

AGE
8-10



SLOCKY & MARLEY THE AMAZING SLOTHS!



Illustrations and book:
Cecilia Pamich & The Sloth
Conservation Foundation ©





SLOCKY & MARLEY THE AMAZING SLOTHS 2018

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Design, characters and production: Cecilia Pamich
Leaves design created by Freepik

"In the end, we conserve
only what we love.
We will love only
what we understand.
We will understand
only what we are taught."
- Baba Dioum

AN EDUCATIONAL BOOKLET ABOUT SLOTHS

Sloths are facing lots of problems, but with the help of people like you, saving them is possible! In this booklet you will learn a lot about sloths and you can have fun with the activities!

This is a book by the Sloth Conservation Foundation: we are based on the caribbean coast of Costa Rica and our mission is to help sloths in the wild. Before we start, let's meet Marley and Slocky, the two sloths that will help us throughout this booklet!

HI ! I'M SLOCKY!

I'M A THREE-FINGERED SLOTH!

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AND I'M MARLEY!

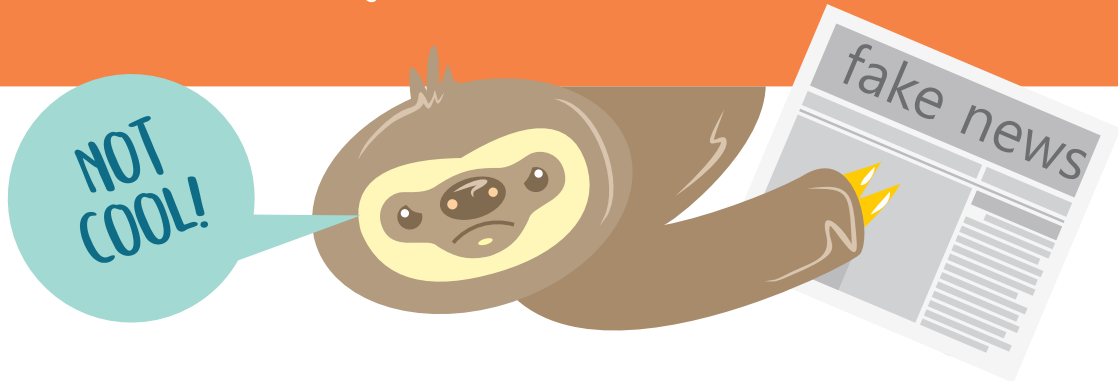
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MYTHS ABOUT THE SLOTHS

Sloths are some of the most interesting, yet misunderstood animals. Due to their slow movements and amazing camouflage, they are very difficult to study. Scientists can't see what the sloths are doing high up in the trees, and so we know very little about how they live in the wild.

There are lots of myths that confuse people about sloths. We will fix some of these myths before we start learning the scientific facts about these animals!



SLOTHS ARE BEARS, MONKEYS OR MARSUPIALS

The spanish name for sloths "oso perezoso" means "lazy bear", but they are not related to bears at all! They live in the branches of trees, but they are not monkeys either.

- Can you guess what animals sloths are really related to?

BAD MOMS

When a baby sloth falls from the tree, people think that it has been abandoned, but this is rare. The mother is usually climbing down to get her baby, but because she is so slow and so well camouflaged, people don't realize that she is there!

THEY DAMAGE CROPS

Sloths eat leaves, but they eat from the plants and trees that the rainforest offers. They don't eat fruits or vegetables, so they can't destroy crops.

SLOTHS ARE NASTY AND DISGUSTING

Sloths are covered in green algae that provides camouflage, but this doesn't mean they are dirty. They don't smell because they can't sweat! If they were smelly then predators would be able to find them easily!

THEY CARRY CONTAGIOUS DISEASES

Sloths can not give a disease to any human. Some of them might be sick or have skin problems, but they are no more contagious than a dog with the same disease.



SO DUMB THEY CONFUSE THEIR ARMS WITH TREE BRANCHES

Sloths are very careful when they move through the trees. They need to climb slowly to avoid attracting the attention of predators, and so they take their time to choose their path through the branches.

SLOW BECAUSE THEY ARE INTOXICATED

Some people say that they are slow due the toxins in the leaves drugging them, or that the fermentation in their stomach produces alcohol and they are drunk. The slowness has nothing to do with this, as we will learn.

SLEEP 20 HOURS PER DAY

They only sleep from 10 to 14 hours per day in the wild. Howler monkeys actually sleep for more hours than sloths!

THE BIGGEST MYTH OF ALL: THEY ARE LAZY

Probably the most unfair myth about these animals. Named after one of the Seven Deadly Sins, "sloth" means lazy in nearly every language on our planet! But, as you will learn, they are slow NOT lazy!

USE THIS SPACE TO DRAW A SLOTH!

ACTIVITY!



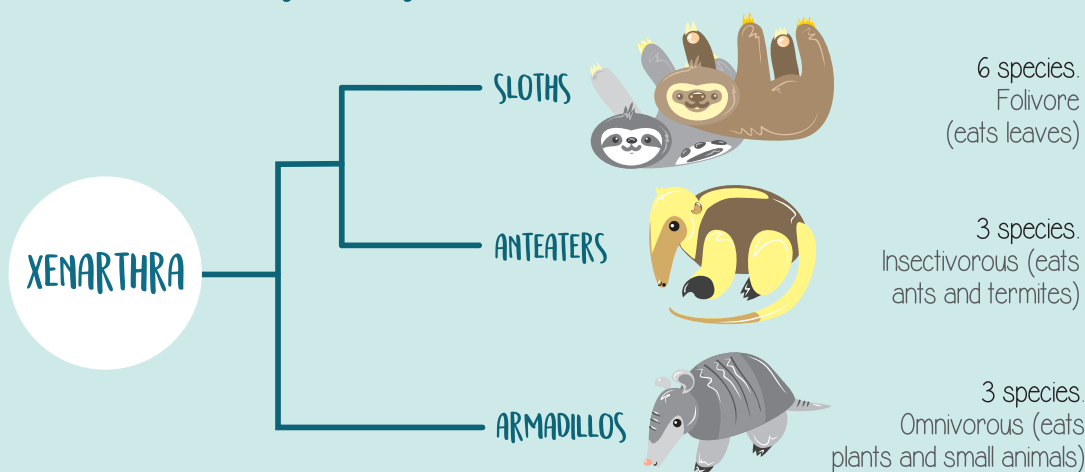
WHAT IS A SLOTH?



A sloth is a mammal that lives in the rainforests of Central and South America.

- There are 2 main types of sloth: the three-fingered (*Bradypus*) and the two-fingered (*Choloepus*).
- The two types of sloth broke apart 30 million years ago, and created their upside-down lifestyles in the trees separately.
- Did you know that we are more closely related to chimpanzees than the two types of sloth are to each other?

THE XENARTHRA FAMILY AN EVOLUTIONARY STORY



Sloths and anteaters are the most closely related. Together with the armadillos, all of them make up something called the “Xenarthra” group.

Both three-fingered and two-fingered sloths evolved from Giant Ground Sloths, millions of years ago. There were over 80 different types, the largest was bigger than an elephant and some aquatic sloths even lived in the sea!

It is thought that these big friendly sloths went extinct 10,000 years ago because of human hunters.



NOT LAZY. JUST SLOW

When you think of a sloth, you probably imagine a lazy animal that just sleeps all day. But how do they not get eaten by predators? Being slow is actually a great way to survive! In fact being slow has helped sloths to live on this planet for almost 64 million years (That's a really long time -there were even sloths before dinosaurs went extinct!)

Remember, sloths don't sleep all day, they just do everything very slowly. Moving slowly saves energy and helps them to hide from their predators.

They aren't lazy, they are careful!



WHY SO LITTLE ENERGY?



Two-fingered sloth



Three-fingered sloth and her baby

Sloths have a very low-energy diet: they are folivores, which means **they eat only leaves**.

It also takes a sloth takes up to 30 days to digest a single leaf! This means that they always have a full stomach and can't eat many leaves each day.

This slow digestion of leaves also explains why sloths only need to poop once a week!

SLOTH BIOLOGY AND FACTS



Sloths have a low body **temperature** that changes a lot!

They have bad eyesight but have a great sense of smell!

The average **speed** of a sloth is 5 meters per minute!

Long **fingers** and toes are like hooks that let the sloth hang upside down without using any **energy**.

Species of **algae** from sloth hair are being used by scientists to cure cancer!

Sloth fur looks green due to lots of species of **green algae** and fungi that only grow in sloth hair!

The huge **stomach** is 1/3 of the sloths body weight!

Sloths have lots of **bacteria** in their stomach to help them digest.

They have big stomachs with four chambers. It takes 30 days to digest a leaf!

Sloths are skinny! They have 30 % less **muscle** than other mammals.

Babies are born with sharp teeth ready to eat leaves, claws ready to **climb** and eyes open.

The baby will be with the mother until it becomes 1 year old.

Sloths only poop and pee once a week! They lose 30 % of their body weight when pooping!

Sloth poop is full of special chemical messages called pheromones.

By pooping on the ground they are marking their **territory**.

To poop, they climb down to the base of the tree and perform a "poop" dance - they wiggle around to dig a hole!





THE SLOTH ECOSYSTEM



Sloths fur is home to lots of species that are found nowhere else on Earth. This includes 70 different species of green algae/fungi and a type of moth called a sloth moth. The relationship between the algae, moths and the sloth is called 'symbiotic' because each species benefits from the relationship in a different way. The opposite to this would be a 'parasitic' relationship where one species benefits by causing harm to the others.



THE GREEN ALGAE

The moths that die in the sloths fur will be nutrients for the fungi and green algae. So more moths means more food for the green algae which means the sloth gets more camouflage!



Sloth fur under a microscope shows special cracks which is where the algae and fungi live.



The algae turns the sloth green and is excellent camouflage

SYMBIOSIS

THE MOTHS

They live safely in the fur of the sloth. A sloth can have 900 moths living in its fur at once! The moths use sloth poop to reproduce. When the sloth climbs down the tree to poop, the moths run off the sloths body, lay their eggs in the fresh poop, and run back onto the sloth before it climbs back up the tree again!



THE SLOTH

Sloth fur has special adaptations which provide a place for both the moths and the green algae to live.



MISSING MOTHS: How many moths can you find? _____



ACTIVITY!

WORD SCRAMBLE!

Hint: the words are hidden in these pages!

- 1- ELUMSC _____
- 2- SMHOT _____
- 3- EAALG _____
- 4- GECAFLAMOU _____
- 5- RFEING _____
- 6- EEDSP _____
- 7- SCITMYBIO _____
- 8- ERTEUTMPEAR _____

- 9- YNEREG _____
- 10- MESECOTSY _____
- 11- BLIMC _____
- 12- RYTETORRI _____
- 13- STNUENIRT _____
- 14 - CHAMOTS _____
- 15- ABIARECT _____
- 16- GYLOBIO _____

SPECIES OF SLOTHS

THREE-FINGERED SLOTHS

There are four species. They all have three toes on their feet and three fingers on their hands. They have grey hair and a white face with black markings around the eyes. Male three-fingered sloths have a bright orange patch of fur on their back called a "speculum".

PYGMY SLOTH

Conservation status: Critically endangered

Only live on a small island called Isla Escudo in Panamá. They are 40% smaller than the others.



PALE-THROATED SLOTH

Conservation status: Least Concern

Similar to the brown-throated sloth, but they have yellow color on the face and throat.



BROWN-THROATED SLOTH

Conservation status: Least Concern.

The most common species of three-fingered sloth! Found in South and Central America.



MANED SLOTH

Conservation status: Vulnerable

Only found in Brazil. Larger than the other species and has a mane of black hair down the back.



SPECULUM



Male three-fingered sloths have this marking and each sloth has a different pattern.

QUIZ

Which are the species that live in Costa Rica?



TWO-FINGERED SLOTHS



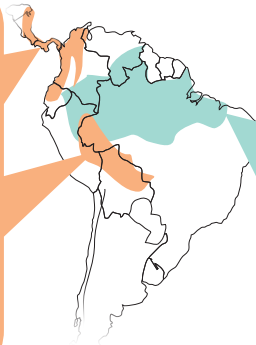
There are two species. They have two fingers on their hands and three toes on their feet. They have brown hair and a pink nose like a pig! Two-fingered sloths are usually active at night, they are bigger, faster and can be more dangerous than the three-fingered sloths.

HOFFMANN'S TWO-FINGERED SLOTH

Conservation status: Least Concern.



There are two populations, separated by the Andes mountains.



LINNAEUS'S TWO-FINGERED SLOTH

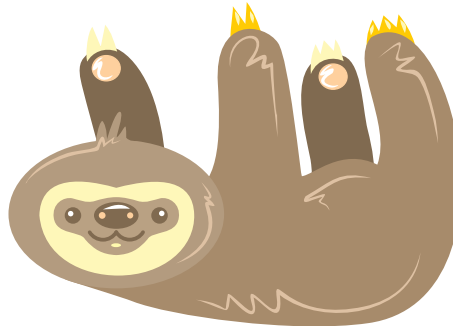
Conservation status: Least Concern.

Has a much darker snout, hands and feet. Lives in the Amazon rainforest.



ACTIVITY!

CAN YOU TELL THE DIFFERENCES ?



- Three-fingered sloth _____
- _____
- _____
- _____
- _____
- _____
- _____

- Two-fingered sloth _____
- _____
- _____
- _____
- _____
- _____
- _____



SLOTH PROBLEMS

Sloths face danger every day from predators, but sloths that live near humans have more problems! These are the main HUMAN dangers that are hurting sloths. You can learn to identify these problems so that you can help with the solution in the future!

MASSIVE AGRICULTURE AND PESTICIDES

Farms mean that the forest needs to be cut down and the sloths are left without a home. Chemicals called pesticides are used to grow crops and these pollute the soil, cause cancer and are bad for the health of the sloths as well as other animals.



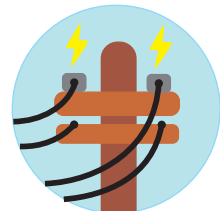
DEFORESTATION

When trees are cut down, sloths lose their habitat and food source. A big problem is when the forest is broken into patches. The sloths have to travel between patches of trees on the ground, and here they face lots of danger.



POWERLINES AND ELECTROCUTIONS

Sloths use powerlines to travel in towns and often get electrocuted. This is also a big problem for other animals that live in the trees. Most animals don't survive after being electrocuted.



DOG ATTACKS

When sloths and other animals go to the ground they are often attacked by dogs. We have to be responsible for our pets! Cats are also a big problem for wildlife.



ROAD ACCIDENTS

Sloths can't run or jump. If the sloth can not cross a road using the trees, they will cross the road on the ground and can be hit by cars.



POACHING AND ILLEGAL PET MARKET

Sloths are victims of poaching for the illegal pet trade market. Remember, every pet sloth was taken from the wild! The illegal selling of wildlife for pets is one of the biggest business in the world, and one of the biggest threats to sloths!



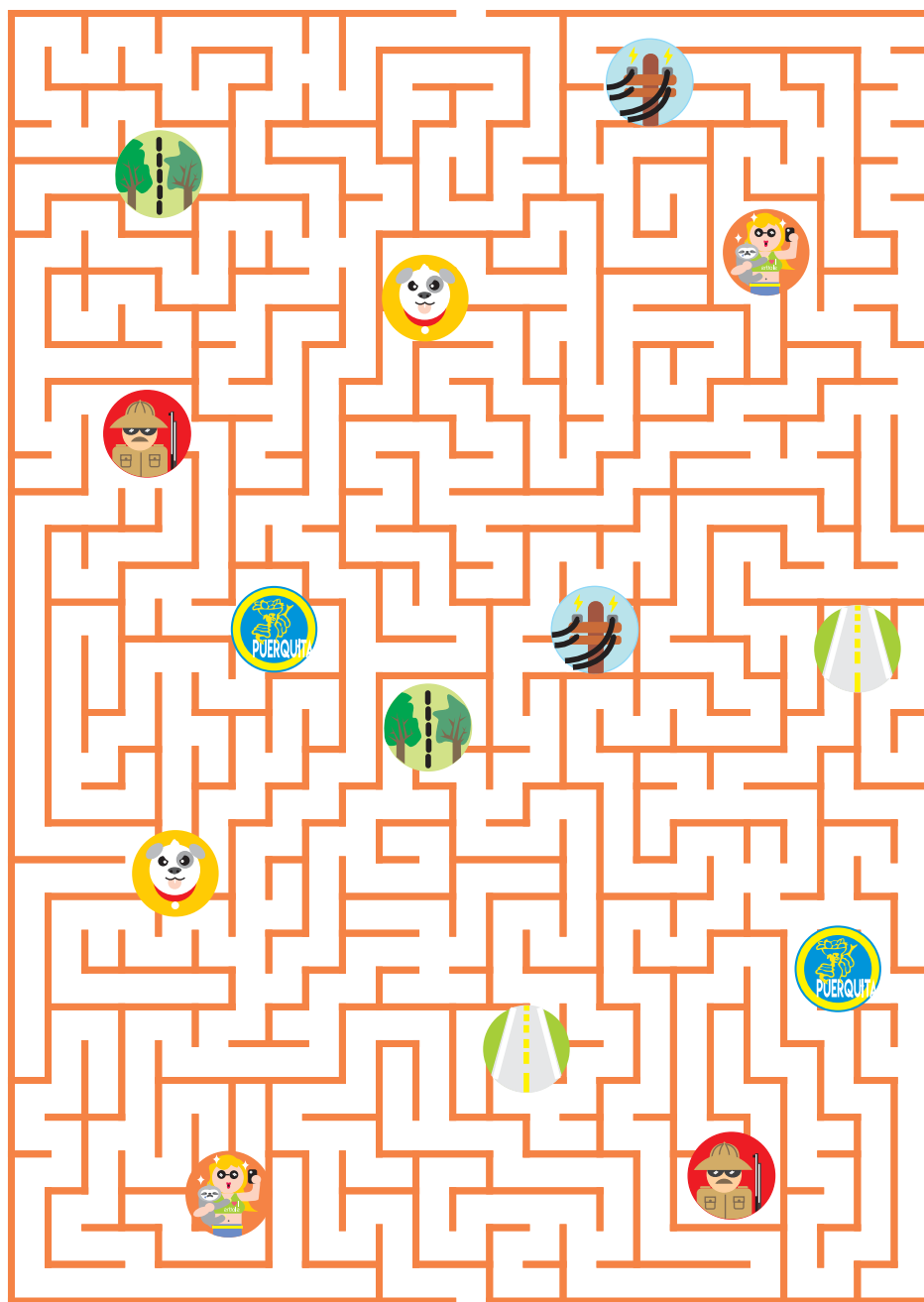
TOURISM AND SLOTH "SELFIES"

Some tourists illegally hold sloths for a "selfie" photograph. Sloths used for this are usually taken out of the forest and die of stress. This kind of tourism is illegal and promotes animal cruelty - don't be part of it!



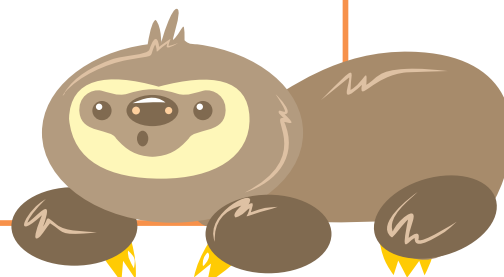


A MAZE TO EAT SAFELY!



HELP ME GET TO THE LEAF!

START



WHY SLOTHS ARE NOT GOOD PETS

WILD ANIMALS

Sloths are not domestic pets and they do not like to be touched or hugged by humans. It is hard to tell when a sloth is unhappy because their response to danger is to sit still. The animal might look happy to us because they have a smiley face, but they will be scared on the inside.



TAKEN FROM THE WILD AND FREEDOM

Every year, hundreds of sloths are taken from the wild and put into cages to be sent to richer countries. Most of them don't survive the journey, and the ones that do usually die soon afterwards.



CUTE, BUT NOT A TEDDY BEAR

Sloths can be dangerous - they have long sharp teeth and a mouth full of bacteria that can give a bad infection if bitten. The claws can also hurt and scratch. So remember, even if they look cute, they should never be pets!



DOMESTIC OR WILD? Link the animal with the correct bubble

ACTIVITY!

COW
JAGUAR
CAT
MACAW
GOAT
CHICKEN
TOUCAN
SNAKE
DOG
MONKEY
IGUANA

DOMESTIC
ANIMALS

WILD
ANIMALS

• SLOTH
• PARROT
• GUINEA PIG
• PECARI
• PIGS
• RABBITS
• SEA TURTLES
• HORSE
• DONKEY
• TARANTULAS
• PARAKEET

ILLEGAL WILDLIFE TRADE

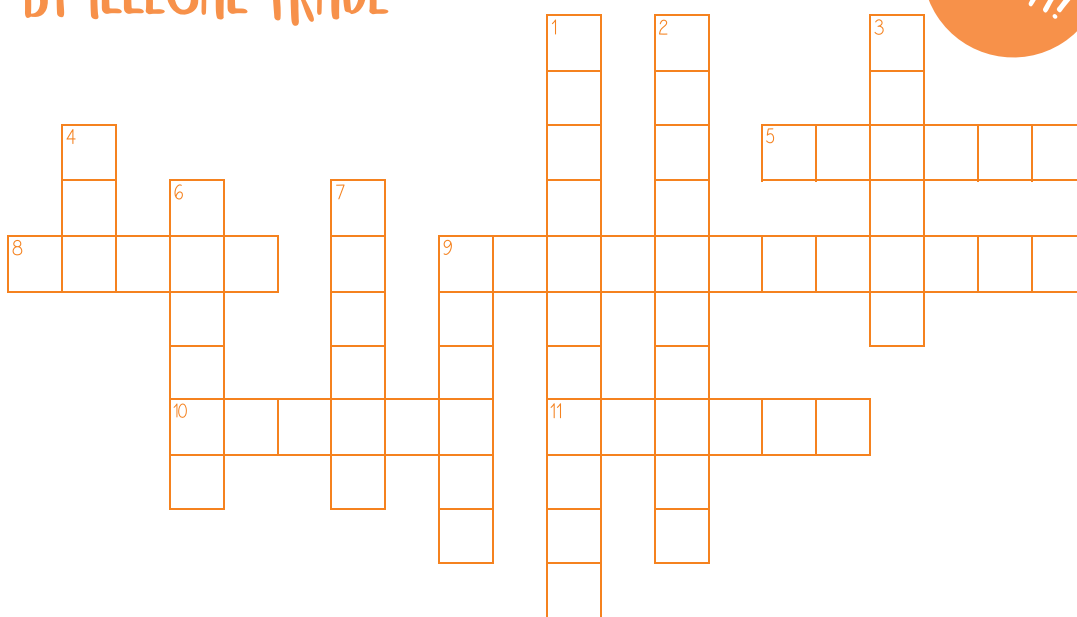
The illegal trade of wild animals is a big business worth billions of dollars. This can be selling the skins for clothes and body parts for food or fake medicine - it is not just selling animals for pets!

These activities are harmful because it can push species of animals and plants towards extinction. The illegal wildlife trade also takes away the natural resources of a country and ruins nature for local communities who might be able to benefit from wildlife tourism. For example, imagine if all of the animals disappeared from Costa Rica?



SPECIES IN COSTA RICA THREATENED BY ILLEGAL TRADE

ACTIVITY!



DOWN

1. Little birds that eat nectar from flowers.
2. A shark with a head shaped like a tool.
3. Big green reptile that lives in the trees.
4. Snake that can constrict their prey.
6. An animal that can repeat words and sounds.
7. Has a shell that protects its body.
9. This book is all about them.

ACROSS

5. Bird with a large and colorful bill.
8. Great and green is this bird.
9. The largest species of monkey in Costa Rica.
10. Species of wildcat hunted for their fur.
11. One of the biggest insects in the world and has a hard shell



WHY IS SO IMPORTANT TO PROTECT THE SLOTHS?

GREAT FERTILIZERS AND POLLINATORS

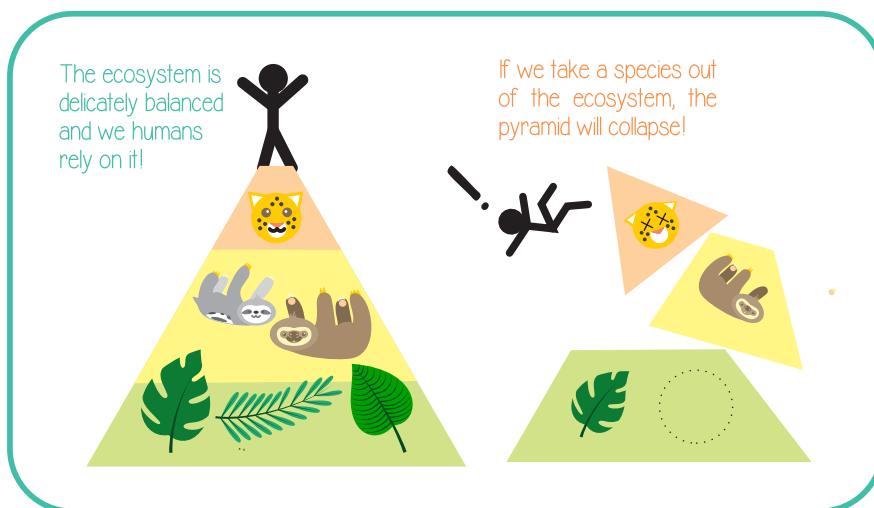
Sloths eat leaves and recycle the nutrients by pooping them out at the base of their favourite trees in the rainforest. This fertilizes the soil and helps the tree to grow, which keeps the entire jungle healthy.

ROLE IN THE FOOD CHAIN

Their predators would struggle without them. Large predators like the harpy eagle and the jaguar rely on sloths as a food source - less food for the predators means less predators can survive, and that means big problems for the rainforest!

BALANCE IN THE ECOSYSTEM

All of the species in the rainforest are linked together. Sloths need trees, predators need prey, flowers need pollinators and pollinators need flowers! If sloths disappear (or any other species) it will affect the entire balance of the ecosystem. At the end it would be very bad for us humans too!



DID YOU KNOW?

The Harpy Eagle (the largest eagle on the planet) preys mostly on sloths and monkeys and is now considered extinct in Costa Rica



IMPORTANCE IN MEDICINE

The sloths have a special ecosystem living in their fur. Remember the green algae, fungi and sloth moths? The green algae from sloths is now being used by scientists because it kills bad bacteria and is a possible cure for some types of cancer! So sloths are actually very important in medical research for humans!

LOCAL ECONOMIES AND TOURISM

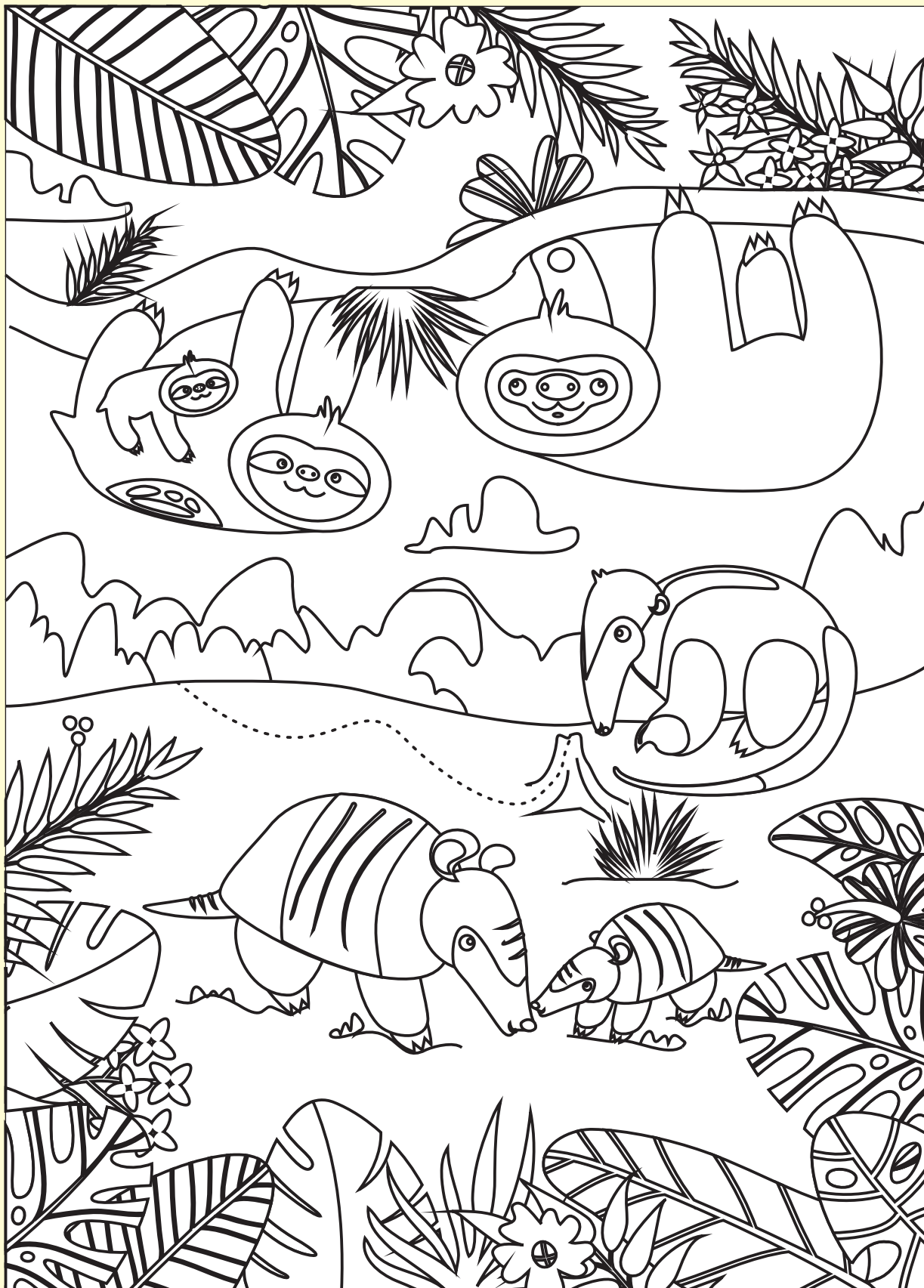
Sloths are beloved animals all over the world! Tourists and visitors come to Costa Rica just to see these wonderful creatures in their natural habitats. This is called eco-tourism and makes more jobs for people which grows the local economy and generates money.



THE FAMILY PORTRAIT

Add color for the jungle family and their environment

ACTIVITY!



SCIENCE AND CONSERVATION EFFORTS

All over Central and South America, scientists and conservationists are working really hard to help and save sloths.

ZOOLOGY AND BIOLOGY

To better understand sloths, researchers such as zoologist and biologist are collecting lots of information including body weight, size measurements, behaviour and genetic data to tell the health of wild sloths in Costa Rica.



RESCUE, REHABILITATION AND REINTRODUCTION

Rescue centers across Costa Rica are working very hard to help sloths. When sloths are orphaned as babies, they need special care during the day and night. These babies were rescued and are currently learning the skills they will need to survive in the rainforest!



CONSERVATION IN ACTION

Insulating powerlines to prevent electrocutions, planting trees to restore sloth habitat, installing wildlife bridges, promote responsible sloth tourism, sterilizing dogs to minimize unwanted puppies, these are just some of the things we can do to help the sloths!





WHAT CAN WE DO TO HELP THE SLOTHS?



● LIVE SUSTAINABLY

Any small change you can make to your life is great! Use less plastic, recycle trash, eat less meat (cows, pigs and chickens are responsible for 90 % of Amazon rainforest destruction)!

● COMBAT THE PET TRADE

Call the authorities or a rescue centre if you think that someone is keeping or selling a sloth as a pet.

● SUPPORT SLOTH CONSERVATION

There are lots of non-profit organizations working on sloth rescue, research, and conservation. You can help by making donations or volunteering your time!

● PRACTICE SUSTAINABLE TOURISM

Don't ever take a sloth from the trees, or pay to have a "selfie" photo taken with a sloth (or any other wild animal). If you see this happening call the local authorities or a rescue center.

● SUPPORT LOCAL, ORGANIC FARMERS

Big fruit plantations are destroying the rainforest all over the planet. Grow your own food or buy it from a small, local farmer instead!

● BECOME A SLOTH AMBASSADOR

Tell your friends and family how amazing sloths are and why they need our help! Spread the message of sloth conservation!!



I FOUND A SLOTH... WHAT SHOULD I DO?



KEEP A MINIMUM DISTANCE OF THREE METERS. ALWAYS GIVE SPACE TO THE SLOTH

DON'T SHOUT OR DISTURB THE SLOTH WITH LOUD NOISES



DON'T TOUCH, HOLD, OR GRAB THE SLOTH

LET THE SLOTH CROSS THE ROAD SAFELY



TAKE PICTURES WITHOUT THE FLASH OF THE CAMERA. DON'T TAKE SELFIES!

OBSERVE, WATCH, ENJOY AND LEARN!





HOW MANY WORDS CAN YOU FIND?

C H D K J L X W I L D L I F E E M B F N D J Q
A C V M C P O T H R E E F I N G E R E D S C Q
N O N C A L O R I E S E A G L A W S E V A E L
O N S M C A N X R O N O I T A T S E R O F E D
P S S E A F J O G M J A G U A R H U D L Z I A
Y E U T M H A F X B C Q J M Y N J S Q K A T N
N R G S O M E T A B O L I S M M V P E T L C T
E V N Y U E Q Z Z O T H T L A E T S S C N G E
N A U S F H L B E O L L I D A M R A F V E N A
E T F O L B H N O I T U C O R T C E L E M I T
R I S C A E T U S D E R E G N I F O W T Z G E
G O W E G H O X S S E N W O L S G I Q M U N R
Y N A H E Q L K C T H A R P Y E A G L E R A H
N B L C D X S Z B P Y Z M A R L E Y Z K R H M
O X C G A P V E R D H S L O C K Y Z L J Q G Z
A L B F Z S N E E R G M K X Y D O S H T O M K

Words are hidden ➡ ⬅ ⬆ ⬇ and ↘

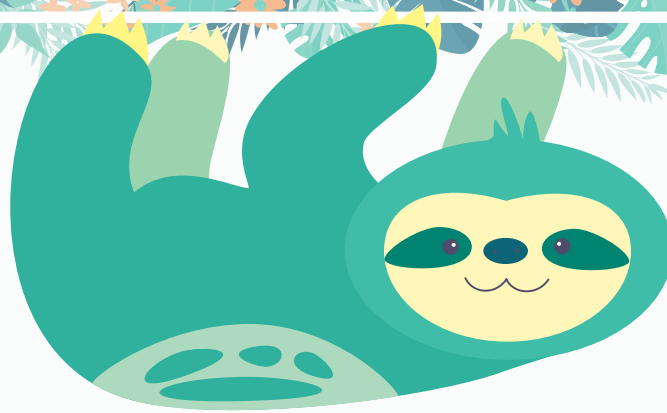
ALGAE
ANTEATER
ARMADILLO
CALORIES
CAMOUFLAGE
CANOPY
CLAWS
CONSERVATION

DEFORESTATION
ECOSYSTEM
ELECTROCUTION
ENERGY
FUNGUS
GREEN
HANGING
HARPYEAGLE

JAGUAR
LEAVES
MARLEY
METABOLISM
MOTHS
SLOCKY
SLOTH
SLOWNESS

STEALTH
THREEFINGERED
TWOFINGERED
WILDLIFE





SLOTH PLEDGE

I, _____ pledge to protect the sloths and the wildlife, by making the commitment of doing the things below:

- Don't bother or disturb a sloth on the ground.
- Learn all I can about the environment and how to protect it.
- Promote sloth awareness and pass on my knowledge to my family and friends.
- Join the fight against the illegal wildlife trade.
- NEVER keep or sell a sloth as a pet.
- Respect nature and all forms of life!

signature

WHAT SHOULD I DO TO HELP THE ENVIRONMENT AND THE ANIMALS?

Check the boxes for the things that you are already doing!

☐

I take 5 minutes
showers

☐

I ride my bike as
my transport

☐

I use a reusable
bottle

☐

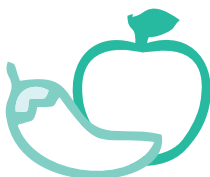
I shop with
reusable
shopping bags

☐

I separate the
recycling materials
(plastic, paper, metal)

☐

I don't throw trash
in the streets or
at the beach

☐

I choose products
with less packaging

☐

I eat less meat or
i'm vegetarian

☐

I separate the
fruits and veggies
from regular trash

☐

I unplug all the
electronics i'm
not using

☐

I use rechargeable
batteries

☐

I inspire a
friend to join!

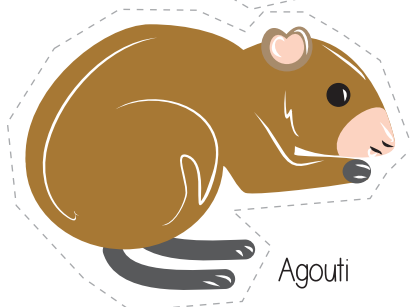
ANIMALS OF THE JUNGLE

Cut out the figures and use them to complete the following pages!

ACTIVITY!



Tapir



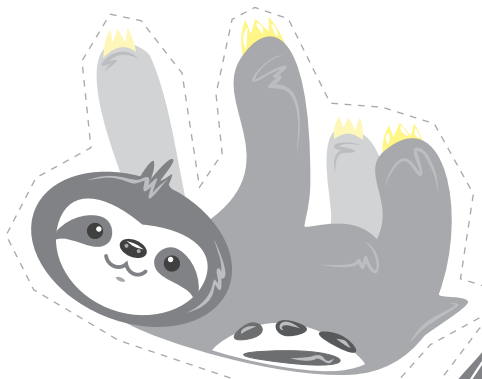
Agouti



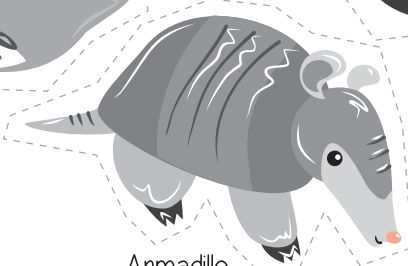
Howler Monkey



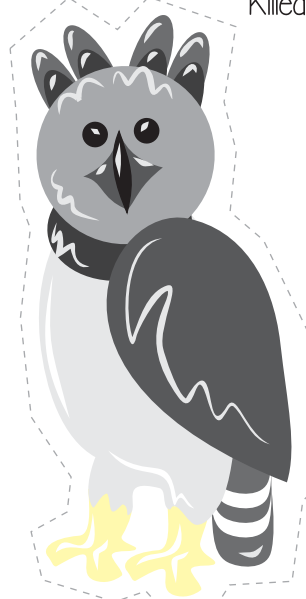
Killed-Billed toucan



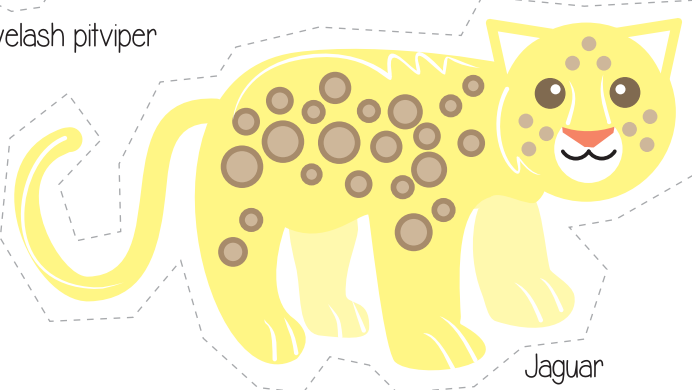
Eyelash pitviper



Armadillo



Harpy Eagle

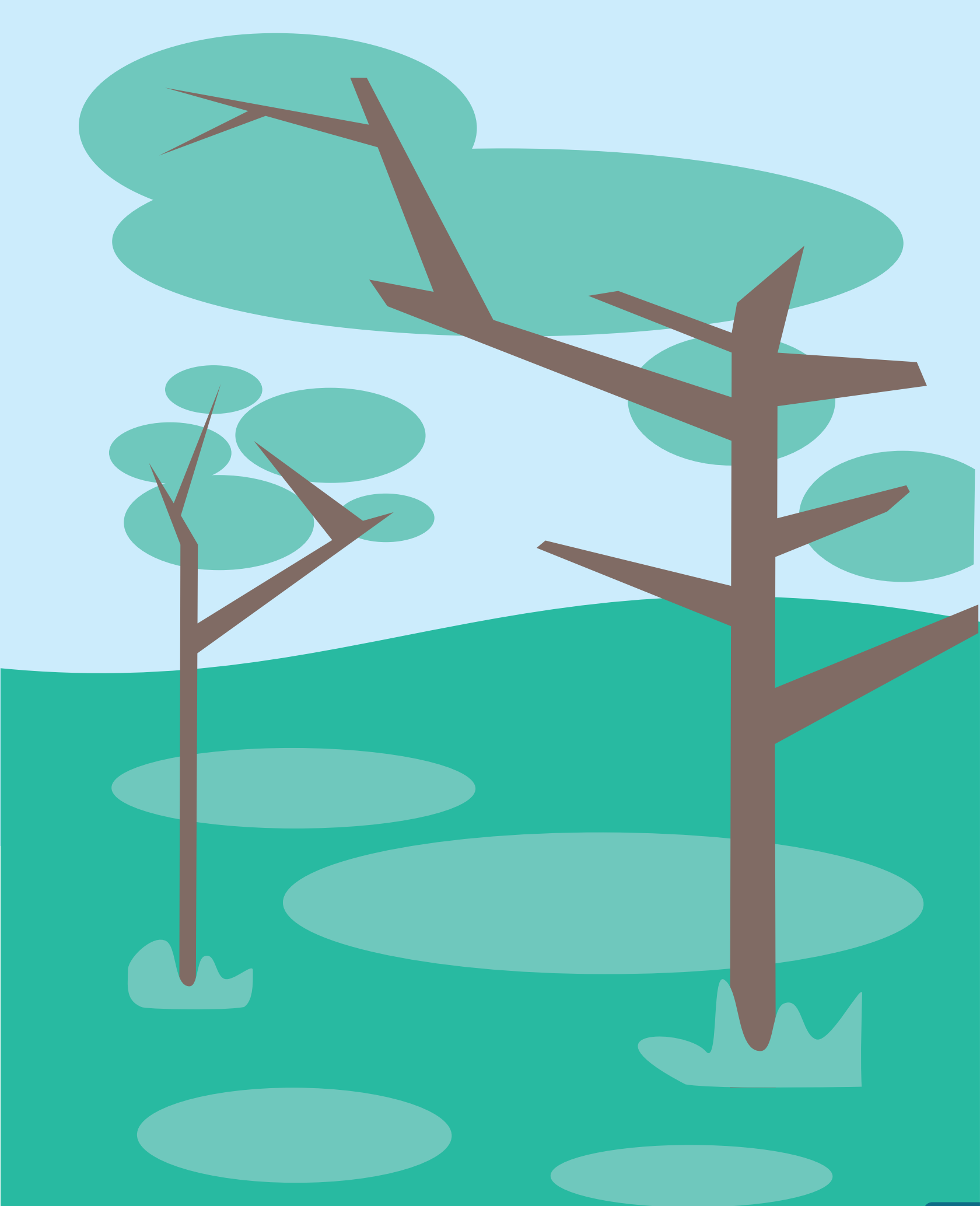


Jaguar



Tamandua anteater







NOW IT'S TIME
FOR US TO LEAVE,
MY FRIEND...

THANK YOU
SO MUCH!

WE
APPRECIATE YOUR
COMMITMENT!



What we do

The Sloth Conservation Foundation (SloCo) is a non-profit organisation dedicated to saving sloths in the wild through research and conservation initiatives. Based on the belief that teamwork and collaboration are essential for success, it is the mission of SloCo to bring together all people, partners, and institutions working globally with sloths to achieve lasting and targeted conservation solutions.

Such efforts includes

- Education programs in local communities,
- Campaigning for underground power lines,
- Planting forest corridors to connect fragmented habitats,
- Construction of wildlife bridges across major roads
- Tree surveys to ensure that the species needed to support sloths are plentiful enough
- International education programs to reduce poaching for the sloth pet trade and tourist photo opportunities.

In order to develop and implement such strategies, a solid scientific knowledge of the sloths ecological requirements is necessary. For this reason, SloCo also strives to fund and coordinate high quality research into many different aspects of sloth biology and ecology.

SOLUTIONS

WORD SCRAMBLE

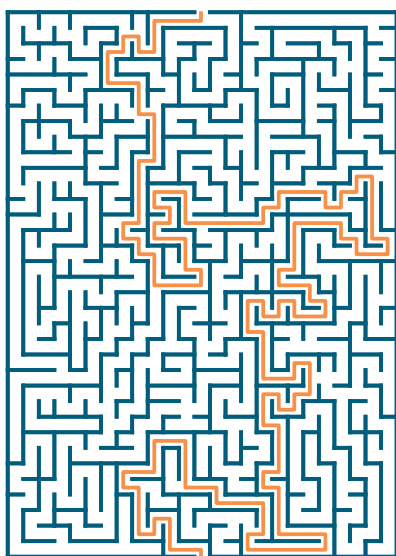
Page 8

muscle - moths -algae - camouflage -finger
speed - symbiotic - temperature - energy -
ecosystem - climb - territory - nutrients
stomach - bacteria - biology

MISSING MOTHS: 21

A MAZE TO EAT SAFE

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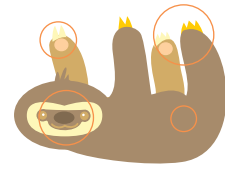
DOMESTIC OR WILD?

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CAN YOU TELL THE DIFFERENCES?

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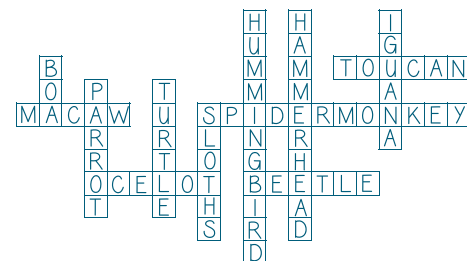


three fingered
6 months gestation
color grey
raccoon face
speculum
shorter legs
diurnal
slower

two-fingered
11 months gestation
color brown
porky snout
fleshy hairless palm
Legs same length
nocturnal
faster
sweat gland in the tip of the nose

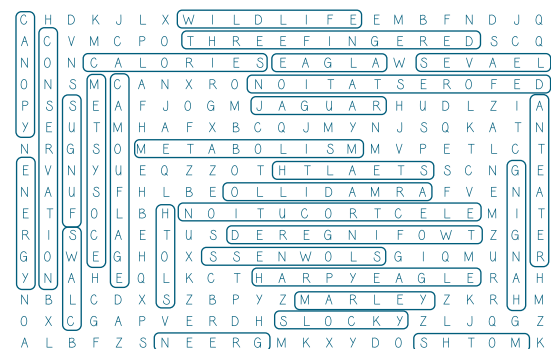
CROSSWORD

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FIND THE WORDS

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Come and meet Slocky and Marley, the sloths that will show you everything you always wanted to know about these amazing animals!

With information and games, you will learn about sloth biology, species, their problems, and also what can you do for them!

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