

The Arctic Migratory Birds Initiative

Revised Work Plan 2019-2027



The Conservation of Arctic Flora and Fauna (CAFF) is a Working Group of the Arctic Council.

CAFF Designated Agencies:

- Norwegian Environment Agency
- Environment and Climate Change Canada
- Faroese Museum of Natural History
- Finnish Ministry of the Environment
- Icelandic Institute of Natural History
- Ministry for Agriculture, Self Sufficiency, Energy and Environment, Government of Greenland
- Ministry of Natural Resources and Environment of the Russian Federation
- Swedish Environmental Protection Agency
- United States Department of the Interior, Fish and Wildlife Service

CAFF Permanent Participant Organizations:

- Aleut International Association (AIA)
- Arctic Athabaskan Council (AAC)
- Gwich'in Council International (GCI)
- Inuit Circumpolar Council (ICC)
- Russian Indigenous Peoples of the North (RAIPON)
- Saami Council

This publication should be cited as: CAFF (2024). Arctic Migratory Birds Initiative Work Plan 2021-2027 (Revised). Conservation of Arctic Flora and Fauna International Secretariat: Akureyri, Iceland. ISBN 978-9935-431-91-2.

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Arctic Migratory Birds Initiative (AMBI)

Revised work plan 2019-2027

Revised after mid-term evaluation January 2021, extended September 2024

Note: This document provides a list of objectives and actions that have been revised after the 2019-2020 AMBI Mid-term evaluation. Actions were revised to offer better clarity and provide opportunities for changing context and increased opportunity for implementation.

This document is intended to be an accompanying document to the original Work Plan, which contains more information and context for AMBI activities.

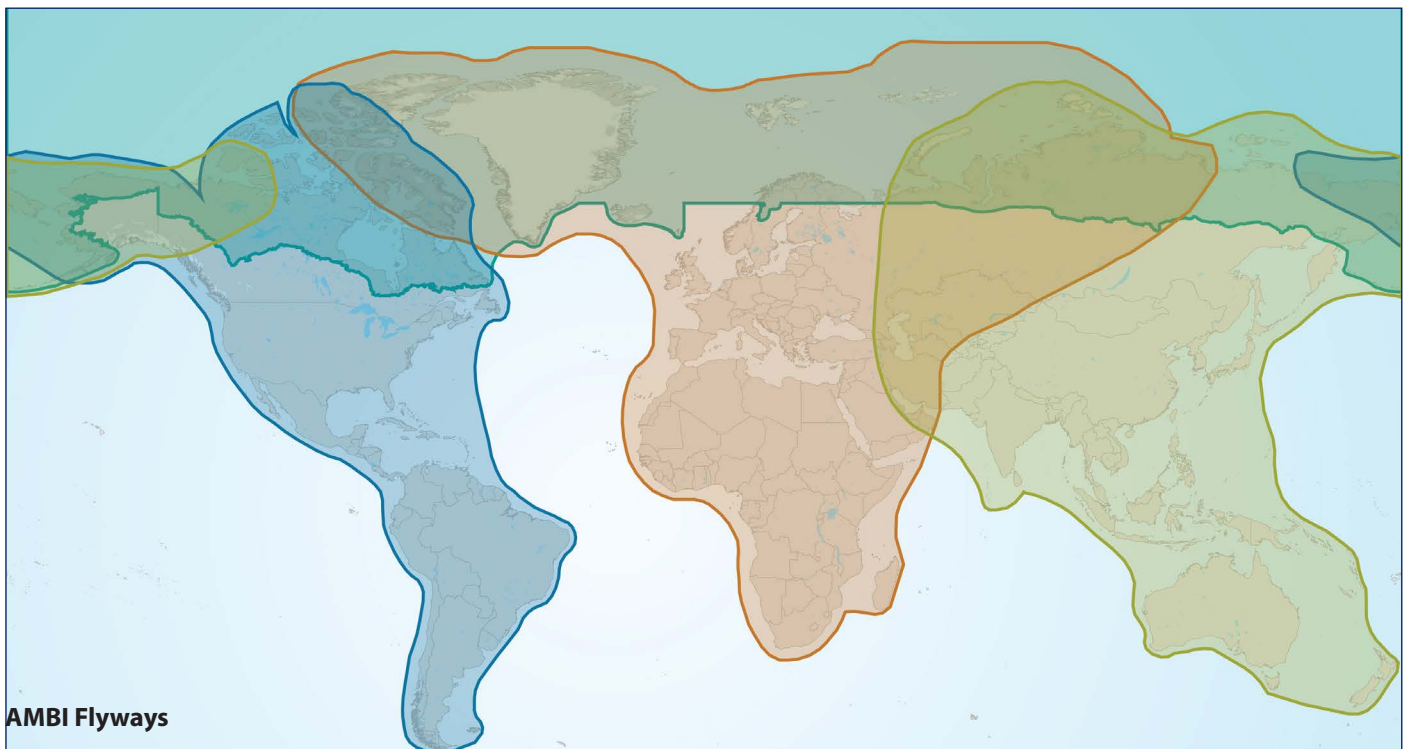
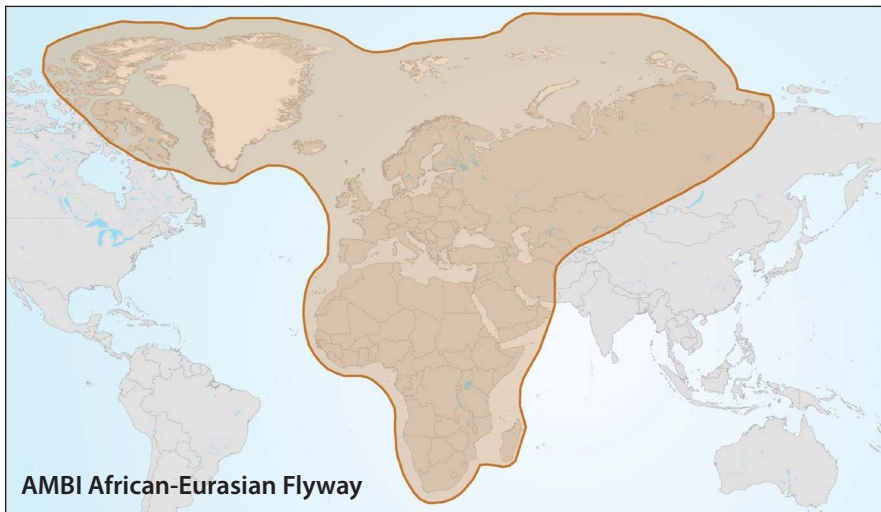


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The African Eurasian Flyway work plan 2019-2027 (revised)



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Priority Species

1. Bar-tailed Godwit (*Limosa lapponica lapponica* and *L.L. taimyrensis*)
2. Red Knot (*Calidris canutus canutus* and *C.c. islandica*)
3. Dunlin (*Calidris alpina arctica* and *C.a. schinzii*)
4. Lesser White-fronted Goose (*Anser erythropus*)
5. Long-tailed Duck (*Clangula hyemalis*)
6. Velvet Scoter (*Melanitta fusca*)
7. Curlew Sandpiper (*Calidris ferruginea*)
8. Common Eider (*Somateria mollissima*)

Priority conservation issues

AMBI addresses two main global threats, which are equally relevant in this flyway:

1. **Loss, disturbance, and degradation of habitat:** This threat affects important wetlands across the flyway including each different sub-flyway. The focus of AMBI delivery is the Bijagos Archipelago of Guinea-Bissau in West Africa because it is the only one of the top three sites for AMBI priority shorebird species in the flyway not yet to have World Heritage (WH) status. The other two are the Wadden Sea and the Banc d'Arguin, Mauritania who work together in the framework of the Wadden Sea Flyway Initiative (WSFI) under a Memorandum of Understanding. AMBI extends the capacity of the WSFI to support Guinea-Bissau with the World Heritage re-nomination and thus to help address threats from illegal fishing, potential oil and gas developments, habitat disturbance, cutting of mangroves, shipping, and sea level rise¹. It is paramount to prevent further loss of habitat, as well as promoting restoration actions.

Priority species



Bar-tailed Godwit (ssp. *lapponica* and *taimyrensis*)
 Richard Chandler



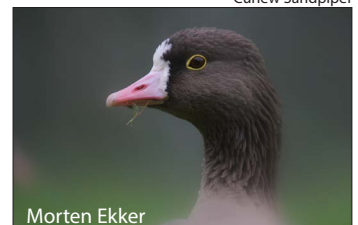
Dunlin (ssp. *arctica* and *schinzii*)



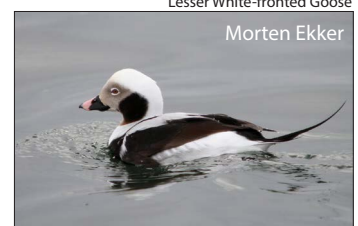
Peter Prokosch
 Red Knot (ssp. *canutus* and *islandica*)



Imran Shah/Flickr CC 2.0
 Curlew Sandpiper



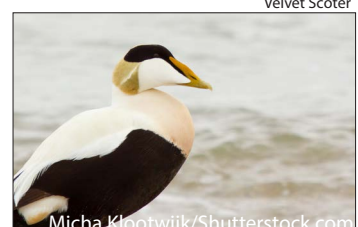
Morten Ekker
 Lesser White-fronted Goose



Morten Ekker
 Long-tailed Duck



Ása Berndtsson/Flickr CC 2.0
 Velvet Scoter



Micha Klootwijk/Shutterstock.com
 Common Eider

¹ Campredon, P. & Catry, P. 2016 "Bijagos Archipelago (Guinea Bissau)", *The wetland book*, DOI 10.1007/978-94-007-6173-5_158-1

- 2. Unsustainable harvest/take (including accidental and illegal killing) of migratory birds along the flyway:** Arctic-breeding migratory birds are harvested along their migratory routes at rates often above sustainable levels, and despite often being legally protected. Other species which are still open for harvest but are in decline, such as the Long-tailed Duck and Velvet Scoter, face additional accidental human-induced adult mortality through fisheries bycatch.

Objective 1: Improve conservation and management of shorebird sites throughout the African-Eurasian flyway.

Action 1: Secure intertidal habitat of Arctic-breeding shorebirds in Bijagós Archipelago, Guinea-Bissau:

- a. Advance and potentially coordinate international engagement to support the Bijagós World Heritage nomination process, as appropriate.
- b. Provide technical support to and enhance the capacity of IBAP and other national partners for strengthening the conservation management of the Bijagós Archipelago, including through its nomination and designation as a UNESCO World Heritage site.

Action 2: Ensure identification and documentation of key sites for shorebirds in available format as a tool for national/international sustainable site management.

Objective 2: Increase quality and quantity of population status assessment data of Arctic breeding waterbirds in the African-Eurasian Flyway.

Action 1: Support filling knowledge gaps and strengthening monitoring of Arctic waterbirds in the breeding grounds of the flyway, including implementing CBMP in cooperation with Wadden Sea Secretariat and AEWA.

Action 2: Support improved population delineation of Arctic-breeding waders by collating Arctic breeding wader migration data (tracking, colour-marking, geolocator, ringing data, etc.) and presenting it on the CSN tool to improve flyway delineation data.

Objective 3: Development and dissemination of information and awareness materials addressing priority target

Action 1: Support the development of communication products (in collaboration with flyway partners and communications experts) showcasing migratory connectivity, knowledge gaps, and threats in the African-Eurasian flyway area.

Objective 4: Reduce bycatch of seaducks in the Baltic Sea

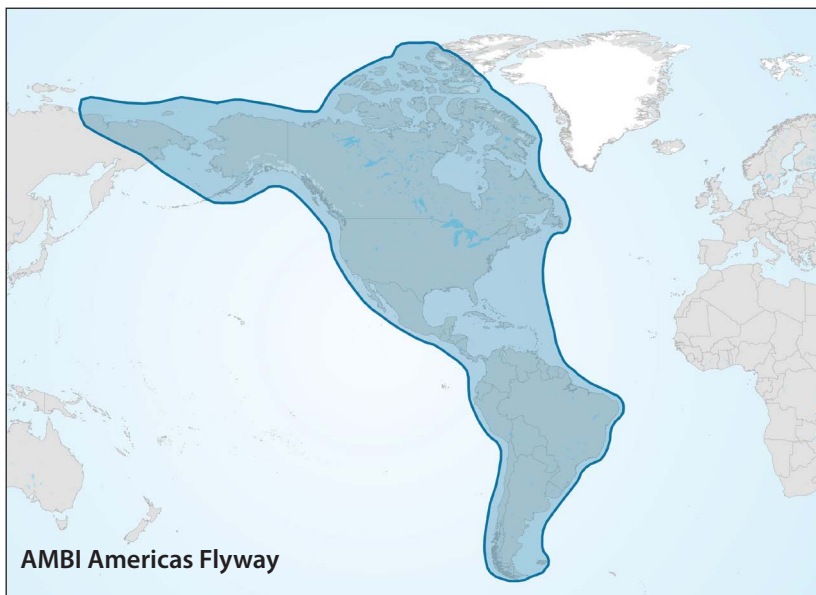
Action 1: Support the implementation of the AEWA Long-tailed Duck, Velvet Scoter and Common Eider International Single Species Action Plans with respect to the identified activities regarding bycatch under the auspices of the AEWA European Seaduck International Working Group.

Objective 5: Support measures under the AEWA Lesser White-fronted Goose (LWfG) International Working Group (IWG) to prevent illegal killing.

Action 1: Assist the AEWA LWfG IWG and the Birdlife Norwegian/Greek cooperation project with the translation and dissemination of awareness-raising and education materials in key areas for the species within the Russian Arctic amongst indigenous and local communities.

Action 2: Support the UNEP/AEWA Secretariat in engaging key Range States on a diplomatic level through Arctic Council member and observer country embassies.

The Americas Flyway work plan 2019-2027 (revised)



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Priority species

1. **Red Knot** (*Calidris canutus* and *roselaari*)
2. **Semipalmated Sandpiper** (*Calidris pusilla*)
3. **Buff-breasted Sandpiper** (*Calidris subruficollis*)
4. **Red Phalarope** (*Phalaropus fulicarius*)
5. **Red-necked Phalarope** (*Phalaropus lobatus*)

Priority Conservation issues

1. The **loss or degradation of terrestrial and pelagic habitats** along the flyway is a key conservation issue for this work plan. The underlying threats are numerous and include climate change effects; expansion of white geese on tundra habitats; anthropogenic impairment of interior and coastal habitats; direct take of shorebirds via legal and illegal harvest; and plastic pollution in pelagic areas.
2. **Climate change** is associated with loss of shorebird productivity in the Arctic, changes in habitat quality and quantity throughout the flyway, and effects on shorebird migration. Indirect consequences of human activity, including habitat destruction by overabundant populations of Snow (*Chen caerulescens*) and Ross's (*Chen rossii*) geese (collectively referred to as 'white geese'), are of concern for shorebird conservation on portions of the breeding grounds. Development of coastal infrastructure, such as farming that necessitates impoundment or draining of coastal wetlands and disturbance at shorebird roosting sites, are issues directly related to human activity in the southern parts of the

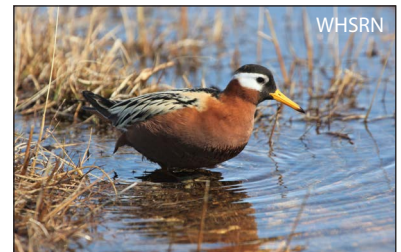
Priority species



Red Knot (ssp. *rufa* and *roselaari*)



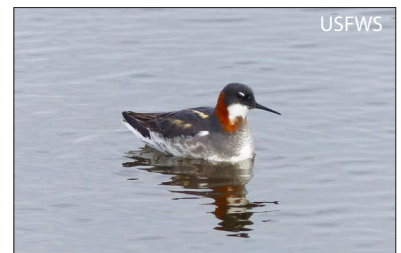
Semipalmated Sandpiper



Red Phalarope



Buff-breasted Sandpiper



Red-necked Phalarope

flyway. Loss, degradation and change in land use due to energy production, mining and agriculture (annual non-timber crops, livestock farming and ranching) are also impacting inland habitats important for breeding, migration and wintering of Arctic birds. The effects of plastic pollution in the world's oceans on Arctic shorebirds are only beginning to be understood. However, due to the scale of this issue both in geographic extent and amount of plastic in the ocean it is well anticipated that the impacts could be significant.

Theme 1: Evaluate impacts of overabundant geese populations on Arctic shorebird habitat and implement appropriate mitigation measures

Objective 1: Understand the expansion of white geese populations in Arctic shorebird habitat

Action 1: Understand impacts of populations of white geese on other bird species in western Canada

Action 2: Understand trends in the populations of white geese in Alaska and their impacts on shorebird breeding habitats

Preliminary assessments indicate white geese are increasing in Alaska. There is an urgent need to continue monitoring white geese numbers and distribution, and to determine the conservation impact this increase is having on Alaskan shorebirds.

Objective 2: Mitigate effects of over-abundant white geese populations on shorebird habitat

Action 1: Implement management actions resulting from study of white geese impacts in Canada (undertaken as part of AMBI Phase 1).

During this second phase of AMBI, management actions derived during AMBI Phase 1 will be promoted with Inuit organizations and goose/land management boards and agencies in Canada.

Objective 3: Ensure Indigenous Knowledge is incorporated into white geese impacts research and mitigation measures

Action 1: Continue to include Indigenous Knowledge in future work through co-development of management priorities for western geese.

Theme 2: Identification of climate resilient shorebird breeding and wintering habitat

Objective 4: Determine climate change resilient areas of shorebird habitat and promote their protection

Action 1: Carry out an analysis of the resilience of shorebird wintering habitat to climate change

Action 2: Promote protection of climate change resilient shorebird breeding, wintering and migration habitats

Theme 3: Reduce shorebird habitat impairment from human intrusions, disturbances, destruction and degradation

Objective 5: Mitigate habitat impairment from human intrusions and disturbances

Action 1: Support efforts to develop policies and legislation to ensure the sustainability of legal hunting of shorebirds in North and South America

Action 2: Promote studies that assess the prevalence and impacts of plastic contamination in shorebird populations in the Arctic

Action 3: Work with communities and governments to assess and identify critical threats for priority species on designated WHSRN and IBA sites

Objective 6: Mitigate habitat impairment from destruction and degradation of coastal habitats and productive landscapes

Action 1: Evaluate the impacts of habitat loss and degradation from agriculture, aquaculture, renewable energy production and tourism development on shorebirds and their habitats in Latin America

Action 2: Ensure mitigation measures are incorporated into development decisions

Action 3: Designate important sites under appropriate international conservation frameworks (e.g. Ramsar Convention, WHSRN, World Heritage)

Action 4: Work with communities and governments to protect important sites

Theme 4: Flyway Planning and Implementation

Objective 7: Contribute to the implementation and development of regional flyway initiatives

Action 1: Promote and support the implementation of regional strategies and flyway initiatives

Action 2: Encourage/coordinate the development of an American Mid-continental Flyway strategy

The Circumpolar Flyway work plan 2019-2027 (revised)



AMBI Circumpolar Flyway Committee

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Priority Species

1. **Ivory Gull** (*Pagophila eburnea*)
2. **Thick-billed Murre** (*Uria lomvia*)
3. **Common Eider** (*Somateria mollissima*)
4. **Snowy Owl** (*Nyctea scandiaca*)
5. **Northern Fulmar** (*Fulmarus glacialis*)

Priority Conservation issues

The five issues identified by the AMBI as priorities for the circumpolar work plan include:

1. data collection and data input into habitat protection initiatives
2. unsustainable harvest
3. seabird bycatch in fisheries
4. environmental pollution
5. knowledge gaps, in particular to inform Snowy Owl conservation

Priority species



Ivory Gull



Thick-billed Murre



Common Eider



Snowy Owl



Northern Fulmar

Objective 1: Enhance data collection and data input into habitat protection initiatives

- Action 1: Raise awareness and facilitate protection of key marine bird habitats that intersect with human activities using various regulatory and planning processes as appropriate to protect marine birds while they are at sea
- Action 2: Support country participation in circumpolar collaborations on collection and synthesis of marine bird tracking data (including Ivory Gulls).
- Action 3: Knowledge gap analysis of circumpolar seabird tracking studies

Objective 2: Harvest assessments and mitigation of unsustainable harvest

- Action 1: Work with CBird to promote dialogue with authorities for management plans to combine the knowledge of status of hunted species between countries.
- Action 2: Assess the population-level impact of seabird harvest in relation to other stressors
- Action 3: Conduct/update holistic harvest studies for circumpolar regions of interest using approaches tailored to regional contexts as appropriate

Objective 3: Mitigate seabird and seaduck bycatch

- Action 1: Initiate an overlap analysis for seabird bycatch in circumpolar region
- Action 2: Continue discussions about mitigation measures with fisheries partners
- Action 3: Support efforts to develop best practices for bycatch data collection
- Action 4: Assess gill net bycatch for key species and regions

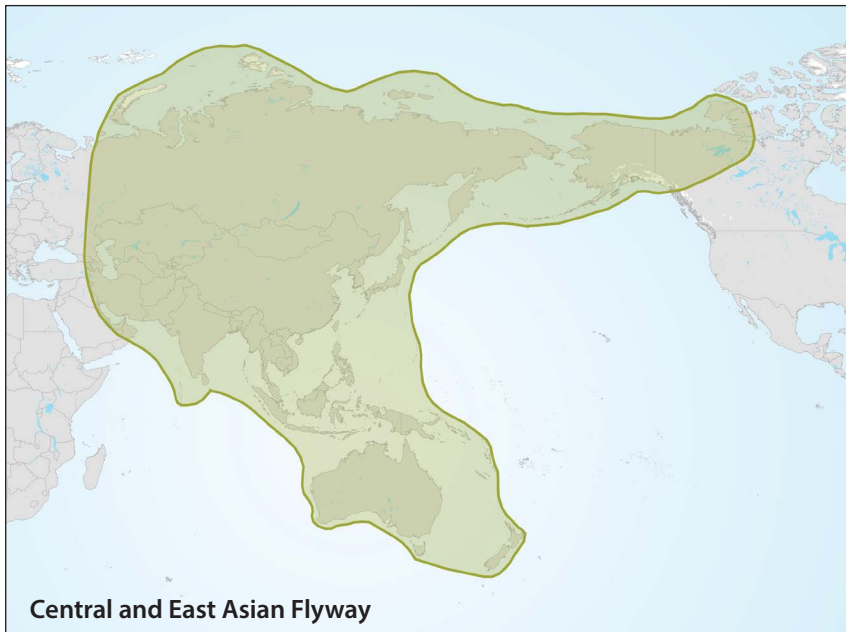
Objective 4: Address environmental pollution issues

- Action 1: State of knowledge assessment for plastics in wildlife
- Action 2: Work with Arctic Council countries and Permanent Participants, PAME and AMAP, to begin to address knowledge gaps

Objective 5: Support the activities and priorities of the International Snowy Owl Working Group (ISOWG)

- Action 1: Publish a more precise global population estimate and assessment of population trends
- Action 2: Implement wider-scale tracking of Snowy Owls throughout their range

The Central and East Asian Flyways work plan 2019-2027 (revised)



AMBI Central and East Asian Flyways Committee

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Priority Species

1. **Spoon-billed Sandpiper** (*Calidris pygmaea*)
2. **Great Knot** (*Calidris tenuirostris*)
3. **Red Knot** (*Calidris canutus rogersi* and *piersmai*)
4. **Bar-tailed Godwit** (*Limosa lapponica baueri*, *anadyrensis* and *menzbieri*)
5. **Dunlin** (*Calidris alpina*)
6. **Curlew Sandpiper** (*Calidris ferruginea*)
7. **Lesser White-fronted Goose** (*Anser erythropus*)
8. **Emperor Goose** (*Anser canagica*)
9. **Brant Goose** (*Branta bernicla nigricans*)
10. **Whimbrel** (*Numenius phaeopus*)
11. **Yellow-breasted Bunting** (*Emberiza aureola*)

Priority species



Spoon-billed Sandpiper



Great Knot



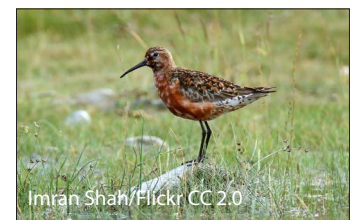
Red Knot (ssp. *rogersi* and *piersmai*)



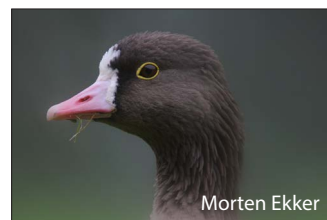
Bar-tailed Godwit (ssp. *baueri*, *anadyrensis* and *menzbieri*)



Dunlin (ssp. *arctica*)



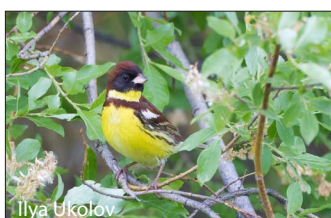
Curlew Sandpiper



Lesser White-fronted Goose



Emperor Goose



Yellow-breasted Bunting



Whimbrel



Brant Goose (ssp. *nigricans*)

Priority Conservation issues

1. To identify and secure key breeding and staging areas within Arctic Russia and the United States.
2. Secure intertidal and associated coastal habitats and wetlands for AMBI priority species at key staging and wintering sites in the EAAF.
3. To prevent the illegal hunting and regulate the unsustainable legal harvest of migratory birds along the flyway.
4. Indigenous and Local Knowledge is a fundamental element in successful cooperative management of wildlife. Engagement with co-management structures and communities will be pursued to ensure Indigenous Knowledge is appropriately used.

Objective 1: Identify and secure important breeding and staging habitats of key AMBI-CEAF migratory bird species in Arctic Russia and Alaska, with a focus on Spoon-billed Sandpiper, Bar-tailed Godwit, Red Knot, Dunlin, Emperor Goose and Brant Goose.

Action 1.1 (Russia): Improve conservation work on Spoon-billed Sandpiper (SBS) and other AMBI priority species in the breeding grounds including addressing climate change related threats.

- c. Finalize creation of the “The Land of Spoon-billed Sandpiper” Nature Park to protect the majority of remaining SBS breeding habitats in Chukotka. Encourage protection of SBS breeding grounds at Klinokvstrema Bay (Anadyr Estuary) and along the coasts Kresta Bay and Meechkyn Spit.
- d. Survey potential breeding Spoon-billed Sandpiper sites in Chukotka and Penzhina Bay (Kamchatka) and revisit sites not surveyed for more than 10 years, to update the status of the species at these locations and develop local conservation plans.
- e. Ensure continuation of support for the ‘head-starting’ program in Meinyopilgyno as the most efficient tool to increase breeding productivity of the Spoon-billed Sandpiper.
- f. Improve knowledge on breeding distribution, population productivity and local threats to Brant Goose, Bar-tailed Godwit and Dunlin, as well as Red and Great Knots in the Eastern Russian Arctic, and provide information necessary for improvement of conservation measures.

Action 1.2 (Russia): Identify important breeding and staging areas in coastal areas of Russia for AMBI priority species, and where possible encourage and assist their nomination as EAAF Partnership Network Sites with follow-up conservation actions, prioritizing areas in Sakhalin and Kamchatka (Ust’ Khairuzovo, Moroshechnaya estuary, Bay of Tyk and others).

Action 1.3 (United States): Undertake bird surveys and tracking studies to improve knowledge of important breeding and staging sites for priority species in Alaska.

- a. Encourage monitoring surveys of breeding shorebirds on the Arctic Coastal Plain, with a focus on the 1002 Area of the Arctic National Wildlife Refuge and the National Petroleum Reserve, Alaska.
- b. Encourage deployment of tracking devices on priority species, and other representative species, to determine connections between breeding and migration stopover sites in the Arctic, with a focus on the Qupaluk EAAFP Site and other important breeding/staging areas.

Action 1.4. (United States): Protect previously identified important breeding and staging areas.

- a. Encourage and assist in the nomination of important sites to the EAAFP Site Network.
- b. Inform the environmental review process when developments are pending at key staging and breeding sites.

Action 1.5. (Russia/United States): Share experience and methodologies for surveying shorebird distribution, monitoring population size and trends, conducting demographic studies, and managing habitats of priority species and other migratory birds.

- a. Share experiences associated with monitoring and conserving breeding shorebirds in Beringia and elsewhere along the CEAF via cooperation projects and exchange visits between Russian and United States specialists, with an initial focus on existing field stations studying Spoon-billed Sandpipers in Chukotka and Dunlin in Alaska.
- b. Cooperate in organizing in 2019 a waterbird aerial survey in the Eastern Russian Arctic using a Russian light plane and observers trained in Alaska. Repeating surveys that were conducted in collaboration with the U.S. Fish and Wildlife Service in the 1990s to 2000s.
- c. Summarize knowledge on Emperor Goose distribution, status, trends and harvest evaluations in Russia and present the results at the North American Arctic Goose Symposium in 2020 and other relevant forums in Russia and internationally.

Action 1.6 (Russia/United States): Explore the opportunity to initiate a seabird monitoring project in Chukotka and increase cross-Beringia information exchange

Objective 2: Secure intertidal and associated habitat for AMBI priority species at key staging and wintering sites in the CEAF.

Action 2.1 (Russia): Ensure improvement of protection of the Russian Far East coastal shorebird stopover sites, by providing information to support local and national decision making on key habitat identification and conservation, including consideration of the new Nature Park in Chukotka and recovery of closed protected area at Moroshechnaya river mouth in Kamchatka.

- a. Undertake surveys at selected key shorebird concentrations in the Russian Far East during passage seasons and develop habitat mapping, local awareness raising and conservation plans for key areas particularly for areas identified by recent satellite tracking of Spoon-billed Sandpiper and other species.
- b. Initiate cooperation with administrations of coastal regions within the Far East of the Russian Federation (Chukotskiy Autonomous District, Sakhalinskaya and Magadanskaya Oblast', Kamchatskiy, Khabrovskiy and Primorskiy Kray) as well as the Sakha (Yakutia) Republic and corporate sector (mineral resources extrication companies etc.) on conservation of shorebirds and environmental education.

Action 2.2 (United States): Gather better information on the abundance, distribution and habitat use of Dunlin and Bar-tailed Godwits at spring and fall staging sites in Alaska.

Action 2.3 (China): Enhance protection of Jiangsu Coast ecosystem, especially the Rudong and Dongtai areas for Spoon-billed Sandpiper and other Arctic-breeding shorebirds considering World Heritage Site Nomination requirements.

- a. Conduct monitoring on all sites important for Spoon-billed Sandpiper in southern Jiangsu including Tiazoini and Dongling areas.
- b. Encourage local governments of southern Jiangsu province to initiate developing of protected areas and infrastructure for birdwatching in key locations for Spoon-billed Sandpiper and other Arctic-breeding shorebirds. Promote exchanging best practices of intertidal conservation from Arctic Council States and Observer countries.
- c. Encourage research community in China and internationally to initiate the study of dynamics of Jiangsu intertidal areas and coastal habitat modelling to advise on best planning for long-term conservation management.
- d. Undertake public awareness raising and develop local and national pride in migratory stopover and wintering sites including support for Spoon-billed Sandpiper conservation campaign coordinated by local government with support from foundations and non-government organizations. Work with local authorities and communities to address unintentional catch of shorebirds by fishing nets as well as Spartina regulation and encourage restoration of coastal habitats with particular attention to high-tide roosts of shorebirds along Jiangsu coasts.
- e. Promote more banding of Arctic-breeding shorebirds in more sites and support satellite tracking of Spoon-billed Sandpiper under the leadership of the National Bird Banding Centre (NBBC) of China.

Action 2.4 (China): Enhance protection of the Luannan Coast especially Nanpu, Tangshan for Red Knot and other Arctic-breeding shorebirds.

- a. Demonstrate optimised management for Arctic-breeding shorebirds of a complex of intertidal, fish/shrimp ponds and salt works.
- b. Develop ecotourism and public awareness raising activities to promote local and national pride in the global importance of Nanpu.
- c. The National Bird Banding Centre of China to organize the marking and satellite tracking of Bar-tailed Godwits at Bohai Bay, aiming to better understand migration pattern of *Limosa lapponica anadyrensis* subspecies to enhance conservation planning and future cooperation with Russia to protect this subspecies.

Action 2.5 (China): Enhance protection at Yalu Jiang, Liaoning for Bar-tailed Godwit, Dunlin, Great Knot and other Arctic shorebirds.

- a. At Yalu Jiang National Nature Reserve, support development and implementation of a management plan to halt further loss of intertidal area and conserve and restore habitat for feeding and roosting.
- b. Support public awareness raising activities to highlight the global importance of the site and develop local and national pride and ownership including international sharing experience in organising festivals.

Action 2.6 (China): Increase knowledge of key staging and wintering Arctic-breeding shorebirds sites in southern China (Guangdong, Guangxi and Fujian provinces) and improve conservation status of these sites.

- a. Make a joint National Bird Banding Centre of China/CAFF winter survey at Leizhou Peninsula and Fangchengang area and surrounding coasts to improve knowledge on distribution and protection of Spoon-billed Sandpiper. Run local small workshops in both locations to share information with local conservation authorities and further conservation planning.

- b. Make an inventory of key sites for Spoon-billed Sandpiper in South China including sites identified by satellite tracking, assess the conservation status and make conservation recommendations. Increase poaching mitigation efforts at these sites.
- c. Make efforts to apply best practices and knowledge on coastal conservation and habitat restoration, including technical cooperation and scientific exchange with other comparable regions; increase of education and awareness and support by conservation foundations.
- d. Promote development of more bird banding and tagging activities under leadership of the National Bird Banding Centre of China.

Action 2.7 (Republic of Korea): Support efforts to reverse declining trends of AMBI priority species (SBS, Great Knot, Dunlin and other) and improve habitat conservation along the flyway through sharing knowledge and international cooperative projects.

- a. Take the lead in the development of approaches in creation of the artificial high-tide roosting sites for Arctic-breeding shorebirds and encourage sharing best practices and knowledge on protection and management of high-tide roosts located at reclaimed intertidal areas along the flyway.
- b. Explore the possibility of supporting mainstreaming of AMBI priorities into an Association of South-East Asian Nations (ASEAN+) Network of migratory bird sites.
- c. Discuss the opportunities to cooperate with the Russian Federation in restoring the numbers of Spoon-billed Sandpipers in the breeding and stopover grounds.

Action 2.8 (Republic of Korea): Promote the importance of conserving Korea's remaining intertidal shorebird zones for the protection of Arctic-breeding and other migratory waterbirds including the Spoon-billed Sandpiper, Great Knot, and Dunlin.

- a. Continue to promote the nomination of the Yellow Sea as UNESCO World Heritage Site.
- b. Encourage support of building a "Caring for Coasts" Initiative under the CBD and Ramsar Convention.

Action 2.9 (Republic of Korea /China): Encourage the Governments of China and Republic of Korea to develop measures to address Spartina to protect high ecological value sites for AMBI priority species to ensure meeting the criteria of World Heritage Site nomination.

Action 2.10 (Republic of Korea /China): Seek China and the Republic of Korea AMBI focal points to develop Resolutions of Cooperation with CAFF Secretariat to guide future cooperation.

Action 2.11 (Singapore): Encourage utilizing the ASEAN Flyway Network (ASEAN AFN) as a platform to engage ASEAN Member States to mainstream AMBI priorities to promote conservation of wetlands and migratory waterbirds. Explore the possibility of collaborating with ASEAN AFN on a key wetland site conservation program.

Action 2.12 (Japan): Further develop dialogue to promote cooperation on the conservation of Arctic-breeding migratory birds in the CEAF with a focus on selected priority actions identified within this work plan, including conservation of AMBI priority species in Japan and in the flyway, building on existing bilateral migratory bird agreements.

Action 2.13 (India): Work with the Ministry of Environment, Forest and Climate Change, Bombay Natural History Society and other relevant Indian institutions to assess the status and trends of AMBI priority species and promote conservation measures.

- a. Develop a project in India to assess wader's conservation needs in the region, help to shape a national-waders working group and run the first national workshop on wader/shorebird conservation focused on AMBI priority species. CAFF to delegate AMBI representatives to join AMBI related events and field projects mentioned in this work plan.
- b. Initiate a survey of potential wintering sites for the Spoon-billed Sandpiper along the coasts of Bay of Bengal using Landsat based habitat modelling provided by the Spoon-billed Sandpiper Task Force.
- c. Increase ringing, colour marking and tagging of AMBI priority species in India to improve the knowledge for conservation purposes.
- d. Control the invasion of terrestrial vegetation into the mudflats, e.g., at Chilika Lake.
- e. Develop an awareness program for fishermen fishing with gillnets in marshes adjoining shorebirds habitats.
- f. Work on restoration of abandoned saltpans as shorebird habitats.

Action 2.14 (all countries): Explore the possibilities for a collaborative pilot project on Spartina control, with CAFF's Arctic Invasive Alien Species Action Plan International Coordinating Group (ARIAS ICG) and other partners.

Action 2.15 (Singapore): Cooperate on a satellite tracking program for key migratory waterbird species within the CEAF.

Action 2.16 (EAAFP): Cooperate with relevant governments and other partners to extend the African-Eurasian Critical Site Network Tool 2.0 (CSN2.0) to the EAAFP to develop, improve and promote the accessible inventory of nationally and internationally important coastal and inland sites for Arctic breeding waterbirds along the flyway.

Objective 3: Prevent illegal hunting and regulate unsustainable legal harvest of Arctic migratory birds along the flyway, with a focus on Spoon-billed Sandpiper, Lesser White-fronted Goose, Bar-tailed Godwit, and other priority species.

Action 3.1 (Russia): Initiate surveys of hunting pressure and support development and implementation of national and regional strategies and action plans for the elimination of illegal harvest of birds in the Russian Far East.

- a. Evaluate hunting pressure on Arctic-breeding shorebirds in stopover areas of Spoon-billed Sandpiper and other AMBI priority shorebird species in Kamchatka, Sakhalin and mainland coasts of Sea of Okhotsk. Analyse ring recoveries stored in the Russian Bird Ringing Centre to identify areas of high hunting pressure on AMBI species.
- b. Conduct surveys in selected areas of the Russian Far East to identify key concentrations of shorebirds, Lesser White-fronted Goose and Asian Black Brant during migration. Provide local/regional governments information to aid decision making to implement conservation actions including preparation of regional action plans. Plans should include information on raising awareness of impacts of illegal harvest and methods to reduce and eventually eliminate pressure on AMBI priority species.
- c. Work with federal and regional legislators to reduce/close sport hunting of all migratory shorebirds and geese of unfavourable conservation status in Eastern Russia.
- d. Update Russian national and regional Red Data books with key declining Arctic-breeding migratory species of CEAF to be included in new editions and initiate planning and implementation of national and regional activities for their conservation.
- e. Develop cooperation with the Wildlife Conservation Society (WCS) in conservation of Arctic-breeding shorebird habitats, creation of protected areas and mitigation of illegal hunting at the Russian Far East including educational workshops at WCS Terney base.
- f. Organise round-table discussion on evaluation of hunting pressure on shorebirds in the Russian Far East during the Wader Research Group Conference in Minsk in 2019 and relevant events in following years.

Action 3.2 (United States): Conduct outreach, assess the magnitude and impacts of legal subsistence harvest on priority birds in Alaska, with a focus on Emperor Goose and Bar-tailed Godwits.

- a. Develop outreach materials on priority species that are harvested in the spring and summer subsistence harvests; materials should be in English and relevant Indigenous languages.
- b. Work with the Alaska Migratory Bird Co-management Council, U.S. Fish and Wildlife Service Refuge Information Technicians, the Alaska Department of Fish and Game, and other relevant entities as appropriate, to discuss the status of priority species with rural Alaskans, and the role they play in regulating these populations.
- c. Continue to collect harvest data, with a special focus on Emperor Goose and Bar-tailed Godwit.
- d. Improve Arctic-breeding shorebird harvest data collection by incorporating recent ethnographic information on identification into survey materials.
- e. Conduct population modelling to assess how subsistence harvest and other limiting factors are impacting population sizes of priority species.
- f. Should levels of harvest be found to have a measurable impact on the priority species, work to:
 - promote a sustainable legal harvest of relevant species by working with management bodies,
 - develop outreach programs to reduce level of harvest, and
 - develop classroom programs to educate students about impact of harvest.
- g. Share best experiences with the Russian parts of Beringia and other areas of the Russian Far East on how to develop meaningful dialogue with local communities on sustainable hunting of waterbirds and the improvement of management practices.

Action 3.3 (China): Support development and implementation of national and regional strategies, action plans and implementation activities for the elimination of poaching of birds in China.

- a. Promote upgrade of the Critically Endangered Spoon-billed Sandpiper to the highest class of national protection in China and follow up with development of National Action Plan and adequate conservation measures of the species and its habitat.
- b. Work with local/regional governments to strengthen patrolling and law enforcement at all key coastal sites used by Spoon-billed Sandpiper, to prevent illegal poaching and conserve the population.
- c. Improve survey and monitoring efforts to increase the knowledge and distribution of priority species including

Brant Goose, Dunlin, Bar-tailed Godwits, and Great and Red Knots at stopover and wintering grounds to assess levels of and to mitigate poaching.

- d. Better understand and address the drivers behind the system of poaching and marketing of wild birds.
- e. Support the development of regular monitoring and enforcement actions at key markets and restaurants focused on illegal wild birds in cooperation with the National Grasslands and Forestry Administration, regional governments, law enforcement organizations and food control inspectors.
- f. Support the organization of national and regional workshops in China to address shorebird conservation and follow up actions on implementation including poaching control.

Action 3.4 (India): Work with the Ministry of Environment, Forest and Climate Change, Government of India, Bombay Natural History Society and other Indian ministries and research institutions to promote AMBI work and address illegal hunting issues.

- a. Host a side event on AMBI implementation in India during CMS COP in February 2020.
- b. Initiate a project in India to assess the illegal hunting of waders and other birds and develop poaching mitigation measures at regional and national levels.

Action 3.5 (All countries): Engage with the EAAFP and the CMS Task Forces on Illegal Killing/Hunting, Taking and Trade of Birds to develop implementation of actions to address this threat to migratory Arctic-breeding birds.

- a. Coordinate with EAAFP partners, NGOs and other national and subnational organizations to raise funds and promote implementation actions to address the illegal hunting and unsustainable harvest issue.
- b. Work on preparation of comprehensive overviews of the level of illegal hunting and unsustainable harvest problems within the flyway.
- c. Support the preparation of case studies aimed at highlighting solutions to poaching regulations and illegal harvest at demonstration sites, including raising awareness of the issue, conservation planning and alternative livelihood programs following methodology developed by the Spoon-billed Sandpiper Task Force in Bangladesh and Myanmar, and the Mediterranean experience accumulated by the CMS.
- d. Follow up on the Southeast Asia situation analysis to ensure adequate conservation measures in locations where Arctic-breeding migratory birds are subject of illegal hunting including recently identified areas in northern Vietnam and northern Sumatra (Indonesia) and new areas to be identified in 2019-2023.

Action 3.6 (All countries): Work to curb the use of equipment for illegally captured birds.

- a. Work to regulate the production, sale, and use of mist nets including at an international level, and promote the best practices from Arctic Council States and Observer countries.
- b. Work with local fish industries and local communities to reduce unintentional catch of shorebirds by fish nets with special attention to Spoon-billed Sandpiper stopover sites.

Action 3.7 (All countries): Raise the profile of illegal hunting, taking and trade of migratory Arctic birds by linking it to broader forums and discussions on illegal wildlife trade, the bushmeat trade, and wildlife crime discourse in CBD, CITES and other relevant organizations.

Action 3.8 (All countries): Support an illegal hunting technical workshop to share expertise and address illegal hunting along the flyway.

Action 3.9 (All countries): Develop or support monthly mist net surveys and removal activities in key Spoon-billed Sandpiper sites, using the positive experiences in China as an example.

Action 3.10. (All countries): Initiate a research project to understand sustainable harvest, management practices and bird poaching mitigation along the Central and East Asian Flyway considering cultural traditions with the equitable engagement and partnership of Arctic Indigenous Peoples and Indigenous Knowledge.

Action 3.11 (USA and Russia): Work to assess legal and illegal Emperor Goose harvest in Russia and Alaska to develop a consistent Beringia-wide legal framework for the management and long-term sustainability of the species that works within the Alaska Migratory Bird Co-Management Council and other Indigenous management organizations.

Action 3.12 (Russia, China, India): Prioritise conservation of Eastern and Central Asian populations of Lesser White-fronted Goose (LWFG) and reverse their declining trends including analysis of existing satellite tracking and migratory movement data.

- a. Prioritise conservation of LWFG on national and regional levels including development of regular monitoring schemes in key locations within the range.
- b. Develop collaboration of Bird Ringing/Banding Centres and other interested institutions in China and Russia to prioritise migration studies of LWFG. Collaborate with Bird Ringing Centre of Belgium and other countries.
- c. Summarise knowledge on LWFG status in India, run a survey in areas of recent species concentrations and

- initiate a satellite tracking project of the species to identify still undiscovered sites along the Central Asian Flyway of LWFG.
- d. Analyse the results of satellite tracking data and other sources of information to identify key stopovers of LWFG, conduct surveys and assessments there, identify threats and work with national/regional governments, research institutions and NGOs to develop monitoring techniques and implement conservation plans including elimination of poaching.
 - e. Explore the opportunities to implement Russian experience of development of temporary seasonal non-hunting/poaching control zones at stopovers, which are changing location from year to year due to climate factors and other reasons in cooperation with partners in Europe that are conducting similar activities in the African Eurasian flyway.
 - f. Run LWFG conservation session at the next Russian Waterfowl Conservation Conference and further plan LWFG conservation workshop in China.

Objective 4: Work with partners to increase the number and quality of population estimates of Arctic-breeding waterbirds in the Central and East Asian Flyways.

Action 4.1 (All countries): Work with partners such as EAAF Partnership, Wetlands International and other partners to improve population estimates for AMBI priority species by supporting collation of **up-to-date information on estimates and trends.**

Action 4.2 (All countries): Cooperate with partners such as the EAAF Partnership Waterbird Monitoring Task Force, Wetlands International, BirdLife International and the Global Flyway Network to strengthen monitoring of Arctic-breeding migratory waterbirds along the flyway, particularly in the Yellow Sea and Southeast Asia.

Objective 5: Address other threats to Arctic migratory birds along CEAF and improve international cooperation.

Action 5.1 (All countries): Analyse and assess development aid funding structures in high-income-countries and explore opportunities to help identify how AMBI can empower communities to support conservation of important priority species' habitats, and develop solutions to address illegal hunting where pressures exist.

Action 5.2. (All countries): Initiate work on evaluation of the effect of contaminants and/or pathogens on Arctic-breeding migratory birds as factors possibly decreasing their survival and reproduction potential and estimate bio-transition along the flyway to the Arctic.

Action 5.3. (All countries): Promote cooperation between EAAFP's Spoon-billed Sandpiper Task Force and AMBI in addressing Spoon-billed Sandpiper conservation activities identified in this work plan.

Action 5.4. (All countries): Create an intervention tool box to ensure resilience of Arctic-breeding migratory birds along Central and East Asian Flyways with the involvement of Arctic Council Observer countries as recommended by the draft AMBI crosswalk analysis under the PSI funded project.



Red Knot
Photo: Peter Prokosch

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ISBN: 978-9935-431-91-2