

Glossary Grade 11 December Exam

Abiotic factor	A non-living, physical factor that may influence an organism or ecosystem; for example, temperature, sunlight, pH, salinity, precipitation.
Biome	A collection of ecosystems sharing similar climatic conditions; for example, tundra, tropical rainforest, desert.
Biosphere	That part of the Earth inhabited by organisms, that is, the narrow zone (a few kilometres in thickness) in which plants and animals exist. It extends from the upper part of the atmosphere (where birds, insects and wind-blown pollen may be found) down to the deepest part of the Earth's crust to which living organisms venture.
Biotic factor	A living, biological factor that may influence an organism or ecosystem; for example, predation, parasitism, disease, competition.
Climax community	A community of organisms that is more or less stable, and that is in equilibrium with natural environmental conditions such as climate; the end point of ecological succession.
Community	A group of populations living and interacting with each other in a common habitat.
Ecosystem	A community of interdependent organisms and the physical environment they inhabit.
Entropy	A measure of the amount of disorder, chaos or randomness in a system; greater the disorder, the higher the level of entropy.
Equilibrium	A state of balance among the components of a system.
Feedback	The return of part of the output from a system as input, so as to affect succeeding outputs.
Feedback, negative	Feedback that tends to damp down, neutralize or counteract any deviation from an equilibrium, and promotes stability.
Feedback, positive	Feedback that amplifies or increases change; it leads to exponential deviation away from an equilibrium.
Habitat	The environment in which a species normally lives.
Niche	A species' share of a habitat and the resources in it. An organism's ecological niche depends not only on where it lives but also on what it does.
Parasitism	A relationship between two species in which one species (the parasite) lives in or on another (the host), gaining all or much (in the case of a partial parasite) of its food from it.
Population	A group of organisms of the same species living in the same area at the same time, and which are capable of interbreeding.
Productivity, gross (GP)	The total gain in energy or biomass per unit area per unit time, which could be through photosynthesis in primary producers or absorption in consumers.
Productivity, gross primary (GPP)	The total gain in energy or biomass per unit area per unit time fixed by photosynthesis in green plants.
Productivity, gross secondary (GSP)	The total gain by consumers in energy or biomass per unit area per unit time through absorption.
Productivity, net (NP)	The gain in energy or biomass per unit area per unit time remaining after allowing for respiratory losses (R). Other metabolic losses may take place, but these may be ignored when calculating and defining net productivity for the purpose of this course.
Productivity, net primary (NPP)	The gain by producers in energy or biomass per unit area per unit time remaining after allowing for respiratory losses (R). This is potentially available to consumers in an ecosystem.
Productivity, net secondary (NSP)	The gain by consumers in energy or biomass per unit area per unit time remaining after allowing for respiratory losses (R).
Productivity, primary	The gain by producers in energy or biomass per unit area per unit time. This term could refer to either gross or net primary productivity.
Productivity, secondary	The biomass gained by heterotrophic organisms, through feeding and absorption, measured in units of mass or energy per unit area per unit time.
Sere	The set of communities that succeed one another over the course of succession at a given location.
Species	A group of organisms that interbreed and produce fertile offspring.
Steady-state equilibrium	The condition of an open system in which there are no changes over the longer term, but in which there may be oscillations in the very short term. There are continuing inputs and outputs of matter and energy, but the system as a whole remains in a more or less constant state (for example, a climax ecosystem).

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Succession	The orderly process of change over time in a community. Changes in the community of organisms frequently cause changes in the physical environment that allow another community to become established and replace the former through competition. Often, but not inevitably, the later communities in such a sequence or sere are more complex than those that appear earlier.
System	An assemblage of parts and the relationships between them, which together constitute an entity or whole.
System, closed	A system in which energy, but not matter, is exchanged with its surroundings.
System, isolated	A system that exchanges neither matter nor energy with its surroundings.
System, open	A system in which both matter and energy are exchanged with its surroundings (for example, natural ecosystems).
Trophic level	The position that an organism occupies in a food chain, or a group of organisms in a community that occupy the same position in food chains.