

INFORMATION MANUAL ON MIGRATORY BIRD CONSERVATION

SONGOR RAMSAR AND BIOSPHERE RESERVE
ADA, GHANA

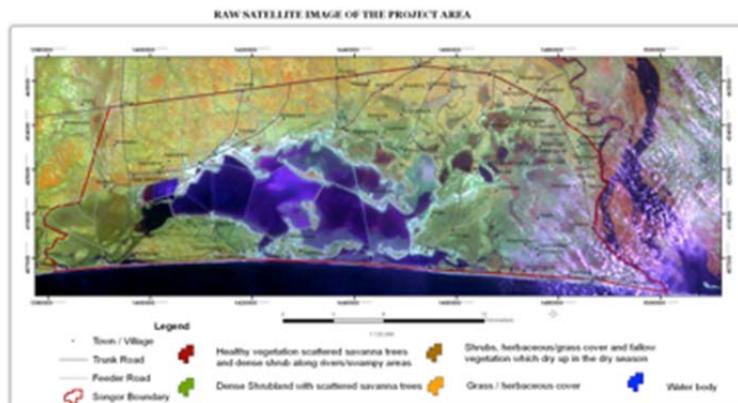


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1. Introduction

Songor Ramsar Site and UNESCO Biosphere reserve is one of the protected wetlands situated along the eastern portion of Ghana's 550 km sandy coast. Although Ghana ratified the Ramsar Convention on 22nd June 1988, Songor was designated as a Ramsar conservation site on 14th August 1992. Located between latitudes 06° 00'25''N and 00° 19'E and 05°45'30''N, 00° 41'40'' E, Songor Ramsar Site occupies an area of 51,133.3 hectares.



Songor is one of the biosphere reserves that were [adopted in June 2011](#) in Dresden, Germany during the 40-year celebration. The biosphere concept was established in 1971 and by 2010, 114 countries had designated 580 sites as biosphere reserves. Today, Songor is one of the 613 Biosphere Reserves in 119 countries of the world. The concept aims at developing the bases for sustainable use and conservation of biological diversity and for the improvement of relationships between people and their environment.

2. Habitat for people and wildlife

Located on the East Atlantic flyway, Songor ecosystem serves as a roosting, feeding and nesting site for resident, migratory and accidental bird species. Over 57 species of migratory birds have been recorded to visit and utilize the diverse ecosystem of the site. Other threatened species recorded at the site include four species of globally threatened marine turtles, two species of mangroves, the West African Manatee and diverse flora and fauna.



Migratory birds face diverse threats from natural sources and human activities that impact negatively on their habitat. The management approach includes the wise use of the wetland resources for the benefit of the local communities in a sustainable manner. Principally, the objective is to maintain and improve the ecological value of the wetlands particularly for water resources, fisheries and as a wildlife habitat.

The Wadden Sea Flyway Initiative (WSFI) under the sponsorship of the Wadden Sea World Heritage (BMUB Germany) provided funding for training and awareness creation in schools and communities to mitigate the impact of threats on migratory birds.

3. Bird habitats

A habitat is the particular environment in which an organism lives. Many birds favour particular habitats and each species has a unique set of environmental requirements. Birds use a wide range of habitats from forest to the desert. Some birds live at sea but come ashore to breed, while others live in the air, settling only at nest sites; some are entirely terrestrial and have even lost the power of flight; some live on grasslands and others in forest. Some migratory birds live in completely different habitats during their breeding and non-breeding seasons, such as the Whimbrel, one of the birds commonly found at Songor. During the breeding season it is found in open moorlands and tundra in Eurasia, but when it comes to Africa it lives along the coast and favours estuaries and lagoons flanked by mangroves.



Much of West Africa's coastline, especially in Ghana, is generally flat and sandy with some intertidal mud and sand flats. West Africa's largest intertidal mudflats occur along the coastlines of Mauritania, Guinea-Bissau, Guinea, Senegal and Sierra Leone. Brackish creeks and lagoons may occur behind the narrow coastal belt. Mudflats and

coastal lagoons are typically bordered by mangroves. Open swamps and swamp forest may also be found, usually further inland.

Lesson 1

List 4 common habitats of birds in your area

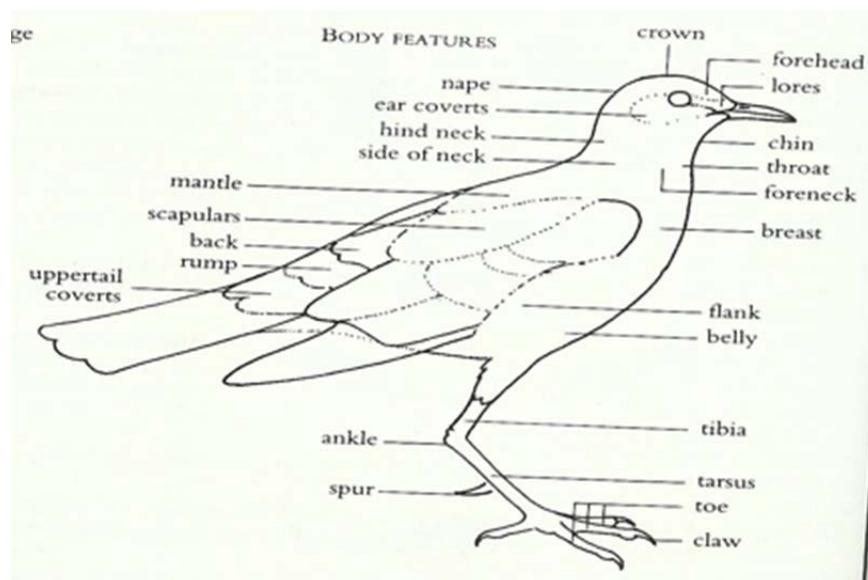
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4. Bird taxonomy

Taxonomy is the science of classification and naming of living things. The classification of organisms attempts to reflect the relationship between them, and works on a hierarchical system by which an organism is placed in categories of decreasing level, from kingdom to species and sub species. These categories are known as taxa (singular: taxon; hence taxonomy).

Vertebrates are divided into classes - mammals, birds, reptiles, amphibians and fish. Birds are vertebrates characterized by the possession of feathers and belong to the class Aves, the scientific name for birds. The class Aves contains large groups called orders. There are approximately 29 orders with names ending in '-iformes'. They share certain morphological (shape) features and are placed together, e.g. birds of the order *Passeriformes* (passerines or songbirds), *Strigiformes* (owls), *Piciformes* (woodpecker, honeyguides etc.). Some of the typical features of birds are illustrated in the diagram below:



Orders are divided into families ending with ‘-idea’. There are 180 bird families following the same logic or shared characters. Examples of families within the order of *Passeriformes* are *Ploceidae* (weavers).

Within families birds are clustered into genera (singular = genus). There are over 2000 genera. A genus comprises one or several species. Species are populations or group of populations of actually or potentially interbreeding individuals, reproductively isolated from all other such individuals.

Species may be divided into different subspecies (races). Subspecies are group of similar looking individuals, slightly different from other groups, but belonging to the same species. Members of a subspecies can or could still interbreed with other members of the same species (even from a different subspecies).

Lesson 2

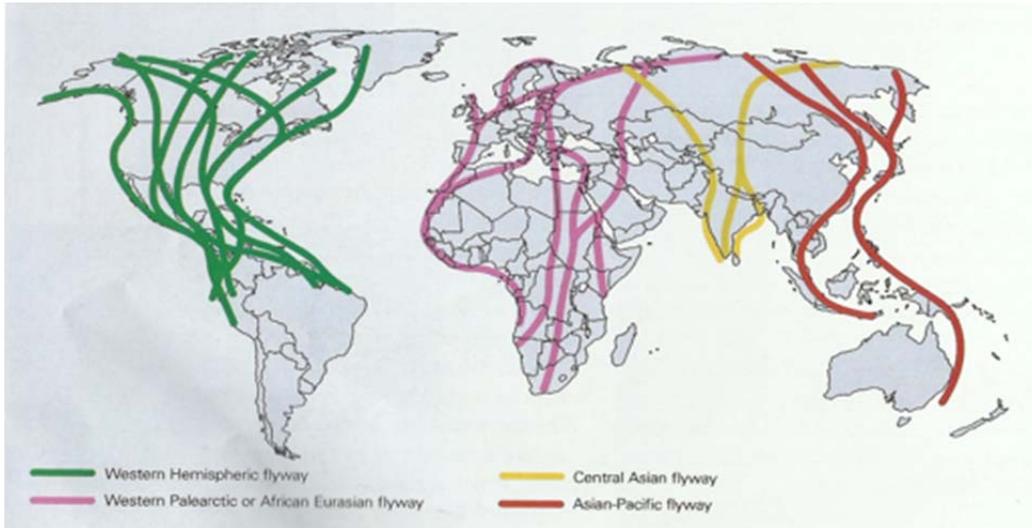
List features that make birds different from other species

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5. Flyways

Flyways are broad corridors regularly travelled by migratory birds, conceived of as aerial highways. Four major flyways have been defined in Europe and Asia for migratory waders and four in the Americas. These split up into a number of alternative routes and some species or individuals can cross from one flyway to another. Some birds can fly the whole journey in one flight but most rest along the way at stop over sites or staging areas, which may involve significant detours. Although other flying animals such as bats or butterflies may use flyways, the concept is more conventionally applied to migratory birds, especially migratory waterbirds, some of which have well-established flyways.

Ghana is within the boundary of two main flyways, the East Atlantic Flyway and the Mediterranean Flyway. The coastal wetlands of Ghana receive significant numbers of waterbirds that come from an extensive breeding range. At least 15% of waterbirds in Ghana occur in internationally important numbers.



Major flyway routes of migratory waders

6. Dangers on the way

Globally, there are many threats to migratory birds on their route, which include:

- Unsustainable hunting
- Conversion of habitats to agriculture / farms
- Urban infrastructural development and expansion
- Lethal electrocution
- Collision with power lines, towers, wind turbines etc.
- Pollution of bird habitats
- Introduction of exotic or alien species
- Climate change.

Some threats to migratory birds in Ghana are:

- Pollution of wetlands and other bird habitats
- Conversion of wetlands into farms, saltpans and industrial development
- Rapid population growth and demand for space; (this can lead to extra pressures, such as competition for space and food)
- Hunting by children
- Trapping and, in some areas, trapping for removal of rings; (rings are sometimes put on birds' legs by scientists to find out where they go and other information, such as age).

Lesson 3

List specific threats to some common migratory birds in your locality (local names accepted).

| | Birds species | Threats |
|---|---------------|---------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

7. The importance of migratory birds

Birds are important to people all over the world. Some of the main reasons are given below:

- Pollination of plants
- They can provide clues to local fishermen to locate fish
- Distribution of seeds
- Enriching diversity of nature
- Food for other animals
- Some birds are predators that keep populations of other animals in a healthy balance; some play an important role by feeding on crop pests
- They can act as indicators of environmental quality
- They are totem animals for cultural diversification and uniqueness
- Bird watching generates income as a form of ecotourism

Migratory birds are especially significant, because they are linked to the different seasons, and can be important for people in different parts of the world at different times. For instance, many of the migratory waders (smaller wading birds) that occur in Ghana breed as far north as the Arctic, and pass by different wetlands and coastlines of Europe on their journeys before and after breeding. One such site is the Wadden Sea, which belongs to The Netherlands, Germany and Denmark. Here, the birds are very important for ecotourism. So, the same birds can be important for tourism both in Europe and in Ghana and other parts of Africa.

Some migratory birds are known as 'rain birds' because they arrive just before the rainy season. Often migratory birds congregate, because it is safer to travel and migrate together. This is often an amazing spectacle to watch, especially when you can admire how far they have travelled.

Some migratory bird species that occur along the Ghana coast



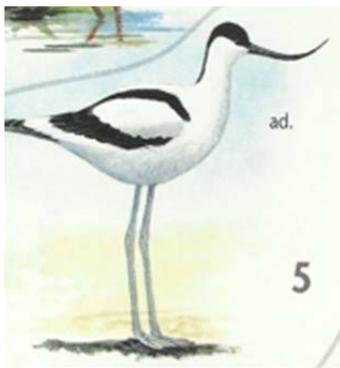
Black-winged Stilt
(*Himantopus himantopus*)



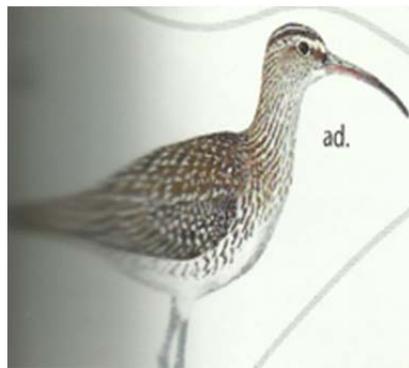
Common Ringed Plover
(*Charadrius hiaticula*)



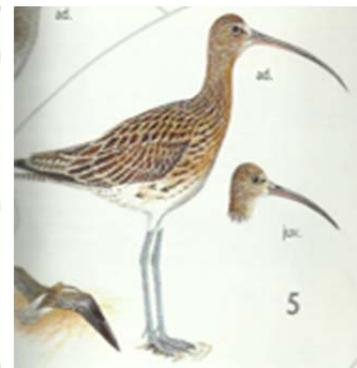
Eurasian Oystercatcher
(*Haematopus ostralegus*)



Pied Avocet
(*Recurvirostra avosseta*)



Whimbrel
(*Numenius phaeopus*)



Eurasian Curlew
(*Numenius arquata*)



Common Tern
(*Sterna hirundo*)



Roseate Tern
(*Sterna dougalli*)



Royal Tern
(*Sterna maxima*)



Sandwich Tern
(*Sterna sandvicensis*)



Little Egret
(*Egretta garzetta*)