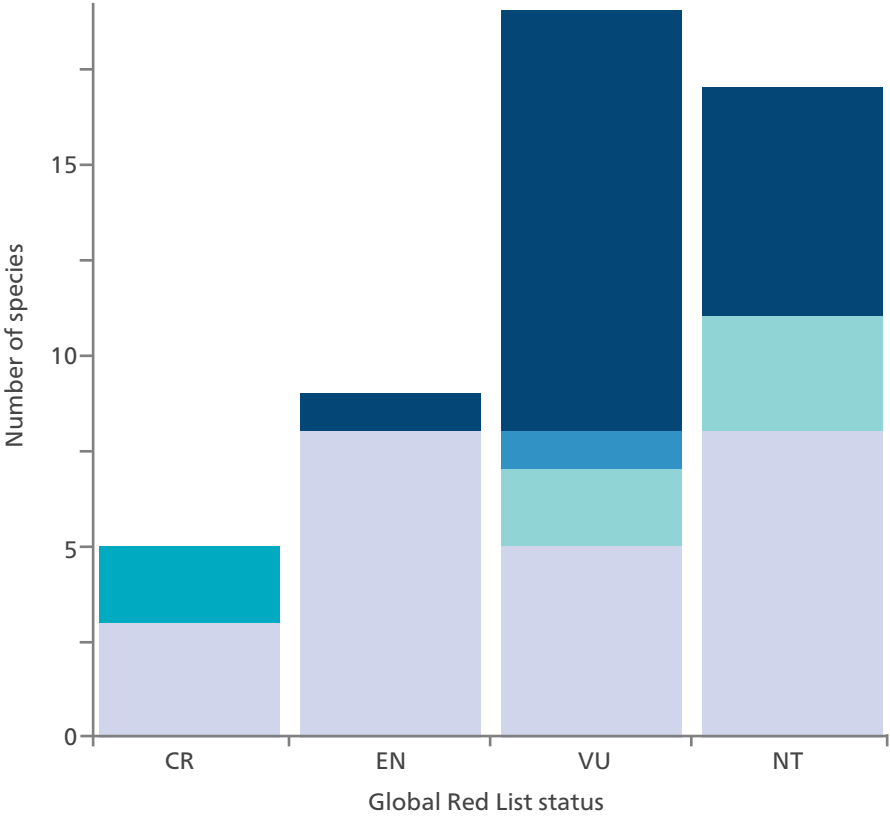


Figure 25: Coverage of species of global conservation concern listed under AEWA by international action plans that have been endorsed by inter-governmental fora.

Key

- International Species Action Plan
- Species of Global Conservation Concern

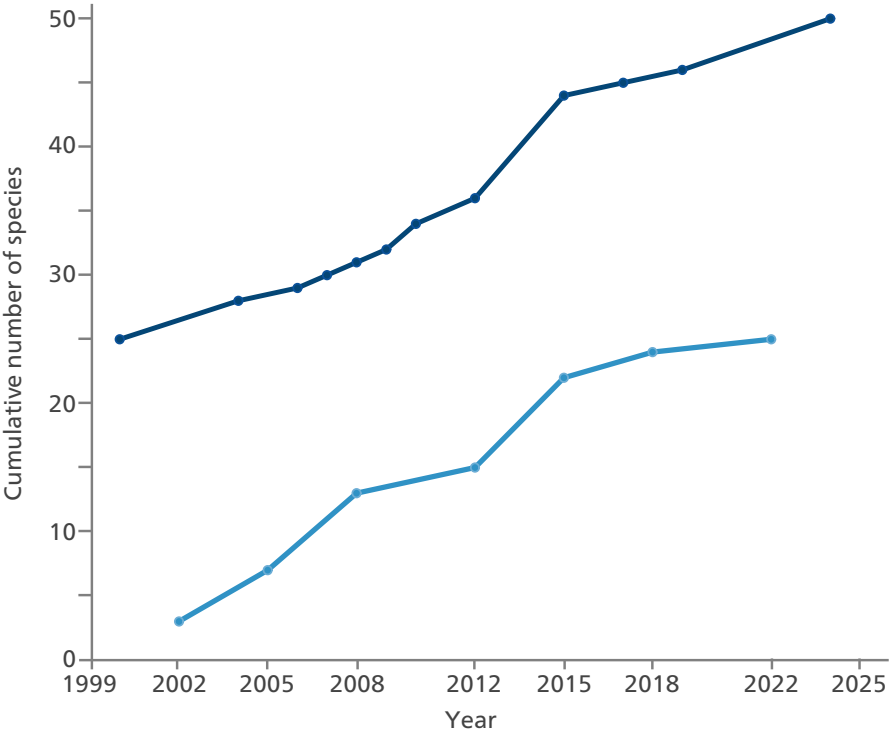


Figure 26: Evolution of the number of AEWA-listed species of global conservation concern (i.e. listed as Near Threatened, Vulnerable, Endangered or Critically Endangered) as per the IUCN Global Red List, and the number of these species covered by AEWA International Species Action Plans.

AEWA gradually narrowed the gap between the number of species of global conservation concern (those listed as Near Threatened, Vulnerable, Endangered or Critically Endangered on the IUCN Global Red List) and those with an AEWA ISAP from MOP1 until 2015. Starting modestly with the adoption of three ISAPs at MOP2 in 2002, the number of ISAPs adopted at each subsequent MOP from MOP3 to MOP6 increased to between five and seven. This pace of developing new plans and implementing the multi-species action plan approach helped boost the proportion of Globally Threatened and Near Threatened species with AEWA ISAPs. However, the rate of adopting ISAPs has slowed lately, with only three plans at MOP7 in 2018 (one of which was a revision) and just one at MOP8 in 2022 (Figure 26). No new ISAPs were compiled for submission to MOP9 in 2025.

AEWA International Species Working and Expert Groups

AEWA is unique among biodiversity treaties because it provides structures to coordinate the implementation of plans through International Species Working Groups (ISWGs) addressing species of global conservation concern (and those subject to adaptive harvest management – see next section). It also promotes the formation of International Species Expert Groups (ISEGs) for other ISAPs. A key difference between ISWGs and ISEGs is that the former are formally convened by the AEWA Secretariat (usually with a coordinating organisation) and include Range States represented by government and expert delegates. Conversely, ISEGs are convened externally (although they have an affiliation with AEWA) and primarily consist of experts. Many ISWGs have developed implementation plans that are updated periodically. These mechanisms were introduced following MOP Resolution 3.12 (2005), which directed the AEWA Secretariat to *"establish mechanisms, resource permitting, to coordinate the international implementation of existing and future Single Species Action Plans."* Generic terms of reference were initially approved by the AEWA Technical Committee for ISWGs in 2009 and for ISEGs in 2012, and both were updated in 2025.

AEWA coordination mechanisms have been established for 19 of AEWA's current 25 ISAPs (76%), although some of these are not currently active (Annex 7). The ISAPs for which no AEWA coordination mechanism has been established include those for the Black-winged Pratincole (2002, NT), the Great Snipe (2002, NT), the Ferruginous Duck (2005, NT), the Maccoa Duck (2008, EN), the Greenland White-fronted Goose (2012, LC), and the Shoebill (2015, VU). Shorter Conservation Briefs have been developed for all of these species, except the Black-winged Pratincole and the Shoebill. These Briefs are intended to highlight new scientific information and/or threats, boost implementation, and re-engage Range States. However, they do not have a status comparable to ISAPs and most of them have not succeeded in catalysing the establishment of coordination mechanisms (the exception being the Conservation Brief for the Greenland White-fronted Goose, whose Range States have initiated discussions towards the establishment of such coordination).

In practice, there are various coordination arrangements. Most of the ISWGs cover only a single species or population. In some cases, the AEWA groups organise back-to-back (e.g., the Red-breasted and Lesser White-fronted Geese¹⁴) or joint meetings (e.g., the Black-tailed Godwit and Eurasian Curlew). At the far end of the spectrum are the European Seaduck ISWG, which covers the Long-tailed Duck, the Velvet Scoter, and the Common Eider as one coordination body, and the European Goose Management Platform (EGMP), which deals not only with the Taiga Bean Goose ISAP but also with ISMPs for the Svalbard population of Pink-footed Goose, Barnacle Goose, and Greylag Goose. The EGMP specialises in international



Black-winged Pratincole (*Glareola nordmanni*) – juvenile © Sergey Dereliev

¹⁴ Before the retirement of the ISAP for the Lesser White-fronted Goose.



Black-tailed Godwit (*Limosa limosa*)
© Hans Overduin

coordination of adaptive harvest management in addition to coordinating other conservation actions. Such joint coordination of implementation offers multiple benefits, including increased efficiency (coordination, travel, time), better policy integration, and enhanced learning.

Some AEWA groups are very active and work systematically. The EGMP has already held ten annual meetings and established various task forces that meet several times per year between sessions. This frequency aligns with the decide-implement-assess cycle of the adaptive harvest management process, which requires regular adjustment of harvest levels. The Black-tailed Godwit ISWG has also held ten meetings so far, reflecting the numerous breeding and non-breeding range states (with separate meetings often held for different parts of this species' range). The Eurasian Curlew also has many range states, but this plan was adopted seven years after the Black-tailed Godwit plan. However, six groups have only had one meeting, and four have not met yet. The latter include the ISWGs for the Lesser Flamingo (2008, NT), the Madagascar Pond Heron (2008, EN), the Dalmatian Pelican (2018, NT), and the Common Eider (2022, NT).

In 2021, the AEWA Secretariat paused its arrangements with coordinating organisations of eight groups due to insufficient staffing. However, the ISWGs for the Black-tailed Godwit and Eurasian Curlew and the two ISEGs for the Bewick's Swan and Eurasian Spoonbill remained active. Following staff recruitment in 2024, the AEWA Secretariat began taking steps to formally re-establish coordination arrangements where these had been paused. Some of these arrangements are still being formalised so that the associated ISWGs can be reactivated. One group, for the Lesser Flamingo, currently lacks a coordinator after its coordinating organisation decided to step down due to capacity constraints.

International and national implementation of ISAPs

According to Paragraph 2.2.2 of the AEWA Action Plan, Parties are required to prepare and implement national action plans for each population listed in Column A of AEWA's Annex 3 Table 1, including those covered by ISAPs. Annex 8 provides an overview of the international and national implementation of the AEWA ISAPs, based on national reports on AEWA's implementation for the period 2018-2020 submitted to MOP8 (UNEP-WCMC 2021). Additional information was added in brackets, based on information available to the Secretariat or found otherwise. It is clear that effective international coordination considerably enhances national implementation efforts. ISAPs with strong coordination mechanisms are better implemented than those without such arrangements.

In the Palearctic region, the EU LIFE programme has played a vital role in supporting the implementation of ISAPs for several key species, including the Lesser White-fronted Goose, Red-breasted Goose, Corncrake, Dalmatian Pelican, Black-tailed Godwit, and Eurasian Curlew. However, similar funding opportunities are lacking in the Central and Southwest Asian and Afrotropical regions, where implementation depends more on a mix of charities, corporate donors accessed through international organisations (e.g., BirdLife International, International Crane Foundation), and voluntary contributions from AEWA Parties via the AEWA Secretariat, including through the Migratory Species Champion Programme¹⁵.

Progress towards the ISAPs' goals and purposes

Progress towards the goals and purposes of the ISAPs was evaluated using the scoring methodology developed by the AEWA Secretariat and approved

¹⁵ <https://www.migratoryspecies.org/en/champion/initiatives/avian-species/waterbirds>

by the Technical Committee in September 2023 (AEWA Secretariat 2023). This guidance describes methods for measuring progress based on (1) the distance to target population sizes, (2) elements of favourable conservation status, (3) criteria of Red List assessments, and (4) population trend, depending on the formulation of the goal and the purpose.

Goals: By 2025, only one of the currently valid ISAPs (Taiga Bean Goose¹⁶) has achieved its goal, while a further two (Northern Bald Ibis and White-headed Duck) have progressed towards their goals. In the case of eight, there was no progress towards the goal, while in 14 cases the status of the taxa had deteriorated (Annex 9).

Purpose: By 2025, two action plans have achieved their purpose (Taiga Bean Goose and Northern Bald Ibis) and one has progressed towards it (White-headed Duck). In the case of six, there was no progress towards the purpose, while in 14 cases the status of the taxa had deteriorated (Annex 10).

Adoption, retirement, revision, update and extension of ISAPs

MOP8 extended the validity of the ISAP for the Black-winged Pratincole (NT) until 2025 *"to enable the revision of the Plan subject to the availability of a champion Range State or organisation as well as adequate resources"*. It additionally extended the validity of the ISAP for the Bewick's Swan (LC) to allow for assessment of implementation by the Bewick's Swan ISEG.

In 2025, seven further AEWA ISAPs are due to expire: Taiga Bean Goose (LC), Long-tailed Duck (VU), Grey Crowned Crane (EN), Northern Bald Ibis (EN), Shoebill (VU), Eurasian Curlew (NT), and the Benguela Upwelling System Coastal Seabirds (CR, EN, LC). Of these, only the revision of the Taiga Bean Goose ISAP could be advanced for submission to MOP9. Additionally, the ISAPs for the Dalmatian Pelican (NT) and the White-headed Duck (EN) are set to expire in 2027.

MOP7 has already extended the validity of the ISAPs for the Great Snipe (NT), the Ferruginous Duck (NT), the Lesser Flamingo (NT), the Eurasian Spoonbill (LC), the Black-tailed Godwit (NT), the Maccua Duck (EN), the White-winged Flufftail (CR) and the Madagascar Pond Heron (EN) until 2028.

In 2028, the validity of the ISAP for the Velvet Scoter (VU) will also expire.

Taking into consideration the expiry of existing AEWA ISAPs, recommendations are made in **Table 3** for their evaluation and retirement by MOP10.

During its 18th meeting in 2023 (TC18), the AEWA Technical Committee identified priority species for developing new AEWA ISAPs in the triennium 2023-2025¹⁷. This includes three globally threatened species: the Common Pochard, Black-legged Kittiwake, and Atlantic Puffin. Additionally, four globally Near Threatened species were identified: the Eurasian Oystercatcher, Northern Lapwing, Red Knot, and Bar-tailed Godwit. The Iceland/UK & Ireland population of the Greylag Goose has also been listed as **priority 1a** for action planning like the above-mentioned species. These species and populations have Party reservations entered for their uplisting to Column A, requiring urgent attention to ensure that these reservations do not undermine their conservation.

Furthermore, TC18 identified several other species as **priority 1b** for action planning¹⁷. This group includes the globally threatened Wattled Crane, Blue

“ ”

By 2025, only one of the currently valid ISAPs (Taiga Bean Goose) has achieved its goal, while a further two (Northern Bald Ibis and White-headed Duck) have progressed towards their goals. In the case of eight, there was no progress towards the goal, while in 14 cases the status of the taxa had deteriorated

¹⁶ Of the four Taiga Bean Goose populations addressed in the ISAP, the Central population has successfully reached and even surpassed its recovery goal. However, the Western, Eastern 1, and Eastern 2 populations have not met their goals. These populations are much smaller, which makes their impact on the overall assessment less significant.

¹⁷ <https://www.unep-aewa.org/en/document/draft-priority-list-populations-action-and-management-planning-2023-2025-0>

“ ”
**AEWA has
pioneered
adaptive harvest
management in the
Agreement Area**

Crane, Black Crowned Crane, Socotra Cormorant, and Horned Grebe, along with the Near Threatened Curlew Sandpiper and Madagascar Pratincole.

No new ISAPs have been developed in the triennium 2023-2025, thus none of the priorities identified by the Technical Committee in 2023 have been addressed with concerted action.

In 2024, the Grey Plover (VU), Broad-billed Sandpiper (VU) and Curlew Sandpiper (VU) were listed as new globally threatened species, while the Ruddy Turnstone and Dunlin were classified as Near Threatened species.

Excluding the Taiga Bean Goose ISAP (a revised version of which was prepared for submission to MOP9), a total of 19 ISAPs or their extensions will expire by 2028 (**Table 3**). Additionally, the 18th meeting of the AEWA Technical Committee prioritised nine globally threatened and five Near Threatened species that currently lack AEWA ISAPs. With the five species uplisted to Vulnerable and Near Threatened categories in 2004, the number of priority species increased to 12 globally threatened and seven Near Threatened. This underscores an urgent need to prioritise the evaluation, update, revision and extension of current action plans and to create new ones. The existing level of funding and capacity considerably restricts AEWA's ability to keep up with the increasing number of species facing global conservation challenges and therefore limits the progress towards achieving its goal and objectives as well as its opportunities to contribute to Target 4 of the Global Biodiversity Framework.



International Species Management Plans (ISMPs)

Development of ISMPs

So far, AEWA has developed three ISMPs to coordinate crop damage control efforts and effects on ecosystems due to increasing abundances, in addition to other objectives. The first AEWA ISMP was developed for the Svalbard population of the Pink-footed Goose and adopted by MOP5 in 2012. With this plan, AEWA has successfully piloted adaptive harvest management in the Agreement Area. In 2018, ISMPs were also produced for the NW/SW European population of the Greylag Goose and for the Barnacle Goose, which expanded the application of adaptive harvest management under AEWA. Contrary to the action plans, management plans with damage control objectives are only created at the Parties' request, and the AEWA Technical Committee does not produce a priority list of populations for management planning with damage control objectives.

Taiga Bean Goose (*Anser fabalis fabalis*)
© Magnus Elander

On the other hand, Target 2.4 of the AEWA Strategic Plan for 2019-2027 foresees the development of ISMPs for all prioritised declining quarry populations. The Technical Committee prioritises populations in long-term decline listed in Category 2c or in rapid short-term decline listed in Category 2e of Column B of Table 1 of AEWA's Annex 3 for management planning with recovery objectives¹⁷. However, no such plans have been developed so far.

International and national implementation of ISMPs

The implementation of all three current AEWA ISMPs is coordinated by the EGMP. The EGMP was set up in 2016 in response to AEWA Resolution 6.4 on the Conservation and Sustainable Use of Migratory Waterbirds.

The EGMP is supported by the AEWA Secretariat and the EGMP Data Centre, which is located at Aarhus University and backed by the International Modelling Consortium. The EGMP features task forces dedicated to each population with an ISMP, and to the Taiga Bean Goose ISAP. These are complemented by two cross-cutting task forces focusing on agriculture and aviation safety.

The European Goose Management International Working Group (EGM IWG) serves as the primary decision-making body of the EGMP. It convenes annually, having met 10 times so far. The task forces also gather virtually several times throughout the year and in hybrid format during a Task Force Day immediately before each annual EGM IWG meeting.

Progress towards the ISMPs' goals and objectives

Like the ISAPs, the AEWA management planning process has also evolved. The Pink-footed Goose plan did not define the Favourable Conservation Status of the population through measurable Favourable Reference Values. It set a series of objectives, and the evaluation of the plan's progress and implementation has concluded that these have been achieved: (1) the range has been maintained and even expanded, (2) the agricultural conflicts have subsided, (3) the population has stabilised (above the population target), primarily as a result of increased harvest levels in line with the implemented adaptive harvest management framework, (4) the extent and intensity of goose grazing effects on tundra vegetation on Svalbard have slowed down, and (5) crippling due to hunting has decreased despite the increasing harvest rate, which is ascribed to a change in hunting practices, awareness raising, and practical courses in effective goose management shooting (Madsen *et al.* 2024).

The Adaptive Flyway Management Programmes for the Barnacle Goose and Greylag Goose are scheduled for evaluation and (possible) revision in 2026. As a result, the EGM IWG and the EGMP task forces have not yet conducted a comprehensive assessment. However, reports on national implementation are periodically submitted to the AEWA Secretariat, the most recent of which were received in 2025¹⁸. Both ISMPs aim to maintain the target populations in a favourable conservation status while balancing ecological, economic, and recreational interests.

In the case of the Barnacle Goose, the total Russian population is estimated at 1.6 million individuals, well above the Favourable Reference Population (FRP) of 380,000 wintering individuals. The East Greenland/United Kingdom & Ireland population has declined to 62,159 individuals in 2023 (Mitchell and Leitch 2024) and 62,438 individuals in 2025 (Sørensen *et al.* 2025), close to the FRP of 54,000 individuals. The Svalbard breeding



Experts examine the impact of Pink-footed Geese on tundra vegetation on Svalbard
© Szabolcs Nagy

¹⁸ https://egmp.aewa.info/sites/default/files/meeting_files/documents/AEWA_EGM_IWG_10_5.pdf

19 https://egmp.aewa.info/sites/default/files/meeting_files/documents/AEWA_EGM_IWG_10_21.pdf

population has also declined to 34,000-40,000 in recent years, but remains well above the FRP of 25,000 individuals. The success of the management planning process is that it recognised in a timely manner that the Greenland population is approaching the FRP, which triggered an adaptive response in reducing legal hunting in Iceland and derogation shooting in the UK, although Iceland was ultimately unable to achieve this in practice in the first harvest season with restrictions (2024-2025)¹⁹.

In the case of the Greylag Goose, the winter abundance is 823,693 individuals, significantly above the FRP of 370,000 individuals. The breeding population in Management Unit 1 (MU1) stands at 132,146 pairs, well above the target of 70,000 breeding pairs. In MU2, the population size reaches 182,758 pairs, also considerably higher than the target of 80,000 breeding pairs (Sørensen *et al.* 2025). Although the population growth has slowed down, the population has not yet declined to the target level.

Adoption, revision, retirement, update and extension of ISMPs

The draft revised ISMP for the Svalbard population of the Pink-footed Goose was submitted to MOP9 for adoption.

MOP7 adopted the Barnacle and the Greylag Goose ISMPs with a lifespan of 10 years, which will expire in 2028. However, based on the ISMPs, the EGM IWG has adopted Adaptive Flyway Management Plans (AFMPs) for both species for a six-year period, foreseeing two cycles of AFMPs before revising the ISMPs. Therefore, it is recommended that MOP9 extends the validity of the ISMPs for the Barnacle Goose and the NW/SW European population of the Greylag Goose until 2031, taking into account the MOP cycle. This would also be consistent with the current format and guidelines for AEWA ISMPs, which anticipate that these plans will be valid for 12 years (Table 3).

Barnacle Geese (*Branta leucopsis*) in flight
© Sergey Dereliev



Table 3: Recommendations for the retirement, revision, update or extension of AEWA ISAPs and ISMPs expiring by MOP10.

Species	IUCN Red List status	Expiring in	Recommendation
Bewick's Swan	LC	2025	Evaluate by 2028. Extend until 2028.
Eurasian Curlew	NT	2025	Evaluate by 2028. Extend until 2028.
Shoebill	VU	2025	Evaluate by 2034. Extend until 2037.
Grey Crowned Crane	EN	2025	Evaluate by 2034. Extend until 2037.
Long-tailed Duck	VU	2025	Evaluate by 2031. Extend until 2034.
Benguela Upwelling System Coastal Seabirds	CR, EN, LC	2025	Evaluate by 2034. Extend until 2037.
Black-winged Pratincole	NT	2025	Extend the validity until 2028. Retire the plan in 2028 unless confirmed to be a priority by Range States and a Range State or organisation champions developing and implementing a revised plan.
Northern Bald Ibis	EN	2025	Evaluate by 2028. Extend until 2028.
Dalmatian Pelican	NT	2027	Evaluate by 2028. Extend until 2028.
White-headed Duck	EN	2027	Evaluate by 2028. Extend until 2028.
Barnacle Goose	LC	2028	Extend until 2031.
Greylag Goose	LC	2028	Extend until 2031.
Great Snipe	NT	2028	Retire the plan in 2028 unless confirmed to be a priority by Range States and a Range State or organisation champions developing and implementing a revised plan.
Ferruginous Duck	NT	2028	Evaluate by 2028.
Lesser Flamingo	NT	2028	Retire the plan in 2028 unless confirmed to be a priority by Range States and a Range State or organisation champions developing and implementing a revised plan.
Eurasian Spoonbill	LC	2028	Evaluate by 2028.
Black-tailed Godwit	NT	2028	Evaluate by 2028.
Maccoa Duck	EN	2028	Evaluate by 2028.
White-winged Flufftail	CR	2028	Evaluate by 2028.
Madagascar Pond Heron	EN	2028	Evaluate by 2028.
Velvet Scoter	VU	2028	Evaluate by 2031. Extend until 2034.



With only 40 countries ... having submitted to date their inventories of internationally and nationally important sites for AEWA waterbird populations, the AEWA Flyway Site Network remains incomplete

AEWA FLYWAY SITE NETWORK

KEY FINDINGS

- With only 40 countries, of which 34 are Contracting Parties (40% of the AEWA Parties), having submitted to date their inventories of internationally and nationally important sites for AEWA waterbird populations, the AEWA Flyway Site Network remains incomplete although it should have been established by the 8th Session of the Meeting of the Parties (MOP8) as per the AEWA Strategic Plan 2019-2027.
- Sites in the submitted inventories support 234 out of the 255 AEWA species (92%). However, the incompleteness of the AEWA Flyway Site Network limits the ability to fully assess the overall comprehensiveness and coherence of the site network for each AEWA population. The EU Natura 2000 network provides fairly comprehensive protection for waterbird populations; however, a similar level of protection is lacking outside the EU.

One of the primary conservation measures required by AEWA is that Parties identify, protect, manage, rehabilitate, and restore sites and habitats for migratory waterbirds (Article III.2c). The AEWA Action Plan, through Paragraph 7.4, additionally requires the Secretariat, in coordination with the Technical Committee and the Parties, to produce regular international reviews of the network of sites used by AEWA populations, along with their protection status and the management measures implemented.

Progress towards establishing the AEWA Flyway Site Network

Objective 3 of the AEWA Strategic Plan for 2019-2027 aims to establish and maintain a coherent and comprehensive flyway network of protected areas and other sites, managed to preserve, and where necessary restore, their national and international significance for migratory waterbird populations (AEWA Flyway Site Network). As part of this process, the Contracting Parties agreed to review and confirm by MOP8 (2022) the inventory of all nationally and internationally important sites within their jurisdictions. As per Paragraph 3.1.2 of the AEWA Action Plan, Parties shall identify all sites of international or national importance for populations listed in AEWA's Table 1.

By July 2025, 40 countries, including 34 AEWA Contracting Parties (40% of all Parties) and six non-Party Range States (17% of all remaining nPRSs), had submitted their AEWA Flyway Site Network inventories to the AEWA Secretariat. These countries have collectively identified 1,621 sites for the waterbird populations listed in AEWA's Table 1. On average, 41 sites have been identified per country (**Figure 27**). France submitted the inventory with the largest number of sites (269), followed by the UK (199 sites) and Romania (133 sites).

Most countries that submitted sites to the AEWA Flyway Site Network are in Europe, but significant gaps remain within Europe, including key breeding, staging, and wintering countries such as Russia, Finland, Norway, Poland, Lithuania, Germany, Denmark, the Netherlands, Ireland, Spain, Portugal, Bulgaria, Greece and Türkiye. Twelve African countries have submitted their national inventories of nationally and internationally important sites. Only one African country, Angola, has submitted more

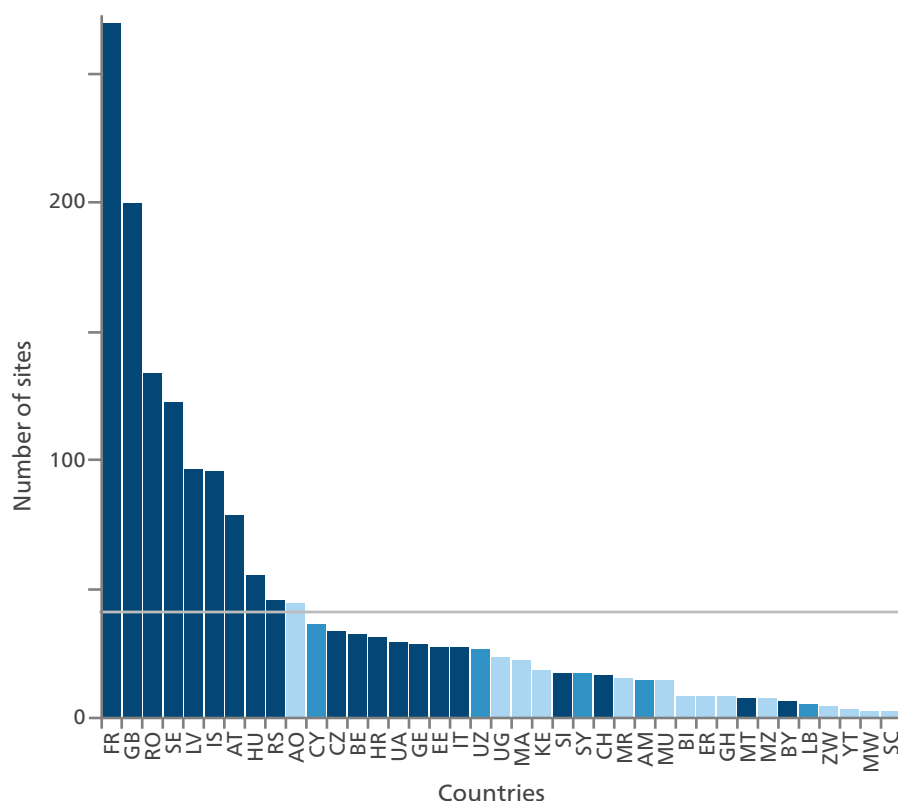


Figure 27: Number of sites in the submitted national inventories of nationally and internationally important sites by country. The grey horizontal line shows the average number of sites per country.

sites than the average. This is notable, as the country is not yet a Party to AEWA. Northern and Central Africa (including the Sahelian zone) remain particularly underrepresented (**Figure 28**).

Data sources of site inventories

To assist in the confirmation of known sites of national or international importance, as required by Target 3.1 of the AEWA Strategic Plan for 2019-2027, in 2020 the AEWA Secretariat provided an extract for each country from the EU Natura 2000 site database²⁰, the Ramsar Convention's Ramsar Sites Information Service²¹, BirdLife International's Important Bird and Biodiversity Areas (IBAs)²², and the Critical Site Network (CSN) Tool²³. More than half (56%) of the populations-at-site records in the inventories submitted by the Range States are derived from the Natura 2000 site database, 5% from IBAs, 2% from the CSN Tool and only 1% from Ramsar sites. A small number of sites (<1%) were also nominated based on the Emerald Network²⁴ data. Notably, 17% of the records consist of updates to existing Natura 2000, IBA, or CSN data, while another 12% reflect new information for existing and newly identified sites (**Figure 29**). The fact that new or updated data accounts for over a quarter of all records demonstrates that some countries have made significant efforts to provide current information on the AEWA Flyway Network sites.

Coverage of AEWA species and populations

The available site inventories include at least one site for 234 (92%) of the 255 AEWA species. However, population-level data can only be analysed



Mangrove restoration, Tanzania
© Wetlands International

Regions

- Africa
- Asia
- Europe

²⁰ https://environment.ec.europa.eu/topics/nature-and-biodiversity/natura-2000_en

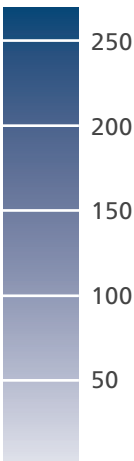
²¹ <https://rsis.ramsar.org/>

²² <https://datazone.birdlife.org/about-our-science/ibas>

²³ <https://criticalsites.wetlands.org/en>

²⁴ The Emerald Network is an ecological network set up under the Bern Convention on the Conservation of European Wildlife and Natural Habitats. For further details see: <https://www.coe.int/en/web/bern-convention/emerald-network>

Number of sites



AEWA Contracting Parties are indicated with diagonal stripes.

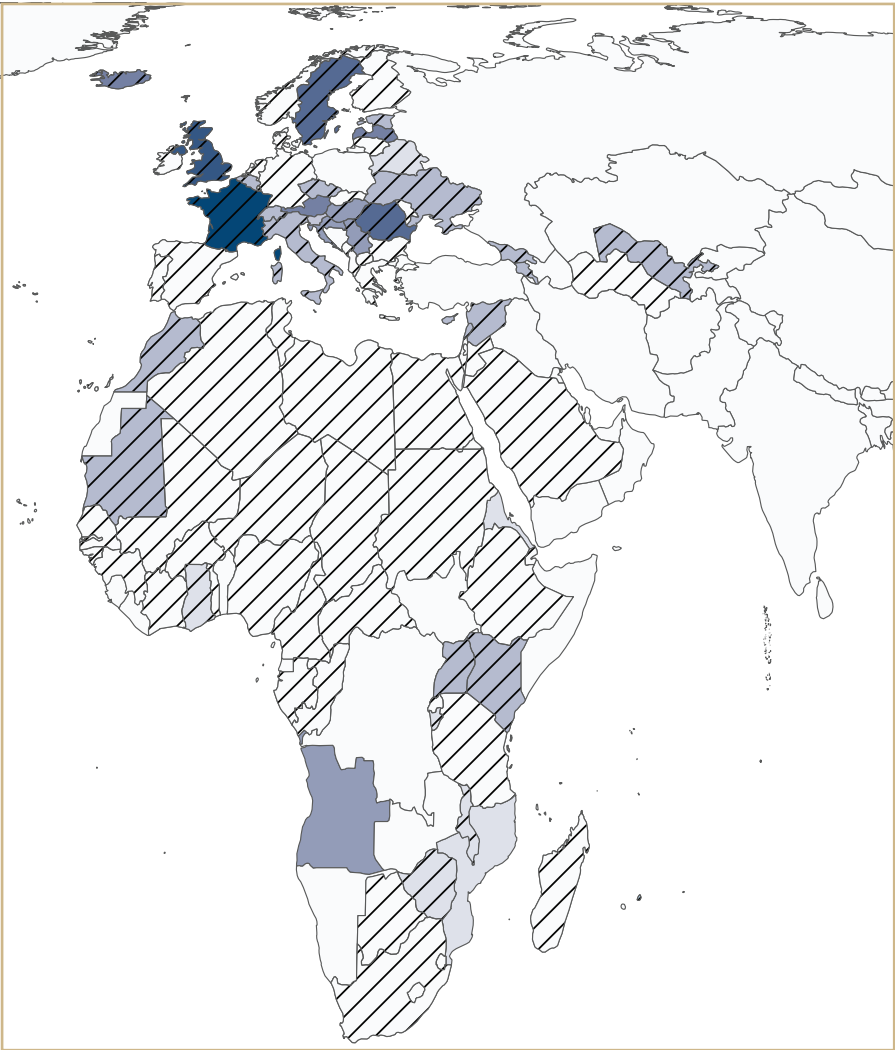


Figure 28: Map of countries that submitted their inventories of nationally and internationally important sites to the AEWA Flyway Site Network, with the number of sites per country included in the inventories.

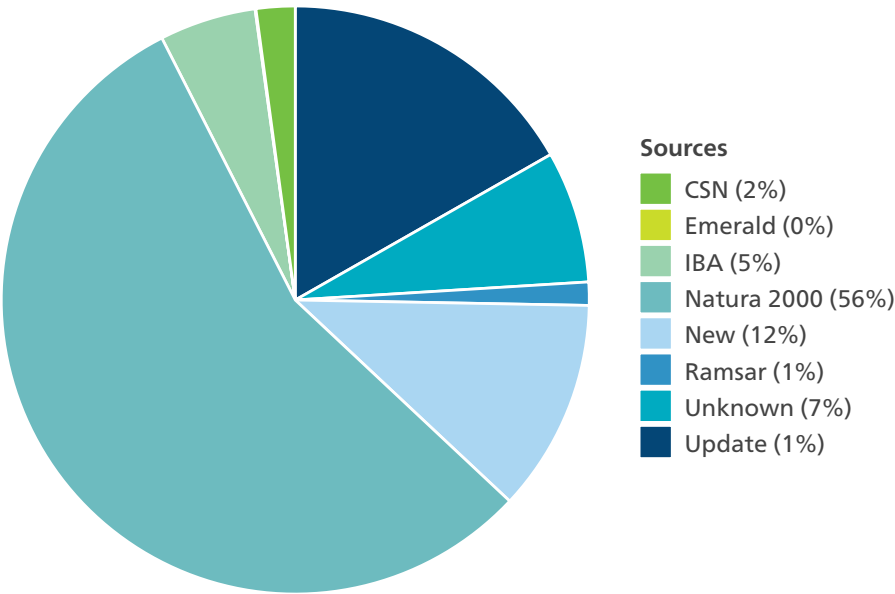


Figure 29: Sources of submitted site inventory records.

after significant refinement and consolidation of the population names in the submissions.

Figure 30 shows that for some AEWA species, a very large number of sites have already been identified. The ten species with the highest numbers of sites listed in the inventories include the Common Tern (353 sites), Black Stork (331), Common Crane (328), White Stork (232), Wood Sandpiper (300), Ruff (299), Common Pochard (288), Great White Egret (285), and Corncrake (284). This suggests that for some populations, the site network is more complete than was assumed based on the earlier analysis of CSN data²⁵.

Conversely, fewer than ten sites were nominated for 88 species. This includes some very rare species, such as the Northern Bald Ibis (with all four known breeding sites identified in the submitted inventories), but also highlights that the network remains very incomplete. For example, only one site was submitted for the Maccoa Duck (EN), despite many more important sites known from Eastern and Southern Africa.

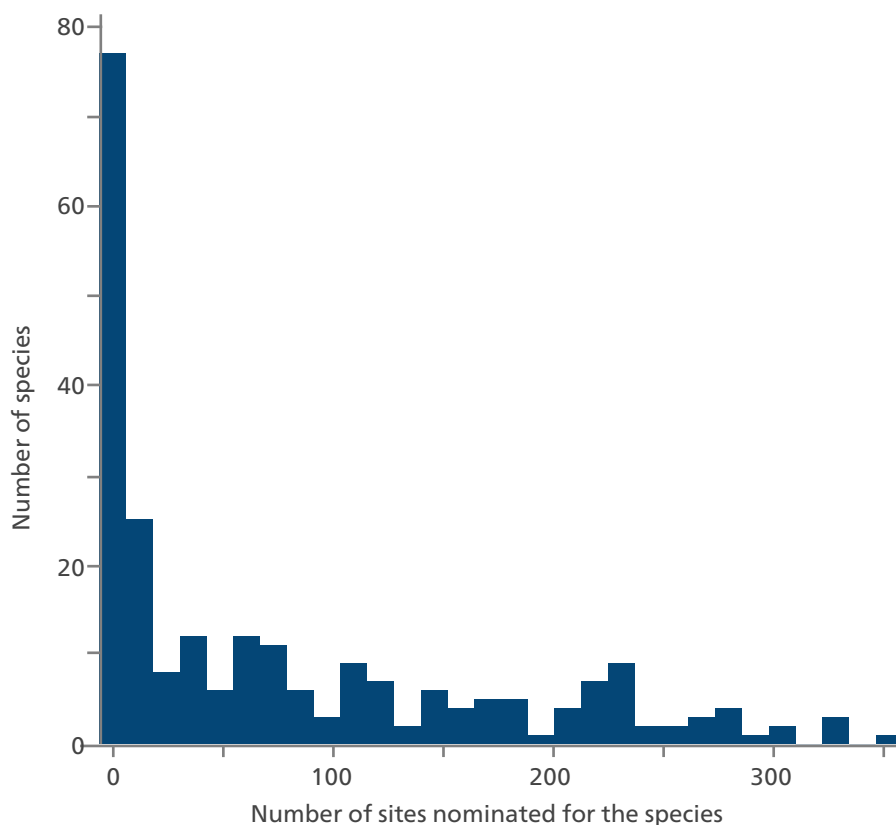


Figure 30: Number of sites nominated for AEWA species.



Common Tern (*Sterna hirundo*)
© Adobe Stock

²⁵ <https://www.unep-aewa.org/en/document/preliminary-report-site-network-waterbirds-agreement-area-1st%C2%A0edition>



The majority of the 255 AEWA species are associated with widespread inland wetlands, coastal/marine habitats, and grassland/agricultural habitats ... policies and conservation efforts focusing on these habitat types are essential for the preservation of AEWA species

CONSERVING WATERBIRD HABITATS IN THE WIDER ENVIRONMENT

KEY FINDINGS

- The majority of the 255 AEWA species are associated with widespread inland wetlands (198 species), coastal/marine habitats (193 species), and grassland/agricultural habitats (142 species). Consequently, policies and conservation efforts focusing on these habitat types are essential for the preservation of AEWA species.
- A plan and a Terms of Reference have been elaborated to assess the status of principal bird habitats and develop flyway-level habitat action plans in collaboration with other CMS flyway instruments, following on Target 4.1. of the AEWA Strategic Plan 2019-2027. This process has not yet been launched due to the lack of funding.
- Only 35% of the national reports submitted to MOP9 mention that the Contracting Party has identified its habitat conservation priorities. However, these priorities often do not relate to the conservation of waterbird habitats in the wider environment as per Target 4.3 of the AEWA Strategic Plan for 2019 – 2027.
- Only 27% of AEWA national reports submitted to MOP8 and to MOP9 mention established international partnerships for habitat conservation in the wider environment, but some of these are actually related to transboundary conservation initiatives for sites.
- An examination of national reports to COP15 of the Ramsar Convention on Wetlands reveals that a majority of Ramsar Parties in the Agreement Area have encouraged the private sector to promote the sustainable use of wetlands and have implemented incentive measures for their conservation and nearly half of them have national wetland inventories and plans for wetland restoration.
- In the European Union and certain other European countries, the conservation of waterbird habitats is supported through agricultural policies.
- Carbon credit schemes and other payments for ecosystem services hold more promise in low-income countries.

AEWA aims to identify and safeguard sites and habitats important for migratory waterbirds (Article III.2c). The Parties are required to coordinate their efforts to maintain and re-establish a network of suitable habitats across the entire range of each migratory waterbird species (Article III.2d). Paragraph 3.1.1 of the AEWA Action Plan mandates that Contracting Parties undertake and publish national inventories of habitats that are important to the AEWA populations. Additionally, Paragraph 3.2.3 stipulates that they shall endeavour to prevent the degradation and loss of habitats, while Paragraph 3.2.4 provides that they shall endeavour to develop habitat conservation strategies – including for waterbird populations that are dispersed. Furthermore, Objective 4 of the AEWA Strategic Plan 2019-2027 outlines a range of targets and actions intended to implement these provisions of the Agreement and its Action Plan. The targets include identifying habitat conservation priorities at the Agreement level (Target 4.1), integrating AEWA's habitat conservation priorities into international policy mechanisms (Target 4.2), determining national habitat conservation



Dutch polder landscape © Adobe Stock

priorities and incorporating them into relevant sectoral policies (Target 4.3), and establishing at least three international multi-stakeholder partnerships for habitat conservation (Target 4.4).

Progress towards AEWA's habitat conservation targets

The AEWA Secretariat has drafted a concept to assess the status of principal bird habitats within the African-Eurasian flyways, which was presented during the 15th meeting of the AEWA Technical Committee (document AEWA/TC 15.19) in 2019. They also provided Terms of Reference for evaluating the status of and creating action plans for these principal bird habitats (document AEWA/TC 15.20). It is expected that this assessment will be carried out in collaboration with the CMS Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia (Raptors MOU), the African-Eurasian Migratory Landbirds Action Plan (AEMLAP), and the Central Asian Flyway Action Plan. However, as of now, funding has not been secured to carry out this work. Consequently, no progress has been made towards Target 4.2 either.

Question 49 in the format for National Reports on the implementation of AEWA for MOP9 provides the first opportunity to assess progress towards identifying and addressing national habitat conservation priorities, as outlined in Target 4.3 of the AEWA Strategic Plan for 2019-2027. At the time of writing CSR9, only 29 Parties had submitted their national reports, indicating that 35% of the reporting Parties have identified habitat conservation priorities. However, these priorities often do not relate to the conservation of waterbirds within the wider environment; instead, they tend to focus on the conservation of Annex I habitats under the EU Habitats Directive or on specific site conservation efforts. On the other hand, it is striking that most Parties have not reported their habitat conservation measures under the Ramsar Convention on Wetlands and under their agricultural policies (see the next section).

Responses to Question 47 in the format for National Reports on the implementation of AEWA for MOP8 and Question 50 in the format for MOP9 offer insights into the progress made towards establishing international multi-stakeholder partnerships for habitat conservation (Target 4.4). For MOP8, 15 countries, representing 27% of the respondents, reported that they had established international partnerships for habitat conservation. For MOP9, eight countries, also accounting for 27% of the respondents, responded positively. However, some of these responses pertain to transboundary conservation initiatives for sites. On the other hand, some of the most exciting and exemplary initiatives have not been reported by the Parties but were identified through other sources (see examples in **Boxes 2-4**).

BOX 2: LIFE-SUPPORT TO BLACK-TAILED GODWIT HABITATS ALONG THE FLYWAY

The Black-tailed Godwit is a meadow-breeding wader. The majority of its Western European breeding population nests in agricultural landscapes outside protected areas, where the main threats stem from the intensification of farming practices. In winter, it is closely associated with rice fields in West Africa and the Iberian Peninsula. Therefore, the survival of the population depends on the large-scale implementation of farming techniques that respect their ecological needs. Typically, management efforts focus on site-level interventions. However, there are two notable examples of LIFE projects that promote flyway-scale conservation of the Black-tailed Godwit.

The EU LIFE Programme has been supporting two multi-country projects since 2019 aimed at the flyway-scale conservation of the species. The first project is focused on the conservation of wet grassland breeding bird habitats in the Atlantic region (GrassBirdHabitats, LIFE19 IPE/DE/000004). This ten-year project aims to increase reproduction rates at breeding grounds by improving grassland management in Lower Saxony, Germany, and the Netherlands. It also seeks to enhance the return rates from wintering areas in West Africa by improving conditions on rice fields in the Senegal Delta, Saloum Delta, and Casamance regions of Senegal. The project covers 143,000 hectares and aims to secure €383 million in complementary EU, national, and regional funding²⁶.

This initiative is complemented by another project focused on the conservation of the Black-tailed Godwit along the flyway (LIFE22-NAT-DE-LIFE-Godwit-Flyway/101113618), which also involves the Tagus Estuary in Portugal and the Niumi Biosphere Reserve in The Gambia²⁷.

²⁶ <https://www.grassbirdhabitats.eu/> ²⁷ <https://www.godwit-flyway.eu/>

BOX 3: EUROPEAN WATERFOWLERS' SUPPORT FOR DUCK BREEDING HABITAT RESTORATION IN FINLAND

Eurasian Wigeon (*Mareca penelope*) © Sergey Dereliev



Finland is the most important country for breeding ducks in Europe besides Russia. The SOTKA-wetlands project implemented by the Finnish Wildlife Agency aims to restore 400 hectares of prime breeding habitat for Eurasian Wigeon, Northern Pintail and Common Teal. Partners of the Waterfowlers Network in the United Kingdom (the British Association for Shooting & Conservation), the Netherlands (the Royal Dutch Hunters' Association), Ireland (National Association of Regional Game Councils), Italy (Italian Hunting Federation) and Denmark (the Danish Hunters' Association) contribute financially to these restoration efforts²⁸.

²⁸ <https://www.waterfowlersnetwork.com/2242>

BOX 4. COORDINATED EU EFFORTS TO RECOVER DECLINING HUNTABLE BIRD SPECIES

EU Member States' reports for the period 2013-2018 under Article 12 of the Birds Directive indicated that 42 of the 84 huntable taxa listed in Annex II are in a non-secure conservation status. This also includes 27 AEWA species. In 2020, the European Commission launched a process that addresses both the management of their taking and also identifies measures to tackle both habitat and non-habitat related threats to them. Following the identification of the threats, a group of experts proposed 63 key habitat conservation actions for 26 target species, including 22 AEWA species, to be implemented across Member States to aid population recovery through improving habitat quality and restoring habitats (Musil *et al.* 2025). Although this initiative is still in its early stages, if implemented, it will be the most extensive coordinated habitat conservation and harvest management effort for AEWA species spanning across 27 Range States.

Habitat conservation measures by habitat type

Nearly three-quarters (416 populations, 74%) of the AEWA populations are dispersed at various stages of their annual cycles (Wetlands International 2021). Therefore, habitat conservation measures outside protected areas are crucial for many AEWA populations. According to data from the BirdLife DataZone, the majority of the 255 AEWA species are associated with inland wetlands (198 species), coastal and marine habitats (193 species), and grassland/agricultural habitats (142 species) (**Figure 31**). As a result, policies and conservation efforts focusing on these habitat types are essential for the preservation of AEWA species.

Inland and coastal wetlands

Wetlands are among the most important habitats for waterbirds listed under AEWA. The Ramsar Convention on Wetlands emphasises the conservation and sustainable use of both inland and coastal wetlands. A total of 113 out of the 119 AEWA Range States are Parties to this treaty, making wetland conservation efforts under the Convention also highly relevant for achieving AEWA's habitat conservation objectives. Seventy-eight Ramsar Parties in the AEWA Agreement Area submitted reports to Ramsar COP15 (**Figure 32**). These reports provide a clear overview of the efforts to conserve wetlands across the Agreement Area.

This report does not aim to review the national reports submitted to the Ramsar Convention. Instead, it focuses on questions that are directly relevant to the conservation of waterbird habitats outside of Ramsar sites. Key areas of consideration include encouraging the private sector to promote the sustainable use of wetlands (cf. Paragraph 3.2.3 of the AEWA Action Plan), the creation of national wetland inventories (cf. Paragraph 3.1.1 of the AEWA Action Plan), and various questions related to wetland restoration (cf. Paragraph 3.3 of the AEWA Action Plan).

Fifty-seven Ramsar Parties, representing 75% of the respondents in the Agreement Area, have encouraged the private sector to promote the wise use of wetlands. Overall, the private sector has participated in wetland activities – not just at Ramsar Sites – across 62 countries, which constitutes 83% of the respondents. Additionally, 60 Ramsar Parties, or 90%, have implemented incentive measures to encourage wetland conservation and wise use, primarily in Europe and West Africa.

Thirty-two countries, or 42% of the countries responding to this question, reported having national wetlands inventories (NWI), while another 23 countries, accounting for 30%, are currently in the process of preparing their inventories.

Furthermore, 32 countries, or 44% of the responses, have already established national wetland restoration targets. Fifteen countries, or 21%, have partially established these targets, and 14 countries, or 19%, plan to develop wetland restoration targets in the near future.

Grassland and agricultural habitats

Grassland and agricultural habitats support almost as many waterbird species as wetlands, including geese, swans, ducks, rails, cranes, storks, herons, waders, pratincoles, gulls, and terns. This habitat type is home to 30 AEWA species of global conservation concern, including the waders in European wet grasslands (see **Box 2**) and African cranes (see **Box 6**).



The Global Mangrove Watch is an example of international habitat conservation efforts supporting waterbird habitats
© Wetlands International

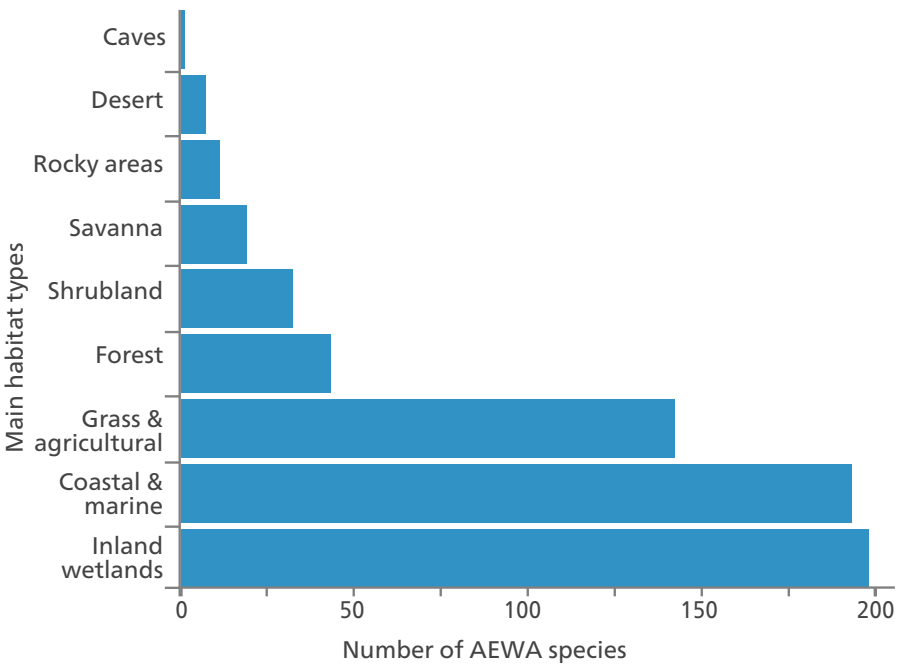


Figure 31: AEWA species by habitat association.



Diagonal stripes indicate Contracting Parties to AEWA. NA = non-Party Range States to the Ramsar Convention at the time of COP15 report submission, and territories outside the AEWA Agreement Area.

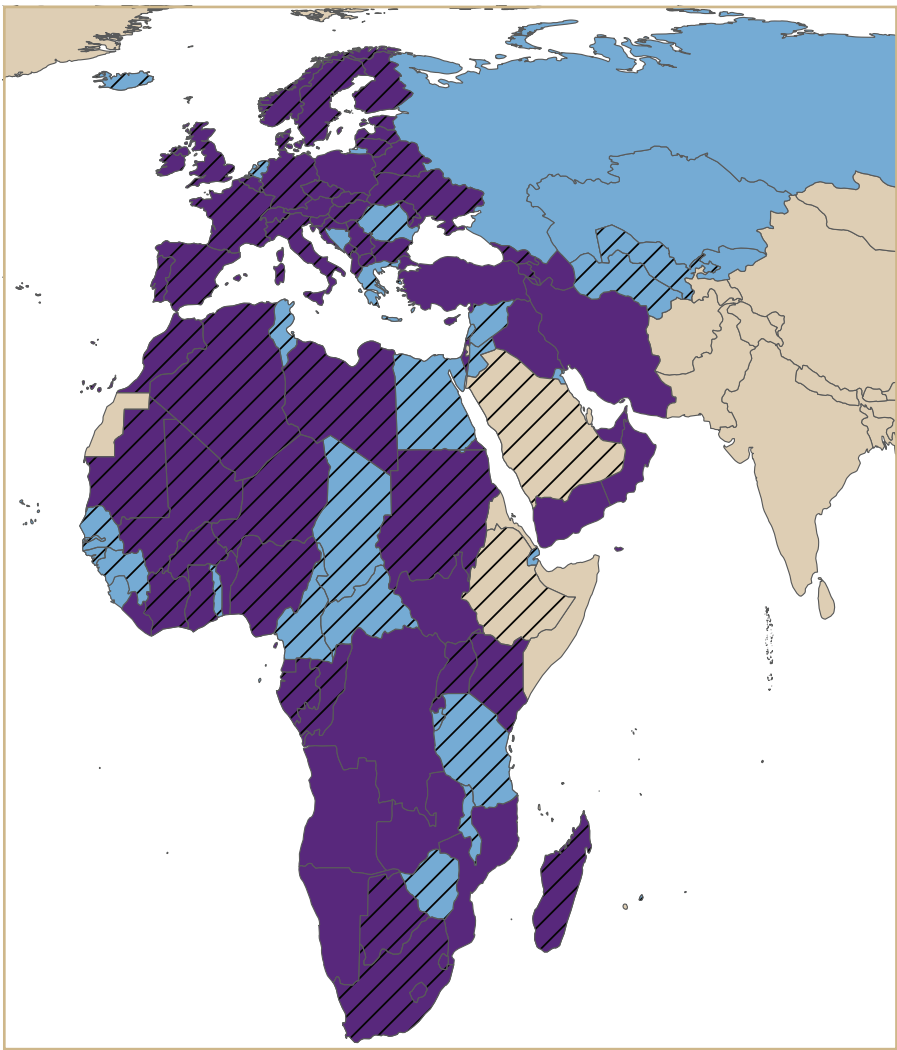


Figure 32: Reporting to Ramsar Convention COP15 (2025) in the Agreement Area.

In the European Union, agriculture has been identified as the most important threat to birds (EEA 2020) and this report also found that agriculture related threats are amongst the three most important ones. The protection of waterbird habitats, however, also features in the EU's Common Agricultural Policy (CAP) at three levels:

- **Conditionality:** This represents the minimum requirements for all farmers to qualify for direct CAP payments. This includes statutory management requirements and standards for ensuring good agricultural and environmental conditions (GAEC), such as the maintenance of permanent grasslands (GAEC1), the protection of wetlands and peatlands (GAEC2), and the establishment of non-productive ecological focus areas, including farm ponds (GAEC8).
- **Eco-schemes:** These voluntary supplemental schemes provide financial incentives to farmers to adopt climate- and environment-friendly farming practices. Eco-schemes may focus on mitigating greenhouse gas emissions, enhancing the diversity of landscape features, reducing nutrient loss, fertiliser and pesticide use, and expanding organic farming. EU Member States are mandated to allocate 25% of the CAP direct payments to eco-schemes, having instituted 158 such schemes. The eco-schemes most pertinent to waterbirds support the late mowing of grasslands, maintain low grazing density, and promote biodiversity and ecological infrastructure (such as wetlands). One specific initiative in Slovenia aims at protecting the nests of the Northern Lapwing. However, an ex-ante evaluation indicated that only 19% of the eco-schemes were anticipated to yield tangible benefits, with 40% requiring enhancements, while the remaining schemes raised concerns (Nyssens, Ruiz, and Nemcová 2021).
- **Agri-Environment-Climate Measures:** EU Member States operate a total of 200 AECM schemes (European Commission 2023). These voluntary schemes cover a range of themes, including landscape and wildlife protection. Agri-environmental measures have been a key mechanism for habitat conservation efforts (Schaller *et al.* 2022). However, the national CAP Strategic Plans often lack sufficient details for the ex-ante evaluation (Midler *et al.* 2023).

Farm subsidies are also utilised in other European countries outside the EU. In the UK, the Environmental Land Management Schemes encompass a broad array of waterbird habitats. Some of these schemes are specifically designed to support the conservation of waterbird species by providing favourable conditions for breeding and feeding (see **Box 5**).

Most non-European Range States lack farm subsidy programmes that could promote land management practices aimed at maintaining or improving habitat conditions for waterbirds. The three case studies in **Box 6** highlight various alternative approaches to conserving crane habitats, including carbon-credit schemes, integrated landscape management initiatives, and livelihood programmes in Africa. These case studies illustrate effective methods for habitat conservation.



Northern Pintails (*Anas acuta*) wintering in a polder landscape © Adobe Stock

BOX 5: ENVIRONMENTAL LAND MANAGEMENT SCHEMES IN THE POST-BREXIT UK

In the post-Brexit UK, the importance of rural development and environmental payments has increased. Direct payment schemes that comprised 80% of government support under the CAP are being phased out by 2027 while farmers get payments for providing 'public goods'. The Environmental Land Management Schemes has three pillars:

- **Sustainable Farming Incentive:** this scheme pays farmers for sustainable farming practices that protect and enhance the environment, including maintenance of landscape features and grasslands. This level is broadly similar to the eco-schemes under the CAP. These include schemes such as nesting plots for the Northern Lapwing (AHW5), and managing rough grazing for birds (GRH1), which also includes providing muddy areas at the edges of waters for waders to feed.
- **Countryside Stewardship:** this scheme pays for more targeted actions at specific locations, features or habitats. The Countryside Stewardship Plus scheme joined up actions by land managers across local areas. This is similar to the AECMs in the EU. It supports, amongst others, restoration of large water bodies (WN7), management of ponds (WT4 & 5), fens (WT8), management (GS9) and creation (GS11) of wet grasslands for breeding waders and management (GS10) and creation (GS12) of wet grasslands for wintering waders and wildfowl.
- **Landscape Recovery:** this competitive scheme pays for longer-term, larger, bespoke projects in protected areas that support the priorities identified in the management plan of the site. In this sense, it is a support to site-level habitat management instead of measures focusing on the wider countryside.

Farming in Somerset, UK © Adobe Stock



BOX 6: CONSERVING CRANE HABITATS ACROSS EASTERN AND SOUTHERN AFRICA

Contributed by Kerry Morrison and Richard Berridge, Endangered Wildlife Trust and International Crane Foundation

CASE STUDY 1: CARBON TRADING IN THE DRAKENSBERG MOUNTAINS OF SOUTH AFRICA

The Drakensberg region is home to South Africa's three threatened crane species but faces threats from mining, farming, and development. The International Crane Foundation (ICF) and Endangered Wildlife Trust (EWT) are working with landowners to protect these habitats through carbon trading and the government's Biodiversity Stewardship Programme.

Under the 2019 Carbon Tax Act, landowners earn revenue by sequestering carbon through improved land management – like better grazing, wetland restoration, and reduced tillage – which generates tradable carbon credits. These efforts also lock in biodiversity protection by preventing harmful land use and thus conserve the cranes' habitat. Community initiatives in Mqatsheni and KwaMkhize include clean water access, financial literacy, and support for local agriculture. These co-benefits increase carbon credit value and improve community well-being.

In August 2022, the Drakensberg project signed its first carbon trading contract, marking a new approach to conservation through carbon finance. By August 2024, it gained global status as one of only six projects registered under the Voluntary Carbon Market. Its first verified carbon credits are expected by July 2025, launching full-scale trading and funding for ongoing environmental and community benefits.

CASE STUDY 2: KAFUE FLATS RESTORATION PARTNERSHIP, INTERNATIONAL CRANE FOUNDATION, ZAMBIA

The Kafue Flats, a Ramsar Site and UNESCO Biosphere Reserve in southern Zambia, is a critical floodplain ecosystem supporting 30% of the world's Wattled Cranes, Grey Crowned Cranes, over 470 bird species, and the endemic Kafue Lechwe antelope. Despite its ecological value, the Flats face growing threats from poaching, overgrazing, invasive species, and habitat degradation.

In 2023, the International Crane Foundation, in partnership with Zambia's Department of National Parks and Wildlife (DNPW) and WWF Zambia, launched the **Kafue Flats Restoration Partnership**, a 20-year initiative covering 6,500 km². The goal is to restore habitat while balancing biodiversity conservation and human well-being.

A key conservation success was the large-scale removal of *Mimosa pigra*, an invasive shrub that was displacing wildlife habitat and concealing poachers. Community-led efforts cleared 95% of the infestation, restoring feeding grounds for Wattled Cranes and Kafue Lechwe, and providing income for over 150 families annually. *Mimosa* control is now integrated into routine park management. The partnership's success has attracted long-term support from major funders like GIZ and the Global Environment Facility, ensuring continued investment in habitat restoration and protection across the Flats.

CASE STUDY 3: BALANCING THE NEEDS OF COMMUNITIES AND CRANES: AN INTEGRATED APPROACH TO CONSERVATION IN LAST-MILE COMMUNITIES IN EAST AFRICA

In East Africa, 90% of Grey Crowned Cranes live outside protected areas, often within wetlands shared with some of the world's most vulnerable communities. The International Crane Foundation (ICF) addresses this challenge by integrating habitat conservation with community development, recognising that healthy wetlands benefit both people and cranes.

A key example is in Uganda's Rukiga District, where wetlands vital to both people and cranes were under pressure from population growth and resource use. By linking wetland conservation with access to family planning and climate-smart agriculture, ICF helped reduce pressure on crane habitats. This has led to more sightings of breeding Grey Crowned Cranes and improved livelihoods for local families.

In both Uganda and Kenya, ICF protects key wetland habitats by improving access to clean water. Renovating springs and installing rain tanks reduced the need for communities to draw directly from wetlands, allowing habitats to regenerate and reducing human disturbance near crane nesting areas. Efforts also include supporting girls' education – reducing early school dropouts and the resulting encroachment on wetland areas for farming. Meanwhile, fuel-efficient stoves in Rwanda have lessened the demand for firewood, reducing disturbance in breeding areas and helping restore vegetative buffers around marshes. Through these integrated strategies, ICF is creating a model where conserving crane habitats also builds healthier, more resilient communities.

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