

Asian J. Adv. Basic Sci.: 2022, 10(3), 01 ISSN (Print): 2454 –7492 ISSN (Online): 2347 - 4114 www.ajabs.org

<u>Commentary</u>

An Systematic and Functioning Process of Ecosystem and Biodiversity

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(*Received:* 01-June-2022, Manuscript No. AJABS-22-64901; *Editor assigned:* 03-June -2022, PreQC No. AJABS-22-64901 (PQ); *Reviewed:* 17-June-2022, QC No. AJABS-22-64901; *Revised:* 22-June-2022, Manuscript No. AJABS-22-64901 (R); *Published:* 29-June-2022, *DOI:* 10.33980/ajabs.2022.v10i03.0013)

DESCRIPTION: Biodiversity, also known as natural diversity, refers to a variety and typically a measure of Variation. Species diversity is a measure of genetic differences (genetic variability), species diversity (species diversity), and ecosystem diversity (ecosystem diversity). Biodiversity is not uniformly spread on Earth; it is typically higher in the tropics due to the warm conditions and high primary productivity in the area closer to the equator. Such tropical forest natural systems cover less than 10% of the earth's surface but get in 90% of the world's species. Marine species diversity is typically higher along Pacific coasts, where sea surface temperature is greatest, and in the mid-latitudinal band of all seas. Species diversity has latitudes gradients. Biodiversity tends to cluster in hotspots and has been increasing over the years, but it is expected to slow in the future as a result of forest loss. It includes the evolutionary, ecological, and social process that keeps life going. Rapid environmental changes are typically responsible for mass extinctions. And over 99.9 percent of all organisms that have ever lived on Earth are thought to be extinct, amounting to over 5 billion species. Estimates put the total of current species on Earth vary from 10 million to 14 million, with approximately 1.2 million documented and over 86 percent unknown. The total number of similar DNA base pairs on the planet is approximated to be 5.0 x 1037, weighing 50 billion tonnes. In comparison, the biosphere's total mass has been approximated to be four trillion tonnes of carbon. In July 2016, scientists announced the discovery of 355 genes from last Universal Common Origin (LUCA) of all beings on Earth. Ecology is the scientific study of life processes, antifragility, interrelations, and adaptations, among many other things. Material and energy flow through living societies Ecosystem advancement through succession within as well as between species cooperation,

competing, and protection from predators, the abundance, biomass, and allocation of organisms in relation to their surroundings. Biodiversity patterns and their impact on ecosystem processes. Species diversity, wetland managerial staff, management of natural resources (agro ecology, agricultural production, forestry, agroforestry, fisheries), urban planning (urban ecology), community health, economics, basic as well as applied science, and human social interaction are all practical applications of ecosystems (human ecology). The German scientist Ernst Haeckel coined the term ecology (German: kologie) in 1866, it became a stringent scientific knowledge in the late nineteenth century. Modern ecological theory is built on development took place such as adaptation and natural selection. Ecosystems are dynamically interacting systems of organisms, societies, and nonliving (abiotic) components of their surroundings. Primary production, nutrient cycling, and niche construction are examples of ecosphere pathways that control the flux of energy and matter through an environment. Natural systems are adaptively interacting systems of organisms, societies, and non-living (abiotic) elements of their surroundings. Primary production, nutrient cycling, and niche construction are examples of ecosystem pathways that control the flux of energy and matter through an environment. Biophysical feedback mechanisms in ecosystems regulate procedures that affect both living (biotic) and abiotic elements of the planet. Ecological systems include biomass production (food, fuel, fibre, and medicine), climate regulation, worldwide biogeochemistry, water filtration, soil formation, erosion prevention, flood protection, and many other natural elements of scientific, cultural, economic, or brings a lot.

ACKNOWLEDGEMENT: None

CONFLICT OF INTEREST: The author states there is no conflict of interest.