



## **Relationship between geo- and biodiversity: an example from the Piemonte Region (NW Italy)**

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The portion of floodplain located in the southern sector of Piemonte region (NW Italy) nearby the Langhe hills, is characterized by a complex and heterogeneous geomorphological system. It is the results of geological processes and climate changes occurred since Pliocene and continued in the Upper Pleistocene with the piracy of the Tanaro River, which because of the change of the base level it triggered processes of intense headward erosion, helped by the sedimentary nature of the substrate. As a consequence of this action the landscape can be subdivided in three main geomorphological units: i) the deep incisions on the floodplain where the main rivers flow; ii) the uplands rising above the plain characterized in the eastern portion by several fluvial terraces, while in the northern one they are cut by streams that dug deep gorges where marine deposits of the Piemonte Tertiary Basin outcrop; iii) the hilly area of Langhe and Roero, which shaped on sedimentary rocks, represents a monocline structure dipping to the north-west. The aim of the present work is to identify a complex of geomorphosites able to describe not only the geological and geomorphological evolution, but also the conditioning that the geomorphological features produce on the vegetation. In particular this kind of analysis has been carried out on a limited area located nearby the city of Cherasco. In this sector the presence of deep narrow gorges created a characteristic environment with ecological niches occupied by plant communities of alpine origin, considered as glacial relicts.