



## **The geological landscape and related geosites overview map of Liguria (Italy)**

Maurizio Burlando (1), Francesco Faccini (2), Guido Paliaga (3), Eugenio Poggi (4), and Flavio Poggi (5)

(1) Beigua UNESCO Global Geopark, Arenzano, Italia ([direttore@parcobeigua.it](mailto:direttore@parcobeigua.it)), (2) Dipartimento di Scienze della Terra, dell'Ambiente e della Vita, Università di Genova, Italia ([faccini@unige.it](mailto:faccini@unige.it)), (3) Consiglio Nazionale delle Ricerche, Istituto per la Ricerca e la Protezione Idrogeologica, Torino, Italia ([gpaliaga@gmail.com](mailto:gpaliaga@gmail.com)), (4) ItalFerr S.p.a., Gruppo Ferrovie dello Stato Italiano, Genova, Italia ([info@eugeniopoggi.it](mailto:info@eugeniopoggi.it)), (5) Dipartimento Territorio, Ambiente, Infrastrutture e Trasporti, Regione Liguria, Italia ([flavio.poggi@regione.liguria.it](mailto:flavio.poggi@regione.liguria.it))

Since the beginning of the Third Millennium, an ever-increasing interest of geological heritage has been observed, either in scientific terms or in practical point of view, with the resulting socio-economic consequences.

The geological heritage represents the basic element of the landscape and it often has strong links with other elements of the territory like historical geography, land-use setting, landscape protection, nature conservation, etc.

One important link is undoubtedly with the environmental protection task, because most part of the Italian protected areas, above all in the Liguria Region, are mainly established above earth sciences features. Consequently, a lot of geological heritage elements are included into these important natural sites.

The issue of geodiversity and geosites has become object of national and regional laws: in Italy the cultural heritage and landscape code was issued in 2004 while in Liguria the Regional Law n. 39/2009 establishes the rules for the valorisation of the geodiversity, geosites and karst areas.

Here we present the geological landscape and related geosites overview map of Liguria (in North West of Italy); in addition to the recent regional database and georeferencing activities of the Ligurian geosites, through a reworking of a simplified geological map addressed also for non-geologists, a geotematic map has been compiled. In particular, this chart emphasizes the strong relationship between geology and landscape, showing how different rock masses produce several landforms of outstanding natural beauty in the ligurian regional territory.

The map shows the basic concepts of geoscience by looking closely at the landscape we see in front of us every day. From the coast to the Alps and Apennines watershed, this tool identifies several geological landscape units characterized by the presence of specific rock masses, soils and particular geological and geomorphological features, such as: Landslides landscape; Ligurian alluvial floodplains; Ligurian coastal plains (beaches, high rocky cliffs and techno-coast); the Flysch rock masses ("layer on layer"); Ophiolitic crags; Conglomerate peaks; Karstic massif; Quartzite and Cherts rock masses; Sandstone spurs; Shales and schists domain; Windows on the Paleozoic; Plio-Quaternary landscape.

More than 500 geosites classified in a recent specific regional database were then overlapped on the geological landscape units: they have been distinguished according to interest (from regional to national), for different geothematic categories (geology, mineralogy, geomorphology, paleontology and geohistory), according to the proposal of enhancement (low-high).

In conclusion, the Ligurian geological landscape and geosites overview map could represents a friendly tool to identify the most relevant regional geological heritage, which can be suitable both for geologist and non-geologist users.