

THE BEAUTY AND DIVERSITY
OF NORTH-EAST
ADRIATIC WETLANDS





cover photos: Kajetan Kravos

WETLANDS OF THE NORTH-EAST ADRIATIC

The wetlands of the North Adriatic were created over the last 20,000 years as the sea level rose and dropped again, the sea water gradually flooding flat land along the sea. These processes are still at work today as are the processes of rivers depositing sediments that helped build the stretch of sandy shores marking the outer limit of the existing North Adriatic lagoon areas. The wetlands of the North-East Adriatic are of key importance for the conservation of threatened animal and plant species and biodiversity on the national and international levels.

The Ramsar Convention defines wetlands as areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.

»The North-East Adriatic wetlands are a paradise for ornithologists and bird watchers. No other natural area in Europe can boast such diversity of bird species. So far over 400 species have been sighted here, which is a large number compared with just over 550 bird species to be found in Europe. Lagoons, lakes and other freshwater coastal and marine marshes bustling with life have been preserved thanks to efficient nature conservation projects and wise decisions,« says Dr. Fabio Perco, Conservation Manager of the Isola della Cona Biological Station at the Isonzo River Mouth Regional Nature Reserve.

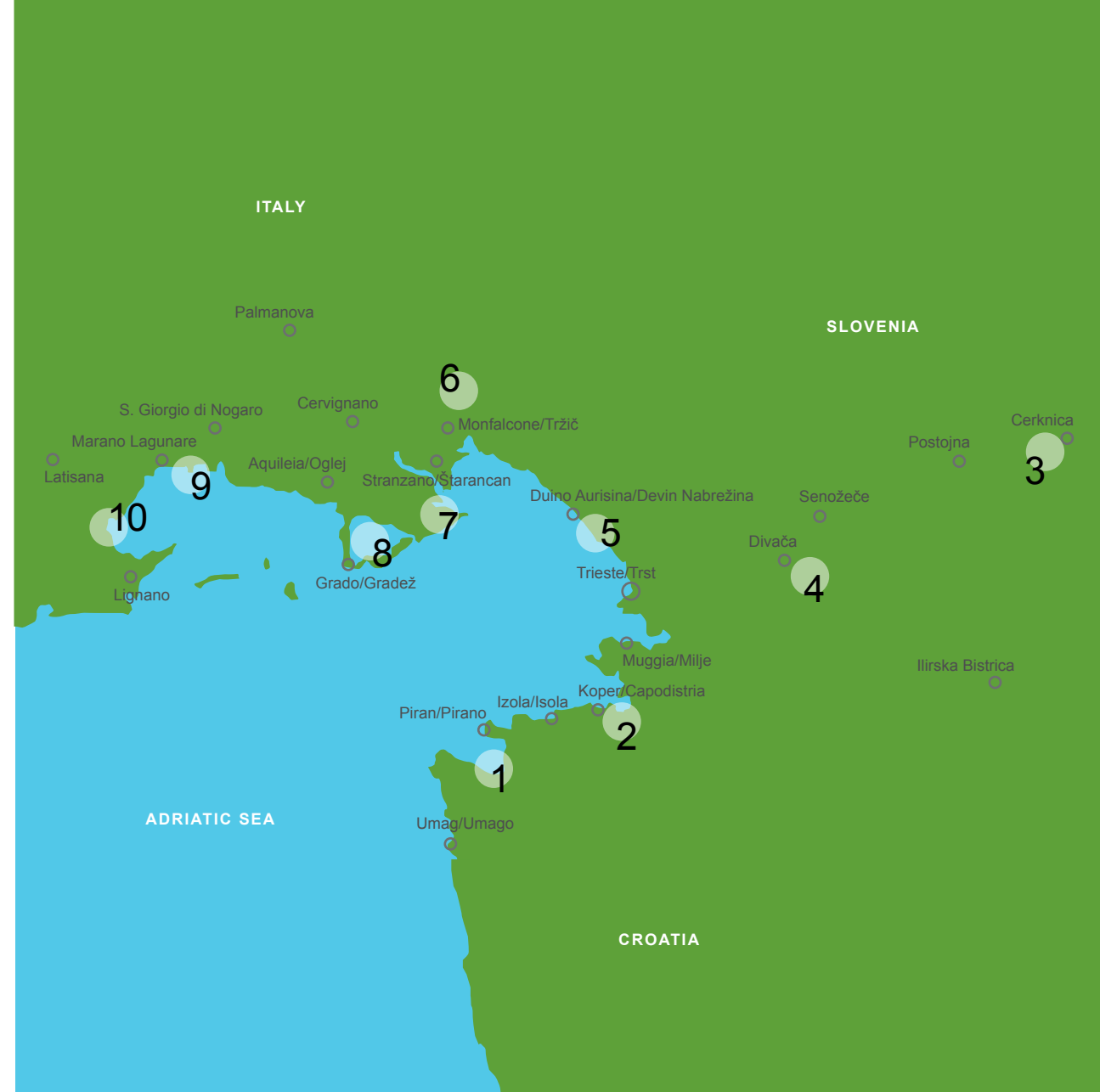
This brochure gives a short description of a part of this treasure – ten North Adriatic wetlands, hoping to spark public interest in the wealth of these diverse yet often unknown and neglected habitats and entice you to visit them.

WETLANDS OF THE NORTH-EAST ADRIATIC

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All presented areas except Miramare Marine Nature Reserve are part of the European network Natura 2000.



KRAJINSKI PARK SEČOVLJSKE SOLINE

SEČOVLJE SALINA NATURE PARK

HABITAT BETWEEN THE LAND AND THE SEA

Sečovlje Salina Nature Park covers about 650 ha along the Slovenian-Croatian border in the extreme south-western part of Slovenia. The area consists of two saltpans: Fontanigge, where salt-harvesting was discontinued in the 1960s, is well-known today for its biodiversity and the remains of the rich history of salt-making operations whereas in the other part of the reserve called Lera salt is still made using traditional methods.

At Lera there is an information centre, a gift-shop with saltpan products and souvenirs and an art gallery. At Fontanigge, the medieval tradition of salt-making is on display in the Museum of Salt-Making.

Guided group tours of the park and museum are organised by prior appointment. Although salt is made throughout the year, visitors may find the nature park most interesting in summer when salt crystallizes from brine and at Lera pyramid-shaped piles of salt shine against the blue of the sky. Ornithologists and avid lovers of nature, culture and landscape will take pleasure in the environment of saltpans and its soothing effects all year round.

At Sečovlje Salina centuries of human influence have created a typical saltpan ecosystem that provides habitat for over 280 bird species, some of them never or rarely nesting elsewhere in Slovenia. Typical saltpan inhabitants include the Brine Shrimp and the Mediterranean Killfish, whereas the flora of the area is characterized by salt-tolerant plants – halophytes.



INFORMATION:

www.kpss.si

SOLINE Pridelava soli d.o.o.

Seča/Sezza 115, 6320 Portorož/Portorose, Slovenia

tel.: + 386 5 6721 330

e-mail: kpss@soline.si

OPENING HOURS:

The park is open:

- in the cold months of the year 9:00 – 17:00;
- in the warm months of the year 8:00 – 20:00.

Management Authority:
SOLINE Pridelava soli d.o.o.



photos: Iztok Škornik

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NARAVNI REZERVAT ŠKOCJANSKI ZATOK

ŠKOCJANSKI ZATOK NATURE RESERVE

OASIS ON THE DOORSTEP OF KOPER

Škocjanski zatok Nature Reserve is the largest brackish wetland in Slovenia. The area famous for high diversity of bird species lies on the outskirts of the city of Koper. As an oasis in the urbanised world, it offers home and shelter to various animal and plant species. The reserve consists of a brackish lagoon surrounded by halophytes and reedbeds and a freshwater marsh with wet meadows, extensive reedbeds and thermophilic shrubs in the area known as the »Bertoška bonifika«. It has been fully restored in recent years, after urbanisation processes had led to a near-complete devastation of the area at the end of the 20th century.

Visitors can observe life at the reserve from observation spots along the circular education trail laid out along the borders of the freshwater marsh. By the end of 2009, a visitor centre, bird hides and other structures are expected to be built which will enhance the possibility of learning, experiencing nature and exploring the reserve. The best view of the reserve will be from the central observation tower which will also enable visitors to admire the underwater world of the freshwater marsh.

Škocjanski zatok provides numerous opportunities for education and research. The educational programme it offers is tailored to suit the age of the children and includes several different activities for kindergarten children, primary and secondary school pupils and students, who are offered a range of research activities such as nature science days, lectures and various educational events. Visitor facilities and the programme of the reserve are also accessible to special needs visitors: people with mobility restrictions, the blind and visually impaired, and the deaf.



INFORMATION:

www.skocjanski-zatok.org
DOPPS – BirdLife Slovenia
Staničev trg/Piazzetta Valentin Stanič 16, 6000 Koper/Capodistria, Slovenia
tel.: + 386 5 6260 370
e-mail: skocjanski@skocjanski-zatok.org

OPENING HOURS:

The reserve is open year-round during the daytime (from sunrise to sunset).
The temporary information office is open in Koper:
• on Mondays, Wednesdays and Thursdays 10:00 – 12:00 and
• on Wednesdays 15:00 – 17:00.



Management Authority:
DOPPS – BirdLife Slovenia

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photos: Borut Mozetič, Kajetan Kravos

NOTRANJSKI REGIJSKI PARK

NOTRANJSKA REGIONAL PARK

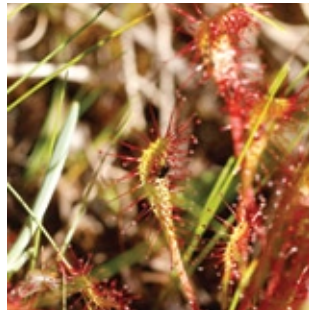
THE STUNNING LAKE CERKNICA

Chance visitors coming from a vast mixed forest which borders Notranjska Regional Park to the north, south and west are struck at the sight of a wide plain opening up in front of them, a true karst polje with the disappearing Lake Cerknica. There may not be another lake in the entire world that changes its form so strikingly and offers so many different impressions as Lake Cerknica, which is why every visit to this area is a unique experience.

The driving force behind lake processes is the repeated changing of dry and wet periods. These have created special conditions in which plants have taken up the role of amphibians and learned to survive in the water and on the land. Lake Cerknica is well-known for high diversity of bird species: over 250 species have been sighted and 100 of these breed in the area.

The lake's water inflow is almost as mysterious as its discharge. The water sinks into swallow holes and sinkholes whose names are often associated with water e.g. Vodonos, Rešeto, Retje, Kotel, Velika Karlovica and Mala Karlovica. Then, it flows through the caves of Velika Karlovica and Mala Karlovica and re-emerges in a karst valley called Rakov Škočjan, whose main sights are the natural bridges Veliki most and Mali most, attractive remains of the ceiling of a former collapse cave.

Notranjska Regional Park offers school children and other organised groups an opportunity to learn more about and experience Lake Cerknica and Rakov Škočjan. One-day or two-day trips welcome visitors who wish to learn from this unique environment and develop their own interpretation of what they see, their own attitude to nature.



INFORMATION:

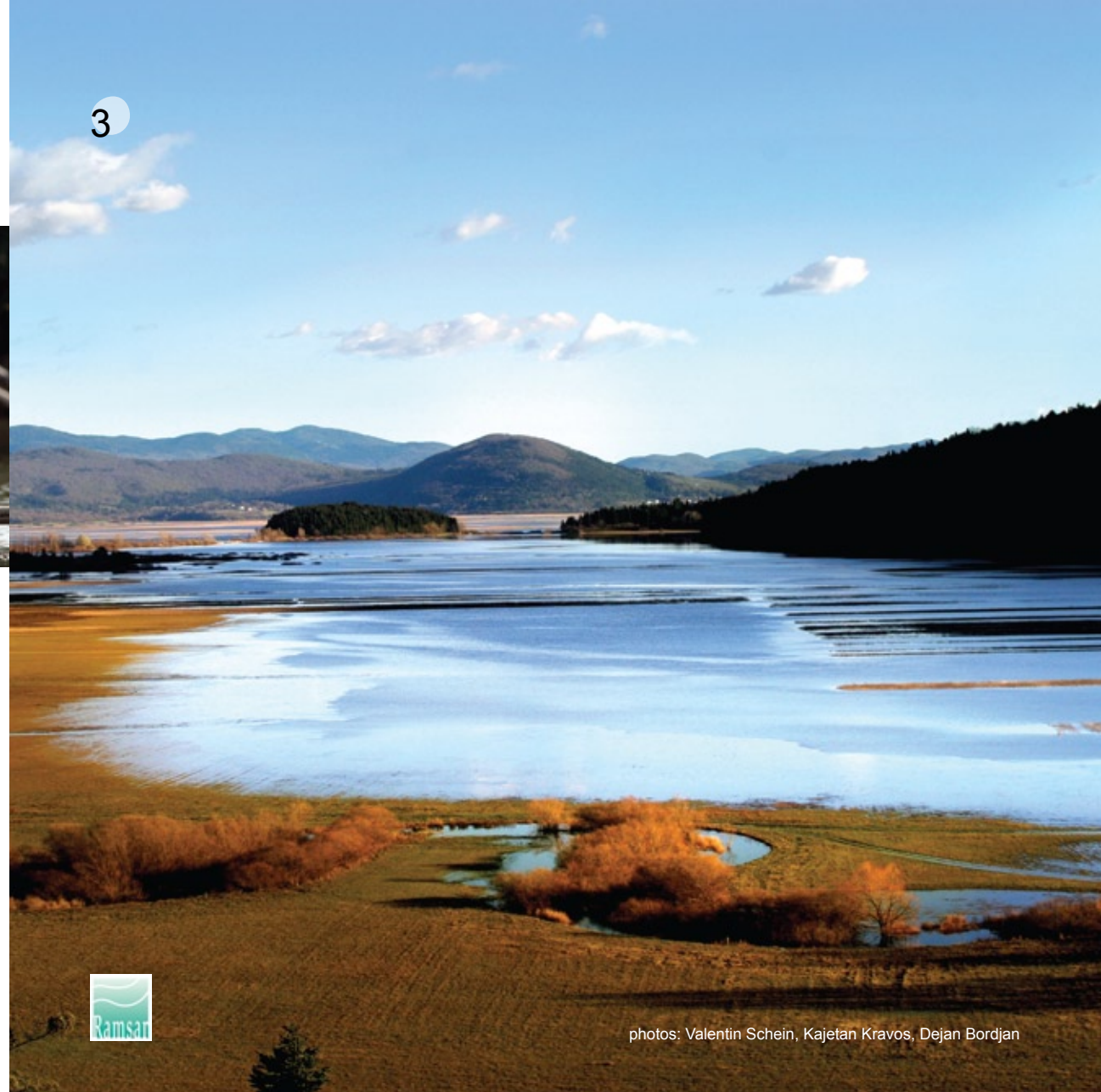
www.notranjski-park.si
Notranjska Regional Park
Tabor 42, 1380 Cerknica, Slovenia
tel.: + 386 5 90 91 612
e-mail: info@notranjski-park.si

OPENING HOURS:

The park is open to visitors all year round.
Information by phone available Monday to Thursday 7:00 – 15:00, Friday 7:00 – 14:00.

Management Authority:
Notranjska Regional Park

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photos: Valentin Schein, Kajetan Kravos, Dejan Bordjan

REGIJSKI PARK ŠKOCJANSKE JAME

ŠKOCJAN CAVES REGIONAL PARK

IN THE BOSOM OF THE CLASSICAL KARST

As a site of outstanding importance to the world natural heritage the Škocjan Caves were inscribed onto UNESCO's World Heritage List in 1996. With this act, the international expert public recognized the exceptional importance of cave systems as one of the jewels of the Earth. In 1999 the Škocjan Caves were added to the list of Ramsar Sites as the first underground wetland in the world, and in 2004 the site joined the MaB (Man and Biosphere) programme as the Karst Biosphere Reserve.

On account of their exceptional and unique value, the Škocjan Caves have been included in UNESCO's list of natural and cultural world heritage sites as a natural monument. Thus, they hold a significant position among the world's natural monuments. As a result of the entry, the Škocjan Caves have gained widespread acclaim as a site of world importance.

The Škocjan Caves are famous for spacious underground chambers and the underground canyon of the Reka River. The cave system consists of eleven caves, collapse dolinas, sinkholes, natural bridges and other Karst phenomena. The Martel Chamber is one of the largest underground chambers in Europe. The underground canyon of the Reka River spans over 2 km and is one of the largest and longest underground canyons in Europe and worldwide.



INFORMATION:

www.park-skocjanske-jame.si
Škocjan Caves Park Information Centre
Matavun 12, 6215 Divača, Slovenia
tel.: + 386 5 7082 110
e-mail: psj.info@psj.gov.si

OPENING HOURS:

The caves are open to visitors all year round.
The museum is open June to September 11:00 – 19:00.

Management Authority:
Škocjan Caves Park Public Service Agency

photos: Park archive



RISERVA NATURALE MARINA DE MIRAMARE

MIRAMARE MARINE NATURE RESERVE

MOSAIC OF NATURE, HISTORY AND ART

Miramare Marine Nature Reserve lies several kilometres north-west of Trieste. It extends from the promontory of Miramare, a small peninsula between the tourist port of Grignano and the Riviera of Barcola. The area measures 30 ha and is a part of the tourist product that combines natural, historical and artistic values.

The visitor centre is located inside the gardens of the Miramare Castle, in a small building called Castelletto. Visitors can learn more about different marine habitats and typical animal and plant species and take part in numerous entertaining and educational activities. From March to November, the reserve organises several activities such as guided tours and observations of the underground world.

A visit to Miramare Marine Nature Park is best supplemented by a tour of the cultural and historical attractions, e.g. of the castle of Maximilian of Habsburg. Just a short distance away, in the Grignano bay, there is another scientific museum. The Miramare Castle and the Castelletto are surrounded by an interesting garden where visitors can observe various plants from all over the world. Old trails wind up through vineyards and olive groves, taking visitors from the gardens to the higher-lying karst areas which provide amazing panoramic views of the Gulf of Trieste.



INFORMATION:

www.riservamarinamiramarere.it
Miramare Marine Nature Reserve
Viale Miramare, 349 - 34014 Grignano –
Trieste, Italy
tel.: +39 040 224 147
e-mail: info@riservamarinamiramarere.it

OPENING HOURS:

The visitor centre is open:

- October to March 9:00 – 17:00 and
- April to September 9:00 – 18:30.

Guided tours only by prior appointment.

Management Authority:
Italian Association WWF for Nature - ONLUS

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photos: Reserve archive, F. Marson

RISERVA NATURALE REGIONALE DEI LAGHI DI DOBERDÒ E PIETRAROSSA

LAKES OF DOBERDÒ AND PIETRAROSSA REGIONAL NATURE RESERVE

RICHNESS OF WETLANDS IN THE DRY KARSTIC TERRAIN

The peculiarity of the reserve lies in its two karst depressions (poljes) in which lakes without obvious inlets or outlets have formed, separated only by a limestone hill. The presence of surface water is in stark contrast to the surrounding dry, karst landscape. It has, however, permitted the existence of wetlands and thus led to an increase in the area's biodiversity. The intermittent Lake Doberdò is surrounded by a narrow strip of riparian forest with lush undergrowth that includes rare plants such as the Summer Snowflake and the Tall Violet.

A visitor centre has been built at a vantage point that is easily accessible on foot from the centre of Doberdò. The visitor centre houses a museum whose interactive tools help visitors learn about the characteristics of the natural beauty, flora and fauna and the history of the reserve and the karst in general. There are also dioramas on the First World War as it was fought in the Karst and the history of Slovenes in the area.

A walk through the protected area reveals the transition from the dryness of a typical karst landscape into a wetland. The trail down to the lake is also accessible to wheelchair users.

This wood is the only forest in Italy that hosts six woodpecker species: Wryneck, Grey-headed, Green, Black, Great Spotted and Lesser Spotted Woodpecker. The flooded underground caves host an endemic amphibian, the olm, whereas the symbol of the reserve is the Eastern hedgehog whose populations here mark the eastern edge of the species' distribution range.



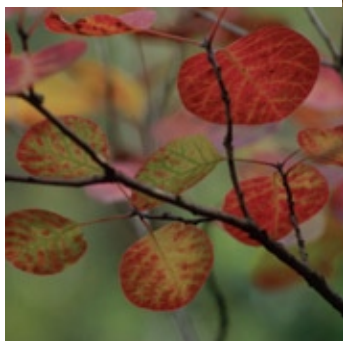
INFORMATION:

www.gradina.it
Gradina Visitor Centre
Via Vallone/Pot v Dol, 32 - 34070 Doberdo del Lago/Doberdob, Italy
tel.: +39 0481 784111
mobile: +39 333 405 68 00
e-mail: inforogos@gmail.com

OPENING HOURS:

The reserve is open to visitors all day, year-round, and the visitor centre is open:

- on Fridays 17:00 – 20:00 and
- on Saturdays and Sundays 10:00 – 20:00.



Management Authority:
Municipality of Doberdò, regular
management of the Gradina
Visitor Centre is entrusted to
the Rogos company.

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photos: Francesco Zanuttin, Aila Quadracci, Mario Černic and Karlo Ferletič



RISERVA NATURALE REGIONALE FOCE DELL'ISONZO

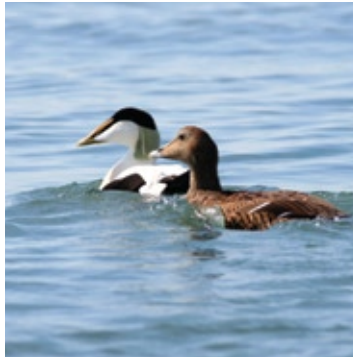
ISONZO RIVER MOUTH REGIONAL NATURE RESERVE

THE ISONZO RIVER MOUTH AS A NATURE'S WORKSHOP

The Isonzo River Mouth Regional Nature Reserve covers 2,340 ha of land along the last 15 km of the source of the Isonzo. Northward, there are gravel fields and riparian forests, and towards the south forest patches alternate with wet meadows, a recently restored freshwater marsh, reedbeds along the river mouth, sand islets and extensive sandflats and mudflats by the sea.

The best starting point for visit to the reserve is Isola della Cona, the 50-odd-hectare restored freshwater marsh. The visit to the reserve can begin at the attractive visitor centre, which houses an exhibition on renewable energy sources used to cater to the reserve's own needs, and the so-called Duck Museum. Then visitors can proceed along the nature trail winding up to the mouth of the Isonzo River. Several bird hides have been put up which provide great views of the reserve and the underwater life. Cycling trails are also provided. Guided excursions as well as horse-back trips, cycling and boat trips can be organised by prior appointment.

More than 300 bird species have been sighted here and 90 of them also breed in the area. Species diversity is highest in April, and in November 40,000 to 50,000 waders and water birds gather here. The reserve is also home to small herds of Camargue horses, which are in summer joined in grazing by cattle.



INFORMATION:

www.isoladellacona.it

Il Mosaico – Consortium of Social Cooperatives
Via Roma 48 – 33050 San Vito al Torre (UD), Italy
tel.: +39 0432 997320
e-mail: isoladellacona@consorzioilmosaico.org

OPENING HOURS:

The visitor centre, the museum of renewable energy sources and the café are open all week except Thursday:

- in summer 9:00 – 18:00 and
- in winter 9:00 – 17:00.

Management Authority:

Consortium of Municipalities of Štarančan, Grado, Škocjan and Fiumicello. Daily management is entrusted to the Consortium of Social Cooperatives »Il Mosaico«, and expert and technical management is carried out by the Isola della Cona Biological Station.

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photos: Kajetan Kravos, Matteo de Luca

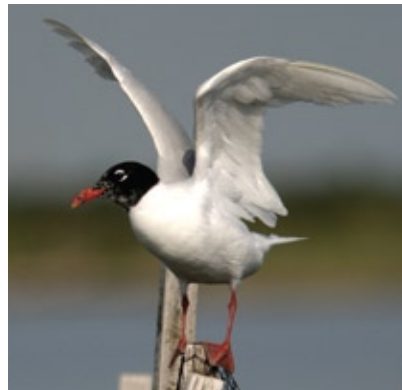
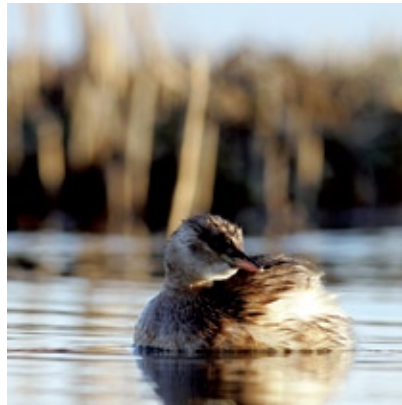
VALLE CAVANATA REGIONAL NATURE RESERVE

DIVERSE HABITATS OF THE GRADO LAGOON

The reserve is located in the eastern part of the Grado lagoon and is the remnant of a former lagoon that had been used for hunting and fishing for centuries. Located between the sea and the land, the area boasts a diversity of habitats (a lagoon, beaches, forests, meadows and marshes) and is as such an ideal nesting and wintering site for many bird species.

Three nature trails run from the visitor centre along the reserve. The first trail spans about a kilometre and a half and takes a visitor to an ancient fish-trap made of reeds; the second trails runs along the Averno Canal to a beach three kilometres away, and the third trail runs northwards along the channel. This trail is especially interesting in autumn and winter when large numbers of aquatic birds gather there.

Cameras have been placed at key points within the reserve, enabling the visitors to see on displays what is going on in the reserve without interfering in any way with the sensitive wildlife. Visitors can also enjoy a permanent exhibition on the reserve and a dynamic model of the lagoon fishery.



INFORMATION:

www.parks.it/riserva.valle.cavanata/
Visitor Centre
Via Grado Fossalon – 34073 Grado (GO), Italy
tel.: +39 0431 88272

OPENING HOURS:

The reserve is open:

- April to September on Mondays, Wednesdays and Fridays 9:00 – 12:30, on Saturdays 14:00 – 18:00 and on Sundays and holidays 10:00 – 16:00;
- October to March on Tuesdays and Thursdays 9:00 – 12:30 and on Sundays and holidays 10:00 – 16:00.

Management Authority:
Municipality of Grado



RISERVA NATURALE REGIONALE VALLE CANAL NOVO

VALLE CANAL NOVO REGIONAL NATURE RESERVE

THE PICTURESQUE HERITAGE OF A FORMER FISHING LAGOON

The nature reserve located on the doorstep of Marano Lagunare covers about 120 ha of area which was restored from a former lagoon fishery for the purposes of nature conservation and environmental education. A part of the reserve contains the lagoon's preserved water areas, and the remaining part is made up of the meadows of the nearby reclaimed land allocated to a planned wetland restoration project. All park infrastructure is constructed in the building tradition of former fishermen's cabins. Visitors can watch birds and learn a lot about the environment since the reserve is fully committed to the interpretation, education and conservation of the lagoon heritage.

The recently built lagoon aquarium offers visitors a chance to discover the main lagoon habitats, i.e. the river's delta, mudflats, channels and dunes, and »plunge« into the lagoon and explore the variety of organisms that live in this incredible brackish environment.

The reserve maintains a number of well-marked educational paths. Through modern facilities, practical teaching tools and advanced methodology the reserve provides visitors with an excellent opportunity to experience the richness of the lagoon environment in addition to offering them a chance to relax in the nature. The visitor centre is also used as the venue for various social and cultural events.



INFORMATION:

www.riservenaturali.maranolagunare.com
Municipality of Marano Lagunare, Nature Reserve Office – Visitor Centre
in the Valle Canal Novo Reserve
Via delle Valli, 2 – 33050 Marano Lagunare (UD), Italy
tel.: +39 0431 67551
e-mail: nrmarano@libero.it

OPENING HOURS:

The reserve is open year-round from Tuesday to Sunday (closed on Mondays):

- 16 September to 31 May 9:00 – 17:00;
- 1 June to 15 September 9:00 – 14:00 and 16:00 – 20:00.



Management Authority:
Municipality of Marano Lagunare



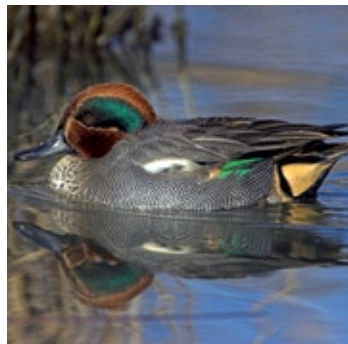
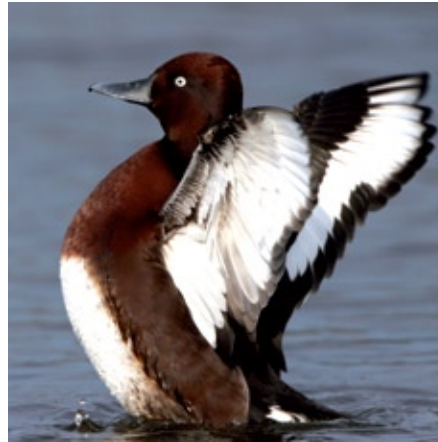
RISERVA NATURALE REGIONALE FOCI DELLO STELLA
STELLA RIVER MOUTH REGIONAL
NATURE RESERVE

BY BOAT ALONG THE LABYRINTH OF REEDS

The protected area consists of extensive wetlands stretching along the mouth of the Stella River west of Marano, not far from Latisana. The mouth of the river is made up of a maze of channels winding through extensive reedbeds and running over saltmarsh to large mudflats and shallows by the sea. The effect of the breathtaking panorama and abundant bird life is enhanced by casoni, typical local buildings made of wood and reeds in which fishermen used to spend the night on their long journeys.

By boat the site can be easily accessed through the channels of Marano and Lignano, or down the Stella River from the towns of Preceniccio and Palazzolo della Stella. Without a boat visitors can only see the northern part of the Stella River Mouth Nature Reserve, which measures a total of 1,377 ha. The nearest visitor centre is located at Marano Lagunare in the nearby Valle Canal Novo Reserve and caters to visitors to both reserves.

The main importance of the reserve is its abundant bird life resulting from the steady supply of food and shelter that extensive reedbeds provide for various bird species. The area is widely known for a Purple Heron colony, while the plenitude of food attracts Marsh Harriers. Nearby water areas are used as wintering sites by many aquatic bird species, in particular coots, ducks and geese.



INFORMATION:

www.riservenaturali.maranolagunare.com
Municipality of Marano Lagunare, Nature Reserve Office –
Visitor Centre in the Valle Canal Novo Reserve
Via delle Valli, 2 – 33050 Marano Lagunare (UD), Italy
tel.: + 39 0431 67551
e-mail: rmarano@libero.it

OPENING HOURS:

The reserve is open all year round but can only be accessed by boat.
School groups are welcome from Monday to Thursday.

Management Authority:
Municipality of Marano Lagunare



ADRIAWET – WHO ARE WE?

ADRIAWET is an informal network of North-Adriatic wetlands managers from Slovenia and Italy. The aim of the network is to contribute towards successful long-term conservation of wetlands through exchange of experience in the field of management and monitoring as well as common promotion of North-Adriatic wetlands.

The network consists of the managing authorities of wetlands, geographically ranging from coastal wetlands such as the Po River estuary, Venetian lagoons and the Isonzo River mouth in Italy, and Škocjanski zatok and Sečovlje salina in Slovenia as well as inland wetlands in Slovenia and in the Italian regions of Friuli Venezia Giulia and Veneto.

The idea on establishing such a network arose upon many years' co-operation between managers of the Isonzo River Mouth Nature Reserve in Italy and DOPPS – BirdLife Slovenia, acting as the manager of the Škocjanski zatok Nature Reserve in Slovenia. The network itself was established in April 2002 in Koper, Slovenia. Over the last years, the partners have made a new step in informal cooperation and enhanced it through trans-border participation in joint projects, aimed at wetland conservation. One of these projects is called Natura Primorske, which is primarily intended at joint promotion of North-Adriatic wetlands a part of which is also the present publication.

For more information on the protected areas of the North-East Adriatic visit: www.adriaticwetlands.com



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Government office for Local
Self-Government and Regional Policy



Republic of Slovenia
Ministry of the Environment
and Spatial Planning

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www.adriaticwetlands.com