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 MIMAROPA – Region IV
 Provincial Environment and Natural Resources Office
TAMARAW CONSERVATION PROGRAM
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TAMARAW PROGRAM

Exploration of Inner Mindoro Island – Biodiversity survey and Tamaraw / habitat assessment

Implementation of the first step of the Program

November, 2013 - May, 2014

www.dabovillefoundation.axon.ph

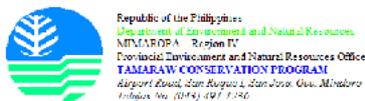
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Project bearers

The French non-profit organization **Noé Conservation** in collaboration with the **D'ABOVILLE Foundation**, will carry out the project in the field.

Noé Conservation was created in 2001 by Arnaud Greth, previous Scientific Director of WWF-France. **Noé aims to preserve biodiversity** through field based programs across the world and promote **environmental awareness** and sustainable behaviour.

Mr. **Emmanuel Schütz** is the project coordinator. He is a member of the **Asian Wild Cattle Specialist Group** (IUCN-SSC) and nominated as “**species champion**” for the Tamaraw.

The d'ABOVILLE Foundation, based on Mindoro, aims at promoting and at preserving the natural and cultural heritage of the Island.

The “**Tamaraw Conservation Program**” is a banner program of the DENR-PawB MIMAROPA Region IVB) in charge of the monitoring and protection of the Tamaraw since 1978. They will be the main **institutional partner** for the implementation of the project.

Main objective of the project

The mission aims at **exploring poorly known and under surveyed areas of Mts Iglit-Baco National Parc** and its surrounding natural areas in order to conduct a **Tamaraw / habitat assessment** and a non exhaustive **biodiversity survey and socio-cultural approach**.

The goal is to gather essential baseline data which will be used to design a recommendation list for further **ACTION PLANS** on Mindoro Island.

Specific objectives

- to **update the current range of the Tamaraw** within and around the Park and to assess the threats affecting it and its habitat,
- to **address the lack of information** upon two other endangered ungulates, the **Philippines brown deer** (*Rusa marianna barandana*) and the **Mindoro warty pig** (*Sus oliveri*),
- to **assess settlement of mangyans** inhabiting the area of investigation and to strengthen communication with the communities in order to further enhance their **integration towards tamaraw conservation and sustainable management**,
- to conduct a **non-exhaustive survey of flora and fauna** observed during the mission,
- to produce an **informative map** displaying essential information on the current socio-ecological situation,
- to draw up a **Recommendation List** for the implementation of consistent **conservation measures** and the design of a **sustainable management plan**,
- to **open and secure routes** for further Tamaraw monitoring and biodiversity survey.

Project description

General context and overview:

Mindoro, the seventh island of the Philippines by its size (10,572 km²), is considered as a priority biodiversity “hotspot” for global conservation¹ and designated as an **important centre for endemic species**². It is home of the Tamaraw (*Bubalus mindorensis*), a dwarf buffalo solely endemic to the island and the only wild cattle species living in the Archipelago.

Originally widespread across the island, the Tamaraw population has shrunk from 10,000 individuals in the early 20th century to only about 400 individuals remaining nowadays. Over-hunting and deforestation are the main reasons for this drastic decline.

The Tamaraw is considered as **Critically endangered** on the **Red List of the IUCN**³.

Despite its protected status, Tamaraws still suffer from poaching and habitat encroachment due to illegal farming and logging.

The “**Tamaraw Conservation Program**” (TCP), a banner program of the Philippines “Department of Environment and Natural Resources” (DENR), is currently in charge of the monitoring and protection of the Tamaraw.

Insufficient resources, along with an extremely difficult geographical terrain, limit the scope of investigation of the rangers from TCP to the most accessible part of **Mts Iglit-Baco National Park**. This well protected and monitored “core zone”, which shelters a significant population of Tamaraw, covers only 25% the Park land area. The core zone is currently considered the sole truly viable refuge for the species.

Nevertheless, most of the 75 445 hectares of the rough terrains of the Park as well as the vast mountainous areas of Inner Mindoro currently remain un-surveyed and un-monitored. Therefore it can be assumed that the actual monitoring is far from covering the full potential Tamaraw population range, which remains thereby largely unknown.

Mindoro also hosts the Ancestral lands of the **indigenous people Mangyan** who strive to preserve a traditional way of life based on hunting and slash and burn subsistence agriculture. Pushed inward by lowlander migrants during the last century, they are highly dependent upon the natural resources of these mountains for their subsistence.

The understanding of their social organisation and relations with the environment is still limited, thus preventing their integration into Mindoro’s overall development.

This project is based on the assumption that the Tamaraw is more widespread than currently presumed and that the region suffers from a dramatic lack of scientific information. Therefore the project aims at testing this hypothesis by implementing a field survey of Inner Mindoro, addressing both ecological and socio-cultural issues.

Project context and background:

Mindoro's human population is mainly located on the coastal plains. Few thousand indigenous people inhabit the vast mountainous interior of the island, which is thus almost empty. Previously entirely forested, only 8,5% of the original tropical forest remains nowadays⁴.

The latest maps of inner Mindoro date back to the 1950's when the island was surveyed by the American army⁵. There is no accurate map of this region available at present time.

The rough terrain (up to 2,582 m elevation) and the absence of road system in the interior make the accessibility of inner Mindoro arduous.

Thus, the exploration of these mountains requires adapted logistic in terms of planning, equipment, food stock and human resources.

The project coordinator (and main investigator) has already cleared the ground over the past two years in order to facilitate the implementation of this project. He has organized two explorations (8 days each) of Mts Iglit-Baco National Park, in coordination with the TCP and the rangers of the Park (the TCP coordinator is also the super-intendant of the Park and rangers).

The project coordinator is therefore very familiar with the geographical, natural and socio-cultural context of this region and aware of the required logistic. Moreover, these explorations intended to push the Park's rangers beyond their regular patrolling route.

Scope of investigation:

The Tamaraw, as a **flagship animal** and priority species for the IUCN, is the main focus of the project.

However, the ground exploration will greatly help enlarging the scope of issues towards two other **neglected species** (brown deer and warty pig) and foster the **integration of the indigenous communities** into habitat management planning.

The "**core zone**" monitored by the TCP within the Park is supposed to shelter the largest remaining population of Tamaraw, but signs of presence of the species are regularly reported elsewhere.

Based on the historical range of the species, the result of the latest island-wide Tamaraw assessment⁵ and frequent reports from locals, the area of investigation should therefore cover the entire Park on both the oriental and occidental sides and should be extended toward the West (Aroya Malate area) and the North (Mt Sinclair and Mt Patrick area).

Methodology:

The exploration zone will nearly cover 120 000 ha (cf: map of investigation). This large surface to survey requires appropriate time and spatial planning. Nearly one hundred days of exploration will be implemented during the dry season and divided into ten sessions (6-12 days each) according to the remoteness of the area to be explored. Thus, previously confirmed, suspected or never controlled areas of potential presence of the species will be surveyed.

Two independent teams will be established in order to launch simultaneous explorations. Each team will be composed of: one team leader in charge of the orientation, one technician/scientist in charge of recording the biological data, three to five porters according to the amount of supply to carry.

The TCP office in San Jose (Occidental Mindoro) will be the project headquarter. The rangers' main station camp, located one day hike away from the closest passable road, will serve as principal base camp to coordinate explorations within the Occidental side of the Park. Remote villages accessible with a vehicle will serve as base camps in other cases.

The project intends to be as little intrusive as possible, involving only non-invasive techniques (Philippine's law forbids the collection and exportation of Tamaraw's biological evidence out of Mindoro). Moreover, local communities represent a relevant source of information.

Thus, two methods will be used to collect information:

1. field record of indirect sign of presence such as observation of animals, feces, tracks, remains or resting places,
2. protocols based on ethno-ecological methods will be used to collect qualitative information from indigenous people living on the exploration routes.

Each attested sign of presence will be geographically stored with a GPS device and complemented by qualitative criteria on a data sheet assessing:

- ◆ habitat description (forest, open grassland, creeks, cultivated lands, woodland converted by slash and burn practices...),
- ◆ habitat condition and threats (distance to closest settlement, restoration process of natural vegetation, illegal logging, clearing for agriculture purpose, wood and grassland suffering persistent burning operation) and origin (lowlanders, poachers or mangyans),
- ◆ nature and sign of poaching (animal remains, temporary camp's site, tracks of dogs, trails outside ranger's patrolling routes...).

Human resources:

The principal investigator and coordinator will be assisted in the field by Mr. Rodel Boyles (TCP coordinator and superintendent of Mts Iglit-Baco National Park) and Mr. Danilo Roca (rangers main coordinator).

The 25 **rangers** employed by the DENR and in charge of the Tamaraw monitoring will compose the central human force. Eight to ten of them will be hired in the frame of the project.

Some mangyans will be hired occasionally to serve as guide, porters and translator when needed (some rangers are originally mangyan and they shall facilitate this selection process with respect to the traditional authorities).

Team Composition:

- Coordinators: Schutz. E, Boyles. R, Rocca. D;
- Guides and porters: 8 – 10 heads amongs the Park's rangers (2 team leaders, guide and porters);
- Scientific data record: 1-2 botanists from PNPCS (Philippine Native Plant Conservation Society), 1-2 biologist (MBCFi), 1-2 students (UPLB);
- Other skilled participants: Batungbacal. M (Primer Group of Companie/CORE), 4-6 mountainers from UP (student member of mountaineering club);
- Photos and film coverages: ABS-CBN cameramen;
- Social Science approach: 1 Anthropolinks 1-2 (french/Filipino) Master/PhD student;

Anthropolinks is a French consulting office working in the field of social sciences and promoting anthropological and ethnological approaches for sustainable development and biodiversity conservation projects. A scientist from Anthropolinks, related to the French National Museum of Natural History, will be involved as expert to design specific tools (participatory interview) and define the best approach in order to avoid any detrimental effect on the mangyan communities while collecting knowledge. They will base their expertise on the result and recommendation of the NEWCAPP program⁷ and the Filipino NGO "Anthrowatch", along with a preliminary field mission at early stage of the project.

Project planning, progress and provisional budget

Project duration: 6 months on the field; November 7, 2013 – May 7, 2014

- ◆ November: 1-2 preliminary meetings and workshops in Manila to explain the objectives, organization and progress; define contribution and tasks,
- ◆ December: Workshop 1 at TCP office (San Jose): workshop with TCP and rangers to present the mission, design the routes, plan the logistic and define the teams
- ◆ December: Workshop 2: Consolidation workshop to report previous inputs, explain the methods, teach the techniques to the teams and set up a schedule of the exploration session,
- ◆ End December – early May: Sessions of exploration,
- ◆ Early May: Evaluation workshops with the TCP/DENR and all partners and stakeholders to discuss the results,
- ◆ November 2014: Achievement of the informative map and the Action Plan's recommendation list.
- ◆ Restitution seminar to present the results and discuss outcomes (SOFITEL)

Provisional budget: 35,000 euros (1 000 000 php);

Half of the required budget is already secured and is being used to prepare the field mission (operating cost, equipment logistic)

Conclusion

This project is the initial component of a wider program, the "**Tamaraw Program**" carried out by **Noé Conservation** in partnership with **D'ABOVILLE Foundation**, the **TCP/DENR** and other local stakeholders.

The **Tamaraw Program** intends to preserve the cultural and natural heritage of **Mts Iglit-Baco National Park** and expand the Tamaraw population. Therefore this project aims at gathering essential baseline data which are needed to launch relevant conservation measures and consistent habitat management plan that will be implemented during the whole program.

Sources and references

¹: Oliver & Heaney, 1997

²: Philippines Biodiversity Conservation Foundation (PBCFi), 1999

³: *Bubalus mindoroensis* (2012). International Union for Conservation of Nature (IUCN) Red List of Threatened Species. Internet Web Site

⁴: ESSC, 1999; SSC, 1988

⁵: Philippines National Mapping and Resource Information Authority (**NAMRIA**), 2013

⁶: Gonzalez J. C. T., Tomas A., Dans L., Afuang L. E. (1999). *Rapid Island-Wide Survey of Terrestrial Fauna and Flora on Mindoro Island, Philippines*. MBCP, PBCFi, Shell Philippines Exploration B.V. DENR.

⁷: NewCAPP (New Conservation Areas in the Philippines Project – GEF/UNDP), 2009-2013