GLOSSARY

- **Abundance** . Extent of the amount or frequency of the species (number of individuals) or habitats (surface).
- **Barrier** . Landscape element that hinders or totally or partially blocks the ecological flows going through it.
- **Biological Diversity.** Variety of life forms; specially the number of species (wealth). It may include the number of ecosystem types or the genetic variety within the species.
- **Buffer zone**. Transitional area surrounding a protected natural area and acting as a filter to protect the central core area from external disturbances. Management measures aimed at achieving this objective.
- **Configuration.** Specific arrangement of the spatial elements (patches, linear elements, matrix) repeatedly appearing in different spots of the landscape. A spatially explicit pattern of distribution and shape of the ecosystems, ground uses and landscape elements.
- **Core Area**. Portion of a habitat patch being far from its perimeter, out of the reach of external influences, and where the patch interior's environmental conditions are to be found (see *Edge effect*). In the case of a *natural protec ted area*, the core area is the internal portion being surrounded by a *buffer* zone.
- **Dispersal** . Individuals' or populations' capability to move through the landscape.
- **Disturbance** . Event which modifies the state of the ecological system without catastrophic consequences.
- **Ecological Corridor** . Landscape element in which the ecological flows have a greater intensity than in the surrounding matrix, among which flows the function should be highlighted of duct for the dispersal of species, thus minimizing the matrix's negative effects.
- **Ecological Integrity** . Capability of an ecosystem to perpetuate its operation in time by following its natural evolution path and by keeping the capability to recover after a disturbance. Integrity entails a greater vigour (the system's overall capability to process matter and energy), a better organization or effica-

ciousness in the transfer and degradation of energy as well as the capability to resist disturbances.

- **Ecosystem goods and services** . Ecosystem functions that society deems to be beneficial. Elements of the structure of the ecological systems and environmental processes having a social and economic value assigned to them. Among them the following are worthy of mention: the regulation of climate, of the biological cycle, the control of erosion, the formation of soil, the regulation of nutrient cycles, the keeping of biological diversity, the storage and supply of water, the production of food and raw materials, as well as areas for the development of human habitat and for recreation and culture.
- **Ecosystem health** . The health of an ecosystem is the capability that it has to sustain its structure and function through time against external stress.
- Ecotone . Transition area between two systems having different states of maturity.
- **Edge effect**. Influence on the environmental conditions, the composition and abundance of species from the exterior of a habitat patch to the interior in the portion being close to the perimeter.
- **Edge**. Portion of a habitat patch close to its perimeter, where external influences prevent the development of the environmental conditions typical of the patch's interior (see *Edge effect*).
- **Endemicity** . Quality of the species or habitats being typical of and exclusive to a specific region. A species is endemic in a region when it is not present in any other region.
- **Evenness** . Distribution or dissemination of abundances among a series of organisms or patches of a landscape.
- **Extent** . Scale element which refers to the space or time covered by a sturdy, or by a sample from which a measurement or index is obtained.
- **Fragmentation** . Division process of large landscape elements (ecosystems or vegetation units) into gradually smaller elements.
- GIS. Acronym standing for Geographical Information Systems

Grain . see Resolution

- **Hedgerow** . Line of bushes or trees between crops or edges of roads typical of rural landscapes.
- **Landscape connectivity** (= permeability). Landscape's capability to maintain the ecological flows and the links among different elements.
- **Landscape element** . (= ecotope) Each of the homogeneous spatial units that may be recognised in a landscape on a certain scale. Landscape elements can be included in one of the following three categories: patches, linear elements or matrix. They may have a natural or a man made origin.

- **Landscape heterogeneity** . Variety of elements making up the mosaic of a landscape, with regard to the diversity both of types of elements and of types of covers.
- **Landscape**. Mosaic consisting of patches which differentiate from one another in their environmental conditions and in the species they are home to. It is also a mosaic of the diversity and intensity of uses of the territory. The study of landscape entails the election of a certain range of scales (resolutions and extents). The landscape entails a perception component or phenosystem of great importance for the management of environmental goods and services.
- **Linear element** . Landscape element that can be differentiated from the environment but characterized by not having an area on the scale of the analysis, or by having a length far larger than its width.
- **Matrix** . The type of predominant ground use or vegetal cover, which "envelops" the whole of the patches.
- **Metapopulation** . Population which is divided into subpopulations between which the individuals do migrate from time to time.
- Mosaic . Spatial result of the aggregation of patches, linear elements and matrix.
- **Naturalness** . Lack of effects deriving from human action. Quality of intact or unaltered habitats.
- **Patch** . Relatively homogeneous non linear area differing from the surrounding environment. The patches are basic pieces of the landscape mosaic.
- **Percolation** . (percolation threshold) Spatial model of the movement of an organism through the landscape. The percolation threshold is the percentage of landscape covered by the suitable habitat, below which the fragmentation prevents the organism from moving.
- **Pixel**. Each one of the cells making up the regular reticule on which the objects to be mapped in the raster systems are projected. The smallest representation unit of a raster map.
- **Rarity** . Quality of habitats or species which are scarce, hardly frequent or have a very localized distribution.
- **Raster** . Graphic representation system based on a grid of pixels arranged in rows and columns.
- **Resilience** . Process by virtue of which a system does buffer external disturbances by means of small changes in its operation and its internal structure.
- **Resistance or friction value.** Obstacle to the flow of species due to the structural characteristics of the elements of the landscape. The landscape resistance can be mapped by assigning resistance or friction values to each map pixel in a GIS raster.

- **Resolution** . The resolution or grain size is a component of the scale which refers to the minimal space or time data unit.
- **Scale**. Space time framework in which observations and measurements are carried out. The term scale is very frequently used to describe the size of things or their continuance in time, but it is necessary to remember that the scale is something typical of our perception, observation and measurement. The scale includes two main concepts: resolution and extent.
- **Singularity** . Quality of the species or habitats which are unique, being only present in a specific locality with special environmental conditions.
- **Stepping stones** . Sequence of suitable habitat patches in heterogeneous landscapes, useful for the movement of the species.
- **Suitable habitat** . Ecosystem where a species lives, or the conditions within the said ecosystem (some animals use or require more than one type of habitat). According to the Habitat Directive (92/43/EEC), *the state of conservation of a natural habitat is deemed to be suitable when its natural distribution area and the surfaces included in the said area be stable or be widened, and when the structure and specific functions required for them to be kept in the long term do exist and can continue in existence for the foreseeable future.*
- **Sustainability** . A project or activity is deemed to be sustainable when it abides by the input and output rules. The emission or output rule indicates that the emission of waste materials must be limited by the capability of the local system to assimilate without it entailing degradation of its absorption capability in the future. The input of renewable resources rule indicates that the rates of collection or extraction of resources must take account of the regeneration capabilities of the ecosystems producing them.
- **UTM**. Acronym which stands for del *Universal Traverse Mercator*, an international system of geographical coordinates.
- **Vectorial** . Representation system based on graphical objects points, lines, polygons related to certain coordinate axes.