

# Biodiversity and Conservation - Senegal

Senegal signed in 1992, then ratified in 1994 the Convention on Biological Diversity. This commitment confirmed and created a framework for establishing an active policy for the conservation of biological diversity in Senegal.

The National Parks Department is the focal point for the main multilateral agreements on biodiversity: Convention on Biological Diversity (CBD), Convention on the Conservation of Migratory Species belonging to Wild Animals (CMS), Ramsar Convention on wetlands of international importance, etc. It manages, with the Direction des Aires Marines Communautaires Protégées (DAMCP), a large network of parks, reserves and marine protected areas, the primary objective of which is the conservation of biological diversity.

## Senegal's protected areas

Senegal's efforts to conserve biodiversity have resulted in the creation of a network of national parks, wildlife reserves, community nature reserves, classified forests and marine protected areas.

The Department of National Parks (DPN) and the Department of Community Marine Protected Areas (DAMCP) manage a network spread over the different eco-geographic areas and made up of three major groups:

Niokolo Koba National Park (PNNK) in the Sudanese savannah zone intended to preserve the last relics of the large and medium terrestrial wildlife of the country;

Coastal wetlands and / or marine areas: PNDS, PNLB, PNIM, RNP, ROK, PNOD, RSFG, PNBC, RNC of Tocc Tocc, Somone and Palmarin and the MPAs of Saint-Louis, Abéné, Cayar, Joal, Gandoule, Sangomar, Bamboung, Niamone Kalounayes and Kassa Balantacounda which, with a diversity of ecosystems (islands, marshes, lagoons, mangroves, forests, etc.), play a key role in the migration of birds of the Western Palearctic, but also in the biodiversity conservation.

The Sahelian ecosystem mainly consists of the Ferlo Nord Fauna Reserve which still has a residual population of red-fronted gazelles (*Gazella rufifrons*) and red-necked ostriches (*Struthio camelus*). For several years now, this reserve has been home to reintroduced Sahelo-Saharan antelope species (oryx, dama mhorra gazelle and dorcas gazelle) from the Gueumbeul Special Fauna Reserve.

These three large groups occupy an area of approximately 18,081 km<sup>2</sup>, or 9.2% of the national territory. These protected areas are included in the list of biosphere reserves, Ramsar sites or natural World Heritage sites.

## Senegal has five biosphere reserves:

- The Saloum Delta Biosphere Reserve, with the PNDS, the Bamboung, Gandoul, Sangomar and the Palmarin Reserve as central centers;
- The Transboundary Biosphere Reserve of the Senegal River Delta with the Djoudj National Bird Park (PNOD), the Langue de Barbarie National Park (PNLB), the

Guembeul Special Fauna Reserve (RSFG), 'Saint-Louis MPA and the Ndiaël Special Avifauna Reserve (RSAN);

- The Niokolo Koba Biosphere Reserve, with the Niokolo Koba National Park as its central core;
- The Samba Dia Biosphere Reserve with as central core part of the classified forest of Samba Dia;

- The Ferlo Biosphere Reserve which concerns Ferlo North and South.

Senegal also has eight Ramsar sites (wetlands of international importance):

- The Djoudj National Birds Park;
- The Ndiael Special Avifauna Reserve;
- The Saloum Delta National Park;
- The Guembeul Special Wildlife Reserve;
- The Tocc Tocc Community Nature Reserve;
- The Somone Nature Reserve of Community Interest;
- The Palmarin Community Nature Reserve and
- The Ornithological Reserve of Kalissaye.

**The network of protected areas of the Directorate of National Parks and the Directorate of Community Marine Protected Areas and the main characteristics 2017**

Protected areas	Area (ha)	Interests from the point of view of biodiversity / International recognition
<b>Niokolo-Koba National Park (PNNK) created in 1954</b>	913,000	Last refuge area for large wildlife in West Africa including lion, elephant, wild dog, Derby elk and chimpanzee. Biosphere Reserve, World Heritage Site.
Basse Casamance National Park (PNBC) created in 1970	5,000	Last vestiges of the Guinean forest of Senegal with a dominance of plant species such as <i>Parinari excelsa</i> , <i>Treculia africana</i> , <i>Pithecelobium altissimum</i> , etc. The Park is also home to mammals such as the Forest Buffalo, Panther, Campbell's Mone ( <i>Cercopithecus campbelli</i> ), Smoky Mangabey, Galago de Demidoff ( <i>Galagoïdes demidoff</i> ), bay colobus.
Djoudj National Bird Park (PNOD) created in 1971	16,000	One of West Africa's sanctuaries for Palaearctic and Ethiopian migratory birds. Species such as: white and gray pelicans, pink and dwarf flamingos, northern pintail, summer teal, shoveler, wild and widower whistling ducks, Gambian goose, crowned crane, etc. nest in the park. UNESCO World Heritage Site, Ramsar site, Central core of the Biosphere Reserve Transfrontier of the Senegal River Delta

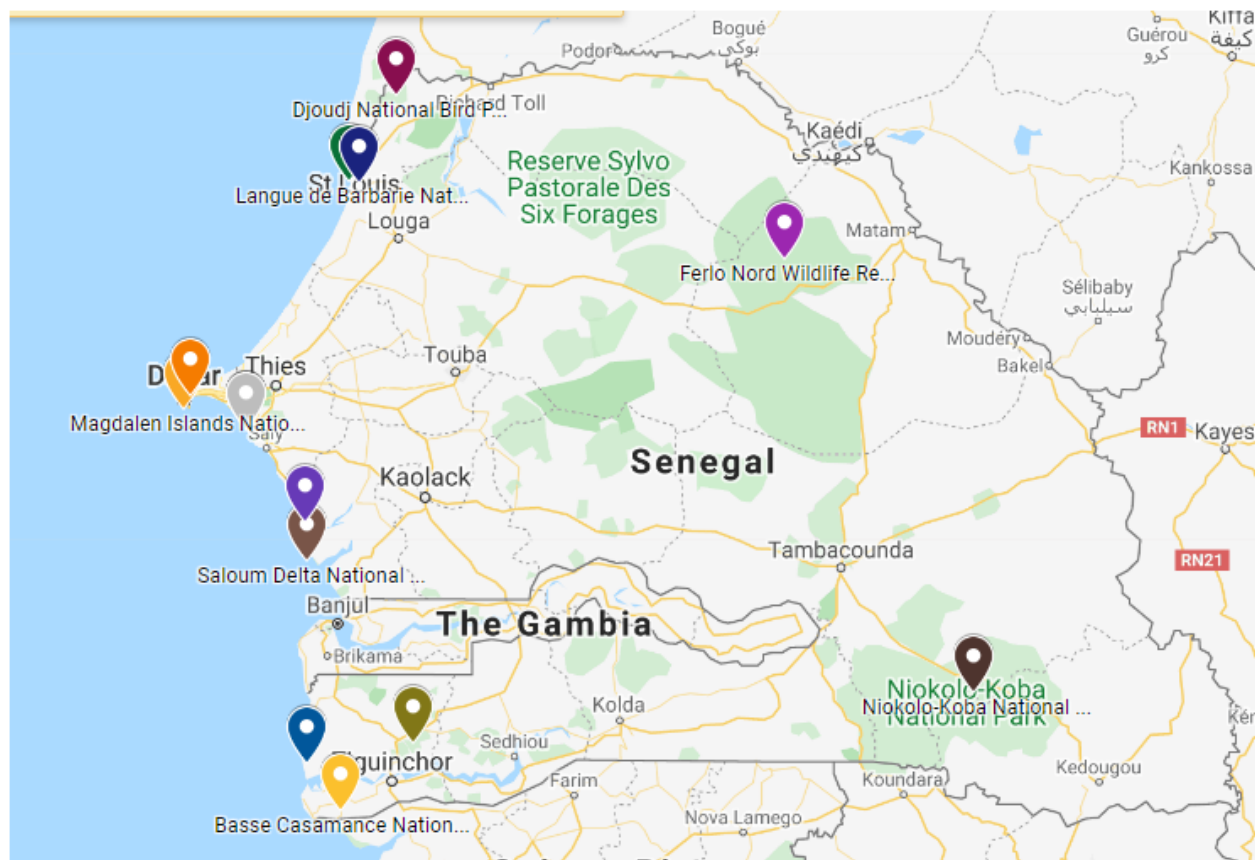
Saloum Delta National Park (PNDS) created in 1976	76,000	Spawning and feeding area for ichthyofauna, manatee, dolphin and sea turtles. Nesting boxes for many bird species: lesser flamingo, pelican, Goliath heron, mocking gull, gray-headed gull, royal and caspian terns, dimorphic egret, black-tailed godwit, avocet, numerous Palearctic shorebirds. Mammals present: warthog, harnessed bushbuck, Grimm's sylvicap, reed cob (rare), spotted hyena, bay colobus, green monkey, patas. Central core of the Saloum Delta Biosphere Reserve, transboundary Ramsar site (Niumi-Delta)
Langue de Barbarie National Park (PNLB) created in 1976	2,000	Varied avifauna: gray and white pelican, gray-headed gull, mocking gull, and other laridae (royal tern, caspian, sooty), numerous migratory waders. Marine turtles (Chelonias mydas, Caretta caretta, Dermochelys coriacea, etc.). Central core of the Transfrontier Biosphere Reserve of the Senegal River Delta
<b>Magdalen Islands National Park (PNIM) created in 1976</b>	45	Presence of a unique vegetative group (steppe with Andropogon gayanus, Brachiaria distichophylla and Bothrichloa intermedia), a large nesting colony of great cormorants. Important breeding site of the ethereal phaeton, ichthyofauna, crustaceans and molluscs
<b>Kalissaye Ornithological Reserve (ROK) created in 1978</b>	16	Nesting colonies of Caspian terns, royal terns, white pelicans, etc. Breeding area of several species of marine turtles including Caretta caretta and Chelonia mydas
Gueumbeul Special Wildlife Reserve (RSFG) created in 1983	720	Wintering site for thousands of birds such as avocet, black-tailed godwit, silver plover, European spoonbill, gray and white pelicans, flamingo, little and dimorphic egret, great plover, etc. Breeding site for a group of the dama mhorh gazelle, scimitar-horned Oryx and dorcas gazelle as part of the policy of reintroducing Sahe Lo-Saharan species. Central core of the Senegal River Delta Transfrontier Biosphere Reserve, Ramsar Site
Tocc Tocc Community Nature Reserve	273	She is made of : - a terrestrial zone (20% of the total area), with Tamarix senegalensis as the dominant species and constituting the domain of predilection of some terrestrial mammals (Patas, Common Jackal, etc.) and - an amphibious zone (80% of the total area) consisting mainly of a basin of fresh water. This basin is a site of great importance, not only by its extent but also by the richness of the species: the West African manatee (Trichechus senegalensis), the Adanson peluse (Pelusios adansonii) and the numerous species of

		<p>freshwater fish.</p> <p>First Ramsar community site in Senegal</p>
<b>Popenguine Nature Reserve (RNP) created in 1986</b>	1,009	<p>Sudano-Sahelian savannah undergoing rehabilitation, refuge for species of fauna such as guinea fowl, jackals, porcupine, etc. and birds like the Bluebird, the swallow, etc.</p>
Ferlo Nord Wildlife Reserve (RFFN) created in 1996	487,000	<p>Presence of a residual population of <i>Gazella rufifrons</i>. In addition to the Sulcata turtle, more than 180 species of birds have been recorded, including the ostrich (<i>Struthio camelus</i>), the ground hornbill (<i>Bucorvus abyssinicus</i>), the great Arabian bustard (<i>Otis arabs</i>). Site for the repopulation of the disappeared Sahelo-Saharan fauna, notably the oryx, the dama mhorh gazelle and the dorcas gazelle.</p> <p>Central core of the Ferlo Biosphere Reserve.</p>
Somone Nature Reserve of Community Interest (RNICS) 2001	700	<ul style="list-style-type: none"> <li>- Diversified habitats, Shrub savannah, Thickets, Shrub meadow, Temporary stream, Permanent stream (Somone perennial stream and channels), Lagoon (body of water), Mangrove forest, Bare tans, Shrub tannes , Bare mud flats, Foreshore and littoral cordon,</li> <li>- Diverse and abundant fauna. The most represented groups of fauna are those of birds (spoonbill, pelican, cormorant, egret, curlew, redhorse, etc.), crustaceans, molluscs, fish and insects. Mammals and reptiles are poorly represented with jackals, mongooses ...</li> </ul>
Palmarin Community Reserve 2003	10,450	<ul style="list-style-type: none"> <li>- Reproduction site of: sea turtles, striped hyenas, jackals, monkeys, very important avifauna</li> <li>- Ecosystems: terrestrial, mangrove and marine</li> <li>- Habitat and migration corridor for avifauna; breeding site for marine turtles; spawning grounds, nurseries and habitat for marine and estuarine fauna; conservation site for characteristic species such as hyena, dolphin, etc.</li> </ul>

Bamboung Marine Protected Area 2004	7,000	<ul style="list-style-type: none"> <li>- 188 species of plants, mainly combretaceae, <i>Daniellia oliveri</i>, <i>Parkia biglobosa</i>.</li> <li>- 95 species of migratory birds from the Western Palaearctic (royal tern, Caspian tern, Dominican and screeching gull, gray-headed gull)</li> <li>- 36 species of mammals such as the dolphin, manatee, striped hyena, spotted hyena, harnessed bushbuck, mongoose, porcupine, etc.</li> </ul> <p>Spawning grounds and feeding grounds for ichthyofauna, manatees, dolphins and sea turtles; Bamboung bolong is made up of a great diversity of habitats (sandy area, mangroves, tannes, seagrass, small bolongs, pit, shallows, etc.)</p> <p>This diversity of habitats and the variability of their physicochemical and microclimatic characteristics over the seasons favors the presence of a great diversity of species of flora and fauna, especially fish.</p> <ul style="list-style-type: none"> <li>- Flying mammals: a total of 10 species of bats have been observed on the AMP and only 7 have been determined with certainty. According to IUCN, bats living on the MPA are not threatened and are listed as "Least Concern" or "Least Concern".</li> <li>- In insects, three groups of species, Odonata (Dragonflies, for 17 species), Lepidoptera (butterflies with 19 inventoried species) and Orthoptera (Locusts, grasshoppers, crickets for 30 species), have been identified. According to the IUCN, all species have the status "Least Concern" or "Least Concern"</li> <li>- Terrestrial mammals: 18 species of terrestrial mammals are identified on the AMP. According to the IUCN, all species have the status "Least Concern" or "Least Concern"</li> <li>- Marine mammals: the Atlantic humpback dolphin and the Senegalese manatee are considered two species "Vulnerable" by IUCN, ie the category just below "Endangered".</li> </ul>
Protected Marine Area of Saint-Louis 2004	49,600	<p>Protection and sustainable conservation of fisheries; presence of refuge areas made up of fishing areas called "Xer" for rocky bottoms or "joxoor" for sandy-muddy bottoms which are distinguished by the presence of shells.</p> <p>The fishery resources are made up of demersal species such as the Sciaenidae (white carp, jawbones, sole, captain, etc.) and the Sparidae (cuttlefish, grouper, sea bream, pageot), pelagic species (represented by the sardinella) while 'at the edge of the plateau, you can find mainly white shrimp, lobsters, etc. Marine mammals are represented by the whale, the bottlenose dolphin (<i>Turciopstruncatus</i>) and the seal monk (<i>Monachusmonachus</i>). These species are classified by IUCN as "Vulnerable" and threatened with extinction.</p>

		<p>For reptiles, the green turtle (<i>Chelonia mydas</i>), a herbivorous species, is more common, while the other species are much rarer: it is the hawksbill turtle (<i>Eretmochelis imbricata</i>) generally found in shallow water, the leatherback turtle (<i>Dermochelys coriacea</i>) which is a species of the high seas which only approaches the coast every two years for the purposes of laying eggs, tortoise</p> <p>olive ridley (<i>Lepidochelys olivacea</i>) and Kemp's turtle (<i>Lepidochelys kempii</i>).</p>
Kayar Protected Marine Area 2004	17,100	<p>More than fifty fishing grounds are listed in the marine area of the protected area. These fishing grounds are grouped into four (4) main areas with a certain spatial, physical and biological homogeneity. The different levels of habitat types offer a broad spectrum for a rich diversity of native and resident fishery resources. There is a very great richness in species due to a diverse habitat</p> <p>(sandy, sandy-muddy and rocky bottoms and great depths at or at the edge of the pit).</p>
Marine Protected Area of Joal Fadiouth 2004	17400	<p>Presence of mangrove mud flats which constitute a spawning ground for many species which come to complete their first cycle of growth, a habitat and breeding site for birds.</p> <p>Existence of a seagrass meadow which constitutes a breeding ground for many species and a</p> <p>important nursery area throughout the West African region especially for the green turtle, <i>Chelonia mydas</i> called "Ndoumar" in the local language, the leatherback turtle (<i>Dermochelys coriacea</i>) also called Wagnor.</p>
Protected Marine Area of Abéné 2004	11900	<ul style="list-style-type: none"> <li>- Spawning grounds and feeding grounds for ichthyo-fauna;</li> <li>- sea turtles;</li> <li>- many birds: white and gray pelican, Goliath heron, cattle heron ash heron, gray-headed gull, terns, dimorphic egret, cormorants, anhinga, etc. and many Palaearctic shorebirds, many raptors (fish eagles, osprey, etc.)</li> <li>- green monkey, patas;</li> <li>- Nile crocodiles;</li> <li>- several species of fish.</li> </ul> <p>Multifunctional space with regard to its natural potential with a diversity of landscape units, an important biological diversity characterized by sea birds, marine turtles, the Nile crocodile (<i>Crocodylus niloticus</i>) and the manatee (<i>Trichechus senegalensis</i>).</p>
<b>Gandoul Marine Protected</b>	15732	<p>Area under marine and estuarine influence with an associated rich and diverse fauna (fish, molluscs, crustaceans, marine mammals such as dolphins and manatees,</p>

<b>Area</b>		reptiles, etc.
<b>Sangomar Marine Protected Area</b>	87,437	Presence in its estuarine part of eight (08) belongs and four (04) fish reproduction sites and arches. In the marine part, it includes a spawning ground (the Sangomar pit or Bakina pit).
<b>Protected Marine Area of Niamone Kalounayes</b>	66,032	Its main biotopes are made up of the maritime and coastal facades and the mangrove. With regard to its animal biodiversity, the peculiarity lies in the presence of fish, molluscs, crustaceans, cetaceans, birds and sea turtles.
<b>Kassa Marine Protected Area Balantacouda</b>	23,200	



Maps of protected areas in Senegal