STREAM CORRIDORS

Why they are so important and which functions they provide

In a rural contest made uniform by the utilization by humans for productive purposes, the protection of the areas near to the water bodies, both natural and artificial, is necessary in order to maintain some ecosystemic functions that guarantee the conservation of the hydric resource in a good state and of the habitats strictly connected to it.
We must preserve the fluvial ambient at high levels of naturality.
Efficient fluvial systems provide products and services to humans (water for domestic use or for the food production, food, energy, waterway, etc.).
In order to guarantee their availability, we have to maintain the natural characteristics of rivers with weighted actions that limit alterations when strictly necessary (e.g. protection of lands from floods).

HABITAT

Some plants and animals find in the stream corridor the suitable environment for growing and reproducing. The effective presence of this level of biodiversity depends from the quality, the variability and the dimension of the stream corridor. This function, together with that of transport, allows the connection between parts of the landscape more or less far between them with important ecological consequences on the animals and vegetal communities.

FILTER AND BARRIER

Like the transport function, also these characteristics of the stream corridors can interest different aspects and substances (water, sediments and pollutants) and living organisms.
For example, the presence of a rich vegetation cover on the edges of the water bodies permits the control of the erosion processes and the sediments inflow from the surrounding lands.
Sediments can create problems to artificial structures (e.g. clogging the section of natural rivers and reducing their flow capacity) and they can transport nutrients and pollutants. Plants can capture them before they can reach the aquatic environment, maintaining of the water at a good level of quality.

TRANSPORT

It could be of variable form and it could involve water, sediments, living organisms, organic matter, toxins or nutrients, and it promotes their longitudinal and transverse movement.
During their movement, the organic matters are decomposed in simple elements and included in different production processes.
The speed of the processes is regulated by the movement of the water and so, as slower is the transfer as greater is the depuration capacity of the stream system.

SINK & SOURCE

These functions are related to the surrounding lands because the stream corridor can export substances and living organisms (sometimes this aspect is undesired for the diffusion of invasive plants and damaging animals) and at the same time it can store substances for example by the carbon fixation during photosynthesis.

Progetto UNIEXPO PER TUTTI
finanziato da mipaaf Ministero delle politiche agricole alimentari e forestali
LE UNIVERSITÀ PER EXPO 2015 COMITATO SCIENTIFICO DEL COMUNE DI MILANO
UNIVERSITÀ DEGLI STUDI DI MILANO
DiSAA DIPARTIMENTO DI SCIENZE AGRARIE E AMBIENTALI