

United Nations Educational, Scientific and Cultural Organization

> Organisation des Nations Unies pour l'éducation, la science et la culture

# World Heritage Patrimoine mondial

**41 COM** 

Paris, June 2017 Original: English

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

ORGANISATION DES NATIONS UNIES
POUR L'EDUCATION, LA SCIENCE ET LA CULTURE

CONVENTION CONCERNING THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE

CONVENTION CONCERNANT LA PROTECTION DU PATRIMOINE MONDIAL, CULTUREL ET NATUREL

WORLD HERITAGE COMMITTEE / COMITE DU PATRIMOINE MONDIAL

Forty-first session / Quarante-et-unième session

Krakow, Poland / Cracovie, Pologne 2-12 July 2017 / 2-12 juillet 2017

<u>Item 7 of the Provisional Agenda</u>: State of conservation of properties inscribed on the World Heritage List and/or on the List of World Heritage in Danger

<u>Point 7 de l'Ordre du jour provisoire</u>: Etat de conservation de biens inscrits sur la Liste du patrimoine mondial et/ou sur la Liste du patrimoine mondial en péril

MISSION REPORT / RAPPORT DE MISSION

Coiba National Park and its Special Zone of Marine Protection (Panama) (N1138) Parc national de Coiba et sa zone spéciale de protection marine (Panama) (N1138)

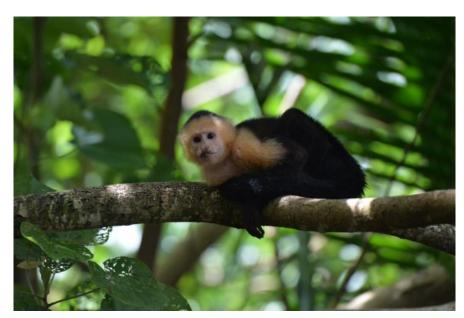
28 November - 3 December 2016

# **MISSION REPORT**

# Coiba National Park and its Special Zone of Marine Protection (Panama) (N1138)

28 November – 3 December, 2016





Wendy Strahm (IUCN)

#### **ACKNOWLEDGEMENTS**

The mission wishes to thank the Government of Panama and the Ministry of the Environment, and in particular the new Head of Protected Areas Ms Antonella Finis and her team, for organising the agenda, transport to Coiba Island, facilitating the many meetings with a wide range of stakeholders during the five day mission, and very rapid responses to the many questions following the mission. Thanks also to Mr Flavio Méndez, Ambassador of the Permanent Delegation of the Republic of Panama to UNESCO, who accompanied the mission throughout its visit. I am also very grateful to so many people in Panama who sincerely wish to see Coiba well conserved, and who spent much time providing helpful additional information. Finally the team involved in eliminating the feral livestock on Coiba Island deserve special recognition as they undertook an important job under very difficult conditions.

#### **ACRONYMS**

ARAP Authority for Aquatic Resources of Panama

CI Conservation International

CMAR Eastern Tropical Pacific Marine Corridor

CYTED The Ibero-American Programme of Science and Technology for Development

EIA Environmental Impact Assessment FIDECO Ecological Trust Fund of Panama

IUCN International Union for the Conservation of Nature

MiAmbiente Ministry of the Environment

MEF Ministry of Economy and Finance

MIDA Ministry of Agricultural Development

OUV Outstanding Universal Value

SENAN National Air and Naval Service of Panama

SENAFRONT Panama National Border Service

SENACYT National Secretariat of Science, Technology and Innovation

SINAP National System of Protected Areas
SOUV Statement of Outstanding Universal Value

SZMP Special Zone of Marine Protection

UNESCO United Nations Educational, Scientific and Cultural Organization

WH World Heritage

WHC World Heritage Centre

Photos on front cover (photo credits W. Strahm/IUCN):

- 1. A view from the beach at Gambute, Coiba National Park.
- 2. A White-faced Capuchin on Coiba (Cebus capucinus imitator)

#### **EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS**

The property, composed of the core area of Coiba National Park and the Special Zone of Marine Protection (SZMP), is considered to be of Outstanding Universal Value (OUV) under criteria (ix) and (x), and was inscribed on the World Heritage list in 2005.

Since the inscription, the focus of the Committee's decisions have been on issues connected with managing fishing within the property, removing feral livestock from the main island, ensuring that development both within and outside the property does not impact the OUV of the property, minimizing the impact of the naval base on the property, and ensuring that a financing mechanism for the property, the "Coiba Fund", is operational. In 2014 the State Party invited a reactive monitoring mission to consider the state of conservation of the property as a whole, and this mission produced 10 recommendations. The World Heritage Committee (Decision 40 COM 7B.76) then requested the State Party to invite a second reactive monitoring mission to evaluate the impacts of unregulated fishing, assess progress with the implementation of the 2014 mission recommendations, and to provide technical advice to the State Party. The mission took place from November 28 – 3 December 3, 2016.

The mission concludes that the State Party should be commended on the progress made on removing feral livestock from the main island, and in enacting legislation to ensure that no development (apart from low-impact infrastructure for ecotourism and scientific research) may occur within the property. The development of infrastructure outside of the property that could impact its OUV will continue to require surveillance, although no immediate threat was apparent. In terms of increasing tourism, the development of the Public Use Plan which will include estimates of carrying capacity and biosecurity measures for both tourists landing on the island as well as Park, naval and police personnel urgently needs to be finalised. Progress is also being made on operationalising the Coiba Fund and this too needs finalisation.

However, the biggest conservation issue for the property is management of fishing, both within the core area of Coiba National Park as well as in the SZMP. This includes managing subsistence fishing, sport fishing, "artisanal" fishing (which despite the national legislation may be undertaken for commercial purposes), and, as regards the SZMP, industrial fishing. It is clear that fishing, despite being regulated within the core area of the National Park, although virtually unregulated in the SZMP, is having a detrimental effect on the OUV of the property. Although there is a one mile no-take zone around the islands within the National Park, this is not always enforced plus there are other important fish reproduction sites within the Park that are not under protection. Reports from divers and fishermen note reduction over the past 10 years of fish stocks including several species of sharks. A recent study (Vega *et al.* 2016) has shown that some commercial fisheries within the Park are unsustainable, with a particular problem concerning foreign demand for "plate-sized snappers", i.e. fish that are caught before reaching reproductive age. Sport fishing is also allowed within the Park, and sport and spear fishing in the SZMP, posing clear conflict with development of ecotourism plans for the property. The amount of sea cucumbers, conch, lobster and octopus is reported to be extremely low within the Park, and illegal nets and lines from local subsistence and "artisanal" fishermen cause damage to the marine values of the property which constitute its OUV.

It is noted that Coiba forms part of the "Marine Conservation Corridor of the Eastern Tropical Pacific Seascape". The other three World Heritage properties which form part of this network, Malpelo Fauna and Flora Sanctuary (Colombia), Cocos Island National Park (Costa Rica) and Galapagos Islands (Ecuador), have strict fishing regulations which could be applied in Coiba, particularly on its SZMP. For example fishing is entirely prohibited in Malpelo, fishing (apart from subsistence) is now prohibited in 30% of Galapagos, and Cocos Island has a large no fishing zone relative to the size of the property plus prohibits sport fishing within the property.

Of the 10 recommendations made in 2014, recommendations 1 (removal of livestock), 2 (operationalise the Coiba Fund), 4 (not permit coastal development within the boundaries of the property and control coastal development in areas that could impact the property), 5 (extend the Park's Management Plan), 9 (strengthen the Executive Council), and in part 10 (development of a tourist strategy) have been implemented or are well on their way. While they still require completion or ongoing surveillance, there has been progress made on all these issues.

The remaining 4 recommendations all relate to fishing (3, 6, 7, and 8), and while there has been some progress on attempting to address these issues, it has been largely insufficient. Although a sustainable fisheries management plan has been in force for the National Park since June 2013, this plan has not been properly enforced due to insufficient resources as well as the fact that enforcement of some aspects (such as snagged fishing lines and nets) is virtually impossible. A solution could be to carry out a temporary closure of fishing within the National Park to allow recovery. While politically this would pose challenges, unless fishing can be properly managed, it may be the only way to resolve the situation. In the SZMP there are still no fishing regulations in place although a draft plan is being prepared. However, draft plans to allow the current spear fishing in the SZMP as well as industrial tuna long-line fishing boats (albeit with regulations on number and types of hooks and just for two months of the year) are incompatible with the conservation of the OUV of the property. The following recommendations, based on those made in 2014 and starting with the most urgent, are proposed with clear timelines for implementation:

- 1. Enforce and adapt the Sustainable Use Fisheries Management Plan for the National Park to ensure that any fisheries within the Coiba National Park are sustainable and not having negative impacts on the property's OUV (end of 2017).
- 2. Develop a permanent monitoring mechanism in the property to assess progress and demonstrate management effectiveness of the marine area, including indicators at key sites (i.e. damage by fishing lines, observations of numbers of indicator species) (end of 2017).
- 3. Approve and implement the management plan for the SZMP, aligning it with that in force for the Coiba National Park and noting that industrial long-line tuna fishing and spear fishing are not compatible with World Heritage status (end of 2017).
- 4. If implementation of other measures does not show results by the end of 2018, consider putting in place a temporary moratorium on all fishing within the National Park.
- 5. Ensure that any development proposed in the Public Use Plan actually improves rather than detracts from the existing infrastructure already present on the island, that a reasonable tourist carrying capacity is enforced, and that a biosecurity plan with mechanisms to deal with any accidental introductions caused by increased numbers of tourists, scientists, and staff from the Park and naval base is implemented (end of 2017).
- 6. Ensure that the Coiba Fund becomes fully operational and is used on the ground to improve management effectiveness in the Park, i.e. increasing and improving the capacity of the rangers responsible for implementing the Management Plan, with clear focus on achieving management objectives, rather than on building new tourism infrastructure or hosting meetings (end of 2017).
- 7. Ensure that the last remaining feral livestock have been eradicated from the island (end of 2017).
- 8. Continue to ensure that no coastal or interior development, apart from that allowed in the Management Plan and approved by the Executive Council, is permitted within the Park.
- 9. Monitor any development outside the property which could potentially have negative impacts on the OUV of the property, and ensure that it is appropriately managed, or else not allowed.
- 10. Continue to hold timely and inclusive meetings of the Executive Council of the Coiba National Park which should closely monitor progress on these recommendations.

While the property continues to face important challenges for its long-term conservation and there are strong indications that the state of conservation of its marine values which constitute its OUV is in decline, the State Party is fully cognizant of these issues and is working hard on improving matters. The mission therefore does not consider that the level of threats to the property warrants the property being placed on the List of World Heritage in Danger at this point in time. However, fishing has been an issue ever since the property was inscribed on the World Heritage List over a decade ago. If this issue cannot be resolved in a manner that will ensure the long-term conservation of the marine OUV in the property by the end of 2018, then consideration should be undertaken for including the property on the List of World Heritage in Danger by the World Heritage Committee at its subsequent Session.

#### 1. BACKGROUND TO THE MISSION

Coiba National Park was initially nominated to be inscribed on the World Heritage List in 2004, but the decision was deferred until the boundaries of the site were substantially expanded to provide greater coverage of the key marine and coastal areas of the Gulf of Chiriquí in order to express its OUV, and that this area was protected under national law. This being done, the Coiba National Park and its Special Zone of Marine Protection (SZMP) was inscribed on the World Heritage List in 2005 under then natural criteria (ii) and (iv), corresponding to the current criteria (ix) and (x) respectively.

A retrospective Statement of Outstanding Universal Value (SOUV) for the property was adopted in 2014 (Annex 1), although this as well as the WHC website needs revision, as it contains some inaccuracies, such as the statement that "Coiba Island also serves as the last refuge for a number of threatened species that have largely disappeared from the rest of Panama, such as the Crested Eagle and the Scarlet Macaw" (which was copied from the original nomination and Decision 29 COM 8B.13 of 2005). The Crested Eagle does not occur on Coiba and is therefore not part of its OUV. There was probably confusion with the Ornate Hawk-Eagle which does occur on the island (G. Angehr, pers. comm.). However, Coiba is not a last refuge for either of these species, even if the population of Scarlet Macaw on Coiba is important for Panama (whereas the Ornate Hawk-Eagle remains well distributed on the mainland of Panama, mainly in remoter areas). More unique features for the island include the endemic Coiba Spinetail and 19 endemic subspecies of birds as well as the endemic Coiba Agouti, endemic subspecies of Coiba Howler Monkey, and new species discovered in the recent "BioBlitz" of the island, highlighting how important this area is globally. Therefore, a minor recommendation from the mission is that the SOUV be corrected.

At the time of inscription in 2005, the State Party was requested to consider options to expedite the preparation, adoption and further implementation of the revised management plan for the property, and to very carefully control and monitor fisheries management.

In 2009 the State Party was requested to finalize the management plan for the Special Zone of Marine Protection (SZMP) of the property and to ensure its effective implementation including careful management of commercial fisheries with a clear fisheries monitoring system. There was also a request to remove feral livestock on the property, and concern over potential coastal development opposite the property and the need to develop and implement a coastal zone development and conservation policy (Decision 33 COM 7B.38).

In 2011 and 2012 the State Party was requested again to finalize the management plan for the Special Zone of Marine Protection of the property and to undertake an independent Management Effectiveness Evaluation in order to inform the effective implementation of the management plans and fishing regulations for both Coiba National Park and its Special Zone of Marine Protection. The State Party was also requested again to develop and implement a coastal zone development and conservation policy in order to ensure that cumulative development impacts on the property's Outstanding Universal Value were effectively addressed. Finally it was noted that an International Assistance Request for the removal of wild cattle from Coiba Island had been submitted in 2010 but the State Party needed to re-submit a revised request in line with the recommendations made by the World Heritage Centre and IUCN (Decision 35 COM 7B.33). Since the State Party did not submit a report on the state of conservation of the property, these requests were repeated in 2012 (Decision 36 COM 7B.33).

In 2013 the above requests were repeated once again; additionally, the World Heritage Committee requested the State Party to implement a set of necessary measures to minimize the impacts from the naval base and to invite a World Heritage Centre/IUCN reactive monitoring mission to consider the state of conservation of the property as a whole, including in regards to impacts from the development of a naval base, and to advise on the development of a management plan and on coastal policy development issues (Decision 37 COM 7B.31).

In 2014 a reactive monitoring mission was undertaken from 12-17 January 2014 and a report with 10 recommendations was produced. At its subsequent Session the World Heritage Committee welcomed progress on the removal of feral livestock, asking that these be removed by end 2014, and also welcomed progress on developing and implementing biosafety measures for the naval base on the island. However, it recognised that there were negative impact of fisheries on the OUV of the property, in particular illegal and sport fisheries, and continued to urge the State Party to complete and implement the management plan for the SZMP, which should include regulations on no-take zones and seasonal closures of critical areas such as

Hannibal Bank, Montuosa Island and Uva Island. The State Party was also requested to ensure that no development would be permitted within the boundaries of the property, and that cumulative and combined impacts on the property's OUV caused by mainland developments were effectively addressed. Finally, the State Party was urged to ensure that the Coiba Fund, as outlined in law, became fully operational at the earliest time possible, and that the Executive Council, the decision-making power of the property, was strengthened by including representatives from the tourist sector and from the local communities from the coastal areas opposite the property (Decision 38 COM 7B.84).

In 2016 the feral livestock were still not removed from the property although the State Party had received a resolution authorizing their removal. However, the World Heritage Committee was concerned that no significant process had been made in implementing a number of key Committee requests, mainly concerning (1) regulations to ensure that no coastal development is permitted within the boundaries of the property, and that cumulative impacts on the property's OUV caused by developments on the mainland are effectively addressed; (2) fisheries management, requiring the completion, implementation and enforcement of the management plan for the Special Zone of Marine Protection (SZMP); and (3) the fact that the Coiba Fund was not yet operational, nor were the decision-making powers of the Executive Council strengthened by including representatives from the tourism sector and the local communities from the coastal areas opposite the property. An IUCN Reactive Monitoring mission was requested to evaluate the impacts of unregulated fishing, assess progress with the implementation of the 2014 mission recommendations and provide technical advice regarding the urgent implementation of the outstanding recommendations in the context of the new institutional framework (Decision 40 COM 7B.76, Annex 2). The State Party was further requested to provide an updated report on the state of conservation of the property and the implementation of the above recommendations by February 2017. The terms of reference for this mission, itinerary, composition of the mission team and list of people met are provided in Annexes 2-5 to this report.

#### 2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY

# 2.1 Legislation and institutional framework

A new Ministry of Environment (MiAmbiente) was created by Law 8 of March 25, 2015 which has replaced the National Environmental Authority (ANAM) as the governing body for environmental protection and sustainable use of natural resources. The MiAmbiente is responsible for the Office of Protected Areas and Wildlife, which is responsible for Coiba National Park. Law 8 of March 2015 also modified provisions concerning the Law 44 of November 2006 that created the Authority for Aquatic Resources of Panama (ARAP), and outlined how the MiAmbiente should work in concertation with ARAP concerning fisheries regulations. ARAP is the state body that ensures compliance with and enforcement of laws and regulations on coastal marine resources, aquaculture, fishing and related activities. In particular, for environmental management the MiAmbiente is responsible for establishing and managing special areas of coastal management, developing conservation plans for marine resources and monitoring their compliance, but without prejudice to the fishery regulation and aquaculture that is the responsibility of ARAP. ARAP is responsible for developing and approving aquatic resources management plans, taking into account existing conservation plans. The law states that the MiAmbiente together with ARAP will ensure that the conservation of the aquatic resources of Panama will be based on fishery regulation systems aimed at the sustainable use of these resources.

Coiba National Park was created by Resolution No. 021 (1991) of ANAM, but the key legislation for Coiba and the SZMP is Law 44 of July 26, 2004 which protects the entire area at national level, although the Park has different regulations than the SZMP. This law ensures that artisanal fishing inside the Park be allowed, but managed through permits, zoning, fishing seasons, etc. outlined in the Management Plan to ensure sustainability of the resource. It also allows low-impact tourism. The law prohibits human occupation in the Park (apart from Park administration and any scientific studies and ecotourism approved in the Management Plan), private property, and construction of high-impact infrastructure. Low-impact infrastructure for scientific studies and eco-tourism is only allowed through the Management Plan.

The law also creates the limits of the SZMP, noting that in this zone it is prohibited to use purse seines for tuna fishing, and at all times any fishing gear that affects marine species such as billfish, dolphins, cetaceans, turtles and others. It created a Commission for Sustainable Fisheries Management to develop regulations for fishing in the SZMP (see 2.2). This law also established the Coiba Fund, defining how funds raised through entrance fees, scientific fees, fines and other sources of income should be distributed, with 78% going for Park management,

16% to three neighbouring Municipalities, and 2% to the University of Panama at Veraguas to develop biodiversity studies in the Park.

#### 2.2 Management structure

The National Park and SZMP is managed operationally by the MiAmbiente in accordance with the Management Plan, which is established by the Executive Council, supported by a Scientific Commission, and the Commission for Sustainable Fisheries Management which develops the regulation for the SZMP.

The Executive Council is presided by MiAmbiente and composed of 12 members, including ARAP, Ministry of Justice, Panamanian Institute of Tourism, 3 mayors from neighbouring municipalities, the National Secretariat of Science, Technology and Innovation, the University of Panama, the Chamber of Commerce of Veraguas, a representative of artisanal, sport, industrial and exporting fishing, and a representative of NGOs. The Council has the right to invite other participants. Its main functions are to approve the Management Plan, approve functions and monitor compliance, establish policies for conservation and sustainable use, and evaluate and approve regulations and policies proposed by the Sustainable Fisheries Commission for the SZMP. The Council also approves plans for scientific research, ecotourism and environmental education.

The Scientific Commission is composed of representatives from MiAmbiente, ARAP, the National Secretariat of Science, Technology and innovation, the University of Panama at Veraguas, the Smithsonian Tropical Research Institute and members of NGOs designated by the Executive Council. This Commission makes recommendations to the Executive Council for the Management Plan, provides technical advice, assesses research to be undertaken in the Park and proposes research, and develops a five-year research plan for the Management Plan.

The Sustainable Fisheries Management Commission for the SZMP is presided by ARAP, and is composed of 11 members from MiAmbiente, the National Secretariat of Science, Technology and Innovation, the University of Panama at Veraguas, the Smithsonian Tropical Research Institute, 1 representative from sport fishing and commercial fishing associations, 2 representatives from artisanal fishing associations from the provinces of Chiriquí and Véraguas, and 1 representative for NGOs. Its main function is to develop regulations on extractive activities in the SZMP and policies of conservation and sustainable use to be incorporated in the Management Plan.

The Management Plan for the Park was approved in 2009 but applies to Coiba National Park and not to the SZMP. It expired in 2014 and was extended for five years to 2019 (Resolution No. AG 0153-2014). Work has begun on updating it. In 2013 a Sustainable Fishing Plan (for the Park) was approved but according to a recent study in 2016 (Vega *et al.* 2016), there are some issues with its implementation. There have been a number of set-backs in the Sustainable Fisheries Commission responsible for developing regulations for the SZMP which should be integrated in the Management Plan for the property. A draft plan for the SZMP is being developed and the mission was told that the draft will be presented in March 2017.

# 2.3 Response to the recognition of values under international treaties and programmes

Coiba NP is part of a regional protection system known as the "Marine Conservation Corridor of the Eastern Tropical Pacific Seascape" (CMAR). This international marine corridor covers 211 million hectares, encompasses five National Parks and includes the Islas Malpelo and Gorgona (Colombia), The Galapagos Islands (Ecuador) and the Cocos Islands (Costa Rica). This international marine conservation corridor provides connection between ecosystems and supports the migration of a significant variety of species from one habitat to another and provides protection for species such as marine birds, whales, turtles, sharks, tuna, and others.

It should also be noted that an area of 80,765 ha on the mainland of Panama opposite the property, the Gulf of Montijo in Veraguas Province, is classified as a Ramsar wetland of international importance. This Ramsar site protects the coastline and mangroves in the Gulf of Montijo from Puerto Mutis, one of the access points to the property (see map in Annex 6).

# 3. IDENTIFICATION AND ASSESSMENT OF ISSUES / THREATS

# 3.1 Management effectiveness

#### 3.1.a. Terrestrial

The property, composed of the main island of Coiba which is the largest in Central America Pacific covering 50,300 ha, also includes 38 smaller islands, islets and rocky promontories which altogether cover 53,700 ha. The area is protected by its relative inaccessibility and the fact that until recently the main island of Coiba housed a prison, making it off-limits to the local population. The prison was finally completely evacuated in 2004, and the main prison area is now used by a small satellite naval base with a partially completed jetty, housing up to 12 naval personnel and police. Areas that were cultivated by the prison for agriculture and livestock are rapidly being overgrown with native vegetation. There have been remarkably few introductions of exotic species, and it is believed that the domestic cats and dogs previously present at the penal colony have not become feral. The feral livestock are also on the decline. There are no records of rats, mice or other exotic rodents on the island.

The Park headquarters at Gambute in the northern part of the island includes living accommodation for 10 rangers who work in shifts (5 on the island, 5 off), a few modest bungalows which are used for scientific and tourist accommodation, and a non-functional jetty. Almost all tourist activity on the island occurs here and at the prison, and the island is zoned according to the Management Plan. Several hiking trails have been developed on the main island for tourists and are in reasonably good shape, considering the difficulty of maintaining infrastructure in the wet tropics. The native flora and fauna appears to be in good shape and even improving, not really due to management but rather neglect. The mission was only able to visit the main island of Coiba but observed a number of smaller islands by sea, and these appear for the most part to be untouched, although several appear to be smothered by lianas (as well as certain sites on the main island). However, despite some concern that this could be due to invasive species such as kudzu, the colonisation is by native lianas and is a natural process (A. Ibañez, pers. comm.). Kudzu, only observed in small patches in a few places, was said not to be a problem, although perhaps removal of this species while it is still rare would be wise.

The island of Ranchería close to Coiba has several buildings (with apparently several watchmen living in them), a landing strip and some junk on the beach which has not been touched as the ownership of the island is under litigation. However, Law 44 of July 26, 2004 prohibits human occupation in the Park apart from Park administration and any scientific studies and ecotourism approved in the Management Plan, as well as private property. However, it appears that some people are still trying to sell the island despite not having legal title (see http://www.privateislandsonline.com/islands/isla-rancheria: if this website is removed a screenshot is available). Likewise there have been similar issues with the island of Montuosa in the SZMP. However, in 2008 the island of Montuosa was declared a wildlife refuge and registered as such in the land tenure record so that the island could not be "colonised" and then sold. We also observed a house on Isla Canales de Afuera that is used by rangers as a patrol base. However, this house has been vandalised by local people (even to the point that they stole the water pipes), indicating how difficult it is to patrol this property with a very limited number of rangers.

The only terrestrial management observed was developing some trails, managing tourists who land at Gambute and the old penitentiary, and the eradication programme for feral livestock. There is an urgent need to ensure that biosecurity measures are in place, particularly with the construction of a new scientific research station near Gambute (see section 3.3) and potential development of increased tourism infrastructure including rebuilding the jetty at Gambute and possibly at the naval base. If one or both of these jetties became operational they would provide easier access to potentially invasive species, plus an increased influx of tourists runs the risk of introducing invasive species.

While the mission report of 2014 reported plans to facilitate access to tourism destinations in areas opposite the property, it is difficult to imagine tourism development on the mainland opposite the property as the area is very remote. In addition, it is illegal to build where there are mangroves, and the MiAmbiente assured us that if there was a project in a mangrove area they would reject it. The mayors of the municipalities also stated that they were not interested in developing the coast. Note that since there are very large tides in the area (up to 5.5 metres), building marinas and/or ports would be expensive, making development along this part of the coast unlikely.

In 2013 there was an issue concerning coastal development in the islands to the north of property, included the Contreras islands (within the Park) as a cabinet decree (19 of August 13, 2013) designated this area as a "special development zone". However, Law 44 of 2004 expressly prohibits any development within the Park apart from that pertaining to scientific research and low-impact ecotourism accepted in the Management Plan. An amended cabinet decree removing the Contreras Islands from this development plan was passed in 2016 (23 of 7 June, 2016). Currently, the only construction in progress on the island is of a small scientific research station near Gambute, although there are plans to develop ecotourism on the island that will mean modifying the infrastructure at Gambute (see section 3.2). It therefore appears that coastal development within the Park is not an issue, and if there is coastal development on the islands to the north of the Park, the impact on the Park would probably be limited to an increase in day visitors to the northern end of the Park, which would need to be managed.

The management programme to eradicate feral livestock (cattle, horses, and buffalo) on the island has been very successful although there still remain some livestock on the island, but massively reduced from what was previously present. This is probably due to two things. First, the MiAmbiente finally received authorisation to undertake an eradication programme in early 2016 (resolution No. DM-055-2016, 12 February 2016). Following this a group of sharp shooters from SENAN, SENAFRONT, MEF, MIDA, General Comptroller of the Republic and MiAmbiente undertook a reconnaissance tour and three operational field visits during the wet season from August to October, killing a few animals, and plan to return during the dry season to finish the eradication. At the same time, the number of feral livestock seems to have been greatly reduced in numbers, probably because the old pastures where they grazed have now been taken over by bush and there were not enough animals to keep the pastures open. There is also another hypothesis that El Niño killed the grass in the pastures resulting in high feral livestock mortality. Whatever the cause, there was no sign of feral livestock during our visit nor were feral livestock captured on camera traps during the "BioBlitz" (P. Jansen & R. Moreno, pers. comm.). The MiAmbiente deserve credit for responding to the World Heritage Committee's request for action; however, it will need to be confirmed that feral livestock are totally eradicated from the island to conclude that this issue has been fully resolved.

As in many protected areas, the property is significantly under-resourced, despite a funding mechanism (the Coiba Fund) inscribed in the Law 44 of 2004 (see section 3.3).

# 3.1.b. Marine

Management of the marine portion, the largest part of the property, is far more complex and problematic and needs to be divided between the current regulations in force for the National Park, and those in force for the SZMP.

#### **Coiba National Park**

For the National Park, Law 44 of 2004 expressly states that "artisanal" fishing (defined as "fishing normally close to the coast, using small boats up to 30 feet long with traditional fishing gear and low-power 55hp motors)" should be allowed within the Park, under regulation. The law also defines "sport fishing" and "subsistence fishing" (non-commercial fishing with the unique goal to obtain fish for direct consumption by the fisherman and his family). A "plan for sustainable fishing use" within the Park (not including the SZMP) was adopted in June 2013 and outlines a very comprehensive agenda of regulations including zoning, licenses, and fishing seasons, particularly aimed at certain species of commercially important fish. It also regulates recreational and commercial sport fishing. In theory, if this fishing management plan was completely implemented and adhered to, fishing within the Park should be sustainable.

Unfortunately, the rules outlined in the plan are not always enforced, largely due to lack of resources and the large area requiring surveillance. In a study on the "Artisanal fishing in the National Park and its zone of influence" (Vega *et al.* 2016) the conclusions concerning the sustainability of fishing for several groups of commercial species were negative. For example, the report notes that for snappers, the fishery inside the Park and within its zone of influence is seriously threatened. This seems to be largely due to the demand for "plate-sized snappers", meaning that these species are fished before they reach reproductive age.

One issue is that "artisanal" fishing appears to also be used for commercial purposes, but using small boats with low technology. The fishing plan identifies that 47 fishing licenses for this type of fishing can be given, and the mission was informed that the number of licenses is now reduced to just 13, either due to infractions or because they didn't enter the Park for a year. But even with so few boats being allowed to fish in the Park, the

divers and sport fishermen say that the resource is being depleted, in their view by both legal and illegal fishermen. The mission spoke to two crews of legal fishing boats who said that they work for the boat's owner and make 2 fishing trips of about 8 days each into the Park twice a month where they catch up to 2,000 pounds of fish that are put on ice, and then immediately exported to the US once the fish are brought to port. Despite using low technology, according to the above-mentioned 2016 study this is not sustainable. In addition, these fishermen (as well as presumably the subsistence fishermen for which there is no data) leave nets and lines when they get snagged on rocks and are also reported to produce quite a bit of garbage (plastic bags and empty containers of engine-oil dumped overboard), use two-stroke engines (which are much dirtier than four-strokes) and fish in no-take zones (over the reefs). At this time the Park, with its limited number of rangers, is unable to control this, thus the rules in the sustainable fishing management plan need to be reviewed. Currently it seems unlikely that the sustainable fishing plan, however well formulated, will result in solving the problem unless there was complete enforcement of the plan, requiring a quantum change in management effectiveness. In addition, it should be noted that the Park earns very little revenue (\$10/boat/year for the "artisanal" fishing boats which also appear to be used for commercial purposes, and nothing from the subsistence boats) for fishing within the Park.

Commercial and recreational sport fishing (although not spear fishing) is allowed within the Park and taxed according to the fishing plan at an annual cost of \$50/captain, \$50/sailor and \$100/fisher (recreational sport fishing is taxed at a similar rate but just \$50/fisher). There are limits to the maximum number of sport fishing boats allowed within the Park (3,600/year with a maximum of 15/day) and the amount of fish that they are allowed to keep. It is said that the sport fishing is not harmful as they mostly practice "catch-and-release". However, it has also been reported that the sport fishers do not always follow the rules laid out in the fishing plan.

Having sport fishing inside a National Park and World Heritage Sites poses some problem with the development of the greater "ecotourism" plan. The draft Public Use Plan includes sport fishing as an activity undertaken in the Park along with other activities such as swimming, snorkelling, diving, hiking, observing nature (birds, monkeys, etc.) and whale watching. Most of these activities are compatible although if "ecotourism" is to be developed, the majority of eco-tourists who are targeted do not in general want to see sport fishing boats hunting large fish, even if in theory due to "catch-and-release" the animals are not being killed (which is debatable, because even if a fish swims away after it is released, it doesn't mean that it will survive the encounter). This has serious conservation implications because some fragile species might need to be managed separately. During our visit during the non-tourist season there was very little activity, although there was one recreational sport fishing boat present playing loud music. If sport fishing remains to be allowed in the Park, the model should be considered, with fees for being allowed to fish within the property significantly raised. A way to separate the sport fishermen from those engaged in the "ecotourist" activities listed above should also be devised. In addition, water-skiing and jet-ski (and to a lesser extent kayaking) are not compatible with these ecotourist activities. It is recommended that the first two activities not be allowed, and kayaking regulated in the public use plan.

The fees from sport fishing as well as from sport diving operations are all supposed to go to the Coiba Fund, which is already by law supporting neighbouring communities as well as the Park. If commercial and recreational sport fishing is continued to be allowed in the property, possibly the Coiba Fund could also be used to compensate the artisanal and subsistence fishermen who are currently causing damage to the Park through overfishing, waste and pollution. While practically a scheme like this would be difficult to manage as the fishermen requiring compensation would need to be identified, since they are all registered with local fishing cooperatives, this should not be impossible. The amount of money that the fishermen are earning in comparison to what is being paid by wealthy sport fishermen and divers also needs to be taken into consideration, because the work that these fishermen are doing is extremely poorly paid, and in some cases the fishermen said that they actually lose money when going on a fishing trip. The fishermen also expressed a desire that their children not also become fishermen as their job is so harsh and demanding. Ideally people previously dependent on fishing should be re-trained for other livelihoods including those related to the increasing tourist sector needs.

However, there would also be the loss of profit that the owners of these fishing boats are making by exporting the fish to the US, which is probably the greatest obstacle to changing the rules. However, the negative effects that both commercial and sport fishing are having within the Park at this point in time means that unless the

sustainable fisheries management plan can be implemented, the OUV of the property is under serious threat due to unsustainable fisheries, and with turtles and sharks getting tangled in lost nets and fishing lines.

# **Special Zone of Marine Protection**

While the management of fishing inside the Park is not ideal, at least there are regulations and some degree of enforcement. On the other hand, the SZMP, a large area of open ocean on the seaward side of the Park containing the important Hannibal Bank and Isla Montuosa, still has little regulation. While nation-wide legislation promoting sustainable fishing in Panamanian waters includes bans for example on using purse-seine nets or shark-finning, Law 44 of 2004 provides additional protection in prohibiting within the SZMP any fishing gear that affects marine species such as billfish, dolphins, cetaceans, turtles and others. However, ongoing absence of regulations ("ordenamiento") impedes full implementation of the Law. Such regulations, namely a "Sustainable Fisheries Management Plan and Regulations on Public Use for the SZMP", which has been requested since inscription of the property in 2005, was presented to the mission by ARAP, although without a clear deadline on when it would be put into force. The mission was told that the draft would be presented in March 2017. This plan will regulate extractive use in the SZMP as well as diving and cetacean-watching activities.

The plan is to zone the SZMP in a somewhat similar manner to that of the Park, creating 5 different zones with different regulations. There would be no-take zones around the Hannibal Bank and Isla Montuosa (already in force but not enforced), although it seems that spear fishing would still be allowed, apart from in a very small area on top of the Hannibal Bank and in the no-take zone around Isla Montuosa (note that spear fishing is not allowed at all in the National Park). In addition, industrial long-line tuna fishing with restrictions on number and types of hooks would be allowed within all of the SZMP including the Hannibal Bank but excluding the notake zone around Isla Montuosa for two months from March to April. The argument for allowing industrial tuna long-line fishing for 2 months of the year in this area is because tuna are migratory, so fishing at this time will not affect the OUV of the property.

To enforce the regulations all boats using the zone (industrial and "artisanal" boats as well as sport fishers) will be required to have a permit (issued on a first-come, first-serve basis) and they will have to be equipped with satellite trackers. In this way a Satellite Vessel Monitoring System, similar to that in operation in the Galapagos, will be able to monitor boats both inside and outside the property and take action as necessary.

While it is positive that at last a draft plan is being discussed with all stakeholders (the mission was told that in previous attempts the fishermen wouldn't even come to the table), there needs to be a firm deadline on when the plan is put into force, and also serious discussion about what can and cannot be allowed within a World Heritage site, so as not to set precedents. For example, commercial fishing for foreign export is not allowed in the other marine WH properties in the region, and certainly not industrial tuna long-line fishing. The same discussion about sport fishing discussed in the National Park above (as well as allowing spear fishing) applies to the SZMP, as this forms an integral part of the WH property. In addition, Park rangers currently only very rarely patrol the SZMP up to Isla Montuosa as it is a long way from Gambute and they are not equipped. For this plan to work, there needs to be mechanisms in place so that the area can be controlled, with presumably help from the navy and coast guard which patrol the area. It also needs approval by the Executive Council that manages the WH property.

It is urgent that rules and regulations informed by science-based environmental impact assessments be agreed upon and implemented for the entire property, not just the National Park. However, it is difficult to see how allowing industrial, long-line tuna ships inside a World Heritage site, even if only for two months, as well as spear fishing, can be regulated to a sufficient degree to ensure that these activities do not cause any impacts on the OUV of the property. Unless it can be shown to the contrary, allowing industrial long-line tuna ships and spear fishing, in particular over sensitive areas such as the Hannibal Bank, is not acceptable. The mechanisms to enforce the Management Plan for both the SZMP as well as the National Park is of utmost importance, given the many logistical challenges.

# 3.2 Nature and extent of threats to the property, taking into consideration the natural values for which the property was inscribed and specific issues outlined by the World Heritage Committee

#### 3.2.a. Fishing activity

Coiba is Panama's largest marine protected area and its only marine World Heritage Site, forming an essential link in the regional protection system known as the "Marine Conservation Corridor of the Eastern Tropical Pacific Seascape". As noted as well in the 2014 mission report, the greatest threat to the OUV of the property is through fishing activities which are either unsustainable, or which cause prejudice to threatened species though lost nets, pollution, capture and disturbance. These problems could be greatly improved if fishing was not allowed within the property, although this would be understandably difficult politically, plus resource extraction is permitted in World Heritage sites if it is sustainable. However, as the evidence is pointing to increasingly unsustainable use within the property, an option to suspend fishing activities until the rules and regulations can be finalised, implemented and enforced, would be one solution. It is of utmost urgency that the management plan for the SZMP is finalised and implemented, following the practices already on paper for the National Park, as the SZMP is an integral part of the World Heritage property. The OUV of the property includes threatened species of cetaceans, turtles and fish including sharks, rays and billfish. It should be noted that the Blue Marlin is classified by IUCN as globally threatened (Vulnerable) and fished (although through "catch-and-release" within the property), even if the law specifically states that threatened species are protected in both the National Park and the SZMP.

#### 3.2.b. Feral livestock

Feral livestock (cattle, horses, buffalos) cause damage to the native vegetation and provoke erosion which threatens marine corals and other wildlife. Fortunately the feral livestock population is now greatly diminished from time of inscription of the property (see 3.1.a.) and hopefully in the very near future this threat will be able to be removed from the list.

#### 3.2.c. Invasive species

Currently the property is remarkably free from serious invasive species, and this situation needs to continue, particularly as visitor numbers increase. There was not much evidence of any biosecurity plans at either the naval base or at Gambute where almost all visitors land. A biosecurity plan needs to be developed and implemented for tourists, Park staff and staff working at the naval base on the island, particularly if the two jetties on the island are restored. An accidental introduction, which will be increasingly likely as more and more people visit the islands, could rapidly cause great damage to the property's OUV.

# 3.2.d. Tourism.

Tourism has been increasing on the island, with national and international visitor numbers increasing 42% from 2014-2015 (an increase from around 10,000 to 17,200 visitors, with international tourists comprising about 78%). The figures in the 2014 mission report listed some 5,000-6,000 visitors per year. This rapid increase in visitors presents a great threat, in particular due to biosafety issues. The majority of tourists arrive on day trips, although some stay on the island, either using the accommodation at Gambute or camping. A Public Use Plan is being drafted, using a team of consultants that include a leader with experience in Galapagos, as well as two architects. This plan follows a previous attempt to develop a Public Use Plan which failed. Previously when the prison was in activity there were tracks on the island which are hardly evident today, although carcasses of motor vehicles remain in the prison area. It is important that roads and tracks are not developed in the park to avoid the future use of quads and other vehicles. While it is very positive that public use and tourist development is being carefully planned, at the same time steps need to be taken incrementally to ensure that a greater number of tourists is manageable without causing prejudice to the natural values of the property.

Although the mission did not visit during the high tourist season, it was noted that cruise ships (with up to 200 passengers) visit the island, with at times several ships a day (although it has been said that cruise ship visits have now been limited to just one a day with a maximum of 60-70 passengers). Visits by cruise ships to the island, which includes bringing many people on the island at once and engaging in activities incompatible with ecotourism approaches (such as water-skiing), were not covered in the draft Public Use Plan presented to the mission. A careful examination of the needs for increased tourism, balanced with studies on the carrying capacity of the property needs to be made. "Ecotourism", if not properly developed, could be detrimental to the OUV of the property, including its both terrestrial and marine values.

#### 3.2.e. Coastal Development.

Coastal development has been listed as a threat to the OUV of the property, and constant vigilance is required to ensure that the law banning development within the property (apart from low-impact scientific and ecotourism projects) is enforced. Confusion on whether some of the islands within the property can be privately owned and developed or not still seems to exist. Development in areas outside of the property could pose a threat and needs to be carefully managed to ensure that cumulative impacts do not affect the OUV of the property.

# 3.2.f. Lack of resources to manage the property.

Like many protected areas, the property is under-resourced, with only a small permanent staff present on the island at a time (5 rangers) who spend more of their time taking care of tourists and administration than enforcing the sustainable use management plan for the Park. In addition, they rarely go into the SZMP, despite it being an important part of the property. The Park is currently funded through FIDECO funds (that fund all protected areas in Panama) and the central government. In Law 44 of 2004 a funding mechanism was developed to channel funds from Park entry fees, fishing licenses, fines, etc. into a general fund called the Coiba Fund.

Unfortunately, there have been ongoing issues on how to operationalise this fund (even if the percentage of the receipts due to the municipalities and the University, 12%, have been disbursed). It is still not clear why the 78% due to the Park has been sitting in the bank. The official figures for funds belonging to the Coiba Fund up to the beginning of 2014 were around USD 2.3 million. This is less than that reported by the Reactive Monitoring mission in 2014, which said that "the mission was informed that the fund would generate approximately 1.5 million USD annually...the mission was further informed that currently 2.5 million USD are available to be transferred to the fund as soon as the administrative requirements (reports of the municipalities, minutes of the Executive Council meeting, among others) are completed. Indications were also made that the fund now should contain almost 6 million USD in revenues from the property." The MiAmbiente thought that the figures of USD 1.5 million annually with 6 million in the fund were provided from non-official sources which did not have access to Ministry of Finance documents. Current official figures indicate that the Coiba Fund has grown to about 3.6 million USD, and show that receipts have been increasing substantially over the years, attaining over USD 500,000 in 2016 (which is a third of the 1.5 million USD noted in the 2014 report). Conservation International has recently supported a consultant who recommended that the Fund be converted into either a separate Coiba environmental trust, added to the FIDECO environment trust, or included in a new "super-fund" trust that would provide guaranteed, long-term funding for the Park. The obvious problem being that for an endowment, far more than 3.6 million dollars is required, and if the money from the Coiba Fund goes into FIDECO, then the funds that Coiba receives in return will be much less than what has been designated for the property by Law 44 of 2004. However, the MiAmbiente informed the mission that the report from CI was currently under consideration and legal analysis, and that a decision on how to operationalise the Coiba Fund was very close to completion. A Coiba Fund workshop with the Executive Council was scheduled for February 14, 2017.

# 3.2.g. Naval Base

The mission visited the naval base on the island, a small communications base located in the degraded former prison grounds, which is now also used for tourist visits. There are few people stationed on the island (around 5 naval personnel and 5 police) and the biggest threat from their presence would be the unintentional introduction of invasive species to the island. The naval base therefore does not appear to pose a major threat to the OUV of the property, and they have in fact helped control illegal fishing in the property as well as joined the mission to ensure security when the mission toured the island by boat. In previous reports there was a recommendation that the naval base be fenced. While this could be done, most important is that the extent of the naval base be clearly delimited so that there is no expansion of the base into the Park in the future. A programme to sensitise the naval and police staff to important conservation considerations while they are stationed in a World Heritage site needs to continually be undertaken by Park staff.

# 3.3 Positive or negative developments in the conservation of the property since the last report to the World Heritage Committee

Positive developments include:

- 1. Reduction in feral livestock on the main island (see 3.1).
- 2. A "BioBlitz" of the property was undertaken in 2015 and the data is still being worked up.

- 3. A small scientific research station is under construction not far from Gambute, located by the Ceiba beach across from Granito de Oro. This is being built with funds from CYTED (The Ibero-American programme of science and technology for development) in a strategic alliance with SENACYT and the MiAmbiente. While this could also be a negative development as it means more infrastructure and people on the island, the mission was informed that the project was approved following a very high level EIA study, that the building would be low-impact, and the resulting scientific research would contribute to scientific monitoring on the island. Provided that this research station is carefully controlled in the Management Plan and Public Use Plan, it should have more of a positive than a negative impact on the property.
- 4. Progress on developing the Public Use Plan, the draft Management Plan for the SZMP, and operationalising the Coiba Fund. While none of these have been finalised, it is still positive that these essential tools for managing the property are said to be reaching completion.
- 5. Salaries were increased for the rangers working on the island and they were provided with new uniforms. It is essential that the Park staff working on Coiba are fully motivated and equipped to implement the Management Plan, and that additional qualified and motivated staff are hired.
- 6. The Coiba Mountain Range, with a surface of 15,378.7 km<sup>2</sup> and perimeter of 519.92 km was assigned the SINAP management category "Area of Managed Resources" in 2015 (Executive Decree 3 of 22 September, 2015, No. 27873). It is said that this 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 (Resolution 69 of May 19, 2015, No 27537).

A negative, although hopefully one-off event in the property was the grounding of a cruise ship on 22 December, 2015 (see <a href="http://gcaptain.com/luxury-cruise-ship-runs-aground-in-unesco-world-heritage-site/">http://gcaptain.com/luxury-cruise-ship-runs-aground-in-unesco-world-heritage-site/</a>). While it has not been reported what damage was done to the reef and if any pollutants were released, the ship received a large fine (USD 200,000). Visits by large cruise ships such as those pictured in this link require careful consideration.

#### 4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

- **4.1 Criterion ix.** For terrestrial ecological processes the state of conservation is excellent. There is little disturbance and disruptions and the situation has been improving with the effect of feral livestock on ecological processes nearing resolution. For marine ecological processes, it is more difficult to say until more data are available. However, anecdotal but widespread reports on reduced fish populations and species indicate that the state of conservation for a number of marine species and processes is in decline. This will impact the role of the property in providing a key ecological link in the Tropical Eastern Pacific for the transit and survival of numerous pelagic fish as well as marine mammals.
- **4.2. Criterion x.** The state of conservation for terrestrial species is excellent, with no reported species decline. A study (Vega *et al.* 2016) of the sustainability of "artisanal" fishing for the three groups of species (snappers, groupers and Mahi-mahi) within the property indicated that at least the snapper population is declining due to unsustainable fishing, which will have a negative effect up the food chain. Anecdotal reports also note the amount of sea cucumbers, conch, lobster and octopus is extremely low within the Park, and that species of sharks previously seen frequently by divers are no longer to be seen (although white-tips are reported to be increasing). Bycatch of turtles, sharks and rays inside the Park was recorded by the fisheries sustainability study. Therefore, despite the lack of more detailed and long-term marine biodiversity studies, the trends in conservation status of marine biodiversity within the property appear to be negative.
- **4.3. Integrity.** Currently the integrity for the terrestrial part of the property is excellent thanks to low human pressure over most of the property, although careful attention in the planning and implementation of the Public Use Plan is required to ensure that this positive situation continues. The integrity of the marine portion of the property is also good as the area is large and fairly remote, although unsustainable fishing practices are placing the integrity of the property at risk. Climate change and meteorological events such as the El Niño which just finished are also factors that could put the integrity of the property at risk.
- **4.4.** Conservation measures undertaken and planned in response to previous decisions of the World Heritage Committee. The State Party continues to act on all decisions taken by the World Heritage Committee

and has demonstrated successes as outlined in this report. However, the main issue, which is ensuring that fishing inside the property does not impact its OUV, remains to be resolved. The approval and implementation of the plan for the SZMP and the implementation of the sustainable management fisheries plan for the Park must be the focus for managing the property, and resources (linked to the need to operationalise the Coiba Fund) should be directed at these two major issues. While the Public Use Plan is also of high importance, the development of tourist infrastructure on the island should take lower priority than the highest priority work, which is setting in place mechanisms to ensure that any fishing taking place within the property is sustainable and does not cause prejudice to the OUV of the property.

#### 5. CONCLUSIONS AND RECOMMENDATIONS

The mission concludes that the State Party should be commended on the progress made on removing feral livestock from the main island, and in enacting legislation to ensure that no development (apart from low-impact infrastructure for ecotourism and scientific research) may occur within the property. The development of infrastructure outside of the property that could impact its OUV will continue to require surveillance, although no immediate threat was apparent. In terms of increasing tourism, the development of the Public Use Plan which will include estimates of carrying capacity and biosecurity measures for both tourists landing on the island as well as Park, naval and police personnel urgently needs to be finalised. Development of tracks into the interior of the island needs to be avoided. Progress is also being made on operationalising the Coiba Fund and this too needs finalisation.

The biggest conservation issue for the property is management of fishing, both within the core area of Coiba National Park as well as in the SZMP. This includes managing subsistence fishing, what is termed "artisanal" fishing (which appears to be also used for commercial purposes), sport fishing and, in the SZMP, industrial fishing. It is clear that fishing, despite being regulated within the core area of the National Park, although virtually unregulated in the SZMP, is having a detrimental effect on the OUV of the property. Consideration of enacting stricter no-fishing regulations in the National Park, similar to those in force in all the other World Heritage properties forming part of the CMAR, could resolve the situation.

Of the 10 recommendations made in 2014, recommendations 1 (removal of livestock), 2 (operationalise the Coiba Fund), 4 (not permit coastal development within the boundaries of the property and control coastal development in areas that could impact the property), 5 (extend the Park's Management Plan), 9 (strengthen the Executive Council), and in part 10 (development of a tourist strategy) have been implemented or are well on their way. While they still require completion or ongoing surveillance, there has been progress made on all these issues.

The remaining 4 recommendations all relate to fishing (3, 6, 7, and 8), and while there has been some progress on attempting to address these very complicated issues, it has been largely insufficient. Although a sustainable fisheries management plan has been in force for the National Park since June 2013, this plan has not been properly enforced due to insufficient resources as well as the fact that enforcement of some aspects (such as snagged fishing lines and nets) is virtually impossible. It would seem that the only way to solve these issues could be for a temporary closure of fishing within the National Park. While politically this would pose challenges, unless fishing can be properly managed, it may be the only way to resolve the situation. In the SZMP there are still no fishing regulations in place although a draft plan is being prepared. Draft plans to allow the current spear fishing in the SZMP as well as industrial tuna long-line fishing boats (albeit with regulations on number and types of hooks and just for two months of the year) are incompatible with the conservation of the OUV of the property.

The following recommendations, based on those made in 2014 and starting with the most urgent, are proposed with clear timelines for implementation:

- 1. Enforce and adapt the Sustainable Use Fisheries Management Plan for the National Park to ensure that any fisheries within the Coiba National Park are sustainable and not having negative impacts on the property's OUV (end of 2017).
- 2. Develop a permanent monitoring mechanism in the property to assess progress and demonstrate management effectiveness of the marine area, including indicators at key sites (i.e. damage by fishing lines, observations of numbers of indicator species) (end of 2017).

- 3. Approve and implement the management plan for the SZMP, aligning it with that in force for the Coiba National Park and noting that industrial long-line tuna fishing and spear fishing are not compatible with World Heritage status (end of 2017).
- 4. If implementation of other measures does not show results by the end of 2018, consider putting in place a temporary moratorium on all fishing within the National Park.
- 5. Ensure that any development proposed in the Public Use Plan actually improves rather than detracts from the existing infrastructure already present on the island, that a reasonable tourist carrying capacity is enforced, and that a biosecurity plan with mechanisms to deal with any accidental introductions caused by increased numbers of tourists, scientists, and staff from the Park and naval base is implemented (end of 2017).
- 6. Ensure that the Coiba Fund becomes fully operational and is used on the ground to improve management effectiveness in the Park, i.e. increasing and improving the capacity of the rangers responsible for implementing the Management Plan, with clear focus on achieving management objectives, rather than on building new tourism infrastructure or hosting meetings (end of 2017).
- 7. Ensure that the last remaining feral livestock have been eradicated from the island (end of 2017).
- 8. Continue to ensure that no coastal or interior development, apart from that allowed in the Management Plan and approved by the Executive Council, is permitted within the Park.
- 9. Monitor any development outside the property which could potentially have negative impacts on the OUV of the property, and ensure that it is appropriately managed, or else not allowed.
- 10. Continue to hold timely and inclusive meetings of the Executive Council of the Coiba National Park which should closely monitor progress on these recommendations.

While the property continues to face important challenges for its long-term conservation and there are strong indications that the state of conservation of its marine values which constitute its OUV is in decline, the State Party is fully cognizant of these issues and is working hard on improving matters. The mission therefore does not consider that the level of threats to the property warrants the property being placed on the List of World Heritage in Danger at this point in time. However, fishing has been an issue ever since the property was inscribed on the World Heritage List over a decade ago. If this issue cannot be resolved in a manner that will ensure the long-term conservation of the marine OUV in the property by the end of 2018, then consideration should be undertaken for including the property on the List of World Heritage in Danger by the World Heritage Committee at its subsequent Session.

# References

ANAM (2009). Plan de Manejo del Parque Nacional Coiba, Versíón Final. 132 pp.

Maté, J.L, Vega, A.J., Tovar, D. & Arcia, E. (2015). *Plan de Aprovechamiento Pesquero Sostenible del Parque Nacional Coiba. Versión Popular.* Ciudad de Panamá, República de Panamá. 58 pp.

STRI (2015). Coiba BioBlitz. *Trópicos*: *Magazine of the Smithsonian Tropical Research Institute*. April, 2015. 38 pp.

Vega, A.J. Robles, Y.A. & Maté, J.L. (2016). La pesca artesanal en el Parque Nacional Coiba y zona de influencia. Biología y pesquería de sus principales recursos, con recommendaciones de manejo. Fundación MarViva, Ciudad de Panamá, Panamá. 67 pp.

#### ANNEX 1.

# STATEMENT OF OUTSTANDING UNIVERSAL VALUE FOR COIBA NATIONAL PARK AND ITS SPECIAL ZONE OF MARINE PROTECTION

# (Copied from the WHC website, portions in yellow require correction)

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.

# **Outstanding Universal Value**

# **Brief synthesis**

Coiba National Park and its Special Zone of Marine Protection, is located in the Republic of Panama in the Gulf of Chiriqui, in the western sector of the country. The property protects Coiba Island along with 38 smaller islands and the surrounding marine area and is immersed in the Tropical Eastern Pacific, forming part of the Tropical Eastern Pacific Marine Corridor (CMAR). It is the last refuge for a number of threatened animals and an essential area for migratory species, including the essentials for the maintenance of the ecological balance of the oceanic masses, and valuable habitat for cetaceans, sharks, sea turtles and a large variety of pelagic fish species of high importance to regional level fisheries.

The property contains marine environments that have characteristics of both a continental and oceanic influence, and include insular marine coastal and terrestrial island ecosystems. This wide range of environments and resulting habitats is a result of the property's location, close to the edge of the continental platform and at the same time to the mainland. These features combine to produce landscapes of incomparable beauty that are home to an exceptionally high level of endemism for mammals, birds and plants. An outstanding natural laboratory, the property provides a key ecological link to the Tropical Eastern Pacific and an important area for scientific research.

The size and length of the property allows for the protection of a whole and healthy ecosystem that is one of the last major refuges for rare and endangered species of tropical America. The conservation of the property is the main objective of close cooperation between the several stakeholders that form the Coiba National Park's Directors Board, the authority responsible for the governance and management of the property.

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. Furthermore 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.

Criterion (x): The forests of Coiba Island possess a high variety of endemic birds, mammals and plants. Coiba Island also serves as the last refuge for a number of threatened species that have

largely disappeared from the rest of Panama, such as the Crested Eagle and the Scarlet Macaw. Furthermore the marine ecosystems within the property are repositories of extraordinary biodiversity conditioned to the ability of the Gulf of Chiriquí to buffer against temperature extremes associated to El Niño/Southern Oscilation phenomenon. The property includes 760 species of marine fishes, 33 species of sharks and 20 species of cetaceans. 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.

# Integrity

The boundaries of the property are legally defined and contain a core protection area, consisting of the Coiba National Park and a designated buffer area, providing an essential zoning system to safeguard the beauty of the area and protect its important natural values. It contains the necessary elements to ensure the permanence of the necessary processes for long-term conservation of the ecosystems and the unique biological diversity of the property. The property encompasses the Island of Coiba in its entirety, thus providing refuge for its endemic species as well as for species that have largely disappeared from mainland Panama. It is a large area whose boundaries encompass 430,825 ha, comprising a marine component covering oceanic ecosystems including continental environments, islands with abrupt topography and legal protection. Combined with difficult access in many areas the legal protection assists in keeping the property relatively unaltered and with minimal human intervention.

The existence and integration of other marine protected areas at both national and regional levels, provides additional contributions to the protection of the special values that make the property exceptional. A number of factors could threaten the integrity of it property's attributes and require attention, such as illegal fishing, both in regards to scale and equipment used, introduced species and ecotourism development projects. Additionally, climatic changes could also affect the conservation of the ecosystems within the property.

# **Protection and management requirements**

Coiba National Park encompasses over 270,125 ha of which 216,500 ha are marine and 53,625 ha are insular and include Coiba Island along with 38 smaller islands. The Special Zone of Marine Protection is included within the boundaries of the property as a buffer area to the core area of the National Park and encompasses an additional 160,700 ha. Combined the National Park and the SZMP includes 53,761 ha of terrestrial habitats and 377,064 ha of marine area. The property is protected under National Law 44, signed by the Legislative Assembly of the Republic of Panama on 26th July 2004, establishing Coiba National Park and a Special Zone of Marine Protection within the Gulf of Chiriqui. National Law 44 established the boundaries of the National Park along with its Zone of Marine Protection as well as the protection and management regulations for both of these areas.

The property is subject to national level management which is supported by the legal and institutional framework that allows for the execution of an innovative governance model, through cooperative and coordinated participation of different stakeholders. The National Park was created by Resolution No. 021 (1991) of the National Authority of the Environment and the property is operationally managed by the National Environmental Authority and administratively by both national and local authorities along with members of civil society such as environmental NGOs and productive sectors. This approach to management works towards ensuring the property has the basic funding requirements for its management. It also assists in achieving the management objective of ensuring the conservation, protection and continuity of the ecological processes. In order to achieve this it is necessary to maintain and promote coordinated and participatory environmental management among communities, national authorities, users and stakeholders.

Fishing pressures on both the Coiba National Park and the Special Zone of Marine Protection is one of the threats and impacts on the property and along with infrastructure development, agriculture, forest cutting, human settlements and exploration and exploitation of mineral resources, while strictly prohibited remain potential threats. These issues have been extensively addressed by the management authority, along with NGOs that support continued conservation efforts and require ongoing investment in regards to monitoring

Tourism interest in the property has grown and is expected to increase with the number of visitors growing rapidly. Tourism activities include use of the beaches and coastal areas as well as underwater activities and need to be monitored and managed so as to prevent significant impacts on the property and its values. As with other Marine Protected Areas, both in the region and world wide, the property faces the threats and impacts resulting from climate change such as coral bleaching, stronger and more frequent hurricanes and sea level rise.

# TERMS OF REFERENCE IUCN Reactive Monitoring Mission

# Coiba National Park and its Special Zone of Marine Protection (Panama) 29 November – 3 December 2016

At its 40th session, the World Heritage Committee requested the State Party of Panama to invite an IUCN reactive monitoring mission to Coiba National Park and its Special Zone of Marine Protection World Heritage Site (**Decision 40 COM 7B.76**). The objective of the monitoring mission is to evaluate impacts of unregulated fishing, assess progress with the implementation of the 2014 mission recommendations and provide technical advice regarding the urgent implementation of the outstanding recommendations. The mission will be conducted by Dr. Wendy Strahm representing IUCN.

In particular the mission should undertake the following:

- Assess the progress achieved by the State Party with the implementation of the 2014 reactive
  monitoring mission recommendations and provide technical advice regarding the urgent
  implementation of the outstanding recommendations, particularly those concerning fisheries
  regulations, regulations to ensure that no coastal development is permitted within the
  boundaries of the property and operationalization of the Coiba Fund;
- 2. Evaluate the current and potential impacts of unregulated fishing on the Outstanding Universal Value (OUV) of the property;
- 3. In line with paragraph 173 of the *Operational Guidelines*, assess any other relevant issues that may negatively impact on the OUV of the property, including its conditions of integrity and protection and management.

The State Party will facilitate necessary field visits to key locations. In order to enable preparation for the mission, the State Party should provide the following items in appropriate format, including web links, to the World Heritage Centre and IUCN as soon as possible and preferably no later than one month prior to the mission:

- a) The most recent version of the management plan for the Special Zone of Marine Protection of the property and other documents outlining existing fisheries regulations;
- b) Any relevant information regarding existing regulations on coastal development within the boundaries of the property;
- c) Most recent information regarding the current status of the Coiba Fund.

The mission will hold consultations with the relevant Panamanian authorities, particularly the Ministry of Environment. In addition, the mission will hold consultations with a range of relevant stakeholders, including: non-governmental organizations (NGOs) and relevant scientists, researchers and experts.

Based on the results of the above-mentioned reviews, assessments and discussions with the State Party representatives, authorities and stakeholders, the mission will prepare a concise report on the findings and recommendations within six weeks following the site visit, following the attached reactive monitoring mission report format (Annex 3). The mission's recommendations to the Government of Panama and the World Heritage Committee will have the objective of providing guidance to the State Party that will ensure the ongoing conservation of the property's OUV. It should be noted that recommendations will be provided within the mission report and not during the mission implementation.

# ANNEX 3.

# ITINERARY/PROGRAMME OF THE MISSION

**Day 1, Monday 28 November 2016** (Panama National Day). 21:00 Arrival to the International airport of Tocumen, Panama . Welcomed by Antonella Finis, stay at hotel Wyndham in Panama City.

# Day 2, Tuesday 29 November 2016

- Meetings/presentations with Ministry of Environment including Secretary General Félix Wing, Antonella Finas and her staff. Presentations and discussion by Ana Lorena López on progress on 2014 recommendations, Zuleika Pinzón on progress with regulations for the SZMP, and Ecotourism project for Coiba by Vanessa Villalibre.
- Meeting with Minister of Environment Marei Endara.
- Drive to Santiago, stay at Hotel Galeria.

# Day 3, Wednesday 30 November 2016

# At Santiago:

- Meeting with Executive Council of Coiba NP (Governor Veraguas, Mayor, University of Panama, Smithsonian, and others).
- Meeting with NGOs (MarViva, CI, Alcon, and others)
- Meeting with tourist operators (sportfishing, ecotourism, diving)
- Late lunch with Tanager tourism operator and others
- Meeting at Santiago Ministry of Environment (ex-ANAM) office. Presentation on Coiba Fund by Antonella Finis, the Coiba Park by Park Manager Didiel Nuñez, presentation of livestock eradication project by Eddy Arcia.

# Day 4, Thursday 1 December 2016

- Travel to Puerto Mutis and boat trip to Coiba, lunch.
- Meeting with 2 fishermen crew with permits to fish inside park.
- Visit scientific research station under contruction
- Walk Sendero de Los Monos (Monkey trail)
- Climb up Sendero Cerro de Gambute (Gambute Peak trail)
- Dinner and discussions
- Meeting with park staff (Regional Director, Park Director, 10 guards).

# Day 5, Friday 2 December 2016

- Boat trip along coast to south of island in heavy rain
- Visit naval base/landing strip/old prison, discussion with CO of base, tour of prison by Mali Mali, Park ranger and former prisoner.
- Lunch and discussions, visit Mirador de Gambute. Decide not to snorkel to see reef as too many jellyfish.

# Day 6, Saturday 3 December 2016

- Travel from Coiba back to Puerto Mutis.
- Drive from Santiago to Panama City.
- Kindly hosted at home of Flavio Méndez until late departure from Tocumen airport.

# **ANNEX 4. COMPOSITION OF THE MISSION TEAM**

# Mission lead:

Dr. Wendy Strahm Representative IUCN

# People who accompanied the mission team throughout the visit to the property:

H. E. Mr Flavio Méndez, Ambassador, Permanent Delegation of the Republic of Panama to UNESCO Antonella Finis Gallardo, Head of Protected Areas, Ministerio de Ambiente Rogelio Rodriguez, Regional Director, Ministerio de Ambiente Didiel Nuñoz, Coiba Park Director, Ministerio de Ambiente Eddy Nexon Arcia G., Technical link to the Province of Veraguas, Ministerio de Ambiente Jorge Ulises Garcia Dominguez, Head, Dirección Vida Silvestre, Ministerio de Ambiente Omar Abrego, Chief of Protected Areas in Veraguas, Ministerio de Ambiente Modesto Tuñón, Public Relationships Officer, Ministerio de Ambiente Ricardo De Ycaza, Director Marine Programme (DICOMAR), Ministerio de Ambiente Shirley Binder, Marine Programme, Ministerio de Ambiente

# ANNEX 5. LIST AND CONTACTS OF PEOPLE MET

Ms Antonella Finas Gallardo	Head of Protected Areas	ofinia Omiombionto sob no	Mission team
-		afinis@miambiente.gob.pa	29/11 and 30/11 mtgs.
	Dirección de Áreas Protegidas y Vida Silvestre Ministerio de Ambiente	alopez@miambiente.gob.pa	
Licdo. Felix Wing	Secretary General, Ministerio de Ambiente	fwing@miambiente.gob.pa	29/11 mtg.
Marisol Dimas	Head, Dirección de Áreas Protegidas, Ministerio de Ambiente	mdimas@miambiente.gob.pa	29/11 mtg.
Zuleika Pinzon	Head, Autoridad de los Recursos Acuáticos de Panama (ARAP).	zpinzon@arap.gob.pa	29/11 mtg. Gave talk on draft management plan for marine reserve.
			Previously Head of Protected Areas and an IUCN Councillor.
Vanessa Villalibre (replaced	Coordinadora Proyecto Ecotur, Ministerio de Ambiente	vvillalibre@miambiente.gov.pa	29/11 mtg. Gave talk on ecoturismo plan for Coiba.
Dra Indra Candanedo)			
	Head, Dirección Vida Silvestre, Ministerio de Ambiente	jugarcia@miambiente.gob.pa	29/11 mtg. On Mission team.
Licdo. Ricardo De Ycaza	Marine Programme (DICOMAR), Ministerio de Ambiente	rdeycaza@miambiente.gob.pa	29/11 mtg. On Mission team.
H. E. Mr Flavio Mendez	Ambassador, Permanent Delegate to UNESCO	dl_panama@unesco-delegations.org	29/11 mtg. On Mission team.
Sra. Ministra de Ambiente Mire	Ministerio de Ambiente	Mendara@miambiente.gob.pa	29/11 mtg with Antonella Finis and Flavio Mendez.
Didiel Nuñoz	Coiba Park Director	dnunoz@miambiente.gob.pa	30/11 Santiago mtg and on Mission team.
Olga Pereira de González	Gobernadora, Provincia de Veraguas	ogonzalez@mingob.gob.pa	30/11 Santiago mtg. Governor.
Yorkgenis Vega	Gobernación de Veraguas	yvega@mingob.gob.pa	30/11 Santiago mtg. Mayor.
Juan L. Maté	Instituto Smithsonian	matej@si.edu	30/11 Santiago mtg. Co-author Management Plan.
Evidelio Adames	Universidad de Panamá	evidelio0554@hotmail.com	30/11 Santiago mtg. Entomologist studying bloodsucking insects.
Tania Arosemena	Fondación MarViva	tania.arosemena@marviva.net	30/11 Santiago mtg. NGO.
Livia Reid	ARAP	lreid@arap.gob.pa	30/11 Santiago mtg.
Julio Rodriguez	Conservation International	jrodriguez@conservation.org	30/11 Santiago mtg. NGO.
Alejandra Blasser	SECDPNC-CI	secoiba@outlook.com	30/11 Santiago mtg.
Mileika Gonzalez	ANCON	mileika.gonzalez@ancon.org	30/11 Santiago mtg. NGO.
Eddy Nexon Arcia G.	Ministerio de Ambiente	earcia@miambiente.gob.pa	30/11 Santiago mtg. On Mission team.
Modesto A. Tuñon F.	ORP Ministerio de Ambiente	mtunon@miambiente.gob.pa	30/11 Santiago mtg. On Mission team. PR officer for the Ministry.
Omar Abrego	Ministerio de Ambiente	oabrego@miambiente.gob.pa	30/11 Santiago mtg.
Bernardo Peña	Ministerio de Ambiente		30/11 Santiago mtg.
Tom Yust	Coiba Adventure Sportfishing (USA)	info@coibadeventure.com	Mtg with private tourism sector 30/11.
Julie Berry	Coiba Dive Center (Belize)	info@coibadivecenter.com	Mtg with private tourism sector 30/11.
Herbert Sunk	Scuba Coiba (Austria)	info@scubacoiba.com	Mtg with private tourism sector 30/11.
Elisabeth (Loes) Roos	Heliconia Turismo (Netherlands)	tanagertourism@gmail.com	Mtg with private tourism sector 30/11.
Rubén Castillo	ARTURIS Coiba (Panama)	ruben-Pixvae@hotmail.com	Mtg with private tourism sector 30/11.
Rogelio Rodriguez	Regional Director, Min. de Ambiente		
Shirley Binder	Marine programme, Min. de Ambiente	sbinder@miambiente.gob.pa	
Antonio S. Aparido	Park Ranger, Min. de Ambiente	yabulantex@yahoo.com	
Narciso Bastides ("Mali Mali")	Park Ranger, Min. de Ambiente		Previously a prison inmate on Coiba, returned to become a ranger.
Ricardo Sáneho	Park Ranger, Min. de Ambiente		-
Alexi Robles	Park Ranger, Min. de Ambiente		
Paulino Camarena	Park Ranger, Min. de Ambiente		
Manuel C. Flores	Park Ranger, Min. de Ambiente		
Santiago Caugin	Park Ranger, Min. de Ambiente		
Edgar Gonzalez	Park Ranger, Min. de Ambiente		
Lionso Solis	Park Ranger, Min. de Ambiente		
Andis Batista	Park Ranger, Min. de Ambiente		

# **ANNEX 6. MAPS**

Figure 1: Location of property and Panama.

Figure 1



Figure 2. Map showing location of Ramsar site Golfo de Montojo (Puerto Mutis, the port where the mission debarked for the mission, is at the mouth of the Golfo de Montojo).

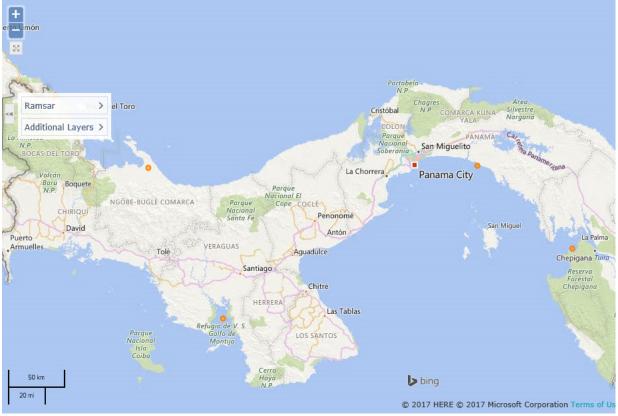


Figure 3: MAP OF THE PROPERTY

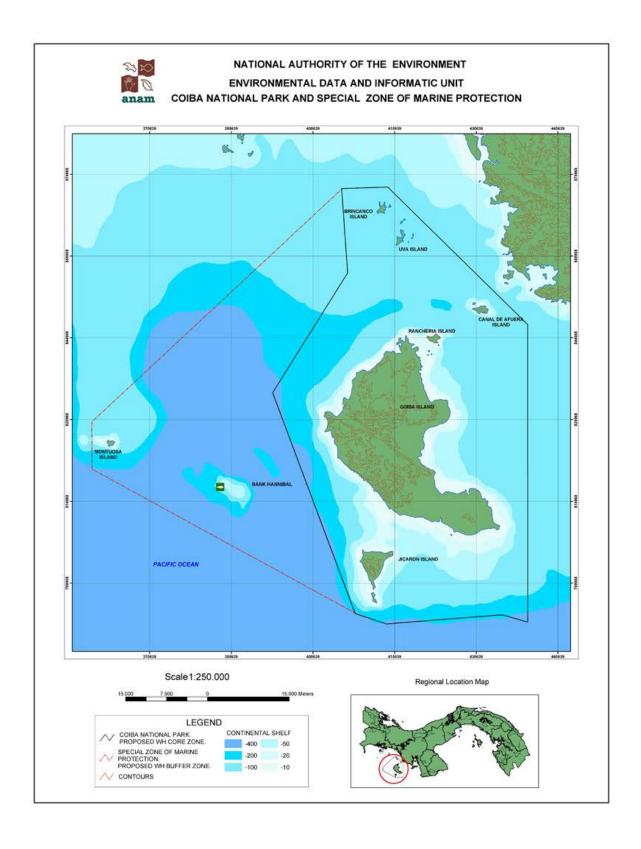


FIGURE 3. Marine chart of property

