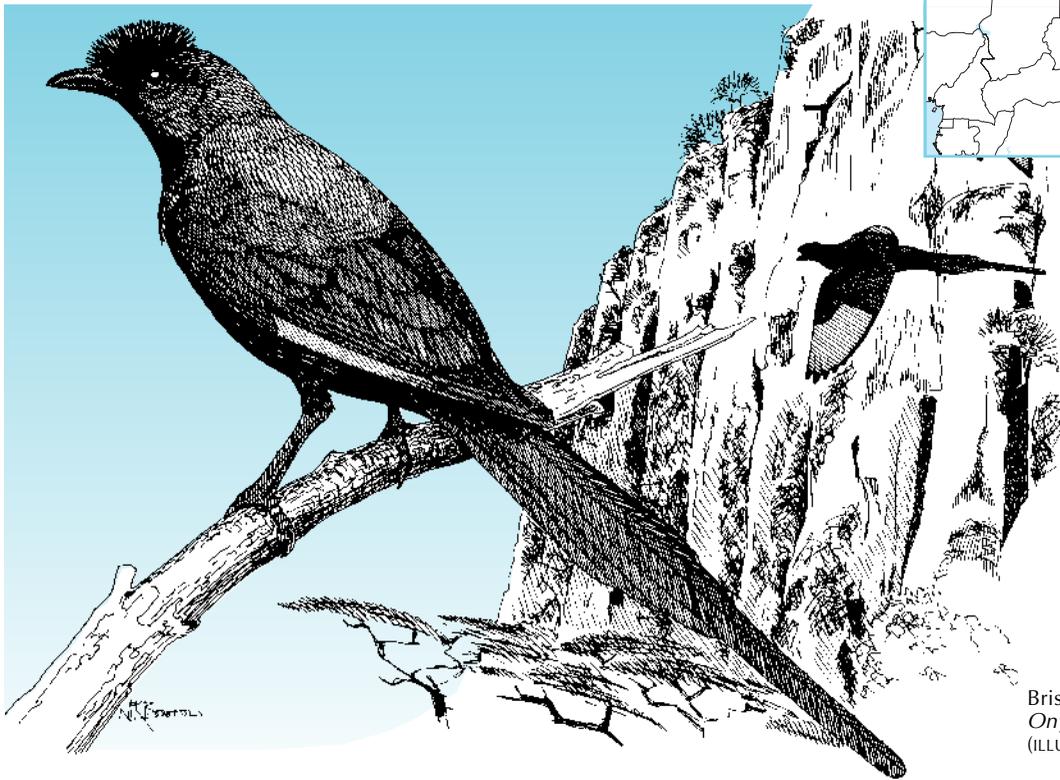


SOMALIA



Bristle-crowned Starling
Onychognathus salvadorii.
(ILLUSTRATION: NIK BORROW)

GENERAL INTRODUCTION

The Democratic Republic of Somalia has a land area of 637,660 km² and is bordered by Djibouti to the north-west, Ethiopia to the west, Kenya to the south, the Indian Ocean to the south-east and the Gulf of Aden to the north. In 1989 the human population was estimated at 8,248,000 with an average population density of 13/km². The annual rate of population increase was then 2.4%. However, the effects of the continuing political crisis and previous fighting have created large numbers of refugees, mainly in Ethiopia and Kenya, and there is no reliable estimate of the current population resident in Somalia.

The country has an extensive coastline of 2,000 km facing the Indian Ocean and 1,300 km along the Gulf of Aden. These two coasts meet at Raas Caseyr (Cape Guardafui), the Horn of Africa, just north of Ras Xaafuun, the most easterly point of the African continent. Most of the coastline consists of a series of sandy beaches and bays with occasional rocky cliffs and headlands. South of the capital Muqdisho (Mogadishu) there are coral reefs which form an intermittent barrier c.0.5–1.5 km offshore. These reefs are the northward extension of the reefs fringing the Kenyan and Tanzanian coastlines. There are none, however, facing the Gulf of Aden because of upwellings and seasonal cold-water currents. Along the northern coast there is a narrow coastal plain below 100 m elevation, mostly 5–10 km wide, but reaching 35 km near Djibouti and dwindling to nothing elsewhere. The coastal plain along the Indian Ocean coast is narrow in the north, but widens to 125 km at the Kenyan border and reaches a maximum of 200 km in the valley of the Jubba river.

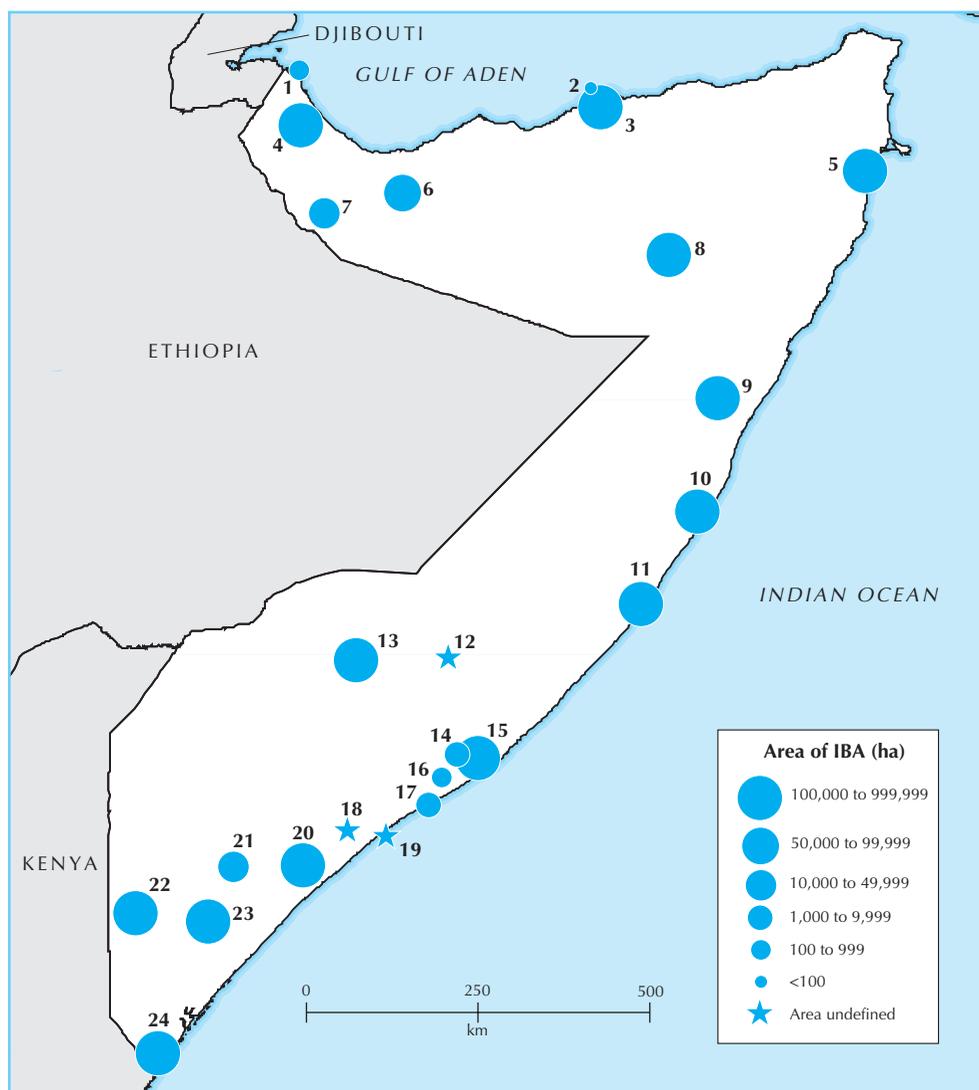
There are a number of offshore islands in Somalia's coastal waters. Ceebaad and Saacada Diin islands lie off Saylac, by the border with Djibouti. Further east, off the Gulf of Aden coast, lies Maydh island. Along the Indian Ocean coast a series of islets lie off Muqdisho, and further south the Bajun archipelago extends to the Kenyan border.

In the north a mountain chain stretches across the width of the entire country, inland from the Gulf of Aden coast. This chain is an extension of the southern margin of the Ethiopian Rift Valley

and supports scattered patches of juniper *Juniperus procera* forest and montane bushland. The highest point in Somalia, Surud Cad (Mount Surud, also known as Shimbiris or Ser'a), is part of this chain and rises to 2,408 m. The middle section of the Indian Ocean coast is backed by a steep escarpment which rises to just over 200 m immediately inland and continues to rise more gradually to 500 m. In the south, there is an escarpment c.135 km inland which rises sharply to a plateau at 550 m, on which another escarpment rises to a plateau at 1,100 m. This latter plateau is situated in Bakool Province and extends over an area of c.20,000 km².

The country's two main rivers are the Jubba and Shabeelle which flow into southern Somalia from Ethiopia. The Jubba flows into the Indian Ocean at Kismaayo, and in years of heavy flood the Shabeelle joins the Jubba inland of Kismaayo and also flows into the Indian Ocean. In drier years the Shabeelle peters out in swamps close to the coast south of Moqdisho. Laag Dheere and Laag Awaro are seasonal watercourses which drain extensive swamps in Kenya before entering Somalia, and at times of greatest flood they spill out into an extensive flood-plain of c.228,000 ha. They also drain into the Jubba. Between the estuary of the Jubba and the Kenyan border, three smaller rivers drain into the Indian Ocean; they are tidal for as much as 40 km inland and are fringed with mangroves, although these stands are fairly narrow (less than 20 m). North of Kismaayo there are no watercourses on the central Indian Ocean coast until Eyl at the mouth of the Nugaal valley, a seasonal river which drains east-south-east from the Ogo mountains on the northern coast. Although temporary, this watercourse contains many semi-permanent pools. North of the Nugaal valley a number of other temporary watercourses reach the Indian Ocean coast. On the Gulf of Aden coast a few short wadis drain the northern mountains. Towards the Djibouti border, between Saba Wanaaq and Saylac, no fewer than 27 watercourses reach the sea, although many only extend inland for 3 km, draining through a strip of coastal swamp with some mangroves.

The country's forest-cover is limited but, in 1983, it was estimated that there were 40,000 ha of *Juniperus* forest, almost entirely



Map 1. Location and size of Important Bird Areas in Somalia.

Table 1. Summary of Important Bird Areas in Somalia.

24 IBAs covering 47,689 km²

IBA code	Site name	Administrative region	Criteria (see p. 11; for A2/3 codes, see Tables 2/3)												
			A1	111	112	113	116	s063	s064	A3	A08	A09	A4i	A4iii	
SO001	Jasiira Ceebaad and Jasiira Sacaada Diin	Woqooyi Galbeed	✓											✓	✓
SO002	Jasiira Maydh	Sanaag												✓	✓
SO003	Daalo	Sanaag	✓				✓					✓			
SO004	Saylac	Woqooyi Galbeed										✓			
SO005	Raas Xaafuun–Raas Gumbax	Bari	✓				✓					✓			
SO006	Gacan Libaax	Togdheer	✓				✓	✓				✓			
SO007	Boorama plains	Woqooyi Galbeed	✓								✓	✓			
SO008	Lascaanod–Taleex–Ceel Chebet	Nugaal	✓									✓			
SO009	Ceel Hammure	Mudug, Nugaal	✓									✓			
SO010	Hobyo	Mudug	✓		✓							✓			
SO011	Xarardheere–Awale Rugno	Mudug, Galguduud	✓		✓							✓			
SO012	Buulobarde	Hiiraan	✓			✓						✓			
SO013	War Harqaan–isha Dolondole	Bakool										✓			
SO014	Xawaadley reservoir	Shabeellaha Dhexe										✓		✓	✓
SO015	Jowhar–Warshiikh	Shabeellaha Dhexe	✓		✓	✓						✓	✓		
SO016	Balcad Nature Reserve	Shabeellaha Dhexe				✓						✓			
SO017	Jasiira lagoon and Muqdisho islets	Banaadir	✓		✓							✓		✓	
SO018	Arbowerow	Shabeellaha Hoose										✓			✓
SO019	Ceel Munye–Ceel Torre	Shabeellaha Hoose												✓	
SO020	Boja swamps	Shabeellaha Hoose										✓			
SO021	Aangole–Farbiito	Jubbada Dhexe	✓	✓		✓						✓	✓		
SO022	Laag Dheere	Jubbada Hoose										✓			
SO023	Far Waamo	Jubbada Hoose	✓	✓		✓						✓	✓	✓	✓
SO024	Laag Badaana	Jubbada Hoose	✓									✓	✓		
Total number of IBAs qualifying:			15	2	4	5	3	1	1	21	4	6	5		

restricted to the northern mountain chain, and 60,000 ha of riverine forest, mainly along the Jubba and Shabeelle rivers. Since then much riverine forest has been cleared, with recently only an estimated 2,000 ha remaining along the Jubba and 700 ha along the Shabeelle. Riverine forest has a canopy height of c.20 m and dominant tree species include *Mimusops fruticosa*, *Garcinia livingstonei*, *Ficus sycomorus* and *Sorindea madagascariensis*. Dense savanna woodland was estimated to cover c.2,500,000 ha in 1983, with a further 6,191,000 ha covered by deciduous thorn-bush dominated by shrubs and small trees of *Acacia* and *Commiphora* spp. Semi-desert grassland and shrubland occurs in areas where annual rainfall is under 200 mm; in such areas *Aloe* and *Euphorbia* spp. are prominent and there are no trees. These latter habitats have also been reduced, particularly by overgrazing, but there is no information of their current extent.

The climate is hot and humid at the coast and hot and dry in the interior. Mean annual rainfall is higher in the south (300–500 mm) than the north, but here also it reaches 500 mm locally in the western Ogo highlands. There are two rainy seasons, March–June and September–December, but the rains are unreliable and droughts are relatively frequent. Mean annual rainfall at Berbera on the Gulf of Aden is 59 mm, with April the wettest month, averaging 10 mm. At Hargeysa, in the Ogo mountains, the mean is 389 mm and south of the mountains at Burco it is 200 mm. Further south, the mean figure for Muqdisho is 400 mm and for Afmadow 550 mm.

The Somali are traditionally a nation of pastoral nomads, forced by the country's demanding climate and environment to move with their sheep, goats, camels and cattle to follow water and pasture. During the dry season the most arid part of the country, the northern coast, is generally deserted by the nomads, who move up into the cooler, moister and therefore more vegetated hills of the Golis and Ogo mountains. The high plateau which extends south of these hills generally receives more rainfall, permitting more fixed agriculture; sorghum is grown, particularly near Hargeysa. Within this region perennial wells provide dry-season watering places. Further south, a dry bush and grassland region, known as the Haud, covers a large part of the Somali interior. There are no permanent water-sources here. The region between the Shabeelle and Jubba rivers is the richest arable zone in the country, principal crops being sorghum, sesame, beans, squashes and cassava as well as fruits and sugar-cane, principally for export. An estimated 81,500 km² of the country (13%) is suitable for cultivation, although in 1991 it was estimated that only 10,000 km² was farmed on a regular basis, with a further 288,500 km² (45%) suitable for grazing. The collection of frankincense and myrrh (from *Commiphora* and *Boswellia* spp. trees) was an important economic activity over much of the country.

Ethnically and culturally the Somali belong to the Kushitic group of peoples, with close relations to groups in the surrounding African countries, but they also claim descent from Arabian lineages and the family of the Prophet and it is in these connections that the country's strong Islamic roots lie. Arabic is almost an unofficial second language, but Somali is understood throughout the country and in neighbouring regions, although there are distinct dialect differences between the southern cultivators and the northern pastoralists. The largest effective social unit in Somalia is the clan which is governed by elders and a near-honorary leader, the Sultan. Although there is some traditional association of different clans with certain areas of pasture and dry-season watering holes, this is not strictly regulated and, in general, access to water and pasture is the right of any Somali. Cultivation of land bestows some land-use rights, which last for two or three seasons of fallow and which has led to some areas being cultivated without being farmed simply as a means of laying claim to the land. Within Somali clans, certain tasks such as leather- and metal-working and, significantly, hunting were traditionally regarded as subordinate tasks only to be undertaken by a lower-ranking social group known as the Sab, who were separated from other Somalis by restrictions on marriage.

The political history of the Somali peoples is a long and complex one. The Somali influence in north-east Africa covered Djibouti, the eastern region of Ethiopia, the northern province of Kenya and the whole of the modern state of Somalia from around the fifteenth century to the latter part of the nineteenth, and they have occupied the Somali peninsula since c.1000 AD. At the end of the nineteenth century the competing colonial ambitions of Britain, France and Italy, and the claims of the Ethiopian Empire, led to the division of

the Somali people between five states: Djibouti (France), British Somaliland (Britain), Italian Somaliland (Italy), Kenya (Britain) and the Ogaden region (Ethiopia). For a brief period prior to and during the Second World War the Italians held all these regions apart from Djibouti and Kenya, but victory by the Allies eventually returned the Ogaden to Ethiopia, British Somaliland to Britain and left Italy with limited trusteeship of southern Somalia. A rise in Somali nationalism during the 1950s forced the British and Italians to allow British Somaliland and southern Somalia their independence and simultaneous unification in 1960. Following this, the Somalis fought a war with Ethiopia for the Ogaden, a continuation of disputes over the region that date back to the fifteenth century and which have some roots in religious differences between the Islamic Somalis and the mainly Christian Ethiopians. However, they were unsuccessful in their attempt to further unite the Somali peoples.

The current political situation in Somalia has more to do with a return to earlier divisions than with the Somali nationalists' dream of a united Greater Somalia. The south of Somalia has no current effective government, with different clans fighting for control of sections of Muqdisho. North-western Somalia, the former British Somaliland, has declared itself an independent state, the Republic of Somaliland, with the self-proclaimed government sitting in the old British capital of Hargeysa. North-eastern Somalia (formerly the northern part of Somalia Italiana) has also proclaimed independence as the Republic of Puntland; it includes the north-coast port of Boosaaso, and extends southwards to the town of Galkaacyo; its 'capital' is the town of Garoowe.

Against this background, biodiversity-conservation recommendations for the country may appear irrelevant. However, any predictions for the future of the country, other than a total council of despair, should recognize an eventual return to some form of stability and, at such a time, the country's natural resources will be the basic materials from which the country can rebuild itself. It is essential, therefore, that recommendations should exist, identifying key areas of natural resources for sustainable utilization and biodiversity conservation.

One of the principal environmental problems in Somalia is the continuous shift of families from a nomadic pastoral lifestyle to agro-pastoralism or agriculture. In both cases land is completely cleared for farming, often in areas which are, at best, marginal for cultivation. This can cause major environmental degradation, with the land subsequently lost both to agriculture and to grazing. Another major, but more recent, problem is the cutting of trees for making charcoal for export to the Arab countries. During the period of military rule (October 1969 to early 1991) the export of charcoal was banned, and the import of chainsaws was prohibited. Now 'businessmen' have imported chainsaws and are cutting forest and woodland wholesale for charcoal, which is being exported to Arabia through Kismaayu and the new 'port' of Ceel Macaan, north of Muqdisho. It is said that a very large area centred on Kismaayu is now totally devoid of trees.

Other problems include desertification, associated with overgrazing, which has its roots in periodic droughts and increased human population, compounded by a lack of a traditional regulation of grazing. Overgrazing is a particular threat to the relatively fragile arid-bushland communities which cover much of the country and is especially severe around refugee camps and water points. In many areas, the presence of numerous water points has led to overstocking and, consequently, to overgrazing.

The few areas of wetland in the country attract intense cultivation pressure. Although hunting was traditionally not widespread in Somalia and, indeed, was regarded as the task of inferiors, increased population pressures, the breakdown of traditional attitudes and the near-ubiquity of guns resulting from recent and current political crises, has made it an enormous threat to the survival of, in particular, larger mammal populations in Somalia.

ORNITHOLOGICAL IMPORTANCE

Somalia has an avifauna of 655 species of which 300 are resident, 88 are intra-African migrants and 151 are Palearctic migrants. Nineteen species are of global conservation concern, of which three, *Circus macrourus* (NT), *Falco naumanni* (VU) and *Acrocephalus*

Table 2. The occurrence of restricted-range species at Important Bird Areas in Somalia. Sites that meet the A2 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **blue bold**.

111 – East African coastal forests Endemic Bird Area (one species in Somalia; two sites meet the A2 criterion)						
IBA code:			021		023	
<i>Tauraco fischeri</i>			✓		✓	
112 – Central Somali coast Endemic Bird Area (two species in Somalia; four sites meet the A2 criterion)						
IBA code:		010	011	015	017	
<i>Mirafrā ashi</i>				✓		
<i>Spizocorys obbiensis</i>		✓	✓	✓	✓	
Number of species recorded:		1	1	2	1	
113 – Jubba and Shabeelle valleys Endemic Bird Area (three species in Somalia; five sites meet the A2 criterion)						
IBA code:	012	014	015	016	021	023
<i>Streptopelia reichenowi</i>	✓				✓	
<i>Laniarius liberatus</i>	✓			?		
<i>Ploceus dichrocephalus</i>		✓	✓	✓	✓	✓
Number of species recorded:	2	1	1	1	2	1
116 – North Somali mountains Endemic Bird Area (three species in Somalia; three sites meet the A2 criterion)						
IBA code:				003	005	006
<i>Columba oliviae</i>				✓	✓	✓
<i>Turdus ludoviciae</i>				✓		✓
<i>Carduelis johannis</i>				✓		
Number of species recorded:				3	1	2
s063 – Northern Ethiopia Secondary Area (one site meets the A2 criterion)						
IBA code:						006
<i>Cercomela dubia</i>						✓
s064 – North-west Somalia Secondary Area (one site meets the A2 criterion)						
IBA code:						007
<i>Heteromirafrā archeri</i>						✓

griseldis (NT) are non-breeding visitors from the Palearctic; all three overwinter in small numbers, but can occur more commonly on passage; *A. griseldis* may, however, prove to be a more common winter visitor locally. Another non-breeding visitor is *Phalacrocorax nigrogularis* (NT), but its status in Somalia is unclear. The remaining globally threatened species are all resident or presumed to be: *Circaetus fasciolatus* (NT), *Eupodotis humilis* (NT), *Larus leucophthalmus* (VU), *Columba oliviae* (VU), *Streptopelia reichenowi* (NT), *Tauraco fischeri* (NT), *Mirafrā ashi* (EN), *Heteromirafrā archeri* (EN), *Spizocorys obbiensis* (NT), *Anthus melindae* (NT), *Laniarius liberatus* (CR), *Turdus ludoviciae* (EN), *Cercomela dubia* (NT), *Sylvietta philippae* (NT) and *Carduelis johannis* (EN). Of these, *C. oliviae*, *M. ashi*, *H. archeri*, *S. obbiensis*, *L. liberatus*, *T. ludoviciae* and *C. johannis* are all endemic to Somalia with *M. ashi*, *H. archeri* and *L. liberatus* all known only from very small areas. In addition, there is only one Somali record of *C. dubia*, a species which also occurs in Ethiopia. There are two further species, both larks, *Mirafrā somalica* and *Alaemon hamertoni*, which are endemic to Somalia, neither of which are considered to be at risk.

Eleven restricted-range species occur of which only one, *Ploceus dichrocephalus*, is not considered of global conservation concern. Thus, two Endemic Bird Areas (EBAs) fall entirely within Somalia, the Central Somali coast (EBA 112) and the North Somali mountains (EBA 116), as do parts of two others, the East African coastal forests (EBA 111) and the Jubba and Shabeelle valleys (EBA 113). In addition, part of the Northern Ethiopia Secondary Area of bird endemism (s063) and all of the North-west Somalia Secondary Area (s064) lie within Somalia.

Almost all of the country lies within the Somali–Masai biome (A08) and 99 of the 129 species restricted to this biome are found in Somalia. The East African Coast biome (A09) extends just into the southern extremity of Somalia, where only 13 of the 38 characteristic species of this biome have been recorded.

Although much of the country is dry semi-desert, there are a number of significant concentrations of waterbirds. These include breeding populations of, in particular, terns (Sterninae) on offshore islands, on coastal wetlands close to the Djibouti border and others near the frontier with Kenya, both on the coast and associated with the Shabeelle and Jubba river systems.

CONSERVATION INFRASTRUCTURE AND PROTECTED-AREA SYSTEM

Under current conditions in Somalia it is unlikely that there is any conservation infrastructure remaining. In the absence of more recent information, the situation prior to the political crisis is described. Responsibility for conservation of the terrestrial environment lay with the Ministry of Livestock, Forestry and Range. Under the authority of the National Rangeland Agency (NRA) within this Ministry, the country was effectively divided into three, between the Central Rangelands Development Project (CRDP), the Northern Rangelands Project and the later Southern Rangelands Project, which had jurisdiction in their respective areas. The NRA, established in 1976 as part of the Drought Rehabilitation Programme, was responsible for the conservation and development of range, forest and wildlife resources. Its duties included the management of forest and range resources to ensure the preservation of the country's flora and fauna, implementation of floral and faunal resource inventories and the prevention of destruction through desertification of productive forest and rangeland.

In 1971 the National Parks Agency was created as a self-governing body reporting directly to the President but was, in 1975, placed under the Ministry of Livestock, Forestry and Range. The Agency became a department of this ministry in 1977 and was renamed the Wildlife Department. It was responsible for law enforcement, including anti-poaching activities, project planning and development, licence and exporting activities and the creation and management of National Parks and conservation areas in the country.

Rules governing conservation and the establishment and management of protected areas are enshrined in the Law on Fauna (Hunting) and Forest Conservation which was established in 1969 and amended in 1970, 1971, 1975, 1978 and 1979. This law allows for the designation of five kinds of protected area:

- Game Reserve—hunting without a ministerial licence, entry and residence, starting fires, and possession a weapon capable of killing an animal are prohibited.
- Controlled Area—written permission is required for hunting, but entry and residence are not restricted.
- Partial Game Reserve—hunting of certain species without ministerial licence is prohibited.
- Forest Reserve—established by Presidential decree; the cutting, burning, removing or damaging of any forest product, construction of a building, shelter or livestock enclosure, grazing of livestock, collection of honey or beeswax, construction of a road, path, watercourse, fence or obstruction are all prohibited, although exemptions from any of these can be made by the Minister.
- Grazing Reserve—access to, and timing of, grazing are controlled and a fee per head is paid.

In addition, in 1990 the Wildlife Law and Regulations were proposed which gave provision for the establishment of a further five categories of protected area:

- National Park—hunting, molesting or disturbing animals, various forms of pollution, obstructing watercourses, damaging vegetation, collecting honey or beeswax, introducing any animal, clearing or cultivating land, mining, quarrying or prospecting and the carrying of any weapon, ammunition or explosive are all prohibited.
- National Conservation Area—entry of non-residents without a permit is restricted.
- Transfrontier Wildlife Protection Area—to be established in frontier zones adjacent to protected areas on the other side of the border.
- Provisional National Reserve/Provisional National Park—to be established immediately where there is an urgent need for the protection of an area.

Table 3. The occurrence of biome-restricted species at Important Bird Areas in Somalia. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**. Any other species with a restricted range are highlighted in blue.

A08 – Somali–Masai biome (99 species in Somalia; 21 sites meet the A3 criterion)																							
IBA code:	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	020	021	022	023	024		
<i>Melierax poliopterus</i>		✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓		
<i>Francolinus leucoscepus</i>	✓	✓		✓	✓					✓		✓	✓	✓		✓	✓		✓	✓	✓		
<i>Acryllium vulturinum</i>								✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Neotis heuglini</i>	✓	✓		✓				✓	✓	✓			✓										
<i>Eupodotis gindiana</i>		✓		✓	✓		✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Eupodotis humilis</i>	✓			✓		✓	✓																
<i>Pterocles decoratus</i>										✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Columba oliviae</i>	✓		✓	✓																			
<i>Streptopelia reichenowi</i>										✓									✓				
<i>Poicephalus rufiventris</i>	✓			✓		✓				✓		✓	✓	✓		✓		✓	✓	✓	✓		
<i>Corythaixoides leucogaster</i>	✓	✓		✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Caprimulgus fraenatus</i>					✓																		
<i>Caprimulgus donaldsoni</i>				✓	✓					✓		✓	✓	✓									
<i>Apus berliozii</i>			✓		✓			✓					✓		✓								
<i>Colius leucocephalus</i>									✓	✓		✓	✓	✓	✓	✓		✓	✓	✓			
<i>Merops revoilii</i>	✓			✓		✓	✓	✓	✓	✓					✓								
<i>Phoeniculus somaliensis</i>	✓	✓		✓	✓	✓								✓				✓		✓	✓		
<i>Rhinopomastus minor</i>	✓	✓		✓	✓	✓			✓					✓	✓	✓	✓	✓			✓		
<i>Tockus flavirostris</i>	✓	✓		✓		✓					✓	✓							✓		✓		
<i>Tockus deckeni</i>										✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Tockus hemprichii</i>	✓	✓		✓	✓																		
<i>Tricholaema melanocephala</i>		✓		✓	✓				✓			✓	✓			✓		✓	✓	✓	✓		
<i>Trachyphonus erythrocephalus</i>				✓		✓																	
<i>Trachyphonus darnaudii</i>										✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		
<i>Mirafra hypermetra</i>												✓	✓	✓		✓					✓		
<i>Mirafra somalica</i>	✓		✓			✓	✓	✓	✓				✓										
<i>Mirafra ashi</i>													✓										
<i>Mirafra collaris</i>							✓	✓															
<i>Mirafra alopex</i>																							
<i>Mirafra gilletti</i>		✓		✓	✓	✓			✓														
<i>Mirafra poecilosterna</i>												✓	✓	✓	✓						✓		
<i>Heteromirafra archeri</i>					✓																		
<i>Eremopterix signata</i>				✓		✓				✓		✓	✓	✓	✓					✓			
<i>Alaemon hamertoni</i>	✓		✓			✓	✓																
<i>Calandrella somalica</i>	✓			✓	✓	✓																	
<i>Spizocorys obbiensis</i>								✓	✓				✓		✓								
<i>Pseudalaemon fremantlii</i>	✓			✓		✓	✓	✓	✓						✓								
<i>Tmetothylacus tenellus</i>		✓		✓	✓					✓		✓	✓	✓	✓	✓	✓		✓	✓	✓		
<i>Macronyx aurantiigula</i>												✓	✓	✓	✓	✓		✓		✓			
<i>Lanius cabanisi</i>												✓	✓	✓	✓	✓	✓	✓		✓	✓		
<i>Lanius dorsalis</i>										✓		✓	✓	✓	✓	✓	✓			✓	✓		
<i>Lanius somalicus</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		✓								
<i>Dryoscopus pringlii</i>																✓							
<i>Tchagra jamesi</i>				✓		✓				✓		✓	✓	✓	✓		✓	✓	✓	✓	✓		
<i>Laniarius ruficeps</i>				✓			✓		✓				✓	✓	✓	✓					✓		
<i>Laniarius liberatus</i>										✓					?								
<i>Rhodophoneus cruentus</i>	✓	✓		✓	✓	✓				✓		✓	✓										
<i>Turdus tephronotus</i>														✓	✓	✓					✓		
<i>Turdus ludoviciae</i>	✓			✓																			
<i>Oenanthe phillipsi</i>	✓		✓	✓	✓	✓		✓															
<i>Cercomela scotocerca</i>		✓		✓																			
<i>Cercomela dubia</i>				✓																			
<i>Turdoides aylmeri</i>									✓			✓	✓	✓	✓				✓	✓	✓		
<i>Turdoides rubiginosus</i>										✓	✓	✓	✓	✓	✓	✓		✓		✓	✓		
<i>Turdoides leucopygius</i>				✓	✓																		
<i>Cisticola cinereolus</i>						✓						✓	✓								✓		
<i>Cisticola nanus</i>																							
<i>Prinia somalica</i>		✓		✓			✓		✓			✓	✓	✓	✓			✓					
<i>Calamonastes simplex</i>	✓	✓		✓		✓				✓	✓	✓	✓	✓	✓	✓					✓		
<i>Eremomela flavicrissalis</i>	✓					✓	✓		✓			✓			✓								
<i>Sylvietta philippae</i>				✓		✓	✓			✓													
<i>Sylvietta isabellina</i>				✓								✓		✓	✓	✓		✓					
<i>Sylvia boehmi</i>				✓	✓																		

Table 3 ... continued. The occurrence of biome-restricted species at Important Bird Areas in Somalia. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**. Any other species with a restricted range are highlighted in blue.

A08 – Somali–Masai biome ... continued (99 species in Somalia; 21 sites meet the A3 criterion)																							
IBA code:	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	020	021	022	023	024		
<i>Bradornis microrhynchus</i>		✓		✓	✓	✓			✓					✓	✓	✓			✓	✓	✓		
<i>Batis perkeo</i>									✓						✓				✓	✓			
<i>Anthoscopus musculus</i>									✓			✓	✓		✓								
<i>Parus thruppi</i>	✓			✓	✓																		
<i>Anthreptes orientalis</i>		✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Nectarinia hunteri</i>				✓							✓	✓	✓	✓	✓		✓	✓		✓	✓		
<i>Nectarinia habessinica</i>	✓	✓		✓	✓	✓																	
<i>Nectarinia nectarinioides</i>																		✓					
<i>Zosterops abyssinicus</i>	✓			✓	✓							✓	✓	✓						✓	✓		
<i>Emberiza poliopleura</i>				✓	✓					✓		✓	✓	✓	✓	✓							
<i>Serinus donaldsoni</i>							✓		✓														
<i>Serinus dorsostratus</i>		✓		✓	✓							✓	✓	✓	✓								
<i>Rhynchostruthus socotranus</i>	✓			✓	✓																		
<i>Carduelis johannis</i>	✓																						
<i>Uraeginthus cyanocephalus</i>															✓	✓							
<i>Uraeginthus ianthinogaster</i>				✓	✓					✓					✓	✓	✓				✓		
<i>Estrilda charmosyna</i>		✓		✓	✓										✓						✓		
<i>Vidua hypocherina</i>				✓										✓		✓				✓	✓		
<i>Vidua fischeri</i>				✓	✓			✓				✓	✓	✓	✓	✓				✓	✓		
<i>Dinemellia dinemelli</i>		✓		✓	✓			✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓		
<i>Passer castanopterus</i>	✓	✓	✓	✓			✓		✓					✓						✓			
<i>Passer gongonensis</i>									✓	✓		✓	✓	✓	✓	✓			✓	✓	✓		
<i>Plocepasser donaldsoni</i>																					✓		
<i>Pseudonigrita cabanisi</i>						✓				✓							✓		✓				
<i>Ploceus bojeri</i>										✓		✓	✓	✓		✓		✓		✓	✓		
<i>Ploceus galbula</i>	✓	✓		✓	✓																		
<i>Ploceus spekei</i>				✓	✓				✓														
<i>Ploceus dichrocephalus</i>												✓	✓	✓					✓		✓		
<i>Euplectes diadematus</i>												✓	✓	✓	✓	✓	✓	✓		✓	✓		
<i>Onychognathus blythii</i>	✓		✓	✓		✓																	
<i>Onychognathus salvadorii</i>					✓						✓												
<i>Lamprotornis shelleyi</i>	✓			✓						✓										✓	✓		
<i>Speculipastor bicolor</i>				✓		✓	✓						✓	✓	✓				✓				
<i>Spreo fischeri</i>						✓					✓	✓	✓	✓	✓	✓			✓		✓		
<i>Spreo albicapillus</i>	✓	✓		✓	✓			✓		✓										✓			
<i>Cosmopsarus regius</i>				✓				✓				✓	✓	✓					✓	✓	✓		
Number of species recorded:	31	26	9	57	34	29	20	11	26	31	10	43	50	47	46	32	16	31	21	39	34		
A09 – East African Coast biome (13 species in Somalia; four sites meet the A3 criterion)																							
IBA code:	015	021	023	024	IBA code:	015	021	023	024														
<i>Circaetus fasciolatus</i>			✓		<i>Telophorus quadricolor</i>				✓														
<i>Tauraco fischeri</i>		✓	✓		<i>Prionops scopifrons</i>				✓														
<i>Halcyon senegaloides</i>	✓	✓	✓	✓	<i>Turdoides squamulatus</i>		✓	✓	✓														
<i>Lybius melanopterus</i>			✓	✓	<i>Erythrocerus holochlorus</i>			✓	✓														
<i>Campethera mombassica</i>			✓	✓	<i>Nectarinia chalcomelas</i>		✓	✓	✓														
<i>Anthus melindae</i>	✓	✓	✓		<i>Lamprotornis corruscus</i>			✓	✓														
<i>Phyllastrephus fischeri</i>			✓		Number of species recorded:	4	9	11	8														

There are no existing marine or coastal protected areas in Somalia, nor is there any national legislation concerning the establishment and management of such areas.

INTERNATIONAL MEASURES RELEVANT TO THE CONSERVATION OF SITES

Somalia is a party to the Convention on International Trade in Endangered Species and to the Convention on Migratory Species. At the regional level, Somalia is signatory to the African Convention on the Conservation of Nature and Natural Resources, is a party to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, the Protocol concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region and the Regional Convention for the Conservation of the Red Sea and Gulf

of Aden Environment. Somalia is also, with Djibouti, Ethiopia, Kenya, Sudan and Uganda, a member state of the Inter-governmental Authority on Drought and Development (IGADD). This grouping, established to combat desertification, has biodiversity conservation among the priority areas of its programme.

OVERVIEW OF THE INVENTORY

This inventory identifies 24 Important Bird Areas (IBAs) in Somalia (Map 1, Table 1), which cover at least 47,689 km² or c.7.4% of the land surface. The sizes of three sites remain undefined, while those areas given for at least some of the other sites should not be taken as definitive. Fifteen sites contain all resident species of global conservation concern, while six sites hold species of the Jubba and Shabeelle valleys EBA, three the species of the North Somali mountains EBA, four those of the Central Somali coast EBA and

two sites the one species of the East African coastal forests EBA (Table 2). Four sites include, between them, all 13 species of the East African Coast biome, while the 21 sites identified for the Somali–Masai biome hold 97 of the 99 species of this biome recorded nationally (Table 3). Three sites are identified solely on the basis of their importance for congregatory waterbirds, while four others also qualify for congregations as well as for other reasons.

It should be noted, however, that in some cases the presence of species at sites is inferred from what is known of species' distributions in the region or from areas adjacent to the site. This is reflected in the wording used in the Box for key species within the site-accounts. It is clear, however, that further survey work is needed, when circumstances permit, to confirm the importance of some of these sites, particularly in the light of recent history which necessarily means that much of the information given here may be out of date, inaccurate or, indeed, incorrect. Further work is also needed to refine the boundaries of some of the sites identified, while surveys would unquestionably also identify additional ones.

COMMENTS ON THE INVENTORY

Wherever possible, spelling follows the official orthography adopted for place names, etc., by Somalia in 1972 with, in some cases, older alternatives given in parentheses. In some instances, however, new

spellings of some place-names, etc., were not available, and older names only have been used. The gazetteer in Ash and Miskell (1998) proved extremely useful in this, while some other localities, not included there, as well as the Administrative regions, are taken from the 1:3,000,000 map of the Democratic Republic of Somalia (1991, Schott/Zylke, Karlsruhe, Germany). In a few instances where there are discrepancies between the two, the former is followed.

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GLOSSARY

laag temporary watercourse.
jasiira island.
raas headland or peninsula.

SITE ACCOUNTS

Jasiira Ceebaad and Jasiira Sacaada Diin

Admin region Woqooyi Galbeed
 Coordinates 11°28'N 43°28'E
 Area c.690 ha Altitude 0–7 m

SO001

A1, A4i, A4iii
 Unprotected

Site description

The site consists of two adjacent islands in the Gulf of Aden, close to the border with Djibouti in the extreme north-west of the country. Jasiira Ceebaad (Aibat island) (c.150 ha) lies 16 km north of the coastal town of Saylac. It is low-lying and exposed, with sandy beaches and sandflats plus coral reefs that are uncovered at low tide. Vegetation cover is principally *Suaeda fruticosa*. Nearby Jasiira Sacaada Diin (Saada Din island) (c.540 ha, maximum elevation c.3.6 m) supports an area of *Rhizophora mucronata* mangroves bordering a lagoon.

Birds

See Box for key species. There is no recent information, but *Larus leucophthalmus* bred in thousands on both islands during the first half of the twentieth century. In addition to those listed below, breeding species reported in the past include *Sula leucogaster*, *Larus hemprichii*, *Sterna repressa* (several hundred), *S. bergii* and *S. bengalensis* (<1,000 of the latter two combined). *Sula dactylatra* has also been reported from Jasiira Ceebaad as have colonies of *Egretta gularis* and *Platalea leucorodia* from Sacaada Diin. Numerous species of Palearctic migrant waders and waterfowl also occur seasonally.

Key species

Key species	Breeding (pairs)	Non-breeding
A1 <i>Larus leucophthalmus</i>		
A4i <i>Dromas ardeola</i>	1,000	—
<i>Larus leucophthalmus</i>	200+	—
<i>Sterna anaethetus</i>	100,000+	—
A4iii	More than 20,000 waterbirds occur regularly at this site.	

Other threatened/endemic wildlife

None known to BirdLife International.

Conservation issues

Mangroves are cleared for fuelwood and timber, and the patches that remain are under great pressure.

Further reading

Archer and Godman (1937, 1961).

Jasiira Maydh

Admin region Sanaag
 Coordinates 11°14'N 47°15'E
 Area 45 ha Altitude 0–124 m

SO002

A4i, A4iii
 Unprotected

Site description

Jasiira Maydh or Mait island is located in the Gulf of Aden c.13 km offshore, to the north of the town of Maydh and hence adjacent to Daalo (site SO003). It is a little over 1.5 km in length with a maximum width of 300 m and an average height of 100 m. The long axis of the island is oriented from east-north-east to west-south-west. The island is steep-sided, rising abruptly out of the sea, and along the southern face rocky buttresses alternate with scree-filled gullies while the northern face is an unbroken precipice. The rock is granitic gneiss which is covered with guano deposits, and the surface is split in places by great fissures. The island is completely lacking in vegetation and there is no fresh water except after rain, of which there is only c.50 mm per year. The island lies within an area of seasonal coastal upwelling.

Birds

See Box for key species. In addition, *Phalacrocorax nigrogularis* has been recorded while other breeding species include *Phaethon aethereus*, *Sula dactylatra*, *Sterna fuscata* and *S. anaethetus* (the latter two in 'large numbers'). In the 1940s, the numbers of breeding birds present was estimated at c.100,000, but were reported then to be declining. The breeding season is June–September, after which nearly all birds leave.

Key species

Key species	Breeding (pairs)	Non-breeding
A4i <i>Anous stolidus</i>	20,000 (1979)	—
A4iii	More than 20,000 waterbirds occur regularly at this site.	

Other threatened/endemic wildlife

None known to BirdLife International.

Conservation issues

The island has been proposed as a marine protected area. Guano is collected from the island, but traditionally only from October to April, i.e. when the birds are absent. During the breeding season the seas are generally too rough to permit boats to land, which prevents disturbance. Rats and snakes are present on the island.

Further reading

Kelleher *et al.* (1995), North (1946).

Daalo

Admin region Sanaag

Coordinates 11°06'N 47°39'E

Area c.250,000 ha Altitude 0–2,400 m Forest Reserve, Unprotected

SO003

A1, A2 (116), A3 (A08)

Site description

The site lies in the centre of northern Somalia, extending eastwards along the coast from the village of Maydh and inland towards the town of Ceerigaabo (Erigavo) on top of the scarp of the limestone mountains that rise steeply from the coastal plain. The site is situated close to Mount Surad Cad, at 2,408 m the highest point in Somalia, while Jasiira Maydh (site SO002) lies offshore from the site's northern boundary. The core area consists of a Forest Reserve on the rocky scarp, supporting evergreen forest which consists principally of *Juniperus procera*, *Olea chrysophylla*, *Dodonaea viscosa*, *Cadia purpurea* and *Sideroxylon buxifolium*. Much of the forest is degraded, although in places there is a dense understorey of shrubby species, particularly *Salvia*. Included also are the proposed extensions to the reserve which cover a further 80,000 ha of semi-desert grassland and shrubland, 80,000 ha of *Buxus hildebrandtii* evergreen and semi-evergreen bushland and thicket, 8,000 ha of Afromontane vegetation and 3,000 ha of mangrove. The coastal section consists of sandy plains with a sparse cover of the grasses *Eragrostis hararensis*, *Panicum turgidum* and *Asthenatherum glaucum*. Inland, *Acacia-Commiphora* bushland and thicket gives way to the juniper forest and Afromontane vegetation at higher altitudes. Average annual rainfall at the top of the scarp is c.650 mm.

Birds

See Box and Tables 2 and 3 for key species. The site is a stronghold for *Carduelis johannis* which has been reported as being not uncommon in cleared areas within and around the forest, although it is not thought to be dependent on the forest itself. *Rhynchostruthus socotranus* occurs at this site.

Key species

A1	<i>Eupodotis humilis</i>	<i>Turdus ludoviciae</i>
	<i>Columba oliviae</i>	<i>Carduelis johannis</i>
A2 (116)	North Somali mountains EBA: all three species of this EBA that occur in Somalia have been recorded at this site; see Table 2.	
A3 (A08)	Somali-Masai biome: 31 of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	

Other threatened/endemic wildlife

The mammal *Gazella dorcas pelzelni* (VU), confined to Somalia and Djibouti, occurs in the proposed northern coastal extension of the Forest Reserve, while *Equus africanus somalicus* (CR) and *Dorcatragus megalotis* (VU) are recorded from the proposed eastward extension.

Conservation issues

The larger area has been proposed as a National Park. The core Forest Reserve has received little effective protection and the remaining area of forest habitat is seriously degraded. Causes of the degradation include illegal tree-felling for timber, bush fires and cattle-grazing. In 1986 there were reports of plans to exploit timber from the forest for furniture-making and to replant the area with a quick-growing exotic species. In spite of its condition it is, however, considered to be one of the last reasonably intact patches of forest of its type in the country.

Saylac

Admin region Woqooyi Galbeed

Coordinates 10°44'N 43°28'E

Area c.370,000 ha Altitude 0–1,700 m

SO004

A3 (A08)

Unprotected

Site description

The site consists of an extensive area of arid bushland merging into coastal saltmarsh and swamp. It lies immediately south of the northern coastal town of Saylac or Zeila, close to the Djibouti border, and extends along the coast as far as Lughaye and inland almost as far as the town of Cabdikaadir near the Ethiopian frontier. Numerous seasonal watercourses flow through the area carrying run-off to the fringing coastal swamps and mangroves. There are also areas of

reedbed and patches of willows around pools. Near Saylac there are also large saltings and exposed mudflats at low tide.

Birds

See Box and Table 3 for key species. Of the Somali-Masai biome species, *Tockus hemprichii*, *Mirafraga gilletti*, *Cercomela scotocerca*, *Ploceus galbula* and *Estrilda chamosyna* have been recorded nationally from few other IBAs. It is possible that, were data available, this site would also qualify under the A4 criterion, since large numbers of Palearctic waders and waterfowl are known to occur on the coastal wetlands; *Charadrius alexandrinus*, *C. leschenaultii* and *C. mongolus* are particularly numerous among these. In addition, *Egretta gularis* is known to breed in the mangroves.

Key species

A3 (A08) Somali-Masai biome: 26 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

Other threatened/endemic wildlife

None known to BirdLife International.

Conservation issues

The area was originally proposed as a Game Reserve in colonial times, but the site remains unprotected. Mangroves are cleared for fuelwood and timber.

Raas Xaafuun–Raas Gumbax

Admin region Bari

Coordinates 10°09'N 50°51'E

Area c.240,000 ha Altitude c.0–400 m

SO005

A1, A2 (116), A3 (A08)

Unprotected

Site description

The site comprises the proposed Wildlife Reserve of Raas Xaafuun (Ras Hajan) and the contiguous proposed Raas Gumbax (Raas Gubah, Raas Gubba) National Park. It is located in the north-east of the country, on the coast between the towns of Bandarbeyla and Bargaal. The site, centred around the large headland of Raas Xaafuun which projects eastwards for over 50 km into the Indian Ocean, includes areas of rocky coastline, sandy beaches and some mangrove, giving way inland to lowland plains supporting an arid *Chrysopogon-Dactyloctenium* savanna with a few low, woody plants. The Daror valley, through which runs the seasonal watercourse of Dhud Jaceyl and drains a large area of the Horn, reaches the ocean at Raas Xaafuun.

Birds

See Box and Tables 2 and 3 for key species. In addition to the species listed below, *Phalacrocorax nigrogularis* has been recorded at this site and *Sterna saundersi* breeds. Although, to date, a relatively small number only of Somali-Masai biome species have been recorded, these include several which occur nationally at few other IBAs, while the list is undoubtedly incomplete. The waters around the headland of Ras Xaafuun are believed to be an important migration bottleneck for seabirds on passage, while the littoral is thought to support large numbers of waders on migration. There are, however, no count data.

Key species

A1	<i>Columba oliviae</i>
A2 (116)	North Somali mountains EBA: One of the three species of this EBA that occur in Somalia has been recorded at this site; see Table 2.
A3 (A08)	Somali-Masai biome: Nine of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.

Other threatened/endemic wildlife

Among mammals, both *Gazella soemmerringii* (VU) and *G. spekei* (VU) have been recorded.

Conservation issues

The southern part has been proposed as a National Park and the remainder as a Wildlife Reserve. The coastline and shallow waters of this site are potentially at risk from marine pollution from tankers heading to or coming from the Gulf of Aden.

Gacan Libaax

SO006

Admin region Togdheer

Coordinates 09°52'N 44°48'E A1, A2 (116, s063), A3 (A08)

Area 55,000 ha Altitude 200–1,000 m Unprotected

Site description

Gacan Libaax (Ga'an Libah) is situated in the western part of the northern mountains, south of the coastal town of Berbera, extending westwards along the escarpment from near the village of Shiikh. Included also is Mount Wagar, immediately to the north of Shiikh. The vegetation of the site comprises c.30,000 ha of Afromontane vegetation and 20,000 ha of *Buxus hildebrandtii*-dominated evergreen and semi-evergreen bushland and thicket.

Birds

See Box and Tables 2 and 3 for key species. This is the only locality known in the country for *Cercomela dubia* (and *Muscicapa gambagae*), while several of the other Somali–Masai biome species, including *Rhynchostruthus socotramus*, are known from few other IBAs nationally.

Key species

A1	<i>Eupodotis humilis</i>	<i>Cercomela dubia</i>
	<i>Columba oliviae</i>	<i>Sylvietta philippae</i>
	<i>Turdus ludoviciae</i>	
A2 (116)	North Somali mountains EBA: Two of the three species of this EBA that occur in Somalia have been recorded at this site; see Table 2.	
A2 (s063)	Northern Ethiopia Secondary Area: <i>Cercomela dubia</i> has been recorded at this site.	
A3 (A08)	Somali–Masai biome: 57 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.	

Other threatened/endemic wildlife

Among mammals, *Papio hamadryas* (LR/nt), *Oreotragus oreotragus* (LR/cd), *Dorcotragus megalotis* (VU) and *Gazella dorcas pelzelni* (VU) have been recorded.

Conservation issues

Gacan Libaax has been proposed as a National Park.

Boorama plains

SO007

Admin region Woqooyi Galbeed

Coordinates 09°36'N 43°47'E A1, A2 (s064), A3 (A08)

Area c.30,000 ha Altitude c.1,500–1,662 m Unprotected

Site description

The Boorama (Buramo) plains lie on the border with Ethiopia, between Hargeysa, Boorama and the frontier town of Tog Wajaale (Togo Chale). The principal habitat consists of undulating plains covered with short, open grasses and *Acacia* scrub interrupted by rocky outcrops.

Birds

See Box and Tables 2 and 3 for key species. This is the only known locality for *Heteromirafra archeri* and one of two for *Onychognathus salvadorii*.

Key species

A1	<i>Heteromirafra archeri</i>
A2 (s064)	North-west Somalia Secondary Area: <i>Heteromirafra archeri</i> has been recorded at this site.
A3 (A08)	Somali–Masai biome: 34 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

Other threatened/endemic wildlife

Mammals which occur, or that used to do so, include *Oryx beisa* (LR/cd), *Tragelaphus imberbis* (LR/cd), *Litocranius walleri* (LR/cd), *Gazella soemmerringii* (VU), *Dorcotragus megalotis* (VU), and *Oreotragus oreotragus* (LR/cd).

Conservation issues

Livestock, particularly camels, are ranged widely throughout the area but the intensity of grazing/browsing is not thought to be high. A

relatively small, but probably increasing, proportion of the area is cultivated. However, the refugee camps that used to occur in the area are now gone.

Lascaanod–Taleex–Ceel Chebet

SO008

Admin region Nugaal

Coordinates 09°05'N 48°16'E A1, A3 (A08)

Area 800,000 ha Altitude 200–1,000 m Unprotected

Site description

This site, also spelt Las Anod–Taleh–El Chebet, is a complex of proposed protected areas in north-central Somalia, to the north of the town of Garoowe. It includes a part of the Nugaal valley, through which runs a large seasonal watercourse that drains an extensive area of the northern plateau south-eastwards to the Indian Ocean. The area is principally semi-desert grassland and shrubland (c.600,000 ha) with some *Acacia–Commiphora* bushland and thicket (c.200,000 ha). There are some semi-permanent pools along the Nugaal valley. The site is rich in succulents.

Birds

See Box and Table 3 for key species. Of the Somali–Masai biome species some, including *Trachyphonus erythrocephalus*, *Alaemon hamertoni*, *Calandrella somalica*, *Pseudalaemon fremantlii*, *Pseudonigrita cabanisi* and *Onychognathus blythii*, have been recorded from few other IBAs nationally.

Key species

A1	<i>Eupodotis humilis</i>	<i>Sylvietta philippae</i>
A3 (A08)	Somali–Masai biome: 29 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.	

Other threatened/endemic wildlife

Mammals on conservation concern that occur, or which used to do so, include *Acinonyx jubatus* (VU), *Equus africanus somalicus* (CR), *Oryx beisa* (LR/cd), *Gazella soemmerringii* (VU) and *Gazella spekei* (VU).

Conservation issues

The area comprises a proposed complex of National Park (Lascaanod), Wildlife Reserve (Ceel Chebet) and Grazing Reserve (Taleex). The area suffers from excessive grazing pressure from domestic stock, particularly around the few semi-permanent pools in the area. Woodland remnants are under threat from conversion to charcoal.

Ceel Hammure

SO009

Admin region Mudug, Nugaal

Coordinates 07°13'N 48°54'E A1, A3 (A08)

Area 400,000 ha Altitude c.100–600 m Unprotected

Site description

Ceel Hammure lies in the interior of Somalia, close to the Ethiopian border, to the east of the road linking the towns of Garoowe and Gaalkacyo. The vegetation is *Acacia–Commiphora* bushland and thicket.

Birds

See Box and Table 3 for key species. Of the Somali–Masai biome species, some, including *Mirafra collaris*, *Alaemon hamertoni* and *Serinus donaldsoni*, have been recorded from few other IBAs in Somalia.

Key species

A1	<i>Eupodotis humilis</i>	<i>Sylvietta philippae</i>
A3 (A08)	Somali–Masai biome: 20 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.	

Other threatened/endemic wildlife

Anmodorcas clarkei (VU) occurs in the area.

■ Conservation issues

The area has been proposed as a Wildlife Reserve. Overgrazing is likely to be a threat.

Hobyo

SO010

Admin region Mudug

Coordinates 05°46'N 48°37'E A1, A2 (112), A3 (A08)

Area 250,000 ha Altitude c.50–200 m Unprotected

■ Site description

The site lies to the north of the coastal town of Hobyo (Obbia), a little way inland from the Indian Ocean, and consists principally of semi-desert grassland and shrubland. It also includes some areas of coastal dunes which are fixed, vegetated and mostly 20–60 m high.

■ Birds

See Box and Tables 2 and 3 for key species. The site incorporates the type-locality of *Spizocorys obbiensis*. Although, to date, only a relatively small number of Somali–Masai biome species has been recorded, these include some, such as *Mirafra collaris*, which occur at few other IBAs in Somalia; and the list is undoubtedly incomplete.

Key species

- A1 *Spizocorys obbiensis*
 A2 (112) Central Somali coast EBA: One of the two species of this EBA that occur in Somalia have been recorded at this site; see Table 2.
 A3 (A08) Somali–Masai biome: 11 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

■ Other threatened/endemic wildlife

Mammals of conservation concern that occur, or which used to do so, include *Panthera leo* (VU), *Acinonyx jubatus* (VU), *Hyaena hyaena* (LR/nt), *Oryx beisa* (LR/cd), *Ammodorcas clarkei* (VU), *Madoqua piacentinii* (VU), *Gazella soemmerringii* (VU) and *G. spekei* (VU). The area is also important for a number of the plants endemic to the coastal strip.

■ Conservation issues

The site has been proposed as a Wildlife Reserve. The area is subject to heavy seasonal grazing by domestic stock. Fuelwood-cutting is also a threat to woody vegetation.

Xarardheere–Awale Rugno

SO011

Admin region Mudug, Galguduud

Coordinates 04°32'N 47°55'E A1, A2 (112), A3 (A08)

Area 250,000 ha Altitude 0–250 m Unprotected

■ Site description

Xarardheere (Haradere)–Awale Rugno lies along the Indian Ocean coast between Hobyo (site SO010) to the north and the town of Ceeldheer to the south. The habitat includes strips of coastal dune behind which is a dense cover of *Acacia–Commiphora* bush as well as semi-desert grassland and scrub. Also included are several salt pans.

■ Birds

See Box and Tables 2 and 3 for key species. Of the Somali–Masai biome species, *Batis perkeo*, *Anthoscopus musculus*, *Serinus donaldsoni* and *Ploceus spekei* have been recorded from few other IBAs nationally.

Key species

- A1 *Spizocorys obbiensis*
 A2 (112) Central Somali coast EBA: One of the two species of this EBA that occur in Somalia have been recorded at this site; see Table 2.
 A3 (A08) Somali–Masai biome: 26 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

■ Other threatened/endemic wildlife

Mammals of conservation concern that occur, or which used to do so, include *Panthera leo* (VU), *Acinonyx jubatus* (VU), *Hyaena hyaena* (LR/nt), *Ammodorcas clarkei* (VU), *Gazella soemmerringii* (VU) and *G. spekei* (VU).

■ Conservation issues

The site has been proposed as a Wildlife Reserve. Overgrazing and the collection of fuelwood are having a serious impact on this site.

Buulobarde

SO012

Admin region Hiiraan

Coordinates 03°51'N 45°24'E A1, A2 (113), A3 (A08)

Area Undefined Altitude c.135 m Unprotected

■ Site description

This site lies on the Shabeelle river to the west of the town of Buulobarde (Buuloburti). Fringing the river are some patches of thick bush and gallery forest, the latter dominated by *Mimusops degan*, *Garcinia ferrandi*, *Acacia stenocarpa*, *Terminalia brevipes*, *Tamarindus indica*, *Ficus* spp. and *Diospyros mespiliformis*. Emergent trees reach 15–25 m and there is a dense understorey. The width of these galleries is only 10–50 m. Outside of the riverine belt the dominant vegetation is *Acacia nilotica* woodland, rich in climbing cucurbits, legumes and composites.

■ Birds

See Box and Tables 2 and 3 for key species. The site includes the type-locality for *Laniarius liberatus*, the only place from which it is known.

Key species

- A1 *Streptopelia reichenowi* *Anthus melindae*
Laniarius liberatus *Sylvietta philippae*
 A2 (113) Jubba and Shabeelle valleys EBA: Two of the three species of this EBA that occur in Somalia have been recorded at this site; see Table 2.
 A3 (A08) Somali–Masai biome: 31 of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.

■ Other threatened/endemic wildlife

Mammals that have been recorded include *Panthera leo* (VU), *Acinonyx jubatus* (VU), *Tragelaphus imberbis* (LR/cd), *Litocranius walleri* (LR/cd) and *Ammodorcas clarkei* (VU).

■ Conservation issues

In 1988 the area was sprayed with endosulphan in an attempt to eradicate tsetse flies. Although not entirely successful, control operations reduced tsetse populations sufficiently to allow the grazing of livestock in the area and an increase in cultivation. This has led to the destruction of significant areas of *Acacia* woodland and riverine forest in the area.

War Harqaan–isha Dolondole

SO013

Admin region Bakool

Coordinates 03°49'N 44°12'E A3 (A08)

Area 800,000 ha Altitude 300–750 m Unprotected

■ Site description

The site of War Harqaan–isha Dolondole (Harqaan–Dalandoole) lies in the interior of southern Somalia on the limestone and gypsum plateau west of the Shabeelle river, immediately south and east of the town of Xuddur. The vegetation consists of *Acacia–Commiphora* bushland and thicket.

■ Birds

See Box and Table 3 for key species. Although relatively few Somali–Masai biome species have, to date, been recorded, these include some, such as *Onychognathus salvadori*, which occur nationally at few other IBAs. The area has yet to be surveyed thoroughly.

Key species

- A3 (A08) Somali–Masai biome: 10 of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.

■ Other threatened/endemic wildlife

Mammals of conservation concern that occur, or which used to do so, include *Panthera leo* (VU), *Loxodonta africana* (EN), *Diceros*

bicornis (CR), *Equus grevyi* (EN) and *Giraffa camelopardalis* (LR/cd). The site is also believed to be of great botanical interest.

■ Conservation issues

The site has been proposed as a Wildlife Reserve. Overgrazing is likely to be a problem.

Xawaadley reservoir

Admin region Shabeellaha Dhexe

Coordinates 02°35'N 45°30'E

Area c.3,000 ha Altitude c.100 m

SO014

A3 (A08), A4i, A4iii

Unprotected

■ Site description

The site includes Xawaadley (Hawadley) reservoir, an artificial wetland on the Shabeelle river and the adjacent seasonal swamps, pools, woodland and thicket. It is situated to the south of the town of Jowhar, immediately north-west of Jowhar–Warshiikh (site SO015). The reservoir was completed in 1980 and is used at times of water shortage to increase downstream irrigation. It covers an area of 10,800 ha and has a circumference of just over 44 km. The eastern and western sides of the reservoir are bounded by natural slopes. The water reaches a depth of more than 3 m through which the tops of dead *Acacia* trees and bushes protrude. The shallows have been colonized by *Phragmites* and *Typha* spp. and floating vegetation grows across much of the surface area.

■ Birds

See Box and Table 3 for key species. In addition to those listed below there is a February count of 1,000 *Ardeola ralloides*. There have been no complete counts of the reservoir, but an assessment of only 'a small percentage' of the reservoir produced a figure of 10,300 birds, implying that total numbers must have been substantially larger.

Key species

A3 (A08) Somali–Masai biome: 43 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

A4i		Breeding (pairs)	Non-breeding
	<i>Tachybaptus ruficollis</i>	—	500+ (1988)
	<i>Anhinga rufa</i>	—	500 (1988)
	<i>Casmerodius albus</i>	—	1,000 (1988)

A4iii More than 20,000 waterbirds have been estimated to occur at this site.

■ Other threatened/endemic wildlife

None known to BirdLife International.

■ Conservation issues

The reservoir supports a productive fishery, the effects of which on the birds are unknown.

■ Further reading

Becker (1988), Schels and Schels (undated).

Jowhar–Warshiikh

Admin region Shabeellaha Dhexe

Coordinates 02°32'N 45°47'E A1, A2 (112, 113), A3 (A08, A09)

Area 220,000 ha Altitude c.0–200 m

SO015

Unprotected

■ Site description

Jowhar–Warshiikh (Warshek) lies on the southern coast of Somalia, to the north of Muqdisho and immediately south-east of Xawaadley reservoir (site SO014). The site includes areas of sand-dunes close to the sea and rolling plains inland, with patches of low, often heavily grazed, halophytic scrub and herbaceous growth. Vegetation on the large coastal dunes includes areas of deciduous woodland.

■ Birds

See Box and Tables 2 and 3 for key species. In addition to those listed below, *Circus macrourus* has been recorded from this site. The site includes the type-locality of *Mirafrax ashi*, the only place from which it is known. Of the other Somali–Masai biome species recorded,

Mirafrax hypermetra, *M. poecilosterna*, *Cisticola cinereolus* and *Anthoscopus musculus* have been recorded from few other IBAs in Somalia.

Key species

A1	<i>Mirafrax ashi</i>	<i>Anthus melindae</i>
	<i>Spizocorys obbiensis</i>	
A2 (112)	Central Somali coast EBA: Both species of this EBA that occur in Somalia have been recorded at this site; see Table 2.	
A2 (113)	Jubba and Shabeelle valleys EBA: One of the three species of this EBA that occur in Somalia has been recorded at this site; see Table 2.	
A3 (A08)	Somali–Masai biome: 50 of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	
A3 (A09)	East African Coast biome: Four of the 13 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	

■ Other threatened/endemic wildlife

Mammals of conservation concern that occur, or which used to do so, include *Chlorotalpa tytonis* (CR), *Gazella soemmerringii* (VU), *G. spekei* (VU), *Tragelaphus imberbis* (LR/cd), *Madoqua piacentinii* (VU) and *Litocranius walleri* (LR/cd).

■ Conservation issues

The area has been proposed as a National Park. Urban sprawl from Muqdisho, including the construction of an airport on the coastal strip in 1991, increasingly threatens this site. It is heavily grazed and there is a risk that overgrazing of vegetation on the dunes may lead to their destabilization. Other threats include hunting.

Balcad Nature Reserve

Admin region Shabeellaha Dhexe

Coordinates 02°16'N 45°19'E

Area 190 ha Altitude <100 m

SO016

A2 (113), A3 (A08)

Nature Reserve

■ Site description

Balcad Nature Reserve is located on the eastern bank of the Shabeelle river, 35 km north of Muqdisho and immediately south of the town of Balcad. The site consists of one of the few patches of riverine forest remaining on the Shabeelle river and the surrounding scrub savanna. The principal trees of the riverine forest include *Acacia elatior*, *Ficus sycamorus*, *Garcinia livingstonei*, *Mimosa fruticosa* and *Tamarindus indica*, while the surrounding scrub consists of more stunted *Acacia nilotica* with a dense undergrowth of herbs and tall grasses. There is some grassland close to the river and much of the scrub lies on areas of sand-dunes.

■ Birds

See Box and Tables 2 and 3 for key species. Some 200 bird species have been recorded from the site. The only known individual of *Laniarius liberatus* was released from captivity here. Of the Somali–Masai biome species, *Turdus tephronotus*, *Uraeginthus cyanocephalus* and *Ploceus dichrocephalus* have been recorded nationally from few other IBAs.

Key species

A2 (113)	Jubba and Shabeelle valleys EBA: One of the three species of this EBA that occur in Somalia has been recorded at this site; see Table 2.	
A3 (A08)	Somali–Masai biome: 47 of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	

■ Other threatened/endemic wildlife

None known to BirdLife International.

■ Conservation issues

Balcad Nature Reserve was established by the Somali Ecological Society in 1985, at which time it covered an area of 42 ha, and was extended to 190 ha in 1987. The reserve included a field-centre. From 1985 to at least 1988 burning, cutting and grazing within the site were controlled and there were some signs of recovery of the forest and an increase in wildlife populations. The current situation is unknown.

■ Further reading

Becker (1988), Schels and Lavoyer (1987), Schels and Schels (undated).

Jasiira lagoon and Muqdisho islets
SO017

Admin region Banaadir

Coordinates 01°57'N 45°08'E

A1, A2 (112), A3 (A08), A4i

Area 5,000 ha Altitude c.0–50 m

Unprotected

Site description

Jasiira (Gezira) lagoon lies on the Indian Ocean coast, south of Muqdisho. The lagoon is separated from the sea by a series of sand-dunes which support some scrub vegetation. The lagoon feeds into salt pans which are used for the commercial extraction of salt. The land is flat for up to 3 km inland, at which point it rises steeply to an altitude of 100 m. The habitat here is also dominated by dunes covered with *Acacia* and *Delonix* spp., other trees and thorn-bush and is dotted with seasonal pools. Offshore, adjacent to and south of Jasiira lagoon, lies a string of four small islets, all of which can be reached at low tide by wading. 'First Mosque Island' is situated immediately offshore from Jasiira. 'North Island', a little further south, lies 170 m offshore and measures 78 × 23 m; half the island is bare, eroded coral rock, and the other half supports a sparse covering of coarse grass. 'Second Mosque Island' is 171 × 41 m and is covered with a low growth of *Suaeda* and areas of coarse grass and bare rock, while Buntapsi island lies 180 m offshore, is 55 × 25 m and is mainly covered with coarse grass.

Birds

See Box and Tables 2 and 3 for key species. *Spizocorys obbiensis* occurs in the dunes around the lagoon. Sea caves on the mainland are important for breeding colonies of *Apus berliozi*. The islets are used from June to August by breeding *Sterna dougallii* and *S. fuscata*. In 1980, at least 500 *S. dougallii* nests were recorded, while in July 1987, 600 *S. dougallii* were counted at roost. The lagoon is frequented by a wide diversity of Palearctic migrant waders from August to April, while Afrotropical waterbirds such as *Phoenicopterus ruber* and *Egretta gularis* are present year-round. Many thousands of terns and some gulls, including *Sterna caspia*, *S. nilotica*, *S. paradisaea* and *Larus fuscus*, feed in the coastal waters off this site and roost both on the mainland and on the islets. It is possible that numbers will be found to exceed 20,000.

Key species

 A1 *Spizocorys obbiensis*

A2 (112) Central Somali coast EBA: One of the two species of this EBA that occur in Somalia has been recorded at this site; see Table 2.

A3 (A08) Somali–Masai biome: 46 of the 99 species of this biome that occur in Somalia have been recorded at this site; see Table 3.

A4i	Breeding (pairs)	Non-breeding
<i>Sterna dougallii</i>	2,000 (1980)	—

Other threatened/endemic wildlife

The perimeter of the lagoon apparently supports a number of rare plant species.

Conservation issues

The site has been proposed as a National Park. Because of the ease of access to the islands, egg-collecting is a problem. The mainland area is used seasonally for camel-grazing by nomadic pastoralists.

Further reading

Becker (1988), Schels and Schels (undated).

Arbowerow
SO018

Admin region Shabeellaha Hoose

Coordinates 01°36'N 44°05'E

A3 (A08), A4iii

Area Undefined Altitude c.10–50 m

Nature Reserve

Site description

Arbowerow Nature Reserve, also known as Alifuuto, is situated in central-southern Somalia on the lower reaches of the Shabeelle river, north of the town of Baraawe. The vegetation consists primarily of *Acacia–Commiphora* bushland and thicket, but the reserve contains significant areas of swamp and riverine habitat on the flood-plain of the Shabeelle, extending to a width of 25 km.

Birds

See Box and Table 3 for key species. Of the Somali–Masai biome species that occur, *Mirafra hypermetra*, *Macronyx aurantiigula* and *Turdus tephronotus* have been recorded from few other IBAs in Somalia. Although there have been no counts, it is believed that the numbers of waterbirds, particularly of Palearctic waders during the northern winter, exceed the 20,000 threshold. On the banks of the Shabeelle within the site is a mixed breeding colony of *Phalacrocorax africanus*, *P. carbo*, *Ardea melanocephala* and *Casmerodius albus*, with c.100 pairs of each.

Key species

A3 (A08) Somali–Masai biome: 32 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

A4iii The site is believed to hold more than 20,000 waterbirds.

Other threatened/endemic wildlife

Mammals which occur, or used to do so, include *Loxodonta africana* (EN), *Oryx beisa* (LR/cd), *Tragelaphus imberbis* (LR/cd), *Kobus ellipsiprymnus* (LR/cd), *Litocranius walleri* (LR/cd), *Ourebia ourebi* (LR/cd) and *Damaliscus lunatus* (LR/cd).

Conservation issues

The site has been proposed as a National Park. Large parts of the surrounding area have been converted to agriculture, a threat which is particularly significant for the remaining riverine vegetation.

Ceel Munye–Ceel Torre
SO019

Admin region Shabeellaha Hoose

Coordinates 01°30'N 44°35'E

A4i

Area Undefined Altitude c.0–50 m

Unprotected

Site description

This site is a 30-km stretch of southern Indian Ocean coastline, lying between the towns of Marka to the north-east and Baraawe to the south-west. Included are large tidal flats, reefs and coastal dunes. The most important areas for birds are at Ceel Shigaal and Badleye.

Birds

See Box for key species. The site is important for migratory waders, particularly *Calidris alba*, *Arenaria interpres* and *Tringa cinerea* and, although there are no counts, it is possible that numbers of these, and other species, may on occasion, exceed 20,000.

Key species

A4i	Breeding (pairs)	Non-breeding
<i>Dromas ardeola</i>	—	300+

Other threatened/endemic wildlife

None known to BirdLife International.

Conservation issues

No information.

Boja swamps
SO020

Admin region Shabeellaha Hoose

Coordinates 01°08'N 43°31'E

A3 (A08)

Area c.110,000 ha Altitude <100 m

Unprotected

Site description

Boja swamps lie in the lower reaches of the Shabeelle river a little way downstream (south-west) of Arbowerow (site SO018). The site contains grass swamps and deciduous bushland on the river flood-plain.

Birds

See Box and Table 3 for key species. Of the Somali–Masai biome species *Pseudonigrita cabanisi* has been recorded from few other IBAs in Somalia.

Key species

A3 (A08) Somali–Masai biome: 16 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

Other threatened/endemic wildlife

Both *Loxodonta africana* (EN) and *Syncerus caffer* (LR/cd) occur, or used to do so.

Conservation issues

The site has been proposed as a Wildlife Reserve. Threats include clearance of land for agriculture.

Aangole–Farbiito

Admin region Jubbada Dhexe

Coordinates 01°06'N 42°36'E A1, A2 (111, 113), A3 (A08, A09)

Area c.11,000 ha Altitude <100 m Forest Reserves, Unprotected

SO021

Site description

The proposed Aangole–Farbiito (Forbiitu) National Park lies on the Jubba river, between the towns of Bu'aale and Jilib and incorporates the two riverine Forest Reserves of Barako Meadow and Shoonto. Common forest tree species include *Ficus*, *Mimusops*, *Diospyros* and *Sorindeia* spp. Emergents reach 15–25 m high while the lower storeys are dense with abundant creepers. The galleries are up to 100 m wide. Outside the riverine belt are extensive areas of thorn-bush, low trees and degraded grassland with scattered palms. Intermediate woodland consists of *Newtonia*, *Balanites* and *Hyphaene* spp., while the thorn-bush is composed principally of *Acacia* and *Dobera* spp.

Birds

See Box and Tables 2 and 3 for key species. This site lies on the boundary of two EBAs, includes elements of two biomes and, although there are no quantitative data available, is within one of Somalia's most important wetland areas.

Key species

A1	<i>Tauraco fischeri</i>	<i>Anthus melindae</i>
A2 (111)	East African coastal forests EBA: The single species of this EBA that occurs in Somalia has been recorded at this site; see Table 2.	
A2 (113)	Jubba and Shabeelle valleys EBA: Two of the three species of this EBA that occur in Somalia have been recorded at this site; see Table 2.	
A3 (A08)	Somali–Masai biome: 31 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.	
A3 (A09)	East African Coast biome: Nine of the 13 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	

Other threatened/endemic wildlife

Mammals of conservation concern that have been recorded include *Crocuta crocuta* (LR/cd), *Hyaena hyaena* (LR/nt), *Cephalophus harveyi* (LR/cd), *C. natalensis* (LR/cd), *Tragelaphus imberbis* (LR/cd), *Kobus ellipsiprymnus* (LR/cd), *Litocranius walleri* (LR/cd) and *Ammodorcas clarkei* (VU). Two fish that occur are *Pardiglanis tarabinii* (DD) and *Barbus gananensis*, both confined to the Jubba river. A new tree species *Cola* sp. nov. was identified in the Jubba valley in 1986, as was an undescribed species of sedge *Cyperus* sp. nov. It is possible that both of these species and possibly other plants endemic to the Jubba valley are found within this site.

Conservation issues

The area, which has been proposed as a National Park, incorporates Barako Meadow Forest Reserve (140 ha) and Shoonto Forest Reserve (267 ha), both legally established in 1984, and reportedly, the last semi-intact riverine forests along the Jubba. There has been an estimated loss of over 50% of riverine forest in the area between 1960 and 1984. Prior to the current political and security crisis in Somalia there were major development plans for irrigation schemes in the flood-plain of the Jubba. Parts of the site are cultivated to produce maize, sorghum, ground-nuts and sesame, the last-named being the principle crop. There are at least 10 sizeable villages within the proposed boundaries of the park and an unknown number of smaller settlements. In addition to these permanent inhabitants, a small number of nomadic pastoralists uses the area for grazing and water during the dry season. Bee-keeping and honey-hunting is a significant economic activity in the region and is more successful in forest than in cultivated areas.

Further reading

Madgwick *et al.* (1986).

Laag Dheere

Admin region Jubbada Hoose

Coordinates 00°32'N 41°20'E

Area c.500,000 ha Altitude <200 m

SO022

A3 (A08)

Unprotected

Site description

This site, also spelt Lach Dere, is centred on a large temporary watercourse, or laag, situated in southern Somalia, north-west of Kismaayo, and abuts the frontier with Kenya. Laag Dheere drains the south-eastern sloping plateau of part of north-eastern Kenya and, at the point where it flows into Somalia, it is flanked by permanent swamps and widens into a flood-plain over 40 km across with an area of c.228,000 ha. This includes 11,000 ha of permanent swamp with large *Typha* and reedbeds with water-lilies in areas of deeper water. In times of flood this seasonal wetland drains, through a series of channels and pans, into the Jubba river, at a point c.40 km before it reaches the coast. In addition, c.400,000 ha of the proposed protected area consists of *Acacia–Commiphora* bushland and thicket.

Birds

See Box and Table 3 for key species. Of the Somali–Masai biome species, *Batis perkeo*, *Pseudonigrita cabanisi* and *Lamprolornis shelleyi* are recorded from few other IBAs in Somalia. Other species which are only known in Somalia from this area include *Sporopipes frontalis* and *Lonchura griseicapilla*.

Key species

A3 (A08) Somali–Masai biome: 21 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.

Other threatened/endemic wildlife

Mammals which occur, or that used to do so, include *Loxodonta africana* (EN), *Giraffa camelopardalis* (LR/cd), *Oryx beisa* (LR/cd), *Gazella granti* (LR/cd), *Damaliscus lunatus* (LR/cd), *Littocranius walleri* (LR/cd), *Ourebia ourebi* (LR/cd), *Beatragus hunteri* (CR) and *Gazella granti* (LR/cd).

Conservation issues

The area has been proposed as a National Park (part) and Wildlife Reserve. The human population density in this area is low in part because of the presence of tsetse flies.

Far Waamo

Admin region Jubbada Hoose

Coordinates 00°24'N 42°16'E

Area 140,000 ha

Altitude c.0–100 m

SO023

A1, A2 (111, 113),

A3 (A08, A09), A4i, A4iii

Unprotected

Site description

Far Waamo, also known as Dhesheeg Waamo, principally comprises a forest–savanna mosaic surrounding a semi-perennial, shallow, freshwater wetland. The site is located to the south-east of Laag Dheere (site SO022) in the triangular-shaped area of land between the Jubba river to the east and the valley of the lower reaches of Laag Dheere, immediately north of their (intermittent) confluence. Near either end of the base of this inverted triangle lie the towns of Jilib and Afmadow. The wetland area covers c.10,000 ha at its maximum extent and is supplied by Laag Dheere and also occasionally by floodwaters from the river Jubba. Following periods of flooding, water recedes to leave large areas of exposed mud which are particularly attractive to waders. The shoreline is bordered by bushland, some areas of cultivation and *Typha* beds.

Birds

See Box and Tables 2 and 3 for key species. In December 1984, counts of only part of the wetland area recorded c.25,000 waterbirds, including *Pelecanus onocrotalus*, *Ardea melanocephala*, *A. goliath*, *Bubulcus ibis*, *Ardeola ralloides*, *Ixobrychus minutus*, *Plegadis falcinellus*, *Platalea alba*, *Phoenicopterus ruber*, *Anas hottentota*, *Himantopus himantopus*, *Charadrius hiaticula*, *C. pecuarius*, *Limosa limosa*, *Philomachus pugnax*, *Tringa stagnatilis*, *T. nebularia*, *T. glareola*, *Calidris minuta* and *C.*

ferruginea. Afmadow is the only locality in Somalia for *Plocepasser donaldsoni*, *Pseudonigrita arnaudi* and *Passer eminbey*.

Key species

A1	<i>Circaetus fasciolatus</i> <i>Tauraco fischeri</i>	<i>Anthus melindae</i>
A2 (111)	East African coastal forests EBA: The single species of this EBA that occurs in Somalia has been recorded at this site; see Table 2.	
A2 (113)	Jubba and Shabeelle valleys EBA: One of the three species of this EBA that occur in Somalia has been recorded at this site; see Table 2.	
A3 (A08)	Somali–Masai biome: 39 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.	
A3 (A09)	East African Coast biome: 11 of the 13 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	
A4i	Breeding (pairs)	Non-breeding
	<i>Philomachus pugnax</i>	— 20,000+ (1984)
A4iii	More than 20,000 waterbirds have been recorded at this site.	

Other threatened/endemic wildlife

The mammals *Loxodonta africana* (EN), *Diceros bicornis* (CR) and *Giraffa camelopardalis* (LR/cd) occur, or used to do so.

Conservation issues

The area has been proposed as a Wildlife Reserve. It is widely used by pastoralists and farmers practising flood-recession agriculture.

Laag Badaana

Admin region Jubbada Hoose

Coordinates 01°16'S 41°36'E

Area 334,000 ha Altitude c.0–100 m

SO024

A1, A3 (A08, A09)

Unprotected

Site description

Laag Badaana (Lach Badana or Bushbush) is located in the extreme south of the country where it shares a common boundary with Boni Forest Reserve on the Kenyan side of the border. The vegetation includes c.100,000 ha of predominantly *Acacia–Commiphora* savanna over the drier, inland areas of the park. Along the coast, from sea-level to c.50 m altitude, there is c.200,000 ha of forest–savanna mosaic on lime-rich, sandy soils at the northern extremity reached by coastal lowland forest in eastern Africa. Of particular note is Hola Wajeer forest (01°11'S 41°34'E) which is dominated by *Azelia quanzensis*, *Cecchia somalensis*, *Delonix elata* and *Parkia filicoidea*. The understorey is poorly developed due to the dense mid-stratum at 10–15 m and the canopy at 25–30 m. The forest contains patches of palm woodland of *Hyphaene* sp. The site also includes 34,000 ha of mangrove, comprised principally of *Bruguiera gymnorrhiza*, *Ceriops tagal*, *Lumnitzera racemosa*, *Rhizophora mucronata* and *Sonneratia alba*. The mangroves are centred round the estuaries of three small rivers which flow through the site and reach the ocean in close proximity to one another. The interior of the park has good supplies of surface water, including semi-permanent water-holes. Also included are a number of the small islands of the Bajun archipelago, which lies immediately offshore. The main

islets are Raas Matooni Ilisi, Koyaama, Gumme, Jofay and Juula, which extend in a line a little way north-eastwards up the coast towards Kismaayo. A series of coral reefs stretches between the islands, forming an almost continuous barrier.

Birds

See Box and Table 3 for key species. *Acrocephalus griseldis* has also been recorded as a winter visitor; this site, by inference from what is known of the wintering quarters of the bird in adjacent coastal Kenya, may prove to be important for the species. Of the Somali–Masai biome species, *Mirafrapa poecilosterna*, *Turdus tephronotus*, *Vidua hypocherina* and *Lamprotornis shelleyi* have been recorded from few other IBAs in Somalia. There are old breeding records of *Sterna dougallii*, *S. repressa*, *S. anaethetus*, *S. fuscata* and *Anous stolidus* from the Bajun islands. The coastal waters of this site are important feeding grounds for large numbers of terns, and mainland and island areas are used for roosting; it is possible that numbers of these and other waterbirds could exceed 20,000.

Key species

A1	<i>Anthus melindae</i>	<i>Acrocephalus griseldis</i>
A3 (A08)	Somali–Masai biome: 34 of the 99 species of this biome that occur in Somalia have been recorded at, or in the immediate vicinity of, this site; see Table 3.	
A3 (A09)	East African Coast biome: Eight of the 13 species of this biome that occur in Somalia have been recorded at this site; see Table 3.	

Other threatened/endemic wildlife

An extensive list of mammals of conservation concern occur, or used to do so. These include *Rhynchocyon chrysopygus* (EN), *Crocota crocuta* (LR/cd), *Lycaon pictus* (EN), *Panthera leo* (VU), *Acinonyx jubatus* (VU), *Loxodonta africana* (EN), *Diceros bicornis* (CR), *Giraffa camelopardalis* (LR/cd), *Oryx beisa* (LR/cd), *Litocranius walleri* (LR/cd), *Gazella granti* (LR/cd), *Ourebia ourebi* (LR/cd), *Cephalophus harveyi* (LR/cd), *C. adersi* (EN), *Tragelaphus imberbis* (LR/cd), *Beatragus hunteri* (CR), *Damaliscus lunatus* (LR/cd), *Kobus ellipsiprymnus* (LR/cd) and *Syncerus caffer* (LR/cd). In 1960, a herd of 600 dugong *Dugong dugon* (VU) was recorded from the area around the Bajun islands. Here green turtle *Chelonia mydas* (EN) and hawksbill turtle *Eretmochelys imbricata* (CR) also occur, but there is no evidence of nesting.

Conservation issues

The area has been proposed as a National Park. As with all forests in Somalia, forests at this site are threatened by over-harvesting for timber, coppice, fuelwood and browse. However, settled human populations in the area are relatively limited, largely as a result of the presence of tsetse fly. There are nonetheless seasonal movements of large numbers of livestock through the park. Grazing of vegetation on the coastal dunes could result in their destabilization. Turtles are regularly caught in fishermens' nets; it is estimated that up to 4,000 are taken annually.

Further reading

FAO/UNDP (1977), Kelleher *et al.* (1995).

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