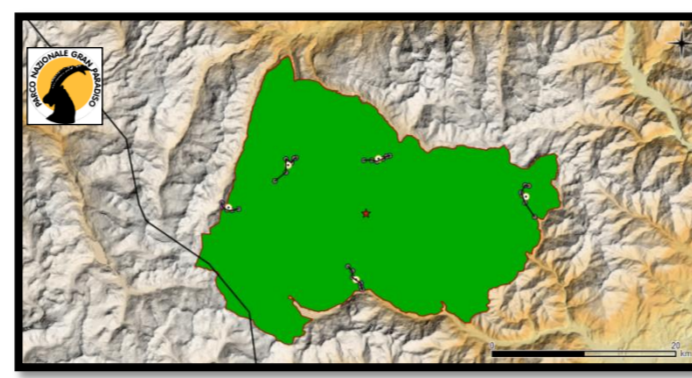# Gran Paradiso National Park

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The **_Gran Paradiso National Park_** (GPNP) is the oldest National Park in Italy, instituted in 1922.
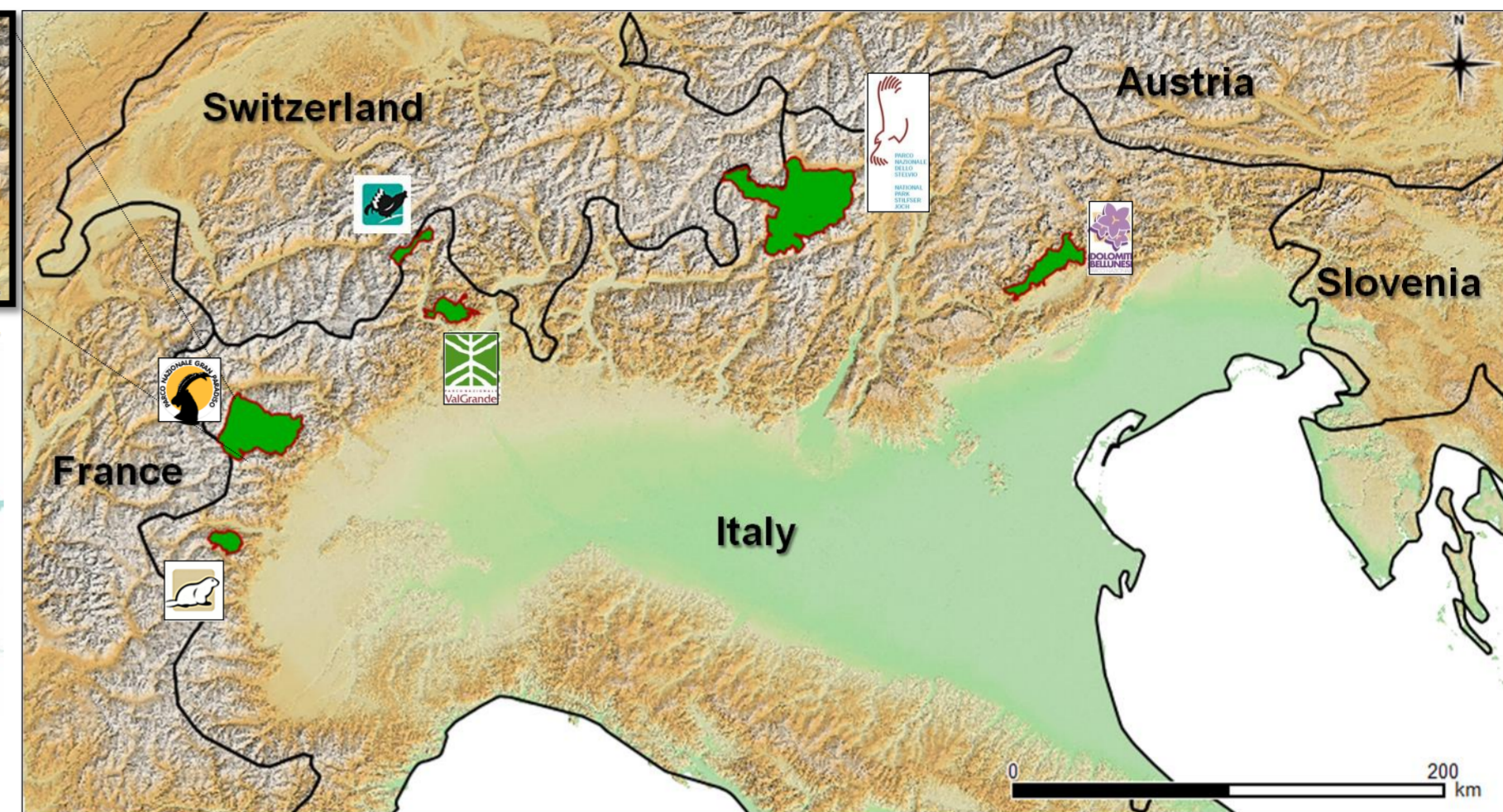
It borders with the Vanoise National Park in France. These two parks form a huge system of high-elevation protected areas in the Alps, characterized by the presence of significant glaciers and high-altitude environments, and host the original surviving population of Alpine ibex (_Capra ibex_).

Gran Paradiso National Park

Image from wwf.panda.org

Gran Paradiso National Park and the other five alpine protected areas involved in the "Monitoring of Animal Biodiversity", project lead by GPNP since 2006.

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GPNP is about 70000 ha in size and includes the different ecosystems present along its altitudinal gradient (ca. 750-4000 m asl): woody areas (montane belt), ecotonal habitats (subalpine belt) and meadows (alpine belt). The nival belt is widely represented inside the Park.

The habitats with scarce or no vegetation (rocks, screes, glaciers) cover about 60% of the territory, meadows and pastures 17%, woods and shrubs 20.2 %, while cultivated lands and urban areas only 0.8%. The aquatic ecosystems, beyond the streams, comprise almost 15 lakes, bigger than 10000 m^2 and located at an altitude higher than 2000 m asl.

The climate of the area is typically Alpine-Continental: low mean temperature, high seasonal differences, winter with high amount of snow can be observed (the length of the period in which the snow remain on the ground depend strongly on altitude and aspects, from 4 to 6 months).

RESEARCH ACTIVITIES

Of greatest interest are all the long-term monitoring data, regarding different species and habitats.

• _"Monitoring of Animal Biodiversity"_, through semi-quantitative census techniques, in specific plots, using selected taxa (birds and arthropods), monitored since 2006 with periodic sampling.

• _Counts of the Alpine ibex_, over all the territory of the Park, since 1956, with annual sampling.

• _Physical, chemical and biological monitoring of alpine lakes_, characterised by the collection of abiotic (temperature, oxygen, chemical compounds) and biotic (phyto- and zoo-plankton) data, since 2006.

• _Monitoring of periglacial flora_, in 5 study sites through floristic census.

• _Monitoring of the front glacier_, in 34 glaciers and mass balance in a selected one.

• _Eco-ethological data_, related to the symbolic species of the Park (_Capra ibex_, _Rupicapra rupicapra_, _Marmota marmota_).

• _Spatio-temporal analysis of satellite data and validation of satellite indexes_, as an estimate of nutritional quality of alpine pastures.

• _Data on alpine pastures utilisation_, documented in archives, which can be coupled with vegetation coverage data.

• _Meteo-climatic data_, covering all the territory of the Park, with the use of classical meteorological stations and micro-climatic data, collected in selected monitored plots.

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PNGP Archive