



# TICINO VAL GRANDE VERBANO BIOSPHERE RESERVE

**OUR SUSTAINABLE DEVELOPMENT LABORATORY**



## THE UNESCO 'MAN AND BIOSPHERE' (MAB) PROGRAMME

The 'Man and Biosphere' Programme is a scientific intergovernmental initiative set up by UNESCO in 1971 with the aim of globally improving the relationship between people and the environment, by facilitating economic growth strategies that enable the conservation of cultural and biological diversity.

The programme grants **Biosphere Reserve** recognition to marine and/or land areas which Member States undertake to manage as part of the conservation of resources and sustainable development, with the full involvement of local communities.

### Objectives of the Biosphere Reserves

The aim of the Reserves is to promote a balanced relationship between people and ecosystems, create specific sites for research, training and education about the environment, and opportunities for implementing land planning and management policies.

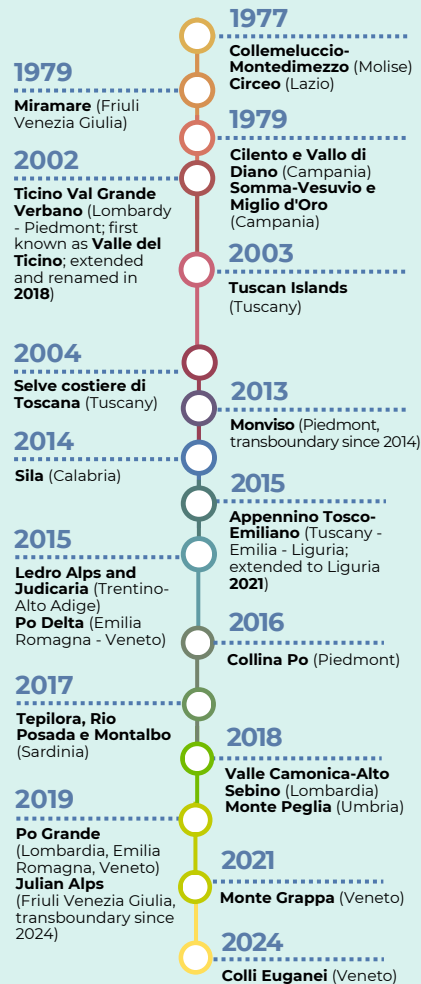
The **vision** underpinning the Programme is one of a world in which people are aware of their **shared future** and their interactions with the planet, and act collectively and responsibly to develop a society that flourishes in harmony within the biosphere.



**Worldwide**

The **World Network of Biosphere Reserves** currently includes **759 MAB Reserves in 136 countries** throughout the world, **21 of them in Italy.**

### The MAB network in Italy







**While World Heritage  
helps to preserve values,  
Biosphere Reserves  
create it**

IRINA BOKOVA,  
FORMER DIRECTOR-GENERAL OF UNESCO

# TICINO VAL GRANDE VERBANO BIOSPHERE RESERVE

## Our area

The **Ticino Val Grande Verbano Biosphere Reserve**, created by extending the Valle del Ticino MAB Reserve, encompasses **211 municipalities** (with over a million residents), **1 Metropolitan City** (Milan), **4 provinces** (Pavia, Varese, Novara, Verbano-Cusio-Ossola) and **4**

**Park Authorities** (Lombardy Park of the Ticino Valley, Management body of the Protected Areas of Ticino and Lake Maggiore, Val Grande National Park and Campo dei Fiori Regional Park).

Situated **across Lombardy and Piedmont**, in one of the most populated and built-up areas in Europe, it has **natural and cultural heritage** characterised by defining features within a unique landscape with historic-architectural elements, natural and semi-natural ecosystems, and agro-ecosystems that make it an essential location of biodiversity and the most important **ecological corridor between the Alps and the Apennines**.



## The UNESCO MAB designation pathway



### 2002 - VALLE DEL TICINO

The whole of Valle del Ticino (in Piedmont and Lombardy) was designated a Biosphere Reserve. **58 municipalities**, 2 Park Authorities



### 2014 - VALLE DEL TICINO

First extension proposed in 2012 at the ten-year report with the inclusion of the Novara Hills regions. **83 municipalities**, 2 Park Authorities



### 2018 - TICINO VAL GRANDE VERBANO

Renamed following the new application in 2017, with an extension to the Swiss border, including the area of Lake Maggiore, the riparian areas, the Val Grande National Park and the Campo dei Fiori Regional Park. **211 municipalities**, 4 Park Authorities





The **Ticino Val Grande Verbano** MAB area, which includes approximately **332,000 hectares**, split as follows: approximately 18,000 hectares classed as core areas, 51,000 hectares classed as buffer areas and 263,000 hectares classed as transition areas.

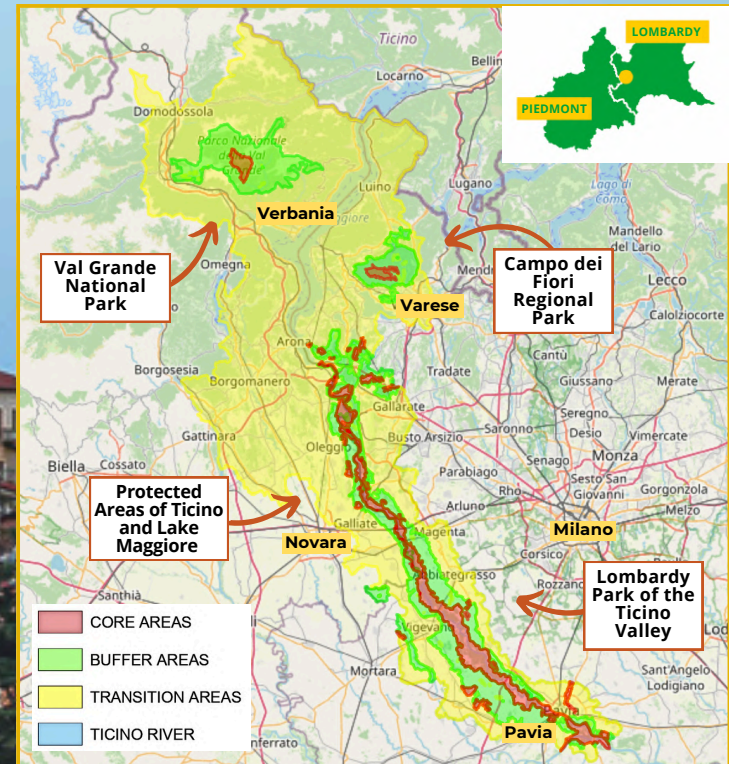
The Lombardy and Piedmont **Parks** of the Ticino Valley, the Val Grande National Park and the Campo dei Fiori Park constitute the Reserve's **core and buffer areas**, whereas **municipalities** that have signed up to the initiative as **transition area** are a testing ground for sustainability initiatives and correct development-oriented economic planning for local territories and communities.

## The Reserve site

### The zonation

MAB areas are split into **3 zones**:

- **Core** Areas where protection is most stringent; these are protected park areas and can carry out research and conservation activities;
- **Buffer** Areas categorised between protected areas and urban areas which can implement actions regarding communication, environmental education and actions that respect nature such as sustainable forestry and farming and ecotourism;
- **Transition Areas**, Other areas including towns, where economic activities are implemented to improve the wellbeing of local communities. **Housing, industrial and agricultural activities that respect the environment may be located here.**



## Protected Areas

The Reserve encompasses **Parks, Reserves** and **Natural Monuments** (18 protected areas and as many as 48 sites in the Natura 2000 network) which embody a wealth of unique biodiversity within a significantly urbanised context.

The MAB area also includes various UNESCO sites honoured with additional recognition:

- the **Sacri Monti of Piedmont and Lombardy** included on the World Heritage List (namely, Sacro Monte della S.S. Trinità di Ghiffa, Sacro Monte Calvario di Domodossola, Sacro Monte d'Orta, Sacro Monte di Varese)
- the **prehistoric pile dwellings around the Alps**, including the remains of inhabitations in the Alps and around them, built in the period 5000-500 BC on the banks of lakes, rivers and wetlands (namely Isolino Virginia - Camilla - Isola di San Biagio in Biandronno - VA; Lagozza in Besnate - VA; Il Sabbione or Settentrionale in Cadrezzate - VA, Mercurago in Arona - NO)
- the **Sesia-Val Grande Global Geopark** belonging to the global network of UNESCO geoparks

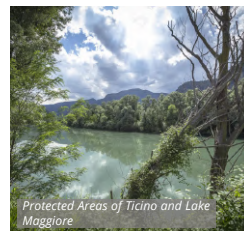
The MAB Reserve recognises the planning constraints in protected areas to safeguard natural habitats, but **does not introduce new rules or restrictions** - being part of the Reserve is mainly an **opportunity** for authorities, public and private organisations to engage with each other, develop shared objectives and enable new resources for joint projects.



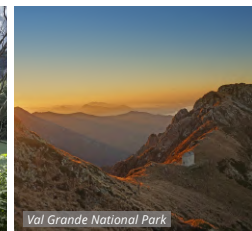
Lombardy Park of the Ticino Valley



Campo dei Fiori Regional Park



Protected Areas of Ticino and Lake Maggiore



Val Grande National Park



Monte Fenera Natural Park



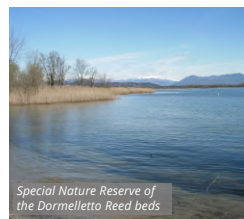
Lagoni di Mercurago Natural Park



Fondo Tace Nature Reserve



Brabbia Marsh Nature Reserve



Special Nature Reserve of the Dormelletto Reed beds



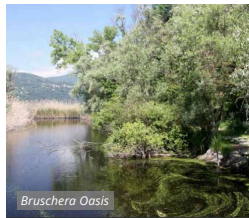
Isolino Virginia



Bosco Soliva Nature Reserve



Ganna Lake Nature Reserve



Bruscheria Oasis



Baragge-Piano Rosa Nature Reserve



Sacro Monte, Varese



Sesia-Val Grande Global Geopark



The Biosphere Reserves are fully-fledged **SUSTAINABLE DEVELOPMENT LABORATORIES** which are proactive in improving socio-economic wellbeing and environmental quality in their areas, while contributing to achieving goals set out in the **UN 2030 Agenda**.

## The role of MAB Reserves



Each Reserve aims to fulfil **three complementary roles**:

### CONSERVATION



### DEVELOPMENT



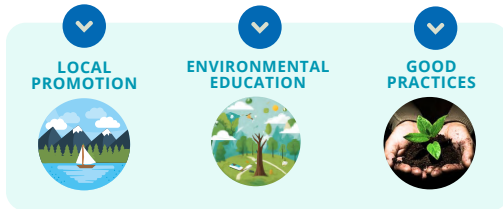
### COMMUNICATION



- a **safeguarding** role to protect landscapes, habitats, ecosystems, species and genetic diversity;
- a **development** role to foster human and economic development and generate not only income, but socio-cultural and environmental sustainability over the long term, through the promotion of naturalistic, architectural, archaeological, wine-growing and culinary features, not to mention sustainable farming and production activities;
- a **planning** and **communication** role to progress understanding of sustainable development, ensure support for research, carry out monitoring and training at a local level, as well as beyond the boundaries of the biosphere reserve, and share good practices globally.

It is therefore crucial to have initiatives (especially those aimed at younger generations) that **increase awareness** of the value of the biosphere in natural and human terms, **facilitating the understanding** of valuable characteristics in the area, including culture, arts and crafts.

## Reserve activities



- define the **educational offering** relating to sustainability and facilitate the study and understanding of the area, promoting and developing public participation.

The Reserve implements **wide-ranging, concerted actions** to:

- **network** with authorities, companies and stakeholders to enable new resources for the area and/or share projects;
- promote **sustainable development** and actions concerning the UN 2030 Agenda;
- apply **good practices** that are effective and reproducible;
- implement **collaboration projects and share experiences** with similar organisations and/or the international network of MAB reserves;





## Good practices

A significant aspect of our activities involves networking and sharing good practices about:

- **agriculture / landscape** (marshes, water meadows, forest improvements, grassland, recovery of chestnut woods);
- **animal husbandry** (breeding and fields that consider the environment and animal wellbeing);
- **agro-food** (brand products for environmental certification);
- **land planning and management** (soil consumption limits, environmentally-sustainable construction methods, defragmentation measures to safeguard the ecological system);
- **environmental education;**
- **economic actions with reduced environmental impact** (slow tourism, promotion of accommodation facilities, sustainable tourism, bike hostels)



Sustainable tourism



Dry wall maintenance



Cattle breeding

## PROMOTION

## COMMUNICATION



Campari (irrigation attendants) at work



Basket weaving



MAB education



Local produce



Recovery of traditional water meadows



Local produce



Naturalistic engineering works

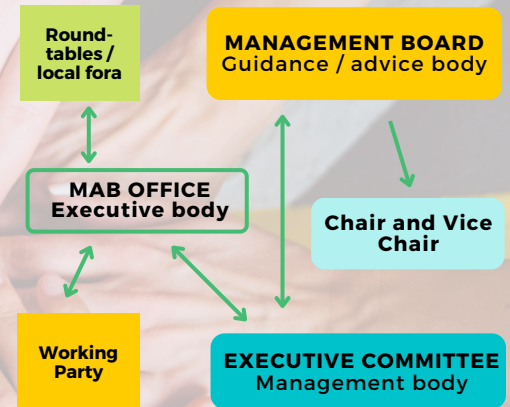
## Governance

Since the expansion and renaming of the Biosphere in 2019 there have been various meetings between the relevant authorities and operators to finalise the new MAB governance model.

The new model also aims to **ensure active participation** and **increased representation** for **local organisations** and **stakeholders** relating to buffer and transition areas. This will strengthen action to increase awareness of belonging to the MAB Reserve, and promote ethical practices when it comes to conservation, development and coexistence between people and nature.

The current Governance **structure** is made up of the following:

- **Chair** and **Vice Chair**
- the **Management Board** tasked with providing **strategic guidance** on MAB Reserve actions; it has **35 members** representing authorities and stakeholders from different geographical areas and population groups.
- the **Executive Committee** is an intermediary level between the guidance of the Management Board and the operations coordinated by the MAB Office, with **purpose-led** tasks to **supervise** and check technical, administrative and economic feasibility;
- the **MAB Office** - operational department tasked with gathering local requests on safeguarding the environment, education, care and conservation of natural and historic-cultural heritage to be submitted for assessment and approval by the Management Board.
- **Roundtables / local fora** - established on subjects close to the heart of local communities on the basis of specific requirements that transpire on a case-by-case basis, they are designed to ensure the participation of the community and public organisations in Reserve activities;
- the **Working Party** made up of representatives from various government departments (local councils, regional/provincial depts.), and significant parties (e.g. the MAB Group for young people, irrigation organisations, trade organisations, chambers of commerce, tourist organisations etc.





An essential task of Biosphere Reserves is to leverage and raise an awareness of **historic, cultural and intangible heritage** among the people who live there.

## The MAN component

**Over a million people** live in our MAB area, mostly in towns that are spaced apart, are not too densely populated, and which historically have different local industries. These include tourism in Lake Maggiore areas, the service industry and farming on the plains, what was once known as the subsistence economy consisting of chestnut woods, and small local production activities.

**Geographical features and architecture** convey how life was once lived in these diverse, fascinating areas, **agri-food products** (including PDO and PGI products) and **local handicrafts** are evidence of traditional practices that have been preserved over time.

Many itineraries, excursions and sports can lead us to their discovery. The area offers numerous **activities and tourist and accommodation facilities** in the MAB reserve, thereby offering them greater visibility and the possibility of networking to increase the attractiveness of the area.

### TANGIBLE & INTANGIBLE HERITAGE

### ATTRACTIVENESS & TOURISM



Morimondo Abbey (MI)



Sacro Monte d'Orta (NO)



Villa Picchetta, Cameri (NO)



Visconti Castle, Vogogna (VB)



Piazza Ducale and Bramante Tower, Vigevano (PV)



Borromeoan Fortress in Angera (VA)



Museum of pre-Alpine Rural Culture, Brinzio (VA)



Internazionali Ceramics Design Museum, Lavagna Mombello (VA)



Outdoor educational activities



Soapstone Archaeological Museum, Malesco (VB)



Rice



La Fagiana Park Centre, Pontevecchio di Magenta (MI)



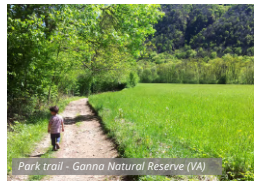
Local produce



Canoeing



Bike touring, Robecco sul Naviglio (MI)



Park trail - Ganna Natural Reserve (VA)



River fishing



Rock climbing



Lake Maggiore cruising

## The BIOSPHERE component

Swiss border to the River Po. It is home to a **tapestry of habitats** and a **variety of ecosystems** of high ecological value. Its distinguishing feature, apart from the **hydrographic component** (water that connects and joins various areas), is the **significant heterogeneity** in terms of biodiversity, morphology, topography and climate.

### VARIETY OF LANDSCAPES

There is a vast range of habitats and landscapes, such as:

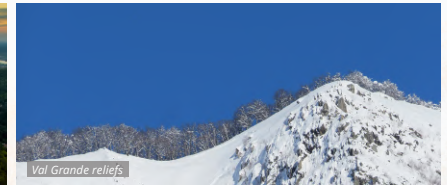
- **habitats at rivers, riparian areas and wetlands** in Valle del Ticino - one of the largest fluvial areas in Europe (with artificial canals, springs, fountains, irrigation ditches, bogs and reed beds);
- **lake landscapes** in the alpine foothills (Lake Maggiore and smaller lakes such as Lake d'Orta, Lake Varese, Lake Comabbio and Lake Monate);
- **farmland and traditional rural landscapes** that include paddy fields, corn fields, permanent fields and water meadows (water meadows in the Milan, Pavia and Novara areas);
- **arid environments** on moorland and grassland;
- **hilly areas** between the River Ticino, River Sesia and River Olona;
- **valley landscapes** and the geographical features of **alpine areas** (Val Vigezzo, the Verbano valleys, Campo dei Fiori features, the Val Grande peaks);
- **karst environments** (grottos and karst regions of Campo dei Fiori) and areas of geological interest.

### ECOLOGICAL & TERRITORIAL LINKS

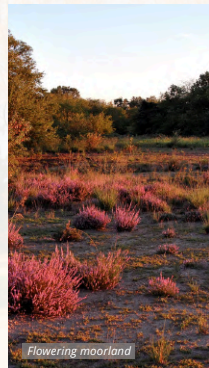
### IDENTITY



Rough meadows



Val Grande reliefs



Flowering moorland



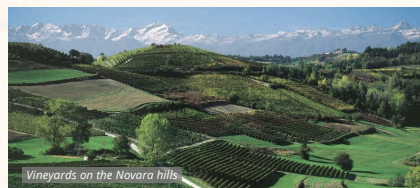
River loops and lowland forest



Flooded rice fields



Agricultural landscape

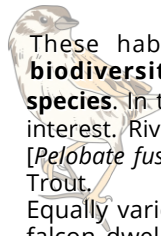


Vineyards on the Novara hills



Lake Maggiore



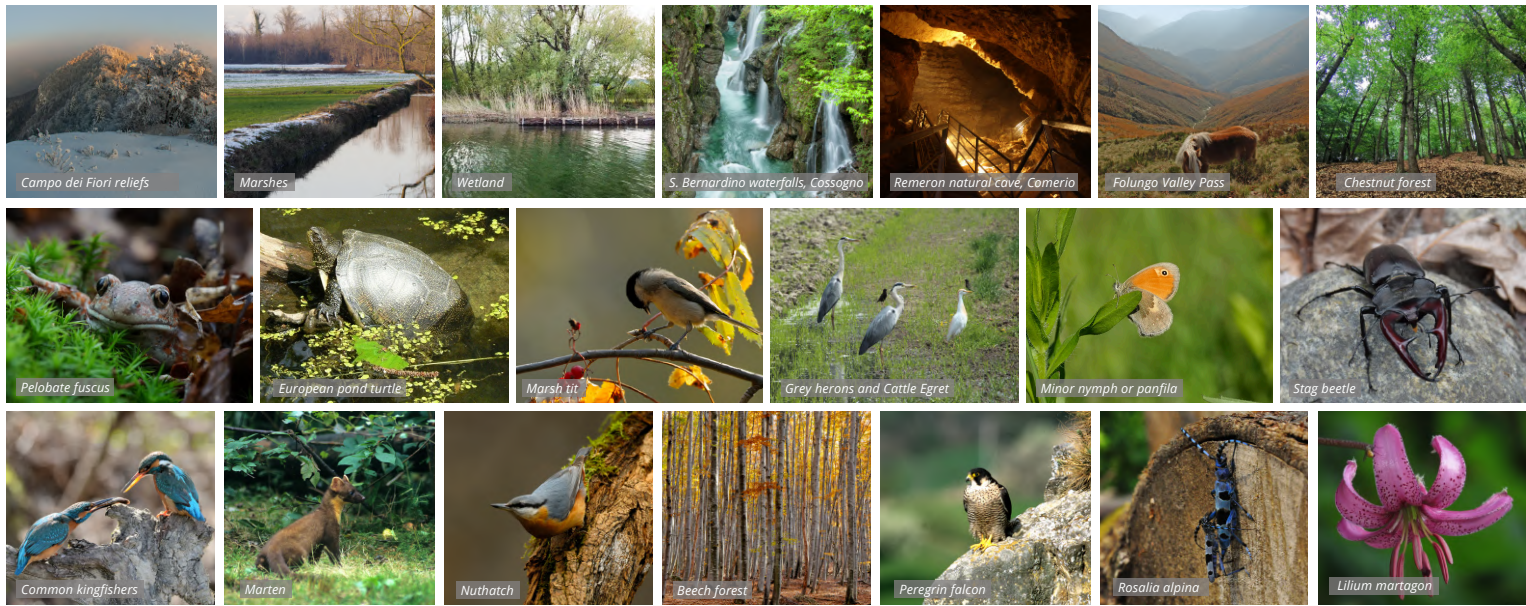
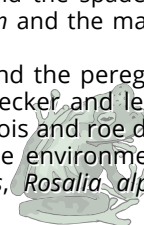


These habitats protect an **immensely valuable treasure trove of biodiversity** and provide **refuge for a wide range of animal and plant species**. In the Ticino Valley area alone, 84 species of butterfly and 320 species of bird have been recorded, 93 of which are of EU interest. River areas and wetlands are home to endemic species such as the Italian agile frog [*Rana latastei*] and the spadefoot [*Pelobate fuscus*], and often also to endangered species, such as the European marsh tortoise, the Cobice sturgeon and the marble Trout.

Equally varied is the **fauna** of the alpine and pre-alpine areas: the black kite, the European honey buzzard and the peregrine falcon dwell at Campo dei Fiori, the golden eagle and the eagle owl fly over Val Grande, while black woodpecker and lesser spotted shrike are more evenly distributed in the area. Mountains and valleys are populated by red deer, chamois and roe deer, martens, badgers and weasels, while brown trout and European bullhead inhabit the watercourses in these environments. Several endemic species are also found among the insects such as *Duvalius Ghidinii*, *Carabus lepontinus*, *Rosalia alpina*, *Osmoderna eremita* and *Gnorimus variabilis*.

**Flora**, too, is highly variegated: from the broadleaf forest formations of the plain - where the last and most important forest area of the Po Valley persists - from the upland moors, beech and conifer forests in the valleys to the chestnut woods on terraced slopes - giving way as the altitude increases to grazing land, alpine meadows and rocky vegetation.

## The BIOSPHERE component



## Environmental Education

An essential objective for biosphere reserves is to **raise awareness in the population** and especially among **younger generations** through **environmental education**, taking a proactive, mindful approach to an area and its biodiversity.

Our Reserve offers many of these activities, involving parks and organisations in the MAB area, to encourage young people to look after our extraordinary landscape and natural heritage. Initiatives include **educational offerings** based on the objectives specified in the 2030 Agenda, **experiences in nature**, and the **active involvement** of young people in Reserve activities.

### INVOLVEMENT



### AWARENESS





*Coordination and supervision:*

*Claudio De Paola - Francesca Trotti (Lombardy Park of the Ticino Valley), Giancarlo Bernasconi - Monica Brenga (Campo dei Fiori Regional Park)*

*©Written by:*

*Oriana Caiazzo - Francesca Trotti*

*@Photographers:*

*Archivio Parco Lombardo della Valle del Ticino (Norino Canovi, Emma De Paoli, Dario Furlanetto, Giovanni Molina, Marco Tessaro, Roberto Zappaterra)*

*Archivio Parco Regionale Campo dei Fiori (Armando Bottelli, Marco Tessaro)*

*Archivio Ente di Gestione delle Aree Protette del Ticino e del Lago Maggiore (Gianluca Margaria, Nikolas Pari, Marco Tessaro)*

*Archivio Parco Nazionale Val Grande (Andrea Baldi, Massimo Campora, Nicola Fedeli, Giancarlo Martini, Mattia Moggio, Cristina Movalli, Giancarlo Parazzoli, Marco Tessaro, Claudio Venturini Delsolaro)*

*Grafic design: Oriana Caiazzo*

*With the collaboration of:*

*Nicola Fedeli, Anna Gatti, Cristina Movalli, Elisa Scancarello*

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Living in a MAB Reserve  
is a shared  
responsibility:

**YOU**  
are part of the  
**Biosphere Reserve,**  
SO  
look after it!



#### **TICINO VAL GRANDE VERBANO BIOSPHERE RESERVE**

##### **CONTACT US**

**Area Lombardia**

Telefono: (+39) 02.97210239

**Area Piemonte**

Telefono: (+39) 011.4320060

##### **INFO**

Sito: <https://mabticinovalgrandeverbano.it>

Email: [info@mabticinovalgrandeverbano.it](mailto:info@mabticinovalgrandeverbano.it)

Facebook: @biosferaticinovalgrandeverbano

YouTube: @riservamabticinovalgrandev2901

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