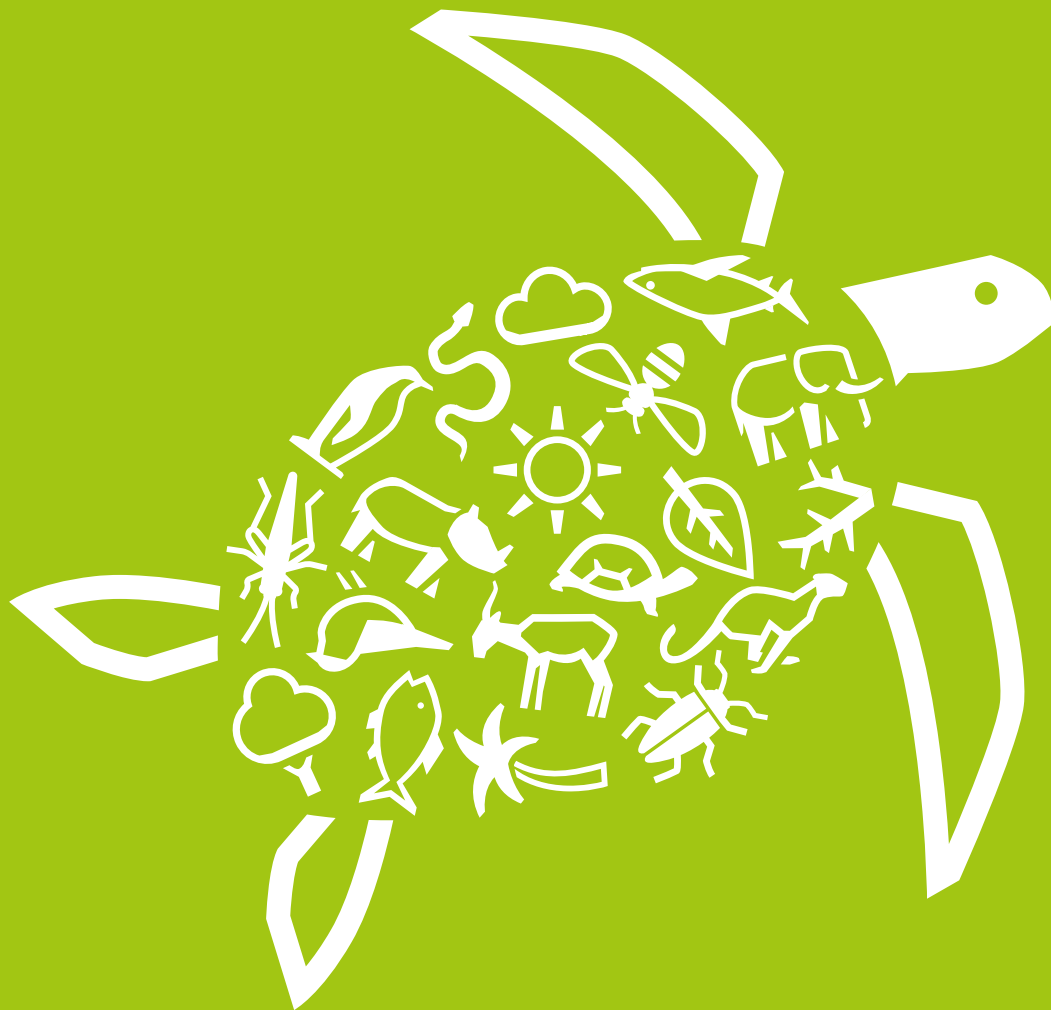


Learning pack #8

Teaching materials for schools and educational institutions
For students aged 12 to 16 years old



Protecting wild animal habitat



Imprint

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Editorial

Smoked monkey, turtle head and roast bat are among the offerings at the wild animal market in Mbandaka in the Democratic Republic of Congo. And my African colleagues tell me there are many other such regional markets, because wild animal meat is an important source of protein.

The United Nations estimates that 5 million wild animals are hunted annually in the Congo Basin alone. But rhinos, crocodiles, snakes and elephants are not only killed for private use. They fall victim to global demand, because although the wild animal trade is officially outlawed in most countries, it often continues illegally.

Anyone traveling in Southeast Asia can buy tiger bone wine or powder ground from tiger parts for medicinal use. Today's estimates indicate there are now only 4,000 tigers left in the wild. Across Europe, threatened species of snake, exotic birds and rare fish can be bought online – the domestic animal market is a billion-euro business.

Humans pose the greatest danger to wild animals. Uncontrolled hunting and overexploitation of nature destroy ecosystems. In some Asian countries, vast swathes of tropical rainforest are felled to make way for palm oil plantations. In South America, where the largest herds of cattle roam, species-rich forests and savanna are destroyed to create space for more grazing land and animal feed crops. Our hunger for ever more meat doesn't only exacerbate climate change, it robs wild animals of their natural habitat.

But each plant, animal and bacteria serves a purpose in the fragile balance of nature. When this balance is thrown off, it has consequences for us humans too. Which is why something must be done.

In this learning pack, we meet a female orangutan called Dora, who was kept as a pet until conservationists released her from captivity. They then raised her and reintroduced her to the forest. It's a project that offers hope. We also travel to a rescue home in Suriname, where injured sloths are nursed back to health so they can be returned to the wild. On the Solomon Islands, we meet women saving baby hawksbill turtles from poachers, who catch the threatened reptiles for their shells, which are used illegally to make jewelry.

Protecting habitat for wild animals is the subject of this learning pack. It's a fascinating and critical subject for us all.



Yours faithfully

Manuela Kasper-Claridge

*Project leader, Global Ideas
Editor-in-chief, Deutsche Welle*

Introduction

This **booklet** is part of the learning pack “*Protecting wild animal habitats*” published by Deutsche Welle and produced by the editorial team from the environmental series **Global Ideas**. It is designed to help teachers prepare and give classes. The content is aimed at children between the ages of 12 and 16, but the materials can also be used outside school settings by environmental groups.

The pack contains four modules with **worksheets** for participants and explanatory **handouts** for teachers. Where necessary, these include solutions. The modules build on each other but can also be used independently of one another. Suggested lesson durations should be regarded as a general guideline. You will be the best judge of the pace at which your group learns.

Articles and **films** are intended to be used as learning tools. Where necessary and possible, students should watch the films several times if needed to complete the film tasks. It would be helpful, but is not essential, for students to have their own devices on which to watch the films. You will find instructions on how to play the films on the last page of this booklet.

The print version of the learning pack includes a **DVD** containing all the educational material in digital form. You will find an overview of all films and articles in the **media index** on the last page.

For distance learning, we also offer a **workbook** for participants. This includes the handouts for independent study at a computer, as well as links to the films and articles.

You will find the PDF “workbook for participants” as well as all other materials on the web pages for **Learning pack #8 “Protecting wild animal habitats”** under downloads: dw.com/wildlife

Tip

If you are interested in other learning packs for either distance or classroom teaching, take a look at our website: dw.com/learning-environment



Icon for handouts



Icon for worksheets

Structure

Why do animal species die out on our planet every day? What are the concrete reasons for these extinctions? And how can projects, organizations and each one of us help to prevent this from happening? In this learning pack, you and your group will explore species extinction and conservation from different perspectives. These questions are addressed in four modules. Each module has a different focus.

Module I – Background and problem

The first module looks at the threats posed to animals living in the wild and shows why wild animals are so important for ecosystems. A quiz introduces participants to the diversity of animal life and a film shows how the loss of habitat is threatening species across the world, as well as the role of humans in that equation. An article offers an insight into the speed of species decline across the planet. Why sharks and other predators are important for maintaining ecosystem balance is laid out in an interview with a wild animal vet. In this context, participants are introduced to the term “keystone species.”

Module II – Reasons for species extinction

What dangers do animals across the world face? And what is being done to help them? Participants learn the answers to these questions with the help of three films and an article. They deepen their knowledge through short presentations on the subjects of climate change, poaching, environmental pollution and invasive species.

Module III – Solutions

What can be done to help endangered species? One article and two films present different projects in which injured or weak animals are nursed and ultimately reintroduced to the wild. By making profiles of one of the animal species they've learned about, participants become experts on the subject. On an excursion to a local rescue center or zoo, participants learn how they can protect animals in need of help in their region.

Module IV – Taking action

In the fourth module, participants are introduced to specific possibilities for taking action. A film about women who save turtles on the Solomon Islands, shows participants the importance of educating others about conservation. Participants come up with and design their own information material to inform others about the issue of extinction. They will also have the chance to roll up their sleeves and work together to build bird baths.

Module overview

Module I – Background and problem

How serious is the threat to wild animals and why are these animals important for ecosystems?

Duration	Content	Learning objective	Material and links
35 min	Quiz: Diversity in the animal kingdom	Introduction and playful start to the subject	Quiz Handout 1 <u>Material</u> Presentation card + 16 quiz cards
35 min	Animals are losing habitat	Recognizing that humans are reducing or destroying animal habitat Understanding why wild animals are important for the ecosystems in which they live	Film 1 "Habitat loss: Addressing a global problem" <i>dw.com/p/3sspK</i> Handout 2 Worksheet 2 (Table)
25 min	Decline in the number of vertebrates around the world	Understanding the scale of threats posed to animals in the wild, as well as the reasons behind them	Article 1 "Biodiversity: Mass decline over the past decades" Handout 3 Worksheet 3 (Questions about the article)
40 min	Explanation of the term "keystone species" Diagram and interview with a wild animal vet	Understanding why sharks and other predators are important to maintaining ecosystem balance	Article 2 "Sharks: Why a young vet is protecting predators" Handout 4 Worksheet 4.1 und 4.2 (Questions about the article and a bonus task)

Module II – Reasons for extinction

What dangers do wild animals face and what can be done to help them?

Duration	Content	Learning objective	Material and links
90 min for each subject	Dangers facing wild animals around the world	Understanding four problems facing wild animals Introduction to solutions	Handout 5
	Subject Climate change Climate change is affecting the migratory behavior of animals	Recognizing how climate change is threatening animals and ecosystems	Film 2 "Nature on the move" <i>dw.com/p/3gX5F</i> Worksheet 5.1 (Preparation for a short presentation)
	Subject Poaching Rhinoceros protection in Uganda	Recognizing how poaching affects biodiversity Research into how protected areas can help animals	Film 3 "Can Uganda bring back rhinos poached to extinction?" <i>dw.com/p/34ckA</i> Worksheet 5.2 (Preparation for a short presentation)
	Subject Environmental pollution Environmental pollution affects penguins in Argentina	Recognizing the threats posed to wild animals by environmental pollution, climate change and tourism Research how individuals can contribute to wild animal conservation efforts	Film 4 "Protecting Argentina's imperiled penguins from plastic waste" <i>dw.com/p/3cT2h</i> Worksheet 5.3 (Preparation for a short presentation)
	Subject Invasive species Burmese python invasion in the Florida Everglades	Recognizing how invasive species destroy ecosystems Research what can be done to tackle invasive species	Article 3 "The Burmese python and the fight for the Florida Everglades" <i>dw.com/p/3180U</i> Worksheet 5.4 (Preparation for a short presentation)

Module III – Solutions

Focus on breeding and rewilding: What can be done to help threatened species around the world?

Duration	Content	Learning objective	Material and links
60 min for each subject	Focus on rescue centers: Help for threatened animals	Introduction to animal conservation projects	Handout 6 Worksheet 6 (Profile)
	Subject 1 Orangutans in Sumatra	Understanding the threats posed to orangutans and what is being done to help them	Film 5 "Dora's path to the wilderness" dw.com/p/2rJRY
	Subject 2 Koalas in Australia	Understanding the threats posed to koalas and what is being done to help them	Article 4 "Koala rescue: An orphaned joey, and her species' fight for survival" dw.com/p/3lzuV
	Subject 3 Sloths in Suriname	Understanding the threats posed to sloths and what is being done to help them	Film 6 "Saving Suriname's sleepy sloths" dw.com/p/2lu0h

Module IV – Taking action

What can I do to help?

Duration	Content	Learning objective	Material and links
No set time	Excursion: Rescuing animals in need	Learning how to help injured animals in the wild	Handout 7 Worksheet 7 (Guidelines for excursion)
120 min	Plan and execute an educational campaign	Understanding why educational work is important to conservation efforts Design, make and present an awareness campaign	Film 7 "Women on the Solomon Islands are protecting critically endangered sea turtles" dw.com/p/3W8uG Handout 8 Worksheet 8 (Guidelines for presentation) <u>Material</u> Craft materials
90 min	Instructions for making a bird bath	Implementation of project	Handout 9 Worksheet 9 (Instructions for making a bird bath) <u>Material</u> See worksheet 9

Module I – Background and problem

Handout 1



Quiz: Diversity in the animal kingdom

 **Duration: 35 min**

The **quiz** “Diversity in the animal kingdom” ensures a playful start to the learning pack. It is an exciting game to play in a group in the classroom. For distance learning, we offer a digital version as an interactive PDF.

For classroom learning

Open the learning pack webpage dw.com/wildlife and download the quiz cards. Print out the cards and the instructions for the game in color, if possible. The quiz comprises 16 cards. The front of each one shows an image, while questions and answers are on the back.

Playing the game

Split the group up into smaller groups of equal size. These groups will be playing against each other in the quiz.

Each group needs a piece of paper and a pen and should designate one person to do the writing. Read the questions on the quiz cards out loud and repeat them if the participants have any questions.

Each group answers the question, writing it down without letting the other groups see. Give the groups a minute to discuss the answer among their members. Ring a bell, honk a horn or make another similar sound to show that the minute is up.

Taking turns, each group reads their answers out loud. Then read out the correct answer and show participants the accompanying picture on the front of the quiz card.

If a group gets the right answer, they get a point. Keep score on the board or on a large piece of paper. At the end of the quiz, the group with the highest number of points wins.

Tip

When reading the cards, try to cover the image, as in some cases, the animal depicted on the card gives the answer away. You can use the neutral **presentation card** to cover them up.

For distance learning

Open the learning pack webpage dw.com/wildlife and download the interactive PDF **DW Global Ideas workbook 8 wild animals**. Participants answer the questions individually, save them in the PDF file and send them to you to be marked. You will find the answers on the quiz cards for classroom learning.



Declining animal habitat

 **Duration: 35 min**

A film will help participants learn the different ways in which humans harm wild animal habitat and what solutions are out there.

On **worksheet 2**, you will find a table in which participants can make structured notes about the film's content. Encourage participants to add their own knowledge as well.

» **Worksheet 2**

Implementation

Copy worksheet 2 for all participants and answer any questions about the table before showing **film 1** "Habitat loss: Addressing a global problem" which you will find here: dw.com/p/3sspK

» **Film 1**

While watching the film, participants can use key words to fill out the table. After playing the film, give participants five minutes to add further notes to the table. Then show them the film a second time so they can check their answers and add any further information. Discuss the answers in the group. You will find the **solutions** on the following page.

Module I

Handout 2



Solutions to worksheet 2

FORESTS AND FIELDS	ROADS	URBAN AREAS	OCEANS
--------------------	-------	-------------	--------

Why are animal habitats under threat?

Forest is being logged to make space for urban areas and farmland	Roads cut through habitat (examples: deer, frogs, beetles)	Cities are growing	Oceans are under threat from plastic trash, wastewater and unbridled tourism
---	--	--------------------	--

What are the consequences of animal habitat loss?

Where possible, give examples from the film

<p>Animals move into fields, destroy crops (example: Andean or spectacled bear in Colombia)</p> <p>Human fear leads to conflict with animals</p> <p>When animals disappear, natural processes are disturbed (example: by spreading tree seeds through its droppings, the Andean bear helps to ensure intact forests)</p>	<p>Reduced freedom of movement for animals</p> <p>Animals are run over</p>	<p>Animals move into cities, eat human food scraps; disease spreads more quickly (example: wild boars in Berlin)</p>	<p>Coral reefs are particularly deserving of protection. A quarter of marine life relies on them</p>
--	--	--	--

Which solutions are suggested in the film?

<p>Reserves for threatened animals</p> <p>Wildlife sanctuaries</p> <p>Sustainable agriculture in the forest (example: cocoa farmers in Belize)</p>	<p>Wildlife bridges and amphibian tunnels</p>	<p>Plan space for animals (example: parks for butterflies in Delhi)</p>	<p>Scientists grow corals in a laboratory</p> <p>Marine reserves</p>
--	---	---	--



Declining animal habitat

Many aspects of human behavior lead to loss of animal life, which has wide-ranging consequences for the species concerned.

Watch the **film** "Habitat loss: Addressing a global problem": dw.com/p/3sspK

1. Start by naming the animals featured in the **film**:

.....
.....

2. Then fill out the **table**:

FOREST AND FIELDS	ROADS	URBAN AREAS	OCEANS
-------------------	-------	-------------	--------

Why are animal habitats under threat?

--	--	--	--

What are the consequences of animal habitat loss?

Where possible, give examples from the film

--	--	--	--

Which solutions are suggested in the film?

--	--	--	--

Module I

Handout 3



Declining number of vertebrates worldwide

Duration: 25 min

Participants read **article 1** Biodiversity: Mass decline over the past decades," a copy of which is enclosed.

» **Article 1**

To cement the most important information from the article, participants answer the questions on **worksheet 3**. Start by copying article 1 and worksheet 3 and distributing them to participants. Answer any questions about worksheet 3.

» **Worksheet 3**

In **classroom teaching**, participants can read the article quietly to themselves or as a group – taking turns for example. After they have finished reading, give participants 10 minutes to answer the questions on the worksheet. Discuss the answers as a group.

Answers

1. The Living Planet Report 2020 studied population declines in certain species of vertebrates (21,000 populations from more than 4,400 threatened and non-threatened species)

Researchers found an average 68% reduction in populations of the studied species between 1970 and 2016. (Two years earlier, it was 60%.)

The report did not offer any information on the numbers of animals that have gone extinction or are facing extinction.

2. Vertebrates are animals with a spine. There are five categories, also known biologically as "classes." These are *mammals*, *birds*, *fish*, *reptiles* and *amphibians*.
3. North America: 33% | South and Central America: 94% | Africa: 65%
Europe and North Asia: 24% | Arabian Peninsula, South Asia and Oceania: 45%
Example for Europe: It means that in 2016, there were 25% fewer animals in the studied groups than there were in 1970.
4. The main reasons for the decline in animal numbers can be attributed to humans. For example, through rainforest clearing, hunting and poaching, invasive species, introduced disease, environmental pollution and climate change.
5. The text cites *eastern lowland gorillas* in the Democratic Republic of Congo, *leatherback turtles* in Costa Rica, *sturgeon* in China's longest river, and *partridges* and the *Eurasian lapwing* in Europe.



Fewer animals worldwide

The **article** Biodiversity: Mass decline over the past decades" reveals a steep decline in the number of vertebrates living in the wild compared to a few decades ago.

Read the article carefully and answer the following **questions**.

1. What exactly did the "Living Planet Report 2020" study? What did it not study? What is the most important finding in the report?

.....

.....

.....

.....

.....

2. Name one vertebrate. Give a short definition of a vertebrate and name the five groups of vertebrates. Name three examples of vertebrates common in your region.

.....

.....

.....

3. How high is the percentage decline in wildlife populations by region? In your own words, what does it mean for the region where you live?

.....

.....

.....

.....

4. In the article, what are the main reasons given for the decline in population sizes?

.....

.....

5. What examples of particularly endangered animals does the text give?

.....

.....

.....



Biodiversity: Mass decline over the past decades

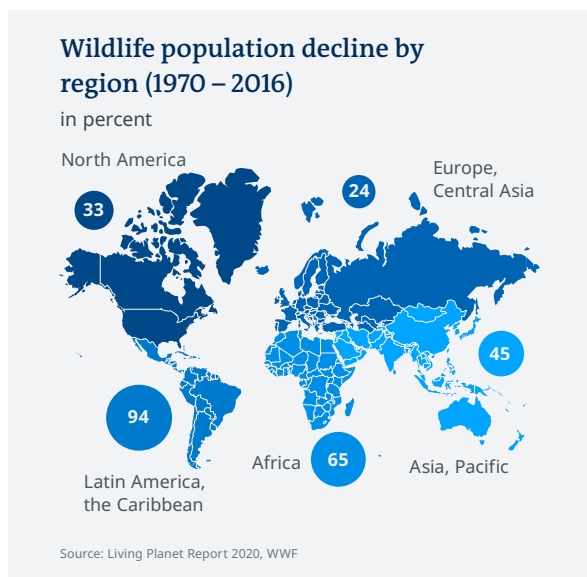
Research has found more than two-thirds of global animal populations have declined since the 1970s. And human beings are the main cause.



Alone in the depths of the Pacific Ocean: Leatherback turtles are also facing an acute threat

A report published by the conservation organization WWF and the Zoological Society of London revealed the decades-long and ongoing decline of many vertebrates around the world.

The “Living Planet Report 2020” provides insight into some 21,000 populations of more than 4,400 threatened and non-threatened species of mammals, birds, fish, reptiles and amphibians. It did not research extinction, but declining numbers, which impact ecosystems when there is an interdependence among different species.



Researchers found an average 68% reduction in populations between 1970 and 2016. In the 2018 version of the report, the decline in observed populations averaged 60%.

Head of nature conservation at WWF Germany, Christoph Heinrich, says the study only represents a small proportion of biodiversity, and that there are believed to be some 10 to 20 million animal and plant species worldwide. Not all of them, however, are consistently tracked. And the report doesn't include insects.

Humans carry the blame

The reasons behind the declines are generally human in origin. The biggest problem is habitat destruction caused by changing land use, such as clearing trees for agricultural purposes.

The second is overexploitation through hunting and poaching, but invasive species, imported diseases and environmental pollution are also contributing factors. The report considers climate change to be less of a cause of biodiversity decline, except in South and Central America.

On the list of critically endangered species, the WWF includes the eastern lowland gorilla in the Democratic Republic of Congo, the leatherback turtle in Costa Rica and sturgeon in the Yangtze, China's longest river. The population of the migratory fish has dropped 97% since 1970.

In Germany, partridges and the Eurasian lapwing are at particular risk from agricultural land use. The numbers of larger birds such as the white-tailed eagle, however, have increased thanks to targeted conservation efforts.

Biodiversity is declining at varying rates in different parts of the world. In South and Central America, it has dropped by an average of 94%. Europe and Northern Asia appear to be doing better with a recorded average decline of 24%. But Heinrich says the figure is misleading because the biggest changes to landscapes in those regions happened before 1970, which was before monitoring began.

10.09.2020 | *ust/rb (dpa, afp, WWF)*



Explanation of the term “keystone species:” Diagram and an interview with a wild animal vet

🕒 **Duration: 40 min**

Let participants read **article 2** “Sharks: Why a young vet is protecting predators,” a copy of which is enclosed.

» **Article 2**

Worksheet 4.1 contains questions relating to the article. The aim is to strengthen understanding of the term “keystone species.” Distribute worksheet 4.1 and ask participants to answer the questions by themselves.

» **Worksheet 4.1**

Tip The **bonus task** on **worksheet 4.2** is optional. These are extra tasks designed to introduce participants to learning about regional keystone animal species and their importance for local ecosystems. For this task, participants need access to the internet or relevant literature. Discuss the task with participants in advance and allow them sufficient time to present their findings.

» **Worksheet 4.2**

Answers

1. *Bull sharks* give birth in river estuaries or other freshwater regions.
2. Young *bull sharks* swim near the coastline. Because there is a lot of fishing activity close to the shore, the young animals often go for the bait on fishing lines. As sharks are feared and have a bad reputation, they are often left on the beach instead of being thrown back into the sea. The young animals die before they can reproduce. Because the animals don't reach sexual maturity until the age of 15, this behavior contributes to species extinction.
3. **Keystone species** is a term used in ecology. It refers to species that are extremely important for upholding biodiversity, such as sharks in our oceans.
4. *Sharks* ensure a balance in the food chain between predators and prey. Sharks eat other, smaller predatory fish, such as the *grouper* which in turn feed on plant-eating species such as the *parrotfish*. These herbivorous fish also eat *algae* which damage coral reefs. So, through their eating habits, sharks contribute to the health of *coral reefs*, which is a habitat and nursery for many marine species.

Module I

Worksheet 4.1



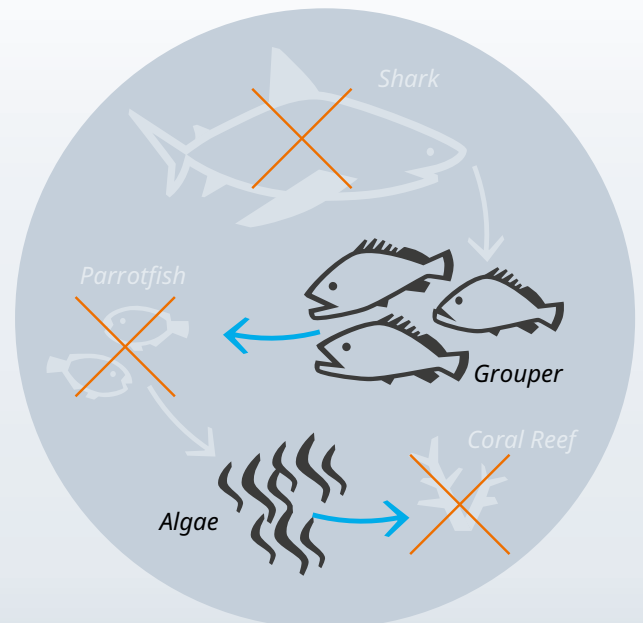
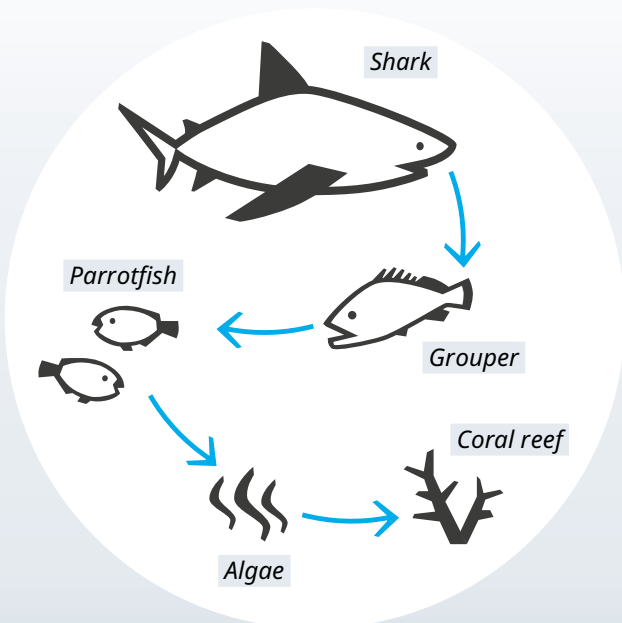
Healthy coral reefs thanks to sharks

Carefully read the **article** "Sharks: Why a young vet is protecting predators," and then answer the following **questions**:

1. Where do *bull sharks* give birth to their young?
.....
2. Why are *bull sharks* endangered?
.....
.....
.....
3. What is a keystone species?
.....
4. Look at the **diagram** about **keystone species: shark** below. Using your own words, explain why *sharks* are an important keystone species for the health of *coral reefs*.
.....
.....
.....

Healthy coral reef

Unhealthy coral reef





Worksheet 4.2

Module I

Bonus task

Wolves, rhinos and starfish are also keystone species.

Conduct your own research and present your **findings**:

1. Which **keystone species** live in your region? Choose one you would like to study further:

.....

2. If your keystone species were wiped out, what would the consequences be for other plants and animals? Would there be any direct effect on humans?

.....
.....
.....

3. Draw a diagram of the keystone species you chose.

4. In your own words, present your diagram explaining the species' role to the main group.

Module I

Article 2



Sharks: Why a young vet is protecting predators

Wild animal vet Hannah Emde has treated big cats, huge constrictor snakes and young sharks. DW spoke to the author and conservationist about her motivation to work with what are perceived to be dangerous predators.



*The bull shark (*Carcharhinus leucas*) is one of the most important predators in coastal regions. It can grow to lengths of 3.3 meters long and can weigh up to 230 kilograms.*

DW *Your association, Nepada Wildlife, is working on the Southeast Asian island of Borneo to protect the little known Sunda clouded leopard. Why this animal?*

Hannah Emde I got to know this extremely rare and beautiful species of big cat when I was a student. They have very special markings on their fur that are reminiscent of clouds, and as nocturnal animals, they climb through the trees at night, almost like ghosts in the forest.

The biggest problem they face is habitat loss because of the vast numbers of oil palms being planted on Borneo. Palm oil is a hugely profitable vegetable oil used in many food products, but also in biofuel and cosmetics, so forests are cut down to make way for plantations.

DW *Why can't the clouded leopard live in the palm oil plantations?*

Hannah Emde There's nothing for them to eat there. The use of toxic pesticides means no other fruit grows in the plantations, which in turn means

there are no small rodents or monkeys, on which the clouded leopards feed. In addition, the plantations offer no protection, so at some point the animals will no longer be able to reach fellow clouded leopards in other fragments of the forest in order to breed. Ultimately, that will lead to the species dying out.

DW *What would be the implications for the rainforest in Borneo if the clouded leopard did die out?*

Hannah Emde The Sunda clouded leopard is the biggest predator on Borneo. It's right at the top of the food chain. These animals are important because they keep other populations such as rodents or monkeys in check. When the most important predator in the food chain dies out, the other populations explode and take up much too much space, which means the whole ecosystem collapses.

DW *You have also worked with sharks ...*

Hannah Emde That was a project with marine biologist Elpis Joan Chávez in Costa Rica. She has been researching bull sharks – which have a bad reputation – for a long time. They are often described as being particularly aggressive. Although that's not true. It's just important to stick to the rules and not threaten the animals.

Bull sharks are born in estuaries and other fresh water regions, which is why – unlike the great white shark, for example – they swim near the coastline. Because there is a lot of fishing activity close to the shore, the young animals take the bait on fishing lines. Instead of throwing them back into the sea, fisherfolk often leave them to die on the beach.



Vet Hannah Emde at work in the rainforest in Guatemala

i

Article 2

Module I

I found several small dead sharks on the beach, and it was a horrible sight. Because the animals don't reach sexual maturity until the age of 15, this behavior contributes to species extinction. Therefore, it's very important to explain the situation to local people so they understand the value of the animals.

DW *Why are sharks so important for our oceans?*

Hannah Emde Sharks are what is known in ecology as a keystone species. That means they are extremely important for upholding biodiversity in our oceans.

DW *How can sharks be a key to greater diversity if they eat other animals?*

Hannah Emde It's through their eating habits that sharks ensure a balance between predators and prey in the food chain. Sharks eat other, smaller predatory fish, such as the grouper. Sharks are pretty much the grouper's only enemies, so if they didn't eat them, there would be many more groupers and other smaller predatory fish.

Because these smaller predatory fish, which unlike sharks, also feed on algae-eating species such as the parrotfish, there are further implications. The algae-eating fish are eaten more quickly than they can reproduce, which results in their declining numbers. That, in turn causes a problem for corals, which become colonized by macroalgae. So what was once an intact coral reef with a shark becomes an ailing one without it.

DW *What are the impacts of coral reef loss?*

Hannah Emde Coral reefs are both nurseries and pantries for thousands of other species. If the corals die, so do many fish, crabs and small species that live in and from them.

DW *What advice would you give young people who are thinking of becoming vets?*

Hannah Emde Courage and hope. Studying to become a vet is extremely hard, but it's worth it. However, you don't have to become a vet in order to do something for global conservation. When we develop an awareness of the products we buy in the supermarket and understand their effects on animals in other parts of the world, we have taken the first step toward conservation.



Hannah Emde examining an animal on the island of Borneo

This interview was conducted by Kerstin Palme in February 2021

Tip

To find out more about the clouded leopard and other endangered species, visit the website of Hannah Emde's non-profit organization Nepada Wildlife. nepadawild.life

Module II – Reasons for species extinction

Handout 5



Dangers for wild animals around the world

Duration: 90 min

In module II, participants will study and prepare presentations on different issues that contribute to the threats facing wild animals around the world. Split the participants into groups in such a way that an equal number will be focusing on each subject. Copy and distribute **worksheets 5.1 to 5.4**.

» **Worksheets**
5.1 bis 5.4

Subject: Climate change

Film 2 "Nature on the move" shows how migratory behavior of many animal species is decisive for ecosystems around the world and how climate change is impacting this behavior. You will find the film here: dw.com/p/3gX5F

» **Film 2**

Subject: Poaching

Film 3 "Can Uganda bring back rhinos poached to extinction?" is about a journey through a nature reserve in Uganda. Participants learn how poaching in the country has devastated animal populations and what can be done to increase their numbers. You will find the film here: dw.com/p/34ckA

» **Film 3**

Subject: Environmental pollution

Film 4 "Protecting Argentina's imperiled penguins from plastic waste" deals with wild animals living in Argentina's Tierra del Fuego. Participants learn how environmental pollution threatens the flightless sea birds. The film also shows projects working to protect the penguins. You will find the film here: dw.com/p/3cT2h

» **Film 4**

Subject: Invasive species

Article 3 "The Burmese python and the fight for the Florida Everglades" describes how the constrictor snakes originally from Asia are posing a threat to the ecosystem of the Everglades in the US state of Florida, and what is being done about it. You will find the article here: dw.com/p/3180U or enclosed in this pack.

» **Article 3**

Preparing presentations

Discuss in the group what makes a good presentation. Participants could start with an unusual detail. In the main part of the presentation, they should describe the problem and use background information to strengthen their case. They can end the presentation on a positive note, offering potential solutions to the problem.

Give participants time to prepare and practice their presentations before delivering them to the entire group. This gives participants the opportunity to learn about all four subjects.

Tip In **distance learning** situations, participants can practice their presentations by delivering them to a family member. They can then make a video or audio recording to share with the group.



Potential answers for worksheet 5.1

Subject: Climate change

Problem

- Climate change is affecting the migratory patterns of many animals.
- As a result, ecosystems can collapse. For example, *salmon* migrate to Alaska to spawn, after which they die. Their bodies decompose, providing a source of nitrogen, which the forests need as fertilizer.
- Altered animal migratory pattern can impact humans. *Tiger mosquitoes* are spreading dengue fever in Europe and the fishing industry in Southeast Asia is suffering.

Background

- 8,000 to 10,000 animal species – including *salmon, storks, monarch butterflies, eels, plankton* and *Arctic terns* – migrate.
- Natural migratory patterns are related to cold temperatures, lack of food or mating habits.

Facts

- *Monarch butterflies* migrate up to 3,600 kilometers every year, *Arctic terns* up to 80,000.
- Animals mostly migrate in groups, which offers them greater protection from predators.
- Migratory birds such as *wild geese* conserve energy by flying in formations.

Solutions

- (Extra bonus task, not mentioned in the film):

If we can stop climate change, we can preserve the natural migratory patterns of animals.



Possible answers for worksheet 5.2

Subject: Poaching

Problem	Background
<ul style="list-style-type: none"> In Uganda, the <i>southern white rhino</i> was poached for its horn and can no longer be found in the wild. 	<ul style="list-style-type: none"> There were once many rhinos in Uganda, but the last ones fell victim to poachers in the 1980s. The organization Rhino Fund has been breeding them in a national park for 18 years. Goal: To reintroduce rhinos to the wild, which requires strict rules and laws.
Facts	Solutions
<ul style="list-style-type: none"> There are currently 24 rhinos living in the Rhino Fund reserve, monitored by 90 rangers. The rangers watch and protect the animals constantly, taking note of their behavior in the process. Female rhinos are pregnant for 18 months. When they give birth, they are particularly attentive and are ready to attack at the first sign of danger. 	<ul style="list-style-type: none"> The Rhino Fund Uganda, which is largely financed through tourism, works closely with local communities. The organization's projects include rhino breeding and rewilding, research, a school for local children, guided tours, the chance for farmers to graze their cattle in the conservation area, awareness raising. Because the rhinos also generate income, most local people support the project.



Potential answers for worksheet 5.3

Subject: Environmental pollution

Problem

- Plastic waste is carried into the Tierra del Fuego penguin colony by currents and wind. Plastic is found in 90% of penguin nests. They eat the plastic, which harms both the young and adult animals.
- Tourism causes damage: The boats get too close to the island and the noise disturbs the animals.
- Rising ocean temperatures have impacted the food chain. Penguins mostly eat small animals that are susceptible to changing temperatures. This means penguins absorb less energy and spend longer looking for food. Penguins that are left alone for longer are easier prey for predators.

Background

- In Tierra del Fuego, there are seven large penguin colonies.
- They are home to *Magellanic* and *gentoo penguins* – among others.

Facts

- *Magellanic penguins* are named after the famous Portuguese seafarer called Ferdinand Magellan, who was born more than 500 years ago.
- Magellanic penguins lay their eggs on land, where they raise their young.
- They are excellent divers and swimmers and have been known to swim as far as 4,000 kilometers.

Solutions

- A scientific project measures the activity of the penguins to catch changes early.
- The initiative “A Limpiar Ushuaia” collects trash on the beach.
- The Initiative “Compromiso Onashaga” offers sustainable tourism.



Potential answers for worksheet 5.4

Subject: Invasive species

Problem	Background
<ul style="list-style-type: none"> • <i>Burmese pythons</i> in the Everglades are reproducing at uncontrolled rates because they have no natural enemies. • They eat native species such as <i>raccoons</i>, <i>foxes</i>, <i>marsh rabbits</i> and <i>birds</i>. Some 99% of fur-bearing animals have already disappeared. • Local species such as the <i>alligator</i> and endangered <i>Florida panther</i> are losing their food source to the snakes. • They are disrupting the balance of species in the Everglades. 	<ul style="list-style-type: none"> • The first <i>Burmese pythons</i> appeared in the Everglades in the 1970s after being released by irresponsible breeders. • Estimates now suggest there are more than 150,000 pythons in the Everglades.
Facts	Solutions
<ul style="list-style-type: none"> • <i>Burmese pythons</i> originally come from South and Southeast Asia. • They can grow to be as long as 7 meters and weight up to 110 kilograms. • They sometimes even prey on <i>alligators</i>. 	<ul style="list-style-type: none"> • Hunting of <i>Burmese pythons</i> is permitted as a way of keeping their numbers in check. • Transmitters are used to track <i>Burmese pythons</i> in order to break up the groups of snakes that breed intensively. • Some scientists are trying to synthesize python pheromones – which are the body's own chemical messengers – to attract breeding partners.



Worksheet 5.1

Module II

Wild animals in danger: Climate change

Imagine you are a member of a conservation organization. You have been invited to hold a five-minute **presentation** at an international conference about species extinction.



Your subject is: **“How climate change is affecting animals’ migratory behavior.”**

Prepare your short presentation using the **film** “Nature on the move.” You will find it online here dw.com/p/3gX5F

Make notes in the **table** below while you watch the film.

<p>Problem</p> <hr/> <p>How are climate change and migratory patterns connected?</p>	<p>Background</p> <hr/> <p>How many migratory species exist and why do they travel?</p>
<p>Facts</p> <hr/> <p>Use fascinating details to make your presentation more interesting.</p>	<p>Solutions</p> <hr/> <p>What can be done to support the return of natural migratory patterns?</p>

Module II

Worksheet 5.2



**Wild animals in danger:
Poaching**

Imagine you are a member of a conservation organization. You have been invited to hold a five-minute **presentation** at an international conference about species extinction.



Your subject is **“Poaching: Rhino protection in Uganda.”**

Prepare your short presentation using the **film** “Can Uganda bring back rhinos poached to extinction?” You will find it online here: dw.com/p/34ckA

Make notes in the **table** below while you watch the film.

<p>Problem</p> <p>Jot down how poaching has affected the southern white rhinoceros in Uganda.</p>	<p>Background</p> <p>Write down how the southern white rhinos’ situation has changed in Uganda over the years, and the hopes for its future development.</p>
<p>Facts</p> <p>Use fascinating details about the animals and the organization Rhino Fund to make your presentation more interesting.</p>	<p>Solutions</p> <p>How is the Rhino Fund organization helping local animals and humans?</p>



Worksheet 5.3

Module II

Wild animals in danger: Environmental pollution

Imagine you are a member of a conservation organization. You have been invited to hold a five-minute **presentation** at an international conference about species extinction.



Your subject is **“Environmental pollution is damaging penguins in Argentina.”**

Prepare your short presentation using the **film** “Protecting Argentina’s imperiled penguins from plastic waste.” You will find it online here: dw.com/p/3cT2h

Make notes in the **table** below while you watch the film.

<p>Problem</p> <p>Write down how environmental pollution is threatening penguin colonies in Argentina and how climate change and increasing tourism are hurting the animals.</p>	<p>Background</p> <p>What kinds of penguins live in Tierra del Fuego and how many colonies are there?</p>
<p>Facts</p> <p>Use fascinating details to make your presentation more interesting.</p>	<p>Solutions</p> <p>Which projects for the protection of penguins are named in the film?</p>

Module II

Worksheet 5.4



**Wild animals in danger:
Invasive species**

Imagine you are a member of a conservation organization. You have been invited to hold a five-minute **presentation** at an international conference about species extinction.



Your subject is **“Invasion of Burmese pythons in Florida’s Everglades.”**

Prepare your short presentation using the **article** “The Burmese python and the fight for the Florida Everglades.” You will find it online here: dw.com/p/318OU

Make notes in the **table** below while you read the article.

<p>Problem</p> <hr/> <p>Make a note of why the Burmese python is a problematic invasive species in the Everglades.</p>	<p>Background</p> <hr/> <p>How did the Burmese python get into the area and how did its population develop there?</p>
<p>Facts</p> <hr/> <p>Use fascinating details to make your presentation more interesting.</p>	<p>Solutions</p> <hr/> <p>What are the plans for reducing the number of Burmese pythons?</p>



The Burmese python and the fight for the Florida Everglades

The Everglades are famous throughout the world, with alligators as perhaps their best-known inhabitants. However, there's a new predator in town – and it is wreaking havoc on this remarkable ecosystem.



The Everglades are known internationally for their alligators, but now another reptile has become king: the invasive Burmese python

At a coffee shop in Davie, Florida, I'm waiting for wildlife biologist Ian Bartoszek. He causes a huge stir as he walks in with a giant platter of what could easily be choux pastries. Patrons look on confused, some approaching to ask if they are potatoes.

"These are Burmese python eggs," he tells them. "Right now in the field, there are many female pythons we didn't catch sitting on a clutch like this that will probably hatch."

The clutch of 40 desiccated eggs he carries is a highly effective hammer to drive home his point. Bartoszek, who works for the Conservancy of Southwest Florida, feels it is necessary to do everything he can to bring people's attention to the havoc these creatures are wreaking.

Florida's Everglades are known internationally for their alligators. But now another reptile has become king in the unique wetland: the invasive Burmese python. Native to South and Southeast Asia, the snake species was first sighted in the Everglades in the 1970s, after irresponsible pet owners released them into the ecosystem.

The subtropical environment, with its ideal temperatures and abundance of defenseless prey, helped their population explode. Today, the consequences are being felt.

Eating their way through native wildlife

By some estimates, their numbers may now exceed 150,000. The huge reptiles, which can grow to lengths of 23 feet (7 meters), and which weigh in at 250 pounds (113.4 kilograms), have eaten their way through much of the native wildlife, including raccoons, foxes, marsh rabbits, and birds.

"We have recorded a 99% reduction of fur-bearing animals," says Michael Kirkland, a biologist specializing in invasive animals at South Florida Water Management District (SFWMD). "They are now preying on wading birds and even the occasional alligator."

As populations of smaller mammals dwindle, the effects ripple up the food chain, and native predators like alligators and endangered Florida panthers lose their primary food sources.

"The pythons have essentially wiped out their prey base in Miami-Dade County, Everglades National Park and surrounding areas. We suspect they are going to be expanding their territories both west and north," says Kirkland.

The Everglades ecosystem, which once sprawled across more than 6,250 square miles (16,187 square kilometers), has been reduced to half its original size by agriculture and urban expansion, and now the pythons threaten to make the 'glades barren of life.

"Doing nothing is not an option," Kirkland asserts. To protect the remaining wildlife, the SFWMD has licensed a select group to participate in its python hunting program, which began last year.

Recording its 1,100th python catch recently, the agency has extended the program and the Everglades National Park is joining the effort, recruiting python hunters to remove the snakes and permitting the use of shotguns.

"I believe the park is really the epicenter of the python invasion," asserts Kirkland.

Module II

Article 3



Ian Bartoszek and one of his colleagues found a python that was 4 meters long and weighed 43 kilos

Hunting in the dark

The Everglades are a tough environment – a vast, slow-moving waterway with a surprising variety of terrain and dramatic seasonal changes. With oppressively sticky heat, biting flies, razor-sharp sawgrass and even poisonous trees, it's no walk in the park.

Hunters can spend a whole week of 12-hour days looking for pythons without finding a single one, so perseverance is key. Thomas Rahill, one of those authorized to remove the snakes, is founder of the Swamp Apes, a group mostly composed of military veterans dedicated to fighting invasive species. He is well aware of the perils of the job.

“When you come across a big python, I don't care where you are, it is a very dangerous animal, you have to know what you are doing,” he says.

Once the sun sets, impenetrable darkness quickly descends over the 'glades. Firing up a spotlight mounted on his car roof, Rahill looks for pythons crossing on the levees, which are the perfect places for these cold-blooded predators to warm up.

They are one of largest snakes in the world and are ectotherms, meaning their body temperature regulation depends on external sources, such as sunlight or a heated rock surface.

Rahill says most of the 500 snakes the Swamp Apes have caught were found while road cruising on the levees, especially at night.

Swamp Ape python hunters also walk along the sides of the levees, searching every hole and burrow,

looking for python nests with a borescope camera. As they move on, they cover the holes with dried sawgrass, returning later to check for disturbances.

Rahill's team also takes boats out to tree-covered islands, where they push through dense vegetation on foot – a technique they call “jungle busting.”

Apex predators

Back at the coffee shop, biologist Ian Bartoszek expands on the urgent need to understand the pythons' behavior. The team at Conservancy of Southwest Florida has implanted male pythons with transmitters and tracked them, with definite success.

Their research area now covers 50 square miles, having expanded significantly over the past five years. In February this year, an implanted snake they named “Argo” led them to a 99-pound pregnant female python. Three days later, Argo was released and tracked again to seven snakes, including a 115-pound female.

In four years of tracking, the team has removed 10,000 pounds of python biomass from their research area.

“We are interested in busting up those breeding aggregations. We are not looking for the street dealers, we are looking for the distributors,” explains Bartoszek.

The conservancy now has 20 male snakes working for them. Other researchers are attempting to synthesize the python's pheromones to attract larger numbers of pythons.

“I have a feeling we're definitely gaining some ground in some key areas,” Bartoszek tells DW.

The Burmese python's reign is challenging the Everglades apex predator, the alligator. Recently, Mike Kimmel, a hunter with the SFWMD, rescued a 4-foot alligator from the grip of a 10-foot python.

As Mike Kirkland puts it, “pythons really are the apex predator now – a large python and a large alligator, either one could win that battle. The alligator is about the only native animal down here that could possibly win.”

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Article 3

Module II



Earlier this year, conservancy biologists from Collier-Seminole State Park, a Florida State Park located on the southwest coast of the US state, discovered an 11-foot-long female python with a white-tailed deer inside its mouth.

“That was a 31.5-pound python that had a 35-pound white-tailed fawn in it. It was eating 111% of its body weight,” says Bartoszek.

It is the largest documented prey-to-predator ratio for a Burmese python.

“I’m holding it in my hands looking at this small jaw. It was a turning point,” remembers Bartoszek. “I knew then the beast we’re dealing with and what it is capable of.”

11.07.2018

Author Maria Bakkalapulo

dw.com/p/318OU

Module III – Solutions

Handout 6



Focus on rescue stations: Help for endangered animals

Duration: 60 min

Orangutans, koalas and sloths have one thing in common: They are endangered because their habitat is being destroyed. In module III, participants will be dealing with three projects involving people who are working to protect these animals.

Assign **subjects 1 – 3** to groups of equal size. Make a copy of **worksheet 6** for each participant. The participants then read the article or watch the film relevant to their subject and use the worksheet to make a **profile** of their animal.

» **Worksheet 6**

If possible, encourage participants to use the internet for further research about the respective animals and those who are helping them.

Ask participants to add a picture of their animal to their profile. They can use a drawing, pictures from a magazine or info brochures for this.

You can find the online links for subjects 1 – 3 below. If necessary, share these with participants, as they are not printed on the worksheet.

Subject 1 Orangutans in Sumatra

Film 5 “Dora’s path to the wilderness” explores the rewilding of endangered orangutans in the Bukit Tigapuluh National Park in Sumatra. You will find the film online here: dw.com/p/2rJRY

» **Film 5**

Subject 2 Koalas in Australia

Article 4 “Koala rescue: An orphaned joey, and her species’ fight for survival” is about marsupials that have lost their habitat as a result of deforestation or forest fires. You will find the article online here dw.com/p/3lzuV or enclosed in this pack.

» **Article 4**

Subject 3 Sloths in Suriname

Film 6 “Saving Suriname’s sleepy sloths” is about a sloth rescue station in Suriname that takes in animals found in the city. You will find the film online here: dw.com/p/2lu0h

» **Film 6**

Once you have finished, present the animal profiles to the group. You will find **suggested answers** on the following pages.



Suggested answers worksheet 6

Subject 1: Orangutans in Sumatra

- 1. Where does the animal live?*
Sumatra.
- 2. Why is the species under threat?*
Deforestation of the rainforest is leading to habitat loss.
- 3. What is the current situation for the species and its habitat?*
80% of the rainforest has disappeared in the last 50 years.
- 4. Which animal do you get to know in the report?*
Dora.
- 5. Further information about this animal:*
Dora was returned to the wild three years ago. She's wearing a tracker and is 8 years old. Dora learned everything for her life in the wild – including climbing, how to find food and build a nest – at the jungle school. She ended up at the school because she's an orphan and was kept illegally as a pet for most of her life. For that reason, she is always very tame. Dora has lost weight and has to be examined. She recently injured her hand during a fight with another orangutan and needed stitches.
- 6. Who is helping Dora?*
Project leader of the Frankfurt Zoological Society's orangutan release program in Sumatra, Dr. Peter Pratj and vet, Andhani Widya Hartani.
- 7. Do they work for an organization or project?*
Yes.
- 8. Name of the organization:*
Frankfurt Zoological Society.
- 9. How are the animals helped?*
Orangutans rescued from captivity are released in Bukit Tigapuluh National Park and usually observed for at least two years. They're given medical care when needed.
- 10. What goals have the organizations already achieved?*
170 orangutans have been released into the wild.
- 11. What are the project's future goals?*
To release twice as many orangutans into the wild to create a population stable enough to reproduce. To protect lowland rainforest with the orangutan as the emblem for conserving the forest.



Subject 2: Koalas in Australia

- 1. Where does the animal live?*
Australia.
- 2. Why is the species under threat?*
Forest fires and deforestation are destroying koala habitat. On the ground they face dangers from cars and dogs. Many koalas are infected with chlamydia. Climate change is increasing the likelihood of fires.
- 3. What is the species' current situation?*
Up to 7% of some populations were killed in wildfires.
- 4. Which animal do you get to know in the article?*
Kai.
- 5. Further information about the animal:*
Kai was found curled up and starving among burned leaves on Australia's Kangaroo Island. She was nursed back to health and at the beginning of September 2020, Kai was released into the wild.
- 6. Who is helping Kai?*
Kailas Wild, a trained tree surgeon.
- 7. Do they work for an organization or project?*
No, Kailas is just an individual who wants to protect koalas.
- 8. Name of the organization:*
-
- 9. How are the koalas helped?*
Kailas Wild found baby koala Kai and brought her to the animal hospital. He visited every day to feed her. He had previously volunteered at the Australia Zoo Wildlife Hospital in Beerwah, Queensland. He is now working to protect areas untouched by the wildfires. He is working to protect areas untouched by the fires. He wants to make people care about koalas using social media campaigns and by publishing a book called "The 99th Koala."
- 10. What goals has he already achieved?*
He has saved 107 koalas.
- 11. What are his future goals?*
To protect koala habitat and create political pressure to do so.



Subject 3: Sloths in Suriname

- 1.** *Where does the animal live?*
Suriname.
- 2.** *Why is the species under threat?*
Habitat loss due to construction projects and forest clearance.
- 3.** *What is the species' current situation?*
Sloths are protected in Suriname but they are increasingly turning up confused or injured in cities and towns.
- 4.** *Which animals do you get to know in the report?*
Christine, Isa.
- 5.** *Further information about the animal?*
Christine had her claws cut off when she was in captivity and has been listless because she can no longer scratch or hang out of branches – both of which are important sloth behaviors. Isa has been living with Monique Pool since she was born. She's so used to humans that she can't be released into the wild.
- 6.** *Who is helping the animal?*
Conservationist and founder of "Green Heritage Fund Suriname," Monique Pool; vet Cleopatra del Prado.
- 7.** *Do they work for an organization or project?*
Yes.
- 8.** *Name of the project:*
Sloth Wellness Center Suriname / Green Heritage Fund Suriname.
- 9.** *How are the animals helped?*
The sloths are picked up in the city or sometimes dropped off by people at the rescue center, who also raise awareness. The animals are cared for and nursed back to health at the center. They are eventually released back into a protected section of the rainforest.
- 10.** *What goals have the organizations already achieved?*
More than 600 animals have been saved.
- 11.** *What are the project's future goals?*
Save and return more sloths to the wild.

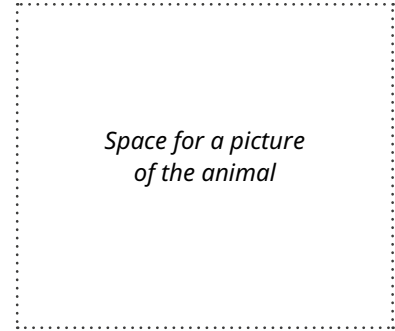
Module III

Worksheet 6



My animal profile for:

..... *(species)*



1. Where does the animal live?

.....

2. Reasons why it is endangered:

.....
.....

3. Current situation for the animal species:

.....

4. Which animal do you get to know better in the report?

.....

5. Further information about this animal:

.....
.....

6. Who is helping the animal:

.....

7. Does he or she work for a project?

.....

8. Name of the organization/project:

.....

9. This is how the animals are being helped:

.....
.....

10. These goals have already been reached:

.....

11. These are the goals for the future:

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.....

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Article 4

Module III

Koala rescue: An orphaned joey, and her species' fight for survival

When Kailas Wild saved a baby koala, it gave him hope for the future of a whole species under threat.



One morning in February, after the worst of Australia's devastating bushfires had smoldered out, Kailas Wild headed out into the charred blue gum plantations of Kangaroo Island, off the country's southern coast.

A tree surgeon who had come to the island to help rescue koalas in the aftermath of the blaze, Wild was worried to see how much of the foliage that they depend on for food was burned. Then, something else caught his eye: a gaunt baby koala curled up in the blackened leaves, her coat visibly scorched.

"She was the first injured, orphaned joey I found – the most overwhelming and upsetting sight, I just felt so bad for her," Wild recalls.

Wild scaled the tree, caught the little joey, and drove her an hour to Kangaroo Island's animal hospital.

"The whole time I thought, I'm just doing this to save you from worse suffering," he says. Wild wept as he handed the tiny creature to the vets, convinced she would have to be euthanized.

Instead, they announced she stood a good chance of survival. Wild named her after himself – Joey Kai – and began to feed her each day.

"I just couldn't help it, there was something special about her. I have never felt attached to anything as I did to her," Wild explains.

Already listed as vulnerable to extinction, thousands of koalas were killed in last summer's bushfires, whose severity has been linked to climate change. For Wild, the plight of one marsupial baby has become emblematic of her entire species.

It all comes down to habitat loss

Wild first fell in love with koalas as a volunteer at the Australia Zoo Wildlife Hospital in Beerwah, Queensland. They were brought in suffering from chlamydia, hit by cars or attacked by dogs.

"It all stems from the loss of habitat," Wild says.

Koalas would have little need to leave the treetops if their habitat were left intact. But as forests are destroyed by fire, or felled to make way for farming, mining and urban development, they are forced to the ground where they are vulnerable to dogs and traffic.

Habitat loss also makes them more vulnerable to chlamydia, a highly infectious disease that healthy koala populations can weather, but which can be catastrophic for those already under stress.



A wild koala scales a gum tree in burned bush on Kangaroo Island

Seeing the suffering of these animals firsthand at the wildlife hospital "was an eye-opening moment," Wild says. "I saw the impacts of climate change on koala populations and realized that there's no point in trying to rehabilitate koalas if we don't preserve their natural habitat."

Module III

Article 4



Rescue mission to Kangaroo Island



Kai Wild rescues a koala on Kangaroo Island

Wild was in Sydney when the fires hit and was volunteering with emergency services to fight them. Then one day in late January, he got a message from a wildlife carer on Kangaroo Island.

“They were looking at a koala that needed help, but they couldn’t reach it,” Wild says.

After a 20-hour drive and a ferry ride across the Backstairs Passage strait, Wild arrived at the forested island, two-thirds of which had gone up in flames.

Over the next seven weeks, he rescued 107 koalas from charred, swaying trees. But knowing the numbers of those he rescued was tiny compared to those killed in the fires, or starving in the denuded forest, was overwhelming. “I cried every day for weeks,” he says.

Protecting koalas’ last forests

Now, back in New South Wales, Wild is campaigning to protect what last summers’ blazes spared. The fires covered over 5 million hectares (12 million acres) of land in the state and wiped out 71% of its koala populations. Yet the publicly owned New South Wales Forestry Corporation continues to cut down the animals’ remaining habitat.

On a recent visit to the Lower Bucca State Forest with the state’s Nature Conservation Council to document the loss of Koala habitat, Wild says he could hear trees crashing to the ground and saw signs of koala claws on felled branches.

“This is some of the last unburned, intact, quality habitat that remains on the north coast of the state. I don’t understand how they can justify this,” he says.

In June, a parliamentary inquiry found that without “urgent government intervention,” koalas will be extinct in New South Wales by 2050. State Environment Minister Matt Kean responded by telling Australian media that he wanted instead to double koala numbers by that date. Yet, Wild said, Kean is “part of the same government that is still logging these unburned forests.”

This contradiction points to a fierce tension in Australian politics.

Divisive politics

On the one hand, the future of one of the country’s most iconic species demands urgent conservation measures. On the other, the financial fallout from the coronavirus pandemic has prompted authorities in New South Wales to fast-track commercial projects in a bid to boost the economy.

One such project is the expansion of a German-owned rock quarry at Brandy Hill, which the state environment minister approved in late October. It is set to destroy 52 hectares of pristine native forest that experts say are home to a breeding population of koalas.

“If we continue to clear 50 hectares here and 50 hectares there, we fragment the habitat of koalas,” says Ryan Witt, a conservation scientist at the University of Newcastle in New South Wales, explaining that the animals need space to roam.



Koalas in happier times

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Article 4

Module III



Logging in New South Wales threatens important areas of koala habitat

In recent months, the state's governing coalition has come close to splitting over environmental regulations to increase the range of protected koala habitat, as well as an amendment to allow property owners to clear 25 meters of forest on either side of boundary fences as a firebreak.

According to an analysis by conservation organization WWF Australia, the latter could – if all landowners were to act on the amendment – put 12,000 hectares of koala habitat at risk.

A symbol of hope

Wild is working to get the public firmly on the koalas' side in this fraught political debate.

"The only hope is to make people care," he says. His social media campaigns and his book, "The 99th Koala," which chronicles his experiences on Kangaroo Island, are an attempt to do just that. And Joey Kai plays a starring role.

Because for this one orphan, whose fate looked so bleak when Wild found her cowering in the scorched forest, there is a happy ending: Joey Kai was released on Kangaroo Island in early September. "I felt this real exhilaration, my heart was racing, I was very happy," he says. "She represents hope."

30.11.2020

Author *Manuela Callari*
[dw.com/p/3lzuV](https://www.dw.com/p/3lzuV)

Module IV – Taking action

Handout 7



Excursion: Rescuing wild animals in need

Duration: No set time

If you would like to help injured or seemingly sick wild animals, you should do plenty of research so as not to endanger yourself or the animal.

Plan an **excursion** with participants to the zoo, a wildlife park, a rescue center or another organization that helps animals in need. If possible, take a guided tour during which participants can ask questions and learn about the animals. The goal of the trip is to find out what can be done to help certain wild animals who are sick, injured or lost.

Preparation

Discuss the following points with participants ahead of the excursion:

- Aim of the excursion
- What options for excursions, like a rescue center, zoo or wildlife park, are there nearby?
- Decide on a destination together.
- Transport: How will we get there?
- How much will entrance and a tour cost?
- How long will the excursion take?
- What should participants take with them?

On the day of the excursion, participants should take notes. They will find questions they can pose on **worksheet 7**. Encourage them to come up with their own questions, too.

» **Worksheet 7**

For **distance learning** or if an excursion isn't possible for other reasons, participants can research the necessary information online. They could also organize a video chat or telephone call with an expert.



Rescuing wild animals in need

Our destination:

You can pose the following **questions** to those working at the organization you've chosen for the excursion. Please also think of further questions.

1. What kind of wild animals do you help here?
.....

2. What are the most common reasons for the animals needing help?
.....

3. Are the animals returned to the wild? If so, how long does it take before an animal can be returned to nature?
.....

Think of a wild animal you find particularly interesting and ask specific questions about that animal.

My wild animal is:
.....

4. What should I do if I find this animal in the wild that might need help?
.....

5. How do I know that the animal really needs help?
.....

6. Is there a special number I can call if I find an animal in need?
.....

7. Should I also try to help the animal myself? If so, how can I best do that?
.....

8. Can I do anything in my everyday life to ensure animals don't end up in these situations?
.....

9. Space for your own questions:
.....
.....
.....

Module VI

Handout 8



Plan and execute your own educational campaign

Duration: 120 min

Educational work plays a major role in animal conservation. Participants should raise awareness about conservation of animals locally by starting an **educational campaign**.

Example

Start with a successful example of educational work when explaining the task: **film 7** "Women on the Solomon Islands are protecting critically endangered sea turtles." You will find the film under dw.com/p/3W8uG

» **Film 7**

Watch the film with the participants. Afterwards, discuss what role education played in animal protection at that location. If necessary, direct them to the part of the video that shows the women explaining to other villagers why protecting sea turtles is important and how to do it (between 05:02 – 05:49).

Planning

Encourage participants to tell other people about endangered species. How, for instance, can one help a wild animal seemingly in need. If necessary, refer to the information learned during the excursion.

Using **worksheet 8** participants should plan their own educational campaign. Make copies of the worksheet for everyone and distribute it. Discuss the suggestions and questions in the worksheet. If possible, the task should be carried out in groups.

» **Worksheet 8**

Implementation

Consider the target audience for the presentation or info material. The easiest option is to present the information to the class. For instance, participants could make their own posters to hang up in the classroom and then explain their conclusions to the others.

But you could also suggest a bigger project. Participants could set up information stands at a suitable location in the school or set up a showcase and inform other students about it. Or they could present their conclusions at other fitting local locations, such as cultural centers.



How to become a conservationist

Take action by starting a local **educational campaign** to raise awareness about species decline and extinction!

1. Choose a (threatened) **species** you would like to present:
2. Develop a **concept** for your educational campaign. To do this, consider the following **questions**:

- Who is the **target audience** for your education material?
.....
- **Where** do you want to present your campaign?
.....
- Which **issue** to do want to raise? *(Example: Sharks are important for maintaining marine biodiversity, because they help to ensure the health of coral reefs – but they are often killed nonetheless.)*
.....
.....
- Formulate a **demand** for your target audience: How can each person help to solve the problem you are addressing? *(Example: By getting involved in a particular conservation group, donating money, rescuing wild animals in the back garden, etc.?)*
.....
.....
- **How** do you want to present your content *(poster, video, song, game, quiz, etc.)?*
.....
.....
- **What** do you need *(photos, text, technical equipment, etc.)?*
.....
.....
- **Who** from your group will do what? **When?**

Task	Name	Date
.....
Task	Name	Date
.....
Task	Name	Date
.....
Task	Name	Date
.....
Task	Name	Date
.....

Module IV

Handout 9



Instructions for making a bird bath

 **Duration: 90 min**

Birds need access to water for drinking and for splashing around to clean themselves – particularly when it is hot and dry. Participants should address this by building their own bird baths. Distribute **worksheet 9** and go through each step. Answer any questions participants might have.

» **Worksheet 9**

Preparation

Teaching situation permitting, ask participants to work on their bird bath in groups of 2 to 4 people. They can go through the instructions on their own.

Discuss up front where the finished bird baths should be placed. When choosing the spot, make sure the birds will be protected from enemies such as cats or birds of prey. A tree, balcony or a windowsill could be good places.

Also decide who is responsible for changing the water on a regular basis. Clean, fresh water is important to stop the birds getting sick. Discuss the materials required and who will organize what for each group.

Bird watching

Once the bird baths have been installed, ask participants to spend 30-60 minutes at a certain time of day watching to see which birds – or other animals – come to the water. Ask participants to make a note of the appearance and behavior of the animals. Present the results to the entire group and try to help participants to identify the animals they've observed. Books, pictures and websites about local species can be helpful.



Worksheet 9

Module IV

Instructions for making a bird bath

Some 15% of all bird species around the world face extinction. Without birds, the world would be a very different place. They eat pests such as snails, mosquitoes and other insects, and spread seeds through their droppings, thereby contributing to greater biodiversity.



You can help the birds near where you live. They need water – particularly when it is hot and dry – not only to drink but to clean themselves by splashing about.

You will need:

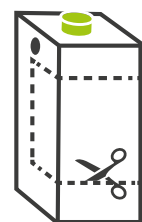
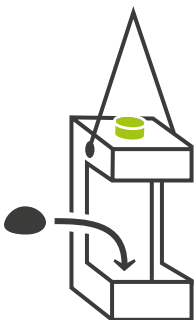
- 1 empty **drink carton**
- **Scissors** or a **knife**
- **Paintbrush** and **waterproof paint**. *Warning: The paint should be rainproof, otherwise it will make the water dirty*
- Double-sided **sticky tape** and **natural materials** (Example: shells, sticks, dried leaves, etc.)
- 1 piece of **rope** and some **wire**
- 1 **stone**
- Clean **water**

Consider the following points before you start:

- *Only put the bird bath in places where your feathered friends will be protected from enemies such as cats or birds of prey.*
- *Change the water every day or two and clean the container thoroughly. If you don't do this, bacteria can spread and make the birds sick.*

Instructions

1. Take an empty drink carton and clean it thoroughly.
2. Cut a square in the front and the sides of the carton.
3. Paint the outside of the drink carton. Once it is dry, you can stick your natural materials to the outside.
4. Punch a small hole in each of two opposite sides of the carton. Pull a piece of rope through them.
5. You can now hang up your bird bath. If it is wobbly, make it more stable by using a piece of wire or another piece of rope to fix it to a branch, the balcony or similar.
6. Fill your bird bath with clean water and place a rough stone inside. This will protect the birds from drowning, as they can take a rest on the stone.



Have fun watching the birds!

Films

Film 1



“Habitat loss: Addressing a global problem”

[dw.com/p/3sspK](https://www.dw.com/p/3sspK)

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Film 2



“Nature on the move”

[dw.com/p/3gX5F](https://www.dw.com/p/3gX5F)

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Film 3



“Can Uganda bring back rhinos poached to extinction?”

[dw.com/p/34ckA](https://www.dw.com/p/34ckA)

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Film 4



“Protecting Argentina’s imperiled penguins from plastic waste”

[dw.com/p/3cT2h](https://www.dw.com/p/3cT2h)

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Film 5



“Dora’s path to the wilderness”

[dw.com/p/2rJRY](https://www.dw.com/p/2rJRY)

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Film 6



“Saving Suriname’s sleepy sloths”

[dw.com/p/2lu0h](https://www.dw.com/p/2lu0h)

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Film 7



“Women on the Solomon Islands are protecting critically endangered sea turtles”

[dw.com/p/3W8uG](https://www.dw.com/p/3W8uG)

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Articles

Article 1



“Biodiversity: Mass decline over the past decades”

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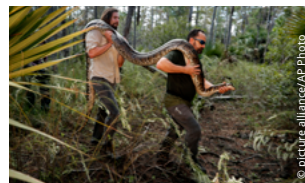
Article 2



“Sharks: Why a young vet is protecting predators”

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Article 3

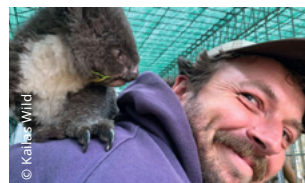


“The Burmese python and the fight for the Florida Everglades”

[dw.com/p/3180U](https://www.dw.com/p/3180U)

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Article 4



“Koala rescue: An orphaned joey, and her species’ fight for survival”

[dw.com/p/3lzuV](https://www.dw.com/p/3lzuV)

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Playing Films

Instructions for playing films

You have several options for playing the films accompanying this learning pack:

1. Playing films from DVD

If you have a hard copy of the learning pack, you will find all the films in two formats on the accompanying DVD. You can play the films using a DVD player (PAL format). You will also find the films as mp4 files on the DVD. These can be played on a computer.

2. Downloading and playing films from the internet

If you don't have the learning pack DVD, you can download or stream all the films directly from Deutsche Welle's website. You will find the film links in the handouts, as well as in the module overview. We recommend you download the films before class to ensure your lessons run smoothly.

To download the films, follow the links in the handouts and module overview. Then click on "Download Save MP4 file." You can save the film as an mp4 file on your computer or mobile storage device (e.g. USB key). Downloading the material can take between a few seconds and a few hours depending on the speed of your internet.

Note **Good sound quality**

If you're playing the films on a projector connected to your DVD player, PC or laptop, we recommend you use loudspeakers.

Global Ideas

The multimedia environment magazine

Around the world, imaginative people and innovative projects are working to protect our climate and biodiversity. Global Ideas tells their stories on TV and online every week.

Global Ideas is Deutsche Welle's multiple award-winning, multimedia environment magazine supported by the German Environment Ministry's International Climate Initiative. Established in 2009, it showcases TV reports, background articles, web specials and much more, as a means of informing people all over the world about best practice initiatives to protect the planet.

Global Ideas is more than just television. Think interactive specials such as a visit with Africa's wild animals or easy-to-understand explainers that answer complex questions like "does global warming really exist?" The magazine also has an educational element in the form of carefully crafted "learning packs" on key environmental topics. Available free of charge in German, English and Spanish, these learning materials include videos, articles, worksheets and teacher handouts, as well as other educational materials such as posters, picture cards and practical experiments. The learning packs are available in booklet form with an accompanying DVD, as well as online.

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