IUCN Conservation Outlook Assessment 2017 **(archived)**
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Please note: this is an archived Conservation Outlook Assessment for Coiba National Park and its Special Zone of Marine Protection. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Coiba National Park and its Special Zone of Marine Protection

SITE INFORMATION

Country:
Panama
Inscribed in: 2005
Criteria:
(ix) (x)

Site description:
Coiba National Park, off the southwest coast of Panama, protects Coiba Island, 38 smaller islands and the surrounding marine areas within the Gulf of Chiriqui. Protected from the cold winds and effects of El Niño, Coiba's Pacific tropical moist forest maintains exceptionally high levels of endemism of mammals, birds and plants due to the ongoing evolution of new species. It is also the last refuge for a number of threatened animals such as the crested eagle. The property is an outstanding natural laboratory for scientific research and provides a key ecological link to the Tropical Eastern Pacific for the transit and survival of pelagic fish and marine mammals. © UNESCO

SUMMARY

2017 Conservation Outlook

Significant concern

The Conservation Outlook for the site is of Significant Concern, mainly due to the pressure that unsustainable fishing is having on ecological processes and biodiversity including threatened and near-threatened species. In addition, rapidly increasing tourism without an agreed and enforced public use plan and the potential threat of increased tourist pressure from nearby coastal development, not counting the additional challenges of climate change, pose important threats to the Property. Slow progress on resolving issues repeatedly underlined by the Committee since inscription, including the on-going absence of a Management Plan for the Special Zone of Marine Protection, the enforcement of the Management Plan for the Park, and the operationalisation of the Coiba Fund, leads to serious concerns regarding the protection and management of this site. The positive news is that feral livestock are on the way to being eliminated from the Property, but better biosecurity measures are needed to ensure that there will not be problems with new invasive species in the future.

Current state and trend of VALUES

High Concern
Trend: Deteriorating

The current state of World Heritage values is of high concern, mainly due to the effect that unsustainable fishing is having on the marine values of the property. While the imminent removal of livestock from the island is positive, especially in terms of vegetation regrowth, this does not change the concerns about the detrimental effect that fishing is having in the property.

Overall THREATS

Very High Threat

The greatest current threat to the property is either through unregulated fishing

or else regulations inconsistent with the conservation of the OUV of the property including poor enforcement of the existing regulations. Rapidly increasing tourism activities, potential pressures from coastal development, the lack of a biosecurity plan for both the naval base and park and tourist activities, and the deleterious effects of climate change are of high concern.

Overall PROTECTION and MANAGEMENT

Serious Concern

Despite the World Heritage Committee’s repeated requests for its finalization, a Management Plan for the Special Zone of Marine Protection (SZMP) remains to be completed. The Management Plan for the entire property still needs to be updated and enforced. The on-going absence of a clear management framework for the entire property including implementation of a public use and biosecurity plan, lack of clarity concerning coastal zone development outside the property but within its zone of influence, weakness of law enforcement and slow progress in resolving issues repeatedly underlined by the Committee since the inscription leads to serious concern regarding protection and management of this site.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **High variety of endemic terrestrial species**
Criterion:(x)

The forests of Coiba Island contain many endemic species and subspecies, including mammals (e.g. Coiba Agouti; Coiba Howler Monkey), birds (e.g. Coiba Spinetail), more than 60 plants and numerous invertebrates (Nomination, 2005; STRI, 2015).

▶ **High diversity of threatened marine fish and cetaceans**
Criterion:(x)

The marine ecosystems within the property include more than 760 species of marine fishes, 33 species of sharks and 20 species of cetaceans. Schooling Scalloped Hammerheads as well as Black Tip, Silky and Oceanic Whitetip Sharks can be encountered on the Hannibal Bank (Nomination, 2005). Coiba’s shallower waters are used by Humpback Whales for raising calves and are grouping areas for Whale Sharks. Coiba is important for commercial fish species like the Silk Snapper, which forms spawning aggregations around Coiba, where this activity was reported for the first time in the Pacific of Central America.The islands within the property are the only group of inshore islands in the tropical eastern Pacific that have significant populations of trans-Pacific fishes, namely, Indo-Pacific species that have established themselves in the eastern Pacific (Nomination, 2005; STRI, 2015).

► Endemic corals and threatened turtles

Criterion:(x)

Its coral reef zones and coral communities are among the largest and most diverse in the American Pacific and recent studies have found high levels of endemism.These reefs help maintain some of the largest groups of the Critically Endangered Hawksbill Turtle in the
region. Coiba has extensive beaches for turtle nesting and some of the largest
extension of seagrasses known in Panama's Pacific (STRI, 2015).

► Outstanding natural laboratory for scientific research

Criterion:(ix)

Despite the short time of isolation of the islands of the Gulf of Chiriquí on an evolutionary timeframe, new species are being formed, which is evident from the levels of endemism reported for many groups (mammals, birds, plants), making the property an outstanding natural laboratory for scientific research (Nomination, 2005).

► Key ecological link in the Tropical Eastern Pacific

Criterion:(ix)

The Eastern Pacific reefs, such as those within the property, are characterized by complex biological interactions of their inhabitants and provide a key ecological link in the Tropical Eastern Pacific for the transit and survival of numerous pelagic fish as well as marine mammals (Nomination, 2005).

Other important biodiversity values

► Other international designations

The Park lies within a Conservation International-designated Conservation Hotspot, a WWF Global 200 Eco-region, a WWF/IUCN Centre of Plant Diversity and in one of the world's Endemic Bird Areas. (UNEP-WCMC, 2011)

► Refuge for species disappeared from mainland Panama

Coiba serves as the last refuge for species that have largely disappeared from the rest of Panama, such as the Scarlet Macaw (Nomination, 2005; SoOUV, 2014).

Assessment information

Threats

Current Threats

Very High Threat

Unregulated fishing or poor enforcement of existing fishing regulations,increasing tourism activities requiring increased management, and lack of an enforced biosecurity plan for the island constitute a very high level of threat to its values.

► Tourism/ visitors/ recreation

Low Threat
Inside site, scattered(5-15%)

Land has been cleared on Montuosa Island in the past for houses and banana plantations (IUCN, 2014), but since 2008 the island is a gazetted wildlife refuge and inscribed as such in the land tenure record so that it cannot subsequently be "colonised" and given a title deed. Currently the island is being used as a base for tourism and spearfishing. Although there is a mile "no-take" fishing zone around the island, the presence of uncontrolled tourism on the island is a threat, although it appears that the risk of any building on the island (as noted in the last assessment) cannot take place (IUCN, 2017).

► Invasive Non-Native/ Alien Species

Very Low Threat

Inside site, scattered(5-15%)

A significant threat which has been reduced since inscription of the property is the number of feral livestock which were degrading native vegetation and causing erosion, which in turn caused siltation of reefs adjacent to the Island (SOC, 2011; SOC, 2015). The State Party has undertaken an eradication programme and by 2016 the numbers of livestock have been significantly reduced. Hopefully they will be gone by 2017 (IUCN, 2017).

► Other Activities

Low Threat
Inside site, localised(<5%)

The principle threat that the small naval base on Coiba could have would be the inadvertent introduction of alien plant or animal species to the island. While biosafety training was reported to be in place (IUCN & WHC, 2014), there was no evidence that there was any biosafety plan at the naval base nor at the much more frequented Park Headquarters at Gambute (IUCN, 2017). However, the navy could help control illegal fishing practices and increase security for Park personnel and tourists in case of emergency (IUCN & WHC, 2014; IUCN, 2017).

► Tourism/ visitors/ recreation

High Threat
Inside site, widespread(15-50%)
Outside site

Tourism is increasing rapidly, with a 42% increase from 2014-2015 (from around 10,000 to 17,200 visitors, with international tourists comprising about 78%).There is a Public Use Plan in preparation, but currently tourist activities, including visits to the island by cruise ships, and illegal tourist camp sites in contradiction to Management Plan regulations indicate that increasing tourism is a threat through disturbance, pollution by more boats and potential for invasive species introduction. There is no biosecurity plan in place, and the risk will be increased when the plan to refurbish the jetty on the island is made (IUCN, 2017).

► Fishing / Harvesting Aquatic Resources

Very High Threat
Inside site, throughout(>50%)

Outside site

Industrial, commercial, artisanal, and sport fishing within the property, both legal and illegal, are unsustainable and pose the main threats to the property. Although there has been a sustainable fisheries management plan for the Park since 2013 (Maté et al., 2015), there are almost no regulations in force for the Special Zone of Marine Protection, and in any case existing regulations are not adequately enforced. Industrial fisheries targeting Yellow Fin Tuna (listed by IUCN as Near Threatened) also cause bycatch of other threatened species such as turtles. Sport fishing, despite being largely "catch-and-release", also affect threatened species such as Blue Marlin (VU) and some shark species. Unsustainable "artisanal" fisheries (which are actually commercial) within the Park are reducing fish stocks (IUCN & WHC, 2014; Vega et al., 2016; IUCN 2017).

Potential Threats

High Threat

Potential development of islands to the north of the property and increased tourism will require increased management measures. Climate change, which could result in (among other issues) increased landslips of soil onto the reef, is an important potential threat.

► Housing/ Urban Areas, Tourism/ Recreation Areas

High Threat
Outside site

New regulation for developing the northern islands that included part of the Park (IUCN, 2014) has been changed to exclude the islands within the Park which is very positive. However, plans to accelerate coastal development in the islands to the north, near Park limits, could exacerbate recreational and sports fishing pressures and significantly increase water pollution (IUCN, 2017).

► Storms/Flooding, Ocean acidification, Temperature extremes

High Threat

Inside site, throughout(>50%)
Outside site

The Gulf of Chiriquí is said to be generally protected from the effects of the El Niño current (Nomination, 2005) but this is without taking into account global warming, associated changes in severe weather events, and sea-level rise. Landslips along the steep island slopes into the sea were observed, probably due to extreme weather, thus the property is at high risk through global change (IUCN, 2017).

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

While studies of local communities were undertaken during preparation of the Management Plan,it was noted that little systematic follow-up has taken place, and information regarding the Park and of the decisions of the Executive Council has not been circulated adequately (IUCN, 2014). While mayors of adjacent municipalities as well as the Governor of the province are actively integrated with the Executive Council, there was still little evidence of current cooperation and capacity building with the local authorities and fishing communities, even though some projects have been undertaken in the past (IUCN, 2017).

► Legal framework

Some Concern

The property is legally protected with mechanisms in place for governance through an Executive Council composed of many stakeholders. In the past work by the Council has been hindered by the high turnover of Council representatives, their irregular participation at meetings and the lack of participation of local government representatives (IUCN, 2014). Meetings of the Executive Council in 2016 have become more numerous and a plan to install a Secretariat for the Executive Council is in place, thus the governance

situation appears to be improving (IUCN, 2017).

► Enforcement

Serious Concern

Patrolling effort in the Park is documented but insufficient, and very little patrolling and enforcement is undertaken in the SZMP. Documentation on fines for illegal activities was either unavailable or the fines were very few and little, despite reports of illegal activities within the property (IUCN, 2017).

► Integration into regional and national planning systems

Some Concern

Coiba forms part of the “Marine Conservation Corridor of the Eastern Tropical Pacific Seascape” (CMAR). The other three World Heritage properties which form part of this network, Malpelo (Colombia), Cocos (Costa Rica) and Galapagos (Ecuador), have much stricter fishing regulations than that of Coiba. There is serious concern that the property is not realising its potential to contribute to the wider seascape connectivity envisaged by CMAR. However, the Coiba Mountain Range was assigned the SINAP management category “Area of Managed Resources” in 2015 which is said should strengthen management, particularly in fishing activities, as well as better protect migratory species in the CMAR. Legislation was also enacted in 2014 to strengthen protection of Whale Sharks in the marine reserve of the Canales de Afuera (IUCN, 2017).

► Management system

Serious Concern

The Management Plan for the National Park was developed in 2009 but there is still no plan in place for the SZMP, and current levels of funding, staff, and facilities are inadequate to implement the plan. The Plan expired in 2014 but was extended for 5 years with no change, although the process is in place to update the Management Plan for 2019. A Sustainable Fisheries Plan for the Park was approved in 2013 but again the Plan was not able to be fully implemented, and will require modification as well for renewal in 2018 (IUCN, 2017).

► Management effectiveness

Serious Concern

There is no management system in place for the SZMP (although a draft plan is under discussion). The current plan for the rest of the property requires updating and enforcement. Overall, lack of enforcement of existing regulations for commercial, artisanal, and sports fishing as well as a demonstrated decline in some commercial fisheries, lack of effective surveillance and monitoring, and no evidence of engagement with local communities (apart from with the fishermen entering the Park and Park staff who come from the local communities) indicate a low level of management effectiveness (IUCN, 2017).

► Implementation of Committee decisions and recommendations

Some Concern

Implementation of Committee decisions have been very slow. For example, the Management Plan and associated fishing regulations for the SZMP have not yet been finalized and approved, there is still no clear biodiversity monitoring system for the Property in place, and the Coiba Fund has not been operationalised. However, changes in legislation to ensure no development within the property has been enacted, although regulations on inappropriate coastal development opposite the Property are not in place. The eradication of feral livestock from the island has at last been nearly implemented. Biosecurity and public use plans still remain to be developed and implemented (IUCN, 2017).

► Boundaries

Mostly Effective

If the SZMP is properly managed (which is currently not the case), the boundaries of the property should be sufficient to conserve the property's OUV (IUCN, 2017).

► Sustainable finance

Serious Concern

Current levels of funding are insufficient to implement the management plan.

However, mechanisms including the Coiba Fund, inscribed in law, should improve the situation once the fund is operationalised (IUCN & WHC 2014; IUCN, 2017).

► Staff training and development

Some Concern

Staff require additional training and development to be able to effectively implement the Management Plan (IUCN & WHC, 2014; IUCN, 2017).

► Sustainable use

Serious Concern

Provisions for the sustainable use of the Property for conservation, tourism, and fisheries are covered in the Management Plan and the Sustainable Fisheries Management Plan (for the Park), but these plans are not being implemented plus fisheries for at least one commercial fish (snappers) have been demonstrated to be unsustainable (Vega et al., 2016; IUCN, 2017).

► Education and interpretation programs

Some Concern

An interpretation centre on the island and new interpretive walks for visitors, as well as plans for more interpretation in the new public use plan, are positive. There is no information about educational programmes about the property to the local population on the mainland (IUCN, 2017).

► Tourism and visitation management

Some Concern

Tourism is rising rapidly and a draft public use plan is in development. Currently tourist management (particularly by visiting cruise ships and sport fishermen) needs improvement (IUCN, 2017).

► Monitoring

Some Concern

Monitoring of commercial fisheries within the Park has been undertaken (Vega et al. 2015) but systematic biodiversity monitoring for all of the OUV in the property is still lacking; currently only anecdotal reports on the situation

exist. The monitoring of both fisheries and biodiversity needs improvement (IUCN & WHC, 2014; IUCN, 2017).

► Research

Mostly Effective

The Smithsonian Tropical Research Institute (STRI) and Conservation International have provided support for research activities with respect to the Property, especially in developing the Management Plan. In 2015 the STRI initiated a "BioBlitz" of the property and while the data are still being analysed, many new records for the property including endemics were discovered (STRI, 2015). In 2016 a small research station on the island was under construction, a joint venture between the Panamanian Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT) and the Ibero-American Programme of Science and Technology for Development (IUCN, 2017).

Overall assessment of protection and management

Serious Concern

Despite the World Heritage Committee’s repeated requests for its finalization, a Management Plan for the Special Zone of Marine Protection (SZMP) remains to be completed. The Management Plan for the entire property still needs to be updated and enforced. The on-going absence of a clear management framework for the entire property including implementation of a public use and biosecurity plan, lack of clarity concerning coastal zone development outside the property but within its zone of influence, weakness of law enforcement and slow progress in resolving issues repeatedly underlined by the Committee since the inscription leads to serious concern regarding protection and management of this site.

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

Some Concern

Potential tourism development on the islands to the north of the Property as well as to a lesser extent along the coast adjacent to the Property requires greater clarity, with management tools in place prior to development to

ensure that any development is sustainable and does not have negative impacts on the Property.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **High variety of endemic terrestrial species**
Low Concern
Trend:Stable

The conservation status of the terrestrial species on the islands appear to be stable and should remain so unless there were severe disruptions such as extreme weather events or an introduction of an alien invasive species, possible due to lack of biosecurity plans. It should be noted that despite being listed in the nomination and subsequent documents, the Crested Eagle has never been recorded on the island and should not form part of its OUV (IUCN, 2017).

▶ **High diversity of threatened marine fish and cetaceans**
High Concern
Trend:Deteriorating

While clear monitoring data is unavailable, anecdotal data indicate a decline in marine species, and a study on sustainable commercial fisheries within the Park demonstrate declines in certain species (Vega et al., 2016), which will have a knock-on effect through the tropic levels (IUCN, 2017).

▶ **Endemic corals and threatened turtles**
High Concern
Trend:Deteriorating

Removal of feral livestock from the island which were causing erosion and silting up the reef should have a positive effect on the endemic corals, although some landslips on the island, due to extreme weather events, are still apparent. Some anecdotal reports of turtles being caught in fishing lines

and nets, and even a report of a nest poached on one of the islands have been made. Until fishing (including long-line, sport, commercial and artisanal) is effectively regulated and the Management Plan enforced, it is likely that human activities are having deleterious effects on turtle populations, with trends concerning corals unknown (IUCN, 2017).

► Outstanding natural laboratory for scientific research

High Concern
Trend:Deteriorating

Unsustainable fishing practices, increasing disturbance through tourism both inside and outside the Property, and potential impacts of invasive species will have great impact on ecological processes, both terrestrial and marine, within the Property (IUCN, 2017).

► Key ecological link in the Tropical Eastern Pacific

High Concern
Trend:Deteriorating

The property continues to form a key ecological link in the Tropical Eastern Pacific but unless current fishing practices are not better managed and regulated, this link is in danger of being broken (IUCN, 2017).

Summary of the Values

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

High Concern

Trend: Deteriorating

The current state of World Heritage values is of high concern, mainly due to the effect that unsustainable fishing is having on the marine values of the property. While the imminent removal of livestock from the island is positive, especially in terms of vegetation regrowth, this does not change the concerns about the detrimental effect that fishing is having in the property.

► Assessment of the current state and trend of other important biodiversity values

High Concern

Trend: Deteriorating

The deterioration of biodiversity values associated with other international designations is also of high concern. However, this is in reference to marine values, as the terrestrial values for the most part are intact, including the conservation of species which have largely disappeared from the mainland.

Additional information

Benefits

Understanding Benefits

▶ **Tourism-related income, Provision of jobs**

Park staff are mostly recruited locally, and increased tourism provides additional jobs to service-related industries (IUCN, 2017).

▶ **Importance for research, Contribution to education, Collection of genetic material**

The island is an important "natural laboratory" for species evolution and interactions. Researchers from the International Cooperative Biodiversity Groups Project (ICBG), funded through the National Institutes of Health and the pharmaceutical industry, have collected marine and terrestrial samples for bioprospecting for the last ten years and some active molecules have been identified from the Park (IUCN, 2014; IUCN, 2017).

Construction of a new scientific research station on the island, and increasing number of people stationed on the island.

▶ **Fishing areas and conservation of fish stocks**

By law "artisanal" (which is actually commercial), "subsistence" and sport fishing is allowed in the Park in addition to industrial and spear fishing in the SZMP. Fishing employs local and non-local people, particularly those who

export fish caught inside the Park to the US, even if this practice is unsustainable (Vega et al., 2016).

While fishing is beneficial to people, it is harmful to the property due to lost and snagged fishing lines and nets, bycatch, disturbance and pollution.

▶ **Outdoor recreation and tourism**

Tourism is increasing with national and international visitor numbers increasing 42% from 2014-2015 (with around 17,200 visitors of which international tourists comprise about 78%). This includes recreational diving, beach activities, hiking and nature observation, and recreational and commercial sport fishing. A number of cruise ships also visit the Park on a regular basis (ANAM, 2009; IUCN, 2017),

Increased tourism brings increased risk of invasive species, disturbance and pollution as well as increased development to accomodate the tourists.

Summary of benefits

Conservation is the major benefit of the Property at both international and national level, as well as providing an important nearly pristine area for research and discovery (note that molecules of medical importance have been identified from studies within the Property). Tourism (in particular diving and increasingly nature-watching) and fishing contribute significantly to the local economy, although fishing within the Property has been demonstrated to be unsustainable, thus will not continue to provide benefits in the long term. The main benefit of this protected area should be to act as a refuge for marine life that would then provide benefits in areas beyond the boundaries of the property.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	MiAmbiente and various NGOs		Coiba forms part of the CMAR Marine Conservation and Sustainable Development Corridor of the Eastern Pacific (Galapagos-Cocos-Coiba-Gorgona-Malpelo Islands) and the MiAmbiente partipates in this network through workshops to improve management.
2	Mar Viva, MiAmbiente		MarViva has been very active in strengthening fishermen’s organizations and communities around Coiba and in developing and enforcing the Management Plan. No current projects specifically aimed at Coiba have been identified, but several projects aimed at ensuring that fishing is sustainable will have an impact on Coiba.
3	Natura-ANCON		A rural community tourism in the area of influence of Parque Nacional Coiba-Golf de Chiriquí, and implementation of the tourism program of ARTURIS (Association of Sustainable Rural Tourism) has been completed. It is not known if this project will be continued, although increased capacity-building of the local community to participate in sustainable tourism would be very desirable. One challenge is that many tourists speak English, while the local community does not, thus foreign language courses may be very helpful in helping the local community benefit from the increasing number of foreign tourists.
4	PNUD, STRI, INDICASAT		Promoting the Application of the Protocol of Nagoya on Access to Genetic Resources and Benefit Sharing in Panama. This project was noted in the past and it is not known if it is continuing.
5	UNDP, MiAmbiente	From: 2012 To: 2017	Transversalizando la conservación de la biodiversidad en la operación de los sectores de turismo y pesca en los archipielagos de Panamá.

№	Organization/ individuals	Project duration	Brief description of Active Projects
6	STRI; International League of Conservation Photographers (iLCP)		A BioBlitz took place on Coiba in 2015 and the data are still being worked up.

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