

TICINO PARK

A guide to this nature preserve in Lombardy:
the river, the wildlife, flora, projects and events,
useful addresses and itineraries





Valle del Ticino Biosphere Reserve



Since 2002 the Ticino Valley is included among the global biosphere reserves network, that Unesco recognized under the MAB Programme (Man and Biosphere). Biosphere reserves are land, costal and marine ecosystems, whose aim is to support and show a balanced connection between population, economic development and environment.

The MAB World Network of Reserves, launched in 1976, currently counts 631 biosphere reserves in 119 countries. The designation as MAB reserve improves the protection and development model, already pursued by both Ticino Parks (Lombard and Piedmontese). Thanks to the commitment and the prestige resulting from the designation, the aim is to involve managers, administrators and the local population of the Parks in the calculation of an economic system balanced with the protection of the ecosystems, from natural to semi-natural of anthropic origin, and the promotion of those landscapes, rich in historical and cultural elements.



CONTENTS

A FUTURE ORIENTED PARK 4

Objective: Sustainability	6
One Park, Two Souls	9
The Importance of Planning	10
Waterways for Biodiversity	11
Projects for the Future	12
Natura 2000 Network	13

A PARK FULL OF LIFE 14

A Green Corridor	16
The Waters	17
Wildlife	18
Park Rangers and Volunteers	20
The World of Plants	21
The Agricultural Landscape	22

A PARK FOR EVERYONE 24

The "Germoglio del Ticino"	26
Eat and Drink	27
Getting Around	28
Itineraries	30
Environmental Education	32
Park Headquarters and Park Visitors' Centres	33

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PREMISE

Lengthy articles could be written about the Ticino Valley Park in Lombardy, recounting its history, features, all the activities it carries out and the projects it is trying to implement amid a thousand obstacles. In the following pages, we have tried to highlight the main facets of an area rich in nature and beautiful landscapes, but also human histories and historical and art testimonies. We would like to take you on a journey in discovery of the Park. Every section is a stage in our itinerary and our objective is that, by the end, you can share the idea underlying this preserve: the protection of the Ticino river and the natural environments of its valley, carved by the river while going from Lago Maggiore to the Po River. This area is an immeasurable treasure, also from a social viewpoint, of which we are owners and guardians and that, all together, we are called to love and protect.

The Ticino Valley Park in Lombardy
La Rivista della Natura



THE TICINO RIVER BETWEEN PAST, PRESENT AND FUTURE

A Future Oriented Park

The Ticino Park in Lombardy - the first regional park in Italy - was established in 1974 to protect the river and the many natural environments of the Ticino valley from encroachment by increasingly pervasive industrialization and urban development. The institution that runs the Park, which includes 3 Provincial authorities and 47 Town councils, manages an area of over 92,000 hectares, and applies a system of different protection levels to natural, agricultural and urban areas. The objective is to combine the needs of environmental protection with social and economic requirements of the many communities that live in the area, one of the most densely populated in Italy. A difficult, yet possible challenge, whose motto is "development, but sustainable".



Large photo, a view of the River Ticino from the banks of the town of Golasecca. Small photos, clockwise from above: Piazza Ducale in Vigevano; the covered bridge in Pavia; one of the many refurbished mills that now characterize the landscape of the Park.



Above, towers in Pavia.

THE PARK'S MISSION AND ACTIVITIES

Objective: Sustainability

The Park includes 92,000 hectares of natural, agricultural and urban areas and works by means of an “active protection” system with different levels, to achieve sustainable development



Above, a poppy field. Below, a kingfisher, indicator of a healthy habitat.

The Ticino Valley Park in Lombardy was established in 1974, with a law passed by the Lombardy Regional Authority which was the final act of a long battle waged by a determined group of environmentalists from the late 1960s. At that time, the future of the “blue river” appeared to be rather bleak, with unauthorised building and radical changes in the natural heritage. A movement decided to act against the threat of irreversible changes in the area, brought about by the progressive decline of the quality of Ticino waters and the spread of construction in the area. In short, these worries attracted the attention of a good part of public opinion in the region. Round tables and conferences were organised, associations and political forces were involved. In 1974, at last, the law established the first Regional park in Italy, which

created a consortium consisting of 3 provincial authorities (Milan, Varese and Pavia) and 46 Town councils (joined by Buscate in 2002, Editor’s note), with an overall area of 92,200 hectares. The Ticino Park implemented a form of land protection very different from that of traditional national parks existing in Italy until that time (Abruzzo, Gran Paradiso, Stelvio, Circeo, Calabria). In the case of Ticino, the objective was not to establish an environmental sanctuary simply aimed at preservation but to create a more dynamic and flexible organisation, in close contact with the social players in the area. It was unthinkable to turn the Ticino area into a protected island: too many human activities were taking place on the territory, and they were too closely interlinked. For this reason, an “active protection” system was chosen, divided into ▶



Park Areas

According to the Amendment to the Coordination Spatial Plan (CSP), approved in 2001 (Regional decree 5983 dated 02/08/2001), the 92,000 park hectares are divided into the following areas: Area A (“Total natural reserves”), Area B (divided into B1, B2 and B3, the various natural areas near the river and the relevant buffer strips), Area C (“Protection area of river natural reserves” divided into C1 and C2), Area G (“Agricultural and forestry area” divided into G1 and G2), Area IC (“Areas subject to oriented town projects”) and Areas D (“Area for the social and economic promotion”) and R (“Deteriorated areas to reclaim”). Of these, over 24,000 ha are clearly natural (forests and waters), approx. 42,000 are devoted to agricultural and forestry activities, and more than 26,000 are urban areas. The Ticino Valley Nature Park defined by Law 394/91 and regulated by its CSP (Regional Decree 7/919 dated 26/11/2003), includes A, B and C1 areas (practically the River Ticino and its Valley, where nature protection dominates), while C2, G and IC areas (which are mainly the agricultural, forestry and urban areas) belong to the Regional Park, according to Regional Law 86/83 and subsequent changes and amendments.



3 Provincial Authorities and 47 Town Councils

The Ticino Park is managed by a public institution of 3 Provincial authorities and 47 Town councils: **VARESE** Sesto Calende, Vergiate, Golasecca, Arsago Seprio, Besnate, Somma Lombardo, Casorate Sempione, Gallarate, Cardano al Campo, Vizzola Ticino, Ferno, Lonate Pozzolo e Samarate. **MILANO** Vanzaghella, Nosate, Castano Primo, Turbigo, Robecchetto con Induno, Cuggiono, Bernate Ticino, Boffalora Ticino, Buscate, Magenta, Robecco sul Naviglio, Cassinetta di Lugagnano, Abbiategrasso, Ozzero, Morimondo, Besate, Motta Visconti. **PAVIA** Cassolnovo, Vigevano, Gambolò, Bereguardo, Borgo S. Siro, Zerbolò, Torre d’Isola, Garlasco, S.Martino Siccomario, Pavia, Gropello Cairoli, Villanova d’Ardenghi, Carbonara al Ticino, Valle Salimbene, Travacò Siccomario, Linarolo and Mezzanino. The president of the Park and four members of the board of directors are elected by the assembly of the Park community (made up of the city mayors and the presidents of the Provincial authorities).



Lombardy and Its Parks

Lombardy protects almost 19% of its territory (double the Italian average). Considering also the Stelvio national park, we have a protected area of 21.2%. Well before the enactment of Presidential Decree 616/1977, which transferred to the regional authorities a large chunk of legislative powers with respect to parks, the Lombardy Regional Authority had already established, with its Regional Law 2/1974, the first regional park of Italy, the Ticino Park. The first framework act on Lombardy parks dates back to 1983 (Regional law 86/1983), an innovative tool which combined environmental protection with social use and the enhancement of agricultural and environmental and forestry features of protected areas.

◀ areas: ad hoc regulations were envisaged for every type of area. And this system still applies. Strong, in natural areas (the River Ticino and its valley) where the maximum protection has been implemented, while in agricultural and wood areas, the farms that were already present before the Park was established are still allowed. In residential areas, urban plans and projects for town enlargement are controlled. Over the past thirty years, the Coordination Spatial Plan – the management tool adopted by the Park – has proved able to march in step with a complex economic and social situation. Located within the most developed industrial triangle of Italy, in the area of the Park we find an intercontinental airport, a thermoelectric power plant, many motorways, railway lines and a plethora of state and local roads. The Park was therefore squeezed between the needs for social development and those for

environmental protection, in a constant dialectic relationship, which often became a heated confrontation with the Institutions in charge of spatial planning. The Park's latest challenge, inspired by the General Amendment to the Spatial Plan approved in 2001, is the achievement of a sustainable development model, which actively deals with the issue of environmental protection within existing economic and cultural situations. Park offices and services have accrued experience: the knowledge of environmental basic data makes it possible to start new projects for reclamation and conservation (reforestation, mitigations, compensations and reintroduction of wildlife and plants) often intertwined with the active population. In this vision of compatible development, the role of farmers is paramount since they are called to defend the land they cultivate, more than exploit it.

The Ticino River: a River, Two Parks

The banks of the Ticino river mark the boundary between two parks: the Ticino Valley Park in Lombardy and the Ticino Natural Park in Piedmont. The former includes 3 Provincial authorities and 47 Town councils, with an area of 92,000 hectares, while the latter covers 6,561 hectares and includes 19 Town councils and two Provincial authorities (Novara and Verbano Cusio Ossola). The two parks are the result of a different idea of territorial planning: while the park in Lombardy includes the whole area of the joining Town councils, and is divided into areas with different protection levels, the Piedmont park only includes the areas that are defined as nature preserve, with the exclusion of agricultural and urban areas. The two institutions have long been supporting the project of an Interregional Park, and many territorial surveys are already carried out on both areas, with a single scientific coordinating committee.



FACE TO FACE WITH THE PRESIDENT

One Park, Two Souls

When land conservation join the needs of the development



Gian Pietro Beltrami, President of The Ticino Valley Park in Lombardy.

Gian Pietro Beltrami, 66, previously a director at the Banca popolare di Abbiategrosso, is the President of the Ticino Valley Park. «The Park was established when I started my professional career – Beltrami explains, who is also in charge of the coordination of Italian river parks. – I joined the bank at the end of 1973 and signatures had just been collected from thousands of citizens asking for the establishment of a protected area». On 9 January 1974 the Lombardy Regional Authority set up the Park, the first regional protected area in Italy.

Mr. President, how could this take place?

The will of the people was important, as well as the support from people of significant standing such as the Senators Achille Cutrera and Ambrogio Colombo, the MPs Giovanni Andreoni and Nino Pisoni who, at the time, was also President of the farmers' association Coldiretti, and Giulia Maria Crespi, former owner of the newspaper Corriere della Sera and then founder of Fondo Ambiente Italiano (Italian Environmental Fund). They all agreed on putting some protection constraints to defend this area from urban sprawl.

A Wind of Change blew over the River Ticino ...

There were no strong political fights, and even local administrators enthusiastically welcomed the project. After all, when you are born in the countryside, you are not happy to see it destroyed. However, to see the dream achieved, that so many of us had helped establish, we had to wait for another six years: the first spatial plan was approved only in 1980.

When did everybody understand that land protection could also foster development?

In the beginning, the idea of absolute protection prevailed, but over time it was understood that the Park could also take different roles. Two spirits. one more conservative and the other innovative, have always lived together. Fortunately they have never clashed but instead have compared their different views. Once protection was guaranteed by the approval of specific regulations, it became easier to carefully consider also local development needs.

What is the situation like today?

Today we still comply with our mission to preserve one of the most beautiful areas in Lombardy. For this reason, for example, we fought, fight and will fight against SEA's intention to build a third runway at Malpensa on the Gaggio moor. At the same time, we are also working because we want the Park to be experienced and enjoyed and we are experimenting with new forms of local marketing. And we do everything without any money from the government or without touching the Park accounts because we can rely on sponsors who we manage to gain because we are well-established and credible.

What is to be expected in the near future?

We would like to develop our tourist offer and to provide environmental education. There are three hostels at the moment, but we could set up many more by refurbishing abandoned farmhouses. In this way we can offer accommodation at reasonable prices to explore the over 700km long trails through very beautiful natural environments and to historical and architectural landmarks.

The Importance of Planning

To protect habitats and improve the quality of life



Claudio Peja,
Director of the Ticino
Valley Park in
Lombardy.

«The strength of our Park is in the spirit of unity among its managers» states Claudio Peja, director since 2012 and historical partner of the Ticino Valley Park in Lombardy.

The protected area is a model of smart spatial planning. «These areas were protected 40 years ago, which was just in time. Until the 1960s, buildings were mostly put up in the cities, close

to people's work, but particularly as of the second half of the following decade, people began to move away from congested areas and this resulted in using more land. When this expansion grew particularly fast, we already had a Spatial Plan in place».

QUARRIES However, even the Park has had to face many problems, starting from quarries. A large part of Milan has been built using sand taken from the Ticino. «This activity grew strongly in the years of post-war reconstruction. Before the approval of the coordination spatial plan, no one knew exactly even how many quarries were still active. During the preliminary studies, 53 excavations outside the river bed were counted, none of them with a reclamation project and plan». The Park Authority asked the Lombardy Regional Authority to set up a technical board to study not only how excavations should be carried out, but also how to reclaim the area afterwards. «It was a long and meticulous work. Now we have six extraction areas, logically located with respect to local needs; above all, we have reclaimed all the holes that had been randomly dug in previous decades». Being able to create a firm but cordial dialogue with operators has generated beneficial effects for all parties. «Sand and gravel from Ticino are very successful in the marketplace and nobody wanted to ruin these companies». This experience has laid the foundations for new regional regulations that, while in the favour of extraction centres, made reclamation plans mandatory for the extractors. «Quarries in the riverbed, responsible

for the destruction of significant habitats, were absolutely prohibited. All existing 18 were closed in the subsequent six months. The most visible effect of this decision is the part of the river that crosses Pavia. The bed had lowered by 5 metres since, for decades, the Ticino had been reclaiming from its bed and from the banks all the material that had been extracted. After 30 years, the situation is gradually stabilising. However, had excavations in the river not been prohibited, we would now be facing severe damage».

DEFENDING THE RIVERBED «Catastrophes that affect a large part of Italy are not simply caused by weather but are more the inevitable consequences of badly using the terrain. In our Park, caring for the riverbed, protecting the banks and natural areas, as well as careful planning of even the areas most distant from the river have helped stabilise the land: the river does not flood and there is no slippage of the slopes. The result is that, throughout all these years, the Ticino has never caused any damage, enabling the public to save dozens of millions of Euro».

COMPATIBLE ACTIVITIES Plans for protected areas are also an exceptional opportunity to try living together with mutual respect. «Our efforts have been addressed towards making activities compatible. We prevented incompatible industries and activities from being built, but we also favoured the opening of other activities in the areas that offered appropriate conditions ».

There is a golden rule that guides the Park Authority's decisions and shuns the easy way out. «We do not think of our area as privileged, a sort of island of peace where nothing can go wrong. There are half a million people living in the Park who also work there and, for example, produce waste. We have never thought that we could solve our problems by moving 'troublesome' activities or services outside our borders, such as a landfill site, a road or companies, and just retain the beauty of nature within. Ticino Park has always decided to solve its issues inside. This was the necessary condition to be on the same side with the population that "lives" in this area».



Waterways for Biodiversity

The role of the Navigli System to keep environmental balance



Alessandro Folli and
Laura Burzillieri,
President and Director
of the ETVilloresi
Consortium,
respectively.

The Consorzio di bonifica Est Ticino Villoresi (East Reclamation Consortium Ticino Villoresi) – an economic government association-based institution, which belongs to the extended Lombardy regional system – is the outcome of a long process that, in the end, led to the merger of the existing Reclamation Consortium Eugenio Villoresi and the Reclamation Consortium of Lower Pavese.

The Consortium includes the areas irrigated by the Villoresi Canal and by the Navigli Grande, Bereguardo, Pavese (whose waters come from the River Ticino) and Martesana (whose waters come from the River Adda). The administered region has a total surface area of almost 280,000 hectares in the hydrographic area between the rivers Ticino, Adda, Lambro and Po.

ETVilloresi deals with the water reclamation and irrigation of this area, and thus manages the surface and ground waters (give water where needed, take it away where there is too much) and also deals with making best use of the waters and network for the purpose of energy, landscape, tourism and the environment.

Alessandro Folli, born in Magenta, has been the President of the Consortium since 2006.

President, what is the role played by the "Navigli System" in the process of landscape and nature enhancement of the ETVilloresi area?

The rich network of main and secondary canals that forms the Navigli System strongly characterizes the landscape of Lombardy and gives us unique scenery, where the roots of the past live together with the symbols of modernity. This occurs thanks to the funda-

mental role of water which, through agriculture, the establishment of wet areas, its function of replenishing the groundwater and karst springs, has shaped the landscape the way we know it today, creates ecological corridors that help maintain the environmental balance and biodiversity.

What is the meaning of water multi-functionality and what are you doing to promote this concept?

Our canals were originally made for agriculture, but today they are increasingly seen as waterways: through many projects, thousands of people use them for leisure and in their spare time. The ETVilloresi Consortium aims at enhancing the landscape to prove its belief in environmental sustainability and to offer to our region an additional opportunity for development; a number of actions that allow for soft mobility and make it possible for Lombardy to recover its traditional vocation towards water transport. The Consortium also contributes to the protection of the environment and of the ecosystem by producing clean energy.

Architect Laura Burzillieri has been General Manager of the Consortium since 2012.

What actions have been taken to facilitate local environmental, tourism and cultural development?

The ETVilloresi Consortium, in line with its agricultural vocation, is working on a series of initiatives to re-launch and enhance its heritage of waterways. By restructuring the hydraulic gates along the canals, it has established a network of educational centres and museums about water that tell us of the unparalleled wealth of our area and the history of the water system: from the Reclamation Museum in Chignolo Po to the Museum of Italian-Swiss Waters at the Panperduto Dams, through the Historical Newspapers Museum of the Villoresi waters in Castano Primo and the Water wildlife experimentation centre in Abbiategrosso. The Consortium has also boosted the network of canals for use as navigable waterways for tourism and to develop recreational and sports navigation.

Projects for the Future

Preserving agro-ecosystems supporting biodiversity

The Park has been promoting for years the preservation of agro-ecosystems (secondary ecosystems characterised by human action aimed at agricultural and animal breeding production), acknowledging their inestimable environmental value. When agricultural areas are diverse and traditionally tended, they represent very significant habitats for wildlife. This action began over twenty years ago, with the preservation of water-meadows, which are places for many birds to stop and spend their winters, but that also have a high botanical, landscape and historical value.

An innovative project was then carried out, with the involvement of protected areas, research institutions and associations and Italian and Swiss charities, aimed at exchanging data, information and good practices, but especially at the involvement of Italian and Swiss farmers, acknowledging the strategic role of this category in the protection and improvement of the environmental quality of the Ticino Valley, a fundamental ecological corridor for the preservation of biodiversity in Europe.

The four-year project "Management and preservation of agro-ecosystems and forestry environments to the benefit of birdlife to be preserved in the Ticino Park" started in 2012 and was promoted by Fondazione Lombardia per l'Ambiente (FLA) and Ticino Valley Park in Lombardy, and co-funded by Fondazione Cariplo. The "core" of the project is a series of actions for the maintenance and improvement of agricultural and forestry environments with two priority objectives: reviving protected habitats in Europe (meadows in the plains, woods of English oak or sessile oak, alluvial forests of alder and ash, mixed forests along the banks of large rivers) and the creation or reclamation of significant habitats for birdlife of agricultural environments (meadow clearings, hedges and water-meadows). Agricultural farms active in the protected area have been involved also in this case. The project is also accompanied by intense monitoring activities to assess the effectiveness of the action.

Encouraging results have inspired the Park and FLA to start a second project called "Towards a New CAP", to experiment with some agricultural practices that proved useful to

increase agro-ecosystem biodiversity, in agreement with the orientations of the new Common Agricultural Policy. The most promising cultivations appear to be:

water-meadows that in winter months host species with high conservation value (hen harrier, porbeagle, egret, great white heron, kestrel, woodlark, lark, lapwing, snipe, jacksnipe, linnet, fieldfare, mistletoe thrush, water pipit and meadow pipit), often concentrated also in very large flocks since the birds have difficulty feeding elsewhere as the ground is frozen and/or covered with snow;

alfalfa cultivations are used in the reproductive period by many species in decline in Europe and in the region, such as quail, Western yellow wagtail, hoopoe, corn bunting, African stonechat, European turtle dove and lark;

rice crops offer a welcoming habitat during migration to thousands of shorebirds of various species, such as spotted redshank, common redshank, wood sandpiper, green sandpiper, common sandpiper, ruff, pied avocet, Eurasian curlew, whimbrel, glossy ibis and Eurasian spoonbill, and shelter to other species during their reproductive period (for example, the Eurasian bittern, one of the rarest species that nest in Lombardy, and the numerous colonies of northern lapwings and black-winged stilts);

sections of grass left uncut, used by many passerines during migration and/or nesting, among which red-backed shrike, western yellow wagtail, whinchat and African stonechat

This preliminary picture confirms how important it is to perform these studies in a privileged area like the Ticino Valley Park in Lombardy, which includes (a unique example in the system of regional protected areas) all the types of agricultural environments with a high naturalistic value in the Lombardy plain. This research activity helps in further analysing the fundamental role that many environments have for species with a high conservation value and to understand their ecological needs, with a view to defining future contributions of the Rural Development Plan (PSR) and within the new Community Agricultural Policy. For further information, check website www.mosaicirurali.it



In Lombardy there are 194 Sites of Community Importance (SCI) and 66 Special Protection Areas for wild birds (SPAs), established under the Habitats and Birds EU Directives. 14 SCIs have been defined in the Ticino Park, for a total surface area of around 17,000 hectares, and 1 SPA, that covers the most natural areas and corresponds to the Natural Park, set up by means of Regional Law 31/2002.

Since the Lombardy Regional Authority appointed the Ticino Park as the manager of these sites in 2003, the Park Authority has made all efforts to ensure appropriate protection and to become increasingly aware of its stock. Through Management Plans, if the resources were available the Park was able to initiate projects to tackle various critical issues. For example, in the "Lake Comabbio" SCI, thanks to regional funds, a project was carried out to reclaim green belts around the lake, to clean the lake's water and to fight the spread of particularly invasive exotic plants and animals. In particular, young pikes were released that had been bred in two facilities managed by the Ticino Park, and some reed belts were consolidated. Using the same regional funding facility, in 2012 the Park started an onsite reproduction programme of some very rare plants, among which *Nimphæa alba subsp. minoriflora*, thus laying the foundations for the establishment of a stock to use for returning this plant to this and other wet areas in the SCI.

In the same SCI, a monitoring plan was started on a rare endemic toad, *Pelobate fuscus insubricus*, revealing a surprisingly numerous natural population of this species (this is practically unique in Italy). This exceptional result led the Park to promote two further strategic projects: one aimed at regulating water levels in some wet areas, with the objective to ensure successful reproduction of existing amphibious species, while the other action area will deal with the sources of the Rio Capricciosa stream in the municipality of Sesto Calende. This area belongs to the SCI with the same name and is protected due to the presence of habitats of community importance, particularly **black alder woods (*Alnus glutinosa*)**, which are very valuable since they are located at significant altitude with respect to other alder woods in the park. A large meadow area will be reopened, which is currently colonized by grass weeds and by the constant progression of the wood, which will host the typical wildlife of these environments. Indigenous shrubs will be planted along the perimeter of the meadow areas to increase favourable habitats for wildlife. The path network will be cleaned and reopened.

The Evolution of Wildlife



40 years from its establishment, in September 2013 the Ticino Park organized in Milan a conference to present the development of its wildlife stock over the past four decades. The picture shows a high number of species that were not present at its establishment, in many cases a welcome return after a long absence, thanks to the protection granted to natural environments and to the many actions to improve their conservation status. Among the most interesting developments, the spontaneous colonisation of elusive marten and magnificent black woodpecker – until not many years ago only present in the mountains – as well as the crested porcupine that, until not long ago, had been reported only south of the River Po. Of international significance are the recent discoveries in Bereguardo of the largest European colony of Geoffroy's bat, one of the most endangered bats in Europe and, in Arsago Seprio, of the most significant known population of pelobates fuscus insubricus, a little toad declared "priority" by the European Commission. The outcomes of the conference were included in a book called "Wildlife in the Ticino Park in the 21st century", that can be downloaded from the Park website. The next publishing product on wildlife will be the "Atlas of nesting and wintering birds in the Ticino Park".

Natura 2000 Network

Natura 2000 is the ecological network defined in the whole of the European Union for the preservation of biodiversity by protecting the most endangered species and habitats. Rete Natura 2000 derives from two community regulations called the "Birds" (1979) and "Habitats" (1992) Directives, according to which member states should define environmentally valuable areas called Sites of Community Importance (SCI) and Special Protection Areas (SPAs).

A Park Full of Life

The territory of the Park lives in deep symbiosis with the river, whose waters are the main element of all local ecosystems. These waters are still blue, and they also create a network of canals along which human intervention has left extremely significant historical and artistic traces over the centuries. But the real master is still nature. In the Park, there are 20,000 hectares of woodlands and heath, with plants and flowers that are often rare, or have disappeared elsewhere. There are 449 species of vertebrates and, thanks to repopulation and support campaigns, roebucks have come back to the woods, and white storks to the skies. Recently arrived marten, porcupine and black woodpecker. Also the future of agriculture heralds quality, open to every sustainable practice in the farm.

Large photo, a black-winged stilt with its chick in the nest, with an egg still to open.



Below, from the left: an Italian agile frog, a true frog endemic to the plains of northern Italy; snowdrops in the wood; a farmhouse in the middle of flooded rice crops.



A Green Corridor

Thanks to the establishment of the protected area, the Ticino Valley has remained a significant crossroads for the migration of birds and fishes, favouring the proliferation of otherwise endangered species



Above, a gold prospector on the gravel bed of the river. Below, an aerial view of the River Ticino near Motta Visconti.

One of the pillars of the European strategy for nature preservation is the ecological network, a practical example of which is in the Ticino Park. Ecosystems in the protected area - unique in a situation of general impoverishment of the Po valley - are not only reservoirs of life but also corridors and rest areas for the dissemination and migration of species. For this reason, the river represents the main passage in the Ecological Regional Net of Lombardy. The Ticino Park is crossed by Europe's major migratory routes (Ticino Valley, River Po, the belt at the foothills of the Alps) which are taken by migratory birds every year, moving from Africa to

Northern Europe and vice versa. The protected area is one of the most important Italian wet areas for the wintering of many aquatic bird species, like the little egret (44% of the wintering population in Lombardy), great egret (37%), common teal (42%), mallard (30%) and wigeon (22%). In recent years, new species with high conservation value have been nesting, such as black woodpecker, the biggest and most magnificent of European woodpeckers, and ferruginous duck, a small duck endangered globally. Among the actions implemented to promote a continuous natural environment, an innovative role is taken by the construction of manmade passes for ▶

to be continued on page 23



The River Flow

When exiting Lake Maggiore, the Ticino collects the water of a catchment basin of 6,599 sq km (3,369 of which in Switzerland). From the lake to the River Po, the only significant inflows come from the Strona stream and the Vernavola irrigation canal. The flow of the Ticino, while regulated according to availabilities and existing major and well established uses, depends on the inflows and also on the regulation possibility of the Ticino Consortium that manages the Miorina Dam in the municipality of Golasecca. This regulation process, particularly in spring and summer, is of paramount significance since it gives the opportunity to "store" water resources in the lake that will be used during the usually critical summer months, and ensures regular releases to keep the water ecosystems alive and ensures other (agricultural, civil, productive) uses. In the past, there were some major drought periods that determined a flow level near to zero in some rivers stretches; in recent years, the Ticino Consortium has started an experimentation programme of Minimum Vital Water Flow, approved by the Lombardy and Piedmont regional authorities and agreed with the two Park Authorities that ensures flows for environmental purposes by increasing them.

Fresh Springs

The area between Castano Primo and Besate belongs to the "spring belt". This area is characterised by karst springs of clean water, which springs from the ground, coming from the Alps and filtered through gravel and clay. These springs feed the irriguous system of the Park, and give fertility to the valleys of Morimondo, Casterno di Robecco, Magenta, Cuggiono, Bernate, Boffalora and Abbiategrasso, creating microenvironments with high biological diversity, where freshwater crayfish still live.



Along the Canals

The "naviglio Grande" (large Canal), the Bereguardo canal and the Villoresi canal are the main canals drawing water from the Ticino. These hydraulic works, created out of Man's endeavours, have changed the landscape and contributed over the centuries to the development of the economy in the area. Irrigation made the soils fertile, making it possible to achieve high yields of corn, rice and other cereals. The "naviglio Grande" was built in the twelfth century and was used until the early 1900s as a means of transport and communication between Milan and Lake Maggiore: exploiting the current, the barges transporting goods and building materials (such as Candoglia marble, used for building Milan Cathedral) went slowly down to the city. The "naviglio Grande" still maintains a rich historical and architectural heritage, which features eighteenth-century villas, built along the Cassinetta di Lugagnano - Castelletto di Cuggiono tract (to see box on page 30).



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A Bus Lane in the Skies

Nearly all bird species react to changing climates and start long migration journeys from northern nesting places to warmer ones in African regions in the south. The flow of flocks on the migration front follows the most favourable areas to bird orientation, rest and food.

The Ticino river and the natural and artificial canals that belong to its hydraulic system traditionally represent a "bus lane" for migratory birds travelling to Africa. Millions of migratory birds fly every year through the Park, which acquires the function of a large natural biological corridor, the only one in an area almost completely damaged otherwise by human activities.

The environmental value of this protected area goes well beyond national borders and becomes part of a complex mosaic joining two continents.

In the photo, a pair of European bee-eaters, known migratory birds.



Invaders

Monitoring activities performed in recent years in the Park have helped maintain and, in some respects, improve the biodiversity in the area which can be threatened by the presence of exotic species whose now stable populations cause serious damage to the indigenous wildlife. Experience gained in this field over the past decades proves that completely eradicating an exotic invasive naturalised species is very difficult, almost impossible unless with unsustainable costs.

The "aliens" of the Park are the coypu that has colonised watercourses, also conflicting with human activities, the cottontail rabbit and the Eastern gray squirrel that compromises the existence of the red squirrel, while the compatibility of wild boar remains controversial (in the photo above). The most difficult situation regards fishes: of the over 50 species present, half of them are not originally from Ticino. Obviously such a high percentage of exotic species defines new ecological trends, also changing the morphological and genetic features of populations.

Roebucks

Strolling among oaks and hornbeams in the Fagiana reserve, being careful not to make too much noise, it is possible to see roebucks. The species came back to these areas around two decades ago after having disappeared for over 150 years. A pleasant comeback, resulting from the reintroduction programme that has been successfully started by the wildlife sector of the Park, in collaboration with the Boschi di Carrega Park, Parma. The animals that have created the new Ticino stock (now over 500) came from the Appennines and were freed in the central part of the Park, but are progressively extending their area.



1



In the Land of Herons

Water birds are the symbolic wildlife of the Ticino park. Among them, it is the heron that is most easily seen by visitors: with their unmistakable profile, they stand out of the green of rice fields while they search for frogs and small amphibians. The largest species is the blue heron (photo 2), which can be over one metre tall and with a wingspan of over 170 cm. The purple heron (photo 3) is smaller and features brown-reddish feathers. Night heron (photo 4) and egret (photo 5) are even smaller: the former features a black head and a rather short body, the latter is leaner and more elegant with its white feathers. The great white heron (photo 1) is rare. The species which is able the most to camouflage itself is the bittern (photo 6): the male, in the mating season, sends out calls that are similar to howls. In the last few years, even the cattle egret has started to arrive in the Park. With the exception of the blue heron, mainly living here, herons migrate in winter. For the nesting, they prefer to gather in colonies (wooded swamps) on the tallest branches of willows and poplars. There are a dozen in the Park, some of them of international significance.



Park Surveillance

Ticino Park ensures the protection of the environment and local area not just by means of environmental education and compliance with existing national and regional rules and laws, but also by enforcement when existing prohibitions are not followed.

In its position of "guardian" of the area, therefore, the Park Authority must manage confrontations with counterparts – citizens, users – that damage the protected area. To monitor the integrity of the place and to ascertain violations, the Park Authority has park rangers, according to the provisions of the Coordination Spatial Plan, of Regional Law 86/83 and subsequent amendments and supplements and of Framework Law 394/91 on Protected Areas. Park Rangers, who belong to the Local Police and are also qualified as Police Agents and Judiciary Agents, provide this service by patrolling the whole Park, both routinely and following specific reports and requests for action, also together with the Voluntary Environmental Guards and with the Forest Fire Prevention staff, as well as with the State Police and with the other members of Local Police. Each Park Ranger checks on average an area of 7,000 hectares and most violations regard motor vehicles entering the Park, fly-tipping, deforestation, unauthorised roadside advertisements, water pollution, poaching, illegal building and planes flying at low altitude. In addition to controlling the area and preventing offences, the Park Rangers provide support to the technical offices of the Park Authority, and specifically to the following departments: water and hydrogeology; legal; agriculture; woods; urban planning, and wildlife.

The Importance of Volunteers

In 1979, Ticino Park organized the Volunteers Corps which currently has 290 members that work based on their aptitudes and expectations in one or more of the three institutional services: Forest Fire Fighting (FFF), Ecologic Surveillance (ES), Civil Protection (CP), set up in 1979, 1981 and 1996 respectively. Volunteers belong to 11 operating local offices (Casermette) in the municipalities of: Sesto Calende, Vergiate, Golasecca, Arsago Seprio, Somma Lombardo and Gallarate (province of Varese), Turbigo and Magenta (province of Milan), Vigevano, Parasacco and Pavia (province of Pavia).

Volunteers are particularly active in the field of Forest Fire Fighting (FFF), since fire is a true disaster for the Ticino forests. The result? A marked reduction in the area devastated thanks to their timely action and to the prevention activities carried out in the seasons at risk.

Ecologic Surveillance Guardians (ESG), being Civil Servants, monitor the park mainly at weekends, bank holidays and during holidays, when visitor flows are higher; they specifically work together with the Park Rangers, who are employees, in institutional activities and for activities like census, wildlife recovery, water control, environmental education.

As to Civil Protection activities (CP), the Volunteer Corps acts locally if there are natural disasters and is also an active member of the Lombardy Regional Mobile Column and, with it, it has accrued wide experience in the field of emergency operations, taking part in many missions in Italy and abroad, such as the Irpinia earthquake, the Valtellina flood, the humanitarian mission in Sarajevo and the earthquakes in Abruzzo and Haiti.

The Forest Fire Fighting service, performed by the Volunteer Corps, can be requested by means of the Government Forestry Corps (ph. 1.515) or directly at telephone number 333.4320874.



Forest Landscape

The largest forest areas in the Po Plain are in the Ticino Park, with mixed oak woods among the best preserved from a natural point of view.

In the morainic hills in the north there prevail woods of oaks and chestnuts, sometimes interrupted by the penetration of exotic plants (locust tree, red oak, blackthorn, etc.). The typical element of the high plain is the heath (heather and broom), with groups of Scotch pine. Woods in the bottom of the valley - the most significant part of the woodland's heritage - can be divided into three belts: the first, rich in willows and poplars, is close to the waters; the second, behind it, is formed by white, black and trembling poplars, black alders and white willows. The last belt includes the stratified plain forest, at the highest limit of the river floodline, dominated by common oak, together with elm and the white hornbeam.

Invaders

The woods in the Ticino Park are an asset with high levels of biodiversity. However, they also have many problems due to human action, land fragmentation and forestry management. Heavy past exploitation, often followed by abandoning the land, paved the way to an invasion of exotic species, particularly black locust and black cherry, but also ailanthus and northern red oak. In the past decade, this already complex picture has seen also the deterioration of the English oak, which is affecting 95% of all stations where this original species is present.

Heath Treasury

While water abounds in some environments in the Park, it is very scarce in other areas like moorlands. These are concentrated between Somma Lombardo and Castano Primo, include rich biodiversity and represent a habitat with naturalistic significance acknowledged also by the EU. Those in the Park recall the far larger moorlands in northern-western Europe (lowland moorlands), however with very specific features: they host a very rich wildlife, among which 228 bird species, such as grey nightjar and the red-backed shrike and *Coenonympha oedippus*, the European butterfly most threatened by extinction, and offer in autumn the sight of flowering heather (photo below) and in spring the flowers of the common broom which tinge the moor with indigo and yellow. Forced back by the development of Malpensa airport, the moors have gone from their historical area of 6,395 hectares to current 239. For this reason, in 2011 Ticino Park proposed setting up a new site of the Natura 2000 Net called "Moors of Malpensa and Lonate" to protect the last portions of this rare habitat of high conservation value.



the agricultural landscape

SOS Irrigated Meadows

For centuries, irrigated meadows have been a typical feature of the Lombardy agricultural landscape. This cultivation technique means flooding fields in winter with karst water, whose temperature – constantly above zero degrees Celsius – protects the surface from freezing and, as a consequence, gives the opportunity to repeatedly cut forage even in the cold season. Today, irrigated meadows run the risk of disappearing due to the high maintenance costs and to the reduction in the number of livestock farms. This would be a significant loss because these environments are a precious source of food for many species of non-migratory birds. In winter, northern lapwings, snipes, herons, meadow pipits, larks, water pipits and various other species feed on the green meadows, protected from frost by the thin layer of water that covers them. The Park has initiated a programme to save the most important irrigated meadows, such as the Sforzesca, whose hydraulic systems are said to have been designed by Leonardo da Vinci. In recent years, with the “Abbey Project” funded by the Lombardy Regional Authority, the Park has supported farms in the valuable work of restoring the most neglected irrigated meadows. Through another project, co-funded by Fondazione Cariplo, the avifauna of these places is being monitored and so far more than 40 species have been found. In 2012 and 2013 an environmental education action with the participation of Park farmers and rangers, accompanied 40 school classes and almost 1000 pupils to discover irrigated meadows throughout the year.

Lombardy Farmhouses

Up to fifty years ago in rural settlements, farmhouses characterised the agricultural landscape of the Lombardy plain. Placed in the middle of the company estate, built with clay bricks, stone and wood, with a large courtyard, the farmhouse became a little rural hamlet, circumscribed and self-sufficient, inside which life was paced out by production cycles of cultivations. In spite of reductions in the buildings, inside the Park many groups still retain these features.

The Organic World

“Integrated”, “organic” or “biodynamic” cultivations refer to a new philosophy for the production and consumption of agricultural products. In the first case, the farmer undertakes to drastically reduce the use of chemical fertilizers, pesticides and other soil improvers, while in the second these compounds are totally eliminated, as is the case of hormones and additives in animal feedstock. Crop rotation, the use of plant fertilizers and manure are the key points of the system. Farms are managed in harmony with the surrounding environment: in general, rows of trees, bushes and other precious elements typical to the Lombardy agricultural landscape are kept and improved. As to organic cultivations, products are guaranteed by an official institution which certifies their quality at domestic level.



continued from page 16

◀ fishes at the two dams of Panperduto and Porto della Torre, created in 2009 and 2010 respectively. Thanks to these, the whole river stretch, from Lake Maggiore to the River Po, is again fully viable and the river fish community can reach reproduction areas or look for wintering, summering or growing areas, according to the ecological needs of the

actions aimed at directly increase the *Acipenser naccarii* population by sowing fish material produced by means of a closed loop system. Other projects deal with the protection of hollow old trees, which become important in a complex ecosystem since they provide substrate, nourishment and shelter for many animal species. Saproxyllic insects, i.e. those whose



Curiosities

■ Tree trunks, boulders and gravel islands are fundamental areas for shelter, feeding and reproduction for water wildlife. For this reason the riverbed is never cleaned, except for spots near bridges.

■ In the Park, riverbank protection and hydraulic arrangement have been done where absolutely necessary, trying not to impede the Ticino, as happened to many other Italian rivers with well-known dramatic consequences.

■ Wild boars came back to the Ticino Valley in 1975 after seven escaped from a private enclosure. Their presence results in major environmental issues and has a severe social impact. For this reason the Park has been organising population containment operations and deterrence activities.

■ The woods are still very much used in the Park. Notifications for felling trees are checked and, when provided for by the law, they are followed by an inspection from an expert, paid for by the Park, who applies the forestry regulations to decide which plants must be cut and which must be preserved, then issuing the necessary authorisation.

individual species, including many of particular significance in terms of conservation such as the marble trout, vairone, barb, pigo, eel and grayling, alongside more common species, such as Italian chub, tench, European perch and common carp.

Another major project, coordinated by the Lombardy Regional Authority, is aimed at the preservation of the Adriatic sturgeon (*Acipenser naccarii*), a migrating species endemic to the river basins of the Upper Adriatic. An artificial passage will be constructed at the Isola Serafini dam on the River Po where, together with a specific monitoring cabin, a system will be experimented for the temporary capture of passing fishes, useful for fish management, for the control of invasive exotic species and for scientific research. The Ticino Park, in particular, will deal with the

existence is connected to the presence of dying or dead wood, amount to around 20% of invertebrates in European broad-leaved forests. Today, their survival is endangered because old forests are disappearing and dead wood is constantly cleared. Recently, in the Ticino Valley Park, two projects were carried out to ensure the conservation of these precious biotopes and favour the survival of saproxyllic beetles associated with them. The objective of the first was the preparation of management plans for the “Siro Negri and Moriano Wood” and “Vaccarizza Woods” SCIs. The second project, currently under way, aims at ensuring continuity between forests and the availability of sufficient dead wood for the survival of two highly endangered saproxyllic species: stag beetle (*Lucanus cervus*) and hermit beetle (*Osmoderma eremita*).

A Park for Every One

On foot, by boat or riding a bicycle, there are many ways to discover the natural treasures and the rich biodiversity of the Ticino area. Every year, over 800,000 people come to the Park who are attracted by the ease of access and, especially, by the opportunity to spend a few hours in the middle of Nature a few miles away from Milan. To enhance and diversify the use of the area, various infrastructures have been created over the years: parking lots and rest areas to keep cars away from the river, a network of paths reserved to pedestrians and bicycles, and over 50 itineraries - 799 kilometres on the whole - for trekking and mountain biking, which touch the most beautiful and untamed corners of the area. Five equipped Park Centres and one under construction, located in strategic points, offer visitors information, theme itineraries, exhibitions and museums, natural observatories and equipped rest areas, to experience a full immersion in nature.



FOTO F. TOMASINELLI

The Park can be safely visited also by canoe, a way to enter the most pristine and wild areas of the Ticino river. In the inset, clockwise, the clergy house in Bernate Ticino; one of the many beaches along the river; the famous Ponte delle Barche (Boat Bridge) in Bereguardo.

The “Germoglio del Ticino”

To enhance the area and its economic activities, the Park has set up a system of soft tourism involving farmers, traders, craftspeople and the accommodation facilities in the protected area



Above, a tourist boat navigating the Naviglio Grande.

In 2013, thanks to a partnership between the Chambers of Commerce of the Provinces of Varese, Milan and Pavia and to the support of Società e Guide multiservizi Srl, the Lombardy Ticino Valley Park embarked on an important action to enhance the area and its economic activities, called “Il Germoglio del Ticino” (“The Budding Ticino”). The objective of this project is to increase forms of soft tourism by involving farmers, traders, craftspeople and those in charge of hospitality and accommodation and nature protection. The aim is to be ready for Expo 2015, a chance not to be missed to become established and to constantly and fully develop.

The Park promotes and co-ordinates, but also plays a starring role in the “tourist system” that intends to enhance existing business potential, by overcoming fragmentation and offering a single image: that of the area and the people of Ticino Valley Park. Among the actions and the tools devised by the project there is a portal dedicated to tourism promotion of Ticino Valley Park; apps and programs for smartphones and tablets; the promotion of farmers’ work and of quality products that fall under the brand “Ticino Valley Park – Controlled Production”; a direct and innovative marketing of these products; and also the creation of itineraries to connect the natural attractions of the Park while at the same time promoting

the facilities that have joined the project “Il Germoglio del Ticino” as points to stop and refresh, defined by joining the “Charter of Values to Re-launch the Region (CVRR) of the Lombardy Ticino Valley Park and its surrounding areas”. According to the CVRR, that promotes the whole region, economic activities carried out inside or outside the protected area can join on a voluntary basis provided that they market and promote products with the “Ticino Valley Park – Controlled Production” brand. By joining the CVRR, members’ activities are highlighted, their visibility increases locally and internationally and they become part of an active local promotion circuit, due to the fact of belonging to the Ticino Valley Park, an area elected “Biosphere Reserve” by UNESCO.

This will be implemented thanks to the partnership between the Park Authority, the Lombardy Regional Authority and the other local institutions present, but especially thanks to the voluntary membership taken by hundreds of commercial, agricultural, crafts activities and professionals that are active in the field of tourism and social promotion.

To join “Il Germoglio del Ticino” just fill in the online module at the link www.ilgermogliodelticino.it. The facilities forming part of this circuit will receive a free dedicated factsheet on the portal.

Farmhouses and Educational Farms

In recent years, a growing number of farmers in the Park have diversified their activities and have opened the doors of their farms to tourists and visitors. These activities have joined the Park in promoting the area and its agricultural products. The Park has partnered with some of them on specific initiatives or projects, thus giving rise to synergies to provide a better quality tourist offer. Other farms have been turned into Educational Farms that offer agro-environmental programmes and activities to schools and groups. Since 2007, twelve of them have set up the Network of Educational Farms in the Ticino Park. These agricultural facilities are an added value for the Park because they can describe to visitors the various cultivation systems and the interactions between

agriculture and natural elements, and therefore the significant role played by agriculture for the conservation of natural resources and the landscape. The Ticino Park joins these companies and supports them from a technical and tourist viewpoint, promoting them to schools and visitors so that they have the opportunity to get to know the real situation of farming in Lombardy and to taste excellent typical products and traditional local dishes.



To the side, the Caremma Farmhouse, one of the Educational Farms in the Lombardy Park Ticino Valley.

At the Table with the Products from the Park

The “Ticino Park – Controlled Production” brand is assigned to the farms in the Park that adopt good management techniques in agronomic and environmental terms. The assessment method by the Park is based on parameters connected to the diversification of cultivations and animal breeding, the use of fertilizers and weed killers, the management of woods, hedges, rows of trees, meadows and other valuable elements in agro-environmental terms. This brand is also granted to processing firms and other food operations that process raw materials coming from certified farms. The Brand has around 50 members, producing cured meats, meat, milk, cheese, yoghurt, honey, rice, cereals, vegetables and fruits. A large number of these farms process and market directly, and some have set up the Consortium of Agricultural Producers of the Ticino Park whose office, shop and tasting area is at the Park Centre “Ex Dogana Austroungarica - Former Austro-Hungarian Customs House” in Lonate Pozzolo, Varese. Consumers that buy a branded product contribute to safeguarding and respecting the environment because they support farmers that have decided to cultivate and process products while fully maintaining the soil and the landscape.





Step After Step

If you want to totally enter the surrounding natural environment, nothing is better than a walk along one of the 50 Park paths, carefully devised to show all the faces of its rich heritage. In over 800 km of paths, it is possible to see all the typical environments of Ticino: wet areas, scree, woods, meadows and wildlife oases. When walking, it is possible to fully grasp all the details of nature life: with a view to this, many paths have been equipped with rest areas and signs. It is also possible to walk pleasantly along the "naviglio Grande" from Abbiategrasso to Castelletto di Cuggiono. The entire network of trails is at www.vieverdicitino.it



getting around

Left, one of the theme panels along all the paths in the Park, with information on natural features. In this photo, one of the itineraries in the protected area.

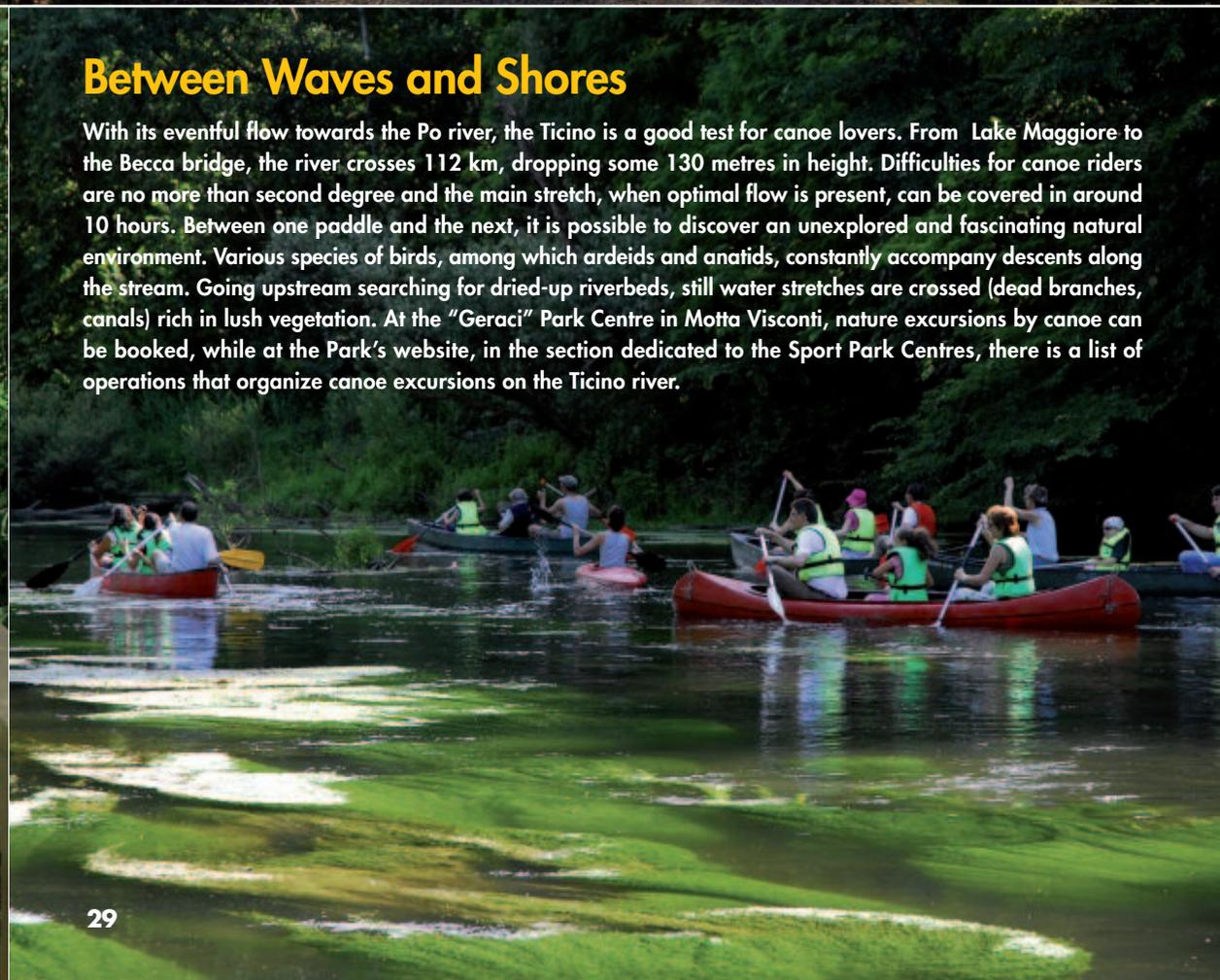
On Two Wheels in the Green

The bicycle is the "favourite" means of transportation of the Park visitors. Every day, a long colourful line of cyclists crosses the path from Somma Lombardo to Motta Visconti, bordering the industrial canal, the "naviglio Grande" and the Bereguardo canal. An 80 km itinerary among history and nature, the green of woods, the blue ribbon of canals and the splendid XVIII century villas, pedalling in the shadow of the lines of trees that border large parts of the path. Fun and relaxation are guaranteed, provided that the rules given on the signs at the beginning of every stretch are complied with. In the next few years, is expected to improve the cycle paths: the final objective is the creation of a network of "green motorways", which makes it possible to move on two wheels from the town furthest north in the Park, Sesto Calende, to the town furthest south, Linarolo Po. In addition, various paths will connect the towns near the cycle paths.



Between Waves and Shores

With its eventful flow towards the Po river, the Ticino is a good test for canoe lovers. From Lake Maggiore to the Becca bridge, the river crosses 112 km, dropping some 130 metres in height. Difficulties for canoe riders are no more than second degree and the main stretch, when optimal flow is present, can be covered in around 10 hours. Between one paddle and the next, it is possible to discover an unexplored and fascinating natural environment. Various species of birds, among which ardeids and anatids, constantly accompany descents along the stream. Going upstream searching for dried-up riverbeds, still water stretches are crossed (dead branches, canals) rich in lush vegetation. At the "Geraci" Park Centre in Motta Visconti, nature excursions by canoe can be booked, while at the Park's website, in the section dedicated to the Sport Park Centres, there is a list of operations that organize canoe excursions on the Ticino river.



A Walk in History



Since ancient times, the River Ticino has always been a major communication route and heavily used. After the first pre-Roman civilizations in Golasecca and Castelletto Ticino (Iron Age, 10th-4th century BC), that disappeared for mysterious reasons, the Celts were present, followed then by the more stable Roman rule. Significant findings from that period are kept in museums in Sesto Calende, Arsago Seprio and Gambolò. In the early and late Middle Ages, large monasteries and parishes were strongly aggregating factors and introduced, by reclaiming large areas to the benefit of agriculture, the cultivation forms that marked the landscape of this irrigated plain.

A valuable example is the Morimondo abbey, built by the Cistercians in the 12th century and still imbued with a deeply spiritual aura.

There are numerous fortifications including the castles in Vigevano, Pavia, Somma Lombardo and Bereguardo. Only a few remains have been saved of some of them, as in Ozzero, Besate or Vergiate; others have



From above: the Visconti coat of arms; the Celtic calendar at Lanca di Bernate; Villa Annoni, a 19th century mansion in Cuggiono; a night view of the Morimondo Abbey.

been transformed to such an extent that they are hardly recognizable. Vigevano Castle, probably built in the Early Middle Ages, extended and embellished in the age of the Visconti and Sforza families, is one of the most significant Italian fortifications. Pavia Castle, built by Galeazzo II in 1360 and then transformed by Gian Galeazzo, is an almost perfect example of Visconti castles, and was then mellowed by the Sforza family. The 'navigli' (navigable canals) Grande and Bereguardo and the Villoresi canal are further characterizing factors. The route of Naviglio Grande is particularly fascinating, in the stretch between Turbigo and Abbiategrasso, where a cultural landscape created by an ancient and, for a long time, balanced relationship between the environment and the action of man can be observed. In this rich historical and architectural heritage, there stand out the "ville di delizia – pleasure villas", i.e. holiday houses (Villa Visconti Maineri, Villa Gaia Gandini, Palazzo Archinto, Villa Clerici). Another magnificent country house is Villa Annoni in Cuggiono, surrounded by a large park that, in terms of area (23 hectares) ranks second in Lombardy, only after that of Villa Reale in Monza. During the renovation works promoted by the Ticino Park and by the City of Cuggiono, a vineyard was introduced, dedicated to grape varieties traditionally cultivated in the area.



itineraries

The Vie Verdi

The excursion network called "Vie Verdi – Green Routes" extends from Sesto Calende to Pavia, where the Ticino flows into the Po. The backbones, i.e. the main routes, cover 180km; 32 paths branch from them and extend about 300km in the North and additional 22 paths cover the same number of kilometres in the south. In total, almost 800km. 9 connections have been defined between these paths and the system of the "Green Routes". Bicycle and pedestrian paths along the towpaths account for additional 120km. Every path has a code, marked along the itineraries. At www.vieverdicitino.it, customized itineraries can be created based on different criteria (length, difficulty, means of transport) and recommended itineraries are displayed, divided into those for expert hikers, families, schools and the disabled. Information can be collected at the portal on museums, product shops in the Park, holiday farms hospitals and train stations in the area. Ticino Park, for more than 100km between Sesto Calende (Varese) and the Mezzana Corti bridge (Pavia), is crossed by Path E1, which goes from North Cape to Capo Passero, through Norway, Sweden, Denmark, Germany, Switzerland and Italy, for 6,000km.

- PARK CENTER**
- 2 Oriano
- 10 Monte Diviso
- 16 La Dogana
- 17 Mulino di Bellinzago (Piedmont Park Center)
- 20 Villa Picchetta (Piedmont Park Authority Head Office)
- 26 La Fagiana (Lombardy Park Authority Head Office)
- 27 La Fagiana
- 33 La Storzessa
- 36 Geraci

- NATURE AREAS**
- 1 Monte San Giacomo Reserve
- 4 Woods and marshes in Arsago and Besnate
- 5 Spring Park Oasis
- 13 Castelnovate Loop Reserve
- 23 Villa Annoni Park
- 24 Bernate oxbow lake wildlife observatory
- 38 Vignolo Woods Reserve
- 39 San Massimo Reserve

- HISTORICAL SITES**
- 6 San Vittore Basilica, Arsago Seprio (IXth-XIIIth century)
- 7 Somma Lombardo Castle (XIIIth century)
- 28 Abbiategrasso Castle (XIIIth century)
- 31 Morimondo Abbey (XIIIth century)
- 32 Vigevano (XVth-XVIIth century)
- 42 Pavia

- PANORAMIC VIEWS**
- 11 Castelnovate
- 15 Tornavento

- MAIN REST AREAS**
- 3 Golasecca Beach
- 8 Somma Beach
- 9 Fogador Beach
- 12 Harbour Beach
- 14 Oleggio Bridge
- 18 Boat House
- 19 Tre salii
- 21 Turbigo Bridge
- 22 Da Bruno
- 25 Bernate Beach
- 29 Cabana
- 30 Vigevano Beaches
- 34 Ex metanodatto
- 35 Motta Lido
- 37 Boat Bridge - Boscaccio
- 40 Canarazzo Beach
- 41 Pavia Lido



RESPECTING THE PARK

- ◆ Abide by the prohibitions marked on the specific signs
- ◆ Always wear comfortable clothes and shoes
- ◆ Take along binoculars and camera
- ◆ Take your own rubbish back home and pick up other people's litter
- ◆ Do not break the silence and integrity of nature
- ◆ Do not leave the marked trails
- ◆ Find information on the itinerary you want to take
- ◆ Park your car only in the reserved areas
- ◆ If you see a fire, immediately call the Forestry Police (ph. 1515) or Ticino Park (ph. 333 4320874)
- ◆ Do not disturb the animals
- ◆ Keep your dog on a leash
- ◆ Wear long sleeves and trousers against insect bites, even in summer

For a Better Future

The Park has been planning and experimenting with educational and teaching projects for twenty years around the theme of sustainable living, with the participation of teachers, schools, associations and individual citizens

If it is true that 'you cannot pick a flower without troubling a star', it is certainly true that anything, near or far, is intimately connected, whether or not we see the close networks of interactions. We do not live alone. We exist only within a relationship, and making this concept understood is one of the main aims of the educational and teaching proposals that the Environmental Education Office of Ticino Park is researching, promoting and supporting.

Increasingly evident local issues that go hand in hand and feed global issues that are usually managed or, more likely, contained thanks to solutions based on technical and scientific competences, often neglect one not unimportant fact: the specific skills of a few people, in order to be successful, must lead to a cultural change in many, who must change widespread and established lifestyles and ways of thinking which are now incompatible with a sustainable future. Environmental and sustainability education, in this respect, is very significant for communicating the necessary skills and values to trigger a virtuous circle to change attitudes and represents a potential strategy for the prevention of future issues. For this reason, the Environmental Education Office was set up in the early 1990s with employees of the Park Authority, and began planning and trying out educational and teaching programmes searching for ways of action that can attract and involve specialists (trainers, teachers, facilitators, ...) and users (schools, associations, individual citizens, ...) to deal with the specific themes of sustainability. After the first years of direct operations, now environmental and sustainability education activities have been assigned to a number of specialists and the Environmental Education Office, within this new organizational structure (described, with all its educational and teaching proposals, at the Authority website www.parcoticino.it), has taken a coordination and supervision role.



Villa Castiglioni, the Park Headquarters



Villa Castiglioni, located in Pontevecchio di Magenta, has a long history. Its core, which can still be seen in some traces in the cellars and in the underground brick and stone walls, dates back to the Middle Ages. It was probably built in the shape of a fortified small castle, guarding

the river valley. The villa was built on this pre-existing construction in the late 1500 by the Marquises Crivelli who had owned this land for generations and were authorised «to build a press and a farmhouse». As Felice Sgarella wrote, author of volumes on local history, «this cannot be considered as a "pleasure villa", i.e. a holiday house, like others built along the Naviglio, rather an expression of agricultural interest». In 1637, the building was sold to the Curia Arcivescovile di Milano (Archbishop's Curia of Milan) that turned it into a country house. About a century later it passed to the order of the Gerolimini Friars of Rho. After Napoleon seized the church assets, the Marquis Biglia came to own it. In 1802 it was passed to Ambrogio Clerichetti. His son Luigi, well-known architect in those years, extended the noble wing in height and embellished it with a neo-classical ceiling on the ground floor and imitation bossage façades of the construction at the end of the main courtyard. Purchased in 1876 by Gaetano Castiglioni, the villa slowly fell into disrepair until it was purchased by the City of Magenta. After major renovation works, it became the headquarters of the Lombardy Ticino Valley Park. Today it appears as a complex of buildings gathered around two courtyards and dominated by a small tower; this is a reconstruction, since the ancient tower was destroyed in the battle of Magenta in 1859. On the ground floor, two halls have precious tempera tapestries: one with oriental natural motifs, the other with views of Italian cities and customs.

park headquarters and visitors' centres

"LA FAGIANA" PARK VISITORS' CENTRE (PONTEVECCHIO DI MAGENTA)

In the midst of the green in one of the most beautiful Oriented Nature Reserves (ONR) of the Park, it offers interesting excursions on foot or by bicycle. The main building of the "La Fagiana" Visitors' Centre was totally renovated thanks to the project "Water, Forest and Wildlife. A Shrine of Biodiversity: the ONR La Fagiana Visitors' Centre", co-funded by the Lombardy Regional Authority with the resources of the 2007/2013 European Fund for Regional Development. Today it offers visitors a set of laboratories and multi-functional areas to host school classes, visiting groups and tourists.

Offer

- Promotion centre of the "Ticino Park Brand – Controlled Production" products
- Information centre with bookshop and reading room with a library (books can only be read on the premises)
- Small conference room / educational room with multimedia interactive board
- "H2O" laboratory/educational room
- Museum of the habitats and land animals of the Ticino Park
- Hands-on laboratory dedicated to water habitats and water animals
- Conference Room
- Museum of Poaching
- Observatory of squirrels
- Garden of ancient fruits
- Tree nursery
- Covered picnic area and restrooms also for disabled
- Large car park outside the Reserve
- Wildlife Recovery Centre (WRC) managed by LIPU (Italian League for Bird Protection) that deals with recovering problem wild animals (for reports and information: 338 3148603, crfs.lafagiana@lipu.it)

Activities

- Cultural and recreational events, environmental education projects and guided tours on booking. Groups of more than 20 people can enter the "La Fagiana" ONR only accompanied by the Park Rangers or by people authorized by the Park Management.



visitors' centres



EX DOGANA AUSTROUNGARICA Tornavento, Lonate Pozzolo - VA

In the northern area of the Park, in a panoramic spot which overlooks the Ticino Valley and the Monte Rosa mountain.

Offer

- Exhibition and museum
- Information centre and bookshop
- Shop and tasting area of the "Ticino Park – Controlled Production" branded products
- Conference room
- Video room
- Picnic area and restrooms
- Sensory and Nordic walking itinerary
- Car park

Activities

- Cultural and recreational events
- Environmental education
- Guided tours

LA SFORZESCA Sforzesca, Vigevano - PV

In the Sforzesca hamlet near Vigevano, this is a point of reference for educational projects and nature excursions in the most important woods of the Park.

Offer

- Information centre with bookshop
- Picnic area with restrooms
- Conference room and video room

Activities

- Cultural and recreational events
- Environmental education projects
- Guided tours on booking

ORIANO Oriano, Sesto Calende - VA

In the northern area of the Park, among moraine hills and on the E1 European path, it represents an interesting area in terms of excursions, education, science and nature.

Offer

- Information centre with bookshop
- Picnic area and restrooms
- Conference room and video room
- Nature museum
- Educational laboratory
- Educational wood

Activities

- Cultural and recreational events
- Environmental education projects
- Guided tours on booking
- Sports activities

GERACI Guado della Signora, Motta Visconti - MI

Near the river, in an interesting botanical and forestry area, it offers canoeing and dinghy activities.

Offer

- Information centre and bookshop
- Picnic area and restrooms
- Conference room and video room
- Educational room
- Car park at approx. 1 km distance

Activities

- Cultural and recreational events
- Environmental education projects
- Guided tours on booking
- Sports activities by canoe and dinghy
- UISP sprint canoe training centre
- Summer camps

PARK CONTACTS AND INFORMATION

To contact the Headquarters and the Visitors' Centres: ph. +39.02.972101 - telefax +39.02.97950607
info@parcoticino.it, www.parcoticino.it, www.ilgermogliodelticino.it, www.vieverdicitino.it

Apps to download from Apple Store or Google Play:

- Vivi il Parco del Ticino (Enjoy the Ticino park) (by eGuide Multiservizi)
- La Fagiana e dintorni (La Fagiana and its surroundings) (by Jeco Guides)
- T-Jones sulle tracce di MISTER X (T-Jones on the traces of MISTER X) (by Geo4Map s.r.l. This App can only be downloaded from Google Play)



PARK CENTRE MONTE DIVISO GALLARATE (VA)



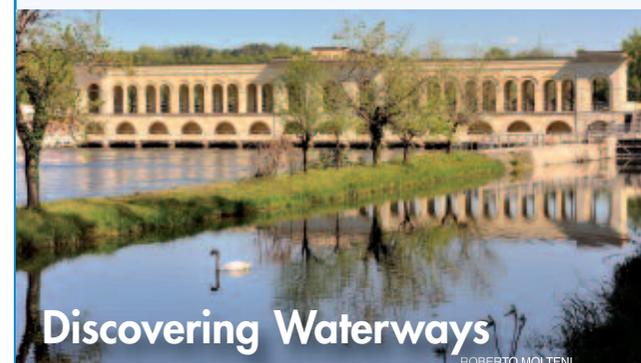
The new "Monte Diviso" Visitors' Centre is in Gallarate, Varese, in the Caiello site, on the top of Monte Diviso, the first moraine hills we find when we go up the plain from Gallarate. The "Parco dei Fontanili – Karst Springs Park" is not far away, a large wet area fed by karst waters, which has bicycle and pedestrian paths and rest areas available to the general public. The main purpose of the Visitors' Centre is to set up a multifunctional and technologically advanced facility (using sustainable energy) dedicated to the themes of water as a necessary resource for life, and to geology with a specific focus on connected activities, such as the history of the extraction of sand and gravel (techniques and tools for gold prospecting, the Ticino quarries and quartz rocks). The whole complex includes four buildings with porticos around a central courtyard framed by a continuous portico.

The following services will be offered:

- Information Centre to welcome visitors
- Shop/promotion of Park products
- Youth hostel
- Restaurant also for hostel guests
- Multifunctional room that will be used also as exhibition room, educational room and conference room

For further information:

www.parcoticino.it info@parcoticino.it



Discovering Waterways

Panperduto Dams

A water system junction through which the waters from the River Ticino are deviated to feed a large part of the plain east of the river. The site, in an enchanting natural setting, hosts the historical captation building, a monument to hydraulic engineering, the Museum of Italian-Swiss waters and a hostel.

Museum of Italian-Swiss Waters

Located in the middle of the Confurto Island, the Museum of Italian-Swiss Waters shows the origin, history and structural and functional complexity of the Panperduto hydraulic basin. Visitors can perceive how essential water is to human and natural life, recognising the value of its multi-functionality as a primary factor in agriculture, landscape, transport and in the industrial sector.

On the Ticino banks in Somma Lombardo, the Locanda del Panperduto

This modern hostel will soon open. It has been created by renovating and preserving the historical building of the water guardian of 1884. The facility has maximum 18 beds: rooms with toilet and shower, a breakfast room, large lounges for guests to observe the landscape. The restaurant with bar service is open to all visitors.

A centre for fish wildlife in Abbiategrasso

The former tollhouse of Abbiategrasso hosts the centre for sheltering and conserving fishes when Navigli System is dry. In addition to laboratories for housing and keeping the different animal species from the canals, there are also educational rooms and a garden, open as rest area for the very many hikers and cyclists that travel the towpath of the "Naviglietto – Little Naviglio".



Parco Ticino

Sustainable Development:
safeguard of Biodiversity and Environment,
quality of Life

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