World Heritage Sites

Protected Areas and World Heritage

W NATIONAL PARK OF NIGER
NIGER

Niger's W National Park is part of a large area in Niger, Burkino Faso and Benin named from W-shaped bends in the bordering Niger River, of wetlands and elevated plains of wooded savanna. It contains a wide range of plants characteristic of West African Woodland-Savanna, the largest population of ungulates in West Africa, and wetlands lying under a major flyway. It illustrates the evolution of biodiversity in an area where nature and humans have interacted since Neolithic times.

COUNTRY
Niger

NAME
W National Park of Niger

NATURAL WORLD HERITAGE SITE
1996: Inscribed on the World Heritage List under Natural Criteria ix and x.

STATEMENT OF OUTSTANDING UNIVERSAL VALUE
The UNESCO World Heritage Committee issued the following Statement of Outstanding Universal Value at the time of inscription:

Brief Synthesis

'W' National Park of Niger is located in a transition zone between savanna and woodlands and represents a part of the important ecosystem characteristics of the West African woodlands/savanna bio-geographical region. The property reflects the interaction between natural resources and human beings since neolithic times and has produced characteristic landscapes and plant formations and represents the evolution of biodiversity in the Sudano-Sahelian biome.

Criterion (ix): 'W' Park possesses important hydrological resources that favour the presence of an interesting bird population that continues to evolve. The landscapes of the Park are very diversified, including aquatic ecosystems (large and small rivers, ponds) and land ecosystems where grassy areas, brush shrubbery and gallery forests alternate.

Criterion (x): The property contains a fairly rich biodiversity essentially comprising 350 bird species, 114 fish species (representative of the fauna of the River Niger), several species of reptiles and mammals and 500 plant species. Among the mammal species, the property contains threatened species such as the African wild dog (Lycaon pictus), the cheetah (Acinonyx jubatus), the elephant (Loxodonta africana), dugong (Trichechus senegalensis) and the red-fronted gazelle (Eudorcas rufifrons).

Integrity

With a fairly large area (220,000ha), the Park is quite extensive and contains all the elements of habitat indispensable for the viable survival of populations. The natural environment of the Park presents an increase of its primary productivity, a demographical expansion of large mammals and a notable increase of its biological diversity (reappearance of several species of large wildlife that had disappeared). In order to strengthen the conservation of its rich biological diversity, notably its interesting bird population and the new species regularly reported, 'W' Park has been provided with two buffer zones: the entire Wildlife Reserve of Tamou and part of the Wildlife Reserve of Dosso.

Protection and Management Requirements

The property benefits from legal protection through national laws and receives financial and technical support from the State and some development partners. It also has a development and management plan. Although the

boundaries of the property are clearly defined and controlled, there are however threats such as poaching, illegal grazing and encroachment of agricultural land. Adequate measures must be undertaken to combat these threats. In order to ensure a sustainable management and conservation of this property, a sustainable financing strategy is indispensable to guarantee the necessary human and financial resources, and especially to effectively implement the development and management plan and the tripartite agreement (Benin, Burkina Faso, Niger) concerning the W complex. The strengthening of cooperation with neighbouring countries in view of a possible transboundary extension of the property is necessary.

INTERNATIONAL DESIGNATIONS

1987: Designated a Wetland of International Importance under the Ramsar Convention (220,000ha);
2007: Extended in Benin as the *Site Ramsar du Complexe W* (895,480ha);
1996: Designated a Biosphere Reserve under the UNESCO Man & Biosphere Programme (220,000ha);
2002: Biosphere Reserve extended to Benin (563,280ha) and Burkino Faso (235,000ha). Total area of core zones 1,018,280ha (UNESCO/MAB, 2008).

IUCN MANAGEMENT CATEGORY

II National Park

BIOGEOGRAPHICAL PROVINCE

West African Woodland / Savanna (3.4.4)

GEOGRAPHICAL LOCATION

In southwesternmost Niger, 150 km southeast of Niamey, on the banks of the River Niger where the borders of Niger, Burkina Faso and Benin meet, between 11°54' to 12°35'N, and 2°04' to 2°50'E.

DATES AND HISTORY OF ESTABLISHMENT

1937: Creation of the *Parc du W du Niger*, in Dahomey (Benin), Haute Volta (Burkino Faso) and Niger;

1953: Classified as a Faunal Reserve and State Forest by Decree No. 4676;

1954: Established a National Park by Decree; Benin and Burkino Faso 'W' National Parks also created;

1987: Designated a Ramsar Wetland;

1996: Designated a UNESCO MAB Biosphere Reserve; 2002: extended to Benin and Burkino Faso in the first transboundary reserve in Africa.

LAND TENURE

State government. Administered by the Division de la Faune et du Chasse, Direction de la Faune, Pêche et Pisciculture.

AREA

220,000ha. Contiguous on the north with Tamou (75,600ha) and on the east with Dosso (306,500ha) Faunal Reserves within Niger, and with transboundary Biosphere Reserve lands in Benin (563,280ha) and Burkino Faso (235,000ha), totalling 1,400,380ha.

ALTITUDE

From 170m to 338m (Yeriyombou), with an average height of 250m.

PHYSICAL FEATURES

The Park is named from the double bend of the Niger River that forms its north and northeast boundary between the confluences of two seasonal tributaries, the Tapoa in the north, and the Mékrou in the south. The Park consists of a lateritic peneplain with capped buttes, rock outcrops of quartz, schists and gneiss and Tertiary sandy clays, which form the northeastern end of the Precambrian quartzite sandstone massif of Atakora. Some gorges and extensive rock outcrops occur along the Niger and

Mékrou rivers. The laterite soils are generally shallow and infertile with a high iron content, particularly in the interior uplands. Depressions and stream valleys tend to have deeper and more fertile soils (Grettenberger, 1984). Local intermittent streams feed 34 seasonal ponds. The Niger is the third largest river in Africa and the country's main water source, but due in part to increased sedimentation, it dried up completely for several weeks in 1985 at Malanville (Benin) opposite Niger's southmost point, 90 km downstream from the Park (WWF, 2007).

CLIMATE

The area is typically Sahelo-Sudanian: strongly seasonal with late summer monsoon rains. The temperature ranges from a dry relatively cool winter maximum of 31.2°C and minimum of 10.7°C in January through a hot dry spring maximum of 44°C and minimum of 26°C during May to a cooler rainy summer, averaging 26°C. The rainfall, which is very unreliable, of between 500 and 800mm falls on 30-50 days a year (Répub.Niger, 1995). In late winter the cooler but dry dust-bearing northeasterly *harmattan* blows from the desert.

VEGETATION

The Park lies in the transition zone between the Sudanese and Sudano-Guinean savannas and is predominantly semi-arid to semi-humid Sudanese wooded savanna. 454 plant species were described in 1983, but a more recent estimate is 500 (Ramsar, 2005). Six principal habitat types are found: savanna woodlands with *Terminalia avicennoides* and *Anogeissus leiocarpus*, shrubby savanna on lateritic and sandy soils dominated by species of *Combretum*, dry season deciduous gallery forests along seasonal watercourses with African ebony *Diospyros mespiliformis*; semi-deciduous gallery forests in damp thalwegs and dry plateaus with *Crateva religiosa* and *Vitex chrysocarpa*, evergreen gallery forests on deep soils with sausage tree *Kigelia Africana* and African mahogany *Khaya senegalensis* (VU), and flooded plains along the Niger River with *Mimosa pigra* and *Mitragina inermis*. The low altitude secondary forest, which occupies approximately 70% of the Park, comprises a mixture of grassland and rather stunted savanna woodland with species such as hackberry *Celtis integrifolia*, *Boscia senegalensis*, *Balanites aegyptiaca*, kapok tree *Bombax costatum*, African locust *Parkia biglobosa*, *Bauhinia reticulata*, baobab *Adansonia digitata*, tamarind *Tamarindus indica*, *Prosopis africana*, camelfoot *Piliostigma reticulatum,* scrub species such as *Guiera senegalensis*, *Acacia* spp.,*Lannea* spp.,and the tall grasses *Hyparrhenia* spp. and *Andropogon gayanus* (Répub.Niger, 1995). Many of these are also present in the gallery forests, which occupy much of the remaining 30% of the area, and which also support African Palmyra palm *Borassus aethiopum*, *Butyrospermum parkii*, *Pterocarpus erinaceus* and *Cola laurifolia.*

Species of interest include *Afzelia africana* (VU) *Isoberlinia doka,* frankincense *Boswellia odorata,* the only two orchid species recorded in Niger *Eulophia cucculata*, *E. guineensis*, and the insectivorous plant *Drosera indica*, which are sensitive to grazing and trampling. The Park also contains the only significant remaining tracts of riparian forest in Niger, those outside the Park having been largely cut down or degraded (Grettenberger (1984). The wild flora includes herbaceous species such as millet *Pennisetum sp.*, *Digitaria sp.*, *Euleusine sp.*, rice *Oryza sp.*, and leguminous plants *Vigna sp*, which preserve important genetic resources for conservation and research (Répub.Niger, 1995). The vegetation types were described by Koster (1981).

FAUNA

The last census of large mammal populations took place in 1978 (Koster, 1981). Giant eland *Tragelaphus derbianus* were no longer present in 1996, but increased hunting and grazing and the expansion of agriculture have caused other large mammals to migrate into the Park from within Niger and from the Benin and Burkina Faso 'W' National Parks; and a number of species showed an increase in abundance during the year before nomination although no census was taken to confirm this (Grettenberger, 1984; Répub.Niger, 1995).

The Park contains typical northern Sudanese savanna fauna but also part of the last remaining West African populations of elephant *Loxodonta africana* (VU), western giraffe *Giraffa camelopardalis* peralta (EN) (200 individuals), kob *Kobus kob* and West African savanna buffalo *Syncerus caffer* brachyceros in Niger. More than 70 diurnal mammals have been described, including a number of carnivores:

spotted hyena *Crocuta crocuta*, common jackal *Canis aureus*, African sand fox, Vulpes pallida, marsh mongoose Herpestes paludinosis, serval *Leptailurus serval*, caracal Caracal caracal, lion *Panthera leo* (VU), Saharan cheetah *Acinonyx jubatus* hecki (CR) and aardvark Orycteropus afer; also wild dog *Lycaon pictus* (EN) and West African manatee Trichechus senegalensis (VU), both species previously considered locally extinct. The fauna includes Anubis baboon *Papio anubis*, patas monkey *Erythrocebus patas*, and, with the neighboring reserves, one of the largest ungulate populations in West Africa which is increasing owing to protection (LeBerre & Messan 1995): warthog *Phacochoerus aethiopicus*, hippopotamus Hippopotamus amphibius (VU), bushbuck *Tragelaphus scriptus*, Defassa waterbuck *Kobus ellipsiprymnus*, reedbuck *Redunca redunca*, roan antelope *Hippotragus equinus*, western hartebeest *Alcelaphus buselaphus* major, topi *Damaliscus lunatus*, oribi *Ourebia ourebi*, red-fronted gazelle *Eudorcas rufifrons* (VU), red-flanked duiker *Cephalophus rufilatus* and common duiker *Sylvicapra grimmia*.

367 bird species are recorded, 69% of the country's total (Ramsar, 2005). The Park has wetlands that lie under a major Palaeoarctic-Afrotropical flyway and between February and May over 20,000 aquatic birds congregate there. Guinea-fowl, bustards including the great bustard Otis tarda (VU), hornbills such as the Abyssinian ground hornbill Bucorvus abyssinicus and francolins Francolinus sp. are found throughout the Park; also vultures such as lappet-faced vulture Torgos tracheliotus (VU), African fish eagle *Haliaeetus vocifer*, martial eagle *Polemaetus bellicosus*, bateleur eagle Terathopius ecaudatus and gabar goshawk *Melierax gabar*. The waterbirds most frequently encountered include duck like the white-faced whistling duck Dendrocygna viduata, geese: Egyptian goose Alopochen aegyptiacus and spur-winged goose Plectropterus gambensis, waders like hammerhead Scopus ombretta or shorebirds, ibis spp. black-crowned crane Balearica pavonina (VU), white stork Ciconia ciconia, herons and egrets. Reptiles include African spurred tortoise *Centrochelys sulcata*, African softshelled turtle *Trionyx triunguis*, Nile monitor *Varanus niloticus*, savanna monitor V. exanthematicus, African rock python *Python sebae*, ball python Python regius, Egyptian cobra Naja nigricollis, African puff adder Bitis arietans and Nile crocodile *Crocodylus niloticus*. The 112 or more species of fish noted by Ramsar (2005) are largely typical of the Niger River fauna.

CONSERVATION VALUE

The Park contains a wide range of West African Woodland-Savanna plants, important for conservation and genetic research, and the largest population of ungulates in West Africa, alongside productive wetlands under a major flyway. Being contiguous to protected areas in Burkina Faso and Benin increases the value of all three sites for the survival of species needing large areas for seasonal migration (Répub. Niger, 1995). The Park is both a Ramsar wetland and a UNESCO Biosphere Reserve.

CULTURAL HERITAGE

The river's name is probably from the Tuareg term *egerou n-igereou* or *ngher,* river of rivers, whose lands it skirts in the Sahara (WWF, 2007). The area has been occupied since the Neolithic period, shaping the present landscape. The close interaction between nature and man is still evident from the abundance of useful trees such as baobab, tamarind, borassus palm and herbaceous plants (Répub. Niger, 1995).

LOCAL HUMAN POPULATION

No-one lives permanently in the Park, but during annual migrations the Park is overrun by thousands of Fulani cattle farmers (MHE, 1991). The surrounding farmers are predominantly Hausa, and many of the adjacent villages have formed *Associations Villageoises de Gestion des Reserves de Faune* for managing the wildlife on a community basis. Wild plant species still play a major role in traditional agriculture, medicine and crafts (Répub.Niger, 1995).

VISITORS AND VISITOR FACILITIES

Visitation fluctuates. In 1980-1 there were 1,700 visitors, and in 1984-5, 1,000 (Crisler *et al.*, 2002). In 1996, 3,000 were noted in the nomination but in 1998-99 there were only 918 visitors, though from 18 nationalities (Ramsar, 2005). During the tourist season from December to May the Park now receives about 1,500-2,000 visitors per year who need permission to enter: admission is free only for nationals of

Niger. Infrastructure includes an information service situated at Tapoa, the Park headquarters, 700km of trails and the Tapoa Hotel with 25 air conditioned rooms, 9 bungalows and tent villages for 40 (Répub.Niger, n.d.). Access is from Niamey by bus or light aircraft.

SCIENTIFIC RESEARCH AND FACILITIES

Aerial faunal inventories were taken in 1972, 1977 and 1992. Surveys of bats (Poche, 1975), mammals (Poche, 1976a, 1976b; Koster, 1981), birds (Koster & Grettenberger, 1983) and plants (Koster, 1981) were made before nomination. Students from the Institut Pratique de Développement Rural de Kolo examined the following subjects: the impacts of bordering human populations, water resources and the methods and strategies for fire prevention (Répub.Niger, 1995). Climate, erosion, aquatic and gallery flora, medicinal plants and elephants have all been studied, most of the research being by members of the U.S. Peace Corps. There is a need for further organised research. A lack of scientific data and consistent monitoring methods were noted by IUCN in 1996.

MANAGEMENT

The Park is managed by the *Division de la Faune et du Chasse* of the *Direction de la Faune, de la Pêche et de la Pisciculture.* A management and infrastructure program which aims to ensure the integrity of the site is submitted annually, financed from the Regional Project by the European Development Fund, and according to a Ramsar report in 2005, a management plan is coming. Since 1992, efforts have been made to involve local populations in conservation management (Répub.Niger, 1995). Fire management and Park management plans were developed by US Peace Corps volunteers. 12 waterholes were constructed in 1977 to attract wildlife and 20 more in 1984, but there remained a lack of infrastructure at designation. Annual burning of grass in the months following rain has reduced rank grass growth, but over the long-term this depletes the perennial grasses that are the basic food of many of the large herbivores, and they are out-competed by shrubs. Late dry season fires would suit growth of perennial grasses better.

The Park became part of the first transboundary Biosphere Reserve in Africa, extending to the 'W' and Pendjari National Parks and Atakora, Djona and Pendjari Hunting Zones in Benin, and the 'W' and Arly National Parks and Kourtiagou and Singou Wildlife Reserves in Burkino Faso. It is planned to eventually extend the site to include the Tamou and Dosso Faunal Reserves in Niger and the adjoining cluster of reserves in Burkino Faso and Benin (Répub.Niger, 1995). In 2004 a 4-year US$6million UNESCO-UNEP project partly funded by the GEF was set up to study the biodiversity and long-term monitoring and management of the natural resources of six West African biosphere reserves including the 'W' reserve. This was also to study the interaction between savanna ecosystems and human activities in the reserves, including agriculture, pastoralism, hunting and fishing; and support local communities in the fight against poverty with alternative economic activities such as eco-tourism (IUCN/WCPA, 2004).

MANAGEMENT CONSTRAINTS

Subsistence and commercial poaching, illegal grazing and annual migrations of 3-4,000 Fulani cattle, which compete with the wildlife for water, uncontrolled wildfires, land clearance for charcoal, wood and farming, and overfishing, all occur in the Park, and poaching has adversely affected the elephant, giraffe and antelope populations (MHE, 1991; Grettenberger, 1991). Many of these threats come from the Burkino Faso and Benin Reserves. However, the nomination document stated that poaching, illegal grazing and bush fires had been notably reduced by 1995 following active conservation management; and that proposals for mining and a dam were unlikely to be executed owing to lack of funds (Répub. Niger, 1995). However, proposals for the construction of a hydro-electric dam at Dyondyonga on the Mekrou River, in both the Niger World Heritage property and the proposed World Heritage site in Benin, and the exploitation of a phosphate mine, were revived but deferred in 2002 pending independent evaluation of their environmental and social impacts to international standards (UNESCO, 2003).

STAFF

One Director with 7 rangers, 2 drivers, one ranger/driver, one scout and 2 ancillary staff. The number of guard posts and staff in 1996 were not considered sufficient to guard the Park effectively (IUCN, 1996).

BUDGET

The annual budget received from the Government during 1996 was 5million CFA francs per annum (US$10,200) (excluding salaries). This was to be halved in 1997. Most funding has come through projects financed from abroad. The Benin, Burkina Faso and Niger Regional Project funded by the European Development Fund planned to start in 1995, was estimated at 20 million ECU (US$2,560,000) (Rép. Niger, 1995). In 1991 a joint project for the Park and Tapoa Reserve was planned for three years, funded at US$429,000 via the US Peace Corps and USAID (MHE, 1991).This aimed to integrate the local population, by conservation education and learning the sustainable use of natural resources. In 1989 the French National Hunting Office (Office National de la Chasse) funded a US$40,000 project for improving infrastructure, management and surveillance (MHE, 1991).

LOCAL ADDRESSES

Chef, Division, Faune et Chasse de la Direction de la Faune, de la Pêche et de la Pisciculture, Ministère de l'Hydraulique et de l'Environnement. B.P. 721, Niamey, Niger.

Direction Départementale de l'Environnement. Tillaberi, Niger.

M. le Conservateur du Parc National du W du Niger. La Tapoa-Say, Tillaberi, Niger.

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