

# Tamaraw Conservation Program

## Mangyan - Tamaraw Driven Landscape Program

A growing conservation project with opportunities to build links with AZA institutions

Brent Huffman  
Ultimate Ungulate  
[brent@ultimateungulate.com](mailto:brent@ultimateungulate.com)

James Burton  
Vice Chair, EAZA Cattle and Camelid TAG  
Chair, IUCN SSC AWCSG  
[jamesaburton@yahoo.co.uk](mailto:jamesaburton@yahoo.co.uk)





# Tamaraw

*(Bubalus mindorensis)*

- ▶ Dwarf buffalo endemic to Mindoro (Philippines)
- ▶ Critically endangered (IUCN Red List)  
CITES I
- ▶ Regional emblem of the island (and the Philippines)

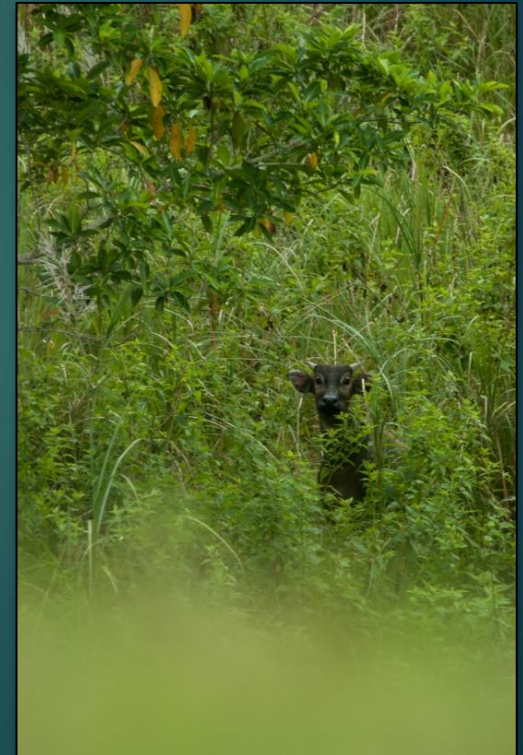


- ▶ Lives solitarily or in small groups in grassland/forest mosaic
- ▶ Once found over much of Mindoro, but range is now greatly contracted



**1900: ~10,000 in the wild**

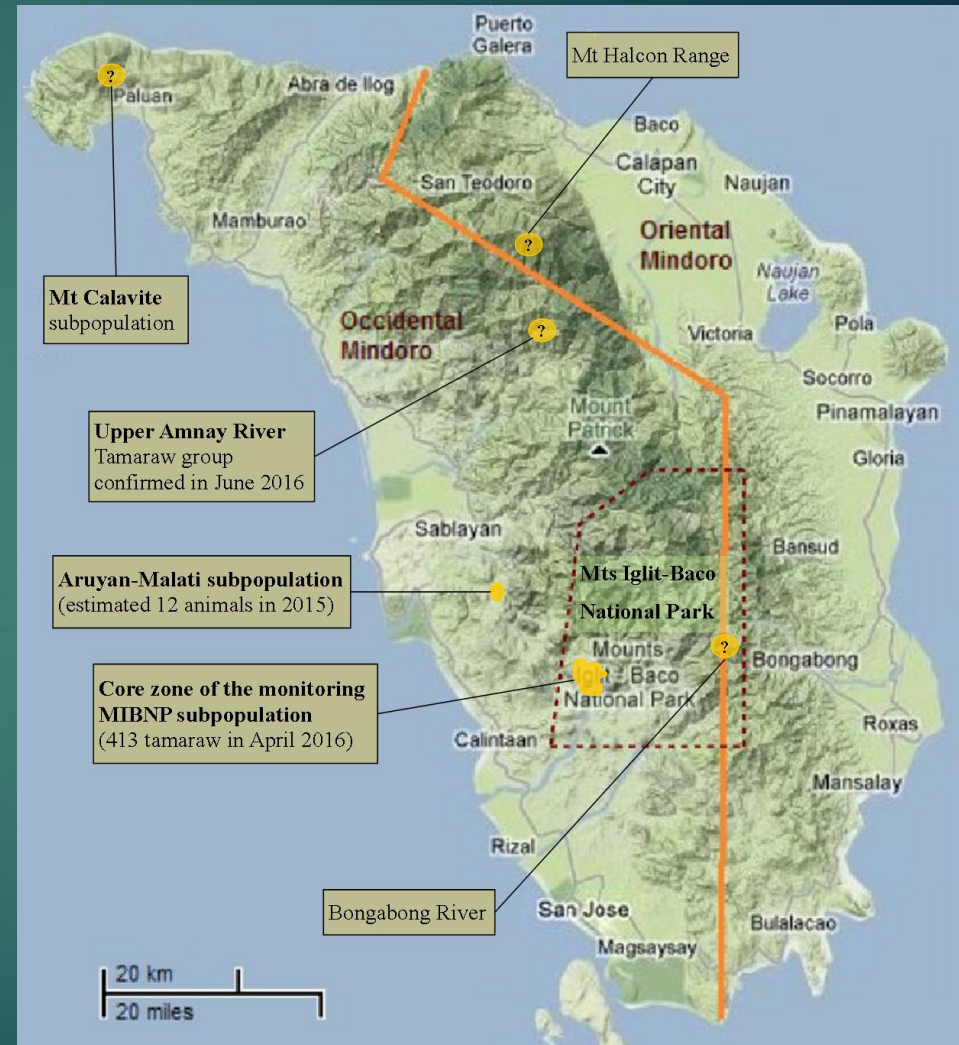
**Today: Less than 500 in the wild**





# Tamaraw Population Status

- ▶ 3 Tamaraw populations remain:
  - ▶ 413 in Mts Iglit-Baco National Park (106 000 ha) (but only occupies 3% of the protected area)
  - ▶ No more than 12 in Aruyan Malati area
  - ▶ May be 10 in Upper Amnay River



Mindoro Island

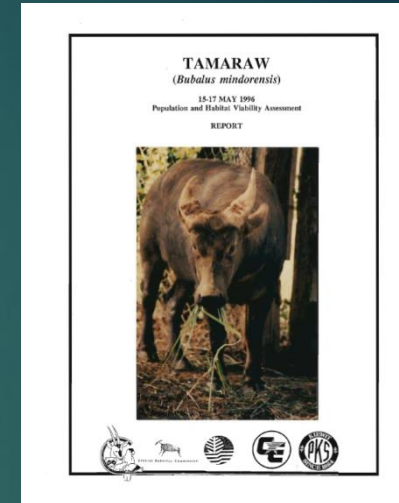
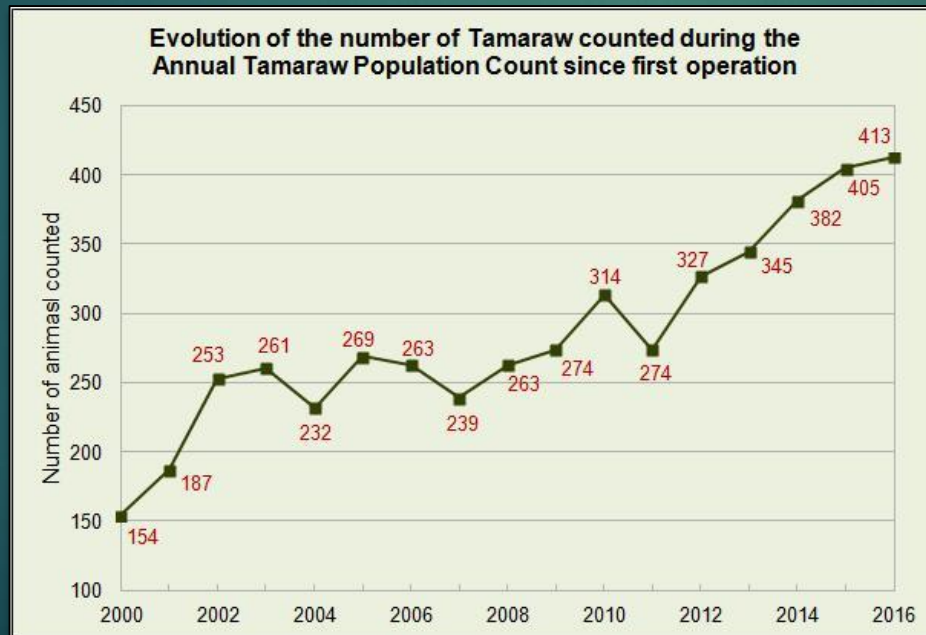
# Tamaraw face multiple threats

- ▶ **Deforestation** (historically)
- ▶ **Disturbance** and habitat encroachment due to increasing pressure on remaining natural areas
- ▶ **Traditional Hunting** from residing indigenous communities, and **Poaching** from lowlander settlers using modern hunting techniques
- ▶ Tamaraw range in Iglit-Baco has contracted by more than 50% since 2000
- ▶ Still much to be learned



# Partial success in Iglit-Baco

- ▶ Tumultuous conservation history
- ▶ PHVA workshop held in 1996
- ▶ Patrolling and monitoring in Mts Iglit-Baco National Park has resulted in some success: The surveyed population has increased in the last 16 years





# Tamaraw Conservation Program

## Background

- ▶ Established in 2012 by Emmanuel Schutz from D'ABOVILLE Foundation
- ▶ Has confirmed presence of Tamaraw in two small isolated populations
- ▶ Building relationships with government, NGOs and local communities



Discussions about adapting Traditional Hunting Management Systems

# Tamaraw Conservation Program

A growing conservation project

- ▶ New partnerships





# The Tamaraw Conservation Program

## Current activities

- ▶ Developing **community managed protected areas** around at least one of the small populations
- ▶ Supporting Park rangers to conduct more effective patrolling in Mts Iglit-Baco National Park
- ▶ Conducting ecological research and improve protected area effectiveness, with expertise and support from Global Wildlife Conservation and IUCN SSC Asian Wild Cattle Specialist Group



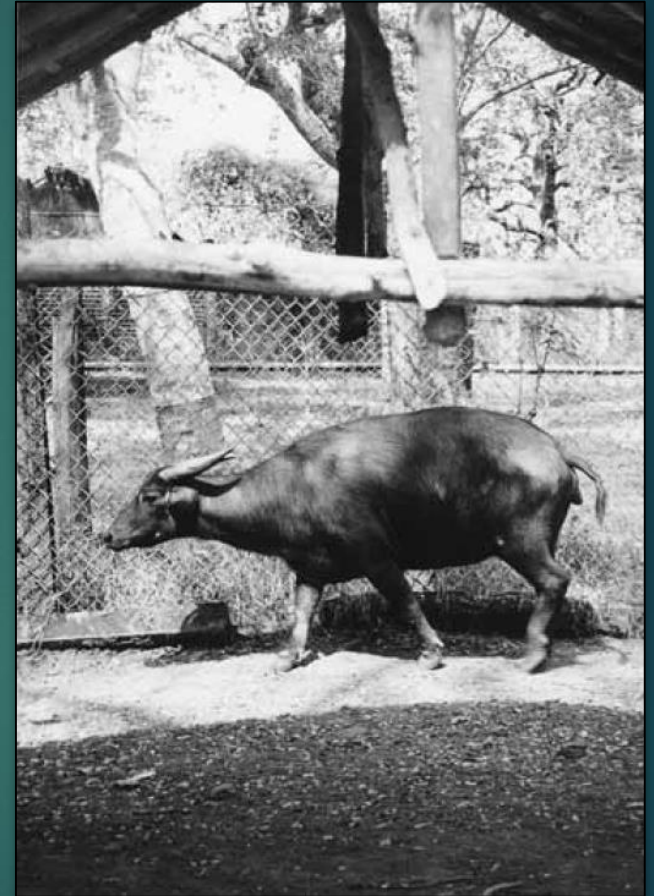
Ranger teams provided with additional GPS kit



Visit made by James Burton and Barney Long (GWC), October 2016

# Tamaraw Gene Pool Centre

- ▶ Originate in the 1980s, with 20 individuals captured 20 from the wild, but high mortality and very limited breeding success for multiple reasons
- ▶ Single male remains, in need of veterinary care
- ▶ Center could play important role in future meta population management, with international support



From Suchomel 2005



# Tamaraw Gene Pool Centre

Visit by James Burton in 2016



Single male individual remains





# Education Center at Tamaraw Gene Pool Centre

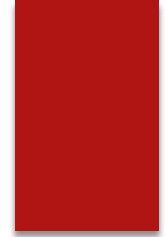




# Future activities relevant to AZA institutions

- ▶ Begin anti-poaching patrols with the 2 isolated populations
  - ▶ High priority: avoid all eggs in one basket
  - ▶ Small funding needed to pay for local community ranger salaries
  - ▶ Camera traps are needed to help monitor these populations
- ▶ Technical assistance for Gene Pool Center
  - ▶ **Veterinary help** and/or **keeper expertise** required to assist with health issues, enhance facilities, and train staff
  - ▶ **Education expert** to support development of materials and on-going activities

# Philippine species housed in AZA facilities



## MAMMALS

▶ **Giant flying fox (*Pteropus vampyrus*)**

▶ **Little golden-mantled flying fox (*Pteropus pumilus*)**

▶ Small flying-fox (*Pteropus hypomelanus*)

▶ Binturong (*Arctictis binturong*)

▶ Oriental small-clawed otter (*Aonyx cinerea*)

▶ Visayan warty pig (*Sus cebifrons*)

## REPTILES

▶ **Philippine crocodile (*Crocodylus mindorensis*)**

▶ Philippine sail-fin lizard (*Hydrosaurus pustulatus*)

▶ **Southeast Asian box turtle (*Cuora amboinensis*)**

▶ Spiny hill turtle (*Heosemys spinosa*)

## BIRDS

▶ Philippine duck (*Anas luzonica*)

▶ Palawan peacock pheasant (*Polyplectron napoleonis*)

▶ Sarus crane (*Grus antigone*)

▶ **Buff-banded rail (*Gallirallus philippensis*)**

▶ **Nicobar pigeon (*Caloenas nicobarica*)**

▶ Mindanao bleeding-heart (*Gallicolumba criniger*)

▶ Luzon bleeding-heart (*Gallicolumba luzonica*)

▶ Black-naped fruit dove (*Ptilinopus melanospila*)

▶ **Green imperial pigeon (*Ducula aenea*)**

▶ **Pied imperial pigeon (*Ducula bicolor*)**

▶ Chestnut-breasted malcoha (*Rhamphococcyx curvirostris*)

▶ **Hooded pitta (*Pitta sordida*)**

▶ Asian fairy-bluebird (*Irena puella*)



# ► Thanks for your attention!

► Please get in contact if you are interested to learn more:

► Brent Huffman  
[brent@ultimateungulate.com](mailto:brent@ultimateungulate.com)

► James Burton  
[jamesaburton@yahoo.co.uk](mailto:jamesaburton@yahoo.co.uk)





# Objectives of Tamaraw Conservation Program

- ▶ **Objective 1: Improve the governance and protection measures inside the Protected Area**
  - ▶ **Fight illegal activities** and reduce wildlife poaching
  - ▶ Support the development of a proper **Protected Area General Management Plan**
  - ▶ **Support the proclamation of MIBNP under NIPAS: “Natural and Biotic Area”**
  - ▶ Support the establishment of a dedicated and co-managed “**Indigenous Community Conserved Area**” (ICCA)
  
- ▶ **Objective 2: Establish a proper zoning system along with an integrative traditional hunting management planning within the CZM**
  - ▶ Establish a “**Strict Protection Zone**” to secure a minimum security area for wildlife
  - ▶ **Increase potential areas of dispersion and survival** on most recent range of Tamaraw
  - ▶ **Encourage traditional lifestyle** and sustainable practices of IP communities



# Objectives of Tamaraw Conservation Program

- ▶ **Objective 3: Introduce and develop an innovative land-use management approach and sustainable subsistence capacities to residing IPs communities**
  - ▶ **Ensure subsistence** means and **increase productivity** of land
  - ▶ **Decrease need for more land** for kaingin and preserve mature and aging forest
  - ▶ **Enhance production** for inside and outside market opportunities
  
- ▶ **Objective 4: Support the development of an Island Wide Strategy of Conservation for its biodiversity and the Tamaraw as key species**
  - ▶ **Conduct island wide ecological assessments and surveys** to locate remaining Tamaraw groups and identify suitable areas for subpopulations survival.
  - ▶ **Design meta-population structures and models** to ensure efficiency of conservation efforts and long term viability of the different sub-populations
  - ▶ **Define long term vision** for Mindoro biodiversity and land-use management