



Е. Б. СЫТНИКОВА

# LEARNING BIOLOGY



Учебное пособие



УДК 811.111`24+57(075.8)

ББК 81.432.1-3+28.0я73

С 95

*Выпускается по решению кафедры английского языка естественных факультетов ИФЖиКК Южного федерального университета (протокол № 8 от 29 марта 2019 г.)*

**Рецензенты:**

доцент кафедры иностранных языков и речевых коммуникаций, РАНХиГС,  
кандидат филологических наук, *Н. В. Зайцева;*

старший преподаватель кафедры английского языка естественных  
факультетов ИФЖиКК Южного федерального университета,

*М. А. Самолетова*

**Сытникова, Е. Б.**

С 95 Learning Biology [Электронный ресурс] : учебное пособие / Е. Б. Сытникова ; Южный федеральный университет. – Ростов-на-Дону ; Таганрог : Издательство Южного федерального университета, 2019. – Текстовое (символьное) электронное издание (2,00 Мб). – 1 электрон. опт. диск (CDR). – Системные требования: процессор с тактовой частотой 1,5 ГГц и выше, 1 Гб оперативной памяти, Windows 7 SP1, Windows 8, 8.1, Windows 10 (32- и 64-разрядные версии), устройство для прослушивания звуковой информации, привод DVD-ROM, Acrobat Reader DC, последняя версия браузера Google Chrome, Firefox, Microsoft Edge, Safari или Opera, интернет-подключение со скоростью не меньше 500 Кбит/с.

ISBN 978-5-9275-3372-5

Пособие содержит аутентичные материалы и упражнения к ним по тематике, входящей в учебную программу курса «Английский язык для профессионального общения», изучаемой студентами 3–4 курсов биологического факультета Южного федерального университета. Направлено на развитие всех коммуникативных навыков: аудирования, чтения, говорения и письма, а также имеет целью формирование компетенций в сфере профессионального общения. Содержит упражнения, ключи для самостоятельной работы и проверки, а также глоссарий для расширения лексического запаса терминологических и общенаучных единиц. Предназначено для студентов, которые обучаются по программам бакалавриата и магистратуры в области биологии.

ISBN 978-5-9275-3372-5

УДК 811.111`24+57(075.8)

ББК 81.432.1-3+28.0я73

© Южный федеральный университет, 2019

© Сытникова Е. В., 2019

© Оформление. Макет. Издательство

Южного федерального университета, 2019

# Оглавление

<b>Reading</b> .....	8
Lead in.....	8
Pre-reading .....	11
Reading 1. Animal Extinction.....	14
Before reading the Text .....	14
Read the Text .....	14
After reading the Text.....	15
Follow up .....	16
Focus on language.....	17
Reading 2. An Expert Report .....	20
Before reading the Text .....	20
Read the Text .....	21
After reading the Text.....	21
Follow up .....	24
Discuss .....	24
Writing.....	24
Reading 3. Interview with as Expert.....	25
Before reading the Text .....	25
Read the Text .....	26
After reading the Text.....	27
Focus on Language.....	27
Reading 4. Measures to be taken.....	28
Before reading the Text .....	28
Read the Text .....	30
Follow up .....	31
Speaking .....	33
Focus on language. Vocabulary .....	34
Focus on Language. Grammar .....	35
<b>Video “Bio-inspired technology”</b> .....	38
Lead in.....	38
General comprehension.....	41
Detailed comprehension .....	42
Number 11 .....	42
Number 10 .....	43
Number 9 .....	44
Number 8.....	45
Number 7.....	46

Number 6 .....	47
Number 5 .....	49
Number 4 .....	50
Number 3 .....	51
Number 2 .....	52
Number 1 .....	53
<b>Summarizing</b> .....	<b>55</b>
Lead in .....	55
Read the Text .....	55
After reading the Text .....	56
<b>In the Realm of Science</b> .....	<b>57</b>
<b>Study help</b> .....	<b>58</b>
Anagrams .....	58
Word Scrambles .....	58
How to write headings .....	59
Vocabulary to describe pie charts, diagrams and tables .....	60
How to take notes and sum up the material .....	61
Necessity: must, have to, have got to, need .....	61
Article Review .....	62
Passive Voice .....	62
Tenses .....	64
Listening .....	66
Reading .....	68
Tips to improve reading skills .....	70
<b>Glossary</b> .....	<b>72</b>
<b>Keys</b> .....	<b>86</b>
Reading .....	86
Lead in .....	86
Pre-reading .....	86
Reading 1. Animal Extinction. ....	87
Reading 2. An Expert Report .....	90
Reading 3. Interview with as Expert .....	90
Reading 4. Measures to be taken .....	91

Video.....	94
General comprehension .....	94
Detailed comprehension.....	95
Summarizing.....	101
In the Realm of Science .....	101
<b>Script .....</b>	<b>102</b>
Number 11 .....	102
Number 10 .....	102
Number 9.....	102
Number 8.....	102
Number 7.....	103
Number 6.....	103
Number 5 .....	103
Number 4.....	104
Number 3.....	104
Number 2.....	104
Number 1 .....	105
<b>List of materials used .....</b>	<b>106</b>

# Reading

*“If all the beasts were gone, men would die from a great loneliness of spirit, for whatever happens to the beasts also happens to the man. All things are connected.”*

Chief Seattle of the Suwamish Tribe,  
Letter to President Franklin Pierce

Learning Objectives:

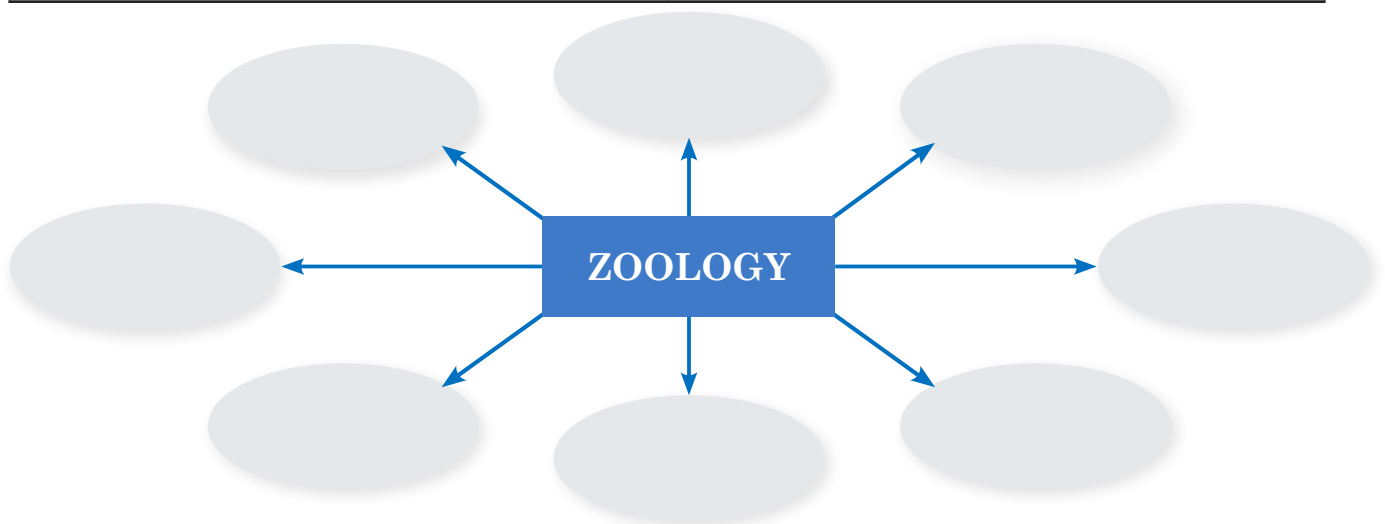
- to entitle the paragraphs in the text;
- to describe pie charts, diagrams and tables;
- to speak about threatened, endangered and extinct species;
- to practice the roleplay;
- to revisit modal verbs expressing necessity;
- to develop your presentation skills;
- to learn new terms on the topic “Zoology”.

## Lead in

### Task 1

Pick up 8 words from the box below to complete the mind map for «zoology». Compare your results as a class.

1) animals	2) vertebrate
3) brain	4) extinction
5) cell	6) habitat
7) chloroplast	8) euphoria
9) introduced species	10) fauna
11) carnivores	12) fossils
13) fungus	14) blade
15) mammal	16) knot



## Task 2

Choose the definition to the word «zoology».

1. The scientific study of the physiology, structure, genetics, ecology, distribution, classification, and economic importance of plants.
2. The study of heredity and the variation of inherited characteristics
3. The branch of science concerned with the substances of which matter is composed, the investigation of their properties and reactions, and the use of such reactions to form new substances.
4. The branch of science that deals with carbon compounds (other than simple salts such as carbonates, oxides, and carbides).
5. The scientific study of the behaviour, structure, physiology, classification, and distribution of animals.
6. The branch of biology that deals with the normal functions of living organisms and their parts.

## Task 3

What animals do you see in the pictures? Match the picture with the correct class.

1. Invertebrates.
2. Mammals.
3. Birds.
4. Amphibians.
5. Reptiles.
6. Fish.



a)



b)



c)



d)



e)



f)

## Task 4

Match the words on the left with the definition on the right.

1) mass extinction	at risk of no longer existing
2) species extinction	is a type of bird that stays primarily on the ground, not only foraging on the ground but also generally nesting and roosting on the ground or very low in shrubbery or brush. These birds also prefer to freeze, walk, or run when threatened rather than taking flight.
3) endangered	the death of a large number of species within a relatively short period of geological time, thought to be due to factors such as a catastrophic global event or widespread environmental change that occurs too rapidly for most species to adapt.
3) habitat destruction	the introduction of any nonnative species that significantly modifies or disrupts the ecosystems it colonizes.
5) rails	the process by which natural habitat becomes incapable of supporting its native species.
6) cranes	any of a number of mammals with hooves that are superficially similar but not necessarily closely related taxonomically
7) parrots	extinction of a particular animal or plant species occurs when there are no more individuals of that species alive anywhere in the world – the species has died out. This is a natural part of evolution. But sometimes extinctions happen at a much faster rate than usual.
8) terrestrial game birds	belonging to the group of animals that carry their young in a pocket of skin called a pouch
9) pelagic seabirds	any animal that eats meat
10) exotic species invasions	connected with the group of creatures that includes whales and dolphins
11) hoofed mammals	a large cosmopolitan family of small- to medium-sized, ground-living birds.
12) insectivores	are birds that spend most of their time (except when they are nesting) on the ocean away from land.
13) marsupials	a tropical bird with a curved beak. There are several types, most of which have bright feathers. Some are kept as pets and can be trained to copy human speech.
14) cetaceans	any small animal that belongs to a group of animals with strong sharp front teeth.
15) carnivores	any animal that eats insects
16) rodents	a large bird with long legs and a long neck



# Pre-reading

## Task 1

Find the synonyms to these definitions by solving the anagrams on the right. For Further information use **Study Help 1** and **Study Help 2**.

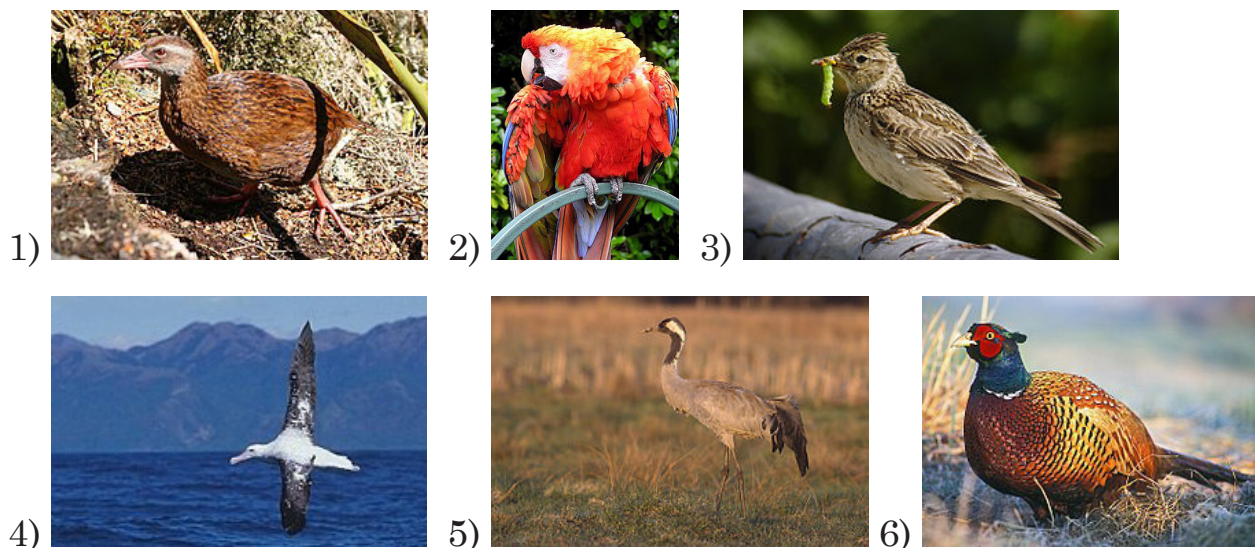
Example: *Animals having a skeleton with a spinal column and a large brain*  
*tveebaret*      **vertebrate**.

- |  |                   |
|--|-------------------|
| 1) No longer in existence.   | a) tneexit.       |
| 2) The variety of plant and animal life.                                 | b) tidvryboieis.  |
| 3) Any animal lacking a backbone.  | c) ivrbtneretrea. |
| 4) The type of environment in which an organism or group normally lives. | d) tbathai.       |
| 5) Under the threat of extinction.                                       | e) rnddenagee.    |

## Task 2

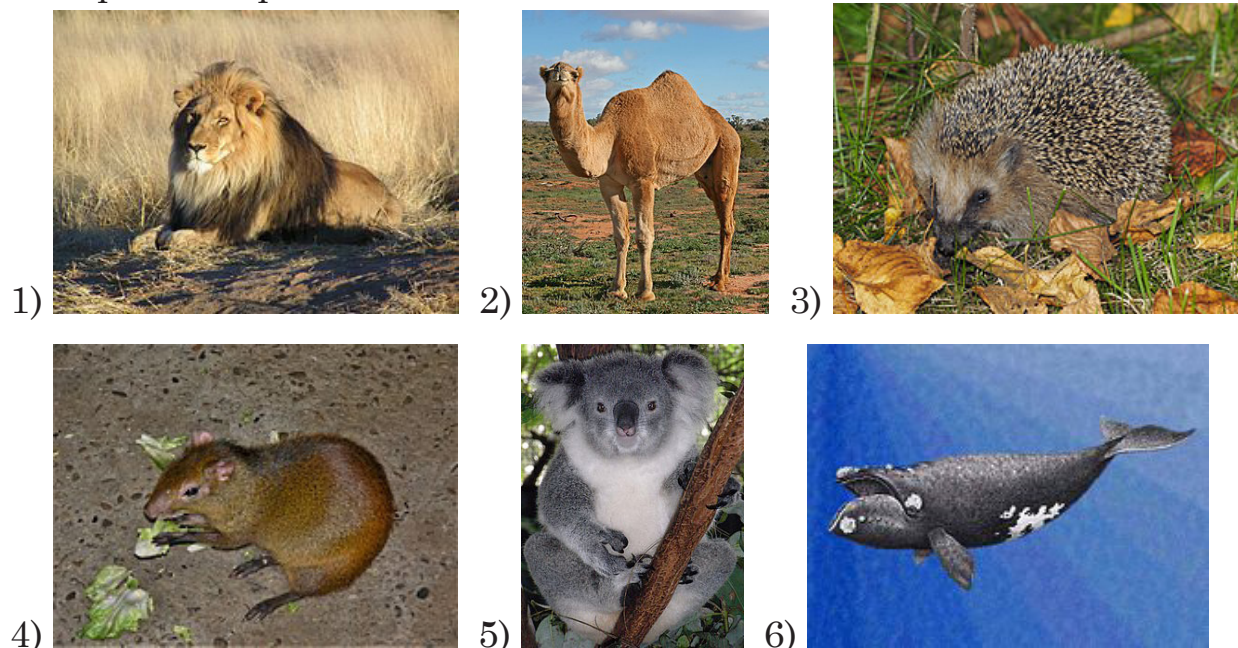
Split into 2 groups. You are given groups and orders of animals. Match the picture with the name and with the appropriate translation. Make use of the dictionary if necessary. Discuss the results as a class.

Group 1. Orders of birds.



Picture	Animals	Translation
Picture 1	1) crane	a) пернатая дичь
Picture 2	2) rails	b) серый журавль
Picture 3	3) parrots	c) пелагические морские птицы
Picture 4	4) game birds	d) певчая птица
Picture 5	5) pelagic seabirds	e) пастушок
Picture 6	6) songbirds	f) попугаи

Group 2. Groups of mammals.



Picture	Animals	Translation
Picture 1	1) hoofed mammals	a) сумчатые
Picture 2	2) insectivores	b) плотоядные
Picture 3	3) marsupials	c) копытные
Picture 4	4) cetaceans	d) грызуны
Picture 5	5) carnivores	e) китообразные
Picture 6	6) rodents	f) насекомоядные

Task 3

Before you Read the Text answer the following questions. Then Read the Text and check your answers.

1. Is extinction a natural process?
  - a) Humans cause extinction of a species through overharvesting, pollution, habitat destruction, introduction of invasive species (such as new predators and food competitors), overhunting, and other influences.
  - b) Extinction is a natural process. Scientists estimate that up to 98% of all the species that have ever lived are now extinct. Most of these became extinct before the arrival of humans over a period of hundreds of millions of years.
  - c) Extinctions are caused by natural disasters, such as volcanic eruptions during the Permian period, and asteroid impact during the Cretaceous extinction.
2. What are natural and human causes of extinction? Put the reasons into the correct column:
  - a) climate change;
  - b) exotic species invasions;
  - c) natural ecosystem change;
  - d) flooding;

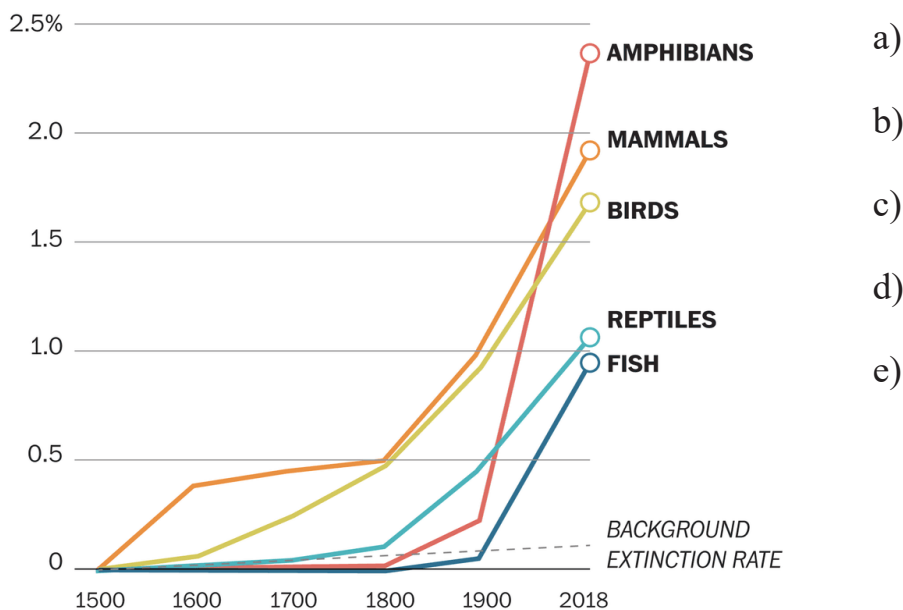
- e) predators;
- f) meteor, asteroid or comet strike;
- g) overhunting;
- h) habitat destruction;
- i) chemical pollution;
- j) water oxygen level;
- k) water acidification;
- l) overexploitation;
- m) earthquake;
- n) pest control;
- o) volcanism;
- p) commerce.

Natural causes	Human causes

3. What are the rates of animal extinction at the present time? Put the correct class name into the correct space.  
 fish, mammals, reptiles, amphibians, birds

### A manmade catastrophe

Cumulative percent of vertebrate species driven to extinction by human activity



Source: IPBES Global Assessment

THE WASHINGTON POST