

THE WETLANDS OF VENETO

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Veneto, Friuli Venezia Giulia and Sardinia: three regions, two in the Upper Adriatic bordering one another, and the third in the middle of the Tyrrhenian Sea, an island. Far from one another, divided by the Italian peninsula and kilometres and kilometres of sea. And yet they are united by a common natural element, the extraordinary wealth of their coastal wetlands, and by the common objective of disseminating awareness of this highly important environmental patrimony by means of alternative tourism based on eco-sustainable criteria and procedures.

In order to make all this possible, the three regions have instituted the inter-regional project called Veneto–Friulian and Sardinian Coasts and Lagoons: made a part of the development projects of the Inter-regional Tourist Systems, financed with funds issued under General Tourism Policy Law no. 135/2001, it is the result of a common intervention introduced into the operational policy of the general project called The Analysis and Study in Common of Lagoons as a Tourist Product in the Three Partner Regions, and Guidelines for Ecocompatible Development.

The project was carried out in two phases. The first consisted of research study of the most important wetlands in the three regions: the Po River Delta, the Venice Lagoon and the Valli di Caorle and Bibione in the Veneto; the Marano and Grado Lagoon in Friuli Venezia Giulia; and the wetlands of Cagliari and the Gulf of Oristano in Sardinia. The task of providing executive analysis and strategy for this first phase was entrusted to I.D.E.A.S., the Centre for the Analysis of Dynamic Interaction among the Economy, Environment and Society of Ca' Foscari University in Venice. The scientific management of the works was carried out by Professor Francesco Vallerani, with the collaboration of the researchers Federica Letizia Cavallo, Giada Milan and Michele Zanetti. The second phase of the project concentrated on communicating the results of the research through the realization of a mini-guide and map aimed at stimulating tourist development in the wetlands under study.

We hope that the result of this project will induce tourists to explore these places, which are still little known yet so important from an environmental standpoint, and that the words and images in the guide books will bring them closer to a new form of tourism based on the preservation of the environment.

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Before coming into contact with these fascinating places, a brief description of their function and the important role they play in the ecological equilibrium of the Earth will be very useful.

The wetlands – including marshes and mires, lagoons, bogs, bodies of water and river deltas – make up for **about 6% of the world's surface area**, a percentage that is unfortunately descending, since in the twentieth century alone no less than 60% of the world's wetlands was destroyed, 90% of this in Europe.

It is especially important to keep this datum constantly under control, given the crucially important function of our wetlands.

These areas are **true reserves of water** that play a major, often underestimated, role in preserving ecological balance. They act as sponges, so to speak, absorbing, discharging and regulating the water while purifying it of many organic pollutants; furthermore, they recycle nutrients, take in sediment, and also help to prevent floods and protect the coastlines.

Preserving the wetlands is of fundamental importance, because their destruction and loss would bring about very serious consequences: according to present-day estimates, reclamation of these areas would bring about the release of about 771 billion tons of greenhouse gases, above all carbon dioxide and methane, an amount equal to that now in our atmosphere.

If creating protected areas is of crucial importance for all endangered environments in which some form of nature tourism is being planned, this is particularly true in the case of lagoon environments. In fact, these latter are marked by surprising fragility, which is typical of all wetland ecosystems and which makes an active conservational policy necessary for the management of these areas.

There are various factors that encroach the already avowed and, unfortunately, increasingly self-evident **vulnerability**

Precious Reserves of Carbon

The wetlands accumulate 35% of the world's carbon, thus fulfilling the important task of regulating and mitigating the impact of climatic changes. In particular, bogs (the bottoms of lakes or swamps with accumulations of masses of vegetation that produce peat when they decompose) are the richest source of carbon among all the Earth's ecosystems: they contain twice the amount now in the world's forest biomass and, unlike forests, do so for a long period.

(Data issued by the WWF on occasion of World Wetlands Day, 1-2 February 2009)

Opposite page, from top to bottom: a winter morning in the Valle Fosse, north Venice Lagoon (1); salsola and rush in the Valle Fosse (2).



The International Wetlands Conference and the Ramsar Convention

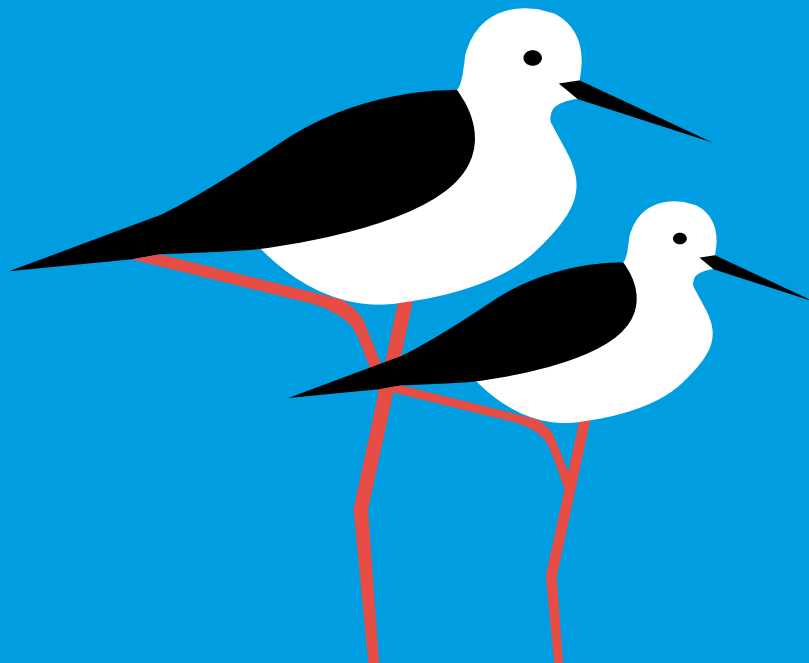
In 2008 the United Nations promoted the eighth edition of the INTECOL International Wetlands Conference, which was held in Curitiba, Brazil. Seven hundred scientists from 28 nations participated, issuing a unanimous appeal for urgent measures to protect the world's wetlands. The appeal specifically referred to what had already been reported in 1971 at Ramsar, Iran on the occasion of the International Wetlands Convention (better known as the Ramsar Convention). The extremely important international agreement on the conservation of these environments, which was signed by the 158 participating nations, brought about the effective protection of 1,820 zones, with a total surface area of 168,000,000 hectares. The purpose of the Convention was to ensure the active protection and preservation of wetland environments and their natural resources.

*Above: Venetian-style rowing in the Burano Canal, in the north Venice Lagoon (3).
At right: a duck in flight (4).*

of wetland environments, first and foremost anthropization, that is, the transformation or conversion of intact environments or landscapes through human action. Suffice it to say that no less than 26% of the world's wetlands has been drained in order to be utilized for cultivation, urbanization and various types of construction activity. And all this is accompanied by equally serious causes such as pollution and the creation of dams, as well as the unregulated abstraction of water from springs or aquifers in the subsoil, and the exploitation in general of the resources of the areas in question. Lastly, it must be said that in general emphasis has been laid only on the negative features of these zones, such as the supposed unproductiveness of the land and the presence of malaria, while their positive aspects have never been valorised.

Therefore, in order to enact a process of conservation, it is necessary to promote information programmes to instil awareness in the public of how important wetlands are for our planet.

Have a good trip through the Veneto wetlands.



THE WETLANDS OF VENETO

Some Useful Advice before Setting Out

Out of respect for the area and those who live in it, do not throw away refuse, pick flowers, disturb the animals or touch the birds' nests.

As for the clothes you should wear, it is advisable to avoid bright colours: camouflage and natural colours such as green, brown and grey are preferable, since they do not disturb the birds, whose keen sight is attracted by vivid colours.

It is also a good idea to bring along a cap or hat, both during the rainy winter season and in summer as protection against the sun. Your shoes must be suitable for the type of itinerary you choose and in any case should be comfortable.

Always have a bottle of water at hand, both for the land and river excursions. Canoeists and those navigating on their own should not forget to check the weather forecast and the tide table and to bring along a compass and map, as well as insect repellent, which is advisable for all visitors in any case. Lastly, an obvious suggestion for birdwatchers that may also be useful for others as well: always bring along binoculars or a spyglass, a camera or video camera, because what you see here deserves to be immortalized as you will soon realize.

The Veneto Region boasts an extraordinary wealth of wetlands. The hinterland has environments that for the most part are peat bogs, coves, quarries and small lakes. But if you take a look at a map and run your finger along the coastline, you will realize how vast the lagoon areas are in the Veneto and how many deltas and river mouths there are here. The Veneto has major rivers such as the Adige (the second longest in Italy), the Brenta, the Sile, the Piave and the Tagliamento, which mark out very important wetlands. Then, obviously, there is the Po, the longest river in Italy and the one with the largest delta, the territory of which – delimited by the Adige to the north and the Po di Goro to the south – has been the Parco Naturale Regionale del Delta del Po (Po River Delta Regional Park) since 1997.

And precisely the Po Delta, together with the Venice Lagoon and Caorle and Bibione Fish Farms or *Valli da pesca*, are the wetlands discussed in this guide, as well as the largest and most representative wetlands in the Veneto.

Before setting forth on your exploration of these fragile but highly important ecosystems, natural habitats with rare and precious bird species, it is a good idea to read the boxes. The first box is useful in that it lists the basic rules of good behaviour and respect for nature (which is never a waste of time), as well as good practical advice that will make your excursions more enjoyable.

The second will help you to become familiar with the terms used to identify the various lagoon and delta environments, words that are unusual or even incomprehensible to many people.



Above: mute swans having a territorial dispute (5).
Below: the central Venice Lagoon (6).

Speaking of Definitions...

First of all there is the word lagoon. This derives from the Latin word *lacuna*, or empty space, and indicates a shallow coastal basin with brackish water that is influenced by the tides and is separated from the sea by a strip of land such as a sand reef. This guide often mentions *barene* (sand banks), which are deposits of mud and silt that are usually above the water level and occasionally or rarely are submerged by high tides. Another common term is *velme* (mud flat), a zone near the shore that is alternately covered and uncovered by the tide. Then there are words such as *sacche* (inlets), shallow sea coves delimited by the branches of the river into which they enter, or again waterways between islands; *scanni* (sand bars), narrow and long dunal islands formed by fluvial deposits and wave action; *bonelli*, islets of silt and sand that are often temporary and are formed by tidal action and the sediment carried by rivers. *Golene* (flood plains) are the areas lying between the major embankments of a river (or canal) and its bed, while a *busa* is a stretch of the mouth of a branch of the river.





THE PO RIVER DELTA VENETO REGIONAL PARK

For those who have never been there, it is not easy to imagine the sweet sensation of being immersed in the slow flow of water that, in search of a natural outlet to the sea, first lingers and branches out, then surges here and there to find space and other routes and, finally, perhaps tired of this long course that began at Mt. Monviso 652 km away, ends its long journey by pouring into the Adriatic Sea. In doing so it marks out an extraordinarily fascinating landscape, painted in a green that is bright in the areas closest to the water and darker in marshes bordered by tall reeds. And as it approaches the sea, there is the light brown of the dunes and the sandy islets emerging from the shallow water in the pink hues of dawn that is exploding on the lagoon horizon. It seems to be a dream-like landscape or a tale told by an inhabitant of another planet. But the planet is the Earth, the region is Veneto, the river is the Po, and the environment is the Po Delta.

This stupendous area, which became a **Regional park** in 1997, is dominated by extremely interesting scenery, history and culture. The variety of its environments is based on a process that began during the last glacial period, during which millions of years of geological action led to the formation of the Po River Valley. However, it is possible to follow the evolution of the Po Delta only from the time the Adriatic coast became stabilized **about 5,000-6,000 years ago**. During this long period the course of the Po toward the sea changed many times: both during the **Roman age** and in the **Middle Ages** the Delta developed in the province of Ferrara, south of Comacchio, and only with the **historic flood of 1152** did most of its water head northward, in the Goro and Levante branches. The fear that the new course of the river would cause the Venice Lagoon to be filled with sediment led to the decision made in **1604** to deviate the main branch toward the southeast, thus creating an artificial canal 7 km long, the present-day Po di Venezia or Po of Venice. This intervention, called the "Ta-

The Po River

The Po (652 km) is the longest river in Italy and the twenty-third longest in Europe. It begins at an altitude of 2,020 m on Mt. Monviso, in the Cotian Alps, and crosses through the entire Po River Valley, fed by no fewer than 75 tributaries until it flows into the Adriatic, in the province of Rovigo.

For the most part the river flows between two secondary embankments called *golenali*, which serve to absorb minor floods and are protected by the major embankments known as *maestri*, which in turn prevent the water from overflowing during severe and dangerous floods.

Fossil Dunes

In this area the fossil dunes mark what were once the boundaries between the land and sea before the detritus carried by the Po River created the present-day conformation and lands of the Delta. Therefore, by ascertaining their age we can reconstruct the changes in the coastline over the centuries. Eight belts of fossil dunes, dating from eight different historic periods, have been recognized and classified. The most ancient dunes date from about 3,000 years ago and are situated near Loreo and in Tombine, near Ariano in the Polesine area.

Opposite page: an example of a black-winged stilt (7).

The Po Delta Territory

The Delta is delimited to the north by the Adige River and to the south by the Sacca degli Scardovari inlet and the Po di Goro tributary. Its morphology is in a state of continuous change: every year, the deposits of sediment form new sandbanks and mudflats, but at the same time storms erode the shores and beaches. The ancient part of the Delta, called Fossil delta, extends into the present-day territory of the region of Emilia Romagna, where the Delta once lay in medieval times. The so-called Active delta is the present-day formation, which was determined by the 'Taglio di Porto Viro' or Porto Viro cut-off, an immense hydraulic work carried out in 1604, and this is precisely the section belonging to the Parco Regionale Veneto (Veneto Regional Park). The active delta consists of five main branches, plus other minor ones that diverge from the main course, known as the Po Grande or Po di Venezia. From north to south, the active branches are: Po di Maistra - This is the only branch north of the Po di Venezia, from which it deviates in the locality of Ca' Venier at Porto Tolle, and then exits at Boccasette, after a winding



glio di Porto Viro' or Porto Viro cut-off (hence the name of the Municipality Taglio di Po), determined the beginning of the development and formation of the Po Delta as we know it today. In the **eighteenth and nineteenth century** the continuous eastward expansion of the river gave rise to the territory of the Municipality of Porto Tolle, and later on to the silting of the Sacca di Goro inlet; the waters added to the Po by the Po di Gnocca and Po di Tolle branches then began to form the Sacca degli Scardovari inlet. The **unification of Italy** and the government funds provided by the so-called Beccarini Law made it possible to begin major reclamation work that brought about the drainage of some districts, including that of the island of Ariano. This large-scale intervention was carried out thanks to the construction of the Ca' Vendramin drainage plant, now the site of the present-day Museo Regionale della Bonifica (Regional Reclamation Museum). In **1940** the extraction of marsh gas, which was abundant in the Delta, caused a lowering of the terrain to more than 3.5 m below sea level, and many areas that had already been reclaimed were once again inundated. In the meantime, the stretch of the Po below Ferrara, where increasingly taller embankments were needed, began to flow faster, thus causing floods that became more and more dangerous, up to the one that struck Occhiobello on **14 November 1951**, which unfortunately was historic in that it inundated the entire Polesine region. Today the entire Po River Delta is below sea level, except for the embankments, sandbanks and fossil dunes. The management of the delta waters is entrusted to the Consorzio di Bonifica Delta Po-Adige consortium and the powerful drainage pumps of its hydraulic system, which channel the water into the appropriate drainage ditches or flood-ways. This is the story of a region that Man and Nature have always contended. It is now dominated by vast rice and cereal fields, fish farms that cultivate such species as bass, giltheaded and eels, and inlets dedicated to the cultivation of clams, mussels and oysters all of which is naturally served in the restaurants and trattorias in the

Delta. Wandering about in this land, following one's instinct, attracted by the different places and varied atmosphere, is the most authentic way to become acquainted with the variety of environments. Amongst country villages and districts still rich in tradition, vast horizons and thick beds of reeds, there is the thrill of getting to know life in the wetlands and marshes, on the islets created by the continuous division and deviation of waterways and, as one gradually approaches the sea, among the sandbars, the *bonelli* (short-lived islets formed by silt) and shoals, in the midst of luxuriant vegetation populated by a range of bird species that will surprise even the most experienced bird-watcher. In order to see all this – and there is even more in store for those who are particularly responsive to natural beauty – the Park has created a group of facilities for visitors and some guided tours in the Po Delta region. Slowly, without looking at one's watch, indeed without wearing a watch, it is time to delve into the beauty of this area.

The Ente Parco (Park Agency) and Visitors' Centres

The Park is managed by the **Ente Parco Regionale Veneto del Delta del Po**, whose objective is the economic and social development of the Delta area, as well as the protection, conservation and valorisation of its immense cultural, environmental and natural-historical patrimony.



course. Further north is the Po di Levante, which however cannot be considered an active branch of the Po since it is regulated by the Volta Grimana dam.

Po di Pila and Po di Tolle

- These were formed by the last fork of the Po di Venezia, which in the Porto Tolle area, a very short distance from the sea, divides into the two branches; the first, the Po di Pila, exits at Pila, while the second one exits north of the Sacca degli Scardovari inlet.

Po di Gnocca or Po della Donzella - This deviates from the Po di Venezia in the Ca' Vendramin locality at Porto Tolle, and runs parallel to the Po di Goro. It exits near this latter, south of the Sacca degli Scardovari inlet.

Po di Goro - It deviates from the river in the Santa Maria in Punta district of the municipality of Ariano nel Polesine, and also marks out part of the boundary between the Veneto and Emilia Romagna regions.



Opposite page: the scenery in the Po River Delta Park (8). Left: the interior of the Visitors' Centre of the Porto Viro Park (9).

Above: tourists during an excursion down the river (10).

Sights That Are Musts

At Porto Tolle - The unpolluted Scano Boa beach, which can be reached only by boat or canoe, with its large populations of gulls and oystercatchers; the Isola di Batteria Regional Reserve and its abandoned hamlet; the Oasi di Ca' Mello natural-historic education centre, the ideal spot for birdwatching and the scientific study of birds.

At Ariano nel Polesine - The environments of the Po di Goro, the branch of the Po that has suffered the least aggressive human interventions.

At Papozze - The WWF Panarella Reserve, with the extraordinary marsh, wood and meadow environments and didactic nature trails.

At Taglio di Po - The nest-building site for herons in the Ca' Zen flood plain.

At Porto Viro - The Ca' Pisani flood plain, with the fish farm and birdwatching trails.

At Rosolina Mare - The Littoral Botanical Garden of the Veneto, featuring about 220 different plant species that can be observed along three paths.



Above: canoeists in the Po River Delta Park (11).
Right: a flock of avocets (12).

For information and contacts:

Ente Parco Regionale Veneto del Delta del Po
Via Marconi 6, 45012 Ariano nel Polesine (RO)
Tel. +39 0426 372202 - Fax +39 0426 373035
www.parcodeltapo.org - info@parcodeltapo.org

Given the vast extension of the area, various facilities have been created in the Park to be used as Visitors' Centres: these are located in different towns and serve as points of reference for information regarding the Delta, the various activities, and above all the excursions. In addition to the general tourism and recreational services in the Park, each Centre has its very own characteristic connected to a particular feature of the area and its history.

The Porto Viro Park Visitor's Centre

Piazza Matteotti 3, 45014 Porto Viro (RO)
Information and reservations at the Ente Parco

Situated at the entrance to the town of Porto Viro (arriving from the SS Romea road), the ultra-modern Centre has a large diorama that reproduces the Po Delta, maxiscreens with a touch screen, a meeting hall, and an information booth. This facility, considered the "technological showcase of the Park", was built thanks to the project co-financed by the European Union through the European Regional Development Fund (Interreg IIIA Italy-Slovenia 2000-2006).



The Po Delta Park Information Point

Località Ca' Vendramin, 45019 Taglio di Po (RO)
Tel. +39 0426 81219/349711 - Fax +39 0426 346137
bonifica@deltapoadige.it

This facility, which is in the Museo Regionale della Bonifica di Ca' Vendramin (Regional Reclamation Museum) at Taglio di Po, makes it possible for visitors to observe the most important drainage plant in the Delta, used for mechanized reclamation works. During these works (begun in 1900, finished 1903 and tested in 1905) the island of Ariano was divided into two basins, upper and lower: the function of the drainage plant of Ca' Vendramin was to drain the water of the upper basin and channel it into the Canale Veneto outlet, which in turn carried it elsewhere so that it could flow into the sea. The structure, now a jewel of industrial archaeology, was operative up to the disastrous floods of the Po di Goro in 1957 and 1960.

The San Basilio Cultural Tourist Centre

Via San Basilio 16a, Località San Basilio, 45012 Ariano nel Polesine (RO)
Tel. + 39 0426 71200 - Fax +39 0426 372095 - san.basilio@libero.it
Reservations for guided tours at the Ente Parco

Located in the San Basilio district of Ariano nel Polesine, the Centro Turistico Culturale San Basilio (Cultural Tourist Centre) has three display cases with artefacts found during on-site archaeological excavations: the most ancient, kept in the first showcase, are precious Palaeo-Veneto and Etruscan ceramics dating to the sixth-fifth century BC.

The Veneto Littoral Botanical Garden (Giardino Botanico Litoraneo del Veneto)

Località Porto Caleri, 45010 Rosolina Mare (RO)
Information and reservations at the Ente Parco

The Centre also organizes visits to the Botanical Garden by means of three paths, the longest of which also takes in the brackish water wetland. Realized by the Veneto Region in 1990, the garden has a surface area of about 24 hectares in an area that has been classified as a Site of Community Importance (SCI) and is an integral part of the Park.

Figures and History

Surface area of the Park:
12,592 hectares
Associated municipalities: Adria, Ariano nel Polesine, Corbola, Loreo, Papozze, Porto Tolle, Porto Viro, Rosolina, Taglio di Po, all of which are in the Province of Rovigo
The Stages
1994: the Regional Council issues a measure approving the Po Delta Area Plan
1997: the Parco Regionale Delta del Po (Po Delta Regional Park) is established through Regional Law no. 36 of 8 September 1997.

How to Get to the Park

For those coming from the A27 autostrada (Belluno): take the Mestre bypass (tangenziale), then the Ravenna-Chioggia exit, and go onto the SS Romea 309 road (also known as the Strada Europea E55)

From the A4 autostrada (Trieste and Venezia): take the Mestre bypass (tangenziale), then the Ravenna-Chioggia exit, and go onto the SS Romea 309 road from the A4 autostrada (Turin and Milan): take the Verona Sud exit and go onto the Transpolesana Verona-Rovigo superstrada or highway; or take the Padova exit and go onto the SP Padova-Chioggia and SS Romea 309 roads
From the A13 autostrada (Bologna): take the Rovigo exit
From the A1 autostrada (Ancona): take the Ravenna exit and go onto the SS Romea 309 road.



In the Park with a Guide
 Undoubtedly, many visitors prefer to rely on the experience of nature tour guides accredited by the Park during their excursions in the Park. They can do so either by participating in the standard tours or by requesting personalized excursions. The list of the guides, including the foreign languages they speak, can be seen in the section "Vivere il Delta" of the following Web site: www.parcodeltapo.org



The Ca' Pisani Flood Plain (Golena di Ca' Pisani)

Località Ca' Pisani, 45014 Porto Viro (RO)

Information and reservations at the Ente Parco or the Servizio Forestale Regionale per le Province di Padova e Rovigo

Tel. +39 049 8778200 - Fax +39 049 8778227 - forestalepd@regione.veneto.it

This is a former *valle da pesca* or fish farm that is particularly interesting for the variety of its bird species. It has several itineraries, birdwatching observation points and reconstructions of the traditional *valli da pesca*. Formerly private property, in 1997 it was purchased by the Veneto Region thanks to an EEC fund.

The Ca' Mello Protected Area (Oasi di Ca' Mello)

Sacca degli Scardovari, 45018 Porto Tolle (RO)

Information and reservations at the Ente Parco

This area has an important freshwater wetland and is the ideal place for scientific research, especially the study of those birds linked to reed bed environments.

Exploring the Park

In whatever way you decide to visit the Park, you will be accompanied by enthusiasm and surprises: every corner of this area has its very own feature that deserves attention.

You can choose to explore the park **freely on your own**, following your own pace and according to the time at your disposal, or you can take part in the guided tours. In general, it is advisable to concentrate on one section of the area at a time, in order to become familiar with all the environments and fully enjoy the itineraries. It is also worthwhile, even necessary, to go to one of the Visitors' Centres to gather useful information – brochures, maps and the like – that will help you to orientate yourselves among the branches of the Delta and its fascinating sights.

Touring the Park **by car** is certainly the simplest and fastest way to have an overall view of the various environments and to visit many interesting sights in the different municipality. Although it must be said that using an automobile hinders direct contact with nature – and above all makes it impossible to hear its sounds – one can still travel along



interesting routes filled with fascinating sights. Those who decide to tour the Park by car should make sure to have a copy of the book published by the Ente Parco, "Viaggio alla scoperta del Parco" (Journey of Discovery of the Park), which is distributed in the Visitors' Centres. This contains six itineraries with detailed maps designed to guarantee the best possible and most thorough exploration of the Park. The true spirit of touring freely, fed by the desire to make new discoveries, can be savoured by visiting the Park either **by bicycle or on horseback**, two very pleasant ways to arrive almost everywhere in the Park.

The tranquillity that reigns among the canals and protected areas of the Delta is an invitation to long rides amidst nature, stopping here and there to visit the facilities and structures or to watch the marvellous birds that live here. For those who wish to alternate bicycle tours with boat excursions (or simply get to the other side of a canal), there is the added convenience of being able to take the bike along on the boat. Equally fascinating for true nature lovers is a trip that skirts the embankments, the flood plains and

Casoni and Cavane

A characteristic feature of the landscape and witness of the intimate bond between the river and its inhabitants, the casoni were the old fishermen's houses. Today they are used as storehouses for fishing equipment. They are rectangular structures the walls and roof of which are made of marsh reeds and the floor of beaten earth. There is also a chimney inside. The cavane on the other hand are rather crudely built constructions made of corrugated metal or wood that are used as boat houses.

Opposite page, top to bottom: a path in the Rosolina Mare Botanical Garden pine wood (13); a canebrake (14); a mallard (15). Above: common shelducks on the wing over the Scano Boa beach (16).



Looking for Adventure: Fishing Tourism

This is a truly unique and enjoyable experience that should not be missed, since it will literally make your mouth water. In fact, the tour consists of fishing and then tasting one's 'catch' in the cavane or boat houses. The excursion lasts all day and is made on the small fishing boats that can navigate among the reed beds and fish farms, unique wetland environments that are hardly ever possible to see. The addresses for this activity as well as others (sport fishing, fishing with local fishermen, etc.) can be seen in the "Vivere il Delta" section of the following Web site: www.parcodelpo.org

the beaches on horseback, with short rides that concentrate on a single environment but also allow participants to ride for several days, staying overnight in different places. Almost all the municipality in the Delta have points where one can hire bicycles and horses; a list of these can be found in the section "Vivere il Delta" on the following Web site: www.parcodeldelta.org. Navigating in the water of the Delta Park in a canoe or boat is always the most fascinating way of experiencing the area and establishing a live and emotional contact with its basic element, water. It is no exaggeration to say that everyone will be enchanted by some aspect of this environment. The canoe in particular, with its gentle and silent movement, enhances the unforgettable sensation of feeling fully immersed in nature; and any possible fatigue will be mitigated by the thought that there is absolutely no negative environmental impact. For those who want to make their first approach to canoes in the Po Delta on the last Sunday of June there is the traditional canoe ride to canals and inaccessible beaches: in 2010 the destination will be the Scano Boa beach (for informa-

tion, telephone +39 0426 633474 or +39 338 2915018). The more experienced canoeists can study the itineraries by reading Fabio Roncato's publication "Il Delta in canoa. 25 itinerari di canoa fluviale, e non solo, nel Delta del Po Veneto" (The Delta in Canoe. 25 Itineraries... See the section "Vivere il Delta", which has photographs and drawings, at the following Web site: www.parcodeltapo.org). Those who have their own boat can venture through the canals, river branches and lagoons along the routes described in the publication "4 possibili itinerari nel Delta del Po" (Four Possible Itineraries in the Po Delta), published by the Provincial Administration of Rovigo. The point of departure for all four tours is Volta Grimana, at Porto Viro. The first tour goes along the Po di Levante and a part of the Adige River, as far as Adria; the second one goes along the Po di Pila and the Po di Maistra to their mouths; the third and fourth follow the waters of the Po di Gnocca, Po di Tolle and Po di Goro. A useful instrument for those who want to navigate on their own is the Portolando Web site (www.portolando.eu), an interactive project concerning the harbours and piers of the Upper Adriatic that is part of the more wide-reaching project financed by the European Community Cross-border Cooperation Initiative Programme INTERREG IIIA Italy-Slovenia.

The Guided River Tours

There is no need to worry if you want to explore the Delta via a waterway and there is no boat available for an individual tour: the Park Agency also offers **guided river tours** on motor-ships that navigate along the main branches of the Po and stop at the most interesting towns and places. The "Vivere il Delta" section of the Web site www.parcodeltapo.org has the list of the shipping lines that offer excursions either in large and small craft. Below are the basic descriptions of some of the itineraries managed by the Navigazione Marino Cacciatori line, which has a special arrangement with the Park (tel. +39 0426 380314 - +39 368 3817750 - info@marinocacciatori.it). All the tours have a nature guide on board.



Opposite page: shovellers flying over the Po di Maistra (17). Top to bottom: a grey heron (18); fishing tourism on the Po di Tolle (19). Below: bee-eaters among the vegetation (20); a dwarf heron (21).





For Connoisseurs of Fine Food

The protagonists of Po Delta cuisine are fish (bass, gilthead, mullet, eel) as well as molluscs, crustaceans and mussels, including Scardovari mussels and clams. The typical products of the area are red chicory, Chioggia onions, melons, white spring truffles, and Ca' Cappelino honey, and in particular two that have earned the Protected Geographical Indication (PGI) hallmark: Po Delta rice and 'Adriano' white garlic. Polesine cuisine is therefore connected to traditional dishes made up of local ingredients, above all rice: canarola style rice with beans (the simple dish of the reed cutters: reed=canna, hence canarola) with eels and pumpkin, fish risotto, and risotto with stockfish, which enhances the flavour of Po Delta rice. Here is the recipe for risotto al baccalà or risotto with stockfish, compiled by



The Scano Boa beach and an excursion among the lagoons and reed beds

Embarkation: from Pila
Period: April/September, every Sunday afternoon

The excursion goes around the wild, isolated Scano Boa beach, in the municipality of Porto Tolle. Situated slightly south of the mouths of the Po della Pila, this beach is accessible only by boat or canoe; one of its main features is the presence of several traditional *casoni* or fishermen's houses. The tour, which lasts about two hours, is particularly fascinating from a natural-historical standpoint due to the large number and variety of birds.

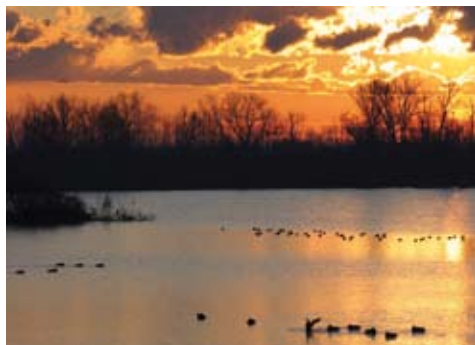
The Po di Maistra and the Ca' Pisani flood plain

Embarkation: Ca' Tiepolo
Period: April/September, every Saturday

This tour takes about three hours and goes along the widest branch of the Po, the Po di Maistra, the main features of which are the splendid flood plains with their luxuriant vegetation. The boat then proceeds to the Ca' Pisani protected area. Upon request, it is possible to add a bicycle trip on the Delle Valli cycling path.

The Po di Venezia and its mouths (*buse*)

Embarkation: Ca' Tiepolo
Period: April/September, Sunday morning and afternoon



This itinerary includes many environments of the Delta, including river basins, sandbanks, lagoons, and reed beds. The vessel navigates along the Po di Venezia which, after becoming the Po di Pila, branches out into three mouths: the Busa di Scirocco, Busa di Tramontana and the Busa Dritta.

Porto Barricata and the inlets next to the mouth of the Po di Tolle

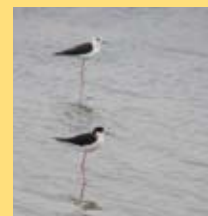
Embarkation: Porto Barricata
Period: June/September, every Tuesday and Friday afternoon

From Porto Barricata to the mouth of the Po di Tolle, this itinerary explores the Sacca degli Scardovari and the lagoons of the Busa del Bastimento, where the sea water merges with the much more fresh water of the lagoon. The excursion lasts about three hours.

The Birdwatching Itineraries

With an ornithological patrimony of over 370 species of aquatic birds, either resident or migratory, the Po River Delta is simply a must for birdwatching enthusiasts. Every corner of this area has a host of surprises and thrills in store, and time will pass swiftly with the patient and careful observation of these creatures caught up in their daily activities. With the zoom set at the maximum and the video camera always at hand, visitors can immortalize scenes that are not only original but also have natural-historical value. Every wetland environment in the Delta is fine for birdwatching, but there are basically four itineraries that are highly recommended. The *Via delle Valli del Sud*, in the Porto Tolle area, winds among bodies of water populated by thousands of birds: ducks of all species, flamingos and, in the shallow water, an incredible variety of limicolous or mud-dwelling birds – which hop about searching for food in the silt, or better, mud – can be spotted from the small towers and observation points along the stretch between Porto Levante and the Po di Maistra. And precisely this latter, the **Po di Maistra**, is one of

Professor Maurizio Fantinato of the 'Giuseppe Cipriani' IPSSAR hotel and culinary institute of Adria. Stockfish, which in the Rovigo area is usually called *baccalà*, has become a representative dish. Picked clean, reduced to a *purée*, and cooked by expert hands and then added, as in this case, to the risotto, the stockfish becomes a delicacy that enchants even the most discriminating palate. To prepare risotto with stockfish, toast the rice (Carnaroli del Delta) with a little olive oil in a large casserole, soak it in dry white wine, add the stockfish which has been cooked beforehand (best if boiled plain) and the broth, then stir continuously; as a finishing touch, add a bit of butter, a good portion of Grana Padano cheese and finely chopped parsley.



Opposite page, top to bottom: greater flamingos in the Valle Pozzantini, at Rosolina Mare (22); a hunters' stand at Boccasette, in the municipality of Porto Tolle (23). Large photograph: dawn at the Ca' Pisani flood plain, at Porto Viro (24). Above: two black-winged stilts (25).



Top to bottom: view of the Via delle Valli (26); yellow water lily (27); a farm holiday structure in the Po River Delta Park (28).

the most interesting routes for birdwatching: due to the exceptional variety of bird species and dense river vegetation, it is considered the most spectacular branch of the Po Delta. The third area is the **Oasi di Ca' Mello**, a protected area facing the Sacca degli Scardovari at Porto Tolle, where there is a small observation tower: with binoculars it is easy to follow hawks, kestrels, cormorants, grebes and gulls on the wing. The freshwater inland lake, bordered by luxuriant vegetation, is populated above all by the bird species that prefer reed beds, including the bearded tit. The more expert birdwatchers will even be able to recognize the call of the great reed warbler, which hardly ever comes out in open to be admired. Last of all is the **Valle Canelle**, at the junction of the Rosolina Mare provincial road and the Via delle Valli. This is the favourite environment of the purple and grey herons; by going along the Via delle Valli, in Valle Pozzantini near Albarella, in the summer one can spot the greater flamingo as well.

Accommodation and Dining

The list of services and facilities for accommodation and dining in the Park can be seen on the Web site page www.parcodeltapo.org/vivereildelta/ospitalita, which is divided into the sections "Mangiare" (Where to Dine) and "Dormire" (Where to Sleep).

Every municipality has lodging and dining establishments to meet every need, from the most sophisticated to the simplest, in keeping with the nature of the area: hotels, holiday farms, bed and breakfast residences, vacation and guest houses, hostels, refuges and bivouacs. And even campers will be able to find areas where they can pitch their tents. The many inns, trattorias, holiday farms and restaurants offer typical Polesine area cuisine, which is simple and genuine, based on the products cultivated or raised in the area.

Those who choose to find lodgings outside the Park can consult the list of services on the following Web site: www.veneto.to

The Park Museums

During the excursions in the Po Delta it is a good idea to become acquainted with the historical-archaeological treasures of this ancient land, which has Early Bronze Age, Etruscan, Roman, medieval and Venetian artefacts. Many of these are kept in the **Museo Archeologico Nazionale di Adria** (National Archaeological Museum), the town north of the Po di Venezia situated halfway between Rovigo and Rosolina: the precious exhibition there affords an overview of the various cultures that have influenced the Delta area. Again in Adria, it is worthwhile paying a visit to the **Septem Maria Museum**, situated in the machine room of the Amolara drainage plant, the exhibition of which has water as its keynote.

At Loreo, a few kilometres east of Rosolina, there is the **Antiquarium**, established to make the ancient Roman site of Corte Cavanella and its finds accessible to the public. At Porto Viro the **Museo della**

Corte di Ca' Cappello houses an interesting ethnographic section with reconstructions of certain environments of the rural civilization in the Polesine area; and in the Ca' Cappellino district the local beekeepers have set up a **Centro di Apicoltura** (Bee-keeping Centre) with an interesting exhibition-museum. In the Ca' Tiepolo district of Porto Tolle one can visit the **Centro Documentazione della Civiltà Contadina** (Documentation Centre of Rural Civilization), featuring a collection of tools, photographs and material that documents the work and daily activities of the local farmers. The other museum centres in the Po Delta not mentioned here are described in the preceding section, 'Park Agency and Visitors' Centres'.



Above: the San Basilio Museum, Ariano nel Polesine, mentioned on page 15 (29). Below: the Ca' Vendramin Regional Reclamation Museum, Taglio di Po, mentioned on page 15 (30). Museo della Corte di Ca' Cappello, Porto Viro (31).





THE VENICE LAGOON AND THE FISH FARMS OF CAORLE AND BIBIONE

THE VENICE LAGOON

What is it that makes the Venice Lagoon unique? It may be the sense of suspension, the sensation of living in a repeated, eternal meeting of land and sea. Or the magic of always new landscapes which, almost as if in an act of betrayal, surprise one at every corner, beyond the curve of every canal. Or again, it could be the mystery and silence in which the lagoon is wrapped, the colours of its skies traversed by flocks of pochards and the long lines of cormorants that dart over the sandbanks carpeted with red salicornia.

It may be because the Venice Lagoon, the largest in the Mediterranean and certainly the best-loved in the world, has magnificent monuments and, with all its pomp and splendour, is still the home of traditions and handicraft trades that are virtually unique and together with its islets is one of the most powerful witnesses of human history and culture. And then it may be because, drawing strength from the water and earth, it lives and breathes in one of the most extraordinary ecosystems from a natural-historical and environmental standpoint: the Venice Lagoon, the most important wetland area in Italy, is also one of the most prominent areas in Europe due to the concentration of wintering birds and great number of nest-building species. For these reasons Venice and its lagoon were placed on the UNESCO World Heritage List in 1987. And it is surely no accident that over 24,000,000 visitors from all over the world go there every year to get lost, for the pure pleasure of being lost, among the canals packed with boats and gondolas, in the labyrinth of alleyways, and in the squares, overwhelmed with admiration for this treasure trove of a city that rocks to and fro on its lagoon.

Man began frequenting the Lagoon 5,000-6,000 years ago, although the continuous variation in the sea level and coastline probably eliminated traces of human settlements in that period. Only after 1000 BC, thanks to the improved geological stability of the lagoon, did people

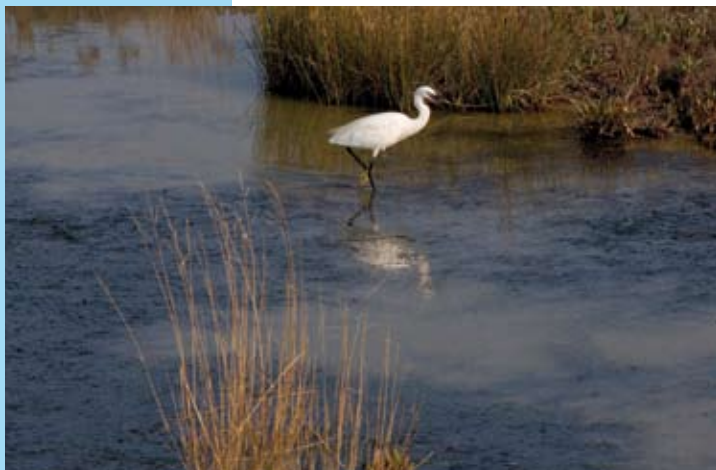
The Lagoon in Figures

Surface area: 55,000 hectares, divided by 3 watersheds into 4 sub-basins (Treporti, 15,000 hectares, and the Lido, 10,000 hectares, to the north; Malamocco, 17,000 hectares, in the middle; Chioggia, 13,000 hectares, to the south)
Outlets to the sea: 3 (Lido, Malamocco, Chioggia)
Depth: 15-20 m in the main canals; less than 1 m in the marshy areas; 1 to 3 m in the remaining areas
Environments: almost 80% of the lagoon surface consists of bodies of water, including the 24 valli da pesca or fish farms, which occupy 17%; the rest consists of emerged land, that is, islands (5%) and marshy areas with sandbanks (18%).

Opposite page: a squacco heron (32).

Below: view of a canal in Venice (33).





Among Canals, Alleyways and Squares

Venice lies in an archipelago of 118 islets traversed by about 150 canals (called *rii*) that are connected to one another by over 400 bridges. The canals are the highways of large vessels, motorboats, water buses and the typical gondolas with their characteristic elongated shape and flat bottom so suitable for navigation in shallow water. Those who prefer to get about on foot have the *calli* (also known as *rughe*, *salizade*, *sottoportici*, *rami*, and *fondamenta*), narrow alleys that cross over the canals via small bridges and then open out onto broad squares that in Venice are called *campi* or *campielli*.

begin to create permanent settlements. The literature on this subject, and above the archaeological finds, lead to the conclusion that the Venice Lagoon was active during the Roman period. This is attested by the harbour of Chioggia (ancient *Clodia*). Furthermore, traces of villas have been found on the island of Torcello, in the north lagoon, while near the town of Malamocco (ancient *Metamauco*), on the Lido di Venezia, there are remains of harbour settlements as well as of salt-works and mills.

There is more certain documentation regarding the fifth and sixth century AD, when populations fleeing from the barbarian invasions came to the area, followed by the Longobards in 568, after which various places were settled, including Torcello, Murano, and Burano and Malamocco. The last-mentioned town was the first headquarters of the Doge of Venice until this was to Rivoalto, the present-day Rialto, in Venice.

It is no easy task to follow the evolution of the morphology of the lagoon through the millennia. What we see today is the result of major natural upheavals such as floods,

climatic changes, and the rise in sea level, all of which have formed the present-day landscape. Bounded by the mouths of the Sile River to the north, and of the Brenta to the south, the Venice Lagoon is separated physically from the sea by the long sand bars (at Jesolo, Cavallino-Treporti, Venice, Pellestrina and Sottomarina) that extend for over 50 km. Since it is in an enclosed area, the lagoon is subject to phenomena such as *acqua alta* and *acqua bassa* (high and low water) deriving from the great difference in tidal levels. *Acqua alta* usually occurs in winter, when the astronomical tides and the sirocco wind determine a greater flow of water into the Lagoon, thus flooding the lower islands. *Acqua bassa* on the other hand makes it virtually impossible to navigate in the more shallow canals.

The island of Venice, the home of the art city *par excellence*, is the junction of the north lagoon (made up of an archipelago that includes the famous islands of Burano and Torcello) and the south lagoon, with Pellestrina and Chioggia. The latter town has been called 'Little Venice' because its urban layout and architecture are similar to those of the regional capital. Overall there are about 40 islands in the Venice Lagoon, scattered in an unparalleled environment that boasts a variety of habitats of extraordinary ecological value. In order to gain first-hand knowledge of these niches it is a good idea to begin by observing the sand bars and banks, which are indispensable for the ecological equilibrium of the lagoon since they contribute to the water exchange, mitigate the action of the waves and are the home of rich vegetation and a large number of bird species.

They are to be found everywhere, but especially in the northern part of the lagoon and in the area of fish farms, in the central-southern sector.

The lagoon canals are also very important, because they guarantee the water exchange between the lagoon and the sea, therefore the very survival of the lagoon. The Venetian ecosystem has three such canals, which begin at the three outlets of the Lido, Malamocco and Chioggia. Their most



Opposite page: an egret in the north Venice Lagoon (34). Top to bottom: aerial view of a part of the north Venice Lagoon (35); view of the Canal Vena at Chioggia (36); the scenery in the north Venice Lagoon (37).

Bricole and Paline

In order to navigate in the canals of Venice one must be well acquainted with the lagoon. No Venetian would ever venture into its waters without respecting the routes that are clearly marked by the bricole and paline. The former are two or more poles set into the lagoon bottom that indicate the boundaries of the navigable courses, while the latter consist of only one pole and are used for mooring craft. Furthermore, there are the centuries-old secrets of becoming a true expert in this matter, handed down from generation to generation: being well acquainted with the various hues of the water, the currents, the tides, and the shallow zones, are fundamental for safe navigation in the lagoon.



tortuous branches are the so-called *ghebi*, which flow onto the sand banks and end up in the *chiasi*, small basins of rainwater or brackish water.

Another fundamental environment consists of the long, narrow **dune ridges** that separate the lagoon from the sea, the famous *lidi* or sand bars. They should be visited because of their unique and beautiful landscape, where the lagoon and sea are framed by the splendid littoral pine groves, dunes and various wetlands. Furthermore, they are the sole defence of the towns against the open sea, to which they are completely exposed. This is why they have always been subject to erosive action and progressive disintegration. In order to prevent this wave erosion, already in the late sixth century works were carried out in some of the weakest points of the shoreline, and the first half of the eighteenth century witnessed the construction of the *murazzi* or sea walls, large barriers made of Istria stone and pozzolana (while building the walls the labourers discovered the latter rock which, when mixed with sand and lime becomes cement that hardens even in water).

Equally interesting sights are the *casse di colmata*, the artificial islands built in the 1960s with material obtained from the excavation of the Canale dei Petroli, which was created in order to allow ships to reach the industrial harbour. These islands are situated in the Porto Marghera area and are exposed to the influence of the tides; they

have both freshwater and brackish water environments that alternate with wooded zones, with highly diversified vegetation. Lastly, a must is a visit to the typical *valli da pesca* (fish farms), which are common features of the entire lagoon area and are particularly numerous in the north and central-south sectors of the Venice Lagoon.

The exceptional environments contain ecosystems of great natural-historical value. First and foremost is the **Cavallino peninsula**, 15 km of golden sand beaches set amidst a splendid landscape of pine stands, the lagoon and sand banks; then there are the **Alberoni sand dunes**, with the best preserved dune system in the Upper Adriatic, and **Ca' Roman**, a paradise for birdwatchers eager for exciting experiences. In order to protect these valuable ecosystems, the Municipality of Venice (by means of a convention drawn up with the Province of Venice) entrusted the administration of the Alberoni Dunes and Ca' Roman reserves with the World Wildlife Fund and LIPU (the Italian League for Bird Protection), respectively. **Valle Averte**, the former fish farm and hunting reserve of the municipality of Campagna Lupia, in the central-southern section of the lagoon, is also a WWF nature and wildlife reserve.

Exploring the Venice Lagoon

Penetrating the various habitats of the Venice Lagoon, exploring its fish farms, becoming acquainted with the



Opposite page: bricole in the Burano Canal, north Venice Lagoon (38).

Above: the island of Sant'Erasmo (39).

Below: dawn on the sandbanks of Valle Dogà, in the north Venice Lagoon (40); students on a field trip at the Punta Sabbioni pine wood in the Cavallino peninsula (41).



The Cavallino Peninsula

Run by the Servizio Forestale Regionale (Regional Forest Agency) of Treviso and Venice, the peninsula of Cavallino is a Site of Community Importance (SCI) and a Special Protection Zone (SPZ) that extends for about 400 hectares in the northern sector of the Venice Lagoon. The shoreline consists of around 15 km of golden sand with a thick pine wood

behind it where one can take long bicycle rides. Here the sea and lagoon present us with their most beautiful landscapes: open horizons, dunes and beaches alternating with shoals and sand ridges, tall reed beds, marshes and fish farms, with luxuriant vegetation and a unique atmosphere.

Along the shoreline are fascinating small towns, including Cavallino itself and the characteristic lagoon village of Lio Piccolo.



The Natura 2000 Network

The Natura 2000 Network was established through CEE Directive 92/43/CEE of 21 May 1992 (better known as the Habitats Directive, related to the "conservation of natural and semi-natural habitats and of wild flora and fauna"). Its objective is to protect biodiversity by promoting the integration of protective measures with social-economic and cultural activities in the Network territory. Thus, every member nation is called upon to draw up a list of sites of natural-historical importance which, after being assessed by the Natura Committee, are placed on the List of Sites of Community Importance (SCI). Within six years after European Union approval, the sites are then classified as Special Areas of Conservation (SAC). The Special Protection Zones (SPZ) – so designated as per Directive 2009/147/CE (known as the Birds Directive) because they are the home of bird species of major community importance – are also a part of the Natura 2000 Network. The Veneto Region boasts a network of 102 SCI sites and 67 SPZ zones, with a total surface area of 414,675 hectares, equal to 22.5% of the regional territory.

lagoon ecosystem, and observing its fragile equilibrium fist-hand, is a form of tourism wholly different from the classical itineraries that concentrate on the great art city and the most famous islands nearby.

Navigating in the canals is quite pleasant and – while making sure to see the Sant'Erasmo and Le Vignole market gardens, the traditional handicrafts of Murano and Burano, or the majestic architecture of Torcello – is in any case the right approach to the lagoon. The trips by boat will afford a close-up view of the aquatic environment and, above all, of the marvellous bird colonies that have made it their home. There is no problem for those who haven't a boat of their own: the public transport system arrives almost everywhere in the lagoon.

It is more unusual, and certainly more ecological, to use a **bicycle**, the ideal means for going along the shorelines of the *lidi* or sand reefs. In particular, by heading southward from the northernmost point of the Lido of Venice it is possible to reach the Alberoni dunes, and from there take the bike on board to continue pedalling along the sandy strip of the island of Pellestrina opposite: here, with a view of the sea on one side and the lagoon on the other, one can ride as far as the Ca' Roman reserve. And it is precisely these two reserves – along with the Valle Averso reserve in



the central-south lagoon – that have most of the itineraries proposed in this guide.

These routes make it possible for visitors to discover the secrets of the wetland environments and explore the unique and varied features of the extraordinary ecosystem of the Venice Lagoon.

The Itineraries in the Alberoni Dunes, Ca' Roman and Valle Averso Nature Reserves

The WWF Alberoni Dunes Reserve

In the central-southern part of the Venice Lagoon, the Alberoni dune network, which is about 2 km long, is one of the best preserved in the Upper Adriatic region. A WWF reserve since 1997, it has a surface area of 160 hectares situated at the southern tip of the Lido island, after the town of Malamocco, and is part of the municipality of Venice.

These extremely important habitats are the home of the **original ecosystem of the sandy Veneto coastline**, with highly interesting species of flowers that are exclusive to the Venetian littoral regions and that have attracted the attention of renowned botanists.

This site is also the ideal environment for a remarkable range of bird species, which prefer the Alberoni dunes as a stopover during their migration or the wintering period.

Up to the nineteenth century there was only sea here.

After the construction of the north dam of the Malamocco inlet in 1872, the current began to accumulate large quantities of sand close to the dam, thus creating the beach.

Then the wind, especially the bora, modelled the dunes and created the incredible ecosystem we see today.

The characteristic environments of this reserve are the **beach**, the **mobile sand dunes**, the **inland dunes** with barren plains, sheltered from the dominating winds, and the **inter-dunal lowlands**, which are colonized by wetland meadows. Near this dune system is a vast **pine forest**: created thanks to reforestation work carried out after World War Two, it is now being converted into a mixed broad-

How to Get There

From Venice, take one of the municipal navigation (ACTV) water buses (lines 1, 51 or 61) to the Lido Santa Maria Elisabetta stop, which is the terminus, and then proceed by bus (line A or B) to Alberoni.



Opposite page: a little tern in flight (44).

Above: a cycling route in the locality of Lido Piccolo, Cavallino peninsula (45).

Below: Ammophila vegetation on the white Alberoni dunes (46); aerial view of the Alberoni dunes and pine wood (47).





Top to bottom: marsh helleborine (48); *Salicornia* (49); a loggerhead sea turtle (50).

leaved wood with holly oak, manna ash, pubescent oak and white poplars that grow spontaneously.

Among the species endemic to the sandy shores of the Upper Adriatic are thick growths of dune grass with its long, tapering blades; sea medick, with bright yellow flowers; *Cyperus calli*, which is closely related to papyrus; and *Tortula ruralis* moss, *Centaurea tommasinii* knapweed and European dogbane (*Trachomitum venetum*).

The pinewood is administered by the Treviso and Venice Regional Forest Services, whereas the rest of the reserve is managed by the Veneto branch of the WWF and the Municipality of Venice, by agreement with the Province of Venice. The area has been classified as a **Site of Community Importance (SCI)** and **Special Protection Zone (SPZ)**.

The Tours

The area can be visited freely all year long, but the most suitable seasons are spring and autumn, when the flowers are in bloom and birdwatching conditions are ideal. One of the best ways to tour the reserve is by bicycle, crossing the Lido from north to south, and then going on foot along the paths that penetrate the dunes and other special environments.

The WWF organizes periodical guided tours.

For information and contacts: WWF Veneto

Tel. +39 348 2686472 - alberoni@wwf.it

Osservatorio Naturalistico della Laguna - Comune di Venezia

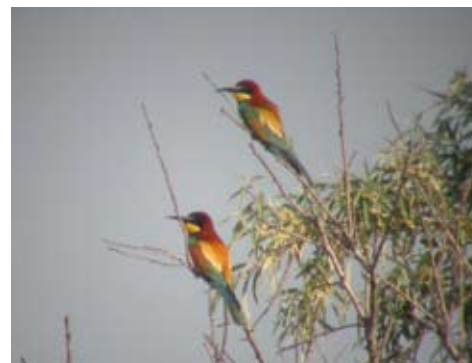
Tel. +39 041 2759567

The LIPU Ca' Roman Reserve

The 51 hectares of the LIPU Ca' Roman Reserve lie in the southern sector of the lagoon, at the southern tip of Pellestrina (opposite Chioggia), to which it is joined by the artificial Murazzi dams or sea walls. In the jurisdiction of the municipality of Venice, this is the last ramification of the sand bars from Cavallino to Chioggia that separate the lagoon from the sea. At first Ca' Roman was a small

sandy islet created by the accumulation of sediment; following the construction of the sea walls and the harbour of Chioggia in 1911, the shoreline began to advance around three m every year, increasing considerably in size, a process that is still in progress. Isolated and wild, hardly exploited from the standpoint of tourism, Ca' Roman is one of the **most intact dunal systems in the Upper Adriatic** and contains all the environments typical of the Venetian shorelines, from sandy beaches to dunes and pine woods behind the dune zones. Due to its high level of biological diversity and its natural-historical value, as well as its great wealth of bird species, this reserve is a **Site of Community Importance (SCI)** and **Special Protection Zone (SPZ)**. Around 180 bird species were recorded up to 2007, including the Kentish plover and little tern, which have established true nest-building colonies here, colonies that had almost completely disappeared at the beginning of this century and that have shown signs of slow but constant growth thanks to the protection and conservation measures adopted. The delicate, fragile nature of the dune network demands special and wise strategies and foresight, such as absolutely prohibiting the use of mechanized means to clean the beaches.

And in fact at Ca' Roman the refuse is removed manually.



How to Get There

From Venice, go to the Lido via an ACTV water bus (lines 1, 51 or 61), then take the no. 11 bus to Pellestrina. Get off at the end of the line (the cemetery) and take the ACTV boat to Chioggia. An alternative would be to go along the murazzo or sea wall on foot (about 1.8 km) to the reserve.

From Chioggia, take the no. 11 ACTV boat to Pellestrina; the Ca' Roman stop is the intermediate one, which you will get to after 12 minutes of navigation.



Left: bee-eaters (51).

Top to bottom: a goatsucker (52); black-winged stilts on a shoal (53); a dune covered with *Ammophila littoralis* grass (54).



Top to bottom: a mute swan gliding (55); a red-breasted merganser (56); the black-necked grebe (57). Opposite page: a bittern hidden in the vegetation (58).

The Tours

The best periods for visits are from March to June and from September to November. Besides being the months with fewer visitors and bathers, they are also the ones when it is possible to see a larger number of birds. One can **explore the reserve freely** by going along the specially laid-out **nature trails**, which are fitted with educational and information panels.

Guided visits are carried out all year long by appointment. Furthermore, from mid-May to early October the LIPU body organizes **boat excursions**, during which participants can see the reserve and the most important habitats in the southern lagoon.

For information and reservations:
Tel. +39 349 2344705 - oasi.caroman@lipu.it

The WWF Valle Averso Reserve

Large bodies of freshwater and brackish water, reed beds, wild meadows, canals and woods are the environments

that alternate in the stunning Valle Averso nature reserve. Situated in the median-lower part of the Venice Lagoon, it was a hunting reserve in the early 1900s. Among the different proprietors of the Valle was the Ninni di Monastier family, which, thanks to the love of nature of one of its members, ichthyologist and ornithologist Count Emilio Ninni, first reported the presence of two very rare species in the Venice Lagoon: the whooper swan and common pratincole. This area was extremely fortunate, since the following proprietors, the counts of the Ancillotto family, carried out important environmental maintenance and preservation works there.

Thanks to this, but above all thanks to the praiseworthy efforts of the WWF – which first turned the area into a wildlife refuge, then a protected reserve, and ended up purchasing part of the Valle Averso – one of the **best preserved valli da pesca** or fish farms in the Venice Lagoon.

The landscape is dominated by canebrakes that alternate with large expanses of bulrushes and rushes. What is more, already in the early years of its management the WWF set out to re-introduce, in the innermost area, typical plants of hygrophilous lowland woods, that is, trees that thrive in moist places, such as alder, black poplar, elm, and ash.

The reserve is the home of **exceptional bird populations**, for both their size and the variety of species.

The best time for a visit is winter, when over 15,000 birds congregate here.

The largest group is that of the anatids, represented by mallards, teals, shovellers, northern pintails, and red-crested pochards (which have become the symbol of the reserve). Equally numerous are the ardeids dwarf herons, grey herons, great egrets and purple herons. Among the other birds recorded here are the greater flamingo, Eurasian spoonbill, black-winged stilt, avocet and common redshank, and, among the raptors, the white-tailed eagle, common buzzard, marsh harrier, hen harrier, sparrow hawk and osprey.

Figures and History

Surface area: 500 hectares, 200 of which are a Reserve administered by the WWF (of these 200, 84 are owned outright by the WWF)

Associated municipality: Campagna Lupia (VE)

The Stages

1984: the WWF stipulates a rental contract with the proprietor Count Carlo Ancillotto and establishes a wildlife refuge there

1988: the Valle Averso becomes a regional nature reserve administered by the WWF

1989: the area is placed on the List of Wetlands of International Importance for the exceptional level of its aquatic bird habitat, a list that is part of the Ramsar Convention

1994: thanks to a contribution on the part of the European Union, the WWF purchases 84 hectares of the Valle Averso reserve.

How to Get There

From Venice, take the SS 309 Romea road in the direction of Chioggia; at km 112.800, at the crossroad of the Canale Novissimo and the town of Lugo di Campagna Lupia, the 'Oasi WWF' sign, in the direction of the Laguna di Venezia (Venice Lagoon), indicates the entrance to the reserve.



Opening Times and Guided Tours

The reserve is open to visitors all year long, except for the Christmas period and from mid-July to mid-August. The guided tours take place on Saturday, Sunday and holidays, and are available every day for groups and students by appointment. For information and reservations, contact the Ca' Tiepolo Visitors' Centre.



Top to bottom: the Ca' Tiepolo Visitors' Centre in the Valle Averso sanctuary (59); black-winged stilts and avocets, Valle Averso (60).

The Visitors' Centre and Fish Farm and Lagoon Museum

The Valle Averso Visitors' Centre is located in the Ca' Tiepolo Renaissance lodge. Besides serving as a reception and information point for visitors to the reserve, this is the home of the Museo del Territorio delle Valli e della Laguna. Established by the WWF in 1996, the museum provides an overview of human action in the area through such structures as the *cavane* (boat houses) and *lavorieri* (fish trap networks), which bear witness to the activities carried out here.

The Museum, which is now being reorganized, presents examples and documentation of fish farming, and old materials and tools used for hunting and fishing. Beyond the lodge there is an exposition of lagoon and fish-farm boats, including the extremely light sandal (the *sandalo* or *saltafossi*), with its elongated form; the *caorlina*, which may have earned this name because it was built in Caorle; the world-famous *gondola*; and the so-called *vela al terzo* fishing boats, the *bragosso* and the *topo lagunare*, which are still used in the lagoon.

There is also an ethnographic and natural-historical itinerary in the *Valle* in which visitors can discover the historic environments of the wetlands. Again, of great interest are the archaeological features of the *Campagna Lupia* area, which was once traversed by the *Medoacus minor*, an old branch of the Brenta River that connected the most important ancient Roman centre of the *Patavium* region – present day Padua – to the lagoon and the sea. The zone next to the reserve is a centre of archaeological research and excavations that have brought to light important Paleo-Veneto and ancient Roman artefacts, which are on display in the nearby Santa Maria di Lugo church, beyond the Canale Novissimo.

Besides the permanent exhibitions connected to the Museum, the Ca' Tiepolo Centre periodically organizes events such as the Festival of Typical Lagoon Products in the spring, and the Old Trades Festival held in September.

The large didactic hall, which has a seating capacity of 40, hosts events with films and audiovisual presentations.

For information and contacts: Riserva Naturale Oasi WWF di Valle Averso Ca' Tiepolo, 30010 Campagna Lupia (VE)
Tel. +39 345 4524609 - oasivalleaverto@wwf.it
Tel. Head office +39 041 5185068 - Fax +39 041 5185377

The Guided Tours

In order to allow visitors to see the most representative sights in the Valle Averso, the WWF organizes guided tours along the "Sentiero Natura", nature trail, which was laid out expressly for this purpose.

The trail is 5 km long and can be done on foot in about two hours. It is flat for its entire length and is complemented by didactic panels.

The tour along the nature trail includes stops in the huts, in the observation towers, in the boat house that has an exhibition of typical lagoon craft, and in the *lavoriero*, the labyrinthine fish trap, where the guide illustrates how the fish is caught in the fish farms. Furthermore, there are walkways and screened observation points.

The "Sentiero Natura" is accessible for disabled persons.

Accommodation and Dining

It goes without saying that there is no end to the hospitality in the Venice Lagoon, as visitors are guaranteed a wide range of services and facilities shaped to meet all needs. Venice, the tourist city par excellence, is the ideal base for visits to the north lagoon, while the itineraries in the southern part are easier to reach from Chioggia, which also has facilities that will satisfy every need.

Those who prefer to stay far from the most popular tourist areas can go to the small towns in the immediate hinterland, which also offer excellent accommodation and dining services.

The list of services can be found on the following Web site: www.veneto.to

For Connoisseurs of Fine Food
Sant'Erasmo, the island in the Venice Lagoon that is famous for its market gardens, boasts a Slow Food Presidium of Sant'Erasmo violet artichoke. Long, tender, succulent and prickly, this artichoke was once used as compost mixed with the scoasse (refuse in Venetian dialect) or with sea or lobster shells, which regulated the acidity of the earth. In order to promote this vegetable, describe it and allow producers to obtain fairer prices, the Presidium has gathered together all the vegetable growers from the lagoon islands and territory where this artichoke is cultivated (Vignole, Mazzorbo and Lio Piccolo, besides Sant'Erasmo). The artichoke tastes good even when eaten raw and can be cooked in various ways. The following is the recipe for torta co i articiocchi de Sant'Erasmo (Sant'Erasmo artichoke pie), a very simple dish that enhances the taste of this choice vegetable. First of all, wash the artichoke and throw away the hard leaves, then wash the remaining leaves and cut them into round slices. Flavour these with salt, pepper and chopped parsley and cook them with a little olive oil and water for about 15 minutes. After taking the slices off the burner, add diced gruyère cheese and beaten eggs and pour liquid cream over this, mixing it in well. In the meantime, place puff paste in a lightly buttered baking-tin, then pour the artichoke mixture onto the paste and cook it in an oven at 180 degrees for 40 minutes. Serve warm.

Protecting the Venice Lagoon

The need to **protect the Venice Lagoon** is an increasingly pressing problem and topical subject: in this highly important ecosystem — which is as complicated as it is fragile — there coexist the strong influence of man and extremely delicate natural dynamics, with needs that are difficult to reconcile.

Over the centuries there has been an increasingly clear-cut natural tendency to increase cultivation. This is what has occurred in the nearby lagoons, including those of Caorle and Bibione, the land of which was gradually reclaimed. In order to avoid the same fate for their own lagoon, the Venetians and their governments have always tried to intervene with special measures (albeit artificial, hence 'against nature' in a certain sense) and protective laws. For example, in the sixteenth century the Piave, Sile and Brenta rivers, which originally flowed into the Venice Lagoon, were deviated

into the sea in order to reduce the volume of sediment deposits, and during the nineteenth century, with the construction of the breakwaters, the quantity of sand transported by the sea decreased ten-fold.

But the absolute necessity to protect this magnificent ecosystem — which with the tempo of coastal dynamics is evolving at an incredible pace — has attracted the attention of both regional and national authorities, who have invested a concentration of resources and means to stimulate studies, monitoring and the development of projects.

The Management Plan

On 27 February 2007 the Veneto Region approved the new '**Venice Lagoon' Special Protected Zone (SPZ)**, which incorporated, enlarged and partly replaced the Natura 2000 sites that had already been classified in the same area, thus initiating the analysis and consequent draft of the Management Plan. After the new Venice Lagoon SPZ was approved, the Veneto Region and the Magistrato delle Acque di Venezia (Venetian Water Board) undersigned, in 2008, a protocol agreement



The scenery in the north Venice Lagoon; in the background, the island of Burano (61).

for the drafting and enactment of the area Management Plan. In early 2009 a work group was formed to see to the completion of the Plan, with the collaboration of over 20 institutions, among the many other organizations that participated.

The Management Plan, a **very important instrument in the Venice Lagoon protection programme**, is to be placed in the context of regional programming that will make use of the largest amount of knowledge and experience at hand, in order to avoid proposals that do not take into account all the data (scientific, environmental, cultural, etc.) and also to make certain that all the tools available for the safeguarding of this unique ecological treasure are utilized in the best possible manner.

The objective of the Plan is to consolidate the largest islands, Venice and Chioggia, as well as the other islands that are important from a scenic, historical and architectural standpoint, and also to preserve the unique economic enterprises of the area, including the fish farms.



The typical scenery of the north Venice Lagoon (62).



The island of San Francesco del Deserto, in the north Venice Lagoon (63).

Puntolaguna

Those who would like information on the condition of Venice and its lagoon, and on the various protective measures that have been or are being put into practice, can contact Puntolaguna, the multi-media information centre run by the State, promoted by the Venetian Water Board and managed by the Consorzio Venezia Nuova consortium. The centre organizes many initiatives, such as virtual visits to the lagoon, technical update seminars, and educational activities and workshops for children. For information and reservations: Puntolaguna
Campo Santo Stefano 2949
30100 Venezia
Tel. +39 041 5293582
puntolaguna@magisacque.it
www.salve.it

How to Get There

Caorle can be reached easily from the A4 Venice-Trieste autostrada. Whether you are going to or coming from Venice, the exit to take is Santo Stino di Livenza, after which you go onto the SP 61 road and then on the SP 59 road, which goes directly to Caorle. The distance from the autostrada tollbooth to Caorle is roughly 25 km. To get to Bibione, exit from the A4 autostrada at Latisana, go onto the SP 7 road and, once in San Michele al Tagliamento, proceed onto the SP 74 road, which goes to Bibione. The overall distance from the autostrada is 24 km.



THE FISH FARMS OF CAORLE AND BIBIONE

A network of fish farms (*valli da pesca*, literally translated 'fish valleys') and canals is the distinguishing feature of the hinterland of Caorle and Bibione, which has replaced what was once a large lagoon. In fact, the fish farms of Caorle and Bibione, together with the island of Valle Vecchia — which lies between these two towns — are the last witness of the ancient lagoon environment typical of the shoreline. Classified as a Site of Community Importance (SCI) and Special Protection Area (SPA), this is one of the most highly prized environments in the Upper Adriatic. After the fall of the Roman Empire in AD 476 and the successive barbarian invasions, most of the population moved from the mainland toward the lagoon and then began to settle permanently in this area, relying on fishing for their livelihood. Despite the major reclamation work carried out over the centuries, especially in the first decades of the twentieth century, the wetlands of Caorle are still rather large: an extremely fascinating sanctuary that is the favourite habitat of many species of ducks and geese that use the fish farms as a resting place during their migration or as wintering or reproduction sites.

Of all the Caorle fish farms, the **Valle Zignago** is the largest, as well as the one situated most inland. Its landscape consists of large bodies of water (the surface area of the water is 377 hectares out of a total of 814 hectares) and islands covered with woods. Both here and in the neighbouring and smaller **Valle Perera** (151 hectares) the aquatic environments, marked by a low degree of salinity, are bordered by luxuriant reed beds and an abundance of trees and bushes. There are also some abandoned dwellings, weirs and *lavorieri* (labyrinthine fish-traps), as well as numerous boat-houses. Standing out in the Valle Zignago is the elegant two-storey typical structure known as a *cason padronale*, which belongs to the fish farm owner, flanked by the house of the superintendent. A curiosity: the place



name derives from the long-time presence here of the mute swan, which in Italian is *cigno reale*, hence Cignago, which was later changed to Zignago.

A little further south, the **Valle Grande** or **San Gaetano**, also known as the Valle Franchetti, has a surface area of 220 hectares divided into three sub-basins with a very low degree of salinity. The north and central basins are made conspicuous by the presence of some historic buildings, including Baron Franchetti's fishing *cason* and hunting *cason*; the south basin on the other hand is used for extensive mullet breeding. Furthermore there is a large reed bed populated by an incredible range of aquatic birds.

Lastly, the **Valle Nova**, the one nearest the sea, is the only fish farm in the Caorle Lagoon that has preserved the characteristic features of halophilous environments: its long and fascinating shoals are the home of various plant species that easily tolerate high salinity levels.

Close to the **Bibione** seaside establishments, in the mu-

The Fish Farms

Derived from the Latin *vallum*, which means embankment or protection, the *valli da pesca* are lagoon areas used as fish farms; they are separated from the rest of the lagoon by means of permanent barriers made of poles or embankments. Despite the fact that they are 'artificial' zones created for commercial purposes, they are still very important natural environments and are also the ideal nest-building site for many birds.

Opposite page, top to bottom: cattle egrets criss-crossing (64); reed beds in the Falconera marsh, Caorle (65). Above: mallards and coots at Valle Vecchia (66).



Top to bottom: the Falconera marsh at ValleVecchia (67); gadwolls in flight at ValleVecchia (68).

Below: a screened passage with an ornithological observation point at ValleVecchia (69); dawn at Porto Baseleghe, Caorle (70).



nicipality of San Michele al Tagliamento, there are two especially interesting wetland zones: the basins of **Vallesina**, to the east, and **Vallegrande**, to the west.

Vallesina is made up of small bodies of water with a slight degree of salinity bordered by reed beds in which one notes the typical *valli da pesca* structures: the weirs, the *lavoriero*, the fish farm superintendent's house and other rural buildings. The more extensive Vallegrande is an enchanting sanctuary consisting of 260 hectares of water and 100 hectares of land, with a splendid pine and holly oak wood where many wild animals live. Specially built observation points are ideal for watching the birds as they build their nests or make their periodic flights over the lake. Standing out among all this pristine natural setting is the splendid hunting *cason*, a historic building with service annexes, including the superintendent's house, the guest house and a storehouse. There are also the remains of an ancient Roman villa. Hunting as well as the intensive breeding of mullets, bass, giltheades and eels are carried out in all the fish farms.

Exploring the Fish Farms

The *valli da pesca* or fish farms of Caorle and Bibione cannot be visited because they are private property. However, one can enjoy their scenery by going, either by car or bicycle, along the outermost municipal roads and those that skirt the lagoon. Without going into the private fish farms, the **authorized guides** of the Province of Venice (consult Web site www.turismo.provincia.venezia.it for the list) take visitors on tours that are extremely interesting from an ecological standpoint and that, depending on the season, will allow visitors to delve into the various aspects of this unique environment: those who love botany should come here in late spring, whereas early spring, late summer and autumn are the best times for birdwatching. There are also interesting tours that can be made in a **rowboat** or **canoa**. The Associazione per la Laguna di Caorle e Bibione (Caorle and Bibione Lagoon Association), which is engaged in



the realization of the 'Promotion of the Caorle and Bibione Lagoon Park' Leader Plus Project, offers on Web site www.parcolagunare.it a boat tour of the Caorle Lagoon. It is 10 km long and starts off from the small Falconera beach, goes up the Nicosolo canal, skirts the right side of the Fante swamp, and then passes by the island with traditional *casoni* or fishermen's houses, the Isola dei Casoni, and arrives at the Valle Rotelle peninsula, up to the narrow Canale degli Alberoni.

Should you decide to combine physical activity and nature by exploring the *valli* by bicycle, you will not regret it: this is certainly the best way to see these enchanting areas. The Caorle and Bibione Lagoon Association provides detailed information regarding the cycling routes that wind among the canal embankments and fish farms. The **Caorle-Brussa cycling itinerary**, 25 km long, is a ring route that starts off (and ends) at Lugugnana. This route is for more expert cyclists and offers especially interesting natural scenery, since it covers different wetland environments, including the fish farms, lagoons and marshy zones. The itinerary also includes a visit to the island of ValleVecchia.

Another tour that starts off from Lugugnana is the **Caorle-Valle Rotelle itinerary**. About 20 km long and of average

Across the River and into the Trees

"Four boats went up the main canal toward the large lagoon to the north... It was all iced over, freshly frozen during the sudden cold of the windless night." The lagoon is that of Caorle, and the author of the above quotation is Ernest Hemingway, who was a frequent guest at the Villa Franchetti and went hunting with his host, Baron Franchetti, thus coming into direct contact with the wild nature of the site. In fact, his novel "Across the River and into the Trees" is filled with the American novelist's recollections and impressions of the area and contains one of the most compelling descriptions of the winter landscape in the Caorle Lagoon.



Above left: dwarf herons on the wing at ValleVecchia (71).

Top to bottom: view of Vallegrande di Bibione (72); a small work-boat at Valle Nova, Caorle (73).

How to Get There

From the A4 autostrada, take the Latisana exit, go on the SP 7 road and, once in San Michele al Tagliamento, proceed on the SP 74 road; after about 2.5 km take the SP 42 road as far as Lugugnana, which is about 3 km further on. At this point, go onto the SP 70 road and continue in the direction of the sea for about 11 km, until you come to the access bridge to ValleVecchia.



Top to bottom: aerial view of the pine wood and beach of ValleVecchia (74); cultivated fields in the Azienda Agricola or farm of ValleVecchia (75).

difficulty, it skirts the Valle Perera area, the Canale dei Lovi, Canale degli Alberoni and Canale Nicesolo.

The **San Michele al Tagliamento** route, which is 29 km long but easy, runs through the interior of the reclaimed countryside, beginning and ending at Cesarolo.

The **Bibione cycling itinerary**, 23 km long, is very interesting. It goes along the Vallegrande, the Vallesina fish farm, the wetlands of Porto Baseleghe, the small inland lagoon known as Lama di Revellino, which is still connected to the sea and, lastly, the mouth of the Tagliamento River, which has fascinating vegetation and rare ecosystems.

The Island of ValleVecchia

Nine hundred hectares surrounded by the waters of the sea, rivers and lagoons; a long deserted beach over 5 km long in front of a pine grove; and, in the interior, vast cultivated fields lying among canals and artificially inundated basins: this is the island of ValleVecchia, the precious, non-urbanized coastal area situated between Caorle and Bibione and connected to the mainland by a bridge.

The property of the Region of Veneto and managed by the Veneto Agricoltura body, the island is the result of reclamation works and other changes effected in the twentieth century. Since the reclamation of its wetlands around 1960, most of the island has consisted of cultivated land that produces mostly cereals. Before the reclamation was

carried out, a stand of pine trees was planted on the belt of sand dunes that separates the rest of the island from the long beach and the sea. Today the **variety of water and environments** that surround ValleVecchia – sea, lagoon, canals – create a complex configuration that is extremely interesting from an ecological and environmental standpoint.

Since the late 1990s the Veneto Agricoltura organization has been involved in the **project of environmental upgrading** of the area, which calls for improvement of the agrarian landscape, the restoration of certain special environments (freshwater and brackish water marshes, the meadows behind the sand dunes, littoral woods), and safeguarding the area from uncontrolled visits. In fact, in order to limit the flow of visitors it was necessary to introduce regulations that would prevent anything incompatible with or harmful to the environment. In keeping with the UE Bird and Habitat Directives (ValleVecchia is in fact a **SCI and SPA area**), upgrading and improvement steps were taken: the realization of works of bioengineering to protect the dunes along the seashore; the under-planting of broad-leaved trees in the artificial pine stand; the creation of more than 70 hectares of new lowland woods, over 15 km of hedges and 11 hectares of wooded wetland zones; the inundation of about 80 hectares of land with both brackish and fresh water; and the creation of about

The ValleVecchia Pilot Farm

Managed by Veneto Agricoltura, the Azienda Agricola ValleVecchia or ValleVecchia farm, which was initially orientated to animal husbandry and extensive agriculture, with time has become an experimental and demonstrative farm: not only production, but also and above all training for the benefit of farmers, entire days devoted to demonstration, conferences and meetings with workers in this sector. Shortly the farmland will become an experimental area in which pilot projects of ecologically sustainable agriculture will be tested and new forms of nature tourism (including seaside, but not mass, tourism), as well as didactic activities linked to natural science, will be developed.

For information and contacts: Azienda Pilota e Dimostrativa ValleVecchia
Via Dossetto 1, Località Brussa 30020 Lugugnana (VE)
vallevecchia@venetoagricoltura.org
info@venetoagricoltura.org

Bibione, the First Certified Beach in Europe

Bibione was the first resort in Europe to be awarded the Eco-Management and Audit Scheme (EMAS) Environmental Certificate, the European Union system whereby companies and organisations, both public and private, agree to have their environmental perform-

ance evaluated and improved. Thus the quality of the water and services offered on this beach in the Veneto region is constantly monitored. Furthermore, Bibione has differentiated refuse collection and an urbanization policy that aims at safeguarding the environment.



Opening Times and Guided Tours

The island of ValleVecchia can be visited all year long. The museum is open from June to September on Friday, Saturday and Sunday, but can be visited every day by appointment. The guided tours of both the museum and the island take place every day by appointment only. The guided bicycle excursions are scheduled for Friday, Saturday and Sunday from 5:30 to 7:30 p.m. from June to September.

For information, make inquiries at the Veneto Agricoltura:
Tel. +39 049 8293760
educazione@venetoagricoltura.org
www.vallevecchia.it
For reservations for the guided tours, made inquiries at the Cooperativa Limosa:
Tel. +39 041 932003
Fax +39 041 5384743
limosa@limosa.it - www.limosa.it

The Centro di Educazione Naturalistica ValleVecchia (Natural-historical Education Centre)

This Centre is particularly active in organizing educational activities for groups and students. Environmental education is complemented by excursions, workshops and boat tours so that young people can come into direct contact with all the variegated nature on the island. The didactic programme and environmental activities are managed by the Cooperativa Limosa, a cooperative that can be contacted as follows:
Tel. +39 041 932003
Fax +39 041 5384743
limosa@limosa.it

twenty small wetland zones. Today the island of Vallevecchia is distinguished by the integrity of the sandy shoreline, which is still intact despite the reclamation work and artificial forestation effected in the last century. But it is characterized above all by an extremely interesting environmental complexity due to the coexistence of so many very different entities in less than 1,000 hectares of land.

The Visitors' Centre (Centro visite) and the Museum

The Visitors' Centre is located in the MAV, the Museo Ambientale ValleVecchia (ValleVecchia Environmental Museum) inaugurated in May 2008. Set up in a former drying storehouse on the farm, the centre is three stories high and has a large terrace with a commanding view of the whole island. The Centre-Museum has information panels, models, dioramas and interactive stations accessible to visitors that describe the story of ValleVecchia and the Caorle Lagoon from a historic, natural historic and productive standpoint. There are also a large conference hall, a fully equipped didactic workshop and a reconstruction in scale of a *casone* made with traditional techniques and materials.

The Rest Area (Area di Sosta), situated a short distance from the Environmental Museum and near the pine grove, also has hospitality services for visitors. There is a large parking space (on the island motor vehicles are allowed only from the access bridge to the Rest Area, where they must be parked), green zones with picnic, shower and bathroom facilities and, in the summer, a point where one can rent bicycles, binoculars and spyglasses.

The Itineraries

Any period of the year is suitable for a visit to the island, with the exception of the torrid summer days or exceptionally cold and windy days in winter. The best time for birdwatching is early spring, late summer and autumn, when there are more birds, including such interesting



species as curlews, teals, Eurasian wigeons, pochards, gadwells, and oystercatchers. In very cold years, thousands of grey or greylag geese arrive from northern countries in late winter. It is quite easy to explore this island on your own. All the paths are well marked with precise signs and also have explanatory didactic panels. So there is nothing better for those who love to walk at their own pace and decide when and where to stop.

The Visitors' Centre (and the Rest Area in summer) provides free maps of ValleVecchia with indications of all the island paths that can be followed on foot, by bicycle, and on horseback.

Accommodation and Dining

The proximity of the famous seaside resorts of Caorle and Bibione guarantees a wide range of services to meet visitors' needs and preferences. There are camping grounds, bread and breakfast and holiday farm establishments, and hotels of every category at your disposal, while as for refreshments and meals there is no lack of choice from among the many snack bars, typical trattorias and quality restaurants. The towns in the immediate hinterland also have services able to satisfy all tastes.

The list of services can be seen on the following Web site: www.veneto.to

For Connoisseurs of Fine Food

One of the most typical and tastiest local dishes is seppie alla veneziana (cuttlefish Venetian style). Here is the recipe for those who appreciate high-quality cuisine. Select cuttlefish that are not too large and clean them: take out the black sac - laying it aside for time being - and wash the rest and cut it into strips. Brown some cloves of garlic in olive oil with finely chopped onions. Once this is browned, take out the garlic. Add the cuttlefish and, after browning them, add parsley and a bit of salt and pepper. At this stage, add as much tomato sauce as you like, as well as the black sac, and then pour some white wine over the mixture. Continue cooking over a moderate flame, adding fish broth if needed. The cuttlefish is ready when it is creamy, not liquid.

Top left: a sparrowhawk (78).
Below: a cavana or boat house in Valle Franchetti, Caorle (79).



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