

# M

# Madonie Geopark



The Ente Parco delle Madonie is a nonprofit institution, established pursuant to and for the purposes referred to in the regional law 6 May 1981 n. 98. The park is located in north-central Sicily between the Tirrenan Sea in the north, the Imera river in the west, the Pollina river in the east and the cities of Sclafani Bagni, Caltavuturo, Polizzi Generosa, Castellana Sicula e le Petralie in the south.

The "Parco Delle Madonie" covers an area of approx. 40,000 hectares and includes 15 municipalities.

The Ente Parco has the task of managing the Madonie Nature Park for the following objectives: Protection, preservation and defense of the environment and landscape with its historical and cultural values; Environmental management, transformation of natural values in the park and reconstruction of degraded ones; Social and public use of environmental goods, supporting cultural, social, recreational, touristic, sports and other activities that can improve the quality of life of the local population.



Proper layout and use of the territory that makes up the park, programming and project design for this purpose; Promotion of activities that can improve and develop the economic and social condition of the local population, especially traditional and production activities; Promotion and development of scientific research.





## GEOSITES

### a. Gorges of Tiberius

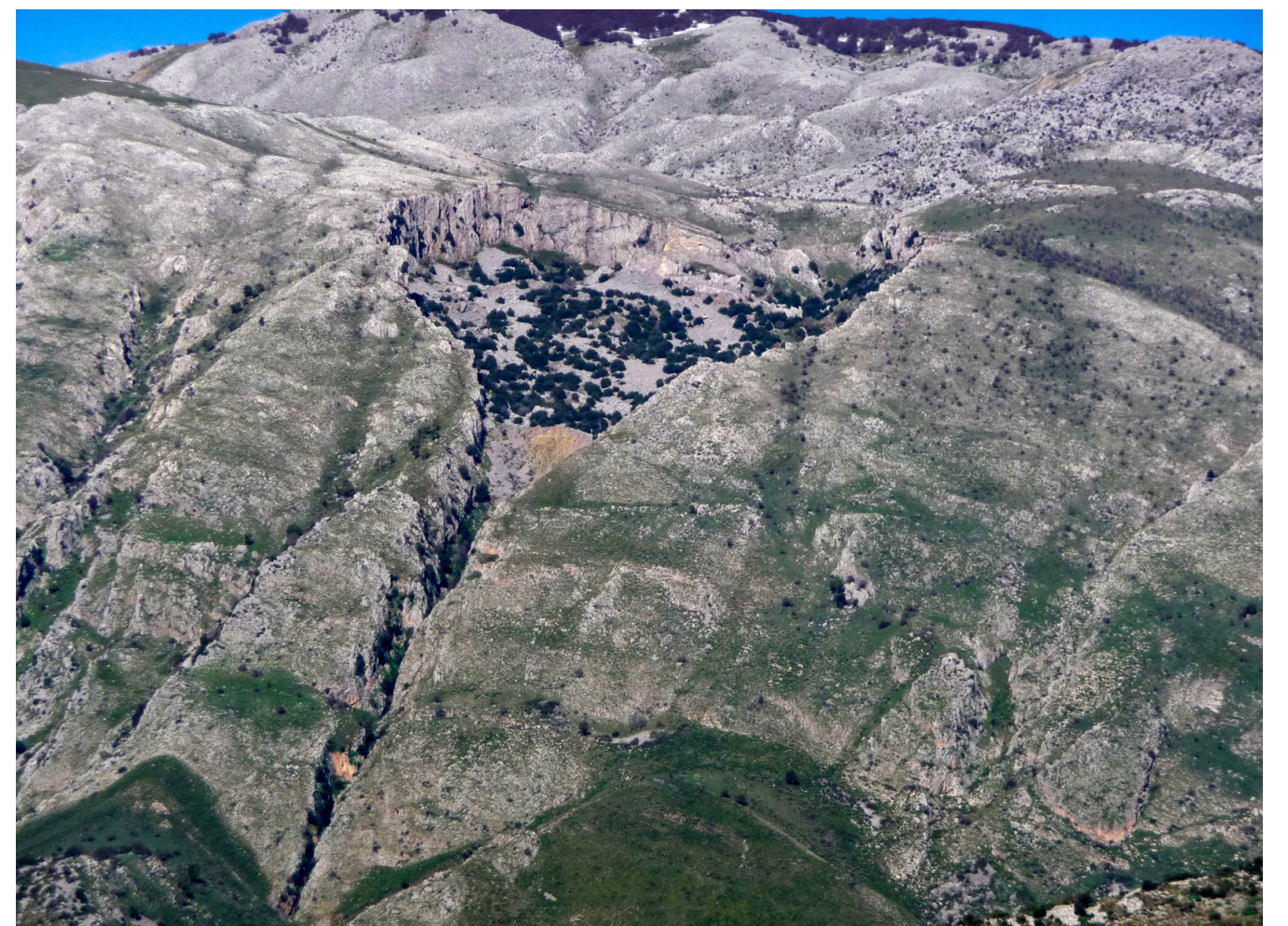
The Gole di Tiberio geosite: it is located in the Pollina river at 100 m s.l.m. between the municipalities of San Mauro Castelverde and Castelbuono, a geosite of significant geomorphological and landscape interest. The limestone rocks were formed in the Upper Triassic more than 200 million years ago, while the uplift of the rocks and the consequent formation of the gorge took place starting from the Miocene, about 23 million years ago. The geosite consists of a fluvio-karst gorge engraved by the Pollina river in correspondence with limestone rocks; furthermore, morphologies linked to river action and karst phenomena are visible along the walls.

In addition to enjoying the scenic beauty of the site, it is possible to use a river navigation service for crossing the natural narrowing. (Upper Jurassic - Cretaceous)



### b. La Padella (The Frying Pan)

The geosite of the Padella is located in the territory of Polizzi Generosa. It is very steep, with a very large head area due to collapse / overturning phenomena that caused the characteristic shape (handle of the pan) of the original fluvial-karst valley.



The phenomena of excavation of current waters are increased by the considerable slopes present on the sliding surfaces. The furrowed field (Karren) on the neighboring rise of Cozzo Cirasa is splendid.



## GEOSITES

### c. Pizzo Di Sant'Otiero

Pizzo di Sant'Otiero geosite: pelagic calcilutites and rocky layers consisting of small fossilized crustaceans of Daonelle. The geosite of Pizzo Sant'Otiero is located below the crest of Monte San Salvatore in the Petralia Sottana area in a rather steep morphological context that slopes more gently towards the valley.



It is a Geosite recognized by the A.R.T.A. referring to a limestone outcrop of the Panormide Domain which, due to the splendid fossil content of *Daonella Tyrolensis* (extinct lamellibranchs), dates back to the Middle Triassic. These are the oldest rocks of Madonie Geopark, and also among the oldest ones in Sicily.

In the limestone outcrop numerous remains of Conodonts were also found, mysterious "animals" of the past, of which only the strange mouthparts remain.

The geosite of Pizzo Sant'Otiero is also an important historical site from which the material for the construction of the columns of the Mother Church of Petralia Sottana was extracted. A column partially extracted and left in place is still visible nearby, probably because it was broken during the construction phase.

### d. Piano Battaglia

The Polje geosite of Piano Battaglia represents a karst system composed of two adjacent depressions at about 1,600 meters above sea level (Battaglietta and Piano Battaglia) with sinkholes. They are separated by a structural "threshold" due to territorial neotectonics. It represents the epigeal karst form of greater areal extension of the Madonie.





## GEOSITES

### e. Raffo Mine Geosite



Rock salt meets art in this geosite on the territory of Petralia Soprana; it consists of deposits of pure rock salt up to 99.9%, the formation of which is called the process of dissolution and recrystallization from already existing salt deposits.



The salt reservoir is tectonically embedded in clay deposits that probably preserved its integrity. Salt is currently extracted industrially for both food and business processes.



In the neighborhood is the significant old Salinella mine, currently abandoned.

The geosite also contains a large room inside the mine that is used for museum purposes as it houses the salt sculptures created for the biennial international event.





## FLORA

Madonie is one of the areas of greatest phytogeographical interest in the Mediterranean with over 1,800 plant species. There are about 170 endemic entities, including species and subspecies. Among them, *Abies nebrodensis*, *Viola nebrodensis*, *Senecio candidus*, *Rhamnus lojaconoi*, *Jurinea bocconeii*, etc. are exclusive to the Madonite area.



**Madonie Fir (*Abies nebrodensis*)**

The most relevant case is that of *Abies nebrodensis*, whose population, on the verge of extinction, consists of only about thirty specimens limited to Monte Scalone and Vallone Madonna degli Angeli.



More widespread is *Genista cupanis*, specialized on siliceous substrates where it is domesticated in environments originating from the degradation of forest occupied by pastures, while *Astracantha nebrodensis*, a thorny shrub that thrives exclusively on more or less calcareous substrates that have been freed by the retreat of beech forests and forests directly below.

Cultivated plants also have their own peculiarities. In this context we must mention manna (*Fraxinus ornus* and *F. oxycarpa*) of which Francesco Minà Palumbo researched thirty different varieties in 1876, most of which cannot be found today.



**Scilla**



**Orchid**



# Madonie Geopark

## FAUNA

Madonie hosts all the indigenous species of mammals, amphibians and reptiles that inhabit the island, almost 70% of the species of nesting birds and close to 60% of the Sicilian invertebrate species.

Today, the Madonie mammal fauna still includes wildcats, martens, porcupines, foxes, hares, coneys, and various species of small rodents including the rare dormouse.

Of the diurnal birds of prey, Madonie is still home to peregrine falcon, kestrel, Eurasian hobby, buzzard and 4 pairs of golden eagles.

Among the nocturnal birds of prey we see owls (Eurasian eagle-owl and barn owl).

Species associated with the thicket and forest: various species of great spotted woodpeckers, warblers, lesser spotted woodpeckers, along with treecreepers, jays and crows.

During the winter, there is a rich population of migratory species, which is added to the wintering ones, as is the case with the finch.

Even in rupestrian environments, it is possible to observe the solitary house sparrow, (which above 1400 meters is replaced by the very rare western capercaillie and rock buntings, wheatear, rock sparrow, black redstart and red-billed chough...) Another typical inhabitant of the rocks of Madonia is the Sicilian rock partridge, which is now rare or extinct in many areas of Sicily.

Of the fauna of the rivers, there are still white wagtails, grey wagtails and bee-eaters.



**Bee-eater**



**Kestrel**

From reptiles and amphibians: lizards, ocellated skinks, Italian three-toed skinks, green whip snakes, grass snakes, vipers, green frogs, very rare land and marsh turtles, tree frogs, painted frogs and green toads.

The invertebrate fauna includes endemic species such as Parnassium apollo from Sicily, an elegant butterfly that only lives in the highest areas of Madonia.



**Fox**



**Turtle**



**Painted frog  
(Discoglossus)**



**Butterfly (Parnassium)**



# Madonie Geopark

## MINERALS

The Madonie, in their geodynamic structure, are mainly made up of calcareous and siliceous rocks, on which clayey and evaporitic sediments can be distinguished.

Among the minerals constituting these rocks, the following can be found on the outcrop:

-Calcite ( $\text{CaCO}_3$ ). Mainly used as a building material, as a rock for art collection or even for crystal therapy.

-Flint ( $\text{SiO}_2$ ) of various chromatisms due to impurities of iron oxides. Mainly used as landscaping material for construction or rock collection. In remote times flint was used in the Mesolithic/Neolithic for the manufacture of weapons or tools of daily life (Grotta del Vecchiuzzo, Grotta di Scillato).



**Clays**



**Calcite**

-Clays (hydrated aluminium silicates). Mainly used for ceramic handicraft in the area.

-Gypsum ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ) calcium sulphate dihydrate. Used as a cement mortar in construction, but also as embellishment or in rock collections.

-Rock salt ( $\text{NaCl}$ ). Mainly used for food preparation.



**Gypsum**



**Rock salt**



**Jasper**



# Madonie Geopark

## GEOFOOD

In the Madonie park there are ash trees, vineyards, olive groves, orchards and medicinal plants, vegetables, and farms that give life to raw materials such as Madonie manna, extra virgin olive oil, zesty orange, Scillato apricot, Badda di Polizzi beans, oregano, basilisk mushrooms (*Pleurotus nebrodensis*), hazelnuts, ancient grains, Sicilian black bee honey, etc. Furthermore, cheeses such as provola delle Madonie, Sicilian pecorino, scamorza, scacciata, etc. can be enjoyed.



Numerous typical dishes and desserts. Among them, sfoglio, one of the oldest sweets typical of Madonie, dates back to the 15th century. The main ingredient is tuma, a fresh cheese, enriched with candied pumpkin, cinnamon and chocolate.



**Manna**



**"Paniere Natura" brand**



**Sfoglio**



**Badda di Polizzi beans**