

### 3. DESCRIPTION

this area have also been recorded, for example Common Stilt (*Himantopus himantopus*) or Common Shelduck (*Tadorna tadorna*).

There was a large number of reptiles and amphibians in the wetland in 1998. Apart from the Pool Frogs (*Rana lessonae*), there were Common Toads and Green Toad (*Bufo bufo*, *B. vidris*), Common Fire-bellied Toads (*Bombina bombina*), the Common Spadefoots (*Pelobates fuscus*), the Tree Frogs (*Hyla arborea*), and Agile Frog (*Rana dalmatina*). A large number of different varieties of Grass Snakes (*Natrix natrix*), Dice Snake (*Tropidonotus tessellatus*), the Aesculapian snakes (*Elaphe longissima*) and European Pond Turtles (*Emys orbicularis*) could also be observed throughout the year. Even though the low water level in the wetland was not favourable for spawning and breeding of fish, nonetheless, their number was big. Unfortunately, the abundance of fish did not attract only cormorants, but also many unlicensed anglers, especially in the area of Sakadaš and Novi kanal. To sum up, the nature has become the ruler of this area again. The visitors could enjoy not only the amazing sights and the colourful diversity of birds, but also of beautiful flowers of the European White Water Lilies (*Nymphaea alba*), Yellow Lilies (*Numphar luteum*), *Nymphoides peltata*, Water Flags (*Iris pseudocoris*) or a very rare and protected Siberian Iris (*Iris sibirica*) that covered the area of about 10 ha.

#### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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Common Spadefoot  
(*Pelobates fuscus*)



4. ADMINISTRATION

## **4. ADMINISTRATION**

## 4. ADMINISTRATION

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

#### 4a OWNERSHIP

The Republic of Croatia  
Trg sv. Marka 2, HR-10000 Zagreb, Croatia

#### 4b LEGAL STATUS

Nature Park (17,000 ha), designated in 1976  
(The Official Gazette of the Republic of Croatia 54/76);  
Special Zoological Reserve (6,234 ha), designated in 1969  
(The Official Gazette of the Republic of Croatia 48/69);  
Ramsar Site (17,770 ha), designated on 3rd February 1993.

#### 4c SAFETY MEASURES AND THEIR IMPLEMENTATION

Kopački Rit is protected under regulations of the Nature Protection Act (The Official Gazette of the Republic of Croatia 30/94); and by the Regulations on the Internal Order in the Kopački Rit Nature Park (The Official Gazette of the Republic of Croatia 84/89).

The site is under management of the Kopački Rit Nature Park Management Office, founded in 1997 (The Official Gazette of the Republic of Croatia 96/97).

The activities of the Management Office include the conservation, management and promotion of the Nature Park and the Special Zoological Reserve Kopački rit.

The Management Office is funded from the budget of the Republic of Croatia. The initiative to designate Kopački Rit a National Park was launched in 1999.



Kopački rit is protected area

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## 4. ADMINISTRATION

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

**4d** BODIES AUTHORIZED TO MANAGE THE COMPLEX  
Kopački Rit Nature Park Management Office  
Petefi Šandora 35, HR-31327 Bilje  
Director: Dr. József Mikuska

**4e** LEVEL OF ADMINISTRATION  
The Nature Park and the Special Zoological Reserve Kopački rit are under management of the Kopački rit Nature Park Management Office, according to the Croatian Government Regulation on the Establishment of the Kopački Rit Nature Park Management Office (The Official Gazette of the Republic of Croatia 96/97).  
The Management Office is under the authority of the State Directorate for Nature and Environment Protection  
Address:  
State Directorate for Nature and Environment Protection,  
Ulica grada Vukovara 78/3, HR-10000 Zagreb, Croatia;  
Director: Dr Ante Kutle.

**4f** THE ACQUIRED PLANS RELATED TO THE COMPLEX  
Regulations on the Internal Order in the Kopački Rit Nature Park (The Official Gazette of the Republic of Croatia 84/89).  
The elaboration of the following plans are in progress:

- Spatial plan of the Kopački Rit Nature Park
- Long-term management plan of the Kopački Rit Nature Park
- Plan for valorisation of tourist attraction of the Kopački Rit Nature Park
- Spatial plan of the Osijek-Baranja county



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## 4. ADMINISTRATION

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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#### 4g SOURCES AND LEVELS OF FINANCING

1. Budget of the Republic of Croatia
2. World Bank loans
3. Donations
4. Earned income

#### 4h SOURCES OF PROFESSIONAL KNOWLEDGE IN THE FIELD OF PRESERVATION AND MANAGEMENT

Co-operation with the Institute of Biology, J.J. Strossmayer University in Osijek;  
Ministry of Science and Technology funds several scientific projects;  
The World Bank loan includes funds for further education of the staff. Co-operation with WWF for training security guards.

#### 4i PREMISES OPEN TO VISITORS AND RELATED STATISTICAL DATA

The castle of Eugene of Savoy in Bilje  
The New and the Old Hunting Castles in Tikveš  
Catering facilities in the vicinity of the Castles in Tikveš  
Ten forest-ranger's cottages  
Tourist Information centre building at Sakadaš

#### 4j PLANS FOR MANAGING THE COMPLEX

The main goals are to preserve the area, to revitalise the forests (replacement of the alochtonous poplar plantations with natural forest communities), to revitalise the Bilje marshes and the Bilje Lake, to connect in northerly and



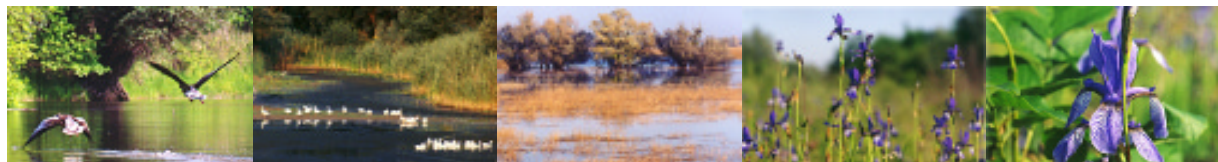
Eugene of Savoy's castle  
(early 18th century)



Coat of Arms of Bilje



The Habsburgs hunting castle



## 4. ADMINISTRATION

westerly directions with the Drava-Danube National Park in Hungary, to designate the most valuable parts a national park, to get onlisted on the World Heritage List, to transform the entire area into a Biosphere Reserve, to open the park for visitors, to develop low impact tourism in bordering areas. The elaboration of the long-term Kopački Rit Nature Park management plan is in progress.

### 4k A PROFILE OF THE EMPLOYEES (professional and technical staff, maintenance personnel)

The Kopački Rit Nature Park Management Office has 8 employees:

- 1) Director  
(university qualifications) – PhD in biology, university professor
- 2) Conservation biologist  
(university qualifications)– biological and ecological engineer, MSc in biology at The University of Mississippi, USA;
- 3) Supervisor of rangers  
(high-school qualifications);
- 4) four rangers (high-school qualifications);
- 5) book-keeper (high-school qualifications).

The development plan of the Management Office includes the following staff members:

secretary – lawyer, economists, as well as a host of experts, such as ichthyologists, hydrobiologists, mammalogists, ornithologists, foresters, etc.

## PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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High-watered spawning area



Копачки рит



5. INFLUENCES ON THE COMPLEX

## **5. INFLUENCES ON THE COMPLEX**

## 5. INFLUENCES ON THE COMPLEX

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

#### 5a DEVELOPEMENT RESULTS

Part of the former wetland was reclaimed for agricultural purposes by the Danube and Drava rivers stream regulation and building of dykes. Another part was used for building fishponds and the rest for forest management. In the vicinity of Kopački rit there is pig farm and 'Mesokombinat' (meat processing plant). The Park is surrounded by several villages, with the villages Tikveš and Kozjak, the population of which was mostly exiled during the war, within the Park itself. Due to extensive logging, forests are rather depleted. Oak forests, especially in the protected area, have been replaced by plantations of the alochtonous Euro-American poplar. Most of the areas have not been reforested. The forest structure has been altered, so there are very few forests more than 80 years old.

Fish ponds have fitted well in the biological system of the Park, and they are the sites where many species, including the endangered ones, nest, feed or rest. Waste waters of the meet processing plant had been endangering the communities living in Kopački rit. After building the sewage treatment ponds, this danger has been temporarily averted.

There is a plan to build sewer works, which will collect the sanitary and industrial sewage from the neighbouring villages, pig farm and the meat processing plant, and convey it to the sewage treatment plant in Osijek. Arable land has fitted in the Park relatively well, providing dwelling and food to many birds, like wild ducks, geese and herons. However, the



Black Stork  
(*Ciconia nigra*)



*Abramis sapa*

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## 5. INFLUENCES ON THE COMPLEX

indiscriminate use of artificial fertilisers and pesticides partly influence the surface water flowing into the park. This problem will be resolved by the revitalisation of Bilje Lake and the Bilje marsh, and building a reversible pumping station which will pump the polluted water into the main sewer in Osijek.

The Danube, which is an international inland waterway, runs through Kopački rit. There is always a possibility that the Danube will bring polluted water into the Park. Unfortunately, this cannot be solved, unless there is a global plan for the preservation of water quality of the Danube.

### 5b ENVIRONMENTAL CONDITIONS - POLLUTION

There are two types of threats to Kopački rit. The first one is the change of water regime caused by possible climatic changes, water management works, such as building of hydroelectric power plants and reservoirs on the Danube and Drava rivers, upstream from Kopački rit, and the waterways regulation. In the past thirty years, the floods seem to have been less frequent and river beds deeper. The extent and speed of these processes still need to be scientifically verified. The polluted waters can enter Kopački rit by rivers and irrigation systems of neighbouring fields, settlements, farms and processing plants. Whereas we cannot influence the pollution from the river, we can still fight for the preservation of the water quality of Kopački rit.

## PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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Wetland from the air



## 5. INFLUENCES ON THE COMPLEX

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

#### 5c NATURAL DISASTERS AND APPROPRIATE LEVEL OF ALERT

Kopački Rit is not threatened by any natural catastrophes. Earthquakes are very rare and more or less insignificant in this area. There are no volcanoes in the vicinity. Fire in the wet land is hardly ever a big problem. Floods are desirable, more over, they are an important ecological factor in Kopački Rit.

#### 5d EXPLOITATION OF THE COMPLEX, TOURISM

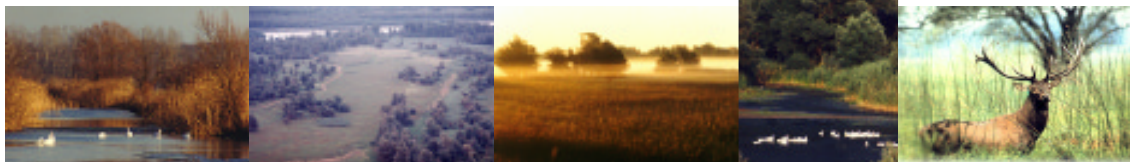
The following economic activities used to take place in Kopački Rit in the past: agriculture, forestry, hunting, fishing and cattle grazing. There is no cattle grazing today, fishing is allowed only in fish ponds, hunting is reduced to preservation and management of Red Deer and Wild Boar populations, with the possibility of prize hunting. The only forestry activities planned in the future include the replacement of Euro-American poplar plantations and the revitalisation of natural forest communities.

The development of tourism is planned to replace the previous economic activities. The number of tourists (including visitors and bird-watchers) will be up to 50,000 a year. In the wider area around the Park, country and recreational tourism will be encouraged.



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"Vejsze", a fishing device used in the past



## 5. INFLUENCES ON THE COMPLEX

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

#### 5e POPULATION OF THE AREA AND OF THE BUFFER ZONE

Almost all inhabitants left Kopački Rit Nature Park and the whole Baranja area, during the war and the reintegration process of 1991-1997. Today, the number of people living in the Park itself is reduced to less than 50. The same applies to buffer zones, but the exact data can be provided only after the next census. Generally, it can be said that the number of inhabitants has been considerably reduced since 1991, when 6453 people were living in Bilje community.



Little Egret  
(*Egretta garzeta*)



Great White Egret  
(*Egretta alba*)

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AUTHORISATION

## **6. MONITORING**

## 6. MONITORING

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

#### 6a THE KEY INDICES FOR MEASURING THE STATE OF PRESERVATION

The monitoring will include the following activities:

- monitoring of the water level and water regime in Kopački rit;
- monitoring of the water quality and pollution level in Kopački rit, the Danube and Drava rivers and all drainage water that enters the area;
- monitoring of forests in co-operation with forest management companies;
- monitoring of the Red Deer (*Cervus elaphus*) and Wild Boar (*Sus scrofa*) populations;
- monitoring of the following nesting bird colonies: Cormorant (*Phalacrocorax carbo*), Herons (*Ardea cinerea*, *A. purpurea*, *Nycticorax nycticorax*, *Ardeola ralloides*, *Egretta alba*, *Egretta garzetta*), Black-headed Gull (*Larus ridibundus*), Terns (*Chlidonias hybrida*, *C. nigra*, *Sterna hirundo*), etc.;
- monitoring of the populations of rare, endangered and protected species, such as the Greylag Goose (*Anser anser*), the White-tailed Eagle (*Haliaeetus albicilla*), Saccor Falcon (*Falco cherrug*), the White and Black Storks (*Ciconia ciconia*, *C. nigra*), etc.;
- monitoring of the number of birds wintering in the Park within the International Waterfowl Census project.

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## 6. MONITORING

- 6b** ADMINISTRATIVE MONITORING OVER THE COMPLEX  
The Kopački Rit Nature Park Management Office will be in charge of the Park management and storing of all results. Part of the monitoring will be organised by the staff, and the water quality analysis will be made by qualified and certified laboratories, such as the Public Health Institute of the Osijek-Baranja County, Osijek. Results of other institutions that monitor the area, such as Croatian Waters, that measures the water levels, monitor the water pollution, etc., will also be used.
- 6c** THE RESULTS OF PREVIOUS REPORTS  
Part of the monitoring results have been published in more than 500 scientific papers and numerous professional journals. Other data are stored in users' databases. Collation of all data is in progress.

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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White Stork  
(*Ciconia ciconia*)



7. DOCUMENTATION

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### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

- 7a** PHOTOGRAPHS, SLIDES AND VIDEO FILMS  
Several photographs and slides collections are privately owned by, for example, Mikuska (Gundulićeva 19a, HR-31000 Osijek) or Varga (Kralja P. Krešimira 4/2, HR-31000 Osijek). Several films have been recorded (e.g. 'The Cormorant – The Great Hunter' – Croatian Television; 'Searching for the White-Tailed Eagle' – Croatian Television; 'Wildnis zwischen Donau und Drau' (Wildlife between the Danube and the Drava). The latest video recordings are owned by Romulić (Križanićev trg 3, HR-31000 Osijek).
- 7b** COPIES OF THE PLANS FOR MANAGING THE COMPLEX AND EXCERPTS FROM OTHER RELEVANT PLANS  
The new management plans are being drawn up. The old plans are stored with previous users and can be obtained on request. The Regulations on the Internal Order in the Kopački rit Nature Park is included as Appendix A.
- 7c** REFERENCES AND LITERATURE  
Attached – see Appendix B.



Squacco Heron  
(*Ardeola ralloides*)



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Zagreb, March 1999.

dr. Ante Kutle  
Manager of the Government Administration  
for Nature and Environment Protection



## 7. DOCUMENTATION

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

**7d** THE ADDRESSES WHERE LAND-REGISTERS, DOCUMENTATION AND ARCHIVAL MATERIALS ARE STORED

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Fax: ++385 (0)31 750 755;

E-mail: pp-kopacki-rit@os.tel.hr

**Cadastral and Geodetic Office,** field – office Beli Manastir

Ul. Adam Dugački 55, Croatia, 31300 Beli Manastir

Tel/Fax.: ++385 (0)31 701 439

**State Archives in Osijek,**

Ul. Kamila Firingera 1, Croatia, 31000 Osijek

Tel: ++385 (0)31 207 255

**Croatian Waters** – Water Management Department Osijek,

Splavarska 2, Croatia, 31000, Osijek

Tel: ++385 (0)31 375 677

**Croatian Forests** – Forest Management Department Osijek,

Prolaz J. Benašića 1, Croatia, 31000 Osijek

Tel.: ++385 (0)31 124 199; Fax: ++385 (0)31 44 363



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## 7. DOCUMENTATION

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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Little Bittern  
(*Ixobrychus minutus*)

Bilje, 16 February 1999

Tibor Mikuska  
conservation biologist

Dr József Mikuska  
director



NATURE PARK KOPAČKI RIT



8. SIGNATURE OF THE MEMBER COUNTRY

**8. SIGNATURE OF THE MEMBER COUNTRY**

**8. SIGNATURE OF THE MEMBER  
COUNTRY**

**PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST**

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SIGNATURE:

NAME AND SURNAME:

PROFESSION:

DATE:



## CREDITS

### PROPOSAL FOR THE REGISTRATION INTO THE WORLD NATURAL HERITAGE LIST

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**Mario Romulić**  
**Darko Varga**

Video film: **Mario Romulić**

Translation: **Marija Omazić**

Print:  **Kaleidoscope, Osijek**



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On the ice

