



Kingdom of Bahrain  
Ministry of Education



Pakistan School  
Kingdom of Bahrain

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





WELCOME TO  
BIOLOGY!

BIOLOGY

# BIOLOGY

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This Book has been selected and distributed by  
Government of Punjab for Academic year 2018-2019  
as sole textbook for all Government Schools in Punjab

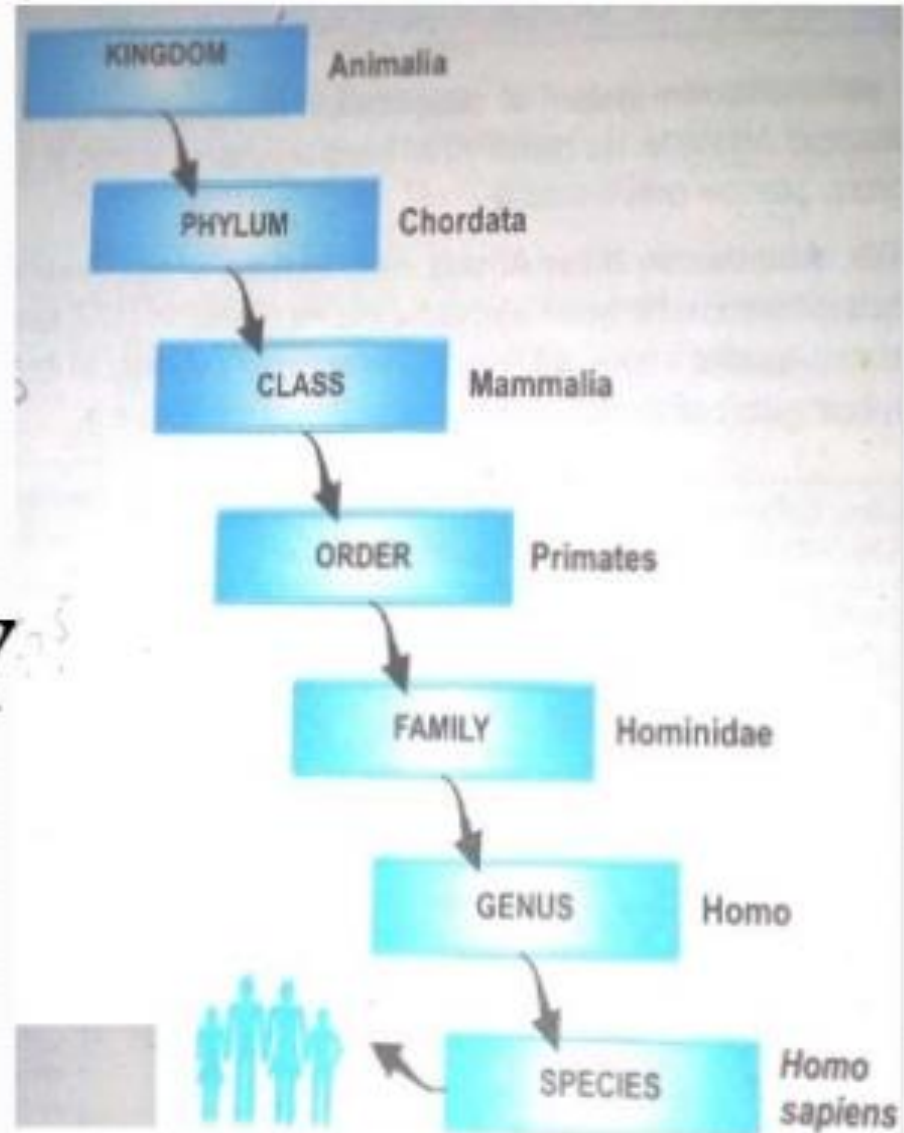


Publisher:

**PLD Publishers, Lahore**

# CHAPTER 3

## BIODIVERSITY





# ENGAGING STARTER



# Learning Objectives

At the end of the lesson students will be able to;

- Define Biodiversity and describe the importance of biodiversity to the ecosystem in a unique written example.
- Apply aims and principles of classification to divide organisms in to groups and subgroups.

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Topic: **Biodiversity**

# **Biodiversity:**

The term “biodiversity” has been derived from ‘bio’ and ‘diversity’. “Diversity” means variety within a species and among species. Biodiversity is a measure of the variety of organisms present in different ecosystems.



# The Importance of Biodiversity

- Maintaining a balanced nature
- Source of food
- Source of medicine
- Clean air
- Shelter
- Economic resources (eco-tourism)
- Clean drinking water
- Preserved all living organisms from become extinct





Biodiversity also provides us with a community of life, with which we share planet Earth, and the opportunity to practice thoughtful stewardship.



A composite image showing a shark swimming above a scuba diver near a coral reef. The shark is in the upper left, swimming towards the right. The diver is in the lower center, facing the viewer. The coral reef is on the left side. The background is a deep blue ocean.

# Why is biodiversity important?

- Biodiversity also serves recreation and tourism, and supports the ecosystems which provide us with many services.



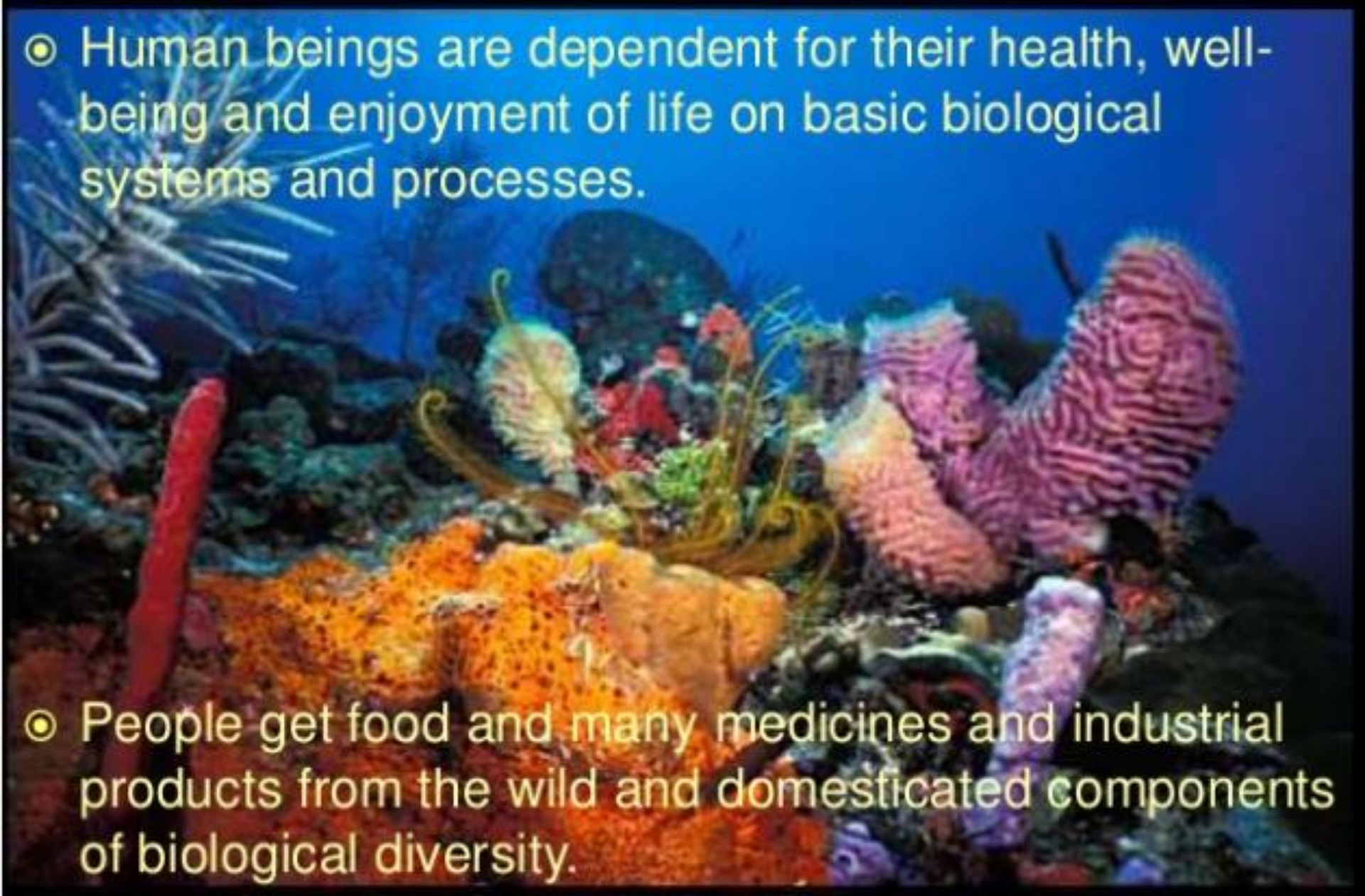
## **We Live in a most Fantastic Place !**

- ⦿ Biological diversity or biodiversity refers to the number and variety of life forms found within a specified geographic region.
- ⦿ This includes the different plants, animals and microorganisms, the genes they contain, and the ecosystems they form.
- ⦿ This living wealth is the product of hundreds of millions of years of evolutionary history.

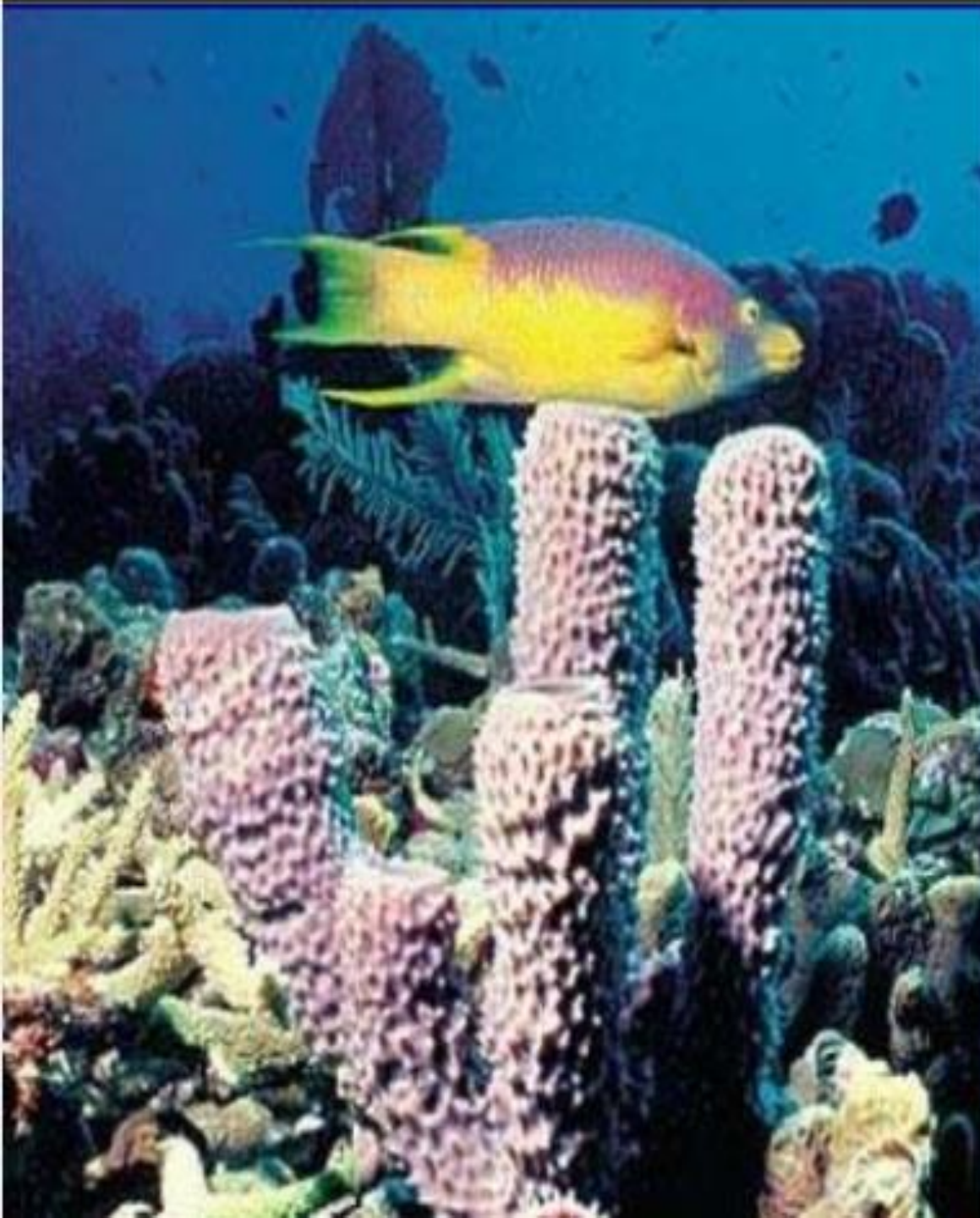


# Why is biodiversity important?

- Human beings are dependent for their health, well-being and enjoyment of life on basic biological systems and processes.
- People get food and many medicines and industrial products from the wild and domesticated components of biological diversity.







Biodiversity is important to people because we depend on other species and the ecosystems they create.

Biodiversity provides ecosystem services, food, medicines and natural products, economic benefits and natural beauty.



# Many species keep us alive!

## How?

- n purifying water
- n fixing nitrogen
- n recycling nutrients and waste
- n pollinating crops

Plants and bacteria carry out photosynthesis, which produces the oxygen we breathe. Trees absorb carbon dioxide, the main greenhouse gas given off by human activities.

## **Classification–Aims and principles:**

There is a large collection of very dissimilar forms of organisms, found on Earth. Over 1.5 Million types of animals and over 0.5 million types of plants are known to biologists and these are only a small percentage of the total types estimated to live on Earth.

**Taxonomy** is the science dealing with the description, identification, naming, and classification of organisms.

**Classification** is the 'grouping' of organisms based on particular characters and is not arranged in hierarchical order.

**Systematics**; The Branch which deals with classification and also traces the evolutionary history of organisms is known as systematic.

The main aims of both these branches are;

- To determine similarities and differences among organisms so that they can be studied easily.
- To find the evolutionary relationships among organisms.



# The Diversity of Plants and Animals

- The diversity of plants (flora) and animals (fauna) in a region depends on;
- Climate
- Altitude
- Soil
- Other species
- Biodiversity is not distributed evenly on earth.
- It is richest in the **tropics**.
- **Temperate regions** also have many species.
- **Polar region**. Fewer species are there in polar region.
- Biodiversity found on earth today is the result of 4 billion years of evolution.
- Until 600 million years all life consisted of bacteria and similar unicellular organisms.

## **Worksheet:01**

1. What is Biodiversity? Define biodiversity in your own words
2. Why is biodiversity important?

## **Worksheet: Home work**

1. Where can you find biodiversity ?
2. What can you do to help save biodiversity ?



## PLENARY ACTIVITY

- Today we have done the topic\_\_\_\_\_.
- The term biodiversity has been divided in to\_\_\_\_\_ and \_\_\_\_\_.
- Biodiversity is a measure of the variety of\_\_\_\_\_.
- Differentiate between taxonomy and systematics.
- Main aims of classification are;  
1 \_\_\_\_\_ 2 \_\_\_\_\_.

Any  
Questions?



Thank You!



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