

Missiaga catchment (Dolomites, northern Italy)

Basic geographical information

The Missiaga catchment (Fig. 1) is located in the Dolomites (northern Italy). Table 1 lists the main morphometric parameters of the basin; Figs 2 and 3 show the elevation map and the slope map, respectively. The hypsometric curve of the basin is shown in figure 4.

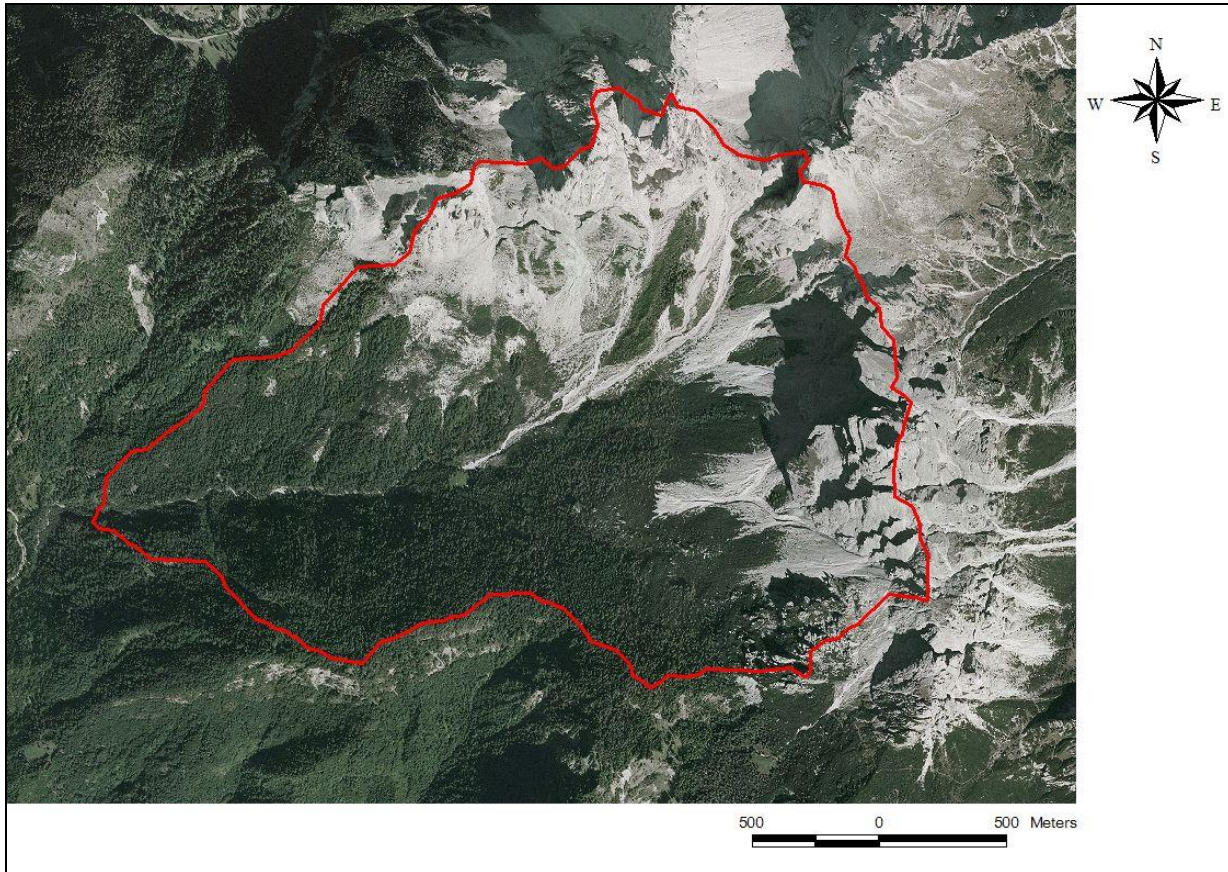


Fig. 1. Orthophoto of the Missiaga catchment.

Table 1 – Main morphometric parameters.

Basin area (km ²)	4.70
Basin perimeter (km)	9.93
Maximum elevation (m)	2540
Average elevation (m)	1728
Elevation of basin outlet (m)	1096
Average slope (°)	31.1

Most of the basin is covered by Quaternary deposits; dolomite rocks (Dolomia Principale) built up the highest summits; limited outcrops of tuffs, sandstones, marls and marly-limestone are also present (Fig. 5).

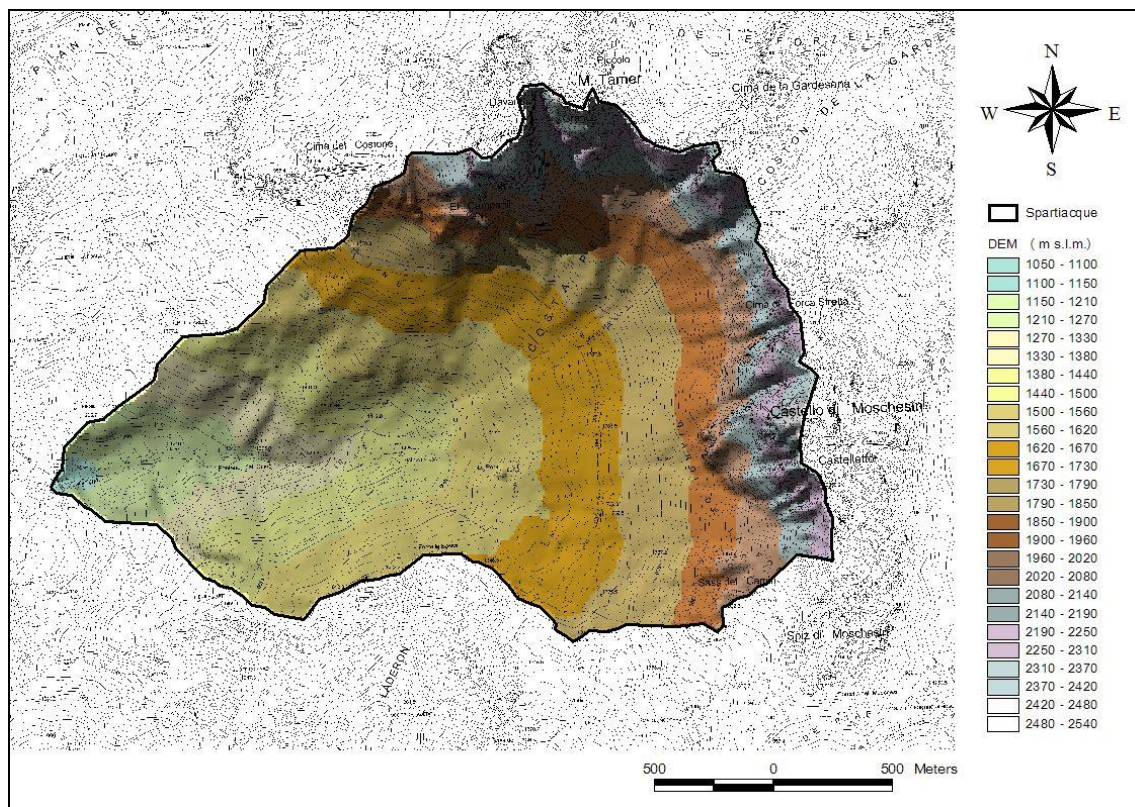


Fig. 2. Elevation map.

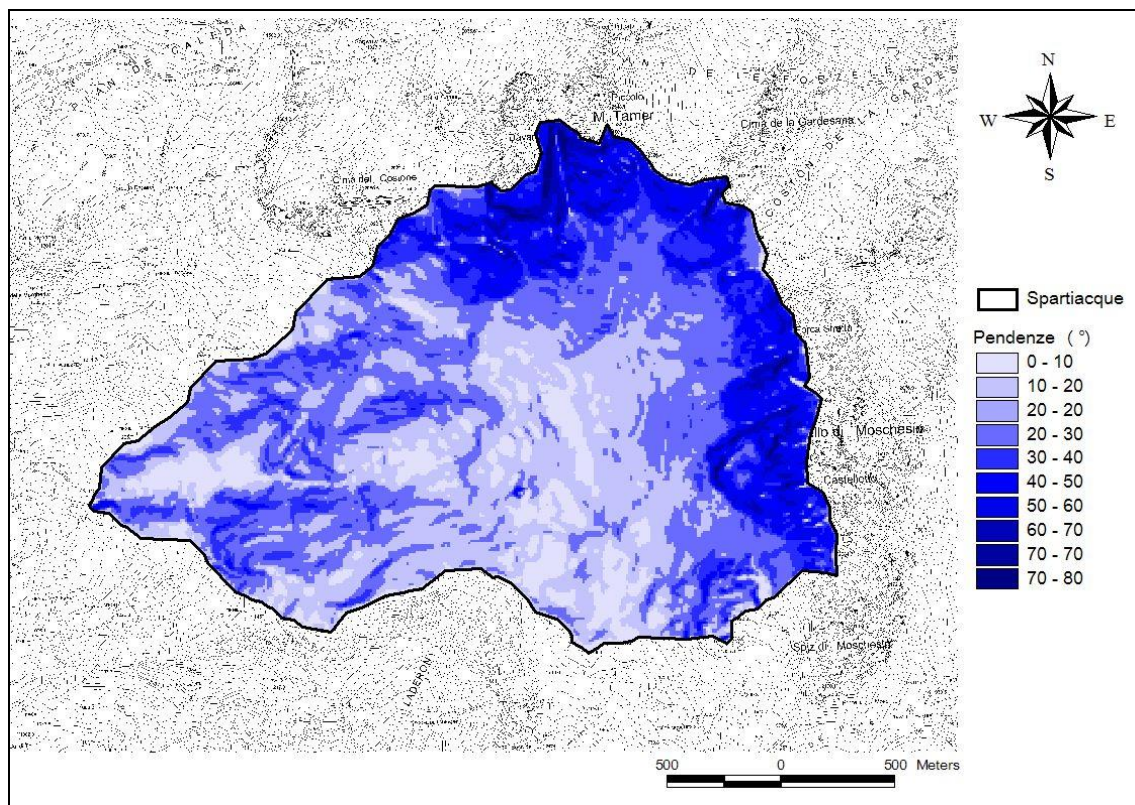


Fig. 3. Slope map.

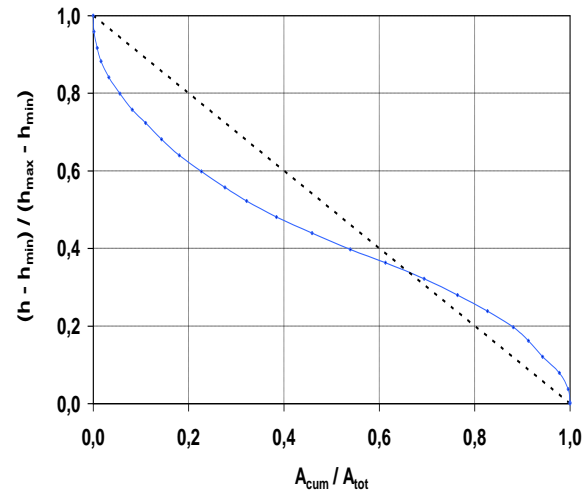


Fig. 4. Hypsometric curve.

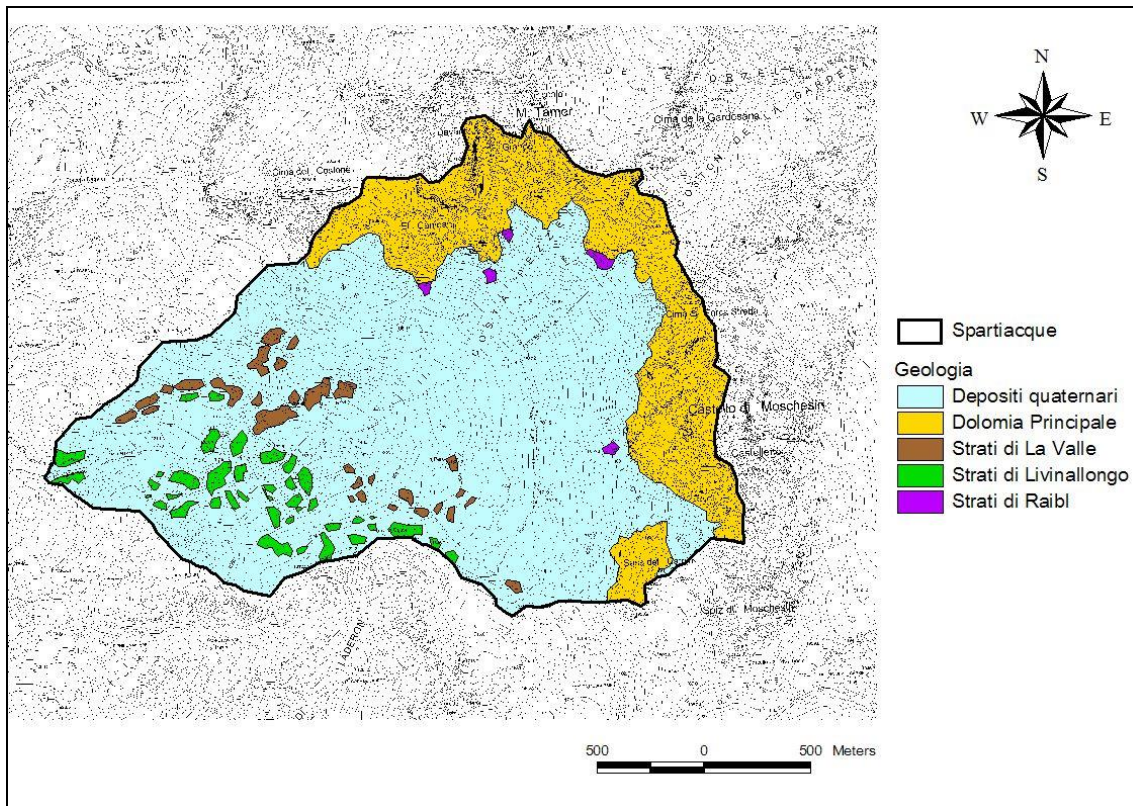


Fig. 5. Simplified geological map.

Spartiacque: watershed divide; *Depositi quaternari*: Quaternary deposits
Strati di La Valle, *Strati di Liviallongo* and *Strati di Raibl* are geological formations consisting of tuffs, sandstones, marls and marly-sandstones.

Hydrological data

The database consists of daily data of precipitation, air temperature and discharge recorded from 1983 to 2000 (with gaps).

Precipitation has been recorded in the central sector of the catchment (Malga Rova, 1430 m). Daily rainfall data are reported from 9 AM to 9 AM according to the standard of the Italian National Hydrological.

Air temperature has been recorded at Malga Rova. Temperature data consist of maximum and minimum daily temperature.

Discharge data (maximum and minimum daily discharge) derive from water level measurements (floating type water level gauge) on a triangular sharp-crested weir.

Geographical coordinates:

Catchment outlet: 46° 17' 45.00"N, 12° 5' 28.10"E

Malga Rova: 46° 17' 47.85"N, 12° 6' 36.70"E

Studies on the Missiaga catchments

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Friz C., Gatto, G., Villi, V., Caleffa, G., 1983. Risorse idriche sotterranee di un bacino campione in ambiente dolomitico. (Bacino del Torrente Missiaga-Belluno). *Memorie di Scienze Geologiche*, 36, 293-315.

Friz, C., Villi, V., Turrini, M.C., 1995. The Holocenic evolution of a stretch of an eastern Italian alpine valley. *Earth Surface Processes and Landforms* 20, 747–757.

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