

## Forestry zoology

### Vocabulary

We divide animals to some groups according to their signs, body, food and habitat. Link animals and groups they belong to:

GROUP S		ANIMALS	
1	FISH	A	grass snake, viper, lizard
2	AMPHIBIANS	B	carp, catfish, pike, sturgeon, eel, trout, grayling, huchen, perch, pike perch
3	REPTILES	C	goose, duck, hawk, eagle, falcon, grouse, pheasant, partridge, longbill, pigeon, owl, great horned owl, wood-pecker, jay
4	BIRDS	D	toad, wood frog, salamander, newt

1		2		3		4	
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### Terrestrial animals

Read the text and answer the questions:

Our forests are full of animals. Very frequent is a **squirrel, fox, boar, lynx, wolf, bear, deer, roe deer, fallow deer, mouflon**. In the Slovak forests there are very good conditions for hunting, especially hunting bears and deers. From the birds we can find in Slovakia an **owl, grouse, great horned owl** and in the caves there live many kinds of **bats**. In the dwarf pine zone there is the **chamoise** and **marmot**. Typical animals for the fields on the lowlands are the **pheasants, hares, field voles**. Between the lowlands and the mountains very frequent is the **hedgehog**.

1. Which animals are hunted?
2. Which animal can we find in the cave?
3. Where do the marmots live?
4. Is the chamoise a typical animal for the lowlands?
5. Which birds were in the text?

Which animals are in the pictures?



1..... 2..... 3..... 4..... 5.....

We can divide fauna of Slovakia into four zones according to the number of animals living there:

### 1. Animals living in the savanna zone

It is the zone of the lowlands, sunny slopes but also the area which was made an arable land. We can find here about 10-13% of all animals living in Slovakia. They are: **hares, voles, partridges, pheasants, larks**. To the endangered species belongs the **bustard**. Its natural habitat is the savanna zone in the Podunajská lowland and Podunajská and Trnavská hilly country. The most animals live in the important bird area Sysel fields not far from Rusovce near Bratislava. Very frequent are also the **butterflies**.

*Are these sentences true or false T / F ?*

1. Half of all animals live in the savanna zone in Slovakia.
2. One of them is the bear.
3. The Sysel fields is the area where we can find a lot of fish.
4. There live the butterflies.

### 2. Animals living in the deciduous forests

This zone is the area with the largest number of animals living in Slovakia. You can find here about 75% of species. Deciduous forest offers enough food and shelter for the **roe, boar, fox, wild cat**, a lot of birds like the **cuckoo, owl, crow, nightingale, robin, finch, goldfinch, tit** and the **wood-pecker**. From the amphibians we can find here the **newt, toad** and the **tree frog**.

*How many animals can you find in this crossword?*

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

- |        |        |        |        |
|--------|--------|--------|--------|
| 1..... | 3..... | 5..... | 7..... |
| 2..... | 4..... | 6..... | 8..... |

### 3. Animals living in the coniferous forests

*Read the text and fill the words into the gaps*  
**reptiles, tit, coniferous, animals, birds**

10% of our animals can find their food in this area. ....1.... forest is the home for the **squirrel, lynx, bear**, ....2..... like the **grouse, thrush, bullfinch, crossbill** and the.....3..... From the ....4.... we can find here the **viper**, and the **grass snake**. A lot of .....5..... live in both the coniferous and deciduous forests like the **fox, wolf** and **deer**.

#### 4. Animals living in the alpine zone – in the area of the dwarf pine and alpine meadows

Here lives the lowest number of our animals, it is just 1% of all the species but they are also important. We can find here the species which survived the Ice Age, they are so called glacial relicts. From the amphibians the characteristic animal is the **newt** from the reptiles the **lizard**, from the birds the **swift**, from the mammals the **vole** and in the highest areas lives the **chamoise** and the **marmot**.

*Write the animals which belong to these groups*

mammals	amphibians	reptiles	birds

#### Water animals

All over Slovakia we can find scattered groups of water, marshes and banks of rivers which offer good conditions for the life of fish, amphibians, and birds. In Slovakia it is very common to breed fish in the ponds, especially near Trnava or in the east of Slovakia in the Senné ponds. In different waters live different animals. In the fresh water and in the ox-bows lives the **catfish, carp, trout, huchen, grayling, crayfish, frog, turtle**. In the vivid water with a clean stony bottom and a low temperature lives the **trout**. The **grayling** prefers the lower parts with slow water. Here we can also find the **pike, sand-eel, catfish, bream** and the **roach**.

*Write the correct words. Some letters are missing*

- |              |                |              |
|--------------|----------------|--------------|
| 1. – R O - T | 3. - I K -     | 5. – A - P   |
| 2. F - O -   | 4. T - - T L - | 6. R - A - H |

*Which parts does the body of the fish consist of?*

**mouth tooth fin head eye scales**

carp



*Correct these sentences:*

1. We breed fish in the rivers.  
-.....
2. The pike loves fresh and vivid water.  
-.....
3. The trout likes high temperatures.  
-.....
4. In the alpine zone lives the highest number of the animals.  
-.....
5. Relicts are the animals which are dangerous.  
-.....

On the banks of the rivers and brooks in Slovakia live many birds like a **wagtail**, **kingfisher**, in the lower parts the **otter**, **water-rat**. In the stillwaters we can find different kinds of **insects** and on their banks there are the **ducks**, **herons**, **baldicoots**, **warblers**. Near the rivers there are the nests of the **ducks**, **swans**, **gulls**, **storks**. Very important are the protected ornithological areas near Slnava on the river Vah where are the nests of the **heron** or the **cormorant**.

The **turtle** has its habitat in the natural reserve near the river Latorica in the east of Slovakia. It is very rare.

*Where can we find these animals? Finish the sentence:*

1. A wagtail lives in.....
2. An otter lives in.....
3. A duck lives on.....
4. A cormorant lives in.....
5. A turtle lives in.....

*Rearrange the letters and write the words corretly*

- 1.CESTINS -..... 3.KTORSS -.....
- 2.REHOSN -..... 4.NWASS -.....

In Slovakia there are 769 protected animal species. Very special are the endemits which live only in our country. Here belong the **shellfish**, **chamoise**, **marmot** or the **lynx**. Next one is the **bustard** which lives in the protected area Dropie near Komarno. Topolcianky is famous for breeding the **bisons**, **horses** and the hoofed game.

### **Dangerous animals**

In the deciduous forests we can be infected by the **tick** so it is useful to use the repellent before entering the forest. Some animals are poisonous. The only poisonous snake in Slovakia is the **viper**. It can live near the marsh, on the bank of the river or on the sunny glade. It is necessary to be careful when we pick the mushrooms or berries. It is also dangerous to be stung by the **wasp**, **bee** or the **hornet**, especially for the people who suffer from allergies.

- Do these activities:*
- *read the text Dangerous animals again*
  - *write it as a dictation*
  - *correct it*
  - *retell the text*

*How many animals can you find in this line?*

**WASPACMARMOTXZEVIPERNMODUCKJGFSWANVXYITICKOPOTTERQIBEE**

*How many animals do you remember?*

<b>Fish</b>	<b>Amphibians</b>	<b>Reptiles</b>	<b>Birds</b>

MAPA

## Insects

*Explain these words in English:*

Insects = .....

Species = .....

Estimate = .....

Development = .....

Recovery = .....

Insects are the largest group of animals living on Earth. We estimate that in Slovakia live more than 27 000 species of insects. To the largest ones belongs the **horn beetle** which is 7 cm long. The smallest ones can fly through the eye of the needle. Insects are also the most important group of animals for the forestry. Important is their negative activity concerning the stability of the forest. On the other side some species are very useful for the development and recovery of the forest and for the work of the foresters as well.

*Word formation*

Verbs

.....

.....

.....

develop

recover

use

Nouns

flight

life

estimation

.....

.....

.....

*Are these sentences true /T/ or false /F/?*

1. There are not many species of insects on Earth.

2. We can find twenty-seven thousand species of insects in Slovakia and more.

3. Horn beetle can be 7 cm long.

4. Insects are not important for the forestry.

5. They are useless for the development of the forest.

*Which word is hidden in the first line?*

1.	2.	3.	4.	5.	6.

1. medvede

2. osem

3. orol

4. pstruh

5. škovránky

6. nepriateľ

## Barkbeetle

Obrazok lykozruta

The greatest damage in the forestry is caused by the bark beetles. **Spruce bark beetle** has already destroyed all spruce stands in Spisska Magura, Kysuce but also in the Tatras. Development of its amount is influenced by the weather. An **egg** grows in average for 12 days, **maggot** for 24 days and the **pupa** for the 12 days. The **predators** and mostly the **parasites** can lower the amount of these species. Each coniferous tree has its own kind of beetles. We can find **bark beetle** on the pine and **bark beetle** on the fir. Also the deciduous trees are not immune against this group of beetles. Important pests are for example bark beetle on the oak, or bark beetle on the elm which also carry through different fungal diseases.

*Answer the questions:*

- 1.What causes the greatest damage in the forest?
- 2.What does influence the number of insects?
- 3.How long can an egg grow?.
- 4.Where were the spruce stands destroyed most of all?.
- 5.How do we call the beetles which cause damage on the trees?

*Which coniferous and which deciduous trees were mentioned in the text?*

deciduous	coniferous

*Write the correct length of grow:*

Egg ..... days  
Maggot .....days  
Pupa .....days

*What is an egg, a maggot and a pupa?*

Obrazky vajicka,  
larvy a kukly

.....  
*Find the explained word in the tex:*

- 1.An animal which kills and eats other animals =.....
- 2.A plant or animal which lives on or in another plant or animal=.....
- 3.Decrease=.....
- 4.Resistant against diseases =.....
- 5.A small animal or insect which destroys crop or food=.....

Fill these words to the text:

**Technical butterflies oaks name oval species forests**

**Hymenopteran** insects, **beetles**, but also the .....1.....can cause the damage of the wood. In this case we call them the .....2.....pests. In the coniferous .....3.....there are many .....4.....of **longhorn beetles** for which are typical the **long antennae** and also the .....5.....**exit hole** of the tunnel. **Sawflies** damage all coniferous trees and the pinworm holes are filled with cuttings. But the most important technical pest on the coniferous trees is the **goat moth** which .....6.....is derived from the dark stripes on the **shards**. Many timber borers on the deciduous trees are **protected** as for example the blue-black **longhorn beetle** which damages the.....7.....

Correct the words:

Beatles.....	coniferos.....	antene.....
Tunel.....	filed.....	cutings.....
Mouth.....	decidious.....	straips.....

Correct the sentences:

1. The butterflies are called forest pests.....
2. Longhorn beetles have short antennae.....
3. Sawflies fill the holes with the insects.....
4. The goat moth has the dark stripes on the head.....
5. Many timber borers are protected because they damage the timber.....

Which words are hidden in the crossword? Write them down.

B	H	T	O	M	Q	B
E	X	I	T	A	O	X
I	S	H	A	R	D	S
H	W	A	E	S	Z	Y
O	O	R	H	N	M	T
L	X	Q	P	U	E	E
E	R	E	B	M	I	T

- |        |        |        |
|--------|--------|--------|
| 1..... | 2..... | 3..... |
| 4..... | 5..... | 6..... |

These sentences have wrong word order. Write them correctly.

1. of / can / cause / butterflies /damage / wood / the /the  
.....
2. trees / sawflies / all / coniferous / damage /  
.....
3. the / oaks / blue-black / damages / beetle / longhorn /the  
.....
4. cuttings / filled / holes / pinworm / are / with  
.....
5. antennae / typical / for /are / long / beetles / the / longhorn / the  
.....



*Read the text:*

Very important is the damage of the assimilative organs of the trees. Most of damages are caused by **caterpillars** of the butterflies. **Gypsy moth** itself can cause the **defoliation** in the oak forests. Even worse is the situation when there are also the **winter moths** and **leaf rollers**. Spruce and pine is damaged by the moths. Some hymenopteran insects can damage the leaves. An important pest in young pine forests is **web-spinning sawfly** which **slugs** create the sacks filled with dung.

*Translate it with the help of the dictionary*

*Write 5 questions for the schoolmates*

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

*Cover the text, write it as a dictation and correct it*

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

*Read the sentences and write them in a negative way:*

Useful species of insects help to fight with the harmful ones.

.....

**Carabids** and **ground beetles** catch caterpillars of the **assimilative pests**.

.....

The **ant beetle** eats **imagos** but also the maggots of bark beetles.

.....

Another **useful species of insects** are useful due to their parasitism on the pests.

.....

*How many insects do you remember? Write them down*

.....

.....

.....

.....

.....

*Which of them can you see in the pictures?*

Obrazky hmyzu

1..... 2..... 3..... 4.....

## VOCABULARY

Fish	bat	breed
Amphibians	dwarf pine	pond
Reptiles	chamoise	ox-bow
Birds	marmot	crayfish
Grass snake	hare	turtle
Viper	vole	vivid
Lizard	lowlands	stony bottom
Carp	mountains	low temperature
Catfish	hare	pick mushrooms
Pike	hedgehog	sand-eel
Sturgeon	according	bream
Eel	slope	roach
Trout	arable land	wagtail
Grayling	lark	kingfisher
Huchen	endangered	otter
Perch	species	water-rat
Pike perch	bustard	stillwater
Goose	habitat	insect
Duck	hilly	bank
Hawk	butterfly	duck
Eagle	deciduous	heron
Falcon	shelter	baldicoot
Grouse	offer	warbler
Pheasant	roe	nest
Partridge	wild cat	swan
Longbill	cockoo	gull
Pigeon	crow	stork
Owl	nightingale	protect
Great horned owl	robin	ornithological
Wood-pecker	finch	cormorant
Jay	tit	natural reserve
Toad	goldfinch	rare
Wood frog	salamander	endemits
Newt	tree frog	shellfish
Animal	bullfinch	bison
Frequent	wasp	bee
Horse	hornet	suffer from
Squirrel	thrush	hoofed game
Fox	crossbill	dangerous
Boar	alpine meadow	infected
Lynx	survive	tick
Bear	Ice Age	useful
Deer	glacial relicts	poisonous
Roar deer	swift	snake
Fallow deer	scattered	sunny glade
Mouflon	marsh	necessary
Hunting	condition	careful
Cave	common	pick

Insects  
Species  
Estimate  
Development  
Recovery  
Earth  
Horn beetle  
Needle  
Important  
Concern  
Useful  
Damage  
Cause  
Bark beetle  
Spruce  
Destroy  
Spruce stand  
Amount  
Influence  
Groe  
Average  
Maggot  
Pupa  
Predator  
Parasite  
Lower  
Coniferous  
Pine  
Fir  
Deciduous  
Immune  
Against  
Pest  
Oak  
Elm  
Carry through  
Different  
Fungal  
Disease  
Hymenopteran  
Butterfly  
In this case  
Longhorn beetles  
Antennae  
Exit hole  
Tunnel  
Sawflies  
Pinworm  
Cuttings

Goat moth  
Derived  
Stripes  
Shards  
Timber borers  
Protect  
Oak  
Oval  
Assimilative organs  
Caterpillar  
Gypsy moth  
Defoliation  
Even worse  
Winter moth  
Leaf roller  
Web-spinning sawfly  
Slugs  
Sack  
Dung  
Harmful  
Carabid  
Ground beetle  
Ant beetle  
Imago  
Due to  
parasitism