



Mission to control, monitor and supervise the construction of the OMVG Energy Project

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Technical note - Biodiversity

Gambia River Basin Development Organization (OMVG)

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Glossary of acronyms

EF	Environmental flow
EFA	Environmental flow assessment
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
g/l	grams per liter
GWh	Gigawatt hours (energy measurement unit)
IRD	Development Research Institute (IRD, <i>Institut de Recherche pour le Développement</i>)
KP	Kilometer point
MW	Megawatt (electric power unit equivalent to 10^6 W)
NL	Normal level
OMVG	Gambia River Basin Development Organization, <i>Organisation pour la Mise en Valeur du Fleuve Gambie</i>
PNNK	Niokolo-Koba National Park, <i>Parc National du Niokolo Koba</i>
PS5	Performance standard: Land acquisition and involuntary resettlement
PS6	Performance standard: Biodiversity conservation and sustainable management of living natural resources
RAP/LRP	Resettlement Action Plan/Livelihood Restoration Plan
SAMVA	VINCI Construction Grands Projets, VINCI Terrassements and ANDRITZ Hydro group
SHDP	Sambangalou Hydroelectric Development Project
WCD	World Commission of Dams
WWF	World Wildlife Fund

1. Introduction

This document constitutes a technical note regarding Study 2 for supplemental impact studies on natural environments, biodiversity and the ecosystem services of the Sambangalou Hydroelectric Development Project (SHDP) in Senegal. It presents the preliminary results of the first survey campaign carried out in the study area and the methodologies used. This technical note presents the main biodiversity-related environmental issues identified to date and outlines the mitigation and compensation measures studied thus far.

This technical note supplements the documents previously drafted in the context of the SHDP and available to lenders (scoping study, previous impact assessment, BMP – Construction, etc.). Note that the BMP – Construction submitted on March 2, 2021, represents the final version, not a preliminary version as indicated on the document. This technical note is needed in order to inform the lenders' decision-making process regarding funding of the SHDP.

The objectives of this technical note are to:

- present the methodologies used during the first survey campaign;
- present the preliminary results of the first survey campaign;
- determine, on a preliminary basis, whether certain impacts caused by the SHDP cannot be adequately compensated.

The preliminary impact assessment will be based on current project knowledge and the results of the first survey campaign. Since the second survey campaign has not yet been completed, the results, findings, issues and conclusions in this document remain preliminary. The final version will be presented in the SHDP BMP planned for July 2021.

2. Methodology

For each of the groups identified below, a local expert assists AECOM's team. All inventories were conducted in the presence of these experts. The methodology, the location of the transects and the protocols were also determined and developed in consultation with local experts and experts from AECOM.

Note that the custodian and agents of Niokolo-Koba National Park (PNNK) were consulted before the inventories in order to validate the two sites selected and to modify them, if necessary.

Plant species

A first survey campaign took place from December 10 to 26, 2020, for the sites in Senegal and Gambia, then from January 18 to 25 for the sites in Guinea. The survey campaign studied 60 transects, divided across 16 sites in the study area (maps, Appendix A).

The first flora survey campaign employed a roving sampling method. It consisted of surveying a transect and recording the various species present and relevant information (abundance, uses, etc.) about each one. Thus, all species present were listed on field sheets. Where a species could not be identified, it was collected and subsequently identified in the herbarium of the Plant Biology Laboratory of Cheikh Anta Diop University in Dakar. Thanks to the land occupation map, stratified sampling was applied to qualitatively characterize each plant community. These data may be used to determine and categorize the units as potential habitats for wildlife and plants.

Transect length was determined according to the minimum surface area principle, or the minimum surface area in which nearly all species of the plant community are represented. In the backswamps, transect length was limited by the presence of natural barriers (water, *Mimosa pigra* thickets, etc.). Where present, the barriers determined the start or end point of the transect.

The inventory effort equates to the time (minutes) to survey the transects and the distance (m) travelled during the transects (Table 1). Average transect length is 500 m. Specific transect length was not available at the time this note was drafted.

Table 1: Inventory sites and inventory duration per transect for the plant inventory

Site name	Transect name	Duration (min.)	Type of habitat
Upstream sector			
Néoudou	Néoudou-1	140	Riparian forest
	Néoudou-2	120	Tree savanna
	Néoudou-3	120	Riparian forest and cultivation area
	Néoudou-4	90	Shrub savanna
Tiéwiré	T1-Tiew	150	Shrub savanna
	T2-Tiew	60	Agricultural and fallow land
	T3-Tiew	30	Shrub savanna
	T4-Tiew	60	Riparian forest
	T5-Tiew/ Doundounk Saara	90	Shrub savanna Tree savanna Wooded savanna
	T6-Tiew/ Doundounk Saara	60	Riparian forest
	T7-Tiew/ Doundounk Saara	75	Tree savanna
	T8-Tiew/ Doundounk Saara	30	Shrub savanna
Moussouly Koto	T1-Moussou (LB)e	140	Riparian forest

Site name	Transect name	Duration (min.)	Type of habitat
Dilé	T2-Moussou (LB)	70	Tree savanna and wooded savanna
	T3-Moussou (LB)	30	Shrub savanna
	T4-Moussou (RB)	100	Tree savanna
	T5-Moussou (RB)	30	Tree savanna
	T6-Moussou (RB)	60	Riparian forest
	T1-Dilé	80	Tree savanna
	T2-Dilé	60	Riparian forest
	T3-Dilé	60	Wet meadow
	T1-Kouyadi	60	Shrub savanna
	T2-Kouyadi	95	Riparian forest
	T3-Kouyadi	60	Tree savanna
Downstream			
Itato	Itato-1	150	Riparian forest
	Itato-2	120	Tree savanna
	Itato-3	60	Shrub savanna
Tambanoumouya	Tamba-1	150	Open woodland
	Tamba-2	120	Tree savanna
PNNK site - Simenti	Simenti-1	70	Open woodland
	Simenti-2	88	Open woodland
	Simenti-3	90	Open woodland
	Simenti-4	60	Open woodland
	Simenti-5	60	Open woodland
PNNK site – Grand Mirador	G mirador-1	90	Wooded savanna
	G mirador-2	60	Riparian forest
	G mirador-3	75	Wooded savanna
	G mirador-4	30	Open woodland
Faraba site	T1-F	90	Riparian forest
	T2-F	90	Shrub savanna
	T3-F	60	Shrub savanna
Koar site	T1-K	60	Swamp
	T2-K	120	Riparian forest
	T3-K	30	Gallery forest (river drainage tunnel)
	T4-K	30 hours	Open woodland
	T5-K	60	Swampy scrubland
Kulari	T6-K	60	Wooded savanna
	T1-Farg	60	Riparian forest
	T2-Farg	90	Wooded savanna
	T3-Farg	60	Shrub savanna
Dampha Kunda	T4-Farg	60	Shrub savanna
	T1-Dampf	120	Swampy scrubland
	T2-Dampf	90	Shrub savanna
Gambia River National Park	T3-Dampf	30	Wooded savanna
	TGRN (All islands)	120	Riparian forest
Farafenni	T1-mangr	150	Mangrove

Site name	Transect name	Duration (min.)	Type of habitat
Bambali	T2-mangr	90	Grassy saline semi-desert
	T1-Bamb	60	Grassy saline semi-desert
	T2-Bamb	30	Mangrove
	T3-Bamb	60	Grassy saline semi-desert

Terrestrial wildlife species

Herpetofauna

A first survey campaign took place from December 10 to 26, 2020, for the sites in Senegal and Gambia, then from January 18 to 25 for the sites in Guinea. 34 transects were surveyed during the campaign, divided across 15 sites in the study area (maps; Appendix A). The number of transects per site varies according to the habitats recorded per site. Consequently, two to seven transects were carried out per site. The distance travelled is not available for the time being, but this parameter will be added to the SHDP management plan (BMP) for filling and operation.

To increase the likelihood of detection, observations took place morning and night to view the various species potentially present in the study area. Furthermore, two inventory methods were used: the indirect and direct methods.

The indirect method consisted of asking representatives from Fish, Water and Forest services in addition to local populations about their knowledge of the presence of reptiles and amphibians in the sectors surveyed. The questions were asked with photographic assistance for all of the threatened species potentially present in the study area and for most of the other species potentially present. Questions were also asked to assess the threats to the various species (e.g., samples, loss of habitat).

For its part, the direct method consisted of actively looking for reptiles and amphibians by surveying transects and lifting potential shelters. Where individuals were observed, they were counted, and all observations were subsequently entered on the field sheet. During the active survey, all biotopes likely to provide shelter for a reptile or amphibian were surveyed.

The survey effort equates to the time (minutes) to complete the transects and the number of shelters lifted during the transects (Table 2). The number of shelters lifted for all transects was unavailable at the time the technical note - Biodiversity was drafted.

Table 2: Duration and number of shelters lifted per transect for the herpetofauna survey

Site name	Transect name	Time (min.)	No. of shelters lifted
Upstream			
Néoudou	Néoudou-1	120	UNK
	Néoudou-2	120	UNK
	Néoudou-3	302	UNK
Tiéwiré	Tiéwiré-1	50	17
	Tiéwiré-2	10	8
	Tiéwiré-3	105	0
	Tiéwiré-4	85	6
	Tiéwiré-5	66	34
Moussouly Koto	Doundounk Saara-1	63	19
	Doundounk Saara-2	85	26
	Moussouly Koto-1	30	22
	Moussouly Koto-2	62	13
	Moussouly Koto-3	167	44
	Moussouly Koto-4	160	57

Site name	Transect name	Time (min.)	No. of shelters lifted
Dilé	Dilé-1	32	23
	Dilé-2	50	42
	Dilé-3	26	5
Kouyadi	Kouyadi-1	92	31
	Kouyadi-2	56	28
Downstream			
Itato	Itato-1	526	UNK
	Itato-2	75	UNK
Tambanoumouya	Tambanoumouya-1	165	UNK
PNNK – Simenti	PNNK – Simenti-1	412	UNK
PNNK – Guénoto	PNNK – Guénoto-1	UNK	UNK
	PNNK – Guénoto-2	70	UNK
Faraba	Faraba-1	251	UNK
	Faraba-2	166	UNK
	Faraba-3	19	UNK
Koar	Koar-1	496	UNK
	Koar-2	73	UNK
Kulari	Kulari-1	389	UNK
Gambia River National Park	Gambia River National Park-1	189	UNK
Senegambia bridge	Senegambia bridge-1	288	UNK
Bambali	Bambali-1	208	UNK

Birds

A first sampling campaign took place from December 10 to 26, 2020, for the sites in Senegal and Gambia, then from January 18 to 25 for the sites in Guinea. The sampling campaign surveyed 17 transects, divided across 11 sites in the study area (maps; Appendix A). Furthermore, the data from four sites located in Guinea had not been analyzed when this technical note was drafted.

Field inventories were conducted to determine the species present and to identify the habitats frequented by birds. The different types of habitat present at each site selected were inventoried using two methodological approaches: transects and point counts. Average transect length was approximately 5 km. Most transects were surveyed on foot. Point counts were carried out during the transects.

For the PNNK, the sites and transects were surveyed by car. Travel speed was 20 km/hour and, where necessary, the team would stop to identify and count birds. At the River Gambia National Park (RGNP) and Farafenni – Mangrove sites, the transects were surveyed by pirogue, which was also the case for the Simenti – Pond site located in the PNNK.

During the transects, all the birds seen or heard were identified and, where possible, counted. The distance of the bird from the observer was also estimated and entered. Reproductive indices, such as reproductive behaviors, transportation of food or nest construction materials or the observation of bird access to a nest, were all noted.

For each point count, the start and end times, in addition to the geographical coordinates, were noted. Geographical coordinates were also noted for special observations. The meteorological conditions and type of habitat were also entered on the field sheets. The inventory effort equates to the time (minutes) to survey the transects and the distance (m) travelled during the transects. Transect length was estimated using route tracings recorded on the OsmAnd app installed on smartphones (Table 3).

Table 3: Inventory sites and duration and length per transect for bird inventories

Site name	Transect name	Duration (min.)	Transect length (m)
Upstream			
Néoudou	Néoudou – Dandé Mayo	105	2,730
	Néoudou – Thierno Kenda	216	4,150
Downstream			
Bambali	Bambali Kadang	41	950
Dampha Kunda	Dampha Kunda – 1	249	4,016
	Dampha Kunda – 2	96	1,300
Farafenni	Farafenni Mangrove	33	8,731
Kulari	Kulari	239	4,243
River Gambia National Park	River Gambia National Park	108	16,840
Faraba	Faraba SN – 1	196	3,056
	Faraba SN – 2	59	760
Itato	Itato	112	5,720
Koar	Koar (Pond) AM	208	5,104
	Koar (Pond) PM	39	
	Guénoto – Niokolo lodge	309	6,602
PNNK	Simenti – Pond	107	5,726
	Simenti – Lion's camp	250	8,873
Tambanoumya	Tambanoumya	219	4,732

Mammals

A first sampling campaign took place from December 10 to 26, 2020, for the sites in Senegal and Gambia, then from January 18 to 25 for the sites in Guinea. The first sampling campaign surveyed at least 17 transects, divided across 16 sites in the study area (maps; Appendix A).

Field inventories were completed to determine the species present and an index of their relative abundance. The different types of habitat present at each site selected were inventoried using a roving sampling method. Transect length varied between 6 and 10 km; the transects were not rectilinear, to sample the highest number of different biotopes. Most transects were surveyed on foot. At certain sites [e.g., River Gambia National Park (RGNP)], the transects were surveyed by pirogue. During the transects, all indicators of presence and direct observations were entered on the field sheets.

For each transect, the start and end times, in addition to the geographical coordinates, were noted. Geographical coordinates were also noted each time signs of presence were observed. The inventory effort equates to the time (minutes) to survey the transects and the distance (m) travelled during the transects (Table 4). Specific transect length was not available at the time this note was drafted.

Furthermore, two to four camera traps were set up at each site. The position and number per site were unavailable at the time this technical note was drafted.

Table 4: Inventory sites and transect duration for mammal inventories

Site name	Transect name	Time (min.)
Upstream		
Néoudou	Néoudou-1	UNK
Tiéwiré	Tiéwiré-1	146
	Doundounk Saara-1	190

Site name	Transect name	Time (min.)
Moussouly Koto	Moussouly Koto-1	168
Dilé	Dilé-1	201
Kouyadi	Kouyadi-1	UNK
Downstream		
Itato	Itato-1	109
Tambanoumouya	Tambanoumouya-1	193
PNNK – Simenti	PNNK – Simenti-1	193
PNNK – Guénoto	PNNK – Guénoto-1	225
Faraba	Faraba-1	207
Koar	Koar-1	145
Kulari	Kulari-1	137
Prufu	Prufu-1	152
Gambia River National Park	Gambia River National Park-1	UNK
Farafenni	Farafenni-1	75
Bambali	Bambali-1	75

Western chimpanzee (*Pan troglodytes verus*)

A first sampling campaign took place from December 11 to 21, 2020, for the sites in Senegal and Gambia, then from January 18 to 25 for the sites in Guinea. The first sampling campaign surveyed at least 13 transects, divided across 12 sites in the study area (maps; Appendix A).

Field inventories were carried out to detect any chimpanzee or current or past presence in the sectors targeted by the field campaign. Before carrying out the transects, a questionnaire was administered to the leader of the nearest village to identify and determine the sectors potentially visited by chimpanzees.

All transects were surveyed on foot, and all indicators of presence and direct observations were entered on the field sheets. Three categories of nest were identified: 1) recent nest, 2) old nest and 3) very old nest. This nest age categorization is used to analyze the chimpanzee visiting periods to the site according to periods marked by the seasons, the fructification period of the most popular foods and the plant species commonly used to build nests. Where logistics allowed, the transect route was surveyed twice, 7 days apart.

For each transect, the start and end times, in addition to the geographical coordinates, were noted. Geographical coordinates were also noted each time signs of presence were observed. The inventory effort equates to the time (minutes) to survey the transects (Table 5).

Table 5: Inventory sites and transect duration for chimpanzee inventories

Site name	Transect name	Time (min.)
Upstream		
Néoudou	Néoudou-1	143
	Néoudou-2	36
Moussouly Koto	Moussouly Koto-1	70
Tambouguidaré	Tambouguidaré-1	115
Dilé	Dilé-1	125
Kouyadi	Kouyadi-1	140
Downstream		
Diarra	Diarra-1	120
Linguékoto	Linguékoto-1	180
Bantaco	Bantaco-1	286

Site name	Transect name	Time (min.)
Diendji	Diendji-1	57
Dafoula Diakha	Dafoula Diakha-1	55
Diaguiri	Diaguiri-1	23
Itato	Itato-1	33

Aquatic wildlife species

Upstream sector

The first survey campaign in the upstream sector took place from January 18 to 25, 2021. Six sites were sampled in Guinea (Table 6; maps, Appendix A).

Table 6: Fishing sites and effort in the upstream sector during the first inventory campaign.

Selected sites	Fishing dates	Fishing effort (apparatus/day)	Apparatus used
Tiéwiré	01/18, 01/19/2021	20	Gillnet
Missirah	01/18, 01/19/2021	20	Gillnet
Moussouly Koto	01/20/2021	20	Gillnet
Dilé	01/21/2021	20	Gillnet
Tambouguidaré	01/21/2021	1	Seine
Kouyadi	01/23/2021	10	Gillnet

The fishing sites were selected in collaboration with local fishers according to the following main criteria: accessibility (by car, motorcycle or pirogue), the possibility of fishing using passive gillnets or beach seines and how often the sites are frequented by local fishers. At each sampling site, the following physical-chemical parameters were measured during fishing operations: temperature, dissolved oxygen, speed of the current and water depth. The parameters were measured using an oximeter, a current meter and a depth measurement rod. The physical and hydrological characteristics were described at each fishing site: width and length of the body of water, the meteorological conditions, the presence or absence of migratory barriers, the water level, transparency and turbidity, the type of substrate, water morphology, run-off areas and plants. At all sampled sites, the type of water guild—calm or moving—determined the habitat potential for fish populations.

The ichthyofauna was sampled using two batteries of 10 gillnets, with 10, 15, 20, 25, 30, 35, 40, 50, 60 and 80 mm mesh. Each gillnet used measures 25 m in length, 2 m in height for the small mesh sizes (10, 15, 20, 25 mm) and 4 m in height for the large mesh sizes (30, 35, 40, 50, 60 and 80 mm). The nets were placed between 4:30 p.m. and 6:30 p.m. and lifted the next day between 7:30 a.m. and 9:30 a.m., with an average fishing duration of approximately 16 hours. A shore seine measuring 10 m in length and 1 m in height with 8 mm mesh was also used to supplement the sampling work. At each site, double or triple nets were placed along the width of the river, perpendicular to the shore and attached to the trees. The nets with the smaller mesh (10, 15, 20, 25 mm) were set up near the shore, and the larger mesh in the middle of the river. This strategy aims to maximize the sampling effort insofar as the nets are able to cover the entire water column and reach the riverbed. Several panels with different mesh were tied together to have several mesh sizes on the same net.

Downstream sector: Continental area and ponds

The first survey campaign in the ponds and continental area of the downstream sector took place from December 11 to 25, 2020. A total of 13 sites were sampled in Senegal and in Gambia (Table 7; maps, Appendix A).

Table 7: Fishing sites and effort in the continental area and ponds in the downstream sector during the first inventory campaign.

Selected sites	Fishing dates	Apparatuses used	Fishing effort (apparatus/day)
Itato (Senegal)	12/11/2020	Gillnet	10
Tépére Diantou (Senegal)	12/12/2020	Gillnet; Seine	11
Soukouta (Senegal)	12/13/2020	Gillnet	20
Gambia River at Simenti (Senegal)	12/15/2020	Gillnet; Seine	21
Gambia River at Damantan Ford (Senegal)	12/16/2020	Gillnet	20
Faraba Pond (Senegal)	12/18/2020	Gillnet	10
Gambia River at Faraba village (Senegal)	12/18/2020	Gillnet	10
Koar Pond (Senegal)	12/19/2020	Gillnet	10
Gambia River at Koar village (Senegal)	12/19/2020	Gillnet	10
Dampha Kunda Pond (The Gambia)	12/22/2020	Gillnet	10
Gambia River at Dampha Kunda village (The Gambia)	12/22/2020	Gillnet	10
Kulari Pond (The Gambia)	12/24/2020	Gillnet	10
Gambia River at Kulari village (The Gambia)	12/25/2020	Gillnet	20

The sampling methodology in this area is the same as previously presented for the upstream sector.

Downstream sector: Estuarine area

The first inventory campaign in the estuarine area of the downstream sector took place from December 20 to 25, 2020. Two sites were sampled in Gambia (Table 8; maps, Appendix A).

Table 8: Fishing sites and effort in the estuarine area of the downstream sector during the first inventory campaign.

Selected sites	Fishing dates	Apparatuses used	Fishing effort (apparatus/day)
At River Gambia National Park (The Gambia)	12-20, 12-21, 12-22-2020	Passive gillnet; driftnet; longline	23
Farafenni mangrove (The Gambia)	12-23, 12-24, 12-25-2020	Passive gillnet; driftnet; longline	24

As previously mentioned, the fishing sites were selected in collaboration with local fishers according to the following main criteria: the possibility of fishing operations using passive gillnets, driftnets or longlines, and how often the fishing sites are frequented by local fishers. At each sampling site, the following physical-chemical parameters were measured during fishing operations: temperature, dissolved oxygen, salinity, speed of the current and water depth. The parameters were measured using an oximeter, a CTD (salinity), a current meter and a depth measurement rod. The physical and hydrological characteristics were described at each fishing site: width and length of the body of water, the meteorological conditions, the presence or absence of migratory barriers, the water level, transparency and turbidity, the type of substrate, water morphology, run-off areas and plants. At all sampled sites, the type of water guild—calm or moving—determined the habitat potential for fish populations.

There was a greater variety in the fishing apparatuses used in the estuary to maximize the likelihood of a catch. The fishing methods concerning each apparatus are described below.

- Surface driftnet (SDN)

Six monofilament nets made of very thin nylon were used for driftnet fishing. Each gillnet used measures 25 m in length, 2 m in height for the small mesh sizes (20, 25 mm) and 4 m in height for the large mesh sizes (30, 35, 40, 50 and 60 mm). The battery of SDNs was used during the day, according to tidal movement. All six nets used were tied together and left to drift on the surface of the main body of the river for 4 hours. Given the relatively slow speed of the current, the nets drifted over a relatively limited distance.

- Floor gillnet (FGN)

A gillnet made of nylon monofilament with 80 mm mesh from the battery of nets was used as a FGN. To increase the fishing effort, the managing fisher had given the scientific team one of their own gillnets with 80 mm, cotton multifilament mesh measuring approximately 12 m in length and 2 m in height. They were fished in view of fishing on the river floor and installed at night, attached to the roots of the mangroves, and lifted in the morning. The nets were placed between 4:30 p.m. and 6:30 p.m. and lifted the next day between 7:30 a.m. and 9:30 a.m., or an average fishing duration of approximately 16 hours.

- Longline (LL)

A longline is a passive fishing apparatus consisting of a nylon line measuring approximately 100 m in length, with about 50 hooks. The longline was set up at night and attached to the mangroves. It was fished and used to fish on the floor of the Gambia River. It was baited with either fish, shrimp or small pieces of soap. According to the managing fisher, this is common in Gambia and can lead to interesting catches.

3. Preliminary study area baseline

The data presented below represent the preliminary results of the first inventory campaign alone (December 2020 and January 2021). The data from the second campaign (March–April 2021) were not yet available at the time this technical note was drafted.

Upstream sector

Plant species

A total of 211 plant species were identified in the first sampling campaign (Appendix B). Only one threatened species was observed, *Khaya senegalensis*. This species was observed at the five sites inventoried in the upstream sector.

Terrestrial wildlife species

Herpetofauna

During the first inventory campaign for herpetofauna in the upstream sector, four species of amphibian and eight species of reptile were identified (Appendix B). The amphibians belong to two families and the reptiles belong to nine. None of the species observed is listed on the IUCN Red List.

Birds

During the first inventory campaign for birds in the upstream sector, 166 bird species belonging to 57 families were observed or heard (Appendix B). In summary, 7,401 individuals were identified during the inventory. The red-billed quelea (*Quelea quelea*), the gray-headed sparrow (*Passer griseus*) and the village indigobird (*Vidua chalybeata*) were the most observed species. They represent 15%, 11% and 6% of the total numbers recorded, respectively.

According to the IUCN Red List, three threatened species were observed or heard during the inventories (IUCN, 2020). These are the lappet-faced vulture (*Torgos tracheliotos*), the bateleur (*Terathopius ecaudatus*), both considered endangered, and the hooded vulture (*Necrosyrtes monachus*), a critically endangered species.

Mammals

Signs of the presence of 14 species of mammal were detected during the first inventory campaign (Appendix B). The presence of two threatened species was confirmed during these inventories: the western chimpanzee and the hippopotamus (*Hippopotamus amphibius*). They are considered critically endangered and vulnerable, respectively, according to the IUCN Red List (IUCN, 2020).

Western chimpanzee

Signs of chimpanzee presence were found at all sites in the upstream sector. Presence indicators in Guinea were identified, for the most part, outside of the projected boundaries of the future hydroelectric reservoir. The nests were located on the hills bordering the future reservoir. Furthermore, no signs of presence were identified in the Néoudou 2 transect. This transect is in the part that will be flooded by the filling of the future reservoir.

Aquatic wildlife species

During the first inventory campaign for ichthyofauna in the upstream sector (Guinea), a total of 36 species belonging to 14 families were caught (Appendix B). In total, 2,393 individuals were caught at all six fishing sites. *Brycinus longipinnis* dominates the caught species with 20.9% of the total count. *Brycinus nurse* (12.5%) and *Schilbe intermedius* (10.2%) represent the rest of the most caught species. The other species are poorly represented in terms of number of individuals with relative abundances of less than 10%. The

Missirah and Tambouguidaré sites have higher average catches per unit effort (CPUE), which is suggestive of a higher abundance for these sites (Table 9).

Table 9: Fishing sites and effort in the upstream sector during the first inventory campaign.

Selected sites	Fishing dates	Catch per unit effort (CPUE)
Tiéwiré	01/18, 01/19/2021	39
Missirah	01/18, 01/19/2021	58
Moussouly Koto	01/20/2021	8
Dilé	01/21/2021	14
Tambouguidaré	01/21/2021	52
Kouyadi	01/23/2021	20

No threatened, endemic or protected species was caught in the upstream sector during the January 2021 inventories.

Protected areas

Four protected areas are in the upstream sector: the Gambi classified forest, the Gambia-Oundou-Liti and Bafing-Falémé RAMSAR sites and the Dindéfalo Community Nature Reserve (RNCD) (maps; Appendix A). Of these protected areas, two will be directly affected by the filling of the hydroelectric reservoir: the Gambia-Oundou-Liti Reserve in Guinea and the Dindéfalo Community Nature Reserve in Senegal. The flooded surface areas are presented in Table 10.

Table 10: Surface area of the protected areas to be flooded

Name	Type	Country	Surface area (ha)
Gambia-Oundou-Liti reserve	RAMSAR site	Guinea	15,562
Dindéfalo Community Nature Reserve	Nature reserve	Senegal	854

Furthermore, new protected areas are currently under study and development. The nearest one is located on the right bank of the Gambia River. This is the Gambia Falémé Wildlife Reserve. According to the information obtained, this reserve would be annexed to Moyen Bafing National Park (PNMB, *Parc national du Moyen Bafing*) and included in the Bafing Falémé landscape integrated natural resource management project. One of the objectives of the creation of this reserve is to provide a migration corridor for the chimpanzees in the RNCD and the PNMB. However, the projected geographical boundaries of this reserve were unavailable at the time the maps were issued for this technical note.

Downstream sector

Plant species

The first sampling campaign identified a total of 297 plant species in the downstream sector (Appendix C). Five of these species are threatened according to the IUCN Red List (IUCN, 2020). Four species are considered vulnerable: *Khaya senegalensis*, *Afzelia Africana*, *Raphia australis* and *Vitellaria paradoxa*. For its part, *Pterocarpus erinaceus* is considered endangered.

Terrestrial wildlife species

Herpetofauna

The first inventory campaign in the upstream sector for herpetofauna identified four species of amphibian and 19 species of reptile (Appendix C). A Senegal flapshell turtle (*Cyclanorbis senegalensis*) was caught in the nets during the aquatic inventories in the Niokolo Koba National Park sector. It is considered vulnerable according to the IUCN Red List.

Birds

The first inventory campaign in the upstream sector for birds observed or heard 88 bird species (Appendix C). According to the IUCN Red List, two threatened species were observed or heard during the inventories. These are the hooded vulture, a critically endangered species, and the bateleur, a species considered to be endangered.

Mammals

Signs of the presence of 21 species of mammal were observed during the first survey campaign (Appendix C). The presence of five threatened species was confirmed during the inventories: the western chimpanzee, the western red colobus (*Piliocolobus badius temminckii*), the lion (*Panthera leo*), the leopard (*Panthera pardus*) and the hippopotamus. The chimpanzee is considered critically endangered, the western red colobus is endangered, while the lion, leopard and hippopotamus are categorized as vulnerable according to the IUCN Red List (IUCN, 2020).

Western chimpanzee

Signs of chimpanzee presence were found at 5 out of 7 sites inventoried in the downstream sector. No signs of presence were identified at the Diendji or Diaguiri sites (Appendix A).

Aquatic wildlife species

For aquatic wildlife, since groupings by species of fish community differ significantly, the results of the ichthyofauna inventory in the downstream sector are divided into two areas, that is, a ponds and continental area, and an estuarine area.

Continental area and ponds

During the first survey campaign for ichthyofauna in the continental area, a total of 52 species belonging to 18 families were caught (Appendix C). In total, 5,927 individuals were caught at all 13 fishing sites. *Schilbe intermedius* is the most abundant fish with 17.7% of the total number of individuals caught. It is followed by *Sarotherodon melanotheron* (5.5%) and *Synodontis batensoda* (5.1%). The other species are poorly represented in terms of number of individuals with relative abundances of less than 5%. The Dampha Kunda, Koar and Faraba ponds have higher average catches per unit effort (CPUE), which is suggestive of a higher abundance for these sites (Table 11).

Only one endemic species was caught during the first inventory campaign in December 2020 (Appendix C). Five *Enteromius macrops*, a small cyprinid found only in the drainage basin of the Gambia River (Paugy et al., 2003), were caught in Soukouta, in Senegal, and in Dampha Kunda pond, in Gambia. This species is known to settle in areas with lots of aquatic plants and significant forest cover (Paugy et al., 2003). It is also present in ponds and may complete its entire life cycle there (Bénech and Quensièvre, 1985). No threatened species was caught in the downstream freshwater section during the December 2020 inventories.

Table 11: Catch per unit effort in the continental area and ponds in the downstream sector during the first inventory campaign.

Selected sites	Fishing dates	Catch per unit effort (CPUE)
Itato (Senegal)	12/11/2020	12
Tépére Diantou (Senegal)	12/12/2020	9
Soukouta (Senegal)	12/13/2020	25
Gambia River at Simenti (Senegal)	12/15/2020	6
Gambia River at Damantan Ford (Senegal)	12/16/2020	5
Faraba Pond (Senegal)	12/18/2020	41
Gambia River at Faraba village (Senegal)	12/18/2020	39

Selected sites	Fishing dates	Catch per unit effort (CPUE)
Koar Pond (Senegal)	12/19/2020	55
Gambia River at Koar village (Senegal)	12/19/2020	4
Dampha Kunda Pond (The Gambia)	12/22/2020	94
Gambia River at Dampha Kunda village (The Gambia)	12/22/2020	4
Kulari Pond (The Gambia)	12/24/2020	17
Gambia River at Kulari village (The Gambia)	12/25/2020	4

Estuarine area

During the first inventory campaign for ichthyofauna in the estuarine area in Gambia, a total of 24 species belonging to 20 families were caught. In total, 627 individuals were caught at both fishing sites (Appendix C). *Ethmalosa fimbriata* is the most abundant species with 54% of the total number of individuals caught. It is followed by *Ilisha africana* (13%) and *Pseudotolithus elongatus* (10%). The other species are poorly represented in terms of number of individuals with relative abundances of less than 10%. Furthermore, two species of invertebrate were caught in the nets: the bigfisted swimcrab (*Callinectes amnicola*) and the white shrimp (*Farfantepenaeus notialis*). Between the two fishing sites, the site located in the mangroves near Farafenni has a higher average CPUE, which is suggestive of a higher abundance (Table 12).

Table 12: Catch per unit effort in the estuarine area of the downstream sector during the first inventory campaign.

Selected sites	Fishing dates	Catch per unit effort (CPUE)
At River Gambia National Park (The Gambia)	12-20, 12-21, 12-22-2020	1.83
Farafenni mangrove (The Gambia)	12-23, 12-24, 12-25-2020	24.38

Two threatened species were caught in the Farafenni sector during the first inventory campaign in December 2020. One Senegalese tonguesole (*Cynoglossus senegalensis*) (NT or Near Threatened) and one *Fontitrygon margarita* (EN or Endangered) (IUCN, 2020) (Appendix C).

Furthermore, two African manatees (*Trichechus senegalensis*), apparently a female and her calf, were observed by fishers near Farafenni bridge in December 2020. The manatee is a marine mammal which the IUCN has identified as vulnerable (2020). In the Gambia, it is present in the lower and middle sections of the river bearing the same name, including the RGNP, in addition to observations on coastal zones, coves and bolongs (e.g., Bao Bolong), Tanbi Wetland and Niumi national parks and the Allahein River (UNEP-CMS, 2007). It is found in warm, brackish water, saltwater being encountered most often during transfers from one favorable environment to another. This species is euryhaline, meaning that it can tolerate substantial variations in salinity (Mayaka et al., 2015). Urban and industrial development, water temperature changes, hunting, accidental catches during commercial fishing, collisions with ships and mangrove deforestation are all threats to populations of this species (IUCN, 2020).

Protected areas

In total, 44 protected areas are found in the downstream sector of the study area. Of these protected areas, 15 are in direct contact with the Gambia River and, as such, will be potentially impacted by the hydraulic regime change further to the construction of the dam and its operation for hydroelectric purposes. These protected areas are presented in greater detail below in Table 10.

Table 13: Protected areas hydrologically connected with the Gambia River

Name	Type	Country	Surface area (ha)
Kun Killing	Forest park	The Gambia	201
Niani Maru	Forest park	The Gambia	632
Kahi Badi	Forest park	The Gambia	1,985
Tanbi National Park	National park and RAMSAR site	The Gambia	7,559
Brefet	Protected community area	The Gambia	980
Faraba Banta	Protected community area	The Gambia	521
Baro Kunda	Protected community area	The Gambia	364
Bamako	Protected community area	The Gambia	1,034
Kiang West National Park	National park	The Gambia	22,866
Jokadu	Wetland park	The Gambia	20,274
Bao Bolong Reserve	Wetland reserve and park	The Gambia	28,254
River Gambia National Park	National park	The Gambia	976
Gouloumbou	Forest reserve	Senegal	15,426
Kantora	Forest reserve	Senegal	17,315
Niokolo-Koba National Park, <i>Parc National du Niokolo Koba</i>	National park	Senegal	268,857

4. Second inventory campaign

The second inventory plan is expected to take place from March 19 to April 25, 2021. The following sections present the schedule and the methodology, where different from those used during the first inventory campaign.

Upstream sector

Plant species

During the second inventory campaign in the upstream sector, it is expected that supplementary transects will be carried out at the same sites as the first mission. The classified Gambi-Kabéla forest will also be included in the inventoried sites. This classified forest will be inventoried to assess the potential for providing offset compensation in this sector. The methodology used will be the same as during the first inventory campaign.

Terrestrial wildlife

Herpetofauna

Since herpetofauna includes more cryptic species, supplementary transects will be carried out during the second inventory campaign in the upstream sector. The sites inventoried during the first mission will be inventoried again. The Gambi-Kabéla classified forest will also be one of the inventoried sites to assess the potential for providing offset compensation in this sector. The methodology used will be the same as during the first inventory campaign.

Birds, mammals and western chimpanzee

During the second inventory campaign in the upstream sector, only the reservoir site in Senegal (Néoudou) will be visited, since the RNCD is known for its avian diversity and the confirmed presence of chimpanzees. The campaign will be limited to one site since the additional information and data gained will be minimal. The considerations retained for this purpose are the following:

- A high number of bird species was observed in the upstream sector during the first campaign (approximately $\frac{1}{4}$ of the country's species). We estimate that the species likely to visit the upstream habitats have already been identified, especially since several migrants will already have left the premises at the end of the dry season to reproduce in northern sectors.
- The poor diversity of mammals identified during the first campaign suggests that the likelihood of observing new species is extremely low, according to local experts. The sectors used by chimpanzees were mostly located outside the boundaries of the future reservoir according to the observations made during the January 2021 campaign and the local populations queried about this.

Furthermore, it is known that this project will inevitably lead to a loss of terrestrial habitats. Consequently, it appears to be preferable to quantify and qualify the surrounding habitats, which may be used by terrestrial wildlife, in a context of analyses of the effects on biodiversity. Consequently, it is unnecessary to collect supplementary data on birds, mammals and chimpanzee distribution within the area of the future reservoir, since the list of species that visits these habitats is known. It is especially necessary to characterize the habitats surrounding the reservoir to assess the possibility that the species may find the ecological conditions there suitable for visiting and using the surrounding habitats.

Aquatic wildlife

No sampling campaign is expected in the upstream sector (Guinea) under the second mission (March–April 2021). This decision was taken in consideration of the following points:

- No threatened or endemic fish species was caught during the January 2021 inventory campaign in Guinea (AECOM, report in progress)
- Three genera of fish are recognized as endemic to the highlands of Fouta Djallon: *Amphilinus*, *Chiloglanis* et *Enteromius* (Schmidt, 2014). The *Amphilinus* and *Chiloglanis* genera are dependent only on the Fouta Djallon highlands, in areas of rapids to which they have physiologically adapted (Schmidt, 2014).
- For its part, *Enteromius*, small cryptic cyprinids, are endemic to the high waters of West African rivers (Paugy et al., 2003; FishBase, 2020). They prefer small bodies of water with significant forest cover typical of both the headwaters of tropical rivers and Fouta Djallon (Paugy et al., 2003; FishBase, 2020). The literature considers species of *Enteromius* to be present in the Gambia River downstream of Fouta Djallon (Paugy et al., 2003). Furthermore, one species (*Enteromius macrops*) was caught in the downstream sector in December 2020 (AECOM, report in progress).
- According to the literature, the endemic species with the highest potential for presence in the upstream sector (future reservoir) would therefore be those of the *Enteromius* genus. Tributaries are the habitats most likely to house these endemic species (Paugy et al., 2003; Schmidt, 2014; FishBase, 2020).
- During the inventories carried out in January 2021 in Guinea, the tributaries were starting to dry up and it was not possible to fish in the tributaries of the targeted sectors. This situation should worsen further in the dry season (Alassane Sarr, personal communication).
- The potential impacts on communities of fish and their habitats in the reservoirs of tropical rivers are well known and studied (Bergkamp et al., 2000; White et al., 2012; Arantes et al., 2019).

Given all the reasons mentioned above and the fact that access is very difficult in the Guinean sector of the future reservoir, additional fishing operations in the stations inventoried in January 2021 will not provide additional information on the threatened or endemic aquatic wildlife species. Consequently, an inventory strategy which would focus solely on the Senegalese portion of the future reservoir will be prioritized during the next mission. In this sector, an inventory station will be selected nearby, upstream of the future dam and sampled over two nights (to better document the impacts in the works area). However, as the tributaries are dry during this period, it will not be possible to collect samples from tributaries of the future reservoir.

Downstream sector

Plant species

During the second inventory campaign in the downstream sector, it is expected that supplementary transects will be carried out at the same sites as the first mission. Only the site of the River Gambia National Park will not be inventoried again. It is only possible to make observations from a pirogue at this site. Consequently, no other relevant data will be collected during a second campaign. The methodology used will be the same as during the first inventory campaign.

Terrestrial wildlife

Herpetofauna and birds

During the second inventory campaign in the downstream sector, it is expected that supplementary transects will be carried out at the same sites as the first mission. Only the site of the River Gambia National Park will not be inventoried again. It is only possible to make observations from a pirogue at this site. As previously mentioned, no other data will be collected during a second campaign. It will add nothing new to the information already collected. The methodologies used will be the same as in the first inventory campaign.

Mammals

Sampling efforts for mammals will be concentrated in the RNCD and PNPK sector. These sectors were identified as more diverse during the first inventory campaign, so it was determined that a greater sampling effort in these sectors would be necessary. The methodology recommended will be the same as in the first inventory campaign.

Chimpanzees

Sampling efforts for chimpanzees will be concentrated in the RNCD and Sambangalou sector. The goal will be to determine the use of the habitat by chimpanzees in this sector and, if possible, to identify migration or travel corridors for this primate. Efforts will also be made to determine the location and characteristics of the crossings used by chimpanzees to cross the Gambia River. The methodology used will be the same as during the first inventory campaign.

Aquatic wildlife

Continental area and ponds

The sampling planned for the inventory campaign in the second mission will use the same sites that were sampled in December 2020. In addition to using the same apparatuses as in the first mission (two batteries of 10 gillnets and one beach seine), ten fish traps will be used in order to target the smaller, cryptic species (of the *Enteromius* genus, for example).

Estuarine area

The sampling planned for the inventory campaign in the second mission will be somewhat different from that of December 2020. Indeed, the sampling effort will be tenfold, through the addition of seine sets (200 m long by 20 m deep). Two longlines, 10 passive gillnets, one driftnet and one beach seine measuring 30 m long and 4 m deep will also be used. For the sampling sites, it is expected that the site downstream of the Farafenni bridge will be moved several kilometers upstream of the bridge, and that two new sites will be sampled in the Kaur and Kudang Mayo sectors, downstream of Kuntaur. This site change will make it possible to better monitor the changes in fish habitats in the saltwater front balancing area.

5. Conclusion

The expected impacts will be determined using data collected during both inventory campaigns, field knowledge, and the work carried out. The impacts identified during environmental and social impact assessments (ESIAs) will also be considered.

Close collaboration will be required between experts from the various fields (AECOM, SAMVA, etc.) so that no impact is forgotten or neglected. This collaboration will also be required between AECOM's experts for the three environmental studies in progress. Indeed, during the development of mitigation and compensation measures, discussions will take place to ensure that the measures developed by any of the studies do not cause additional impacts to any biodiversity components.

All of the results recorded during both inventory campaigns will be presented in the final BMP for the filling and operation phases (SHDP BMP). The SHDP BMP will be available in July 2021. The following sections present the main environmental issues for biodiversity identified to date and outline the mitigation and compensation measures studied thus far.

Upstream sector

The main environmental issues for biodiversity identified to date for the upstream sector are especially associated with the loss of terrestrial habitats and the change in hydrological regime, that is, the change from a river regime to a lake regime. This change will modify aquatic habitats because of the effect on environmental conditions. The impacts identified to date are:

- changes in the groupings and functional diversity of fish in the reservoir area;
- longitudinal fragmentation of the river network, limiting downstream migration;
- an increase in the depth and transparency of the water;
- an increase in sediment retention and deposit;
- thermal stratification and a decrease in the levels of dissolved oxygen;
- organic material loss;
- an increase in short-term pelagic production;
- a decrease in primary benthic production;
- loss of terrestrial crossings on the Gambia River;
- terrestrial habitat loss.

The reservoir impact was minimized since the normal operating level (OL) maintained is the lowest one, or 196 m. Note that during the ESIA, OLs of 200 to 220 m were studied. The reservoir footprint is therefore diminished, as are the terrestrial habitats lost.

One of the possible mitigation measures to be implemented is deforestation before the reservoir is filled. This deforestation may take place from the river to the shores of the future reservoir. The effect of this will be to displace wildlife species to sectors that will not be flooded. Deforestation will need to be coordinated with filling of the reservoir.

The other impacts will be subject to compensation measures. The following list presents ideas of compensation measures that could be implemented:

- creation of a protected area around the reservoir to conserve chimpanzee habitats;
- restoration of the classified Gambi-Kabéla forest;
- financial support for the creation of the future Gambia Falémé Wildlife Reserve;
- financial support to NGOs for chimpanzee conservation (e.g., Jane Goodall Institute);
- habitat protection in rapids upstream of the reservoir (aquatic conservation areas);
- assurance of the free flow of water in the tributaries that will not be flooded;
- creation of new areas of rapids or tributaries outside of the reservoir;
- monitoring of anoxia in the lower layers of the reservoir;
- monitoring of invasive, non-native species that could colonize after the reservoir is filled.

The compensation measures that will be implemented will aim to meet all criteria of the IFC's PS6.

Downstream sector

The main environmental issues for biodiversity identified to date for the downstream sector are especially associated with the change in hydrological regime. This change will modify the aquatic and riverside habitats and floodable areas (backswamps). The impacts identified to date are:

- displacement of the saltwater front downstream in the low water period;
- retreat of the extent of the mangroves;
- an increase in flow and in water level during the low water period;
- loss of terrestrial crossings on the Gambia River;
- changes to the plants and wildlife on the shores of the Gambia River;
- a decrease in the amplitude of seasonal floods;
- changes in the frequency and level of pond filling;
- impacts on the reproductive and growth habitat of fish that live in the ponds;
- changes in the timing of the flood signal that induces the fish spawning period;
- change in the spatial distribution of habitats for amphibians and reptiles that visit riverside and fluvial habitats;
- downstream displacement of shrimp/crab, marine mammal, cartilaginous and bony fish habitats of the estuary.

In the downstream sector, the application of one of the scenarios set out in the technical note - *Development of an initial environmental flow scenario at the Sambangalou hydroelectric power plant* (AECOM, 2021) will help reduce the impacts of the change in hydraulic regime.

Note that some of the issues identified previously will not be sufficiently reduced despite the implementation of environmental flow, regardless of the scenario applied. Compensation measures will therefore be developed to make up for these residual issues. The following list presents compensation measures that may be implemented:

- guaranteed permanence of the crossings identified as critical (e.g., PNNK and Bara sector);
- guaranteed permanence of sandbanks for herpetofauna to lay eggs;
- implementation of a threshold or pumping systems for backswamp filling.

If needed, offset compensation sites will also be found to make sure that all of the criteria of the IFC's PS6 are met.

6. References

- AECOM, 2021. Technical note - Development of an initial environmental flow scenario at the Sambangalou hydroelectric power plant. Mission to control, monitor, and supervise the construction of the OMVG Energy Project. Gambia River Basin Development Organization (OMVG). 50 p.
- Bénech, V., & Quensièvre, J. (1985). Reproductive strategies of fish in Chad in the “Normal Chad” period (1966–1971). *Journal of Tropical Hydrobiology*, 18(3), 227–244.
- Mayaka, T. B., Takoukam Kamla, A., & Self-Sullivan, C. (2015). Using Pooled Local Expert Opinions (PLEO) to Discern Patterns in Sightings of Live and Dead Manatees (*Trichechus senegalensis*, Link 1785) in Lower Sanaga Basin, Cameroon. *PloS one*, 10(7), 1–23.
- Paugy, D., Lévéque, C., & Teugels, G. G. (2003). Fresh and brackish water fish in West Africa - volumes 1 and 2.
- UNEP-CMS. 2007. Action plan for the conservation of the African manatee. Appendix I to the Memorandum of Agreement on the conservation of manatees and small cetaceans in West Africa and Macaronesia, 24 p.
- International Union for Conservation of Nature (IUCN), (2020). The IUCN Red List of Threatened Species. Online: <https://www.iucnredlist.org>.

Annexes A

Cartes localisation des sites d'inventaires

Annexes B

Tableaux des espèces observées dans le secteur amont

Flore

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Abrus precatorius</i> L.		X	X	X		
<i>Acacia ataxacantha</i> DC.		X				
<i>Acacia macrostachya</i> Rchb. ex DC.			X	X		X
<i>Acacia polyacantha</i> Willd.		X	X		X	
<i>Acacia senegal</i> (L.) Willd.				X	X	X
<i>Acacia sieberiana</i> DC.		X	X		X	X
<i>Acanthospermum hispidum</i> DC.		X				
<i>Achyranthes aspera</i> L.			X	X		
<i>Adansonia digitata</i> L.		X	X	X		
<i>Aeschynomene indica</i> L.			X	X		
<i>Afraegle paniculata</i> (Sch. Et Th) Engl.						X
<i>Afromosia laxiflora</i> (Benth.) Harms					X	
<i>Afzelia africana</i> Sm. ex Pers.			X	X	X	
<i>Albizia adianthifolia</i> (Schumach.) W. Wight	LC	X	X	X	X	X
<i>Albizia malacophylla</i> (A. Rich.) Walp.				X		
<i>Allophylus africanus</i> P. Beauv.			X	X		X
<i>Alternanthera sessilis</i> (L.) R. Br. ex DC.	LC	X	X	X		
<i>Andropogon gayanus</i> Kunth		X	X	X	X	X
<i>Annona muricata</i> L.		X				
<i>Annona senegalensis</i> Pers.		X	X	X	X	X
<i>Anogeissus leiocarpus</i> (DC.) Guill. & Perr.	LC	X	X	X	X	X
<i>Asparagus africanus</i> Lam.			X		X	
<i>Astraceae</i> (fleur jaune)			X			
<i>Baissea multiflora</i> A. DC.		X	X	X	X	X
<i>Balanites aegyptiaca</i> (L.) Delile		X				
<i>Bauhinia rufescens</i> Lam.			X			
<i>Blainvillea gayana</i> Cass.		X	X	X	X	X

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Blepharis maderaspatensis</i> (L.) B. Heyne ex Roth		X				
<i>Boerhavia diffusa</i> L.		X				
<i>Bombax costatum</i> Pellegr. & Vuill.	LC	X	X	X	X	X
<i>Borassus aethiopum</i> Mart.	LC	X	X	X		
<i>Boscia angustifolia</i> A. Rich.			X			
<i>Bridelia ferruginea</i> Benth.			X			
<i>Calotropis procera</i> (Aiton) W.T. Aiton		X				
<i>Cantinoa americana</i> (Aubl.) Harley & J.F.B. Pastore		X	X	X		
<i>Capparis tomentosa</i> Lam.			X	X	X	
<i>Cardiospermum halicacabum</i> L.			X	X	X	X
<i>Cascabela thevetia</i> (L.) Lippold			X			
<i>Cassia sieberiana</i> DC.		X	X	X	X	
<i>Ceiba pentandra</i> (L.) Gaertn.	LC	X	X	X		
<i>Celosia spicata</i> L.		X				
<i>Celtis toka</i> (Forssk.) Hepper & J.R.I. Wood				X		
<i>Cenchrus pedicellatus</i> (Trin.) Morrone		X	X	X		
<i>Cenchrus violaceus</i> (Lam.) Morrone		X				
<i>Chamaecrista nigricans</i> (Vahl) Greene			X			
<i>Chochlospermum tinctorium</i> Perr. ex A.Rich.						X
<i>Chrysopogon nigritanus</i> (Benth.) Veldkamp		X	X			
<i>Cissampelos mucronata</i> A. Rich.			X			
<i>Cochlospermum tinctorium</i> Perr. ex A. Rich.					X	
<i>Cola cordifolia</i> (Cav.) R. Br.		X	X	X		X
<i>Combretum aculeatum</i> Vent.		X				
<i>Combretum glutinosum</i> Perr. ex DC.	LC	X	X	X	X	X
<i>Combretum leocardii</i> Engl. & Diels		X	X			
<i>Combretum micranthum</i> G. Don	LC	X		X		
<i>Combretum nigricans</i> Lepr. ex Guill. & Perr						X

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Combretum sp</i> (Yambakatang)			X	X		
<i>Commelina benghalensis</i> L.	LC	X				
<i>Corchorus aestuans</i> L.			X			
<i>Corchorus fascicularis</i> Lam.			X	X		X
<i>Corchorus olitorius</i> L.		X	X	X		X
<i>Corchorus tridens</i> L.			X	X		
<i>Cordia myxa</i> L.				X		
<i>Cordyla pinnata</i> (Lepr. ex A. Rich.) Milne-Redh.			X	X	X	X
<i>Crateva adansonii</i> DC. subsp. <i>adansonii</i>			X	X	X	
<i>Crossopteryx febrifuga</i> (Afzel. ex G. Don) Benth.			X			X
<i>Crotalaria goreensis</i> Guill. & Perr.			X	X		
<i>Crotalaria retusa</i> L.		X	X	X		
<i>Cryptostegia grandiflora</i> R. Br.		X				
<i>Ctenium elegans</i> Kunth				X	X	X
<i>Daniellia oliveri</i> (Rolfe) Hutch. & Dalziel			X	X	X	X
<i>Desmodium ospriostreblum</i> Chiov.		X	X			
<i>Detarium microcarpum</i> Guill. & Perr.			X	X	X	
<i>Dichrostachys cinerea</i> (L.) Wight & Arn.	LC	X	X	X	X	X
<i>Dioscorea dumetorum</i> (Kunth) Pax			X	X	X	X
<i>Diospyros elliotii</i> (Hiern) F. White			X	X	X	X
<i>Diospyros mespiliformis</i> Hochst. ex A. DC.	VU	X	X	X	X	X
<i>Distimake aegyptius</i> (L.) A.R. Simões & Staples		X				
<i>Eleusine indica</i> (L.) Gaertn.			X			
<i>Elaeis guineensis</i> Jacq.		X	X	X		
<i>Entada africana</i> Guill. & Perr.				X		
<i>Eragrostis tenella</i> (L.) P. Beauv. ex Roem. & Schult.			X			
<i>Eragrostis tremula</i> (Lam.) Hochst. ex Steud.		X				
<i>Erythrina abyssinica</i> Lam. ex DC.			X			

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Erythrina senegalensis</i> DC.			X	X	X	
<i>Erythrina sigmoidea</i> Hua		X				
<i>Erythrophleum africanum</i> (Welw.) Harms						X
<i>Erythrophleum lasianthum</i> Corbishley						
<i>Erythrophleum suaveolens</i> (Guill. & Perr.) Brenan		X				
<i>Feretia apodantha</i> Delile				X		
<i>Ficus capensis</i> Thunb.	LC	X			X	
<i>Ficus congoensis</i>			X		X	X
<i>Ficus exasperata</i> Vahl				X		X
<i>Ficus glumosa</i> Delile		X	X	X	X	X
<i>Ficus platyphylla</i> Delile			X			
<i>Ficus sur</i> Forssk.			X	X		
<i>Ficus sycomorus</i> L.	LC	X	X	X	X	
<i>Ficus trichopoda</i> Baker			X			
<i>Ficus umbellata</i> Vahl		X				
<i>Flueggea virosa</i> (Roxb. ex Willd.) Voigt subsp. <i>Virosa</i>		X	X	X		
<i>Gardenia ternifolia</i> Schumach. & Thonn.	LC	X	X	X	X	X
<i>Gliricidia sepium</i> (Jacq.) Walp.		X				
<i>Grewia bicolor</i> Juss.			X			
<i>Grewia flavescens</i> Juss.		X	X	X	X	
<i>Grewia villosa</i> Willd.			X			
<i>Guiera senegalensis</i> J.F. Gmel.	LC	X				
<i>Gymnanthemum coloratum</i> (Willd.) H. Rob. & B. Kahn		X				
<i>Hexalobus monopetalus</i> (A. Rich.) Engl. & Diels	LC	X	X	X	X	X
<i>Hibiscus asper</i> Hook. f.					X	X
<i>Hibiscus cannabinus</i> L.		X	X	X		
<i>Holarrhena floribunda</i> (G. Don) T. Durand & Schinz			X	X		
<i>Hymenocardia acida</i> Tul.		X	X	X	X	X

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Hymenocardia acida</i> Tul.					X	
<i>Hyptis spicigera</i> Lam.					X	
<i>Icacina oliviformis</i> (Poir.) J. Raynal var. <i>oliviformis</i>			X			
<i>Indigostrum parviflorum</i> (B. Heyne ex Wight & Arn.) Schrire var. <i>parviflorum</i>		X				
<i>Indigofera hirsuta</i> L.		X				
<i>Indigofera</i> sp				X		
<i>Ipomoea eriocarpa</i> R. Br.		X	X	X		
<i>Ipomoea muricata</i> (L.) Jacq.		X				
<i>Ipomoea turbinata</i> Lag.				X		
<i>Khaya senegalensis</i> (Desr.) A. Juss.	VU	X	X	X	X	X
<i>Landolphia heudelotii</i> A. DC.				X	X	
<i>Lannea acida</i> A. Rich.		X	X	X	X	X
<i>Lannea microcarpa</i> Engl. & K. Krause		X	X	X	X	
<i>Lannea velutina</i> A. Rich.		X	X	X	X	X
<i>Launaea intybacea</i> (Jacq.) Beauverd		X				
<i>Lepisanthes senegalensis</i> (Juss. ex Poir.) Leenhh.			X	X		
<i>Leptadenia lanceolata</i> (Poir.) Goyder			X	X		
<i>Lippia chevalieri</i> Moldenke		X	X		X	
<i>Loeseneriella africana</i> (Willd.) N. Hallé var. <i>africana</i>		X				
<i>Lophira lanceolata</i> Tiegh. ex Keay				X	X	
<i>Ludwigia adscendens</i> (L.) H. Hara		X				
<i>Ludwigia decurrens</i> Walter			X	X		
<i>Luffa aegyptiaca</i> Mill.						X
<i>Luffa cylindrica</i> M. Roem.		X	X	X		
<i>Mangifera indica</i> L.			X	X		
<i>Maytenus senegalensis</i> (Lam.) Exell					X	
<i>Merremia aegyptia</i> (L.) Urb.			X			
<i>Mesosphaerum suaveolens</i> (L.) Kuntze		X	X	X		

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Mimosa pigra</i> L.	LC	X	X	X		X
<i>Mitracarpus hirtus</i> (L.) DC.		X	X	X		
<i>Mitragyna inermis</i> (Willd.) K. Schum.	LC	X	X	X	X	
<i>Morelia senegalensis</i> A. Rich. Ex DC.						X
<i>Nauclea latifolia</i> Sm.	LC	X	X	X		
<i>Nephrolepis biserrata</i> (Sw.) Schott		X				
<i>Oldenlandia corymbosa</i> L.		X				
Orchidæ			X	X		
<i>Oxytenanthera abyssinica</i> (A. Rich.) Munro	LC	X	X	X	X	X
<i>Parkia biglobosa</i> (Jacq.) R. Br. ex G. Don	LC	X	X	X	X	X
<i>Paullinia pinnata</i> L.			X	X		X
<i>Pavetta oblongifolia</i> (Hiern) Bremek.			X			
<i>Pennisetum pedicellatum</i> Trin.					X	
<i>Persicaria senegalensis</i> (Meisn.) Soják				X		
<i>Phyllanthus amarus</i> Schumach. & Thonn.				X		
<i>Phyllanthus reticulatus</i> Poir.	LC	X	X	X	X	X
<i>Physalis angulata</i> L.				X		
<i>Piliostigma reticulatum</i> (DC.) Hochst.			X			
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.		X	X	X	X	X
<i>Plumbago zeylanica</i> L.			X			
<i>Polycarpea linearifolia</i> (DC.) DC.						
<i>Prosopis africana</i> (Guill. & Perr.) Taub.			X	X	X	X
<i>Pseudoconyza viscosa</i> (Mill.) D'Arcy		X	X	X		
<i>Pseudocedrela kotschyi</i> (Schweinf.) Harms					X	
<i>Pterocarpus erinaceus</i> Poir.	EN	X	X	X	X	X
<i>Pterocarpus lucens</i> Lepr. ex Guill. & Perr.			X			
<i>Pterocarpus santalinoides</i> L'Hér. ex DC.			X	X	X	X
<i>Quassia silvestris</i> Cheek & Jongkind				X		

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Raphia australis</i> Oberm. & Strey			X			
<i>Rotula aquatica</i> Lour.				X	X	X
<i>Saba senegalensis</i> (A. DC.) Pichon		X	X	X	X	X
<i>Sarcocephalus latifolius</i> (Sm.) E.A. Bruce					X	X
<i>Schizachyrium exile</i> (Hochst.) Pilg.			X			
<i>Sclerocarpus africanus</i> Jacq.		X	X	X		
<i>Sclerocarya birrea</i> (A. Rich.) Hochst.		X				
<i>Scoparia dulcis</i> L.						X
<i>Securidaca longipedunculata</i> Fresen.				X	X	
<i>Securinega virosa</i> (Roxb. ex Willd.) Baill.						X
<i>Senna obtusifolia</i> (L.) H.S. Irwin & Barneby		X	X	X		X
<i>Sesamum alatum</i> Thonn.			X			
<i>Senna occidentalis</i> (L.) Link		X				
<i>Sesbania pachycarpa</i> DC.			X			
<i>Sida alba</i> L.		X				
<i>Sida rhombifolia</i> L.		X	X	X		
<i>Solanum incanum</i> L.			X	X		
<i>Spermacoce chaetocephala</i> DC.	LC	X	X	X	X	
<i>Spermacoce ruelliae</i> DC.			X	X	X	
<i>Spermacoce stachydea</i> DC.			X	X		
<i>Spermacoce verticillata</i> L.						X
<i>Spigelia anthelmia</i> L.		X		X		
<i>Spondias mombin</i> L.			X	X		
<i>Sterculia setigera</i> Delile		X	X	X		X
<i>Stereospermum kunthianum</i> Cham.	LC	X	X	X	X	X
<i>Striga hermonthica</i> (Delile) Benth.		X	X			
<i>Strophanthus sarmentosus</i> DC.		X	X	X		X
<i>Strychnos spinosa</i> Lam.			X	X	X	X

Nom scientifique	Statut IUCN	Néoudou	Théwiré	Moussouly Koto	Dilé	Kouyadi
<i>Stylosanthes erecta</i> P. Beauv.		X				
<i>Syzygium guineense</i> (Willd.) DC.			X	X	X	X
<i>Tamarindus indica</i> L.	LC	X	X	X		
<i>Tapinanthus bangwensis</i> (Engl. & K. Krause) Danser		X	X			
<i>Tapinanthus</i> sp (feuille lanceolé)			X			
<i>Tephrosia pedicellata</i> Baker		X				
<i>Terminalia avicennioides</i> Guill. & Perr.			X	X	X	X
<i>Terminalia macroptera</i> Guill. & Perr.	LC	X	X	X	X	X
<i>Trema guineensis</i> (Schumach. & Thonn.) Ficalho						X
<i>Trema orientalis</i> (L.) Blume				X		
<i>Tridax procumbens</i> L.				X		
<i>Triumfetta pentandra</i> A. Rich.		X	X	X		
<i>Vernonia</i> sp				X		
<i>Vigna racemosa</i> (G. Don) Hutch. & Dalziel			X			
<i>Vetiveria nigritana</i> (Benth.) Stapf					X	X
<i>Vitellaria paradoxa</i> C.F. Gaertn.	VU	X	X	X	X	
<i>Vitex madiensis</i> Oliv.	LC	X	X	X	X	X
<i>Waltheria indica</i> L.			X			
<i>Wissadula amplissima</i> (L.) R.E. Fr.		X				
<i>Ximenia americana</i> L.				X	X	
<i>Ziziphus mauritiana</i> Lam.	LC	X	X	X	X	X
<i>Ziziphus mucronata</i> Willd.		X	X	X		
<i>Zornia glochidiata</i> Rchb. ex DC.		X				

Herpétofaune

Nom scientifique	Statut IUCN	Néoudou	Thiéwiré	Moussouly Koto	Dilé	Kouyadi
Amphibiens						
<i>Ptychadena pumilio</i>	LC			X		
<i>Ptychadena bibroni</i>	LC	X	X	X	X	X
<i>Ptychadena mascarniensis</i>	-	X				X
<i>Phrynobatracus francisci</i>	-	X		X		
<i>Sclerophrys regularis</i>	LC	X				
Reptiles						
<i>Varanus niloticus</i>	-	X	X	X	X	X
<i>Agama agama</i>	-		X			X
<i>Agama weidholzi</i>	LC	X				
<i>Crotaphopeltis hotamboeia</i>	-	X				
<i>Hemidactylus angulatus</i>	-	X				X
<i>Lygodactylus gutturalis</i>	-	X				
<i>Trachylepis affinis</i>	-	X		X		X
<i>Python sp.</i>	-		X			
<i>Lycophidion albomaculatum</i>	-			X		
<i>Causus maculatus</i>	-					X
<i>Pelusios castaneus</i>	-				X	

Avifaune

Nom scientifique	Nom français	Néoudou	Dilé	Kouyadi	Moussouly Koto	Thiéwiré
<i>Accipiter badius</i>	Épervier shikra			3	1	19
<i>Gypohierax angolensis</i>	Palmiste africain		4		3	
<i>Gyps africanus</i>	Vautour africain		17			
<i>Gyps rueppellii</i>	Vautour de Rüpell		25			
<i>Haliaeetus vocifer</i>	Pygargue vocifère		3			
<i>Kaupifalco monogrammicus</i>	Autour unibande	1				2
<i>Lophaetus occipitalis</i>	Aigle huppard			1		
<i>Micronisus gabar</i>	Autour gabar			3		
<i>Milvus migrans</i>	Milan noir		20			
<i>Necrosyrtes monachus</i>	Vautour charognard		8			
<i>Polyboroides typus</i>	Gymnogène d'Afrique		1		2	
<i>Terathopius ecaudatus</i>	Bateleur des savanes		1		9	3
<i>Torgos tracheliotus</i>	Vautour oricou	1	1			
<i>Acrocephalus schoenobaenus</i>	Phragmite des joncs	1				
<i>Hippolais polyglotta</i>	Hypolaïs polyglotte		3			
<i>Iduna (Hippolais) pallida</i>	Hypolaïs pâle		2			
<i>Galerida cristata</i>	Cochevis huppé				4	
<i>Alcedo quadribrachys</i>	Martin-pêcheur azuré					3
<i>Ceryle rudis</i>	Martin-pêcheur pie		5	4	9	13
<i>Halcyon chelicuti</i>	Martin-chasseur strié					1
<i>Halcyon malimbica</i>	Martin-chasseur à poitrine bleue		2	2	4	5
<i>Halcyon senegalensis</i>	Martin-chasseur du Sénégal		4			
<i>Megaceryle maxima</i>	Martin-pêcheur géant				3	5
<i>Apus affinis</i>	Martinet des maisons			4		8
<i>Apus caffer</i>	Martinet cafre		5			28
<i>Cypsiurus parvus</i>	Martinet des palmes		6	13	10	78
<i>Ardea (Egretta) alba</i>	Grande Aigrette				3	

Nom scientifique	Nom français	Néoudou	Dilé	Kouyadi	Moussouly Koto	Thiéwiré
<i>Ardea cinerea</i>	Héron cendré		3	2		2
<i>Butorides striata</i>	Héron strié				2	3
<i>Egretta garzetta</i>	Aigrette garzette				3	3
<i>Bucorvus abyssinicus</i>	Bucorve d'Abyssinie	2				
<i>Tockus (Lophoceros) fasciatus</i>	Calao longibande				1	
<i>Tockus kempi</i>	Calao occidental	1	9	5	6	20
<i>Tockus (Lophoceros) nasutus</i>	Calao à bec noir	2	7	8	3	48
<i>Burhinus senegalensis</i>	Oedicnème du Sénégal			12	14	17
<i>Campephaga /Coracina/ phoecinea</i>	Echenilleur à épaulettes rouges			1		
<i>Vanellus albiceps</i>	Vanneau à tête blanche			4	6	
<i>Vanellus senegallus</i>	Vanneau du Sénégal				4	
<i>Vanellus tectus</i>	Vanneau à tête noire			4		
<i>Camaroptera brachyura</i>	Camaroptère à tête grise		2	4	7	26
<i>Cisticola juncidis</i>	Cisticole des joncs			2		
<i>Prinia subflava</i>	Prinia modeste				4	34
<i>Columba guinea</i>	Pigeon roussard	1		9		
<i>Oena capensis</i>	Tourterelle masquée		10			
<i>Streptopelia decipiens</i>	Tourterelle pleureuse		6	12	31	10
<i>Streptopelia semitorquata</i>	Tourterelle à collier	1	8	2	8	43
<i>Streptopelia senegalensis</i>	Tourterelle maillée	2	19	51	10	312
<i>Streptopelia vinacea</i>	Tourterelle vineuse		14	30	20	137
<i>Treron calvus</i>	Colombar à front nu		13	30		6
<i>Treron waalia</i>	Colombar waalia		18	10	30	13
<i>Turtur abyssinicus</i>	Tourtelette d'Abyssinie	1	14	11	17	50
<i>Turtur afer</i>	Tourtelette améthystine		3		2	2
<i>Coracias abyssinicus</i>	Rollier d'Abyssinie				2	16
<i>Coracias cyanogaster</i>	Rollier à ventre bleu		11		12	11
<i>Eurystomus glaucurus</i>	Rolle violet		2	1		

Nom scientifique	Nom français	Néoudou	Dilé	Kouyadi	Moussouly Koto	Thiéwiré
<i>Ptilostomus afer</i>	Piapiac africain	13			22	
<i>Centropus senegalensis</i>	Coucal du Sénégal	6	4	2	2	2
<i>Dicrurus adsimilis</i>	Drongo brillant			2	8	7
<i>Dicrurus ludwigii</i>	Drongo de Ludwig				8	
<i>Emberiza tahapisi</i>	Bruant cannelle		5			
<i>Estrilda caerulescens</i>	Astrild queue-de-vinaigre				12	20
<i>Estrilda melpoda</i>	Astrild à joues orange	1				
<i>Euodice (Lonchura) cantans</i>	Capucin bec-d'argent			22		
<i>Euschistospiza dybowskii</i>	Sénégalais à ventre noir		2			
<i>Lagonostica rara</i>	Amarante à ventre noir		4			
<i>Lagonosticta rufopicta</i>	Amarante pointé	3				
<i>Lagonosticta senegala</i>	Amarante du Sénégal		10	6	21	64
<i>Nigritta canicapilla</i>	Nigrette à calotte grise		2		3	
<i>Spermestes (Lonchura) cucullata</i>	Capucin nonnette					30
<i>Spermestes (Lonchura) fringilloides</i>	Capucin pie				16	
<i>Uraeginthus bengalus</i>	Cordon bleu à joues rouges		10	4	13	27
<i>Falco tinnunculus</i>	Faucon crécerelle				8	
<i>Serinus leucopygius</i>	Serin à croupion blanc	1		2	6	14
<i>Serinus mozambicus</i>	Serin du Mozambique		5	32	54	22
<i>Cecropis (Hirundo) abyssinica</i>	Hirondelle striée			5		
<i>Cecropis (Hirundo) daurica</i>	Hirondelle rousseline					6
<i>Cecropis (Hirundo) senegalensis</i>	Hirondelle des mosquées			6		5
<i>Delichon urbicum (urbica)</i>	Hirondelle de fenêtre			49		
<i>Hirundo leucosoma</i>	Hirondelle à ailes tachetées		8			
<i>Hirundo semirufa</i>	Hirondelle à ventre roux					5
<i>Psalidoprocne obscura</i>	Hirondelle fanti			2		
<i>Riparia paludicola</i>	Hirondelle paludicole	5				
<i>Indicator indicator</i>	Grand Indicateur		1			3

Nom scientifique	Nom français	Néoudou	Dilé	Kouyadi	Moussouly Koto	Thiéwiré
Indicator minor	Petit Indicateur	2				
<i>Actophilornis africanus</i>	Jacana à poitrine dorée			4	4	
<i>Corvinella corvina</i>	Corvinelle à bec jaune	4	24		23	21
<i>Lanius collurio</i>	Pie-grièche écorcheur		2			
<i>Lanius meridionalis</i>	Pie-grièche méridionale			4		
<i>Lanius senator</i>	Pie-grièche à tête rousse			6	7	9
<i>Turdoides plebejus</i>	Cratérope brun	6	30	21	14	46
<i>Turdoides reinwardtii</i>	Cratérope à tête noire			10		
<i>Lybius dubius</i>	Barbican à poitrine rouge	1	2	2	4	2
<i>Lybius vieilloti</i>	Barbican de Vieillot				2	2
<i>Pogoniulus bilineatus</i>	Barbion à croupion jaune					2
<i>Pogoniulus chrysoconus</i>	Barbion à front jaune		1	3		3
<i>Dryoscopus gambensis</i>	Cubla de Gambie			2		
<i>Laniarius barbarus</i>	Gonolek de Barbarie	1	9	2	6	17
<i>Malaconotus blanchoti</i>	Gladiateur de Blanchot			3		
<i>Malaconotus sulfureopectus</i>	Gladiateur soufré					2
<i>Nilaus afer</i>	Brubru africain				1	1
<i>Tchagra senegalus</i>	Tchagra à tête noire			2		
<i>Merops albicollis</i>	Guêpier à gorge blanche			15		19
<i>Merops bulocki</i>	Guêpier à gorge rouge	3	48	21	30	45
<i>Merops nubicus</i>	Guêpier écarlate			20		
<i>Merops pusillus</i>	Guêpier nain			13		12
<i>Terpsiphone rufiventer</i>	Tchitrec à ventre roux			2		
<i>Terpsiphone viridis</i>	Tchitrec d'Afrique			4		
<i>Cossypha albicapillus (albicapilla)</i>	Cossyphe à calotte blanche			4	3	6
<i>Cossypha niveicapilla</i>	Cossyphe à calotte neigeuse	2	4	2	3	8
<i>Ficedula hypoleuca</i>	Gobemouche noir			3	2	4
<i>Melaenornis edolioides</i>	Gobemouche drongo					8

Nom scientifique	Nom français	Néoudou	Dilé	Kouyadi	Moussouly Koto	Thiéwiré
<i>Muscicapa striata</i>	Gobemouche gris		1			4
<i>Oenanthe oenanthe</i>	Traquet motteux			3		
<i>Phoenicurus phoenicurus</i>	Rougequeue à front blanc			4	2	
<i>Crinifer piscator</i>	Touraco gris	2	26	10	20	63
<i>Musophaga violacea</i>	Touraco violet	7	8	10	12	32
<i>Myrmecocichla albifrons</i>	Traquet à front blanc			2		
<i>Chalcomitra (Nectarinia) senegalensis</i>	Souimanga à poitrine rouge		5	2		18
<i>Cinnyris pulchellus (Nectarinia pulchera)</i>	Souimanga à longue queue		3		2	35
<i>Hedydipna (Anthreptes) collaris</i>	Souimanga à collier		3	5		
<i>Hedydipna platura (Anthreptes platurus)</i>	Souimanga pygmée					24
<i>Numida meleagris</i>	Pintade de Numidie			27	13	
<i>Ptilopachus petrosus</i>	Poulette de roche				17	
<i>Oriolus auratus</i>	Loriot doré			2		5
<i>Oriolus oriolus</i>	Loriot d'Europe			1		
<i>Passer domesticus</i>	Moineau domestique					
<i>Passer griseus</i>	Moineau gris		146	70	275	321
<i>Phalacrocorax africanus</i>	Cormoran africain		5		9	10
<i>Peliperdix albogularis</i>	Francolin à gorge blanche			2		8
<i>Pternistis bicalcaratus</i>	Francolin à double éperon	10	3	6	13	17
<i>Phoeniculus purpureus</i>	Irrisor moqueur		7			14
<i>Rhinopomastus aterrimus</i>	Irrisor noir	2	12		11	
<i>Phylloscopus trochilus</i>	Pouillot fitis	1				
<i>Campethera punctuligera</i>	Pic à taches noires		2			
<i>Dendropicos (Mesopicos) goertae</i>	Pic goertan		2		3	5
<i>Jynx torquilla</i>	Torcol fourmilier					2
<i>Batis senegalensis</i>	Pririt du Sénégal		5		4	6
<i>Platysteira cyanea</i>	Pririt à collier					12
<i>Euplectes afer</i>	Euplecte vorabé		19		61	

Nom scientifique	Nom français	Néoudou	Dilé	Kouyadi	Moussouly Koto	Thiéwiré
<i>Euplectes franciscanus</i>	Euplecte franciscain		44			10
<i>Euplectes hordeaceus</i>	Euplecte monseigneur		17		34	
<i>Ploceus cucullatus</i>	Tisserin gendarme		81	1	78	161
<i>Ploceus luteolus</i>	Tisserin minule		6	4		32
<i>Ploceus melanocephalus</i>	Tisserin à tête noire		18	28	16	225
<i>Quelea erythrops</i>	Travailleur à tête rouge		11			
<i>Quelea quelea</i>	Travailleur à bec rouge		176	18	368	567
<i>Poicephalus robustus</i>	Perroquet à cou brun		3		1	
<i>Poicephalus senegalus</i>	Perroquet youyou	13	10	14		26
<i>Psittacula krameri</i>	Perruche à collier		3			14
<i>Pycnonotus barbatus</i>	Bulbul des jardins	1	30	26	46	78
<i>Actitis hypoleucos</i>	Chevalier guignette			1	4	5
<i>Tringa ochropus</i>	Chevalier culblanc		1		1	1
<i>Scopus umbretta</i>	Ombrette africaine	2	3		4	6
<i>Elminia longicauda</i>	Tchitrec bleu		2			2
<i>Glaucidium perlatum</i>	Chevêchette perlée					2
<i>Cinnyricinclus leucogaster</i>	Spréo améthyste			2		
<i>Lamprotornis caudatus</i>	Choucador à longue queue	7	20		36	85
<i>Lamprotornis chalcurus</i>	Choucador à queue violette	2		3		
<i>Lamprotornis chalybaeus</i>	Choucador à oreillons bleus		30	3	18	81
<i>Lamprotornis purpureus</i>	Choucador pourpré	1	10	10	33	37
<i>Sylvia hortensis</i>	Fauvette orphée		2			
<i>Bostrychia hagedash</i>	Ibis hagedash		4			8
<i>Cercotrichas galactotes</i>	Agrobat roux			2		
<i>Prionops plumatus</i>	Bagadais casqué			42		2
<i>Vidua chalybeata</i>	Combassou du Sénégal	1			2	428
<i>Zosterops senegalensis</i>	Zostérops jaune				1	

Mammifère

Nom scientifique	Nom français	Statut (IUCN-CITES)	Néoudou	Moussouly Koto	Thiéwiré	Dilé	Kouyadi
<i>Papio papio</i>	Babouin de Guinée			X	X		
<i>Cephalophus rufilatus</i>	Céphalophe à flancs roux		X			X	X
<i>Canis adustus</i>	Chacal à flanc rayés		X				
<i>Pan troglodytes verus</i>	Chimpanzé d'Afrique de l'Ouest	CR	X	X	X	X	X
<i>Tragelaphus scriptu</i>	Guib harnaché		X	X	X	X	X
<i>Hippopotamus amphibius</i>	Hippopotame	VU		X	X	X	X
<i>Crocuta crocuta</i>	Hyène		X	X	X	X	X
<i>Atilax sp, Ichneumia sp, Herpestes sp ou Mungo sp</i>	Mangouste						X
<i>Phacochoerus africanus</i>	Phacochère		X	X	X	X	X
<i>Hystrix africaeaustralis</i>	Porc-épic		X		X		X
<i>Leptailurus serva</i>	Serval		X		X		

Poissons

Familles	Espèces	Dile	Kouyadi	Missirah	Moussouly Koto	Tambouguidaré (tributaire)	Thiéwiré	Total général	Abondance relative (%)
Alestidae	<i>Alestes dentex</i>	18	1	20	5	0	34	78	3,3
	<i>Brycinus longipinnis</i>	196	39	134	49	0	81	499	20,9
	<i>Brycinus nurse</i>	42	5	53	107	0	91	298	12,5
	<i>Hydrocyrus brevis</i>	0	0	0	0	0	1	1	0,0
Anabantidae	<i>Ctenopoma kingsleyae</i>	5	2	0	0	1	1	9	0,4
Cichlidae	<i>Coptodon guineensis</i>	6	5	4	2	15	8	40	1,7
	<i>Coptodon zili</i>	0	0	0	4	0	3	7	0,3
	<i>Hemichromis bimaculatus</i>	0	0	1	2	10	0	13	0,5
	<i>Hemichromis fasciatus</i>	5	4	12	0	9	12	42	1,8
	<i>Sarotherodon galilaeus</i>	0	0	0	0	0	1	1	0,0
	<i>Sarotherodon melanotheron</i>	1	0	0	0	0	0	1	0,0
	<i>Tylochromis jentinki</i>	1	0	0	0	0	0	1	0,0
Clariidae	<i>Clarias anguillaris</i>	0	0	0	0	1	1	2	0,1
	<i>Heterobranchus longifilis</i>	2	0	3	0	0	1	6	0,3
Claroteidae	<i>Auchenoglanis occidentalis</i>	0	0	4	0	0	0	4	0,2
	<i>Chrysichthys jonelsi</i>	4	20	19	6	0	8	57	2,4
	<i>Chrysichthys maurus</i>	34	22	39	28	0	34	157	6,6
	<i>Chrysichthys nigrodigitatus</i>	0	0	1	0	0	0	1	0,0
Clupeidae	<i>Pellonula leonensis</i>	1	0	0	0	0	0	1	0,0
Cyprinidae	<i>Enteromius macrops</i>	44	27	13	2	13	0	99	4,1
	<i>Labeo coubie</i>	5	4	13	8	0	6	36	1,5
	<i>Labeo parvus</i>	23	27	54	17	3	42	166	6,9
	<i>Labeo senegalensis</i>	0	1	0	3	0	0	4	0,2
	<i>Raiamas senegalensis</i>	29	5	22	24	0	15	95	4,0
Hepsetidae	<i>Hepsetus odoe</i>	0	0	0	0	0	1	1	0,0
Malapteruridae	<i>Malapterurus occidentalis</i>	0	0	0	0	0	1	1	0,0
Mochokidae	<i>Synodontis annectens</i>	7	0	3	1	0	1	12	0,5
	<i>Synodontis shall</i>	2	1	16	12	0	10	41	1,7
Mormyridae	<i>Marcusenius senegalensis</i>	6	0	9	20	0	10	45	1,9
	<i>Mormyrops anguilloides</i>	0	0	2	0	0	1	3	0,1
	<i>Mormyrus hasselquistii</i>	1	0	1	2	0	0	4	0,2
	<i>Mormyrus rume</i>	0	1	1	0	0	0	2	0,1
	<i>Petrocephalus bovei</i>	44	7	20	13	0	13	97	4,1
Notopteridae	<i>Papyrocranus afer</i>	4	0	2	2	0	1	9	0,4
Polypteridae	<i>Polypterus senegallus</i>	0	1	0	0	0	0	1	0,0
Schilbeidae	<i>Schilbe intermedius</i>	61	25	138	7	0	12	243	10,2
Total général		541	197	584	314	52	389	2393	100

Annexes C

Tableaux des espèces observées dans le secteur aval

Flore

Nom scientifique	Statut IUCN	Itato	Tambanomouy à	PNNK-Mare de Simenti	PNNK-Grand Mirrador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	Farafenni
<i>Scirpus maritimus</i>										X
<i>Abrus precatorius</i> L.			X	X	X					
<i>Abutilon pannosum</i> (G. Forst.) Schltdl.			X							
<i>Acacia ataxacantha</i> DC.		X								
<i>Acacia macrostachya</i> Rchb. ex DC.	LC			X						
<i>Acacia nilotica</i> (L.) Willd. ex Delile	LC				X		X			
<i>Acacia polyacantha</i> Willd		X	X							
<i>Acacia senegal</i> (L.) Willd.				X						
<i>Acacia seyal</i> Del.										X
<i>Acacia sieberiana</i> DC.	LC	X			X	X	X	X		X
<i>Acacia sp</i>			X							
<i>Acanthospermum hispidum</i> DC.		X								X
<i>Achyranthes argentea</i> Lam.		X					X			
<i>Achyranthes aspera</i> auct.			X							
<i>Achyranthes aspera</i> Hook.								X		
<i>Achyranthes aspera</i> L.				X	X	X				
<i>Adansonia digitata</i> L.		X		X				X	X	X
<i>Aeschynomene indica</i> Linn.	LC	X	X	X			X	X		
<i>Aeschynomene sp</i>								X		
<i>Afzelia africana</i> Sm. ex Pers.	VU			X						
<i>Afzelia sp</i>									X	
<i>Ageratum conyzoides</i>	LC		X							
<i>Albizia adianthifolia</i> (Schumach.) W. Wight	LC		X	X			X			
<i>Albizia malacophylla</i> (A. Rich.) Walp.	-			X						

Nom scientifique	Statut IUCN	Itato	Tambanomou a	PNNK-Mare de Simenti	PNNK-Grand Mirador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	Farafenni
<i>Alchornea cordifolia</i> (Schumach. & Thonn.) Müll. Arg.	LC			X	X	X	X		X	
<i>Allophylus africanus</i> P. Beauv.	LC			X	X	X	X	X		
<i>Alternanthera sessilis</i> (L.) R. Br. ex DC.	LC		X	X	X	X	X	X		
<i>Alysicarpus ovalifolius</i> (Schumach.) J. Léonard			X							
<i>Amaranthus spinosus</i> Linn.										X
<i>Ammannia prieureana</i> Guill. Perr.								X		
<i>Anacardium occidentale</i> L.		X								
<i>Andropogon gayanus</i> Kunth		X	X	X		X	X			
<i>Andropogon pinguiipes</i> Stapf					X					
<i>Annona senegalensis</i> Pers.	LC			X						
<i>Anogeissus leiocarpa</i> (DC.) Guill. & Perr.	LC	X		X	X	X				
<i>Aphania senegalensis</i> (Juss. ex Poir.) Radlk.	LC				X	X				
<i>Arachys hypogaea</i>			X							
<i>Asparagus africanus</i> Lam.		X								
<i>Avicennia</i> sp										X
<i>Azadirachta indica</i> A. Ju-	LC	X						X		X
<i>Baissea multiflora</i> A. DC.				X					X	
<i>Blainvillea gayana</i> auct.	LC		X							
<i>Blainvillea gayana</i> Cass.	LC	X		X	X					X
<i>Blepharis maderaspatensis</i> (L.) B. Heyne ex Roth		X	X		X			X		
<i>Blumea aurita</i> (L. f.) DC.	LC	X	X				X	X		X
<i>Butaparon vermiculare</i> (L.) Mears							X			X
<i>Boerhavia diffusa</i> Linn.		X								

Nom scientifique	Statut IUCN	Itato	Tambanomouy a	PNNK-Mare de Simenti	PNNK-Grand Mirador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	Farafenni
<i>Boerhavia erecta</i> L.	LC		X							
<i>Bombax costatum</i> Pellegr. & Vuill.	LC	X	X	X	X					
<i>Borassus aethiopum</i> Mart.	LC	X	X	X		X			X	
<i>Cadaba farinosa</i> Forsk.			X							
<i>Calotropis procera</i> (Aiton) W.T. Aiton				X						
<i>Cantinoa americana</i> (Aubl.) Harley & J.F.B. Pastore				X	X					
<i>Capparis tomentosa</i> Lam.				X						
<i>Cardiospermum halicacabum</i> L.	LC			X						
<i>Cassia mimosoides</i> L.			X							
<i>Cassia nigricans</i> Vahl				X		X	X			
<i>Cassia obtusifolia</i> L.				X						
<i>Cassia occidentalis</i> L.			X							
<i>Cassia sieberiana</i> DC.	LC	X		X		X				
<i>Ceiba pentandra</i> Linn.									X	
<i>Ceiba pentandra</i> (L.) Gaertn.	LC			X		X				
<i>Celosia cristata</i> L.			X							
<i>Celtis intigrifolia</i> Lam.							X			
<i>Celtis toka</i> (Forssk.) Hepper & J.R.I. Wood	LC			X						
<i>Cenchrus pedicellatum</i> (Trin.) Morrone	LC			X	X			X		X
<i>Cenchrus violaceus</i> (Lam) Morrone	LC									X
<i>Ceratophyllum demersum</i> Cham.	LC							X		
<i>Chamaecrista nigricans</i> (Vahl) Greene					X					
<i>Chloris barbata</i> Sw.			X							
<i>Chloris pilosa</i> Schumach.					X					
<i>Chrysopogon nigritanus</i> (Benth.)								X		X

Nom scientifique	Statut IUCN	Itato	Tambanomouy a	PNNK-Mare de Simenti	PNNK-Grand Mirador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	Farafenni
<i>Cissampelos mucronata</i> A. Rich.					X	X				
<i>Citrus limon</i> (L.) Burm. F.		X								
<i>Clerodendron capitatum</i> (Willd.)								X		
<i>Cola cordifolia</i> (Cav.) R. Br.	LC			X						X
<i>Combretum aculeatum</i> Vent.		X								
<i>Combretum glutinosum</i> auct.	LC		X							
<i>Combretum glutinosum</i> Perr.	LC	X		X	X	X	X	X		
<i>Combretum lecardii</i> Engl. et Diels									X	
<i>Combretum micranthum</i> G. Don	LC		X	X	X	X				
<i>Combretum</i> sp				X						
<i>Commelina benghalensis</i> L.	LC	X	X		X		X			
<i>Corchorus aestuans</i> L.			X							X
<i>Corchorus fascicularis</i> Lam.				X	X	X	X	X		
<i>Corchorus olitorius</i> L.		X	X	X	X		X			X
<i>Corchorus tridens</i> L.		X	X	X						X
<i>Cordia myxa</i> L.				X						
<i>Cordyla pinnata</i> (Lepr. ex A. Rich.) Milne-Redh.	LC			X						
<i>Crataeva adansonii</i> Fost								X		
<i>Crataeva adansonii</i> DC.	LC	X			X		X			
<i>Crataeva adansonii</i> DC. subsp. <i>adansonii</i>	LC			X						
<i>Crotalaria goreensis</i> Guill. & Perr.				X						
<i>Crotalaria retusa</i> Linn.	LC	X	X	X		X	X	X		X
<i>Crotalaria goreensis</i> G. et Perr.								X		
<i>Ctenium elegans</i> Kunth				X						
<i>Cynodon dactylon</i> (L.) Pers.								X		

Nom scientifique	Statut IUCN	Itato	Tambanomouy a	PNNK-Mare de Simenti	PNNK-Grand Mirador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	Farafenni
<i>Cynometra voegelii</i> Hook.							X			
<i>Dactylactenium aegyptium</i> (L.) Willd.			X							X
<i>Daniellia oliveri</i> (Rolfe) Hutch. & Dalziel	LC			X		X				
<i>Desmodium ospriostreblum</i> Chiov.		X	X		X	X	X	X		
<i>Detarium microcarpum</i> Guill. & Perr.	LC			X						
<i>Dialium guineense</i> Willd.									X	
<i>Dichrostachis cinerea</i> (L.) Wight & Arn.	LC	X		X	X	X	X	X		X
<i>Dichrostachys cinerea</i> var. <i>argillicola</i>	LC		X							
<i>Dioscorea dumetorum</i> (Kunth) Pax				X						
<i>Diospyros elliotii</i> (Hiern) F. White				X						
<i>Diospyros mespiliformis</i> Hochst. ex A. DC.	LC	X	X	X	X	X	X		X	
<i>Distimake aegyptius</i> (L.) A.R. Simões & Staples					X					
<i>Drepanocarpus lunatus</i> (L.) G.F.W. Mey.										X
<i>Echinochloa colona</i> (L.) Link	LC		X		X			X		
<i>Echinochloa stagnina</i> (Retz.) P. Beauv.						X				
<i>Elaeis guineensis</i> Jacq.	LC			X					X	
<i>Eleusine indica</i> (L.) Gaertn.	LC		X							X
<i>Entada africana</i> Guill. & Perr.	LC			X						
<i>Eragrostis tenella</i> Roem. et Sch.		X			X			X		
<i>Eragrostis tremula</i> (Lam.) Hochst. Ex Steud.			X					X		
<i>Eragrostis tremula</i> Steud.		X					X			
<i>Erythrina senegalensis</i> DC.	LC			X						
<i>Erythrophleum guineense</i> G. Don		X							X	
<i>Eucalyptus alba</i> Reinw.		X								

Nom scientifique	Statut IUCN	Itato	Tambanomouy a	PNNK-Mare de Simenti	PNNK-Grand Mirrador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	Farafenni
<i>Euleusine indica</i> (L.) Gaertn.	LC	X								
<i>Euphorbia heterophylla</i> Desf.			X							
<i>Euphorbia hirta</i> L.			X							
<i>Fadogia erythrophloea</i> (K. Schum. Et K. Krause) Hutch. Et Dalz.		X								
<i>Faidherbia albida</i> (Delile) A. Chev.	LC	X	X							
<i>Feretia apodantha</i> Delile				X						
<i>Ficus capensis</i> Thunb.	LC	X	X							X
<i>Ficus exasperata</i> Vahl	LC			X						
<i>Ficus glumosa</i> Delile	LC	X		X						
<i>Ficus</i> sp			X							X
<i>Ficus sur</i> Forssk.	LC			X						
<i>Ficus sycomorus</i> L.	LC	X	X	X						
<i>Fimbristylis</i> sp			X							
<i>Flueggea virosa</i> (Roxb. ex Willd.) Voigt subsp. <i>viresa</i>	LC			X						
<i>Gardenia ternifolia</i> Schumach. & Thonn.	LC	X	X	X						
<i>Grewia bicolor</i> Juss										X
<i>Gmelina arborea</i> Roxb.	LC		X							
<i>Grewia bicolor</i> Juss.					X					
<i>Grewia flavescens</i> Juss.	LC	X		X						X
<i>Grewia flavescens</i> auct.			X							
<i>Guiera senegalensis</i> J.F. Gmel.	LC		X		X	X	X	X		
<i>Hexalobus monopetalus</i> (A. Rich.) Engl. & Diels	LC			X						
<i>Hibiscus abelmoschus</i>			X							

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<i>Hibiscus asper</i> Hook.		X					X	X	X	X
<i>Hibiscus asper</i> L.			X							
<i>Hibiscus cannabinus</i> L.				X	X					
<i>Hibiscus sabdarifa</i> Linn.		X	X					X		
<i>Holarrhena floribunda</i> (G. Don) T. Durand & Schinz	LC			X						
<i>Hugophylla auriculata</i> Schum.) Heine										X
<i>Hymenocardia acida</i> Tul.	LC			X						
<i>Hyptis picigera</i> Lam.		X					X	X	X	
<i>Hyptis suaveolens</i> (L.)		X	X				X	X		
<i>Icacina senegalensis</i> Juss.		X	X							
<i>Indigofera capitata</i> Kotsch		X								X
<i>Indigofera hirsuta</i> L.		X	X		X	X	X	X		
<i>Indigofera macrocalyx</i> G. et Perr.						X				X
<i>Indigofera</i> sp			X	X						
<i>Indigofera macrocalyx</i> G. et Perr.							X			
<i>Ipomoea acanthocarpa</i> (Choisy) Asch. & Schweinf.			X							
<i>Ipomoea aquatica</i> Forsk.	LC						X		X	X
<i>Ipomoea argenteaurata</i> Hallier		X	X		X		X			X
<i>Ipomoea eriocarpa</i> R. Br.		X		X			X			
<i>Ipomoea kourankoensis</i> A. Chev.					X					
<i>Ipomoea muricata</i> (L.) Jacq.						X				
<i>Ipomoea podocarpa</i>									X	
<i>Ipomoea turbinata</i> Lag.				X	X					
<i>Jacquemontia tamnifolia</i> (L.) Griseb.			X					X		

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<i>Khaya senegalensis</i> (Desr.) A. Juss.	VU,	X	X	X					X	
<i>Landolphia heudelotii</i> A. DC.	-			X						
<i>Lannea acida</i> A. Rich.	LC	X		X	X	X	X			
<i>Lannea microcarpa</i> Engl. & K. Krause	LC			X	X		X			
<i>Lannea velutina</i> A. Rich.	LC			X	X			X		
<i>Lepisanthes senegalensis</i> (Juss. ex Poir.) Leenah.				X						
<i>Leptadenia hastata</i> (Pers.) Decne			X			X				
<i>Leptadenia lanceolata</i> (Poir.) Goyder				X						
<i>Leucas martinicensis</i> (Jacq.) R. Br.			X							
<i>Lippia chevalieri</i> Moldenke		X								
<i>Lophira lanceolata</i> Tiegh. ex Keay	LC			X						
<i>Ludwigia abyssinica</i> A. Rich.								X		
<i>Ludwigia decurrens</i> Walter				X						
<i>Ludwigia</i> sp								X		
<i>Luffa aegyptiaca</i> Mill.		X	X			X	X			
<i>Luffa cylindrica</i> M. Roem.				X	X					
<i>Mangifera indica</i> L.	DD	X	X	X					X	
<i>Marselea</i> sp								X		
<i>Maytenus senegalensis</i> (Lam.) Exell		X	X							
<i>Melochia</i> sp			X					X		
<i>Merremia aegyptiaca</i> (Linn.) Urban							X			
<i>Merremia pentaphylla</i> (L.) Hallier								X		
<i>Mesosphaerum suaveolens</i> (L.) Kuntze				X	X			X		X
<i>Mimosa pigra</i> auct.	LC	X	X	X		X	X	X		
<i>Mitracarpus hirtus</i> (L.) DC.				X	X			X		

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<i>Mitracarpus villosus</i> (Sw.) DC.		X	X			X	X			
<i>Mitragina inermis</i> (Willd.) K. Schum	LC		X	X	X	X	X	X		X
<i>Nauclea latifolia</i> Sm.	LC			X					X	
<i>Nephrolepis exaltata</i> (L.) Schott									X	
<i>Nymphaea lotus</i> L.	LC				X	X	X	X		
<i>Ocimum</i> sp			X							
<i>Oldenlandia corymbosa</i> L.		X	X							
Orchidae				X						
<i>Oryza barthii</i> A. Chevalier							X	X		
<i>Oryza sativa</i> L.			X					X		X
<i>Oxytenanthera abyssinica</i> (A. Rich.) Munro	LC	X	X	X						
<i>Pandanus utilis</i> Gaudich.									X	
<i>Panicum subalbium</i> Kunth								X		
<i>Parkia biglobosa</i> (Jacq.) R. Br. ex G. Don	LC	X	X	X						
<i>Paspalum vaginatum</i> SW										X
<i>Passiflora foetida</i> f. <i>glabra</i> A. Fern. & R. Fern.			X							
<i>Paulinia pinnata</i> L.	LC	X	X	X		X				
<i>Pavetta oblongifolia</i> Bremek.			X							
<i>Pennisetum pedicellatum</i> Trin.	LC	X				X	X			
<i>Persicaria senegalensis</i> (Meisn.) Soják	LC			X						
<i>Phoenix dactylifera</i> L.	LC									X
<i>Phragmites</i> sp									X	X
<i>Phyasalis angulata</i> L.										X
<i>Phyllanthus amarus</i> Sch. et Th.		X		X	X		X			

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<i>Phyllanthus reticulatus</i> Poir.	LC	X	X	X		X	X	X		
<i>Physalis angulata</i> L.	LC		X	X						X
<i>Piliostigma reticulatum</i> (D.C.) Hochst.						X				X
<i>Piliostigma thonningii</i> (Schum.) M.Readh		X	X	X	X	X	X	X	X	X
<i>Polycarpea linearifolia</i> (DC.) DC.		X		X						
<i>Polycarpea</i> sp			X							
<i>Polygonum pulchrum</i> Blume		X								
<i>Polygonum</i> sp								X		
<i>Portulaca oleracea</i> L.										X
<i>Prosopis africana</i> (Guill. & Perr.) Taub.	LC			X						
<i>Pseudoconyza viscosa</i> (Mill.) D'Arcy	LC			X						
<i>Pterocarpus erinaceus</i> Poir.	EN	X	X	X		X	X			
<i>Pterocarpus lucens</i> Lepr. ex Guill. & Perr.	LC				X					
<i>Pterocarpus santalinoides</i> L'Hér. ex DC.	LC			X		X	X			
<i>Pycreus</i> sp								X		
<i>Quassia silvestris</i> Cheek & Jongkind				X						
<i>Raphia australis</i>	VU								X	
<i>Rhizophora racemosa</i>	LC									X
<i>Rhizophora mangle</i> L.	LC									X
<i>Rotula aquatica</i> Lour.	LC			X						
<i>Saba senegalensis</i> (A. DC.) Pichon		X	X	X	X		X		X	
<i>Sarcocapnos latifolius</i> (Sm.) E.A. Bruce	LC	X	X							
<i>Schoenfeldia gracilis</i> Kunth					X			X		X
<i>Scirpus maritimus</i>										X
<i>Sclerocarpus africanus</i> Jacq.	LC	X	X	X						

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<i>Sclerocarria birrea</i> (A.Rich.) Hochst.		X			X		X	X		
<i>Securidaca longipedunculata</i> Fresen.				X						
<i>Securinega virosa</i> (Roxb. ex Willd.) Baill.		X	X							
<i>Senna obtusifolia</i> (L.) H. S. Irwin & Barneby	LC	X		X	X		X	X		
<i>Senna obtusifolia</i> L.										X
<i>Sesamum alatum</i> Thonn.			X							
<i>Sesbania pachycarpa</i> DC.	LC	X			X			X		X
<i>Sesuvium portulacastrum</i> Linn.										X
<i>Sida alba</i> L.		X	X		X					
<i>Sida rhombifolia</i> L.		X	X	X		X	X			X
<i>Solanum incanum</i> L.	LC			X						
<i>Solanum nigricans</i> M.Martens & Galeotti		X								
<i>Spermacoce chaetocephala</i> DC.	LC	X	X	X	X	X	X	X		
<i>Spermacoce ruelliae</i> DC.				X						
<i>Spermacoce stachydea</i> DC.				X						
<i>Sphaeranthus senegalensis</i> DC.									X	
<i>Sphenoclea zeylanica</i> Gaertn.								X		X
<i>Spigelia anthelmia</i> L.		X		X						
<i>Spondias mombin</i> L.	LC			X			X	X	X	
<i>Sterculia setigera</i> Delile	LC			X						
<i>Stereospermum kunthianum</i> Cham.	LC	X	X	X	X					
<i>Strophanthus sarmentosa</i> DC			X	X	X	X	X	X		
<i>Strychnos spinosa</i> Lam.		X		X						
<i>Stylosanthes erecta</i> P. Beauv.		X			X					
<i>Syzygium guineense</i> (Willd.) DC.	LC			X						

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<i>Tamarindus indica</i> L.	LC	X		X	X		X			
<i>Tapinanthus bangwensis</i> (Engl. & K. Krause) Danser		X	X			X	X	X		
<i>Tephrosia pedicellata</i> Baker					X					
<i>Terminalia avicennioides</i> Guill. & Perr.	LC			X						
<i>Terminalia macroptera</i> G. et Perr.	LC	X	X	X	X	X	X	X	X	
<i>Trema guineensis</i> (Schumach. & Thonn.) Ficalho				X						
<i>Trema orientalis</i> (L.) Blume	LC			X						
<i>Trianthema portulacastrum</i> Linn.										X
<i>Tridax procubens</i> L.				X	X					
<i>Triumfetta pentadra</i> A.Rich		X	X	X	X	X	X	X		X
<i>Typha australis</i> (Schum. et Thon.)	LC									X
<i>Vernonia colorata</i> (WiLld.) Drake	LC	X	X							
<i>Vernonia glamensis</i> (Cass.) Less			X							
<i>Vernonia</i> sp				X						
<i>Vetiveria nigritana</i> (Benth.) Stapf	LC					X	X			
<i>Vigna gracilis</i> (Guill. & Perr.) Hook.f			X							
<i>Vigna paludosa</i> Milne-Redh			X							
<i>Vigna</i> sp				X						
<i>Vitellaria paradoxa</i> C.F. Gaertn	VU		X	X						
<i>Vitex madiensis</i> Oliv.	LC	X		X						
<i>Vitex madiensis</i> subsp. <i>milanjensis</i> (Britten) F. White	LC		X							
<i>Walteria indica</i>								X		
<i>Waltheria indica</i> L.		X	X		X					

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Xenostegia pinnata (Hochst. ex Choisy) A.R. Simões & Staples					X					
Ximenia americana L.	LC			X						
Ziziphus mauritiana Lam.	LC	X	X	X	X		X			X
Ziziphus micronata Willd.								X		
Ziziphus mucronata Willd.	LC			X	X	X			X	
Ziziphus mucronata Willd. Subsp. Mucronata							X			
Zornia glochidiata Rchb. ex DC.						X				

Herpétofaune

Nom scientifique	Nom français	Statut (IUCN-CITES)	Itato	Tambanomouya	PNNK-Mare de Simenti	PNNK-Grand Mirrador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	River Gambia National Park	Farafenni
<i>Agama agama</i>	Margouillat		X	X	X		X	X				X
<i>Agama weidholzi</i>	Agama de Gambie				X	X		X	X			
<i>Bitis arietans</i>	Vipère heurtante				X							
<i>Chamaeleo senegalensis</i>	Caméléon du Sénégal	CITES III						X				
<i>Crocodylus suchus</i>	Crocodile d'Afrique de l'ouest	CITES I	X		X	X	X			X		X
<i>Cyclanorbis senegalensis</i>	Tortue molle du Sénégal	VU			X							
<i>Hemidactylus sp.</i>					X		X					
<i>Hoplobatrachus occipitalis</i>			X							X		
<i>Kinixys belliana</i>										X		
<i>Lamprophis fuliginosus</i>				X								
<i>Naja melanoleuca</i>	Cobra des forêts		X			X			X			
<i>Naja nigricollis</i>	Cobra cracheur cou noir								X	X		
<i>Phrynobatrachus francisci</i>			X	X	X	X	X	X	X	X		
<i>Psammophis elegans</i>										X		
<i>Psammophis sibilans</i>			X	X			X	X				
<i>Ptychadena bibroni</i>					X							
<i>Ptychadena mascareniensis</i>						X	X	X				
<i>Python sebae</i>	Python de Séba	CITES II									X	
<i>Serpent (NI)</i>				X			X	X				X
<i>Tarentola annularis</i>					X							
<i>Trachylepis affinis</i>	Mabuya		X			X						
<i>Trachylepis perroteti</i>	Mabuya		X									X
<i>Trachylepis quinquetaeniata</i>	Mabuya		X									

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<i>Varanus niloticus</i>	Varan du Nil	CITES II	X	X	X	X	X	X	X	X	X	X

NI : non-identifiable; VU : vulnérable, EN : en danger; CR : en danger critique; LC : préoccupation mineure

Avifaune

Nom latin	Nom français	Statut (IUCN-CITES)	Itato	Tambanomouya	PNNK-Mare de Simenti	PNNK-Grand Mirrador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	River Gambia National Park	Farafenni
<i>Actitis hypoleucus</i>	Chevalier guignette									X		
<i>Actophilornis africanus</i>	Jacana à poitrine dorée							X		X		
<i>Anhinga rufa</i>	Anhinga d'Afrique						X	X	X	X	X	
<i>Ardea cinerea</i>	Héron cendré								X	X		X
<i>Ardea melanocephala</i>	Héron mélancocéphale						X	X	X	X		
<i>Ardeola ralloides</i>	Crabier chevelu						X	X		X		
<i>Bostrychia hagedash</i>	Ibis hagedash										X	X
<i>Bubulcus ibis</i>	Héron garde-bœufs		X	X			X	X	X	X		
<i>Burhinus senegalensis</i>	Œdicnème du Sénégal						X	X		X		
<i>Butastur rufipennis</i>	Busautour des sauterelles								X			
<i>Butorides striata</i>	Héron strié								X			
<i>Camaroptera brachyura</i>	Camaroptère à tête grise			X	X							
<i>Centropus senegalensis</i>	Coucal du Sénégal		X	X			X	X	X	X		
<i>Ceryle rudis</i>	Martin-pêcheur pie			X	X		X	X		X	X	X
<i>Chalcomitra senegalensis</i>	Souimanga à poitrine rouge		X			X		X	X	X		
<i>Charadrius dubius</i>	Petit Gravelot							X				
<i>Ciconia episcopus</i>	Cigogne épiscopale					X						
<i>Cinnyris coccinigastrus</i>	Souimanga éclatant									X		
<i>Cinnyris pulchellus</i>	Souimanga à longue queue						X					
<i>Cinnyris venustus</i>	Souimanga à ventre jaune											X
<i>Circus aeruginosus</i>	Busard des roseaux									X		

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<i>Circus pygargus</i>	Busard cendré						X					
<i>Columba guinea</i>	Pigeon roussard							X		X	X	
<i>Coracias abyssinicus</i>	Rollier d'Abyssinie			X			X	X		X		
<i>Coracias naevius</i>	Rollier varié					X						
<i>Corvinella corvina</i>	Corvinelle à bec jaune		X	X			X			X		
<i>Cossypha niveicapilla</i>	Cossyphe à calotte neigeuse				X			X				
<i>Crinifer piscator</i>	Touraco gris		X	X		X	X	X	X	X	X	
<i>Cypsiurus parvus</i>	Martinet des palmes		X	X		X	X				X	
<i>Dendrocygna viduata</i>	Dendrocygne veuf						X			X	X	
<i>Egretta alba</i>	Grande Aigrette						X	X		X		X
<i>Egretta gularis</i>	Aigrette des récifs											X
<i>Estrilda caerulescens</i>	Astrild queue-de-vinaigre					X						
<i>Estrilda melpoda</i>	Astrild à joues orange			X						X		
<i>Eurystomus glaucurus</i>	Rolle violet		X		X	X			X		X	
<i>Falco ardosiacus</i>	Faucon ardoisé		X									
<i>Falco naumanni</i>	Faucon crécerellette						X					
<i>Francolinus bicalcarotus</i>	Francolin à double éperon		X							X		
<i>Gypohierax angolensis</i>	Palmiste africain										X	
<i>Halcyon leucocephala</i>	Martin-chasseur à tête grise					X	X				X	
<i>Halcyon malimbica</i>	Martin-chasseur à poitrine bleue				X							X
<i>Haliaeetus vocifer</i>	Pygargue vocifer				X					X	X	X
<i>Indicator minor</i>	Petit Indicateur				X	X						

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<i>Kaupifalco monogrammicus</i>	Autour unibande				X							
<i>Lagonosticta senegala</i>	Amarante du Sénégal				X	X	X					
<i>Lamprotornis caudatus</i>	Choucador à longue queue		X	X	X	X	X	X	X	X	X	X
<i>Lamprotornis purpureus</i>	Choucador pourpré		X	X	X		X		X			X
<i>Laniarius barbarus</i>	Gonolek de Barbarie		X	X	X	X	X		X	X		
<i>Melaenornis edolioides</i>	Gobemouche drongo			X		X						
<i>Merops bulocki</i>	Guêpier à gorge rouge				X	X	X			X		
<i>Merops nubicus</i>	Guêpier écarlate		X		X		X	X				
<i>Merops pusillus</i>	Guêpier nain				X							
<i>Milvus migrans</i>	Milan noir										X	X
<i>Motacilla flava</i>	Bergeronnette printanière						X			X		
<i>Muscicapa aquatica</i>	Gobemouche des marais				X							
<i>Musophaga violacea</i>	Touraco violet				X							
<i>Necrosyrtes monachus</i>	Vautour charognard	CR						X	X			
<i>Numida meleagris</i>	Pintade de Numidie					X						
<i>Oena capensis</i>	Tourterelle masquée			X				X				
<i>Passer griseus</i>	Moineau gris		X									
<i>Phalacrocorax africanus</i>	Cormoran africain				X		X	X			X	
<i>Phoeniculus purpureus</i>	Irrisor moqueur		X		X							
<i>Plectropterus gambensis</i>	Oie-armée de Gambie						X	X				
<i>Ploceus cucullatus</i>	Tisserin gendarme		X									
<i>Pluvianus aegyptius</i>	Pluvian d'Égypte	LC				X						
<i>Poicephalus senegalus</i>	Perroquet youyou		X	X		X	X		X	X	X	X

Nom latin	Nom français	Statut (IUCN-CITES)	Itato	Tambanomouya	PNNK-Mare de Simenti	PNNK-Grand Mirrador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	River Gambia National Park	Farafenni
<i>Psittacula krameri</i>	Perruche à collier			X		X			X	X	X	
<i>Ptilopachus petrosus</i>	Poulette de roche						X					
<i>Pycnonotus barbatus</i>	Bulbul des jardins		X	X	X	X		X		X		
<i>Quelea quelea</i>	Travailleur à bec rouge		X				X	X		X	X	
<i>Rhinopomastus aterrimus</i>	Irrisor noir		X	X	X	X			X	X		
<i>Scopus umbretta</i>	Ombrette africaine		X	X		X	X			X		
<i>Spermestes cucullata</i>	Capucin nonnette						X					
<i>Streptopelia decipiens</i>	Tourterelle pleureuse						X			X	X	
<i>Streptopelia semitorquata</i>	Tourterelle à collier		X		X	X				X		
<i>Streptopelia senegalensis</i>	Tourterelle maillée		X	X	X	X	X	X	X	X	X	X
<i>Streptopelia vinacea</i>	Tourterelle vineuse						X	X	X	X		
<i>Terathopius ecaudatus</i>	Bateleur des savanes	EN		X		X						
<i>Tockus kempi</i>	Calao occidental		X	X			X	X	X	X		X
<i>Tockus nasutus</i>	Calao à bec noir			X			X		X	X	X	X
<i>Treron waalia</i>	Trerom waalia		X									
<i>Tringa nebularia</i>	Chevalier aboyeur									X		
<i>Turdoides plebejus</i>	Cratérope brun			X	X				X			
<i>Turtur abyssinicus</i>	Tourtelette d'Abyssinie			X	X	X	X	X	X	X		X
<i>Uraeginthus bengalus</i>	Cordonbleu à joues rouges					X						
<i>Vanellus senegallus</i>	Vanneau du Sénégal		X							X		
<i>Vanellus spinosus</i>	Vanneau à éperons		X	X	X		X	X	X	X		X
<i>Vidua chalybeata</i>	Combassou du Sénégal						X			X		

NI : non-identifiable; VU : vulnérable, EN : en danger; CR : en danger critique; LC : préoccupation mineure

Mammifère

Nom scientifique	Nom français	Statut (IUCN-CITES)	Itato	Tambanomouya	PNNK-Mare de Simenti	PNNK-Grand Mirrador	Mare de Faraba-Sénégal	Mare de Koar	Mare de Faraba-Gambie	Danfa kunda	River Gambia National Park	Farafenni
<i>Papio papio</i>	Babouin de Guinée			X							X	
<i>Cephalophus rufilatus</i>	Céphalophe à flancs roux			X		X				X		
<i>Canis adustus</i>	Chacal à flanc rayés						X		X			X
<i>Pan troglodytes verus</i>	Chimpanzé d'Afrique de l'Ouest	CR									X	
<i>Civettictis civetta</i>	Civetted africaine			X				X		X		
<i>Kobus ellipsiprymnus defassa</i>	Cobe defassa				X							
<i>Piliocolobus badius temminckii</i>	Colobe bai	EN									X	
<i>Tragelaphus scriptu</i>	Guib harnaché		X	X	X	X	X	X	X			
<i>Hippotragus equinus</i>	Hipotrague				X	X						
<i>Hippopotamus amphibius</i>	Hippopotame	VU		X	X	X	X			X	X	X
<i>Crocuta crocuta</i>	Hyène					X		X				
<i>Panthera leo</i>	Lion	VU			X	X						
<i>Panthera pardus</i>	Léopard	VU			X							
<i>Atilax sp, Ichneumia sp, Herpestes sp ou Mungo sp</i>	Mangouste					X				X		
<i>Mungos mungo</i>	Mangouste rayée						X					
<i>Phacochoerus africanus</i>	Phacochère				X		X		X	X		X
<i>Hystrix africaeaustralis</i>	Porc-épic		X	X	X							
<i>Leptailurus serva</i>	Sarval					X	X	X		X		
<i>Primates</i>	Singe (non-identifiable, traces)						X					
<i>Erythrocebus patas</i>	Singe rouge		X									
<i>Chlorocebus sabaeus</i>	Singe vert			X	X							X

Poissons

Zone continentale et mares

Familles	Espèces	Itato	Tépéridiantou	Soukouta	Simenti (PNKK)	Gué de Damantan (PNKK)	Mare Faraba	Fleuve Gambie à Faraba	Mare Koar	Fleuve Gambie à Kouar	Mare Dampha Kunda	Fleuve Gambie à Dampha Kunda	Mare Kulari	Fleuve Gambie à Kulari	Total général	Abondance relative (%)
Alestidae	<i>Alestes baremoze</i>	1	0	6	0	1	1	3	0	0	0	0	0	0	12	0,2
	<i>Alestes dentex</i>	0	0	6	16	51	1	0	38	0	80	0	0	12	204	3,44
	<i>Brycinus longipinnis</i>	99	36	86	0	21	0	0	8	5	2	1	0	2	260	4,39
	<i>Brycinus nurse</i>	10	6	50	8	32	0	17	10	7	35	14	0	32	221	3,73
	<i>Hydrocynus brevis</i>	0	0	0	3	6	3	0	7	1	6	2	0	1	29	0,49
	<i>Hydrocynus forskahlii</i>	0	0	0	0	0	1	2	0	0	0	0	0	0	3	0,05
Anabantidae	<i>Ctenopoma kingsleyae</i>	0	0	0	0	0	6	0	9	0	2	0	1	0	18	0,3
Arapaimidae	<i>Heterotis niloticus</i>	0	0	0	0	0	2	0	1	0	6	0	1	0	10	0,17
Cichlidae	<i>Coptodon guineensis</i>	0	3	2	3	0	12	12	24	0	9	0	2	2	69	1,16
	<i>Hemichromis bimaculatus</i>	0	0	0	0	0	4	2	0	0	3	0	1	0	10	0,17
	<i>Hemichromis fasciatus</i>	0	2	3	0	0	40	7	54	3	40	1	26	0	176	2,97
	<i>Oreochromis niloticus</i>	0	0	0	0	0	0	0	17	0	5	0	5	0	27	0,46
	<i>Sarotherodon galilaeus</i>	0	0	0	0	1	0	0	0	0	2	0	0	0	3	0,05
	<i>Sarotherodon melanotheron</i>	0	0	1	4	0	1	308	0	0	9	0	0	1	324	5,47
	<i>Tylochromis jentinki</i>	0	0	0	2	13	0	0	0	2	0	0	0	1	18	0,3
Citharinidae	<i>Citharinus citharus</i>	0	0	0	13	5	0	3	45	0	4	0	0	0	70	1,18
Clariidae	<i>Clarias anguillaris</i>	0	1	4	1	0	2	1	4	0	2	0	1	0	16	0,27
	<i>Heterobranchus longifilis</i>	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0,03

Zone continentale et mares (suite)

Familles	Espèces	Itato	Tépéridiantou	Soukouta	Simenti (PNKK)	Gué de Damantan (PNKK)	Mare Faraba	Fleuve Gambie à Faraba	Mare Koar	Fleuve Gambie à Kouar	Mare Dampha Kunda	Fleuve Gambie Dampha Kunda	Mare Kulari	Fleuve Gambie à Kulari	Total général	Abondance relative (%)
Claroteidae	<i>Auchenoglanis biscutatus</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0,02
	<i>Auchenoglanis occidentalis</i>	0	0	0	3	3	0	0	0	0	0	0	0	0	6	0,1
	<i>Chrysichthys jonelsi</i>	0	1	43	27	3	0	0	0	0	0	4	0	0	78	1,32
	<i>Chrysichthys maurus</i>	0	5	6	1	0	0	0	0	0	35	8	0	30	85	1,43
	<i>Chrysichthys nigrodigitatus</i>	0	0	0	0	12	0	3	0	1	0	0	0	0	16	0,27
Clupeidae	<i>Pellonula leonensis</i>	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0,02
Cyprinidae	<i>Enteromius macrops</i>	0	0	1	0	0	0	0	0	0	4	0	0	0	5	0,08
	<i>Labeo coubie</i>	0	7	15	20	9	53	3	1	0	11	0	1	0	120	2,02
	<i>Labeo parvus</i>	0	1	5	0	0	0	0	0	0	0	0	0	0	6	0,1
	<i>Labeo senegalensis</i>	0	0	4	20	21	20	3	2	0	0	0	0	0	70	1,18
	<i>Raiamas senegalensis</i>	4	6	2	5	1	0	1	0	3	0	0	0	0	22	0,37
Distichodontidae	<i>Distichodus rostratus</i>	0	0	0	2	0	4	0	160	0	7	4	0	0	177	2,99
Gymnarchidae	<i>Gymnarchus niloticus</i>	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0,07
Hepsetidae	<i>Hepsetus odoe</i>	0	0	0	1	0	0	9	6	10	14	0	7	4	51	0,86
Mochokidae	<i>Synodontis annectens</i>	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0,07
	<i>Synodontis batensoda</i>	0	0	0	0	0	0	0	12	0	182	0	109	0	303	5,11
	<i>Synodontis clarias</i>	0	0	12	43	22	0	5	0	0	51	0	1	0	134	2,26
	<i>Synodontis membranaceus</i>	0	0	0	0	0	0	0	0	0	23	0	0	0	23	0,39

Zone continentale et mare (suite et fin)

Familles	Espèces	Itato	Tépéridiantou	Soukouta	Simenti (PNKK)	Gué de Damantan (PNKK)	Mare Faraba	Fleuve Gambie à Faraba	Mare Koar	Fleuve Gambie à Koar	Mare Dampha Kunda	Fleuve Gambie Dampha Kunda	Mare Kulari	Fleuve Gambie à Kulari	Total général	Abondance relative (%)
Mochokidae	<i>Synodontis nigrita</i>	0	1	5	0	0	168	0	7	3	34	0	0	0	218	3,68
	<i>Synodontis ocellifer</i>	0	0	0	3	0	0	3	0	0	1	1	0	0	8	0,13
	<i>Synodontis shall</i>	0	0	1	9	2	0	0	0	6	0	1	0	1	20	0,34
Mormyridae	<i>Brevimyrus niger</i>	0	0	0	0	0	88	0	20	0	48	0	2	0	158	2,67
	<i>Hyperopisus bebe</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0,02
	<i>Marcusenius senegalensis</i>	0	1	13	0	1	2	0	5	0	86	1	5	0	114	1,92
	<i>Mormyrops anguilloides</i>	0	0	0	5	5	0	0	0	1	0	0	0	0	11	0,19
	<i>Mormyrus hasselquistii</i>	0	0	1	2	0	0	0	0	0	0	0	0	0	3	0,05
	<i>Mormyrus rume</i>	0	0	2	4	2	0	0	0	0	2	0	0	0	10	0,17
	<i>Petrocephalus bovei</i>	0	7	17	14	0	0	0	0	0	7	0	0	0	45	0,76
Notopteridae	<i>Papyrocranus afer</i>	0	0	1	4	0	0	0	0	0	0	0	0	0	5	0,08
Paralichthyidae	<i>Citharichthys stampfili</i>	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0,02
Polypteridae	<i>Polypterus bichir</i>	0	0	0	2	0	0	0	0	0	1	0	0	0	3	0,05
	<i>Polypterus senegalus</i>	0	0	0	0	0	1	3	4	0	9	0	3	0	20	0,34
Schilbeidae	<i>Schilbe intermedius</i>	4	9	697	0	0	4	0	114	0	212	7	4	0	1052	17,7
Total général		118	86	983	220	211	413	385	549	43	937	44	169	88	5927	100

En rouge : Espèce endémique.

Zone estuarienne

Familles	Espèces	Farafenni	Kuntaur/RGNP	Total général
Alestidae	<i>Alestes baremoze</i>	0	5	5
	<i>Brycinus nurse</i>	0	5	5
	<i>Hydrocynus brevis</i>	0	2	2
Ariidae	<i>Carlarius latiscutatus</i>	3	0	3
Carangidae	<i>Trachinotus teraia</i>	0	1	1
Cichlidae	<i>Hemichromis fasciatus</i>	1	0	1
Clariidae	<i>Clarias anguillaris</i>	2	1	3
Claroteidae	<i>Chrysichthys nigrodigitatus</i>	8	0	8
Clupeidae	<i>Ethmalosa fimbriata</i>	339	0	339
	<i>Pellonula leonensis</i>	1	8	9
Cynoglossidae	<i>Cynoglossus senegalensis</i>	1	0	1
Dasyatidae	<i>Fontitrygon margarita</i>	1	0	1
Elopidae	<i>Elops lacerta</i>	4	2	6
Gymnarchidae	<i>Gymnarchus niloticus</i>	0	1	1
Mochokidae	<i>Synodontis batensoda</i>	0	2	2
	<i>Synodontis schall</i>	7	5	12
Monodactylidae	<i>Monodactylus sebae</i>	1	0	1
Mugilidae	<i>Neochelon falcipinnis</i>	5	0	5
Penaeidae	<i>Farfantopenaeus notialis</i>	1	0	1
Polynemidae	<i>Polydactylus quadrifilis</i>	5	3	8
Opunidae	<i>Callinectes amnicola</i>	70	0	70
Pristigasteridae	<i>Ilisha africana</i>	82	0	82
Sciaenidae	<i>Pseudotolithus elongatus</i>	53	7	60
Sphyraenidae	<i>Sphyraena afra</i>	1	0	1
Total général		585	42	627

En rouge : Espèces à statut précaire selon l'IUCN. En orange : Invertébrés.