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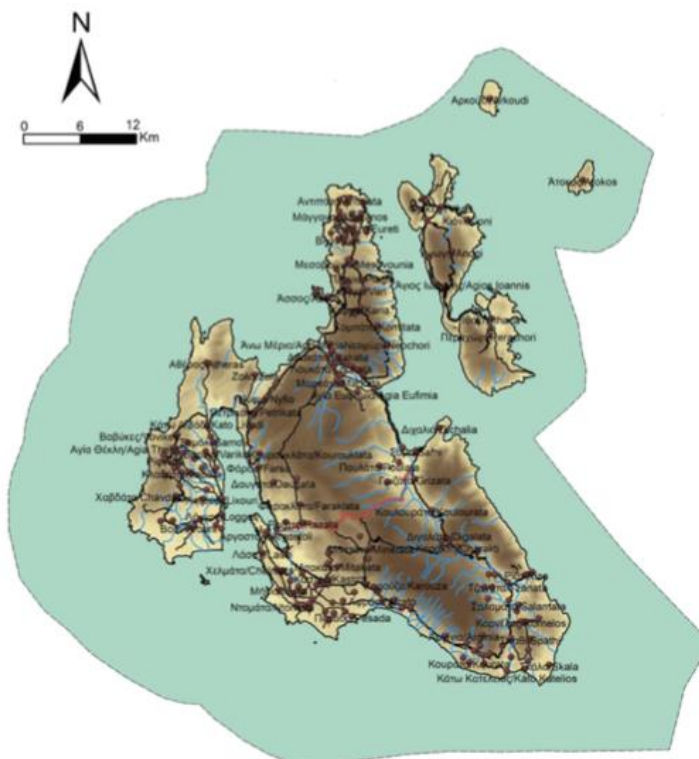
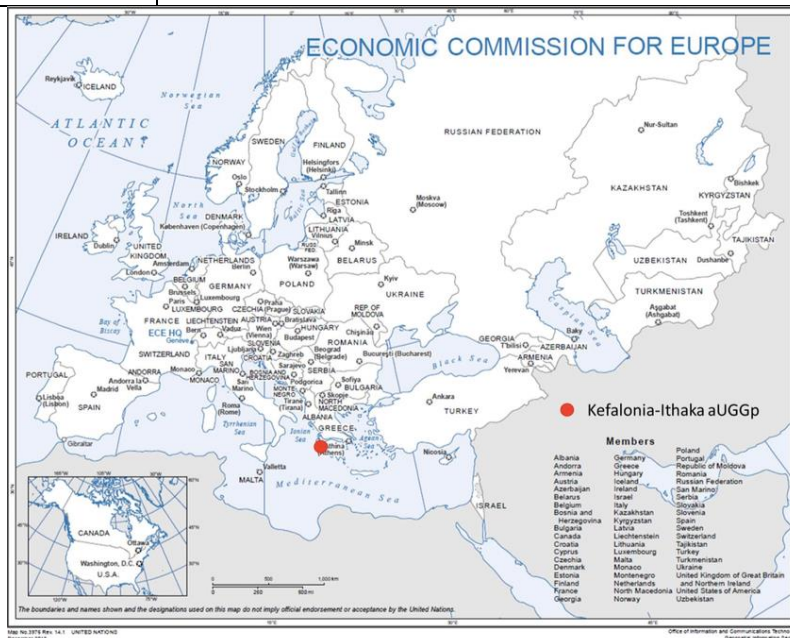


• Géoparks
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Applicant UNESCO Global Geopark

Kefalonia-Ithaca, Greece

Geographical and geological summary



1. Physical and human geography

The Kefalonia – Ithaca applicant UNESCO Global Geopark is located in Western Greece (SE Europe). It is an island complex (Kefalonia-Ithaca-Atokos-Arkoudi) belonging to the Heptanese (Ionian Sea). It is located 340,3 km from Athens, the capital of Greece and 165.37 and 258 km from Albania and Italy respectively. Its surface area reaches 3.006 km² and includes 913,075 km² of land and 2.092,9 km² of marine area. The geopark 's area belongs administratively to the Ionian Islands Prefecture.

Kefalonia (38°12'44" N 20°32'00" E) occupies an area of 773 km². Its capital city is Argostoli. According to the last census, 35.801 inhabitants were recorded living mainly in coastal settlements. Ithaca (38°23'59.28" N 20°41'21.11"E) follows in size with 117 km² surface area. Vathi is the capital city. In winter 3.084 residents are living on the island but in the summer the population is more than double. The local residents in the geopark 's area are mostly occupied with agriculture, fishery and tourism. Especially tourism plays an important role in the economic development of the area. Atokos (4,4 km²) and Arkoudi (4,275 km²) are small desolated islands north of Ithaca.

Kefalonia includes four main peninsulas (Paliki, Erisos, Livatho and Atrou). The mean altitude of the island is 358,5m. Approximately 37.5% is occupied by mountains, 42,5% is semi-mountainous and 20% is occupied by lowland areas. The highest mountain is Ainos (1.628 m). The whole mountain range is the most imposing feature of the island. The main lowland areas are Livatho and Omaloi. The total coastline length of the island is 270.4 km and forms many gulfs and bays such as Mirtos, Argostoli and Sami. Ithaca is included within Melissa and Agios Andreas peninsulas. It is also a mostly mountainous area. It includes several small mountains such as Anogi (808 m), Niritos (806 m) and Merovigli (669 m). Its total coastline length is 101 km and several important bays are created (Vathi, Frikes, Pisaetos etc). Moreover, numerous underground and surface karstic geomorphs such as caves and sinkholes form a rich karstic system mainly in the area of Sami. The climate of the geopark 's area is mild temperate (8.5-29.4 °C) with mean annual precipitation 820mm. The climatic conditions promote the occurrence of a rich natural environment which contains several species of plants and animals which together with the geological and cultural elements compose the spectacular character of the area.

2. Geological features and geology of international significance

Kefalonia and Ithaca Islands consist the westernmost part of External Hellenides (remnant of the Tethys Ocean). They are located very close to the Greek arc, which is the most tectonically active region in Europe. Due to their geotectonic position, the islands present rich geology and great seismic activity, on which we find an excellent depiction of the dynamics of terrestrial processes, through the numerous and wide variety of geological features. Two geotectonic zones (alpine formations) bordered by a major thrust, can be found. They are mainly represented by carbonates (limestones and marly limestones, dolomites) of Jurassic to Miocene age and Triassic evaporates. Plioquaternary post alpine sediments can also be found lying uncomfortably on the alpine formations. Many of the formations are fossiliferous. Apparently, most of the geopark 's surface is covered by limestone. This fact in combination with the tectonic activity, the climatic conditions and the processes of erosion and deposition results in the appearance of numerous underground and surface karstic geomorphs such as caves, valleys, sinkholes, bays, forms of surface erosion etc. Therefore, such processes form a rich karstic system mainly in the area of Sami but also all over the carbonate rocks on both islands, but to a lesser extent.

Of particular interest is the fact that part of the karstic network is located below sea level, causing global interest not only due to the rich speleothems such as stalactites and stalagmites, but also for its extent. This peculiarity is caused by submersion due to intense tectonism but also due to the sea level rise caused by the melting of the last glaciers resulting in the flooding of many of Kefalonia caves.