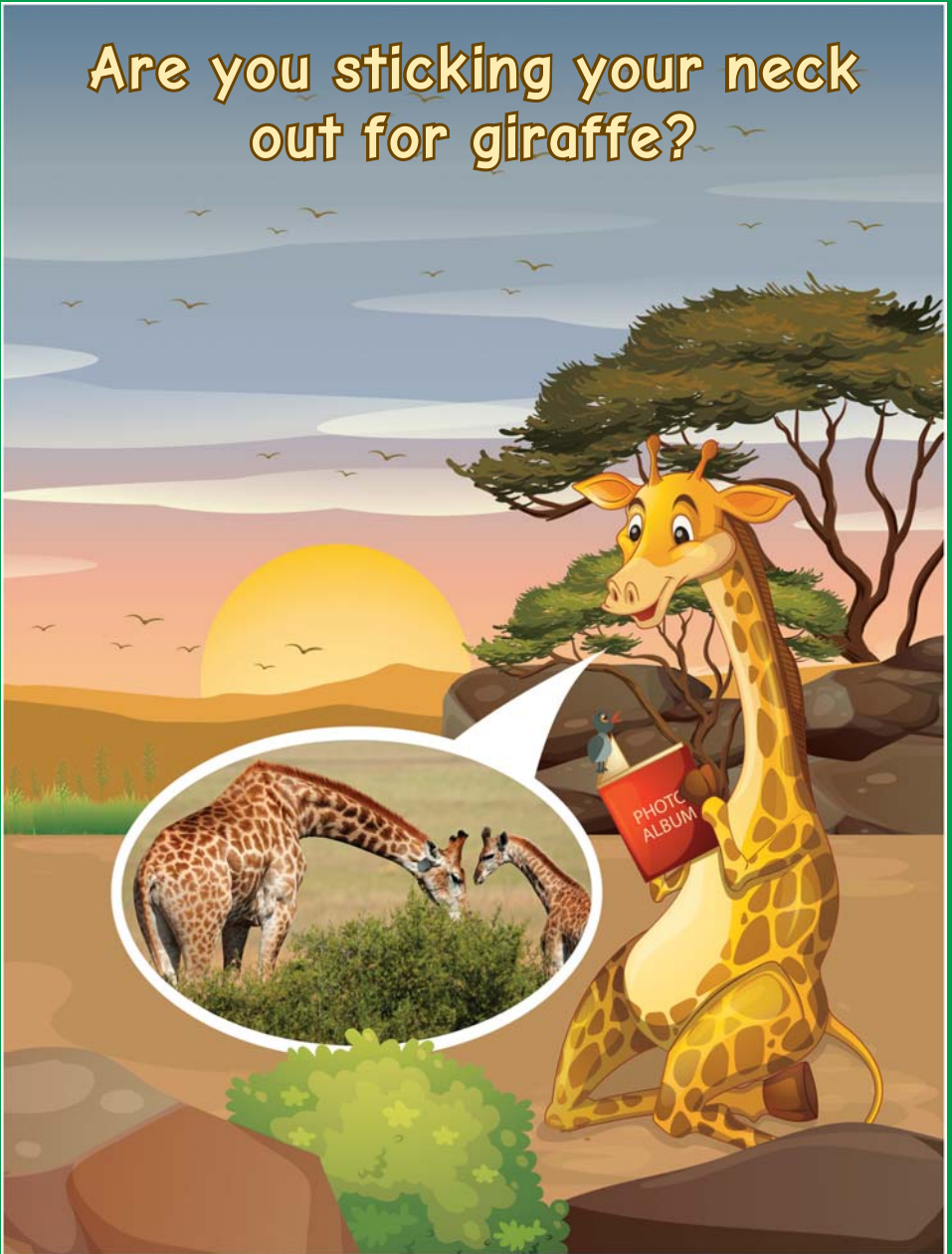




Are you sticking your neck out for giraffe?



Meet the World's



What comes to mind when you think of me?

Tall? Long neck? Spotted? Beautiful?

Food!

What, FOOD?

But you are a bird!
An oxpecker!

Exactly, I love to eat the ticks that are on your back. And the view up there is great!



Let's get started by learning some giraffe basics:

Ossicones

Giraffe seem to have 'horns', but they are actually ossicones. These are made of cartilage and at birth they are flat and unattached to the skull.



Neck

The necks can grow up to 2m long! BUT, just like a human neck they only have seven neck bones called vertebrae!

Tongue

At about 50cm the tongue is dark-purple which may protect it from sunburn.

Heart

Giraffe have the heaviest heart of all land mammals. Weighing up to 11kg it can pump up to 60 litres of blood per minute!

Coat

These patches are one of a kind - just like human fingerprints! No two giraffe have the same spot patterns!

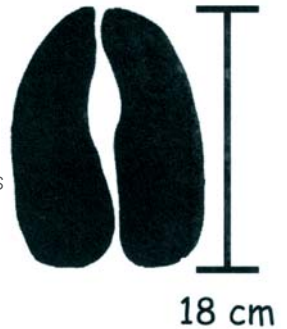


Legs

Very long legs help giraffe to run up to 50km/h.

Hooves

Big hooves have a diameter of 18cm.



FUN FACT





Both male and female giraffe have ossicones. Over time the hair on the male giraffe ossicones gets bald.

Tallest Animal

Wow, giraffe have so many interesting adaptations!
I wonder how they use these cool traits to eat, drink water, sleep and protect themselves?

Eating



Giraffe are herbivores. They:

-  mostly eat the high-up leaves of thorny **Acacia** trees that others cannot reach.
-  have tongues covered in saliva. This prevents it from getting injured.
-  eat up to 70kg food daily.
-  have a four-chambered stomach to digest their food.





Protecting themselves

Being tall give giraffe an advantage over other animals. They can:

-  spot predators from afar (and help to warn others).
-  kick their long legs in all directions.



Drinking

Giraffe like to drink water, but only do when they need to. They:

-  drink less than camels! This makes their droppings small and dry.
-  have longer forelegs than their already long neck! So, they must spread their forelegs wide or bend their knees to drink.

Sleeping

Giraffe sleep while standing, but sometimes they do lie down. They:

-  normally only lie down for a short time to avoid predators.
-  often only sleep for 5–20 minutes at a time.



FUN FACT

Like many herbivores, giraffe are important seed dispersers! Most seeds of **Acacia** trees grow very well once they have been through their stomach.

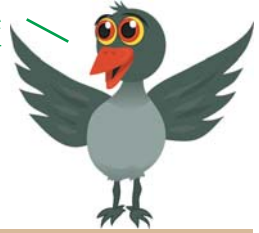
Explore the Different



We giraffe are all the same, right?

Actually, I just overheard some researchers talking about that they think there are four different giraffe species!

Wow, I didn't know that. I want to meet these other types of giraffe.



Let us meet the different giraffe!



Southern Giraffe - *Giraffa giraffa*

Distribution: Southern Africa, which of course includes Namibia

Population: approximately 52,000

There are two sub-species:

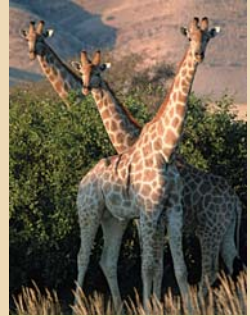
South African giraffe

(*G. g. giraffa*):

🦒 Brown-coloured, star-shaped spots surrounded by tan colouring.

Angolan giraffe (*G.g. angolensis*):

🦒 Lighter coloured. Large brown, uneven spots surrounded by pale-cream colouring.



ID notes:

- 🦒 Two ossicones
- 🦒 Randomly speckled lower legs with uneven spots.

Giraffe Distribution in Namibia



In Namibia, we mostly have the Angolan sub-species of the Southern Giraffe. There are only a few South African giraffe in the Zambezi Region.

Earliest records of giraffe in Namibia

Throughout the country there are places with rock engravings such as the World Heritage Site at Twyfelfontein.



Here you can find some of the earliest records of giraffe.



FUN FACT

Angolan giraffe have the largest recorded home ranges of up to 11,600 km² in Africa. That covers more than twice the area of the City of Windhoek.

Types of Giraffe

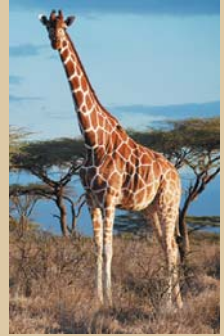


Reticulated giraffe - *Giraffa reticulata*

Distribution: Kenya, Somalia and southern Ethiopia.

Sub-species: 0

Population: Only 9,000



ID notes:

- ↗ Three ossicones
- ↗ Rich orange-brown patches making a network or web of white lines. This gave it the name 'reticulated'.

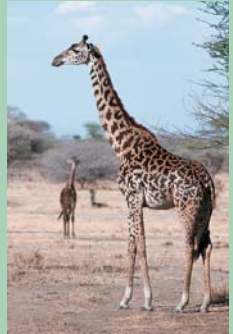


Masai Giraffe - *Giraffa tippelskirchi*

Distribution: Kenya, Tanzania and Zambia

Sub-species: 0

Population: 32,500



ID notes:

- ↗ Three ossicones
- ↗ Large, dark brown, vine leaf-shaped patches surrounded by creamy-brown colouring.



Northern Giraffe - *Giraffa camelopardalis*

Distribution: Eastern and Central Africa.

Population: Only 5,000

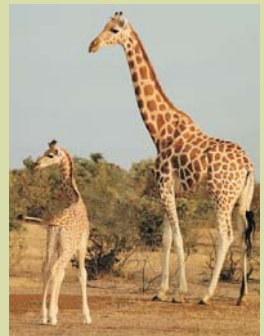
There are three sub-species:

1. Kordofan giraffe (*G.c. antiquorum*):
2. Nubian giraffe (*G.c. camelopardalis*):
3. West African Giraffe (*G.c. peralta*):



ID notes:

- ↗ Five ossicones
- ↗ No markings on lower legs



FUN FACT



The name 'camelopardalis' comes from the Romans because they thought that the giraffe looked like a mix between a camel and a leopard. But the name giraffe originally comes from the Arabic word 'zarafah' meaning fast-walker.

Testing Giraffe Genetics

How did scientists actually figure out these differences?

Easy, they just looked at the spots.

No, it is not that easy! You need to look at more than the spots as they can vary even within the same type of giraffe.



DNA is a molecule that carries genetic material. It is unique to a species and every individual. DNA testing today has become very advanced. This means we can discover new information about species and their relationship to other species that we did not know before.



DNA stands for deoxyribonucleic acid. This is what it looks like.



Giraffe under the microscope

Up until recently, it was believed that all giraffe were the one species with nine sub-species. But now with new DNA testing it is possible to check if this is true. This is how it was done:



First, small skin samples from over 500 giraffe from all different giraffe populations in Africa were collected. Even more samples are being collected.

These were then tested and analysed for their DNA.



The results of tests showed that the samples fell into four groups. Between the four groups there was no evidence of mixing.

Now this information about giraffe needs to officially recognised by international conservation bodies and conservation efforts need to be adjusted.



FUN FACT

No two human beings are exactly genetically the same, but we are all more closely related than you think! On average there is only a difference of 0,1%.

Are Giraffe in Danger?



I read that my relatives in other parts of Africa are suffering.

That is terrible. I wonder what is bothering them?



Threats to giraffe

Most threats are caused by humans. These include:



habitat loss and fragmentation



human population growth



poaching



climate change

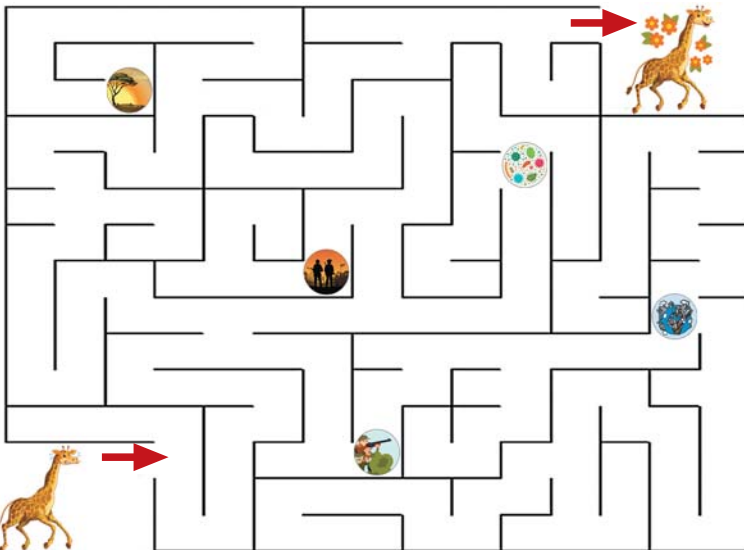


civil war



disease

Directions:
Help the giraffe find its way past all the threats!



Giraffe in Namibia

Namibia is a giraffe conservation success story. Here giraffe numbers are increasing due to good teamwork. Read the interview with Dr. Fennessy to find out more!



FUN FACT

Because of their size, adult giraffe are not easily preyed on by other animals. But, young giraffe need to watch out!

Taking Action - Giraffe Conservation



We need to stop sitting around and doing nothing! Let us start taking action!

Absolutely, I depend on you! Luckily there are some organisations already protecting giraffe.



International
Union for
Conservation of
Nature (IUCN)
www.iucn.org



Giraffe on IUCN Red List as "Vulnerable"

The IUCN is an international membership organisation of governments and civil society organisations. Since 1948 it is the global authority on status of the natural world.

The **IUCN Red List** is a list of species that are threatened. Having this status is of great importance because it helps bring attention to species that require protection. Over the last 30 years, giraffe numbers have declined by almost 40%.

Giraffe Conservation Foundation (GCF)

GCF is the only NGO in the world that concentrates solely on the conservation and management of giraffe in the wild throughout Africa. GCF is a Namibian organisation based in Windhoek but works throughout all of Africa. It is important to them to work in partnership with government.



They are dedicated to a sustainable future for all giraffe populations in the wild by:

- raising awareness
- providing support to giraffe conservation programmes
- conserving their habitat in Africa



You can join the GCF to help protect giraffe! Check out their website to learn more:

www.giraffeconservation.org

Environmental Education for Giraffe

The GCF Khomas Environmental Education Programme (KEEP) offers day programmes in Daan Viljoen Game Reserve outside of Windhoek for grade 3 & 4 classes.

Contact them to participate:



081 669 2666 or rachel@giraffeconservation.org

With support from GCF, the NaDEET Centre offers grade 8-10 a secondary school programme with a focus on giraffe.

See our details on the back.



FUN FACT

World Giraffe Day is every year on the 21 June. It is the longest day (or longest night) of the year for the tallest animal of the world.

Make sure to celebrate!

Personalities in Conservation

Name: Dr Julian Fennessy

Number of years on the Job

Involved in giraffe conservation and research since 1998

In my spare time for 16 years

Full-time employed for 3 years

Name of Organisation: Giraffe Conservation Foundation (GCF)

What made you interested in giraffe and their conservation?

I was working on a project in northwest Namibia in the late 1990s and realised that there was very little information available on any aspects of giraffe ecology and conservation. Sure, there had been some valuable research done, but it was often limited, once-off efforts, nothing long-term. Based on this, I realised that more could be done. A better understanding of giraffe science would help us to better conserve giraffe.



What has been your most interesting discovery?

I have been lucky to work with a lot of great partners over the years, and last year we published a paper proposing 4 species of giraffe – not just one. This was exciting and totally unexpected but the results are conclusive. It will help raise more attention for giraffe and lead to greater conservation efforts moving forward.

What difference have you seen between giraffe numbers today and when you started?

Sadly, giraffe numbers have dropped, and in some places, continue to do so. In the last 30 years, we estimate a decline of almost 40% of giraffe in the wild. But...there are some success stories, and numbers in Namibia have boomed through great public, private and community-based conservation efforts.

What has been challenging about your job?

Giraffe are the 'forgotten giants' and convincing people that they are threatened in some countries has been challenging. Increasing support, education and awareness has been hard at times but it looks like we are starting to make a difference.

Additionally, people and personalities, as in many businesses, often get in the way of the task at hand but rising above it is key, yet challenging, at times.

What is your message to young people?

It is important to dream big, but more importantly is to get out there and do it. Others can inspire and support you, but in the end it is you who has to do it.



Go on a Giraffe Exploration



Did you know that when you count giraffe you say 1 giraffe, 2 giraffe, 3 giraffe and so on. You do not need to put an 's' at the end of giraffe. So you don't say giraffes but instead you say giraffe! Let us go on an exploration in the Kunene Region to look for giraffe.



Directions: Study the picture and fill in the answers to each question.

- 1) How many animals in total do you see? _____
- 2) How many different types of animals do you see? _____
- 3) Of the giraffe, how many are sitting? _____
- 4) How many birds can you find? _____
- 5) How many ossicones can you see? _____
- 6) How long do you think the sleeping giraffe has been asleep? _____
- 7) How fast could the giraffe be running? _____



FUN FACT

When a giraffe calf is born, it falls almost 2m to the ground and is able to stand up on its own within one hour!

HOLDEN'S HANG-OUT



Holden Mole is the name. NaDEET's my hangout spot. I love Namibia. My number one job is to get the basics - my food, water and shelter. "Education is the key"- I know everyone says it, but it is true. So if you don't know, ask me.

Holden Mole, NaDEET, PO Box 8702, Swakopmund
 email to: admin@nadeet.org or post them on NaDEET's Facebook page

Dear Holden
 Why do people always kill animals?

Mikaela in Rehoboth

Dear Mikaela

Well, people kill animals for many different reasons. One of the reasons that has increased the killing is human and wildlife conflicts (HWC). Because of the drought in Namibia in recent years, wild animals move out of protected areas into communal land in search of water and sometimes end up killing cattle. This increases HWC and farmers end up killing wildlife. Another reason is that some people kill animals because they want to get food to eat or (in some cultures) for their skin which they need for clothing. Some people kill animals illegally (poaching - e.g. when rhinos are killed for their horn) or as a sport (trophy hunting). However sometimes animals are also killed for conservation reasons. When the number of a certain species is too high, some animals are killed off to regulate their numbers (culling).

Cheers for now, Holden

Update from Last Issue

Page 6

Medicinal plants Activity

There many medicinal plants depending on the area where you live! Together with your teacher/friend look at your answers and share your findings!

Remember do not try to use these plants without adult supervision, if used incorrectly they can be poisonous!

Page 10 Word Search

Bitterbush Climate change Environment Proverbs
 Indigenous Knowledge NIKSC Plants
 Resources Waste Water



& Know your Plants

KNOW YOUR PLANTS

Look throughout the pages to match the plants to the correct names. One has been done for you.



Ghaap Wild Camphor Bush Bitter Bush Sambokbossie

1st place winner: Eco Media Awards "Publishers House" category 2010

Official youth magazine of the Roan News

Written by: Viktoria Keding & Viktoria Endjala **Illustrations:** Ida Blaauw & Shutterstock

Sponsored by:



Photos: GCF, NaDEET, Billy Dodson, Ami Vitale

NaDEET Centre: A Sustainable Living Experience



NaDEET Centre offers week-long programmes for school, youth, educator & adult groups in the Namib Desert.

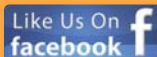


NaDEET Head Office: Tel: +264 (0)81 367 5310

Fax: +264 (0)88 655 2669

P.O. Box 8702, **Swakopmund, NAMIBIA**

admin@nadeet.org ~ www.nadeet.org



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