

Promoting Sustainable Land Management through Biodiversity Investigation

Welcome to the Identification Guide!

This identification guide describes a selection of plants and animals that are commonly seen at NaDEET Centre on NamibRand Nature Reserve.



Extending over an area of 172,200 ha, the NamibRand Nature Reserve shares a 100 km border with the Namib-Naukluft Park. This privately protected area in the pro-Namib is critically important in facilitating seasonal migratory wildlife routes and thereby protecting biodiversity.

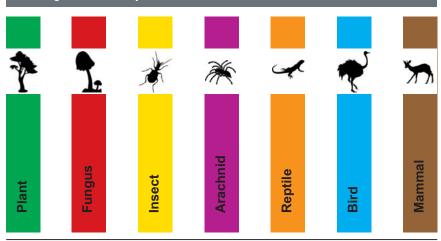
Many of the species on NamibRand are also found in other parts of the Namib Desert and even throughout Namibia. The guide aims to help you identify animals and plants and to learn about their different adaptations and importance to the land.

How to use the identification guide

Use the steps below to correctly identify the species you have seen. Identify = to distinguish between different types of species (living things).

Find the right section

First find the correct section of the booklet for the species you are trying to identify. There are seven sections in this guide. The different sections have the following colours and symbols:



Find the right species

Look at the photographs in the correct section. When you have found a species that looks similar to what you are trying to identify, read the information given for that species. This includes:

- o English common name
- o Size

o Scientific name

Description

General information

Notes to species' sizes:

Depending on body shape, living things are measured in different ways. The sizes of species in this booklet are measured as follows:

Plant and fungus: Average height in meters (m) or centimetres (cm)

Insect and **arachnid**: Average body length (including legs) in centimetres (cm)

Reptile: Average snout to vent length (SVL) (excluding tail) in millimetres (mm)

Bird: Average height in centimetres (cm)

Mammal: Average shoulder height in meters (m), average weight in kilograms (kg)

Learn more:

Lastly use the symbols and the general information to learn how the species is adapted to living in the Namib Desert. Different symbols are given to every species as described below:



Binocular: the animal can be seen and observed primarily from a distance.



Magnifying glass: the animal can be looked at closely. Plants always have this symbol.



Sun: diurnal animal (active during the day)



Moon: nocturnal animal (active during the night)



Endemic: Animals and plants that only occur in one geographic area. For this identification guide, this symbol is given to any species that lives primarily in Namibia. An endemic species does not naturally occur anywhere else in the world.

Endemics and Biodiversity

Endemics are a useful tool to measure biodiversity in a region. Generally, the higher the rate of endemism, the higher the biodiversity. Resource managers and farmers can use this information to better take care of the land.

ARE THE VOCABULARY WORDS TOO DIFFICULT?

This identification guide has tried to simplify many words often used in identification books. For words that are unfamiliar to you, go to the glossary in the back of the guide for help.

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Camel Thorn Acacia erioloba









Size: 3-20 m

Description

This tree has a unique appearance when it is old. It has a spreading canopy and rough, grey to blackish bark. The young branches are shiny and reddish-brown. It has small leaves and paired, straight, light grey thorns and produces golden-yellow ball shaped flowers. The fruit is a thick, short pod, often shaped like a half-moon or human ear and is covered with fine creamy-grey hairs.

Biology

This is one of the most common trees in the Namib Desert and provides food and shelter to many animals. The thorns protect the leaves from browsers and reflect the rays of the sun. The leaves will fold together when it is very hot to reduce exposure to the sun. It has a thick bark that assists in regulating the internal temperature of the tree. The long taproot helps the tree to get water from deep underground.

Wild and domestic animals eat the nutritious seedpods, which contain lots of protein. The animals cannot digest the seeds and therefore they are excreted with the animal's droppings. The stomach acid of the animal dissolves the hard outer layer of the seed and this helps the seed to germinate.

Similar species

Candle-pod Acacia

Acacia hebeclada

Size: 2-12 m

The seedpods are present year round and stick up like candles on a Christmas tree making this tree easy to identify.



Flightless Orange Dung Beetle

Scarabaeus (Pachysoma) denticolle







Description Size: 20 mm

A small, flightless dung beetle with orange and black wing covers. The head is strongly "toothed".

Food & water

It eats dry dung pellets and detritus and obtains some moisture from the dung.

Biology & general information

This beetle drags the dung, unlike most dung beetles that roll it. It buries the dung in burrows in the sand. Small flies often live on the dung beetle. These flies clean the dung beetle and in turn get a "free ride" to food - the dung! The flightless orange dung beetle mimics the similar looking flying orange dung beetle.

Similar species

Flying Orange Dung Beetle

Scarabaeus rubripennis

Size: 20 mm

This beetle looks very similar to the flightless orange dung beetle, however it is much faster and can fly.





Dancing White Lady Spider

Leucorchestris arenicola





Description

The white lady spider belongs to the large group of huntsmen spiders. It is creamywhite and has long legs. It does not build a web, but lives in a 30-40 cm long silklined burrow constructed in firm dune sand.

Food & water

It captures prey by actively hunting from the tunnel. The spider is less active on bright, windy or foggy nights.

The prey, mainly beetles, moths and other spiders, is usually consumed in the burrow. It has even been recorded to eat a Namib dune gecko. It gets water from its food. The spider is also cannibalistic.

Reproduction & general information

The female lays about 60-80 eggs off which only 1-2 reach adulthood. Adult males only live for one or two months while adult females live up to 6 months or more.

The "dancing" part of the name is a reference to the dancing action when it drums its legs on the sand. The purpose of the drumming is to communicate with other male or female spiders.

Similar species

Wheel Spider

Carparachne spp.

Size: up to 35 mm

This spider is well-known for its ability to escape predators by 'cartwheeling' down sand dunes.



Lappet-faced Vulture

Aegypius tracheliotos







Description Size: 98-105 cm

It's a huge bird, often soaring high in the sky. It has a wingspan of up to 3m. In flight, the white thighs and white bar running along the underwing are easy to see. It has a bald, pink coloured head. The head is bald because a feathered head would be difficult to keep clean.

Food & water

The Lappet-faced Vulture is a scavenging bird. This means that it feeds mostly from animal carcasses. These dead animals are found by sight or by watching other birds. It gets water from the food, but also drinks at waterpoints.

Reproduction & general information

The Lappet-faced Vulture does not breed until at least six years of age, and prefers semi-arid or desert areas for breeding. Nests are built on top of trees. It normally only lays one egg per year. This species is found throughout Namibia.

Endangered species

Many vulture species have declined during the recent times due to human activity. Poisoning and habitat loss have reduced the number throughout southern Africa. As a long living and slow reproducing species, the populations are declining. The Lappet-faced Vulture is an endangered species (IUCN Red List Category: vulnerable).



Grant's Golden Mole

Eremitalpa granti namibensis





Description Total length: 6-8 cm Weight: 15-30 g

This small mammal fits in the palm of your hand and does not have eyes. Therefore, it has a very good sense of hearing to locate its food. It has broad, hollowed-out claws to dig in the sand.

The golden mole is not a relative of a mouse. It belongs to a super order "Afrotheria", which includes e.g. elephants, sea cows, elephant shrews, hyrax and aardvark.

Food & water

It eats insects, mainly termites, which are found at the roots of the ostrich grass and dune grass. It finds these termites by hearing the clicking sounds that the termites make. The termites are a good source of protein and have a high fat content to provide moisture. Other prey items include larvae of beetles and legless skinks. It gets its water from its food.

Reproduction & general information

The golden mole gives birth to live young.

It is able to 'swim' underground to get around and protect itself from nocturnal predators like an owl. It uses thermoregulation to control its body temperature. This means that although they are warm-blooded, they can change their body temperature to be similar to the surrounding temperature to save energy.



Design: Dirk Heinrich Photo Library - 2010