CHAPTER 6: BIODIVERSITY

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WHAT IS BIODIVERSITY?

The term Biodiversity was first coined by Walter G. Rosen in 1986.

WHAT IS BIODIVERSITY?

The word Biodiversity originates from the Greek word BIOS = LIFE and Latin word DIVERSITAS = VARIETY or DIFFERENCE.

WHAT IS BIODIVERSITY?

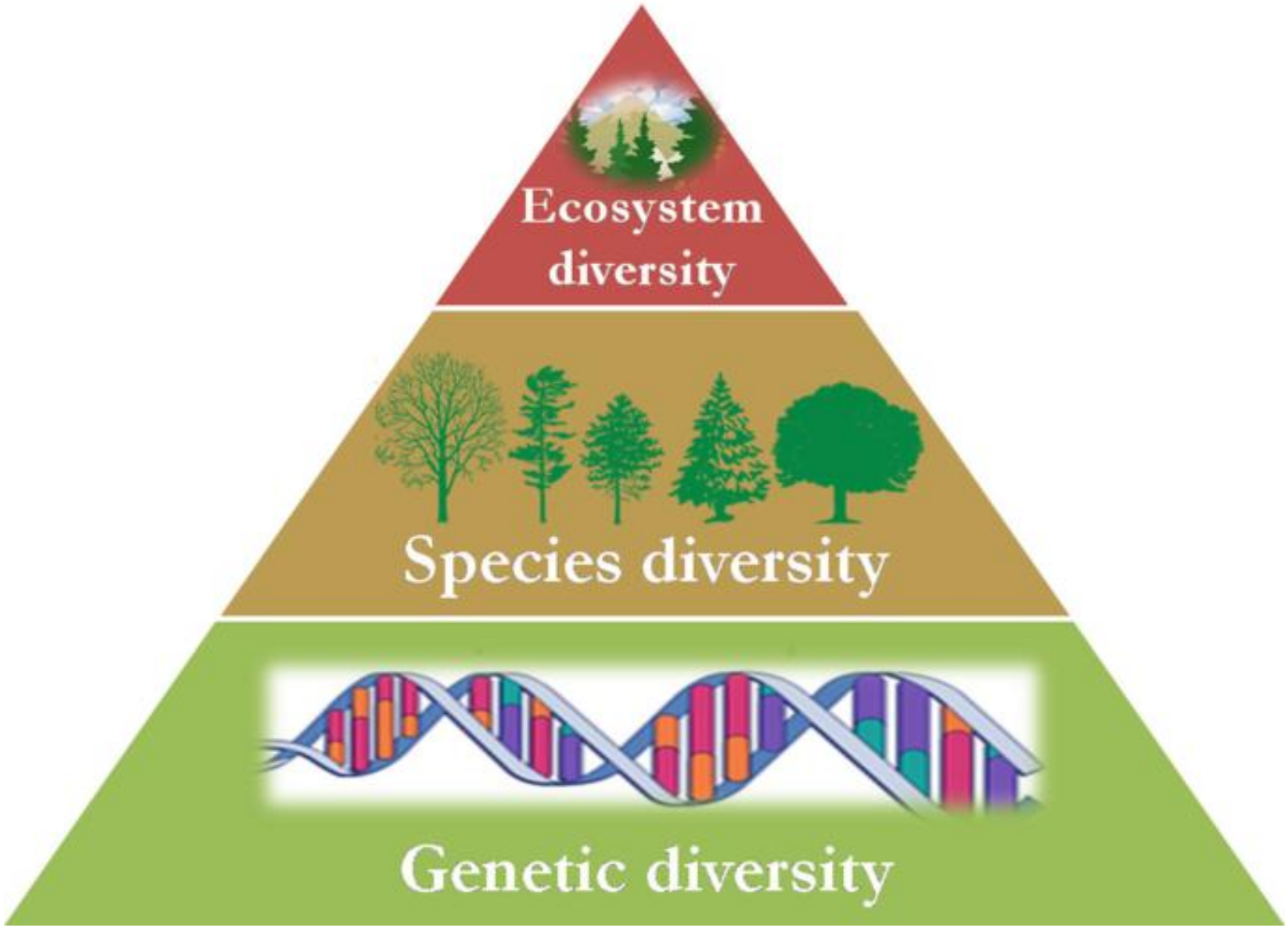
The whole word BIODIVERSITY generally therefore means: VARIETY OF LIFE.

WHAT IS BIODIVERSITY?

Biodiversity is the degree of variation of life. It is a measure of the variety of organisms present in different ecosystems.

TYPES OF BIODIVERSITY?

1. Species Biodiversity
2. Genetic Biodiversity
3. Ecosystem Biodiversity


Ecosystem diversity
Species diversity
Genetic diversity

SPECIES BIODIVERSITY

Species Diversity is the effective number of different species that are represented in a collection of individuals.

















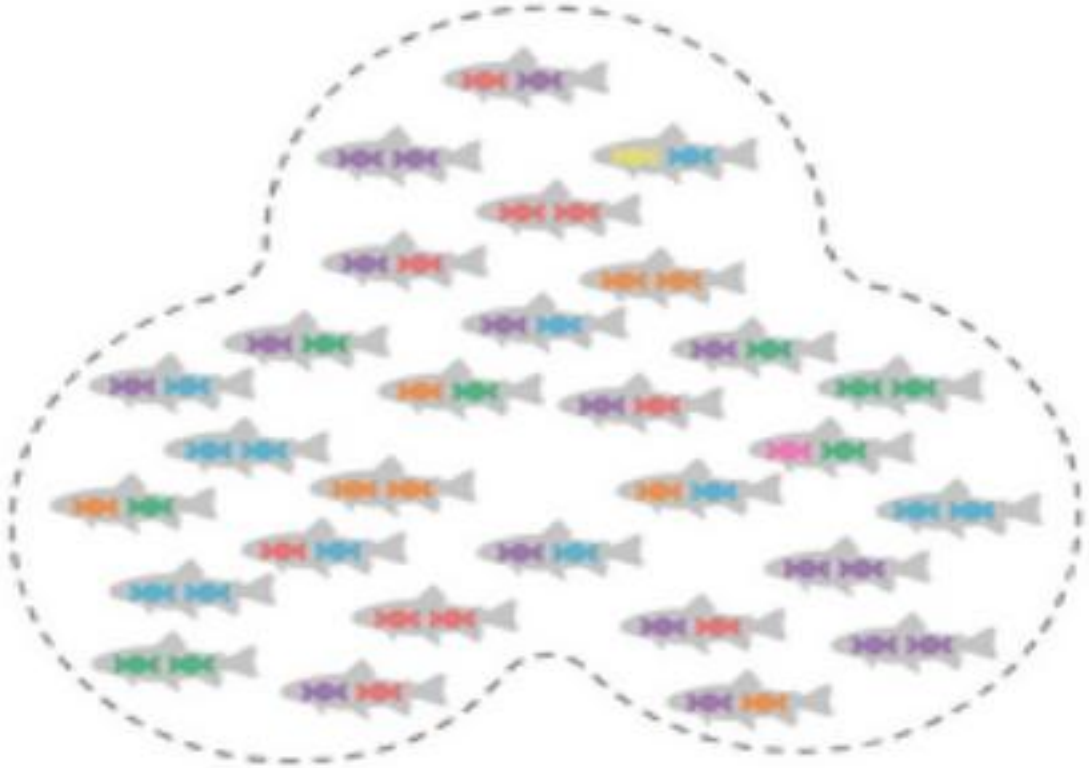



GENETIC BIODIVERSITY

Genetic diversity, the level of biodiversity refers to the total number of genetic characteristics in the genetic makeup of a species.

HIGH GENETIC DIVERSITY

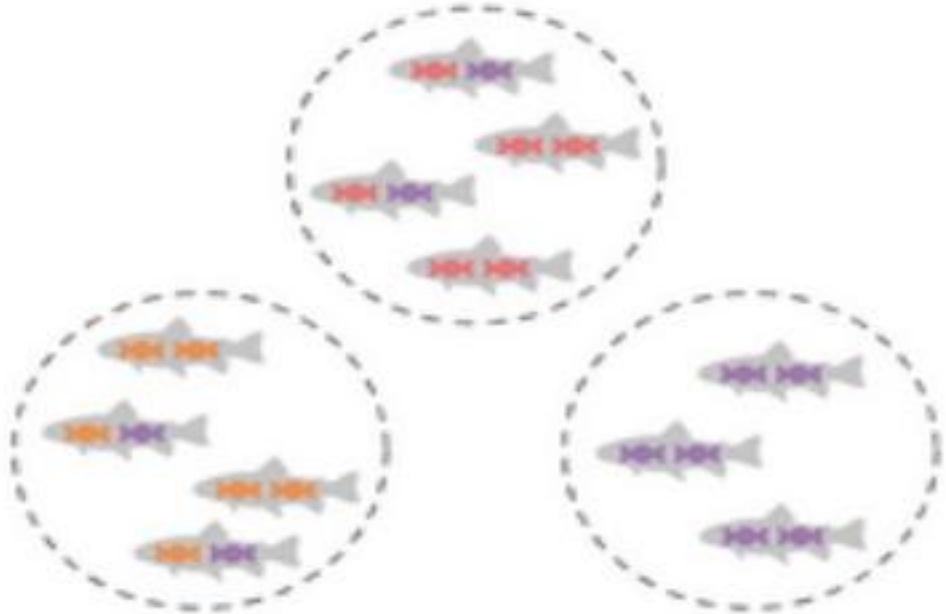
Large populations retain high genetic diversity



- Higher adaptiv capacity
- Potential for long term survival
- High resilience

LOW GENETIC DIVERSITY

Small, isolated populations lose genetic diversity



- Lower adaptiv capacity
- Weak potential for long term survival
- Low resilience

ECOSYSTEM BIODIVERSITY

Ecosystem diversity refers to the diversity of a place at the level of ecosystems. The term differs from biodiversity, which refers to variation in species rather than

Types of Biodiversity

Genetic diversity: Differences in DNA among individuals

Species diversity: Variety of species in a given area

Ecosystem diversity: Variety of habitats, ecosystems, communities

BENEFITS OF BIODIVERSITY

Consumptive value:

1. Food/Drink
2. Fuel
3. Medicine
4. Better crop varieties
5. Industrial Material

BENEFITS OF BIODIVERSITY

Non-Consumptive Value:

1. Recreation
2. Education and Research
3. Traditional value

THREATS TO BIODIVERSITY

Natural causes:

1. Narrow geographical area
2. Low population
3. Low breeding rate
4. Natural disasters

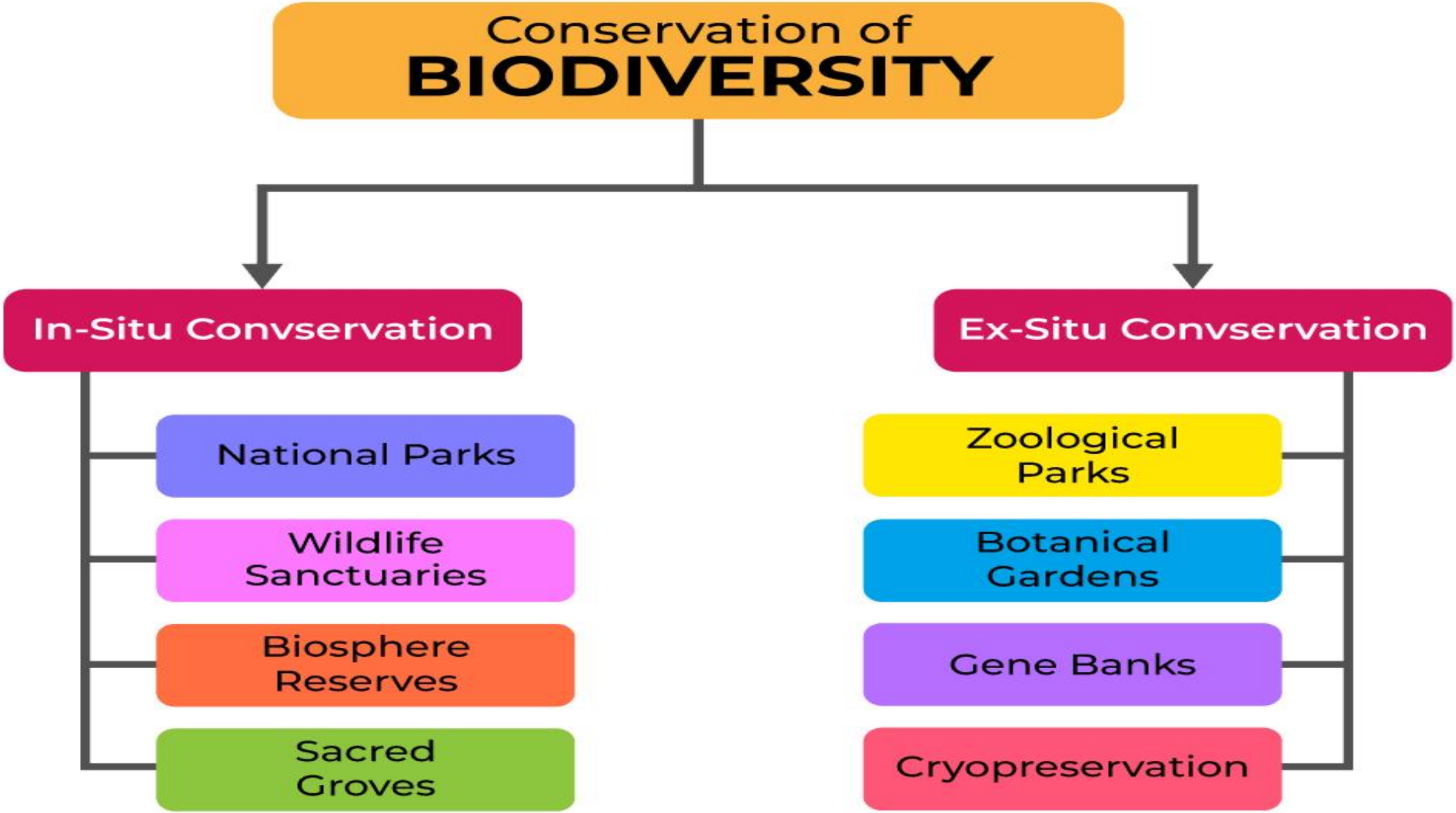
THREATS TO BIODIVERSITY

Anthropogenic causes:

1. Pollution
2. Hunting
3. Global warming and climate change
4. Agriculture

CONSERVATION OF BIODIVERSITY

1. Biodiversity inventories
2. Conserving Biodiversity in protected Habitats-
   - In situ conservation
   - Ex situ conservation
3. Seed Bank, Gene Bank, Pollen Bank, DNA

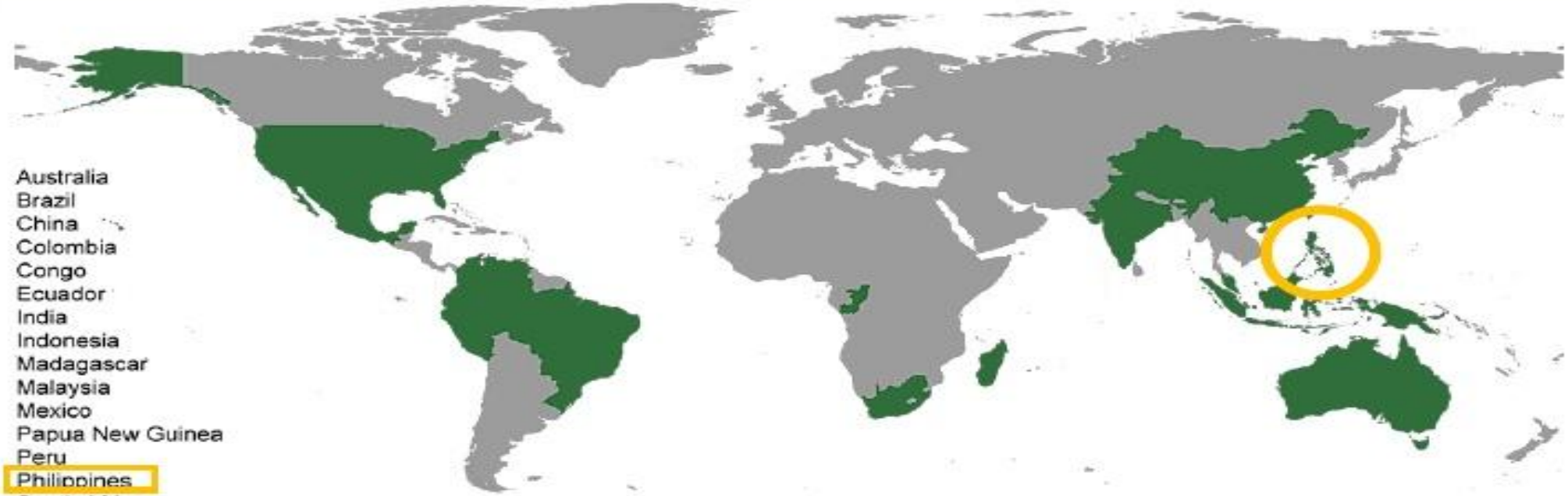

Conservation of
BIODIVERSITY
In-Situ Convservation
National Parks
Wildlife Sanctuaries
Biosphere Reserves
Sacred Groves
Ex-Situ Convservation
Zoological Parks
Botanical Gardens
Gene Banks
Cryopreservation

BIODIVERSITY IN THE PHILIPPINES

The Philippines is one of 18 mega-biodiverse countries of the world, containing two-thirds of the earth's biodiversity and between 70% and 80% of the world's plant and animal species. The Philippines ranks fifth in the number of plant species and maintains 5% of the world's flora.

The PHILIPPINES

One of the 17 MEGA-DIVERSITY countries in the world



Australia
Brazil
China
Colombia
Congo
Ecuador
India
Indonesia
Madagascar
Malaysia
Mexico
Papua New Guinea
Peru
Philippines
South Africa
United States
Venezuela

Source: www.environment.gov.au/biodiversity/hotspots/index.html

CONCLUSION

Biodiversity is our life. If the Biodiversity got lost at this rate then in near future, the survival of human being will be threatened.

CONCLUSION

It is our moral duty to conserve Biodiversity as well our Environment.

CONCLUSION

Long- term maintenance of species and their management requires co-operative efforts across entire landscapes.

CONCLUSION

Biodiversity should be dealt with at scale of habitats or ecosystems rather than at species level.

THANK YOU!