

Raising awareness about the protection of binturongs



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Arctictis Binturong Conservation

Support document on awaranness-raising

Information on binturongs



Binturong means “bear-cat” in Malay. In Myanmar, it is called “monkey-tiger”.



Class: Mammal

Order: Carnivora

Sub-order: Feliformia

Family: Viverridae



Characteristics:

- Weight: 9 – 24kg [19 – 52 lb.]
- Length (+tail) : 60cm – 90cm (+ 60 – 90cm) [2 – 3 ft. (+ 2 – 3 ft.)]
- Prehensile tail
- Perineal scent glands, odor similar to popcorn



Southeast Asia: Vietnam, Thailand, Cambodia, Myanmar, Indonesia, Malaysia, Philippines (only on Palawan Island), Bangladesh



Ecological role:

Binturongs participate in seed dispersal and germination, as they ingest fruits and the seeds travel through their digestive tract. Their digestive enzymes promote seed germination.



Behaviour:

- Lives in primary and secondary tropical forests
- Arboreal (rests between 10 and 20 m [32 to 65 ft.] high in trees)
- Nocturnal
- Solitary



Gestation: 90 days

No breeding season observed

Cubs per litter: 1 to 3

First teeth growing: around 25th day

Diet shift from milk to fruits: 45 – 60th day



Diet:

- 80% fruits
- 20% small prey (birds, reptiles, insects, etc.)

Status and conservation



Main threats:

- Massive deforestation
- Poaching and illegal traffic: sold as a pets or for their meat. Several parts of the body are also used in certain traditional Asian medicine products



EX SITU: European Endangered Species Program – The binturong is part of a European breeding program managed by the European Association of Zoos and Aquaria (EAZA)



IN SITU: Convention on International Trade of Endangered Species - The binturong is listed on Annex III, which means live individuals can be sold in certain countries.

MISSIONS:

- Study the binturong by conducting *in situ* research through our program in the Philippines: the Bearcat Study Program.
- Raise awareness through interventions in schools, zoological institutions, and festivals in France. Organize and participate in the World Binturong Day, as well as interventions on environment protection, particularly in the Philippines, for our new program “From Awareness to Actions for Nature Conservation”.
- Protect the binturong and the environment, by creating partnerships with Asian wildlife rescue centers and developing our conservation and study program in the Philippines.



Study and conservation program



Created by ABConservation in 2017



Bearcat Study Program: collecting data on ecology and biology of the binturong by:



- Setting camera traps 10 – 20 m [32-65 ft.] high in trees.
- Radio tracking wild individuals that will be caught, fitted with radio collars and released in their habitat.



Palawan Island (Philippines)



From Awareness to Actions for Nature Conservation: Promote a sustainable awareness of nature protection and conservation among the general public:



- Training program for teachers of primary schools, high schools, universities
- Introduction to Zero waste
- Screenings of environmental movies
- Beach and forest clean-ups
- Educational interventions in schools



Renovation of the Palawan Wildlife Rescue & Conservation Centre: Helping the center to improve their permanent residents' living conditions, providing assistance with the release of others into their natural habitat



- Creating new aviaries and wider enclosures for permanent residents
- Building a flight aviary to rehabilitate birds before release
- Launching a volunteer program
- Improving veterinary care of the rescued animals

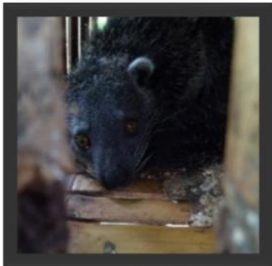


Aim of the awareness-raising campaign



A little-known species:

- Promote a better public knowledge of the binturong
- Create a desire to protect the species



A threatened species:

- The binturong is currently facing threats
- These threats can be dealt with
- We can all, at our level, act for binturong conservation

Tools to share knowledge



Binturong made of papier-mâché



Binturong made of wood



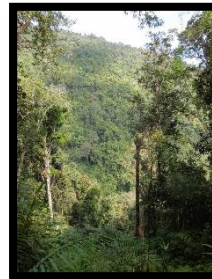
Stuffed binturong specimen



Binturong photographs



Earth globe or world map



Photographs of its natural habitat



Skull of a binturong, of an herbivore, of other carnivores



Fresh exotic fruit



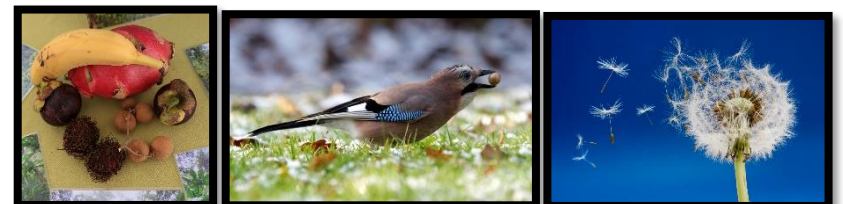
Pictures of fruit



Smelling box



Photos of a binturong using its tail



Fresh fruits, seeds, and pictures to illustrate seed dispersal

Tools to explain why it is threatened



- Why: Production of fine wood, clearing space to plant palm oil trees, or heveas to produce rubber, or teak for root-proof wood
- Solutions: Protect forests, use local materials, buy local food products, promote zero waste and stop the use of single-use items.



- Why: Used as a display animal, a pet, but also hunted for its meat and some traditional Asian medicine
- Solutions: Information campaigns, refrain from buying wild animals (in your home country or when traveling abroad), be aware of how products bought in Asia are made (find out how coffee is produced, check the composition of medicinal products...)



Educational panels



Tasting of local products Alternatives to single-use and palm oil-free products



- Recipe to make your own natural and palm oil-free cosmetic products
- Palm oil-free recipes for desserts or other sweets
- Offer a list of beauty and food products that are free of palm oil and still affordable

Activities: making enrichment

INTRODUCTION

In their natural habitat, all animal species have various types of activity periods: this includes foraging for food, or defending their territory. They are constantly stimulated by interacting features of their environment. The only periods of inactivity are usually limited to resting time, when the animals recover some energy. For this reason, they do not face boredom in their natural habitat.

In zoos, their basic needs are met as most elements they need are provided for. Therefore, their activity periods are limited and the animals are prone to experience boredom, especially with their territory being restricted.

What can we offer binturongs to stimulate their natural instincts and reduce boredom?

ENRICHMENT

In zoos, animals may not express the same behaviour as they would in their natural habitat, which can be a cause of poor welfare. Enrichment includes all types of tools we can use to provide the animal with a suitable environment. There are various types of enrichment, which can contribute to the well-being of captive animals and allow them to express natural behaviour.

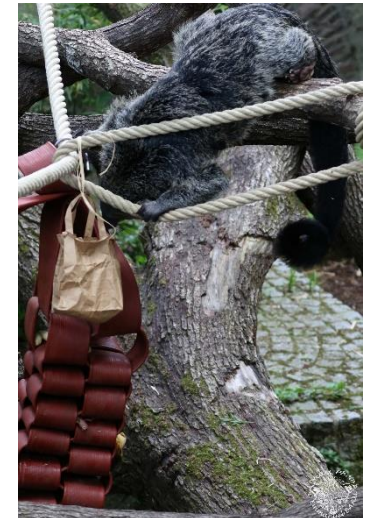
- Food enrichment: its principle is to encourage foraging (hiding the food, spreading it in the enclosure, feeding at varying times, providing whole fruits or prey, etc.)
- Sensory enrichment: aiming to stimulate the use of all five senses: sight, hearing, smell, touch, taste (trail of prey blood, syrup, lemon, herbs, scattering hair of another species inside the enclosure, etc.)
- Structural enrichment: based on territorial exploration needs (modifying enclosure structures, adding climbing posts, ropes, versatile hammocks...)
- Social enrichment: focusing on interactions between individuals of one or more species (mixed exhibits, for example binturongs with otters, or orangutans, or gibbons)
- Cognitive enrichment: relying on the development of mental skills (setting medical training sessions, creating labyrinths in primate enclosures, etc.)

VARIOUS TYPES

It is necessary to keep in mind the natural behaviour of binturongs. They live in forests, are arboreal, feed on fruit and small prey. They are nocturnal and have an acute sense of smell.

Activities: Creating enrichment

- Photos and/or videos of different types of enrichment: food, structural, cognitive, sensory, social
- Fresh fruit
- Materials for enrichment crafting:
 - Banana leaves
 - Natural raffia
 - Paper bags
 - Spices and herbs (curry, cinnamon, thyme, lavender, etc.)
 - Hair collected from mammals, feathers
 - Fire hose
 - Rope (at least 6cm/2.5in thick)



Activities: Miniature binturong enclosure

INTRODUCTION

Zoological institutions must meet the physiological and ecological needs of the animals in their care, which means committing to act for their welfare. For this objective, zoos are required to collect all available scientific and zootechnical data about these needs. This data is essential to provide the best husbandry and appropriate public presentation (French legal reference: National order of 25 March 2004, chapter 3 and 4).

BEHAVIOUR

Reminder about binturong behaviour displayed in their natural habitat: living in forests, arboreal, resting high in trees, foraging for large amounts of fruit, being solitary.



- Cardboard
- Aluminum foil
- Natural raffia
- Mulch + sticks
- Green, brown and blue crepe paper
- Markers, pencils
- Glue and scissors



Activities: Binturong board game

INTRODUCTION

A presentation about binturongs, conservation, and the Bearcat Study Program



- Thick cardboard square of 1m x 1m (about 40 inches)
- 1m x 1m Print of the board template (See: Binturong games)
- A large dice
- Figurines
- Paint to write/draw on the ground (acrylic spray paint for example)
- 1 meter-long sticks, same number of boxes
- Numbers printed on A4 cardboard squares, to put on top of the sticks
- Questions printed on small papers (laminated if possible)



Activities: Seed balls

Plants are not mobile beings, so they need to disperse seeds to propagate themselves in the environment. In the wild, several strategies exist to allow new plants to grow.

INTRODUCTION

- With the wind (Anemochory) → Pine tree, plane tree
- With water (Hydrochory) → Water lily
- With humans (Anthropochory)
- By the plant itself (Autochory) → *Ecballium*
- With gravity (Barochory)
- With various animals (Zoochory), traveling on hair or inside digestive tract → Cherry tree

BEHAVIOUR

Give an overview of the binturong's ecological role and its positive impact on its environment.

SEED BALLS

Created by Japanese farmer Masanobu Fukuoka, these little balls of clay and soil contain seeds. They were used by Liz Christie in 1973 for actions of the Green Guerilla movement. [This movement was at the start of green activism. It uses a « warrior » approach of gardening: in a similar way with street art, it aims to reclaim privatized urban space. It all started with illegal flower planting campaigns, followed by the transformation of an abandoned plot into a community garden.] See DIY instructions here: <http://www.makery.info/2015/05/05/bricole-it-yourself-la-bombe-a-graine/>



- Soil
- Clay
- Water
- Seeds
- A large container, for example a salad bowl
- A measuring cup

Activities: Seed balls



- Pour 2 cups of clay into the large container
- Add one cup of soil (if possible, mixed with a bit of compost).
- Mix together
- Gradually add water and mix until obtaining the texture of plasticine
- Form balls of about the size of a walnut or a ping-pong ball
- Press a finger into the dough and place a few seeds inside the hole: about three if they are large, up to 10 if smaller seeds.
- Close the hole over the seeds and roll the ball into a nice spherical shape.



Activities: A remarkable arboreal species

What is a tail? An animal's tail is actually the extension of its spine, and is made of a number of more or less mobile vertebrae. Most vertebrate species have one. However, humans and other large primates do not have one.

INTRODUCTION

Would you be able to tell why the tail is useful for various animals? For example, in cats or rats? (For balance) Or crocodiles? (For swimming). Iguanas? (To defend itself). Crows? (To fly, to maneuver).

BEHAVIOUR

Describe the tail of binturongs. It is a prehensile tail (Define what it means), how does this animal use it? To grab branches to move inside and between trees, and to keep its balance. What about humans, are we arboreal too?



- Pictures of animals using (for different purposes) their tail (rat, iguana, crow, etc.)
- A slackline
- If needed, a floor mat



Activities: Story bags

INTRODUCTION

After a full presentation about the binturong (just as with the board game) and a distribution of the illustrated educational booklet. Children should be able to build a story about the binturong and tell it to their parents at home. For this, a story bag is made, with the crafting of a forest on a paper or fabric bag, cutting and colouring of characters. In this bag, children can put their educational booklet, printed mask, colouring sheets, as well as their own characters so they can tell to story of the binturong to their parents.

- Cardboard/paper/fabric bag
- Newspaper
- Green, brown and blue crepe paper
- Pencils and markers
- Sticks, such as skewers or ice cream sticks
- Printed paper characters (binturong, orangoutan, macaque, leopard, snake, cockatoo, researcher with his binoculars, cage, poacher, etc.)



Tips for communication



- Smile



- Choose to stay standing rather than sitting for too long
- Show dynamism



- Adapt to you public