

Environmental Biology and Phytogeography

Mrs. Rajbala



ENVIRONMENTAL BIOLOGY AND PHYTOGEOGRAPHY

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PREFACE

"Environmental biology" and "ecology" are frequently used interchangeably. "It is the aim of this small book to outline those basic principles of environmental biology that are of interest, as well as of vital concern to all Academicians," Odum wrote in 1963, describing the scope of ecology. The basics of ecology and their connection to how humans affect natural ecosystems are covered in this book. comprises population dynamics, ecosystem structure and function, and the effects of humans on biodiversity, the air, water, and land. The study of plant distribution patterns over broad temporal and spatial scales, with an emphasis on the evolutionary processes that have shaped these patterns—such as the effects of environmental changes and dispersal mechanisms—is known as phytogeography.

Students can gain a sophisticated understanding of the most important environmental issues of our time by reading **Environmental Biology and Phytogeography**, a free and open-text book. In order to better understand the world around them and their influence on it, this book assists academics in understanding the scientific underpinnings of environmental topics. This book is the result of the cooperation of several writers and groups dedicated to giving students access to excellent and reasonably priced books.

Outcomes:

1. Synthesize ecological principles into an understanding of how the Earth functions.
2. Apply ecological principles to understand human impact on the environment.
3. Study related to ecosystem functioning, population and community ecology.
4. Describe possible causes and analyze potential solutions to current environmental issues.
5. Demonstrate skills necessary for life-long learning, critical examination, and personal decisions relative to environmental biology.
6. Identify various phytogeographical zones of India.
7. Understand the concept of endemism and enlist the hotspots of biodiversity of India.

Abbreviation

Acid Mine Drainage (AMD)
Aluminum (AL)
Ammonium (NH_4^+)
Ammonium Nitrate (NH_4NO_3)
Arbuscular Mycorrhizae (AM fungi)
Biocoupler (TM)
Biological Demand for Oxygen (BOD)
Biosphere Reserves (BR)
Calcium Carbonate (CaCO_3)
Carbon Dioxide (CO_2)
Carbonate ions (CO_3^{2-})
Catalase (CAT)
Compressed Natural Gas (CNG)
Construction and Demolition (C&D)
Dasholi Gram Swaraj Sangh (DGSS)
Dissolved Oxygen (DO)
Electrostatic Precipitators (ESP)
European Environment Agency (EEA)
Good Agricultural Practices (GAP)
Hydrogen (H^+)
Hydroxyl (OH^-)
International Coordinating Council (ICC)
International Union for Conservation of Nature (IUCN)
Liquefied Natural Gas (LNG)
Man, and the Biosphere (MAB)
Marker-Assisted Selection (MAS)
Municipal Solid Waste (MSW)
National Biosphere Reserve Program (NBRP)
Nitrites (NO_2^-)
Nitrogen Gas (N_2)

Nitrogen Oxides (HNO_3)
Oxygen (O_2)
Peroxi-Acetyl Nitrate (PAN)
Peroxidase (POD)
Phosphate ion (PO_4^{3-})
Plant Preservative Mixture (PPM)
Pollution Under Control (PUC)
Quantitative Trait Locus (QTL)
Sound Level Meter (SLM)
Sound Pressure Level (SPL)
Sulfates (SO_4^{2-})
Sulfur Dioxide (SO_2)
Sulfuric Acid (H_2SO_4)
Superoxide Dismutase (SOD)
Suspended Particulate Matter (SPM)
Tetraethyl Lead (TEL)
The National Park Service (NPS)
The Net Primary Production (NPP)
Ultraviolet. (UV)
United Nations Educational, Scientific, and Cultural Organization (UNESCO)
United Nations Environment Programme (UNEP)
Volatile Organic Compounds (VOCs)
Water (H_2O)
When Two Heterozygous Plants (WwYy)
White Flowers (W)
World Health Organization (WHO)
Yellow Seeds (Y)

INDEX

Chapter 1: Ecology	1
1.1 Introduction:	1
1.1.1 Definition:	1
1.1.2 Scope of Environmental Studies:	3
1.1.3 Importance of Ecology Studies:	4
1.1.4 Aims Ecological Studies:	5
1.2 Factors Affecting Plant Growth and Dis Edaphic:	7
1.2.1 Climatic Factors:	7
1.2.2 Physiographic Factors:	15
1.3 Biotic and Topographic:.....	25
1.3.1 Inter-Relationship between Different Plants of a Particular Area: ...	31
1.3.2 Interrelationship between Plants and Animals Occupying the Same Area:	32
1.3.3 Interrelationship between Soil Microorganisms and Plants:	33
Chapter 2: Plant Population	35
2.1 Introduction:	35
2.1.1 Attributes of Population:	35
2.2 Biotic Potential:.....	39
2.2.1 Biotic Environment:	40
2.2.2 Biotic Factors:	41
2.3 Plant Community:	43
2.3.1 Form and Structure (Physiognomy):	46
2.4 Plant Succession:.....	52
2.4.1 Process of Plant Succession:	54
2.4.2 Hydrosere:	56
2.4.3 Xerosere:	59
2.5 Ecosystem Concept - Structure and Function:	62
2.5.1 Classification in basic ecosystem is:	63
2.5.2 Abiotic and Biotic Components	66
2.5.3 Functions of the Ecosystem:	68
Chapter 3: Pollution	87
3.1 Introduction:	87
3.1.1 Types of Pollutants:.....	88
3.1.2 Causes of Environmental Pollution:.....	89
3.1.3 Pollution Control:.....	90
3.1.4 Air Pollution:.....	90

3.1.5 Water Pollution:	95
3.1.6 Oil Pollution:	100
3.1.7 Land Pollution:	103
3.1.8 Noise Pollution:	111
3.2 Conservation and Management of Natural Resources:	119
3.2.1 Type of Natural Resources:	119
3.2.2 Conservation of Natural Resources:	120
3.2.3 Control of the Use of Natural Resources:	122
3.2.4 Problems Associated with Natural Resources:	127
3.2.5 Ways for Conservation of Natural Resources:	127
3.2.6 Management of Natural Resources:	129
3.3 Endangered Plants and Their Conservation:	131
3.3.1 The Cause of Plant Species Becoming Endangered:	131
3.3.2 Some Endangered Plant Species in India:	132
3.3.3 Conservation Strategies for Medicinal Plants:	132
3.3.4 Somatic Embryogenesis:	133
3.3.5 Cryopreservation:	133
3.4 Biosphere Reserves:	134
3.4.1 Man and Biosphere Reserve Programme:	135
3.4.2 Importance of Biosphere:	137
3.4.3 Criteria for Selection of Biosphere Reserves:	138
3.4.4 Structure and Design of Biosphere Reserves:	138
3.4.5 Biosphere Reserve in India:	139
3.5 National Parks and Sanctuaries:	140
3.5.1 National Parks:	141
3.5.2 Sanctuaries:	143
3.6 Chipko Movement:	145
3.6.1 Chipko Movement – Causes:	149
3.6.2 Chipko Movement – Participants:	149
3.6.3 Chipko Movement - Sundarlal Bahuguna:	149
3.6.4 Chipko Movement – Impact:	150
Chapter 4: Plant Responses	151
4.1 Introduction:	151
4.2 Plant Tropisms:	151
4.2.1 Hydrophytes:	162
4.2.2 Xerophytes:	170
4.3 Natural Vegetation of Rajasthan:	174
4.3.1 Vegetation of Western Zone:	176
4.3.2 Vegetation of Eastern Zone:	178
4.4 Plant Indicators:	179
4.4.1 Characteristic Features of Plant Indicators:	180
4.4.2 Benefits of Plant Indicators:	180
4.4.3 Different Types of Plant Indicators:	181
4.4.4 Biochemical and Physiological Changes:	185

Chapter 5: Phytogeography	187
5.1 Introduction:	187
5.1.1 Major Divisions of Phytogeography:	187
5.1.2 Aims and Objectives of Phytogeography and Relation with Other Disciplines:.....	190
5.2 Phytogeographical Regions of World:	191
5.2.1 Photographical Regions of India:	192
5.3 Continuous and Discontinuous Distributions:.....	200
5.4 Endemism:.....	202
5.4.1 Types of Endemism:.....	202
5.4.2 Characters of Endemics:.....	203
5.5 Continental Drift Theory:.....	203
5.5.1 Evidence Supporting the Continental Drift Theory:	204
5.5.2 Rejection and Acceptance of The Theory:	204
5.6 Land Bridges:	205
5.6.1 Types of Bridges for Kids:	208
5.7 Centers of Origin:.....	211
5.7.1 Types of Centers of Diversity:	213
5.8 Age and Area Hypothesis:.....	214
5.9 Migration:.....	218
5.9.1 Factors Influencing Migration:.....	219
5.9.2 Types of Migration:.....	219
5.9.3 Migration in Animals:	220
5.9.4 Migration of Birds:.....	220
References	221

List of Figures

Figures Name	Page No.
Figure 1.1: Effect of Wind upon the Plant	9
Figure 1.2: The effect of altitude and latitude on the pattern of vegetation	16
Figure 1.3: The effect of Sun light and Steepness of vegetation of Southam and Northam Slopes	16
Figure 1.4: The Effect of Steepness of Slope a Vegetation	17
Figure 1.5: Diagrammatic Sketch Showing Soil profile	18
Figure 2.1: Diagrammatic Representation of Ecotone.	45
Figure 2.2: Forest depicting vertical stratification is also exhibited by aquatic ecosystems.	48
Figure 2.3: Stratification in a water body.	49
Figure 2.4: Different plant forms based on their occurrence from the ground (Raunkiers classification of plant forms).	51
Figure 2.5: Relative proportion of different plant forms.	52
Figure 2.6: Biotic Succession on a bare rock	61
Figure 2.7: Basic Components of Ecosystem.	63
Figure 2.8: Classification in Basic Ecosystem	63
Figure 2.9: Abiotic and Biotic Components	67
Figure 2.10: Food Chain	69
Figure 2.11: Trophic Levels (T) of a food chain	70
Figure 2.12: A Food Web	71
Figure 2.13: Flow of Energy at Different Levels of Ecosystem	73
Figure 2.14: Schematic Showing the Ecosystem's Energy Flow	73
Figure 2.15: Energy Pyramid	74
Figure 2.16: The Carbon Cycle	78
Figure 2.17: Photosynthesis is carried out by (a) plants, (b) algae, and (c) some microorganisms known as cyanobacteria. In water, algae can spread out across quite large areas and occasionally cover the entire surface. (credit a: U.S. Fish and Wildlife Service's Steve Hillenbrand; credit b: Flickr's "eutrophication hypoxia"; credit c: NASA; scale-bar data from Matt Russell)	79
Figure 2.18: Photosynthesis Equation	80
Figure 2.19: Nitrogen gas (N ₂) from the atmosphere is converted to ammonium (NH ₄ ⁺) in the nitrogen cycle by nitrogen-fixing bacteria in the soil or legume root nodules. Bacteria nitrify an ammonium source by first converting it to nitrites	81

	Figures Name	Page No.
	(NO ₂ ⁻) and then to nitrates (NO ₃ ⁻). By means of bacterial denitrification, nitrates are released back into the environment as nitrogen gas. Ammonium and nitrates are assimilated by plants to produce organic nitrogen that is usable by humans. Ammonification is the process by which decomposers, such as aerobic and anaerobic bacteria and fungi, break down organic nitrogen and produce ammonium. (credit: Johann Dréo & Raeky's "Nitrogen cycle" is released under CC BY-SA 3.0)	
Figure 2.20:	Nitrogen-fixing bacteria live in the spherical nodules of this soybean root. Image by United Soybean Board (CC-BY).	82
Figure 2.21:	Fertilizer containing nitrogen is conventionally applied at large scales in agriculture. Image by Bob Nichols, USDA Natural Resources Conservation Service (public domain).	82
Figure 2.22:	Phosphorus is found in nature as the phosphate ion (PO ₄ ³⁻)	84
Figure 2.23:	The cycle of sulfur	85
Figure 3.1:	A Chimney Billowing Smoke- Diesel Vehicle (Bus/Truck) Showing Exhaust Smoke	93
Figure 3.2:	The ground Water Gets Polluted	97
Figure 3.3:	Toxic Green Algae in Copco Reservoir, Northern California	99
Figure 3.4:	A Woman Using Bottled Water to Wash Her Three-Week-Old Son at Their Home in Flint,	101
Figure 3.5:	Land Pollution	103
Figure 3.6:	Type of Natural Resources	120
Figure 3.7:	Impacts of Natural Resource Depletion	121
Figure 3.8:	Depletion of Oil	122
Figure 3.9:	Save Energy	123
Figure 3.10:	Water Conservation	124
Figure 3.11:	The Waste Hierarchy	125
Figure 3.12:	Protecting Ecosystem	125
Figure 3.13:	Reduce Deforestation	126
Figure 3.14:	Use of Pipelines to Transport Oil	126
Figure 3.15:	Growing Vegetation in Catchment Areas	127
Figure 3.16:	Management of Natural Resources	129
Figure 3.17:	Zone of Biosphere Reserves	135
Figure 3.18:	National Park	142
Figure 3.19:	Sanctuary	143
Figure 3.20:	Chipko Movement	148

	Figures Name	Page No.
Figure 4.1:	Free Floating Plants	162
Figure 4.2:	Rooted Hydrophytes with Floating Leaves	163
Figure 4.3:	Submerged Floating Hydrophytes	163
Figure 4.4:	Rooted Submerged Hydrophytes	164
Figure 4.5:	Rooted Emergent Hydrophytes	164
Figure 4.6:	T.S. Roots of Eichhornia	166
Figure 4.7:	Part of petiole of Nymphaea	167
Figure 4.8:	(A) Vivipary, (B) A young Plant	168
Figure 5.1:	Physical geography of the earth	190
Figure 5.2:	Photographical Regions of India	193
Figure 5.3:	Botanical Zones of India	195
Figure 5.4:	Indian Sundarbans	200
Figure 5.5:	Evidence supporting the Continental Drift Theory	204
Figure 5.6:	Rejection and acceptance of the theory	205
Figure 5.7:	The Great American Biotic Interchange, in which northern flora and animals colonized the southern ones, was made possible by the Panama Isthmus, a land bridge that formed three million years ago.	206
Figure 5.8:	Map of Sahul and Sunda, land masses that have provided land bridges at various points throughout the Pleistocene	207
Figure 5.9:	In his six-volume <i>Flora Antarctica</i> , published between 1844 and 1859, botanist Joseph Dalton Hooker suggested that land bridges had formerly existed between these geographical masses after pointing remarkable parallels between the floras of Australia, New Zealand, and southern South America.	208
Figure 5.10:	Arch Bridge	209
Figure 5.11:	Bamboo Bridges	209
Figure 5.12:	Beam Bridge	210
Figure 5.13:	Truss Bridge	210

List of Tables

	Table Name	Page No.
Table 1.1:	The Atmosphere Contains Following Gases	10
Table 1.2:	A basic understanding of how various spectrum elements affect living plants can be gained from the table below.	14
Table 1.3:	Atten berg (1908) distributed the fractions of the soil	20
Table 3.1:	Particulate Air Pollutants, Their Sources and Effects	91
Table 3.2:	Annual Average Concentration of Pollutants in Ambient Air in Residential and Industrial Areas (year 2000) mg/m ³ in 24 Hours	92
Table 3.3:	Gaseous Air Pollutants: Their Sources and Effects	92
Table 3.4:	Ambient Air Quality Standards in Respect of Noise	118
Table 3.5:	Biosphere Reserve in India	139
Table 3.6:	Differences between national parks and sanctuaries	144
Table 4.1:	Morphological adaptations of xerophytes	172
Table 4.2:	Anatomical Adaptations of Xerophytes	174
Table 5.1:	Rare, threatened and endangered flora of the Indian Sundarbans	199
Table 5.2:	Age and Area Hypothesis	215
Table 5.3:	Displays the proportion of trees, shrubs, and plants in each class. (A total of 37% of the dicotyledonous flora is made up of herbs.)	216
Table 5.4:	Non-Endemic Species and Endemic Species	217
Table 5.5:	Types of Migration	219

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