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## Glossary

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*Abiotic*: non-living characteristic and/or parameter of the environment (e.g., climate).

*Biota*: All living organisms.

*Buffering layer*: physical layer reducing the exchanges of matter or energy between two compartments.

*Carbon budget*: sum of all carbon influxes and effluxes to a system.

*Carbon cycle*: whole of processes by which carbon is exchanged within a system.

*Decomposition*: fragmentation of organic mater, its incorporation into the environment, and its mineralization due to enzymatic activities.

*Ecosystem*: biotic and abiotic paramaters of an area and their interactions.

*Ecosystem functioning*: whole of biotic and abiotic processes within an ecosystem.

*Ecosystem services*: benefits human populations derive from ecosystems (e.g., goods, food, recreation area).

*Ecosystem resilience*: ability of an ecosystem to recover from an internal or external stress.

*Ecosystem stability*: temporal stability of ecosystem components and processes.

*Erosion*: loss of matter (or component) by the action of a mobile fluid (or agent), e.g., soil erosion by water flows.

*Extreme climatic event*: refers to climatic conditions out of the averaged climatic conditions of the location such as drought or flood.

*Interdisciplinary (research)*: different academic disciplines working together to integrate disciplinary knowledge and methods, to develop and meet shared research goals achieving a real synthesis of approaches (Kelly *et al.* 2019).

*Primary forest*: a forest that has remained undisturbed by human activity.

*Primary producers*: species producing their biomass from inorganic components and

energetic sources (e.g., plant fixing CO<sub>2</sub> by photosynthesis)

*Primary productivity*: biomass productivity of primary producers, informing about external inputs of energy to the ecosystem.

*Residency time*: average time spent by an element in a system (e.g., residency time of carbon in soil), calculated from the average influx and efflux.

*Sessile*: species trait describing if lack of self-locomotion means

*Stressor*: “external force or factor, or stimulus that causes changes in the ecosystem” (Rapport *et al.* 1985).

*Transdisciplinary (research)*: Different academic disciplines working together with non-academic collaborators to integrate knowledge and methods, to develop and meet shared research goals achieving a real synthesis of approaches (Kelly *et al.* 2019).