

= Sapo National Park =

Sapo National Park is a national park in Sinoe County , Liberia . It is the country 's largest protected area of rainforest and its only national park , and contains the second @-@ largest area of primary tropical rainforest in West Africa after Tai National Park in neighbouring Côte d'Ivoire . Agriculture , construction , fishing , hunting , human settlement , and logging are prohibited in the park .

Sapo National Park is located in the Upper Guinean forest ecosystem , a biodiversity hotspot that has " the highest mammal species diversity of any region in the world " , according to Conservation International , and in the Western Guinean lowland forests ecoregion , according to the World Wide Fund for Nature 's ecoregions classification scheme .

= = History = =

= = = Designation and early history = = =

In 1976 , the Liberian Forestry Development Authority was created to manage and preserve the country 's forest resources . A year later , in 1977 , the Division of Wildlife and National Parks was formed under the leadership of Alexander Peal , who served as its head until 1990 . By 1982 , seven protected areas has been proposed in Liberia , including three national parks . Of these , only Sapo National Park ? named after the local Sapo (or Sao) tribe ? was formally designated , in 1983 , by the People 's Redemption Council . At the time , and for twenty years , it covered an area of 1 @,@ 308 km² (505 sq mi) east of the Sinoe River and south of the Putu Mountains . The park 's original boundaries were set and its management plan drafted by the Division of Wildlife and National Parks , in cooperation with the World Wildlife Fund , the World Conservation Union , and the Peace Corps .

Throughout its history , Sapo National Park has been threatened by illegal farming , hunting , logging , and mining , " all exacerbated by the country 's grinding poverty " and social and political instability . However , in the early 1990s , the World Conservation Monitoring Centre reported that " [rural development projects around the park and general acceptance of its existence have helped to minimise potential conflicts . " Until the 1990s , poaching was limited due to various initiatives , funded by the United States Agency for International Development , that made local villagers stakeholders to the park 's preservation .

= = = Civil war in Liberia = = =

During the First Liberian Civil War , Sapo National Park fell into the hands of rebel forces , and much of the park 's infrastructure and equipment was damaged or destroyed , including a wildlife rehabilitation and orphanage facility constructed in 1989 and supported by Friends of Animals . Of 33 park employees , at least three were killed and seven became refugees . The extent of illegal resource extraction from inside the park during the period of rebel control is disputed . John Terborgh , a professor of environmental science and biology at Duke University , writes that " [I] ogging was rampant during the war " . However , Peal reported that logging was limited , and that farming and hunting pressures were minimised , by population displacement ? including the exodus of people out of over two dozen villages surrounding the park ? and the prevailing climate of insecurity , to the extent that species populations actually increased during the war years . William Powers , a Catholic Relief Services official posted to Liberia from 1999 to 2001 , noted that the Park was a war @-@ time haven for small groups of people , who scavenged for food and hunted bushmeat to survive . Logging and poaching became more common after the war 's end in 1996 .

In 2002 , allegations surfaced that President Charles Taylor had sold concessions worth several millions of United States dollars to a Hong Kong @-@ based timber company ? the Oriental Timber Company ? to conduct logging within the boundaries of the park . The funds were reportedly pocketed by Taylor or used to secure the loyalty of various senior commanders , to arm loyalist

forces embroiled in the Second Liberian Civil War (1999 ? 2003) , and to acquire mercenary fighters from South Africa . Liberia 's Minister of Information , Reginald Goodridge , denied the allegations , noting that no evidence of logging was found during a National Geographic Society team 's two @-@ week visit to the park .

= = = Post @-@ war developments = = =

Fauna and Flora International and the World Wildlife Fund (WWF) worked with Liberia 's Forestry Development Authority and the Society for the Conservation of Nature of Liberia (SCNL) to prepare a two @-@ year initiative to restart management of the park . Mainly funded by the Darwin Initiative of the United Kingdom 's Department for Environment , Food and Rural Affairs and the World Wildlife fund from 2000 ? 2002 , the objectives of the initiative were to re @-@ establish the park 's management , build support for the park among the local community , and to build Liberia 's capacity in conservation management and planning . The SCNL also received a grant from the Whitley Foundation to begin a programme to monitor the park 's large mammals .

There has been very slow progress in the establishment of protected areas in Liberia . Sapo National Park , proclaimed in 1983 , was the country 's first protected area . The approval of the Sapo National Park Act (An Act for the extension of the Sapo National Park) on October 10 , 2003 expanded the size of the park to 1 @,@ 804 km² (697 sq mi) , constituting an increase of more than 37 % . The act recognised the park as being " at the core of an immense forests block of the Upper Guinea Forest Ecosystem that is important to the conservation of the biodiversity of Liberia and of West Africa as a whole " . The 135 km² (33 @,@ 359 acres) Mount Nimba Nature Reserve , covering four percent of Liberia 's forest land , was created at the same time to become Liberia 's second protected area .

The peace that followed the conclusion of the Second Liberian Civil War gave rise to new threats to the park . Groups of fighters and civilians moved into the park during the final months of the conflict ? some to escape the conflict and others to harvest timber or prospect for gold . The influx of people into the park continued after the war 's end , eventually growing into a full @-@ scale gold rush . Accompanying or following the prospectors were hunters , many of them former combatants , who poached the park 's animals to sell as meat to the settlers . By March 2005 , an estimated 5 @,@ 000 people lived in the park , according to the United Nations Mission in Liberia . Although efforts were undertaken to remove the illegal squatters , the park was not completely emptied until late August @-@ early September 2005 , and then only through the participation of conservationists , the Liberian government , and United Nations peacekeeping forces .

Due to its remote location and the near @-@ complete absence of tangible amenities , such as visitor housing or recreational facilities , there are few visitors to Sapo National Park . Entry into the park is prohibited without approval from the Forestry Development Authority . No roads lead into the park , so it can be reached only on foot . The park also has no trails .

= = Geography and climate = =

Located in Sinoe County in southwestern Liberia , Sapo National Park covers an area of 1 @,@ 804 km² (697 sq mi) . The park is bounded to the north by the Putu Mountains and to the west by the Sinoe River . The park 's quite homogeneous , flat and marshy topography supports a large area of uninhabited forest . Its southeastern area has lower elevations of approximately 100 m (328 ft) and gentle hills , while there are elevations of about 400 m (1 @,@ 312 ft) and steep ridges in the north . There are many small streams and rivers between these ridges . Sinoe River is the largest river in the park . Mount Putu 's 640 m (2 @,@ 100 ft) summit is the highest elevation in the park .

The park has a tropical climate , with temperatures ranging between 22 ? 28 ° C (72 ? 82 ° F) . The forest 's average relative humidity is 91 % . Annual precipitation at Basintown , 4 km (2 mi) south of the park 's headquarters , averaged 2 @,@ 596 mm (100 in) in the 1980s . The park 's dry season occurs from November to April and the wet season lasts from May to October . January and December are the driest months in the park , and May and August are the wettest months . There is

a mid @-@ dry period of decreased rainfall in July , which occasionally extends into August . During the dry season , many of the smaller streams dry up and their sandy and rocky stream beds are exposed . The dry season also causes the larger rivers shrink in size , exposing waterfalls and sandbars . In the rainy season , river levels can rise by more than 4 m (13 ft) in one night , inundating forests near the rivers .

= = Biodiversity = =

From the airplane I stare down upon this forest for the first time Below me is a block of peacock , kelly , and olive green stretching out to the horizon . I search for breaks in the canopy but find none . As far as my eyes can see , the earth is solid rainforest .

= = = Flora = = =

Liberia has the largest remaining part of the Upper Guinean forest ecosystem , with an estimated 42 % of the remaining forest . The rest of the Upper Guinean forest is located in Côte d 'Ivoire (28 % of the remaining forest) , Ghana (16 %) , Guinea (8 %) , Sierra Leone (5 %) , and Togo (1 %) . Just an estimated 40 @-@ 45 % of Liberia 's original forest cover remains , and less than 30 % of its area is covered by natural forest . Its tracts of forest were once continuous , but are now fragmented into blocks that are isolated from each other as a result of logging , road @-@ building , cultivation , and human settlements . Before the civil war , the Forestry Development Authority calculated that about 35 % of Liberia 's original forest was " undisturbed " , 45 % was " disturbed but productive " , and 20 % was " disturbed and unproductive . " Sapo National Park 's forest is one of the country 's last remaining blocks of tropical lowland rain forest , and one of West Africa 's least disturbed lowland rainforests . It is the second @-@ largest area of primary tropical rainforest in West Africa after Taï National Park in Côte d 'Ivoire .

The park has one of the richest amounts of floral species in the country , with many endemic species . A 1983 survey of the park determined it to be composed of 63 % primary and mature secondary forest , 13 % swamp forest , 13 % seasonally inundated forest , and 11 % young secondary forest . The forest is luxuriant , with trees that can grow to a height of 70 m (230 ft) . The forest canopy 's height ranges from 12 ? 32 m (39 ? 105 ft) , with an average height of 25 m (82 ft) . Plant species found in the park include the legumes *Tetraberlinia tubmaniana* and *Gilbertiodendron splendidum* , and the tree *Brachystegia leonensis* .

= = = Fauna = = =

Sapo National Park is a " regional centre of endemism " and biodiversity , at one time hosting around 125 mammal species and 590 types of bird , including a number of threatened species , such as the African golden cat , drill , Gola malimbe , Liberian mongoose , white @-@ breasted guineafowl , and white @-@ necked rockfowl . The park is also home to the African civet , African fish eagle , African grey parrot , giant forest hog , great blue turaco , speckle @-@ throated otter , water chevrotain , three species of pangolin , seven species of monkey (including the endangered Diana monkey) , crocodiles , leopards , bee @-@ eaters , egrets , hornbills , kingfishers , rollers , and sunbirds .

Prior to the formal designation of Sapo National Park in 1983 there had been " no systematic study of chimpanzee populations in Liberia " . Since then , various surveys have confirmed the existence of the common chimpanzee (*Pan troglodytes*) in Sapo National Park , located primarily in the park 's center and western areas , with estimates of the population ranging from 500 to 1 @,@ 640 . The culture of the local Sapo people includes a reverence for the chimpanzee and , therefore , a taboo against their hunting .

Seven species of duiker antelopes are found in Sapo National Park , including the vulnerable Jentink 's duiker (*Cephalophus jentinki*) and zebra duiker (*Cephalophus zebra*) . bay duikers (*Cephalophus dorsalis*) and Maxwell 's duikers (*Cephalophus maxwellii*) are reported to be locally

abundant .

Sapo National Park contains populations of the pygmy hippopotamus (*Hexaprotodon liberiensis*) , an endangered species which has legal protection in Liberia under the Wildlife and National Park Act of 1988 . Unique to West Africa , the wild population of pygmy hippopotamuses is thought to number less than 3 @, @ 000 individuals . According to the World Conservation Union (IUCN) , conservation efforts targeted at the species have " historically been most effective in the Sapo National Park ... where protection is good " . According to an action plan published by the IUCN Species Survival Commission , Sapo National Park is " the only realistic choice " of a " of suitable conservation area " for the Pygmy Hippopotamus . In February 2008 , automatic heat- and motion @-@ sensing cameras set up in Sapo National Park captured the first photographs of the pygmy hippopotamus ever taken in Liberia . The photographs confirmed the continued presence of the species inside the boundaries of the park ; previously , scientists did not know whether the pygmy hippopotamus population in the park had survived the civil wars and subsequent poaching and logging .

The endangered African forest elephant (*Loxodonta cyclotis*) is also present in Sapo National park , with population estimates ranging from " as many as 500 " for the early 1980s to between 313 and 430 for the end of the decade ; however , the IUCN considers the most recent surveys ? both of which relied on dung counts ? to be of low quality and reliability .