IUCN Conservation Outlook Assessment 2014 **(archived)**
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Please note: this is an archived Conservation Outlook Assessment for Discovery Coast Atlantic Forest Reserves. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Discovery Coast Atlantic Forest Reserves

SITE INFORMATION

Country:
Brazil
Inscribed in: 1999
Criteria:
(ix) (x)

Site description:

The Discovery Coast Atlantic Forest Reserves, in the states of Bahia and Espírito Santo, consist of eight separate protected areas containing 112,000 ha of Atlantic forest and associated shrub (restingas). The rainforests of Brazil's Atlantic coast are the world's richest in terms of biodiversity. The site contains a distinct range of species with a high level of endemism and reveals a pattern of evolution that is not only of great scientific interest but is also of importance for conservation. © UNESCO

SUMMARY

2014 Conservation Outlook

Significant concern

While the establishment of the various protected areas was a highly needed step to serve the last remnants of one of the most fragmented and degraded forest regions on the planet and the serial approach are adequate and encouraging, the protected areas require more coherent and encompassing management. Underlying conflicts with impoverished local communities need to be addressed. At a time when better connectivity is urgently needed and recognition of a need to restore parts of the Atlantic Forest is emerging, the trends in the landscape surrounding the components keep deteriorating. Unless land use dynamics can be influenced to promote more environmentally friendly activities, further deterioration seems inevitable due to biological isolation. This is not even taking into account the expected impacts of climate change.

Current state and trend of VALUES

High Concern
Trend: Deteriorating

The relatively small remnants of the northeastern portion of the Atlantic Forest jointly comprising the serial property are biologically and ecologically isolated. The surrounding landscape is comprised of ever more intensely used pasture, cropland, and timber plantations. Even when disregarding anticipated climate change, a deteriorating scenario appears inevitable, unless more serious efforts are made to counter current trends.

Overall THREATS

Very High Threat

As elsewhere in the historically vast forest region known today as the "Atlantic Forest", fragmentation and biological and ecological isolation are key concerns. While the establishment of protected areas has halted centuries of mostly

unplanned forest conversion and degradation, illegal activities continue to be reported. The increasingly intensive use of the wider landscape for plantation forestry, agriculture and ranching, and in some areas for tourism, is taking an additional toll, e.g. through disturbance, chemical inputs and use of fires in pasture land. In the longer term, the fragmented forests are believed to be particularly vulnerable to the expected impacts of anticipated climate change.

Overall PROTECTION and MANAGEMENT

Some Concern

Despite undisputed success stories in specific thematic areas in individual components of the property, the overall protection and management of the property is not satisfactory. Most importantly, a coherent and encompassing approach for the multiple components is missing, the underlying conflicts with marginalized local residents could never be fully resolved and the pressures in the broader landscape are increasing even though reduced connectivity have been recognized as key conservation concerns.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **Most intact and largest remaining fragments of Atlantic Forest in the Brazilian Northeast**
Criterion:(ix)

The Brazilian Discovery Coast is a serial property encompassing the largest and best conserved remnants of Atlantic forest in the Northeastern Brazil and contains high numbers of rare and endemic species (IUCN evaluation, UNESCO World Heritage Centre website).

► **Exceptional biological diversity with a high degree of endemism**
Criterion:(x)

The various components of the serial property harbour an exceptional biological richness with a high degree of endemism. Jointly, they display the evolutionary history of the few remaining areas of Atlantic Forest and coastal Restinga shrub vegetation in Northeastern Brazil. The fact that only these few scattered remnants of a once vast forest remain, make them an irreplaceable part of the world's forest heritage, including for scientific research (IUCN evaluation, UNESCO World Heritage Centre website).

Other important biodiversity values

► **Other international designations**

The property lies within a Conservation International-designated

Conservation Hotspot, a WWF Global 200 Eco-region, a WWF/IUCN Centre of Plant Diversity, a BirdLife-designated Endemic Bird Area, and a vast UNESCO Biosphere Reserve.

Assessment information

Threats

Current Threats

Very High Threat

The most significant current threats are the biological and ecological isolation of the relatively small forest fragments, which in the long run results in eroding biodiversity; intensified commercial land-use in the wider region, fires and wood extraction and some ongoing illegal hunting further add to the expected degradation of the small area of natural habitat in the property.

▶ Fire/ Fire Suppression

Very High Threat
Inside site
Outside site

Fires are a routine instrument in pasture management in the region.

▶ Other

Very High Threat
Inside site

The major threat is biological isolation in particular of the smaller components, which will slowly reduce the biodiversity of the property, in particular given increasing infrastructure development and pressures outside (WDPA, 2011).

▶ Subsistence hunting

Very High Threat
Inside site

Outside site

Illegal hunting and wood extraction take place on an isolated basis as part of the subsistence strategies of marginalized local people. Fauna that leave the property are often shot in surrounding lands (WDPA, 2011; Veracel Research Station, 2011). The resilience of the populations affected by the small size of the forest remnants and poor connectivity between the remnants is limited. In the Discovery National Park, camera traps for biological studies were destroyed by gunshots and battering. One of the damaged cameras took pictures of domestic dogs indicating the presence of hunters (Alvarez, 2010).

► Roads/ Railroads

Very High Threat
Inside site

Existing and planned roads are a key concern in terms of the well-documented direct and indirect effects of roads in forests. Tourism development plans have suggested a controversial need for additional road has increased habitat fragmentation and impacted fauna because of road kills infrastructure (Nomination dossier).

Potential Threats

Very High Threat

Anticipated climate change is expected to impact the various components of the property. The fragmented forests areas remaining after longstanding degradation are much more susceptible to changing environmental conditions, such as increasing temperatures, decreasing rainfall and extreme weather events.

► Temperature changes

Very High Threat
Inside site

Projections of climate change impacts suggest decreasing rainfall, increasing temperatures, more frequent occurrences of extreme weather events, and seal level rise (Marengo, n.d.).

Protection and management

Assessing Protection and Management

► Management effectiveness

Some Concern

Formal evaluations in 2002/2003 and 2010 of the management effectiveness of the 3 national parks and 2 Biological Reserves of the property rated them all as “mediocre”, with the exception of the Sooretama Biological Reserve, which was rated as “good”.

► Implementation of Committee decisions and recommendations

Data Deficient

The inscription decision in 1999 recommended that "the State Party should be encouraged to complete the "Plan of Action for the Atlantic Forest Region" and other initiatives indicated in the IUCN evaluation". There is no documented governmental response to this recommendation.

► Boundaries

Data Deficient

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► Sustainable finance

Some Concern

Sooretama obtained a medium to low financial resources score in the 2010 management effectiveness evaluation (ICMBio and WWF-Brazil, 2012).

► Staff training and development

Data Deficient

Sooretama obtained a medium to low “human resources” score in the 2010 management effectiveness evaluation (ICMBio and WWF-Brazil, 2012).

▶ Sustainable use

Mostly Effective

The only permitted uses of the properties are research, education, and tourism. There are concerns about the sustainability of tourism is some parts of the property.

▶ Relationships with local people

Serious Concern

Relationships between the managers of the property, indigenous people, and marginalized squatters have often been tense and confrontational. After serious confrontations, a portion of Monte Pascoal National Park was returned to the indigenous Pataxó. Advisory Councils for each of the 3 national parks within the property have been designed in an attempt to provide a mechanism for discussion. Unless local communities reach living conditions reducing their precarious dependence on the scarce remaining forest, it is difficult to envision a solution to this grave conflict (UNEP/WCMC, 2012).

▶ Legal framework and enforcement

Serious Concern

The legal framework for the property is built from a series of declarations of the 8 conservation units that make up the property. These include: (1) Sooretama Biological Reserve established by Federal Decree in 1943; (2): Monte Pascoal National Park established by Federal Decree in 1973; (3) Vale do Rio Doce Natural Reserve established in 1973 (formerly the Linhares Forest Reserve); (4) Una Biological Reserve designated by Federal Decree in 1983; (5) Pau-Brasil CEPLAC Experimental Station designated by Decree in 1993; (6) Pau-Brasil National Park designated by Federal Decree in 1998; (7) 1998: Veracel (formerly VeraCruz) Station, a private Natural Heritage Reserve, received legal protection under Resolution 240 of the National Environmental Council (CONAMA) which also prohibited logging the forest; and,(8) Descobrimento National Park established by Federal Decree in 1999 (WDPA, 2011). Law enforcement is carried out by the Forest Police. When the property was inscribed, management suffered from lack of clear definitions of protection and permitted interventions, overlapping and competing government agencies, competition from commercial interests plus increasing

pressures from local people to use protected area resources, all of which make it very difficult to enforce laws (UNEP/WCMC, 2012). Despite its benefits as an umbrella, the serial approach remains to be translated into a coherent approach to law enforcement on the ground. External support over the last years has helped to address some of the deficits.

► Integration into regional and national planning systems

Serious Concern

There are ongoing difficulties in terms of coordinating with the large number of national, regional, and local governmental, non-governmental, and private entities and actors that have an interest in the property (WDPA, 2011).

► Management system

Some Concern

Management plans for all eight conservation units that make up the property have been completed and are in use. These promote co-operation with the local industry, aim to restore and improve existing facilities, to increase the number of staff and facilitate the integration of local and federal institutions of research, protection and management. WWFBrasil, the Ford Foundation, Conservation International, and The Nature Conservancy have in the past supported a drive to increase the linkage of forest patches, establish participatory management and set up effective biodiversity conservation. The forest’s relatively low level of de facto protection and high fragmentation prompted the Critical Ecosystem Partnership Fund (CEPF) to finance a five-year Atlantic Forest Hotspot program 2002-2007, to enlist NGOs, community groups, and others in the conservation and restoration of biodiversity corridors. However, the project was shut down by the Ministry of the Environment because of new arrangements at the Federal level for cooperation (CEPF, 2009, WDPA, 2011). Management plan for Sooretama BR dates back to 1981, and its emergency action plan from 1994. For Una BR, the management plan dates back to 1997, Monte Pascoal NP-undated (ICMBio web page). A 2007 operating plan for fire management exists for the Sooretama BR (IBAMA, 2007).

► Education and interpretation programs

Data Deficient

While education and interpretation programs are carried out in each of the components of the property (draft SOUV, 2011), the impact of those programs is not known.

► Tourism and interpretation

Mostly Effective

Since forest conservation is the paramount aim of the reserves, visitation to most of the sites is restricted to certain areas or trails, as at Una, Sooretama and the research stations. The latter encourages ecotourism, ecological researchers and environmental education and Veracel Reserve has a canopy observation platform. The CEPLAC Experimental Station also has an environmental education program but no visitors are encouraged to visit the neighboring Pau-Brasil National Park. The Vale do Rio Doce Reserve has excellent ecotourism facilities. The most visited site is Monte Pascoal National Park. It has a visitors' centre and marked trails up the landmark that gives the protected area its name (WDPA, 2011).

► Monitoring

Serious Concern

Monitoring is an integral part of the work of the research stations in some of the components of the property. A Coherent and coordinated monitoring programs across the multiple components remain a challenge.

► Research

Mostly Effective

There are two research stations: the Pau-Brasil CEPLAC Experimental Station, and the Veracel (previously Vera Cruz) Reserve For ecological research to use in its own reforestation programs and to educate the public about the flora and fauna of southern Bahia. Staff from the National Centre for Genetic Resources work there permanently and the station has released considerable information about its forest. All the protected areas have some facilities to accommodate visiting scientists. The Una and CEPLAC reserves also function as in situ genetic seed banks. Better coordination and coherence across the multiple components would be highly desirable (WDPA, 2011).

Overall assessment of protection and management

Some Concern

Despite undisputed success stories in specific thematic areas in individual components of the property, the overall protection and management of the property is not satisfactory. Most importantly, a coherent and encompassing approach for the multiple components is missing, the underlying conflicts with marginalized local residents could never be fully resolved and the pressures in the broader landscape are increasing even though reduced connectivity have been recognized as key conservation concerns.

▶ Assessment of the effectiveness of protection and management in addressing threats outside the site

Serious Concern

After longstanding historic logging in the entire region, actively promoted through the construction of the coastal highway in the 1970s, what is today the buffer zone of the property is under increasingly intense land use, mostly cattle ranching and forest plantations. Fire is but one example of the tangible impacts of this external pressure.

▶ Best practice examples

Even though most implementation work remains to be done the approach to integrate different conservation categories and governance arrangements under one umbrella continues to serve as an innovative example.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶

Most intact and largest remaining fragments of Atlantic Forest in the Brazilian Northeast

Critical
Trend:Deteriorating

The remnants of the northeastern portion of the Atlantic Forest protected in the 8 components that make up the property are isolated and surrounded by pasture, cropland, and timber plantations (WDPA, 2011).

► Exceptional biological diversity with a high degree of endemism

High Concern
Trend:Deteriorating

Even when not taking into account the anticipated impacts of climate change, a decline of the impressive biodiversity values is expected.

Other important biodiversity values

► Other international designations

The property lies within a Conservation International-designated Conservation Hotspot, a WWF Global 200 Eco-region, a WWF/IUCN Centre of Plant Diversity, a BirdLife-designated Endemic Bird Area, and a vast UNESCO Biosphere Reserve.

Summary of the Values

► Assessment of the current state and trend of World Heritage values

High Concern
Trend: Deteriorating

The relatively small remnants of the northeastern portion of the Atlantic Forest jointly comprising the serial property are biologically and ecologically isolated. The surrounding landscape is comprised of ever more intensely used pasture, cropland, and timber plantations. Even when disregarding anticipated climate change, a deteriorating scenario appears inevitable, unless more serious efforts are made to counter current trends.

▶ **Assessment of the current state and trend of other important biodiversity values**

High Concern

Trend: Deteriorating

The biodiversity values associated with the other international designations (Conservation International-designated Conservation Hotspot, a WWF Global 200 Eco-region, a WWF/IUCN Centre of Plant Diversity, a BirdLife-designated Endemic Bird Area, and a UNESCO Biosphere Reserve) will slowly be degraded in coming years due to biological isolation.

Additional information

Key conservation issues

▶ **Biological isolation and poor and decreasing connectivity.**

Local

The major current threat to the property is ecological and biological isolation which will slowly impact ecological processes, reduce the biodiversity of the property, and worsen the situation of threatened species (WDPA, 2011).

▶ **Anticipated climate change**

Global

Projections of climate change impacts indicate lower rainfall, higher temperatures, more frequent occurrences of extreme weather events, and seal level rise.(Hotlist, 2011;Marengo, n.d.).

Benefits

Understanding Benefits

▶ **Is the protected area valued for its nature conservation?**

Designation of the various components as a World Heritage property illustrates a strong recognition of the outstanding conservation values and the need to look beyond individual protected areas.

► Importance for research

Given the longstanding and dramatic conversion and degradation of the Atlantic Forest throughout its historically vast range, the property is highly valued as a site for research in the last remaining patches of this forest type. The remnants are indispensable for the increasing restoration efforts.

Summary of benefits

Conservation and the production of knowledge are seen as important benefits produced by these last major remnants of the northeastern Atlantic Forest, both at the national and international level.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Veracel Research Station		Monitoring of medium and large sized mammals through use of camera traps in the Veracel Reserve. Management and conservation of the Harpy Eagle in the Veracel Reserve. New proposals for public use of the Veracel Reserve.
2	SOS Mata Atlantica		Several projects in the Atlantic Forest Biome. http://www.sosma.org.br/quem-somos/
3	TNC		In 2008, TNC launched a campaign to restore one billion native trees to the Atlantic Forest (note: not necessary in the Property) - See more at: http://www.nature.org/ourinitiatives/regions/southamerica/brazil/placeswe protect/atlantic-forest.xml#sthash.va66KAlJ.dpuf

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	.	Integrated management of the separated components of the property as a single property to make the most of the opportunities afforded by this last remnant of the northeastern portion of the Atlantic Forest.	
2	National, state and local governments in cooperation with NGOs	Integrating approaches to balancing conservation and development in the broader region, consolidating the intentions expressed at the time of nominating the biosphere reserve encompassing the entire property	

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