

European Diploma for Protected Areas

PARC RÉGIONAL DE MIGLIARINO, SAN ROSSORE ET MASSACIUCCOLI (Italie)

ON-THE-SPOT APPRAISAL

13 – 15 May 2019



P. Galland
March 2020

Background

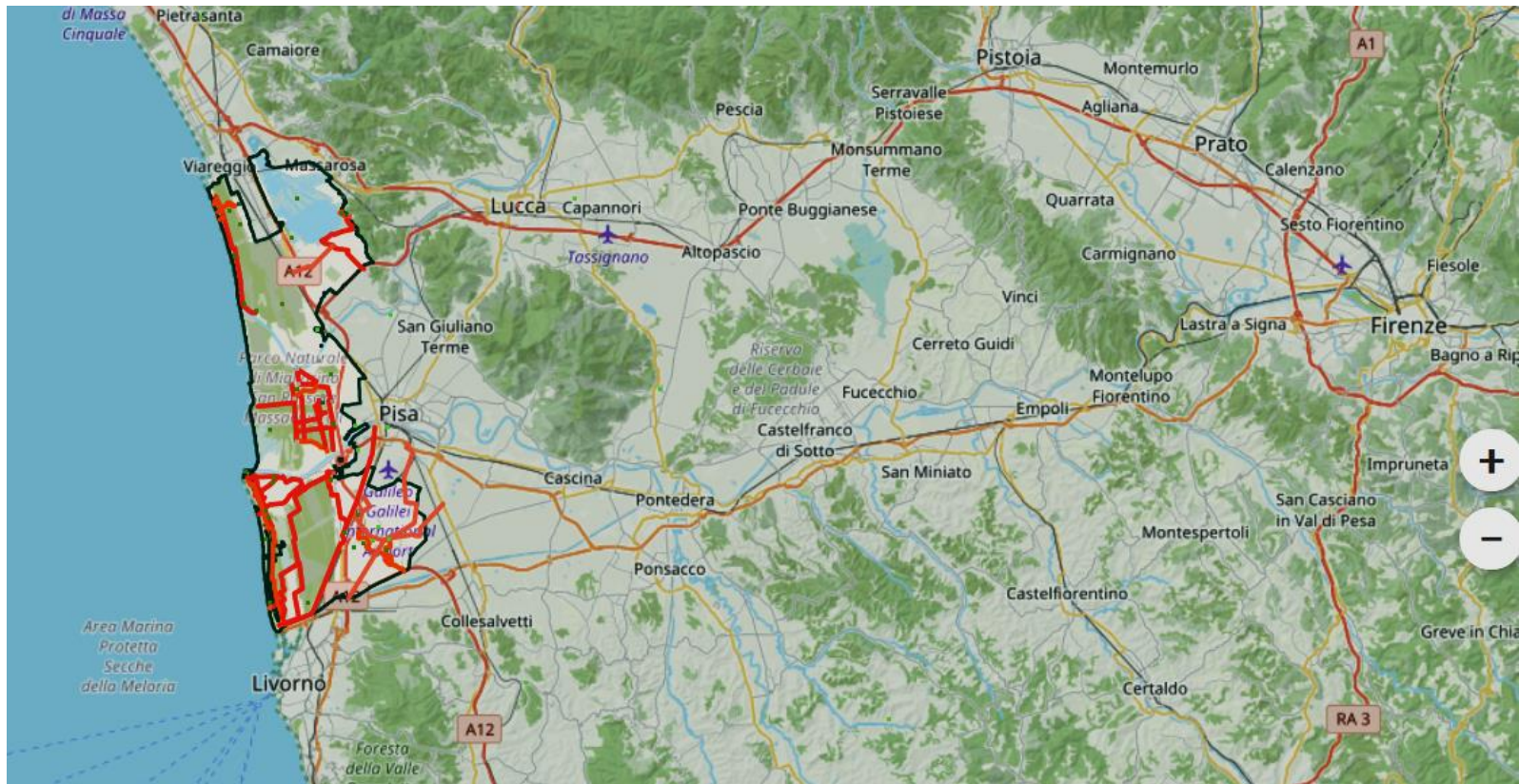
- The European Diploma was awarded to the Regional Park of Migliarino, San Rossore and Massaciuccoli in 2005. An on-the-spot visit was carried out on 11 and 12 June 2009, resulting in renewal until 2020. A further visit took place in May 2019, with a view to a decision on Diploma renewal scheduled for 2020.
- The visit took place in excellent conditions from 13 to 15 May; I warmly thank the Park's management, the head of forestry and the numerous participants in highly instructive talks throughout the visit.
- Particularly noteworthy is the quality of the annual reports prepared by Ms Francesca Logli, who has remained at the helm of the park since the initial diploma award. It was Ms Logli who coordinated the visit, provided all the information required and answered all the questions in a highly professional manner.



Short presentation

The Regional Park of Migliarino, San Rossore and Massaciuccoli lies on the Tuscan coast, between the localities of Viareggio in the north and Livorno in the south.

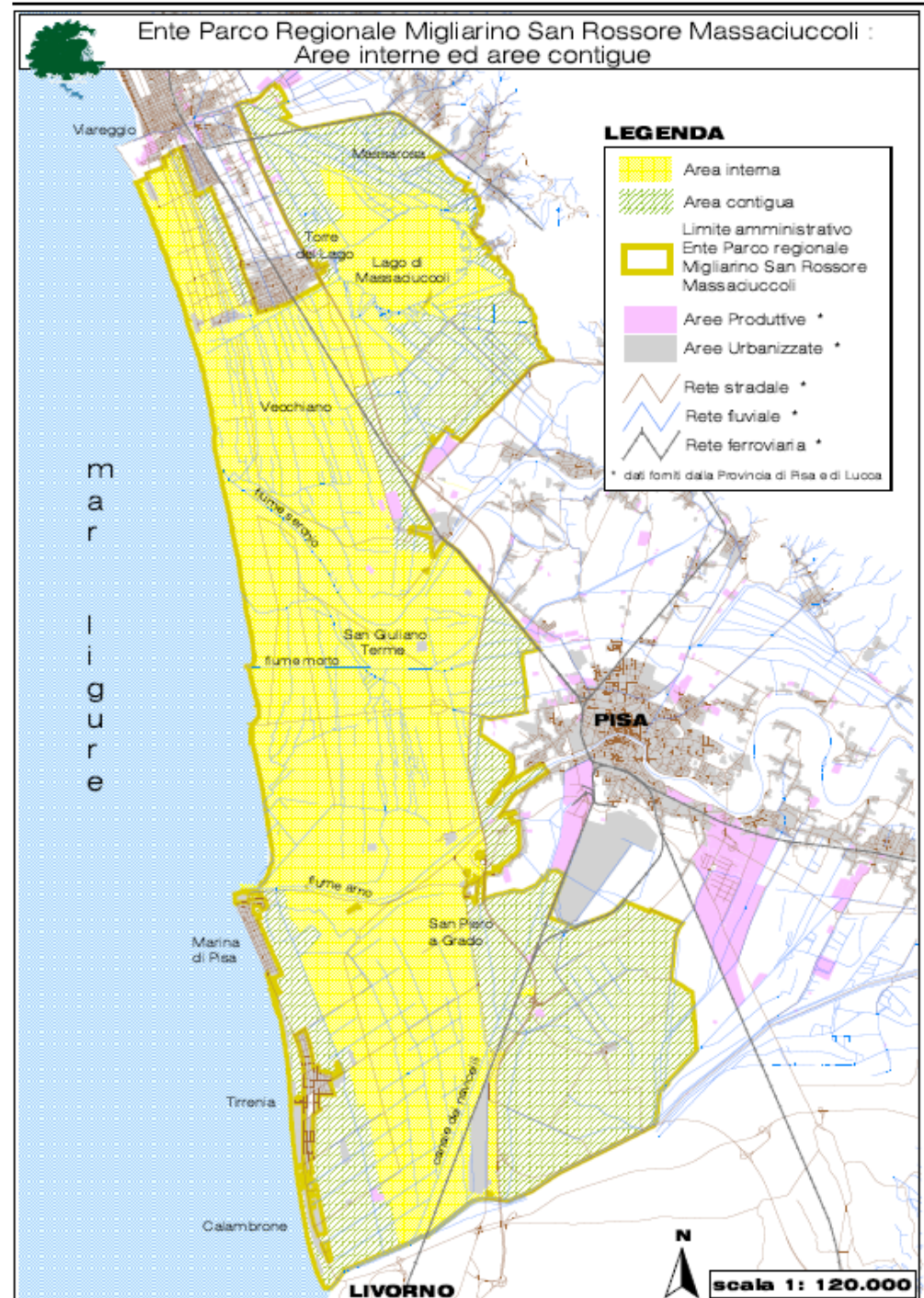
It extends over the territory of the municipalities of Massarosa, Pisa, San Giuliano Terme, Vecchiano and Viareggio, in the provinces of Lucca and Pisa.



SITUATION AND VALUE OF THE PARK

The Regional Park of Migliarino, San Rossore and Massaciuccoli is close to the city of Pisa and flanks the Mediterranean all the way down from Viareggio to the mouth of the Arno river.

In its southern sector, it is separated from the sea by buildings and facilities serving seaside tourism.



Il Parco e le sue Riserve

Le riserve del Parco

Le riserve naturali del parco Migliarino San Rossore e Massaciuccoli sono 16, per una superficie totale di oltre 2.000 ettari. Esse rappresentano gli esempi di integrità naturale del parco e sono costituite dai boschi mesogroigli planiziali, caratterizzati da farnie, frassine ed ontani; dai boschi di sclerofille con leccio e qualche sughera, più frequenti nei settori meridionali; o da piccole paludi salmastre con flora alofila. Altre aree ancora sono costituite dai laghi e dalle baruffe ad albero, dalle torbiere, dal lago e dalle paludi di Massaciuccoli.



Tenuta Borbone

Lecciona

Superficie 126 ha
Pinete (pino maritimo), latifoglie mesofile, lecceta di alto fusto. Associazione erbacea di psammofila e igrofile con vegetazione xerofila e alofila.

Guidicciana

Superficie 53 ha
Bosco mesofilo con aree di pino domestico.

Tenuta di Migliarino e Tenuta di San Rossore

Bocca di Serchio

Superficie 134 ha
Ambiente di foce di fiume con vegetazione psammofila (nord) sparto pungente (sud). Pinete e zone umide con specie mesofile.

Fiumaccio

Superficie 51 ha
Zona umida di lama, cinta da pineta con sottobosco leccio. Bosco mesofilo con numerosi e maestosi esemplari di cipresso calvo.

Ugnone

Superficie 13 ha
Bosco mesofilo con vegetazione palustre e nuclei di cipresso calvo.

Bufulina

Superficie 48 ha
Associazioni di specie psammofila, macchia mediterranea costiera e rimboscimento a pino maritimo.

Bozzone

Superficie 7 ha
Piccola area umida forestale con rigoglioso bosco mesofilo e vegetazione erbacea palustre.

Tenuta di Tombo

Cornacchiaia - Bosco dell'Ulivo

Superficie 446 ha
Cornacchiaia (ovest): Formazioni xerofille (leccio), isolati esemplari ultracentenari di pino e tratti di bosco meso-igrofilo; fitto sottobosco J1ivo (sud est): Formazioni meso-igrofile, sottobosco aido, specie erbacee rare. Ufforamenti salini con rare associazioni vegetali di (ofite (salicornia).



Ufforamenti salini



Lago di Massaciuccoli

Punta Grande

Superficie 303 ha
Ambiente palustre fuori di importanza geobotanica (fitto caricaccio di palude, sfregio articolato in canali e chiari).

Chiarone

Superficie 47 ha
Vegetazione palustre e specchi d'acqua con vegetazione rara.

Chiuso del Lago Gusciana

Superficie 104 ha
Specchi d'acqua e sottili fitini di vegetazione palustre. Bosco mesogrofilo con sottobosco a pungitopo.

Tenuta di San Rossore

Palazzetto

Superficie 140 ha
Dune più antiche ed alte del Parco; tratti di bosco mesofilo a xerofilo con scazioni di specie erbacee rare nelle bassure di lama.

Paduletto

Superficie 140 ha
Ramo abbandonato del Fiume Morto con galleria di foresta mesofila e vegetazione erbacea tipica delle pasture di S. Rossore.

Lame di Fuori

Superficie 618 ha
Ampie lame permanenti circondate da boschi di ontano e di pino domestico più pastura.

Bosco di S. Bartolomeo

Superficie 100 ha
Bosco mesofilo dominato da farnie secolari e di notevoli dimensioni.

Tenuta di Coltano

Superficie 9 ha
Bosco di cerro, carpino bianco e alloro.

Tenuta di Coltano

Superficie 9 ha
Bosco di cerro, carpino bianco e alloro.

Bosco degli allori

Superficie 9 ha
Bosco di cerro, carpino bianco e alloro.



Turdus



Dioneo



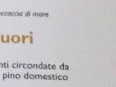
Lycophotia alpestris



Farnia



Recurvirostra americana



Caprimulgus vociferans



Vesperugo semirufus



Alloro

The fact that vast natural or relatively untouched expanses still remain on the Tuscan littoral is due to the continued existence of several large historical estates, which have changed ownership over the centuries (Medicis, Florentines, House of Savoy, Italian government) but have remained relatively unchanged since the tower of Pisa was built.

These estates have made it possible to preserve the area from creeping urban sprawl



AREE INTERNE
(Art. 11, allegato 8b)



AREE ESTERNE
(Art. 11, allegato 8b)



RISERVE NATURALI



AREE BOScate
(Art. 12, allegato 8b)



LAGNI, FIUMI E FOSSI
(Art. 7 e 8, allegato 8b)



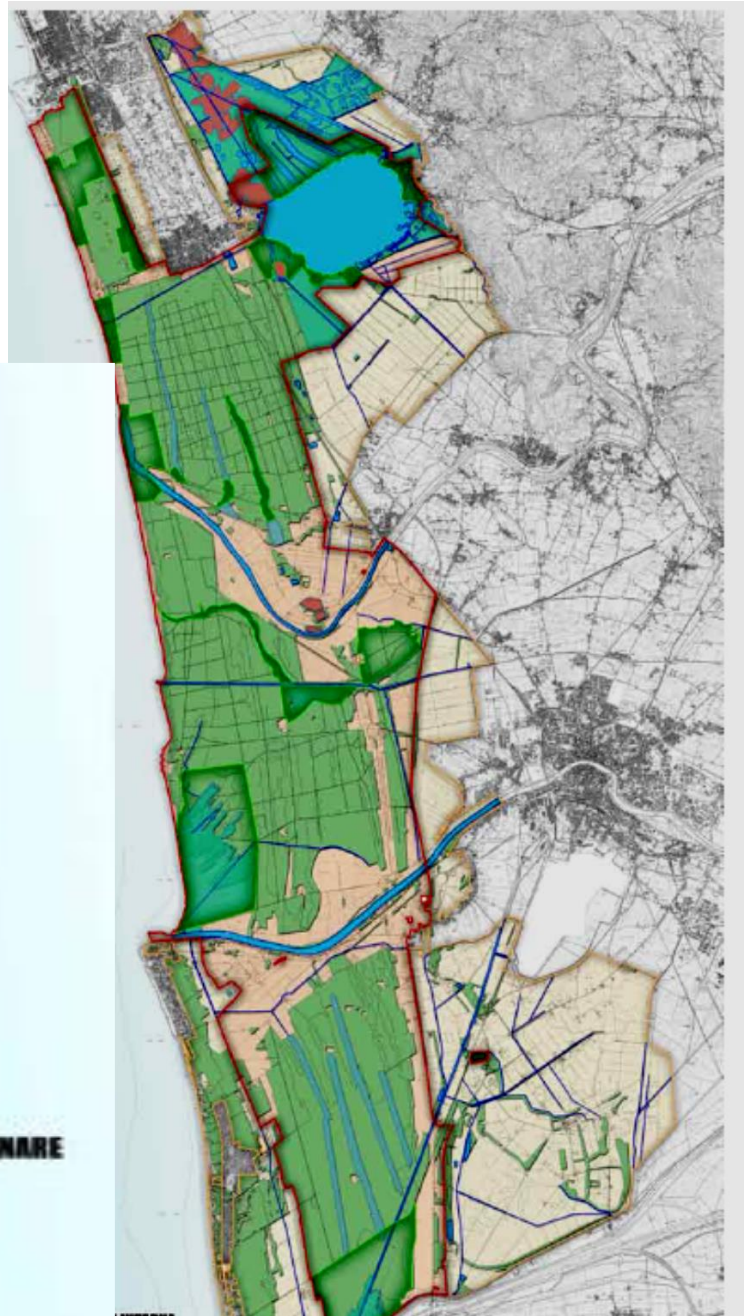
ZONE UMIDE
(Art. 7 e 12, allegato 8b)



ZONE UMIDE DA RIPRISTINARE
(Art. 7 e 12, allegato 8b)



CAVE DA RECUPERARE
(Art. 7 e 11, allegato 8b)



LEGAL BASIS AND ADMINISTRATION

- The main legal basis consists of **regional laws of 1979 and 1994 setting up the regional park**, supplemented by other regional laws. The most interesting natural areas are protected by the Park's territorial plan as nature reserves, the EU's habitats and birds directives, the forestry law and national laws protecting landscape beauty. The very comprehensive Park Regulations were revised and adopted on 7 July 2008.
- The Park is run by the **Ente Parco Regionale Migliarino San Rossore Massaciucoli** (park administration body), which has a staff of 45. The President is responsible for managing policy and chairing the seven-member **Park Council** (representing municipalities and environmental and economic interests).

Management structure

- The director is responsible for the practical aspects of management. The Park directly manages the San Rossore estate, which covers some 4,800 ha of farmland and woodland. Formerly a presidential estate, it is now owned by the Tuscany region, which has entrusted the Park with its management.
- **A scientific council** supervises research activities in the Park, as well as programming and planning tools. The council benefits from the expertise of Pisa's university and colleges as well as that of other Italian universities.
- Around two thirds of the Park's surface area are in public ownership (State, Region, Provinces, Pisa University) with the other third in private hands. The Park has purchased plots of private land around Massaciuccoli lake and manages woodland owned by Pisa University

Other designations

The Regional Park is included in the ***Selve Costiere di Toscana Biosphere Reserve***, designated in 2004 (Selva Pisana) and extended and renamed in 2016 with the following surface areas and zoning:

- Surface area (terrestrial and marine): 43,132.56 ha
- Core area(s): 8,253.58 ha
- Buffer zone(s): 16,874.58 ha (terrestrial: 15,927 ha; marine: 947.58 ha)
- Transition area(s): 18,004.4 ha



Other designations

- A marine reserve off the coast was set up in 2010; it covers a coastal area of 9,000 hectares and its management is entrusted to the Park.



- Massaciuccoli lake and its marshes were designated as the ***Massaciuccoli lake and marsh*** Ramsar site with the following characteristics:
 - Site number: 2311
 - Surface area: 11,135 ha
 - Registration date: 22-06-2017



- The Park also comprises several sites of European importance (SCIs and SACs)

Zoning

- The Park has an
 - inner or central zone occupying 61% of its surface area
 - outer or buffer zone occupying 38.4 %.

The latter zone enjoys the same protection status as the central zone, except where the hunting ban is concerned. This is an exceptionally strict level of protection for the buffer zone of a protected area and remains safeguarded. The draft law envisaging the transfer of management of the buffer zone to the municipalities was amended to clearly maintain the Park's prerogatives.

- The Italian Law on Parks (1991) had defined "contiguous areas" as having a function of buffer zones. For the national law on parks, the contiguous areas are zones where the park has no direct prerogatives but only indirect power.
- Where the Migliarino San Rossore Massaciuccoli Park is concerned, the general development plan was approved in 1989, prior to the national law, and introduced "outer zones" included within the Park, The NGOs would additionally like to have a "real" contiguous area (within the meaning of the 1991 Law) beyond the Park's limits, with the function of a buffer zone.

Visitors' management

- There are numerous activities in certain parts of the Park, with substantial areas (avenues of maritime pines, grasslands around buildings etc.) accessible to the public. Guided group visits, including in horse-drawn carts, are organised on a regular basis. An equestrian centre is located in the Park. Several information centres are open to the public free of charge.
- Limits on vehicle access are planned, with one or more car parks located outside the Park. In particular, it is intended to introduce a fee for vehicles, while keeping access for pedestrians and cyclists free of charge. It is to be noted that there is no bus service to the Park from the city of Pisa.



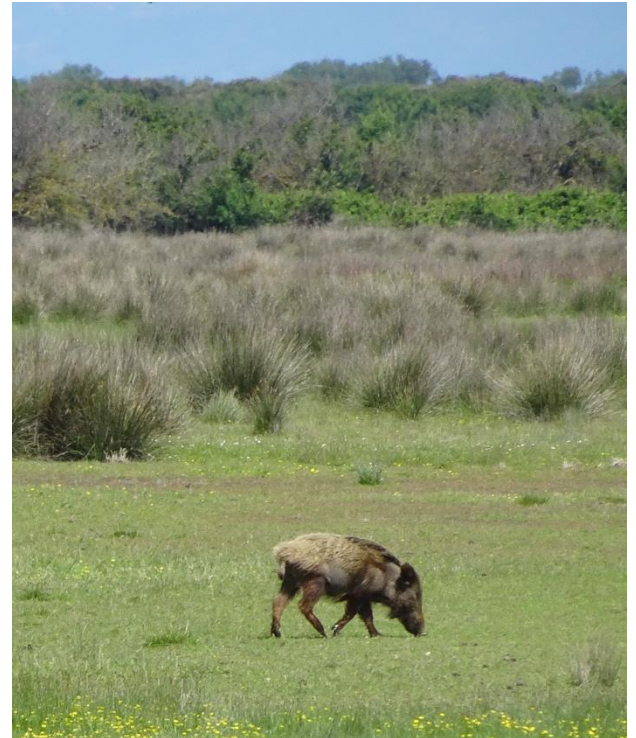
Farming and other activities

- Old farming estates have been given over to the preservation of two ancient breeds of horse and three ancient breeds of cattle, with crops grown on adjacent areas to provide the necessary feed on the spot.
- Large areas in the southern part and around Massaciucoli lake have been drained; the water is drained by pumping as the fields lie partially below sea level. Some of it is then emptied into the lake, which creates major problems of eutrophication for which various solutions have been proposed and are being experimented with. The substantial efforts made in and around the Park to convert to organic farming must be emphasised.



Fauna

The Park is home to numerous mammals, including the Porcupine (*Hystrix cristata*), a sizeable colony of Greater horseshoe bats (*Rhinolophus ferrumequinum*) and an abundant population of Fallow deer (*Dama dama*) and Wild boar (*Sus scrofa*). The local Wild boar population appears to be very close to the sub-species typical to the Maremma area, which is under threat from hybridisation (*Sus scrofa majori*).



- Birdlife includes several species which are good indicators of environmental quality, such as the Eurasian bittern (*Botaurus stellaris*) and the Purple heron (*Ardea purpurea*), alongside numerous wetland and open habitat species such as the European roller (*Coracias garrulus*) and the European bee-eater (*Merops apiaster*). Many passing or wintering migratory birds take advantage of the Park's resources.
- Reptiles include a strong population of European pond turtle (*Emys orbicularis*), and amphibians like the Agile frog (*Rana dalmatina*) and the Italian tree frog (*Hyla intermedia*).

Vegetation and flora

The vegetation is highly diverse. The vegetation map, dating from 2004, should be revised. It comprises 30 phytosociological units and includes:

- coastal dunes with *Juniperus oxycedrus*, which are well conserved and harbour an abundance of rare species;



- large forests of Stone pine (*Pinus pinea*) and Maritime pine (*Pinus pinaster*) planted as far back as the 17th century;



- mixed relict forests of *Quercus robur*, *Quercus ilex*, *Fraxinus angustifolia*, *Alnus glutinosa*, *Ulmus minor* and *Ostrya carpinifolia*, with a new combination of *Laurus nobilis* and *Quercus cerris* about to be recorded in detail;



➤ **coastal wet grasslands with halophytes;**



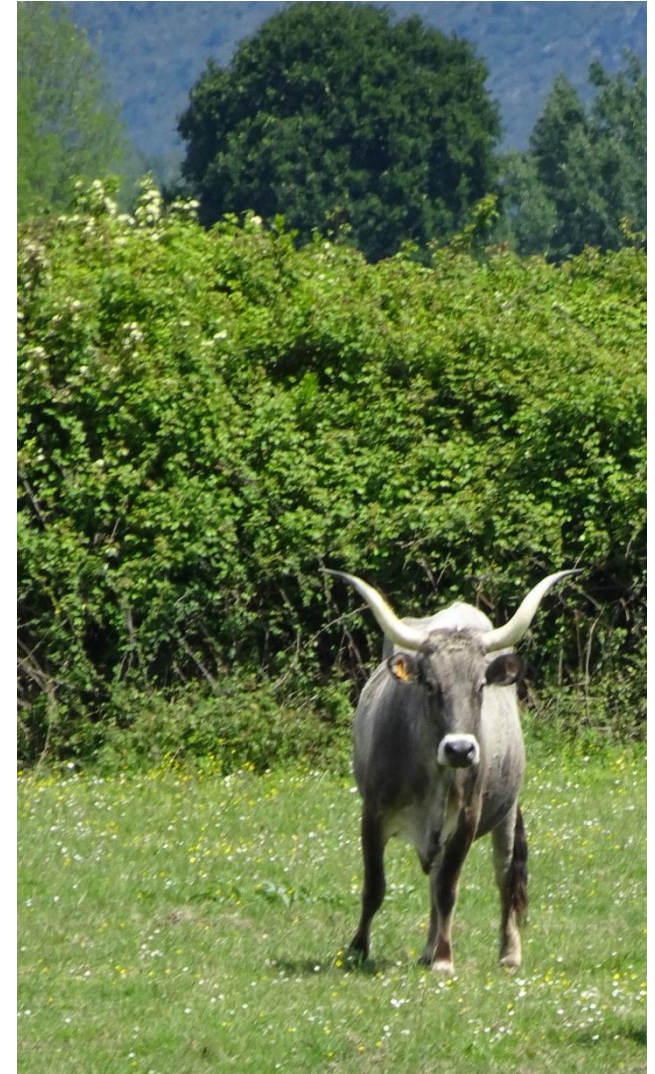
➤ **forest ponds;**



- **Massaciucoli lake**, with its varied groupings of open water and, at its edge, its marshes with *Cladium mariscus*, *Phragmites australis*, *Typha angustifolia*, *Sphagnum* and *Drosera rotundifolia*; also noteworthy is a fine population of *Osmunda regalis*;



- large expanses of pasture and farmland, with traditional breeds



EDUCATION, INFORMATION AND TOURISM

Education and information form part of the major activities of the Park, which has developed good information material and welcomes numerous visitors.

There are several visitor centres at key points around the Park (San Rossore, Coltano, Massaciuccoli lake). A new information and research centre has been installed in the La Brilla former rice processing plant, near the Massaciuccoli Lake.



Management Plan

The Park's goal is

- to protect the natural and historical features of the Pisa and Lucca littoral, depending on the social use of such assets
- to promote scientific research and education on the natural environment.

Very detailed management plans have been drawn up and are implemented for the Park's different sectors. They may be consulted on the Park's website.

Given the complexity of the site (zoning patterns, protection regimes, property statutes, uses etc), as well as the different international designations, it would be highly desirable to pull these different strands together in **a global management plan**, including a vision of the Park in its current regional context. Such a document should include an overview of the governance system and be translated into English and/or French.

Research and scientific studies

The closeness of Pisa, with its university and colleges, together with interest coming from other training centres, are an incentive for major research activities in the Park. There are numerous ongoing applied research programmes, notably in the spheres of mapping and good agricultural management. There is a sharp increase in publications on a very wide variety of subjects. However, , it would be useful to more systematically include summaries in English so that they can reach a wider audience.

The Life project on the dunes has provided an inventory and detailed maps of coastal dune vegetation together with a good list of measures which are now being implemented,

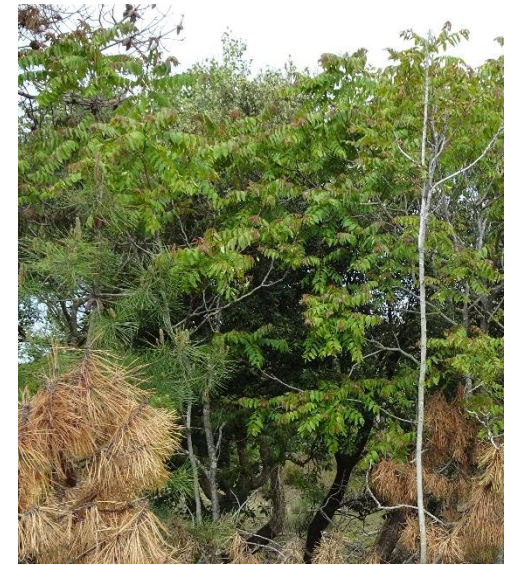
Very substantial research work has been carried out on the hydrology of the entire basin, and the findings are extremely useful for the Park and for water management.

Main issues

- **Overall management of biodiversity at the level of the region – weakening of the regional parks.** Sadly, there is a generalised weakening of nature protection at regional level (marble quarries in the Apulian Alps)
- **Integration of the park into the community; relationship with private owners.** The Park is still often perceived solely as a constraint, and its value is not sufficiently recognised.
- **Funding and staff:** staffing is stable, but the new tasks require reinforcements. It appears that money is available, but the procedures to free up the necessary appropriations are extremely complex.
- **Management Plan:** An overarching document incorporating all the protection statutes of the area, would be welcome.

- **Status of the outer zones.** Pressure to weaken protection of the outer zones is constantly applied; until now, the Park has managed to resist. The NGO community would like to see an additional buffer zone, outside the park boundaries.
- **Urban pressure, traffic, sound and light pollution.** The Park's location between Livorno and Pisa, and surrounded by seaside tourism areas, puts its managers under constant pressure. Efforts have been made to reduce light pollution, and measures are envisaged to cut motorised vehicle traffic in the park.
- **Military zone – American base.** There are military bases in the Park, which is also used by the Italian army. These activities are carried out in consultation with the Park's management and do not create problems at present.
- **Coastal erosion and impact on the sand dune area.** Substantial erosion is visible in some places whereas there is an accumulation of sand in others. There is substantial pressure from tourism in the sand dune area, on top of the erosion.

- **Invasive species:** there are recurrent problems with in particular exotic plants, fallow deer and wild boar, turtles and crayfish



- **Water management:** This is an issue that goes substantially beyond the limits of the Park but calls for measures and substantial resources. The scientific knowledge exists, and works have been undertaken.
- **Information and communication:** Good-quality information is available to visitors. The complexity of regulations and zoning makes communication difficult.
- **Agriculture, label and regional produce:** Different types of regional produce have been developed and organic production is increasing. However, a "Park" label is lacking but administratively speaking, this would be very complicated.

Conclusions and Recommendations

- The Regional Park of Migliarino, San Rossore and Massaciuccoli **preserves an exceptional set of natural, landscape and cultural assets** which justifies its European interest. Its protection is ensured by laws and precise and detailed management plans, but lacks an overview updated in line with recent developments, notably the extension of the Biosphere reserve.
- It is **managed in a highly professional manner** and has become an important, indispensable and recognised player in the management and conservation of the region's natural and landscape resources. For the time being, it is putting up fairly good resistance to the numerous external sources of pressure resulting from its proximity to a heavily built-up area (Pisa: 90,000 inhabitants)
- We therefore recommend that **the European Diploma awarded to the Regional Park of Migliarino, San Rossore and Massaciuccoli be renewed for a period of 10 years**, with the following recommendations attached to the renewal:

1. Pursue efforts to integrate the Park into the regional fabric; do even more to include the local community, interest groups (farmers etc) and nature conservation bodies in discussions. Exploit the recent extension of the Biosphere reserve to that end.
2. Draw up a summary management document covering all activities and setting out all the protection regimes (regional park, reserves, Natura 2000 zones, Ramsar site, Biosphere reserve, marine reserve) and translate this document into English and/or French; review the zoning if necessary, consider the possibility of a continuous Site of Community Importance (SIC) and envisage extending the diploma-holding area.
3. Bring in replacement staff to cover retirements and annual leave. Envisage an increase in staff to meet new demands resulting from responsibility for the marine reserve, the extension of the Biosphere reserve and the designation of the Ramsar site.
4. Continue research and monitoring activities, and in particular:
 - Update the vegetation map;
 - Implement and monitor water management measures linked to the drainage of farmland and Massaciuccoli lake;
 - Monitor the state of the dune area and continue protection activities there.

5. Continue and if necessary step up programmes to combat invasive species and control fallow deer and wild boar populations. Pursue a policy geared to the Park's protection regime where the renewal of forest cover is concerned.
6. Pursue efforts to control sound and light pollution in the Park's vicinity; introduce measures restricting motorised vehicle traffic in the park and negotiate the setting up of a public transport system with the competent authorities.
7. Pursue efforts to develop sustainable agriculture, inter alia by reducing use of fertilisers and pesticides which have an adverse effect on water quality; consider the introduction of a regional label for products and services in connection with the extension of the Biosphere reserve.
8. Translate the website and public information material into foreign languages so that the numerous foreign tourists attracted by the city of Pisa and its region can appreciate the Park's assets. Publish and provide to visitors at least a list of the species illustrated on the information panels, with their names in four languages, in addition to the scientific name

9. Maintain and consolidate the network of centres providing information on the region's nature, culture and history. Make more systematic use of international designation logos, particularly that of the European Diploma, providing suitable explanation.

10. In the context of preparing the new Integrated Plan for the Park, pursue discussion on relocating craft activities from the area around Massaciuccoli lake. Include in the integrated plan in preparation specific provisions dedicated to climate change and how to address this issue in relation to the long-term preservation of species and habitats typical from the area.



**Thank you
for
your
attention**

