



the Critical Site Network tool

CSN Criteria

Sites included in CSN Tool have been identified using two numerical criteria derived from those used for the identification of Ramsar sites and IBAs. They embrace breeding, non breeding and stop-over sites used by migratory species during their annual cycles as well as those used by resident species year-round.

CSN Criterion 1

The site is known or thought to hold significant numbers of a population of a globally threatened waterbird species on a regular or predictable basis.

This criterion identifies sites for those species or populations classified globally as Critically Endangered, Endangered or Vulnerable (see www.birdlife.org).

CSN Criterion 2

The site is known or thought to hold $\geq 1\%$ of a flyway or other distinct population of a waterbird species on a regular or predictable basis.

The delimitation of 'flyway or other distinct populations' and associated 1% threshold figures follow the Wetlands International publication *Waterbird Population Estimates fourth edition* (2006). When the 1% threshold exceeds 20,000 individuals, or for species with large populations with no accurate estimates, the threshold is set at 20,000 individuals.

About WOW

The Wings Over Wetlands UNEP-GEF African-Eurasian Flyways Project is a US\$ 12 million initiative funded by The Global Environment Facility, the German Government, the UNEP-AEWA Secretariat and many other donors. The project is a joint effort between UNEP-GEF, Wetlands International, BirdLife International, UNEP-AEWA, the German Federal Agency for Nature Conservation, the Ramsar Convention on Wetlands, UNOPS, UNEP-WCMC and a range of other local partners in Africa and Eurasia.

Local Data and the CSN Tool

The Saloum-Niumi Complex in West Africa consists of coastal wetlands and savannah forests, and is endowed with one of the largest tracts of mangrove forest in the region. Niumi National Park is located in the north-western part of The Gambia, adjacent to the Saloum Delta National Park in Senegal. Recognition that the Saloum-Niumi Complex in fact forms a single ecological system led, in November 2008, to the designation of the area as the first trans-boundary Ramsar Site in Africa. Concerted action is now required to ensure the sustainable management of its natural resources and to address illegal harvesting of waterbirds and fish.

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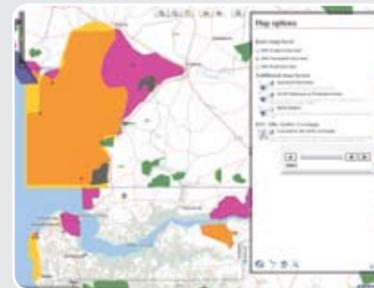


The complex is a Critical Site for 22 populations of migratory waterbirds, including 53% of the African population of Royal Tern (*Sterna maxima*) and over 40% of the West Africa populations of Caspian Tern (*S. caspia*), Grey-headed Gull (*Larus cirrocephalus*) and Slender-billed Gull (*L. genei*).

The Saloum-Niumi Complex is also one of 11 demonstration sites supported by WOW, which has resulted in the

development of an integrated management plan covering both national parks. A harmonised monthly monitoring scheme was established in mid-2008 covering 8 key areas and 50 observation points on both sides of the border. Detailed survey data is stored in a joint database accessible by both park authorities. Queries can be performed to retrieve immediate information on the numbers and distribution of migratory waterbirds in this area.

The CSN Tool provides important context to local data by helping interpret whether the changes observed in the delta are local events to which the management of the parks need to respond, or reflect larger population trends that need wider international cooperation.



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A New Tool for the Conservation of Migratory Waterbirds and their Habitats

The Critical Site Network (CSN) Tool is a new online resource for the conservation of 294 species of waterbirds and the important sites upon which they depend in Africa and Western Eurasia.

Leading global conservation organisations working for the protection of waterbirds and their habitats have joined forces to develop this tool, strengthening the implementation of the African-Eurasian Migratory Waterbird Agreement (AEWA) and the Ramsar Convention on Wetlands.

The tool makes it easy to obtain information on the sites critical for waterbird species by accessing several independent databases and analysing information at the biogeographical population level, so

providing a comprehensive basis for management and decision making. It is designed to help a range of different users from site managers to national authorities and international organisations.

The CSN Tool, one of the major achievements of the Wings Over Wetlands (WOW) project, is also an important example of the added value of cooperation between like-minded conservation organisations, international conventions and agreements, governments, UN agencies and other donors.

The CSN Tool supports both AEWA and the Ramsar Convention on Wetlands. It is also relevant to the EU Birds Directive and the Bern Convention's Emerald Network.

Flyway Conservation

Waterbirds travel vast distances, crossing many countries and often entire continents during their annual migration cycles along 'flyways' that connect breeding, staging and non-breeding areas.

These migratory cycles highlight the connectivity and interdependence of ecosystems across the globe. Moreover, these critical wetland sites the birds rely on provide important ecosystem services that make them vital for people, both locally as well as on a wider scale.

Creating a functioning 'ecological network' of such sites is therefore key to the flyway approach, and complementary local, national and international conservation action is essential to maintain healthy waterbird populations and conserve critical wetlands along these flyways. This concept is the essence of flyway conservation.

AEWA and the Ramsar Convention on Wetlands outline the requirements and provide guidelines for achieving effective management of flyway networks. The CSN Tool will help them meet these requirements.



CRITICAL SITE NETWORK TOOL

WWW.WINGSOVERWETLANDS.ORG/CSNTOOL

Sharing and Improving Information

The CSN Tool brings together information held in four databases used for international waterbird and wetland conservation. Jointly developed by Wetlands International, BirdLife International and the World Conservation Monitoring Centre (UNEP-WCMC), the CSN Tool internet portal provides comprehensive information on 294 waterbird species, the critical sites upon which they rely and the flyways they use.

- **World Bird Database (WBDB)** is managed by BirdLife International and stores information on all of the world's bird species and the key sites identified for their conservation (Important Bird Areas - IBAs).

- **International Waterbird Census (IWC) Database** is maintained by Wetlands International and includes over 25,000 sites of importance to waterbirds. It contains the most complete waterbird count data available in the African-Eurasian region and other flyways.

- **Ramsar Sites Information Service (RSIS)** provides data on wetlands designated as Wetlands of International Importance under the Ramsar Convention on Wetlands, generally called Ramsar sites. Wetlands International manages the database for the Ramsar Convention on Wetlands.

- **World Database on Protected Areas (WDBPA)** provides the most comprehensive dataset on protected areas worldwide and is managed by UNEP-WCMC in partnership with the IUCN World Commission on Protected Areas and the World Database on Protected Areas Consortium.

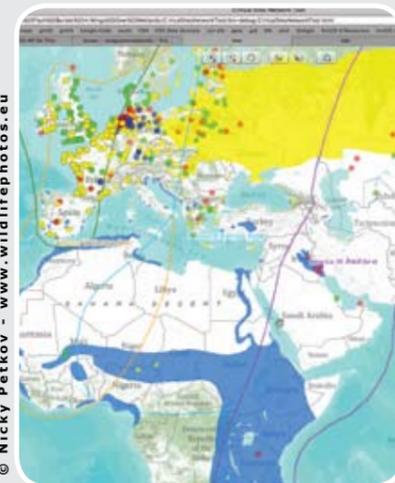
The CSN currently covers over **3020 sites** of importance to **561 populations** of waterbirds. It also helps to highlight areas for which information is lacking.

How Can the CSN Tool Help Me?

- **Conventions, International Development and Conservation Agencies and NGOs**

The CSN Tool can help plan broad-scale interventions and identify countries, regions and sites where conservation efforts should be prioritised. A governmental conservation agency can quickly locate where species in which they invest significant resources nationally, are located once they have left their breeding grounds or stop-over sites. If the threats described by the CSN Tool across the main network of sites are not sufficiently addressed, there is a potential for national efforts to be undermined.

CSN Tool information for the Near Threatened Black-tailed Godwit (*Limosa limosa*) reveals that additional protection measures are urgently needed outside the main breeding sites, and that we need to act in Africa and in Central Asia. While sites are well protected in Western Europe, many key sites for this population in Africa are unprotected. In addition, protected-area coverage in Eastern Europe needs strengthening. The map also highlights discrepancies in data quality. It shows that stop-over and non-breeding sites are still poorly known in Africa, the Middle East and Central Asia.



Map shows protected area status of the Critical Site Network for the Black-tailed Godwit. Green spots indicate protected areas, yellow spots partially protected, red spots unprotected areas. Blue spots indicate sites whose protection status is unknown.

- **National Governmental Conservation and Protected Areas Agencies and National NGOs**

The CSN Tool can help identify sites and populations that need protection within a national context and also highlights the importance of these sites in a flyway. This not only facilitates national reporting to AEWA and to the Ramsar Convention on Wetlands, but also helps with strategic reviews to develop national networks of sites or areas for species covered by AEWA.

The Near Threatened Lesser Flamingo (*Phoeniconaias minor*), is an example of a species that responds to changes in local environmental conditions by moving between wetlands, and thus depends on a network of suitable sites. The largest population, estimated to be 1.5 - 2.5 million individuals, occurs on the alkaline-saline lakes of the Great Rift Valley in East Africa. Here, aggregations of several hundred thousand birds provide one of the world's most impressive wildlife spectacles and so help support local economies through ecotourism. Lake Natron in Tanzania is by far the most important breeding site for this species, as it is the only breeding site for the East African population and also represents >75% of the species' global population.

The sites that the species uses outside the breeding season are also important. The Tool clearly identifies the non-breeding sites which are currently not protected, providing useful information for the establishment of an effective network of protected areas.

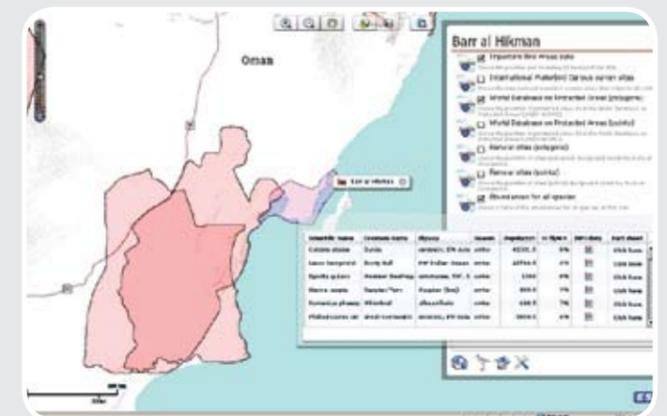


The CSN Tool enables conservation agencies to review gaps in the protected area coverage of species. The map in this example shows the relative importance of sites for the Lesser Flamingo. Only two of the five most important sites for the species in Tanzania are protected, others are only partially protected, while Lake Eyasi (where up to 35% of the population has been recorded) is not protected.

- **Site managers and local conservation groups**

The CSN Tool can help site managers maximise the contribution of individual sites to the conservation of global biodiversity, pinpoint the international importance of a site, identify populations for which a site is important in an international context and understand its ecological requirements. The CSN Tool caters to the specific needs of site managers, while also providing detailed information on the ecology of 294 waterbird species distilled from more than 2000 references.

Barr al-Hikman in Oman, has recently been recognised as one of the most important sites for waders in the Middle East and is one of the top sites in the AEWA region. By overlaying IBA boundaries with those of protected areas, and checking the ecological needs of each species for which the site is important, it emerges that the protected areas should be expanded to cover the coastal mudflats on which most of the waders feed.



Barr al-Hikman in Oman is one of the most important sites for migratory waterbirds in the AEWA region, hosting 30 waterbird populations at different stages of their annual cycle. The site search retrieves a map showing the individual site and provides information on the location of IBAs, IWC sites, protected areas and Ramsar sites. A myriad of information on species present at the site is available in a table that can be sorted further to highlight the most important populations. Links to species fact sheets provide access to information on ecological requirements and management practices.