

66-67, 72

Gorfigliano fluvio-glacial plane**location**

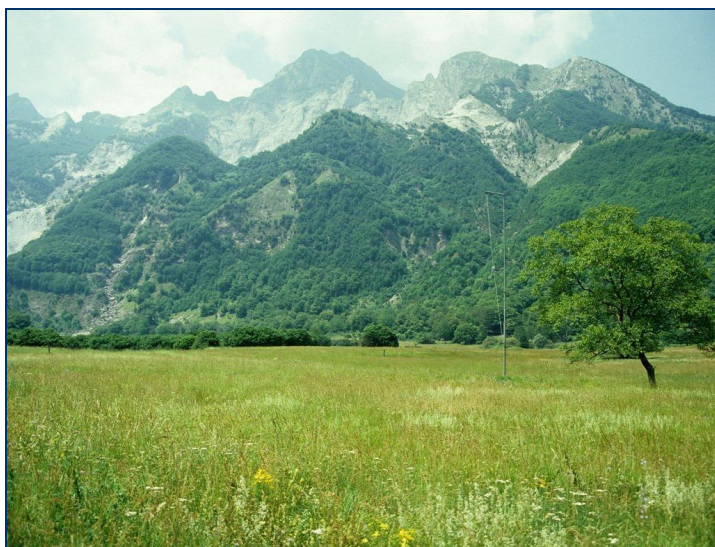
region	Tuscany
province	Lucca
municipality	Minucciano
sector	Pisanino-Umbriana
toponym/locality	Gorfigliano

interest

scientific interest	geomorphology
contextual interest	landscape, botanical
interest evaluation	illustrative
level of interest	regional

conservation status

characteristic/condition	fair
risk of natural deterioration	non-existent
risk of anthropogenic deterioration	medium

**geological and environmental description**

Piano di Gorfigliano is a large thalweg, 1.5 km long and 500 m wide, where the Torrent Acqua Bianca, right tributary of Serchio di Gramolazzo river, runs through. The large area is located between Mt. Tontorone north-eastern slopes (1100 m) and Mt. Calamaio south-eastern side (1040 m), at an altitude comprised between 650-700 m a.s.l.

During Würm, a glacier, descending from Pisanino-Cavallo-Tambura-Roccandagia high sides, enlarged the valley rift in an unusual way for the Apuan Alps and created a U-shape profile. Upon the ablation zone retreat, a small morainic barrier lake formed, as meltwater was stopped from flowing to the valley by some glacial ridges. Piano di Gorfigliano original glacial morphology was partly modified by fluvial and gravitative processes in the Post-Glacial. Its hydrography too was strongly affected by morpho-climatic vicissitudes occurred between the Late Pleistocene and Olocene. Acqua Bianca torrent does not flow along the valley central axis any longer, but it runs close to its south-eastern side. This was caused by a larger accumulation of the alluvial fans of north-eastern side tributaries, which progressively pushed the main watercourse toward the opposite margin. Traces of Acqua Bianca torrent translation are found in the remarkable old river beds in Piano di Gorfigliano central area, if they have not been moulded by left tributaries.

The area hydrogeological structure is difficult to understand, as the thalweg deposits various origins and granulometry often create complex underflows. There are numerous springs along Piano di Gorfigliano, whose aquifer seems to consist of fluvial, fluvio-glacial and glacial deposits, situated on an impermeable substrate made of sericite Schists from the Early Cretaceous-Oligocene.

Stagnation and weakly-flowing water contribute to the formation of small humid areas, home to flora and vegetation of high geobotanical interest.

description of the level of interest

Piano di Gorfigliano is an almost unique geosite within the Apuan and Tuscan context, as it preserves, in terms of exemplarity, rather than representativeness, a vast array of forms and deposits deriving from the separated or combined, synchronic or dychronic actions of glacial, fluvial and gravitative morphogenetic processes.