Gap Analysis is a methodology aimed at identifying the high biodiversity areas that are not subject to protection. The conceptual framework of the analysis is extremely simple: the spatial distribution of the existing protected areas is compared with the distribution (real or potential) of the species considered. In this way, it is possible to identify areas that are more than other need legal protection.

**Eastern Alps**

- Eastern Alps hold large areas of high species diversity without any protection. It is important to maintain a connection among Slovenia and the Italian Provinces and to improve the network of Protected Areas. Looking at the map, it is also possible to identify other areas that should be considered in the Protected Areas network, like, for example, the medium altitude areas.

**Central Apennines**

- The existing protected areas cover large parts of the central Apennines. The SCI have an extremely important role, since they connect the existing Protected Areas and cover areas otherwise with no protection. It should be noted that many areas of the Monti region are not protected even if there are high diversity values. This constitutes a great problem since Monti is one of the most important sites among central and southern Italy.

**Liguria and Northern Apennines**

- In Liguria, the Protected Areas system is composed principally by SCI and SPA, with only few existing Protected Areas. In particular, the Savona and Imperia provinces should receive great attention, since they connect the high diversity areas with France.

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National Parks and SCI are the Protected Areas types that more than other protect high diversity areas. Regional Parks together with high diversity areas, include also many areas with lower diversity values. National Reserves cover the same range of diversity values of the whole Italian peninsula, while Regional Reserves, even showing the same pattern, have some areas with high diversity. Other Protected Areas do not cover many high diversity areas, while SPA have a really variable pattern, going from areas with extremely high diversity to areas with a really low number of species.

It has been calculated a biodiversity index using the ratio (maximum number of species/number of species in the pixel) x 1000.

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**Southern Apennines and Calabria**

- It is important to find a solution to connect the Calabrian and Vallo di Diano National Park and the Pollino National Park among which there are many high diversity areas. Extremely important is also the protection of the Calabria-Ciociaria mountains chain, but should help maintaining the viability of the protected areas in Calabria connecting the latter to the other protected areas.

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