



Ramsar Information Sheet

Published on 2 February 2013

Update version, previously published on : 2 February 2013

Croatia Vransko Lake



| | |
|------------------|-----------------------|
| Designation date | 2 February 2013 |
| Site number | 2109 |
| Coordinates | 43°53'45"N 15°34'49"E |
| Area | 5 748,00 ha |

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

Vransko Lake is the largest natural lake in Croatia, situated in a shallow karst bed and separated from the Adriatic Sea by a narrow karst ridge. Significant seasonal variations in water level and changes in salinity due to intrusion of sea water through permeable karst, create conditions for the development of very specific habitats. The shallowest northwest part of the Ramsar site area is characterized by reedbeds, floodplain and seasonally flooded arable land; the hills lining the eastern coast are covered by typical Mediterranean macchia and garrigue, while the lower western coast gives a more rocky appearance. Vransko Lake marsh is a remaining of what used to be a much larger Vrana swamp, drained by melioration canals in the 18th century. Still, it represents one of only two significant wetlands in the Mediterranean part of Croatia. This is a nesting, wintering and resting area for many threatened waterbirds.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

| | |
|--------------------|--|
| Name | Ana Katalinić, Conservation Manager |
| Institution/agency | Public Institution Nature Park Vransko jezero |
| Postal address | Kralja Petra Svačića 2 HR - 23210 Biograd n/M Republic of Croatia See additional material for further information |
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| Fax | +385 23 386 453 |

Compiler 2

| | |
|--------------------|---|
| Name | Ivana Ribić, expert associate biologist |
| Institution/agency | Public Institution Nature Park Vransko jezero |
| Postal address | Kralja Petra Svačića 2 HR - 23210 Biograd n/M Republic of Croatia |
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| Phone | +385 23 383 181 |
| Fax | +385 23 386 453 |

2.1.2 - Period of collection of data and information used to compile the RIS

| | |
|-----------|------|
| From year | 2008 |
| To year | 2018 |

2.1.3 - Name of the Ramsar Site

| | |
|---|----------------|
| Official name (in English, French or Spanish) | Vransko Lake |
| Unofficial name (optional) | Vransko jezero |

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary Yes No

(Update) B. Changes to Site area No change to area

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS? Not evaluated

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<4 file(s) uploaded>

Former maps 0

Boundaries description

The boundary is identical to existing protected area (nature park).

2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

| Regionalisation scheme(s) | Biogeographic region |
|----------------------------------|----------------------|
| EU biogeographic regionalization | Mediterranean |

Other biogeographic regionalisation scheme

EU biogeographic regionalization, in accordance with the Habitat Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). Reference: European Commission (2011): Map of EU biogeographic regions EU 27+1, Doc.Hab. 11-05/04

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other reasons

Vransko Jezero Lake is a permanent water body, brackish natural lake, the only one in the coastal part of Croatia, and one of only two larger wetlands in this region (the other being the Neretva Delta). The karst coastline that dominates in Croatia is very poor in wetland habitats, and Vransko Jezero Lake represents the largest natural lake in Croatia, enriched by permanent and seasonal brackish marsh areas, including seasonally flooded grazed meadows and pastures. Compared to the Neretva Delta, open-water species are far more numerous at Vransko Jezero Lake.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

Vransko Lake is a “hotspot” for biological diversity in the area, with 261 recorded bird species. It hosts the last heron colony in the Mediterranean region of Croatia and is the only stable nesting site in Croatia for the population of the Pygmy Cormorant (*Microcarbo pygmeus*). Several endemic species of reptiles and amphibians are found: Dalmatian Algyroides (*Algyroides nigropunctatus*) and Balkan Whip Snake (*Hierophis gemonensis*) are endemics of the Eastern Adriatic coast, while the Sharp Snouted Lizard (*Dalmatolacerta oxycephala*) and the subspecies of the Yellow-bellied Toad (*Bombina variegata kolombatovici*) are Dalmatian endemics, all contributing to the biological diversity of the Mediterranean biogeographic region. The Adriatic endemic fish *Knipowitschia panizzae* is listed in the Annex II of the Habitat Directive, while the European eel (*Anguilla anguilla*) is protected by the Barcelona convention (Annex III of the SPAMI Protocol - species whose exploitation is regulated), by the CITES Convention and the EU wildlife trade legislation (ban on import in EU and export from EU). Vransko Lake wetland area also supports habitat types that are rare in the Mediterranean and recognized as NATURA2000 habitats. The most significant are: Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp., Mediterranean temporary ponds, Eastern sub-mediterranean dry grasslands (*Scorzoneratalia villosae*), Mediterranean tall humid grasslands of the Molinio-Holoschoenion and Sub-Mediterranean grasslands of the Molinio-Hordeion secalini (the latter was included in the NATURA2000 habitats list in 2011 according to the proposal of Croatia).

- Criterion 4 : Support during critical life cycle stage or in adverse conditions

- Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

Start year

Source of data:

- Criterion 6 : >1% waterbird population

3.2 - Plant species whose presence relates to the international importance of the site

| Scientific name | Common name | Criterion 2 | Criterion 3 | Criterion 4 | IUCN Red List | CITES Appendix I | Other status | Justification |
|-------------------------------------|---|-------------------------------------|--------------------------|--------------------------|---------------|--------------------------|--|---|
| <i>Hydrocotyle vulgaris</i> | Marsh Pennywort | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | LC | <input type="checkbox"/> | HR Red List - CR | |
| <i>Neotinea tridentata</i> | Three-toothed Orchid | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | HR Red List - VU | Dry grasslands and garrigue support growth of the endangered Three-toothed Orchid |
| <i>Orchis quadripunctata</i> | Four-spotted Orchid | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | LC | <input type="checkbox"/> | HR Red List - VU | |
| <i>Ranunculus ophioglossifolius</i> | Badgworth Buttercup | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | LC | <input type="checkbox"/> | HR Red List - EN | |
| <i>Scilla litardierei</i> | Ametist Meadow Squill | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | Dinaric endemic species, listed in the Annex II and IV of the Habitat Directive. | |
| <i>Trifolium resupinatum</i> | Shaftal Clover; Reversed Clover; Persian Clover | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | HR Red List - VU | |

3.3 - Animal species whose presence relates to the international importance of the site

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence ¹⁾ | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|---------------|---------------------------------|--------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|----------------------------|---------------|--------------------------|-------------------------------------|---|------------------------------------|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | | | | | | | | |
| Birds | | | | | | | | | | | | | | | | | |
| CHORDATA/AVES | <i>Acrocephalus melanopogon</i> | Moustached Warbler | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population, Annex I Birds Directive | Criterion 4: Wintering |
| CHORDATA/AVES | <i>Acrocephalus paludicola</i> | Aquatic Warbler | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VU | <input type="checkbox"/> | <input checked="" type="checkbox"/> | HR_RED LIST 2010: CR Passing population, Annex I Birds Directive | |
| CHORDATA/AVES | <i>Actitis hypoleucos</i> | Common Sandpiper | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VU Breeding population, EU27_RED LIST 2015: NT | |
| CHORDATA/AVES | <i>Alcedo atthis</i> | Common Kingfisher | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population EUROPE_RED LIST 2015: VU EU27_RED LIST 2015: VU Annex I Birds Directive | |
| CHORDATA/AVES | <i>Alectoris graeca</i> | Rock Partridge | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population, EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: VU Annex I Birds Directive | |
| CHORDATA/AVES | <i>Anas acuta</i> | Northern Pintail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: RE Breeding population, EU27_RED LIST 2015: VU | Criterion 4: occasionaly wintering |
| CHORDATA/AVES | <i>Anas penelope</i> | Eurasian Wigeon | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EU27_RED LIST 2015: VU | Criterion 4: wintering |
| CHORDATA/AVES | <i>Anas querquedula</i> | Garganey | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population, EU27_RED LIST 2015: VU | |
| CHORDATA/AVES | <i>Anas strepera</i> | Gadwall | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population | wintering |
| CHORDATA/AVES | <i>Anthus campestris</i> | Tawny Pipit | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Anthus pratensis</i> | Meadow Pipit | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: VU | |
| CHORDATA/AVES | <i>Aquila chrysaetos</i> | Golden Eagle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population, Annex I Birds Directive | |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|---------------|----------------------------------|-------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|-----------------|---------------|--------------------------|-------------------------------------|--|--|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | 8 | | | | | | | | |
| CHORDATA/AVES | <i>Aquila clanga</i> | Greater Spotted Eagle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VU | <input type="checkbox"/> | <input checked="" type="checkbox"/> | HR_RED LIST 2010: CR Wintering population, EUROPE_RED LIST 2015: EN EU27_RED LIST 2015: CR Annex I Birds Directive | |
| CHORDATA/AVES | <i>Ardea alba</i> | Great Egret | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population, Annex I Birds Directive | Criterion 4: occasional breeding |
| CHORDATA/AVES | <i>Ardea purpurea</i> | Purple Heron | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population, Annex I Birds Directive | Vransko lake is the only stable nesting site in Mediterranean Croatia for the population of the Purple Heron |
| CHORDATA/AVES | <i>Ardeola ralloides</i> | Squacco Heron | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Arenaria interpres</i> | Ruddy Turnstone | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EU27_RED LIST 2015: EN | |
| CHORDATA/AVES | <i>Asio flammeus</i> | Short-eared Owl | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Aythya ferina</i> | Common Pochard | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VU | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | Criterion 4: wintering |
| CHORDATA/AVES | <i>Aythya marila</i> | Greater Scaup | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | Criterion 4: wintering |
| CHORDATA/AVES | <i>Aythya nyroca</i> | Ferruginous Duck | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input checked="" type="checkbox"/> | HR_RED LIST 2010: NT Breeding population Annex I Birds Directive | Criterion 4: wintering |
| CHORDATA/AVES | <i>Botaurus stellaris</i> | Eurasian Bittern | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | Criterion 4: Ocassionaly breeding, wintering |
| CHORDATA/AVES | <i>Bubo bubo</i> | Eurasian Eagle-Owl | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Burhinus oedicnemus</i> | Eurasian Stone-curlew | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Calandrella brachydactyla</i> | Greater Short-toed Lark | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Calidris alpina</i> | Dunlin | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Wintering population | |
| CHORDATA/AVES | <i>Calidris ferruginea</i> | Curlew Sandpiper | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Charadrius alexandrinus</i> | Kentish Plover | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Chlidonias hybrida</i> | Whiskered Tern | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Circaetus gallicus</i> | Short-toed Snake Eagle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Circus aeruginosus</i> | Western Marsh Harrier | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN breeding population Annex I Birds Directive | Criterion 4: Ocassionaly breeding, wintering |
| CHORDATA/AVES | <i>Circus cyaneus</i> | Northern Harrier | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: NT Annex I Birds Directive | Criterion 4: Wintering |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|---------------|---------------------------------|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-----------|---------------------|-----------------|---------------|-------------------------------------|-------------------------------------|--|---|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | | | | | | | | |
| CHORDATA/AVES | <i>Circus pygargus</i> | Montagu's Harrier | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Columba oenas</i> | Stock Dove | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population | Criterion 4: Occasionaly wintering |
| CHORDATA/AVES | <i>Coracias garrulus</i> | European Roller | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input checked="" type="checkbox"/> | HR_RED LIST 2010: CR Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Crex crex</i> | Corn Crane | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Egretta garzetta</i> | Little Egret | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population Annex I Birds Directive | Criterion 4: Occasionaly breeding; wintering |
| CHORDATA/AVES | <i>Falco biarmicus</i> | Lanner Falcon | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR EUROPE_RED LIST 2015: EN EU27_RED LIST 2015: VJ Annex I Birds Directive | |
| CHORDATA/AVES | <i>Falco columbarius</i> | Merlin | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Wintering population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Falco naumanni</i> | Lesser Kestrel | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input checked="" type="checkbox"/> | HR_RED LIST 2010: CR breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Falco peregrinus</i> | Peregrine Falcon | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input checked="" type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Falco vespertinus</i> | Red-footed Falcon | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input checked="" type="checkbox"/> | EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: VJ Annex I Birds Directive | |
| CHORDATA/AVES | <i>Fringilla montifringilla</i> | Brambling | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Fulica atra</i> | Eurasian Coot | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 67500 | | 2.5 | LC | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: NT | Criterion 2: IUCN Red list Category (Europe)_2015: NT Criterion 4: The lake surface never freezes and with its plentitude of food and mild climate represents a winter refuge for this species. Criterion 5: wintering numbers between 40,000 and 195,000 birds. Criterion 6: Biogeographic region: Mediterranean-Black Sea |
| CHORDATA/AVES | <i>Gallinago gallinago</i> | Common Snipe | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population | |
| CHORDATA/AVES | <i>Gallinago media</i> | Great Snipe | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: VJ | Annex I Birds Directive |
| CHORDATA/AVES | <i>Glareola nordmanni</i> | Black-winged Pratincole | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: CR | |
| CHORDATA/AVES | <i>Glareola pratincola</i> | Collared Pratincole | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Grus grus</i> | Common Crane | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Haematopus ostralegus</i> | Eurasian Oystercatcher | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Mgrating population EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Himantopus himantopus</i> | Black-winged Stilt | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population Annex I Birds Directive | |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|---------------|-------------------------------|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|-----------------|---------------|--------------------------|--------------------------|--|--|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | 8 | | | | | | | | |
| CHORDATA/AVES | <i>Hydroprogne caspia</i> | Caspian Tern | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Migrating population EU27_RED LIST 2015: NT Annex I Birds Directive | |
| CHORDATA/AVES | <i>Ixobrychus minutus</i> | Little Bittern | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | 100-150 pairs of the Little Bittern (<i>Ixobrychus minutus</i>) breed in reed beds. |
| CHORDATA/AVES | <i>Lanius collurio</i> | Red-backed Shrike | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Lanius excubitor</i> | Great Grey Shrike; Northern Shrike | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Lanius minor</i> | Lesser Grey Shrike | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Limosa limosa</i> | Black-tailed Godwit | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT migrating population EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: EN | |
| CHORDATA/AVES | <i>Locustella fluviatilis</i> | River Warbler | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Luscinia svecica</i> | Bluethroat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Lymnocyptes minimus</i> | Jack Snipe | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ | |
| CHORDATA/AVES | <i>Melanitta fusca</i> | White-winged Scoter; Velvet Scoter | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VU | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Melanocorypha calandra</i> | Calandra Lark | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population EU27_RED LIST 2015: VJ Annex I Birds Directive | |
| CHORDATA/AVES | <i>Mergus merganser</i> | Common Merganser | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population | |
| CHORDATA/AVES | <i>Mergus serrator</i> | Red-breasted Merganser | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Microcarbo pygmeus</i> | Pygmy Cormorant | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR breeding population Annex I Birds Directive | Criterion 3: the only stable nesting site in Croatia for the population of the Pygmy Cormorant Criterion 4: This reedbed is the last breeding site for the Pygmy Cormorant |
| CHORDATA/AVES | <i>Milvus migrans</i> | Black Kite | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Milvus milvus</i> | Red Kite | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: RE HR RED LIST: breeding population Annex I Birds Directive EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: NT | |
| CHORDATA/AVES | <i>Netta rufina</i> | Red-crested Pochard | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population | |
| CHORDATA/AVES | <i>Numenius arquata</i> | Eurasian Curlew | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ, EN migrating population vulnerable, wintering population endangered; EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: VJ | |
| CHORDATA/AVES | <i>Numenius phaeopus</i> | Whimbrel | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ migrating population | |
| CHORDATA/AVES | <i>Nycticorax nycticorax</i> | Black-crowned Night-Heron; Black-crowned Night Heron | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population Annex I Birds Directive | |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|---------------|--------------------------------|--|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|-----------------|---------------|-------------------------------------|-------------------------------------|--|---|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | | | | | | | | |
| CHORDATA/AVES | <i>Pandion haliaetus</i> | Western Osprey, Osprey | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: RE & NT breeding & migrating population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Panurus biarmicus</i> | Bearded Reedling | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population | Criterion 4: Wintering |
| CHORDATA/AVES | <i>Pelecanus crispus</i> | Dalmatian Pelican | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | HR_RED LIST 2010: RE Criterion 2: breeding population regionally extinct Annex I Birds Directive | |
| CHORDATA/AVES | <i>Philomachus pugnax</i> | Ruff | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EU27_RED LIST 2015: EN Annex I Birds Directive | |
| CHORDATA/AVES | <i>Platalea leucorodia</i> | Eurasian Spoonbill | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Plegadis falcinellus</i> | Glossy Ibis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Migrating population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Pluvialis apricaria</i> | European Golden Plover; European Golden-Plover | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: Wintering population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Pluvialis squatarola</i> | Grey Plover; Black-bellied Plover | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN & NT Wintering population EN, migrating population NT | |
| CHORDATA/AVES | <i>Porzana parva</i> | Little Crane | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | Criterion 4: breeding population |
| CHORDATA/AVES | <i>Porzana porzana</i> | Spotted Crane | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | Criterion 4: breeding population |
| CHORDATA/AVES | <i>Porzana pusilla</i> | Baillon's Crane | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR breeding population, EU27_RED LIST 2015: NT Annex I Birds Directive | Criterion 4: The site supports this species in their sensitive nesting period |
| CHORDATA/AVES | <i>Recurvirostra avosetta</i> | Pied Avocet | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Riparia riparia</i> | Sand Martin | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: VJ Breeding population | |
| CHORDATA/AVES | <i>Scolopax rusticola</i> | Eurasian Woodcock | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population | |
| CHORDATA/AVES | <i>Sterna hirundo</i> | Common Tern | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Sternula albifrons</i> | Little Tern | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: EN Breeding population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Streptopelia turtur</i> | European Turtle Dove; European Turtle-Dove | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VJ | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: VJ EU27_RED LIST 2015: NT | |
| CHORDATA/AVES | <i>Sylvia nisoria</i> | Barred Warbler | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |
| CHORDATA/AVES | <i>Thalasseus sandvicensis</i> | Sandwich Tern | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Wintering population Annex I Birds Directive | |
| CHORDATA/AVES | <i>Tringa glareola</i> | Wood Sandpiper | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex I Birds Directive | |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|------------------------------------|---|--------------------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------|-----------------|---------------|--------------------------|--------------------------|---|--|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | | | | | | | | |
| CHORDATA/AVES | <i>Tringa stagnatilis</i> | Marsh Sandpiper | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: NT Migrating population EU27_RED LIST 2015: EN | |
| CHORDATA/AVES | <i>Tringa totanus</i> | Common Redshank | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2010: CR Breeding population EU27_RED LIST 2015: VU | |
| CHORDATA/AVES | <i>Turdus iliacus</i> | Redwing | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: NT EU27_RED LIST 2015: VU | |
| CHORDATA/AVES | <i>Turdus pilaris</i> | Fieldfare | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | EU27_RED LIST 2015: VU | |
| CHORDATA/AVES | <i>Vanellus vanellus</i> | Northern Lapwing | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST 2015: WJ EU27_RED LIST 2015: VU | |
| Fish, Mollusc and Crustacea | | | | | | | | | | | | | | | | | |
| CHORDATA/ACTINOPTERYGII | <i>Anguilla anguilla</i> | Sing eel | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | CR | <input type="checkbox"/> | <input type="checkbox"/> | Barcelona convention (Annex III of the SPAMI Protocol, EU wildlife trade legislation (ban on import in EU and export from EU), CITES Convention ZPP HR: strictly protected IUCN status EUROPE: CR | Criterion 2: strictly protected by Croatian law only in Vransko lake and Krka Criterion 3: eels inhabit Vransko lake, Krka river and Neretva in Croatia. Criterion 7: freshwater ecosystems are as important as marine ecosystems for life-history stages of eels. Criterion 4 i 8: eels feed in the brackish water of the lake until they reach reproductive stage. |
| MOLLUSCA/GASTROPODA | <i>Anisus vorticulus</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | <input type="checkbox"/> | <input type="checkbox"/> | EUROPE_RED LIST: NT Annex 2 & 4 Habitat Directive | |
| CHORDATA/ACTINOPTERYGII | <i>Knipowitschia panizzae</i> | Adriatic dwarf goby | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex II of the Habitat Directive ZPP HR: strictly protected | Knipowitschia panizzae is an endemic fish species of the Adriatic Basin. |
| CHORDATA/ACTINOPTERYGII | <i>Salaria fluviatilis</i> | Freshwater blenny, Freshwater blenny | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST: VU | Endemic fish species of the Mediterranean Basin. |
| Others | | | | | | | | | | | | | | | | | |
| CHORDATA/REPTILIA | <i>Algyroides nigropunctatus</i> | Dalmatian Algyroides | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | Criterion 3: endemics of the Eastern Adriatic coast Criterion 2: Annex 4 HD |
| CHORDATA/REPTILIA | <i>Archaeolacerta bedriagae bedriagae</i> | Sharp Snouted Lizard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | <input type="checkbox"/> | <input type="checkbox"/> | | Criterion 3: Dalmatian endemics, contributing to the biological diversity of the Mediterranean biogeographic region. |
| CHORDATA/AMPHIBIA | <i>Bombina variegata</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 2 & 4 of Habitat Directive | |
| ARTHROPODA/INSECTA | <i>Ceriatrigon tenellum</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST: VU | |
| CHORDATA/REPTILIA | <i>Elaphe quatuorlineata</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list 2015: NT; European Red list: NT, Annex 2 & 4 of Habitat Directive | |
| CHORDATA/REPTILIA | <i>Emys orbicularis</i> | European Pond Turtle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list: NT; European Red list: NT, Annex 2 & 4 of Habitat Directive | |
| ARTHROPODA/INSECTA | <i>Hemianax ephippiger</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST: VU | |
| CHORDATA/REPTILIA | <i>Hierophis gemonensis</i> | Balkan Whip Snake | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | | Criterion 3: endemics of the Eastern Adriatic coast |
| CHORDATA/AMPHIBIA | <i>Hyla arborea</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Hypsugo savii</i> | Savi's Pipistrelle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|--------------------|----------------------------------|---|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|-----------------|---------------|--------------------------|--------------------------|---|---------------|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | | | | | | | | |
| CHORDATA/REPTILIA | <i>Lacerta trilineata</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 Habitat Directive | |
| ARTHROPODA/INSECTA | <i>Lestes virens</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST: VU | |
| ARTHROPODA/INSECTA | <i>Lindenia tetraphylla</i> | Bladetail | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list: EN; European Red list: VU, Annex 2 & 4 of the Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Miniopterus schreibersii</i> | Schreibers's Long-fingered Bat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: EN; European Red list: NT Annex 2 & 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Myotis bechsteinii</i> | Bechstein's Myotis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: VU IUCN status RED LIST EUROPE: VU Annex 2 & 4 of the Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Myotis blythii</i> | lesser mouse-eared bat; Lesser Mouse-eared Myotis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | European Red list: NT, Annex 2 & 4 of the Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Myotis capaccinii</i> | long-fingered bat; Long-fingered Myotis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VU | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: EN; European Red list: VU, Annex 2 & 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Myotis emarginatus</i> | Geoffroy's bat; Geoffroy's Myotis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: NT Annex 2 & 4 of the Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Myotis myotis</i> | mouse-eared bat; Mouse-eared Myotis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: NT; European Red list: LC, Annex 2 & 4 of the Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Myotis nattereri</i> | Natterer's bat; Natterer's Myotis | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/REPTILIA | <i>Natrix tessellata</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Pipistrellus kuhlii</i> | Kuhl's Pipistrelle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Pipistrellus nathusii</i> | Nathusius's Pipistrelle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/REPTILIA | <i>Platyceps najadum</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST: NT Annex 4 Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Plecotus kolombatovici</i> | Kolombatovic's Long-eared Bat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | IUCN status RED LIST EUROPE: NT Annex 4 of the Habitat Directive | |
| CHORDATA/AMPHIBIA | <i>Pseudepidalea viridis</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/AMPHIBIA | <i>Rana dalmatina</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Rhinolophus blasii</i> | Blasius's Horseshoe Bat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: VU IUCN status RED LIST EUROPE: VU Annex 2 & 4 of the Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Rhinolophus euryale</i> | Mediterranean Horseshoe Bat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST 2006: VU; European Red list: VU, Annex 2 & 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Rhinolophus ferrumequinum</i> | greater horseshoe bat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list: NT; European Red list: NT, Annex 2 & 4 of Habitat Directive | |
| CHORDATA/MAMMALIA | <i>Rhinolophus hipposideros</i> | lesser horseshoe bat | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list: NT; European Red list: NT, Annex 2 & 4 of Habitat Directive | |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence ¹⁾ | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|------------------------|-----------------------------|-------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|----------------------------|---------------|--------------------------|--------------------------|--|---------------|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | 8 | | | | | | | | |
| ARTHROPODA/ INSECTA | <i>Selysiothermis nigra</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR_RED LIST: EN | |
| CHORDATA/ REPTILIA | <i>Telescopus fallax</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list 2015: NT; Annex 4 of Habitat Directive | |
| CHORDATA/ REPTILIA | <i>Testudo hermanni</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list: NT; European Red list: NT; Annex 2 & 4 of Habitat Directive | |
| CHORDATA/ REPTILIA | <i>Vipera ammodytes</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 of Habitat Directive | |
| CHORDATA/ REPTILIA | <i>Zamenis longissimus</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | Annex 4 Habitat Directive | |
| CHORDATA/ REPTILIA | <i>Zamenis situla</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC | <input type="checkbox"/> | <input type="checkbox"/> | HR Red list 2015: NT; Annex 2 & 4 of Habitat Directive | |

1) Percentage of the total biogeographic population at the site

Many bird species inhabiting the area are threatened at the national or international level. 5 vulnerable and 16 near threatened species at global level have been registered for the site (IUCN, 2018), 8 of them being regularly occurring. 3 species are critically endangered, 4 species are endangered and 25 are vulnerable at the EU27 level, while 2 species are endangered on EUROPEAN level and 13 are vulnerable (BirdLife International, 2015). 77 birds are listed in Annex I of the Bird Directive, 61 species in Annex II. At the national scale, the populations of 14 bird species registered for Vransko jezero are critically endangered, 22 are endangered and 18 are vulnerable (Tutiš et al., 2010). Out of plant species 2 are critically endangered, 6 endangered and 9 are vulnerable at the national scale. One is listed in Annex II and IV of Habitat Directive. There is also 2 endangered and 3 vulnerable species of dragonflies (Odonata) on the national level and 1 listed in Habitat Directive (Annex II and IV), as well as 2 critically endangered, 2 endangered and 2 vulnerable species of ground beetles (Carabidae) at the national scale. Out of cave invertebrates, one is critically endangered and one vulnerable on the national level. One mollusc species is listed in Habitat Directive (Annex II and IV), as well as 1 fish species. One fish species is endangered and 1 vulnerable at the national scale, while 1 is critically endangered and 1 vulnerable at the European and global level. 4 amphibian species are listed in the Habitat Directive (all in Annex IV and only 1 of them in Annex II) as well as 11 reptile species (all in Annex IV but only 4 of them in Annex II). Populations of bats using the area consist of 2 endangered and 3 vulnerable species at the national scale, 4 vulnerable at the European level and one vulnerable at the global level, amongst 21 listed in the Habitat Directive (all in Annex IV but only 11 of them in Annex II). Complete list of species registered for Vransko Jezero Lake with threat status is presented in the taxonomic list. Species listed under Criterion 3 which are not yet included in the Catalogue of Life: *Bombina variegata kolombatovici*, Yellow-bellied Toad, Dalmatian endemics, contributing to the biological diversity of the Mediterranean biogeographic region.

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Vransko Lake is positioned at the transition from the Mediterranean climate zone, with the Fraxino orn - Quercetum ilicis vegetation community, to the Sub-Mediterranean climate zone, with the Querco - Carpinetum orientalis vegetation community. This position, in combination with hydrological and land use factors, allows development of different habitats in a relatively small area. Wet habitats are more or less clearly distinguished from dry habitats. The open water habitat, which accounts for the largest part of the lake, is not very rich in diversity of macrophytes, but there is a well developed and ecologically valuable community of stoneworts (Characeae), with a periodical (especially during high salinity periods) dominance of Sago Pondweed (Potamogeton pectinatus), followed by few other Potamogeton species and Spiny Naiad (Najas marina.) Along the mildly sloped northeast and northwest coast of the lake, and especially in the area of Ornithological Reserve, vast reed beds dominated by Common Reed (Phragmites australis) and Triangular Club-rush (Scirpus triqueter) present an exceptional habitat for birds, vital for sustenance of the colony of herons as well as of Pygmy Cormorant (Phalacrocorax pygmeus) breeding colony. Periods with low water level are suitable for emergence of the muddy shores and pebbly beaches on the border of the reedbeds, the main feeding habitat for migrating waders. Behind the reedbeds in the Reserve lies the flooding zone, which in combination with sporadic grazing activities allows development of the rare Mediterranean wet grassland vegetation (Molinio-Holoschoenion and Molinio-Hordeion secalini). The southwest coast of the lake is mostly covered by arable land, a small patch of the Aleppo Pine (Pinus halepensis) forest and Modrave area covered by traditional olive groves surrounded with stony walls. Habitat patches of calcareous rocks with chasmophytic vegetation (including the endemic Littoral Corydalis (Corydalis acaulis) and intermittent pools are habitats small in size but not negligible in the context of diversity. The northern coast of the lake is lined with hills. Only a small part of it is managed by grazing, supporting the dry Mediterranean and Sub-Mediterranean grasslands. The rest of the hills are characterized by thermophilic vegetation (due to southern exposure and steep slopes), mainly covered in Mediterranean macchia and garrigue (with species Rock Rose (Cistus creticus). Cave habitats are scarce in the Park's area, only 2 smaller caves inside its borders exist, but there is proposed NATURA2000 cave in the Park's immediate vicinity, its bat population regularly using the lake as a feeding ground.

4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

| Wetland types (code and name) | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type | Justification of Criterion 1 |
|--|------------|--|---------------------------|------------------------------|
| Zk(a): Karst and other subterranean hydrological systems | | 3 | 2003 | Unique |

Inland wetlands

| Wetland types (code and name) | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type | Justification of Criterion 1 |
|--|------------|--|---------------------------|------------------------------|
| Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks | | 4 | | Representative |
| Saline, brackish or alkaline water > Lakes >> Q: Permanent saline/ brackish/ alkaline lakes | | 1 | 3002 | Representative |
| Saline, brackish or alkaline water > Marshes & pools >> Sp: Permanent saline/ brackish/ alkaline marshes/ pools | | 3 | 883 | Unique |
| Saline, brackish or alkaline water > Marshes & pools >> Ss: Seasonal/ intermittent saline/ brackish/ alkaline marshes/ pools | | 4 | | |
| Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils | | 4 | | |
| Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases | | 4 | | |

Human-made wetlands

| Wetland types (code and name) | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type | Justification of Criterion 1 |
|--|------------|--|---------------------------|------------------------------|
| 4: Seasonally flooded agricultural land | | | | |
| 9: Canals and drainage channels or ditches | | | | |

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

| Scientific name | Common name | Position in range / endemism / other |
|------------------------------|---------------|--|
| <i>Iris pallida illyrica</i> | Illyrian Iris | protected at the national level, grows on drained, dry grounds in the area of Dalmatia and northwest Balkans |

4.3.2 - Animal species

Other noteworthy animal species

| Phylum | Scientific name | Common name | Pop. size | Period of pop. est. | % occurrence | Position in range /endemism/other |
|-------------------------|---------------------------------------|--|-----------|---------------------|--------------|--|
| CHORDATA/AVES | <i>Athene noctua</i> | Little Owl | | | | near threatened in Croatia |
| CHORDATA/AVES | <i>Aythya fuligula</i> | Tufted Duck | | | | near threatened in Croatia |
| ARTHROPODA/INSECTA | <i>Calopteryx splendens balcanica</i> | | | | | strictly protected by the national law |
| CHORDATA/AVES | <i>Charadrius dubius</i> | Little Ringed Plover | | | | near threatened in Croatia |
| CHORDATA/AVES | <i>Charadrius hiaticula</i> | Common Ringed Plover | | | | near threatened in Croatia |
| CHORDATA/REPTILIA | <i>Dalmatolacerta oxycephala</i> | | | | | strictly protected by the national law, Dalmation endemic |
| CHORDATA/AVES | <i>Falco subbuteo</i> | Eurasian Hobby | | | | near threatened in Croatia |
| ARTHROPODA/INSECTA | <i>Glaucopsyche alexis</i> | Green-Underside Blue | | | | near threatened in Croatia |
| CHORDATA/AVES | <i>Larus ridibundus</i> | | | | | near threatened in Croatia |
| ARTHROPODA/INSECTA | <i>Papilio machaon</i> | Common Yellow Swallowtail; Swallowtail; Old World Swallowtail; Artemisia Swallowtail | | | | protected by the national law |
| CHORDATA/AVES | <i>Phalacrocorax carbo</i> | Great Cormorant | | | | near threatened on the national level |
| CHORDATA/AVES | <i>Phylloscopus trochilus</i> | Willow Warbler | | | | near threatened in Croatia |
| CHORDATA/REPTILIA | <i>Pseudopus apodus</i> | | | | | strictly protected by the national law |
| ARTHROPODA/INSECTA | <i>Psyllipsocus ramburii</i> | | | | | endemic species. |
| CHORDATA/AVES | <i>Regulus regulus</i> | Goldcrest | | | | near threatened on EU27 IUCN list |
| CHORDATA/ACTINOPTERYGII | <i>Scardinius dergle</i> | | | | | endemic of the Adriatic Basin; NT on the GLOBAL, EU and national level |
| CHORDATA/AVES | <i>Tringa ochropus</i> | Green Sandpiper | | | | near threatened in Croatia |
| CHORDATA/AVES | <i>Tyto alba</i> | Barn Owl | | | | near threatened in Croatia |

4.4 - Physical components

4.4.1 - Climate

| Climatic region | Subregion |
|---|--|
| C: Moist Mid-Latitude climate with mild winters | Csa: Mediterranean (Mild with dry, hot summer) |

Because of small water depth, water temperature varies greatly: from 25.2 °C in July to 2.9 °C in February. Rarely, due to polar air masses breakthrough, surface water and shore freezes. Canals' deltas and spring areas never freeze, because the spring waters temperature varies from 9.2 °C to 17 °C.

According to Thornthwait classification climate is humid to subhumid, and according to Köppen warm, moderate climate of the Mediterranean coast, with at least three times more rainfall in the most humid winter month than in the driest summer month. This type of climate is also called "olive climate" and it is characterized with evergreen vegetation of *Quercus ilex*. The climate generally corresponds to the climate of the whole catchment area.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Catchment waters are mainly rainfall, water from springs (Biba, Kakma, Subiba, Begovača, Škorobić and Pečina) and underground water that forms springs in the very lake (Živača, Prizidina, Procip).

4.4.3 - Soil

Mineral

(Update) Changes at RIS update No change Increase Decrease Unknown

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

4.4.4 - Water regime

Water permanence

| Presence? | Changes at RIS update |
|---------------------------------|-----------------------|
| Usually permanent water present | |

Source of water that maintains character of the site

| Presence? | Predominant water source | Changes at RIS update |
|----------------------------|--------------------------|-----------------------|
| Water inputs from rainfall | <input type="checkbox"/> | No change |

Water destination

| Presence? | Changes at RIS update |
|-----------|-----------------------|
| Marine | No change |

Stability of water regime

| Presence? | Changes at RIS update |
|-----------------------------|-----------------------|
| Water levels largely stable | No change |

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

Catchment waters are mainly rainfall, water from springs (Biba, Kakma, Subiba, Begovača, Škorobić and Pečina) and underground water that forms springs in the very lake (Živača, Prizidina, Procip). Surface water is brought to the lake through numerous streams and creeks, the biggest ones being Kotarka canal that collects water from main melioration channels (Borelovića, Lemešac, Vrbica and Jablanac), and Lateral channel that collects surface water from the northern part of Vransko polje. Natural streams collect water from the northern part of the catchment (Škorobić stream which enters into the Lateral canal) and from Kulsko-Korlatsko polje, Nadinsko blato and Polaćko polje (Kličevica stream).

4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Sediment regime unknown

Please provide further information on sediment (optional):

Small depth makes the lake well enlightened and productive, which accelerates the eutrophication and sedimentation processes. The lake is polymictic due to strong winds, and no stratification occurs. Lake water quality is now between oligotrophic and mesotrophic, with a light eutrophication occurring, due to lake's production, introduced cyprinid species influence, and excess input of nutrients due to agricultural land fertilization.

4.4.6 - Water pH

Alkaline (pH>7.4)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

Please provide further information on pH (optional):

Water pH is normally between 7.5 and 8.5, making the water slightly alkaline. Water hardness is moderate, with CaCO₃ values between 140-215 mg/L. High electrical conductivity and high chloride concentration is due to intrusion of the sea into the lake, and varies seasonally and spatially. Oxygen concentrations vary according to season (6-10 mg/L), and lower values are related to warmer season. From inorganic factors, only phosphates can reach values higher than expected, due to sporadic inflow of waste water.

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Mixohaline (brackish)/Mixosaline (0.5-30 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

Please provide further information on salinity (optional):

The salt water protrudes through permeable karst areas northwest of the lake, and makes lake water constantly brackish, with salinity of 0,16-0,86 ‰. During strong southern winds in summer and autumn when lake level is low, the sea level rises above the lake level and salt water comes into the lake through Prosika canal and permeable karst ridge next to the canal. Long-term period of no rainfall can raise the salinity up to 8‰.

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Small depth makes the lake well enlightened and productive, which accelerates the eutrophication and sedimentation processes. The lake is polymictic due to strong winds, and no stratification occurs. Lake water quality is now between oligotrophic and mesotrophic, with a light eutrophication occurring, due to lake's production, introduced cyprinid species influence, and excess input of nutrients due to agricultural land fertilization.

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself:

- Surrounding area has greater urbanisation or development
- Surrounding area has higher human population density
- Surrounding area has more intensive agricultural use
- Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

The land in the catchment area is mostly used for intensive agriculture on medium-size plots. As the land is not very fertile due to salinization, it is not cultivated regularly, which is in favor of maintaining good water quality of the lake. There are several springs in the catchment used for water supply, and also springs and canals used for irrigation of the land.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|---------------------------|---------------------------------|--------------------------------|
| Fresh water | Water for irrigated agriculture | Medium |
| Wetland non-food products | Livestock fodder | Medium |

Regulating Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|--------------------------------------|--|--------------------------------|
| Pollution control and detoxification | Water purification/waste treatment or dilution | Medium |
| Hazard reduction | Flood control, flood storage | Medium |

Cultural Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|-----------------------------|---|--------------------------------|
| Recreation and tourism | Recreational hunting and fishing | High |
| Recreation and tourism | Nature observation and nature-based tourism | Medium |
| Recreation and tourism | Water sports and activities | Medium |
| Spiritual and inspirational | Cultural heritage (historical and archaeological) | Medium |
| Scientific and educational | Educational activities and opportunities | |
| Scientific and educational | Long-term monitoring site | Medium |
| Scientific and educational | Major scientific study site | Medium |

Supporting Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|-------------------|---|--------------------------------|
| Biodiversity | Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part | High |

Other ecosystem service(s) not included above:

Vransko Lake is the biggest reservoir of fresh water in this region of Croatia. In 1970-ties there have been plans for building accumulation of fresh water in Vransko Jezero Lake and its usage for water supply, but the idea was abandoned due to problem of salinization. Springs from Vransko jezero's catchment (Kakma, Biba, Škorobić, Turanjsko jezero, Kutijin stan) are, however, regularly exploited for water supply, and Begovača seasonally. Springs Tinj, Mali Stabanj, Veliki Stabanj, Pečina are used for irrigation of arable land. During rainy season Vransko jezero's marsh prevents high waters from destroying the dikes and intruding the fields outside of the flood zone. The reedbeds are excellent in purifying waters that enter the lake through melioration canals, carrying fertilizers that could enhance lake eutrophication.

See additional material for further information

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

- i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
- ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
- iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
- iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

| Category | Within the Ramsar Site | In the surrounding area |
|--|-------------------------------------|-------------------------------------|
| National/Federal government | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Local authority, municipality, (sub)district, etc. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Private ownership

| Category | Within the Ramsar Site | In the surrounding area |
|--|-------------------------------------|-------------------------------------|
| Other types of private/individual owner(s) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Provide further information on the land tenure / ownership regime (optional):

within the Ramsar site:

Most of the site is owned by the state, particularly state agencies for natural resources management: the water, together with the reedbeds, is managed by the state enterprises "Croatian Waters", and the karst areas with macchia and pine forests are managed by the "Croatian Forests". Around 10 ha of olive groves are privately owned mostly by inhabitants of Murter island, agricultural land in the Reserve and on the southwest corner of the Park are owned by inhabitants of Pakoštane municipality. Most of the flooded meadows and marsh area are owned by the state.

in the surrounding area:

Combination of state (mostly "Croatian Forests") or municipality owned, with smaller privately owned particles (mostly for agriculture). Drained fields of Jasen (natural part of flood zone) in the catchment are owned by a single private owner.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

Public Institution Vransko jezero Nature Park

Provide the name and title of the person or people with responsibility for the wetland:

Head manager Danijel Katičin, Head of the Expert Service Maja Čuže Denona

Postal address:

Kralja Petra Svačića 2
HR-23 210 Biograd na Moru
web: www.pp-vransko-jezero.hr

E-mail address:

info@pp-vransko-jezero.hr

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Water regulation

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|-----------------------------------|---------------|------------------|--------------------------|-----------|-------------------------------------|-----------|
| Water abstraction | Medium impact | Medium impact | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |
| Canalisation and river regulation | Medium impact | Medium impact | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Biological resource use

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|--|---------------|------------------|-------------------------------------|-----------|--------------------------|-----------|
| Hunting and collecting terrestrial animals | Medium impact | Medium impact | <input checked="" type="checkbox"/> | No change | <input type="checkbox"/> | No change |
| Logging and wood harvesting | | | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | |
| Fishing and harvesting aquatic resources | Medium impact | Medium impact | <input checked="" type="checkbox"/> | No change | <input type="checkbox"/> | No change |

Natural system modifications

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|----------------------------------|---------------|------------------|-------------------------------------|-----------|-------------------------------------|-----------|
| Fire and fire suppression | Medium impact | Medium impact | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |
| Unspecified/others | Medium impact | Medium impact | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Pollution

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|-------------------------------------|---------------|------------------|-------------------------------------|-----------|-------------------------------------|-----------|
| Household sewage, urban waste water | | | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | |
| Agricultural and forestry effluents | Medium impact | Medium impact | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |
| Garbage and solid waste | Medium impact | Medium impact | <input checked="" type="checkbox"/> | No change | <input type="checkbox"/> | No change |
| Unspecified | | | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | |

Climate change and severe weather

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|----------------------------------|---------------|------------------|-------------------------------------|-----------|-------------------------------------|-----------|
| Unspecified | Medium impact | Medium impact | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Please describe any other threats (optional):

within the Ramsar site:
 Past threats to Vransko Lake site (referring to the period before the establishment of the protected area, and in the first few years after) include frequent reed burning, illegal fishing with nets and other non-recreational tools, illegal hunting on protected birds, penetration inside reed beds and making paths, legal hunting of waterfowl, illegal garbage deposition and non-existence of facilities for waste water treatment. All these threats caused disturbance to the birds and/or habitat deterioration. Most of these threats are eliminated or at least diminished since the lake has been protected as a Nature Park. Some illegal burning of reed occurs, but with a decreasing trend due to education of local community about the benefits of nature protection. Constant surveillance is organized to prevent illegal fishing and penetration of poachers inside the Park. Hunting of birds is no longer an issue. Waste water and illegal garbage disposal are still problems but the municipalities have plans for solving them in coming years. The pollution from these sources is therefore expected to decrease.

in the surrounding area:
 Interventions in the past in the catchment area affected significantly the ecological character of the Ramsar site. The first human interventions were construction of the Prosika canal and other melioration canals starting in the 18th century, which resulted in drainage of a large part of the wetland northeast of the lake. Out of 570 ha of former Vrana Swamp as much as 410 ha has been meliorated, while only 160 ha remained in the natural flooding regime.
 Out of 31 karst springs in the catchment, 5 are used for public water supply, 7 for irrigation of agricultural fields, and 4 are used locally (for water supply or individual field irrigation). In addition to this, illegal landfills have been made in the agricultural fields, from which the land owners pump the water out. The total annual pumping estimates amount 1.9x10⁶ m³ for water supply and about 1.0x10⁶ m³ for melioration.
 These anthropogenic influences are worsened by the climatic change factor. Recent trends in rise of the sea level for 0.13 mm/year (detected for the period since 1969), combined with the regional decrease in rainfall and increase in water uptake, cause salinization of Vransko Jezero Lake and subsequent change in habitats.
 Potential risk lies in the County's plans for advanced irrigation in the catchment area.

5.2.2 - Legal conservation status

Regional (international) legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|------------------|---|------------------------|--------------------------|
| EU Natura 2000 | SiteCode: HR5000025 i HR1000025: Vransko jezero i Jasen | | partly |

National legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|--------------------------------|--------------|------------------------|--------------------------|
| National Ecological Network | | | partly |
| Nature Park | Vransko Lake | | whole |
| Special Ornithological Reserve | | | partly |

Non-statutory designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|---------------------|--------------|------------------------|--------------------------|
| Important Bird Area | Vransko Lake | | whole |

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve

Ib Wilderness Area: protected area managed mainly for wilderness protection

II National Park: protected area managed mainly for ecosystem protection and recreation

III Natural Monument: protected area managed mainly for conservation of specific natural features

- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

| Measures | Status |
|------------------|----------|
| Legal protection | Proposed |

Human Activities

| Measures | Status |
|--|-------------|
| Fisheries management/regulation | Implemented |
| Harvest controls/poaching enforcement | Implemented |
| Livestock management/exclusion (excluding fisheries) | Implemented |

Other:

Building in the Vransko Jezero Lake area is limited and regulated through the Vransko jezero Nature Park Spatial Plan (2012). Hunting and fishing are forbidden in the Ornithological Reserve. Commercial fishing is forbidden in the entire area. Hunting of all bird species is forbidden in the entire area. Cattle grazing and ecological agriculture are encouraged by the Nature Park programs. The area is divided in three zones: strictly protected zone (7.4 % of the total site area) where no entry is allowed except for surveillance and research, active management zone which comprises the most (91.8%) of the site and requires active protection efforts and the usage zone (0.78 %) which encompasses the tourist infrastructure and inhabited areas.

The entire Vransko jezero site together with Jasen are listed as NATURA 2000 (as Site of Community Importance and Special Protected Area).

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

In the park's area there are two visitors' centers: Prosika harbor with the info point, souvenir shop, refreshment point, observation hide, educational trail on fishing and traditional usage of the area and a berth facility for fishermen; and Kamenjak sightseeing point with the info point, souvenir shop, refreshment point and a botanic educational trail. A third visitors' centre is planned at Crkvine locality, to be consisted of a large observation hide designed to accept groups of visitors. In the usage zone on the border of the Ornithological Reserve there is an ornithological educational trail for individual visitors, equipped with two hides. School visits are accepted at Prosika harbor, which is suited for educational programs. Several information booklets are available, including tourist map, educational brochures on natural values of the Ramsar site, and a detailed guide of the Park's ornithofauna.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

5.2.7 - Monitoring implemented or proposed

| Monitoring | Status |
|-------------------------|-------------|
| Plant community | Implemented |
| Animal community | Implemented |
| Water regime monitoring | Implemented |
| Birds | Implemented |

The natural values of the Vransko Lake site have been well documented: flora and fauna inventoried, cadaster of cultural and historical heritage available, map of habitats on the scale 1:5,000 ready. Current research is focused mainly on hydrology and geohydrology of the lake and its catchment, as well as on influence of hydrological cycles on ecological processes and trophic state of the lake. Some research on the impact of human activities (agriculture) on water and sediment of the lake is also being conducted. Annual monitoring activities include monitoring of water quality, ornithofauna (wintering and breeding), bird ringing camp (monitoring of migratory ornithofauna), macrophytes (including the algae Characeae), several endangered habitats (Mediterranean wet grasslands and meadows listed in NATURA 2000) and bat fauna. Additional three-annual monitorings include fish, amphibians and reptiles, dragonflies, phytoplankton, zooplankton and benthos of the lake. Every autumn a comprehensive bird ringing camp is organized in order to monitor the role of Vransko Lake in bird migrations. The Ornithological Station with an observation hide is built in the Ornithological Reserve exactly for this purpose.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

See additional material for further information

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<2 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<1 file(s) uploaded>

vi. other published literature

<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Vransko Lake (x, 09-10-2010)



Vransko Lake (x, 09-10-2010)



Vransko Lake (x, 09-10-2010)



Vransko Lake (x, 09-10-2010)



Vransko Lake (x, 09-10-2010)



Vransko Lake (x, 09-10-2010)



Vransko Lake, viewpoint Kamenjak (x, 29-04-2016)



Vransko Lake, Ornithological reserve, educational trail (Public institution Vransko Lake Nature Park, 13-05-2016)



Vransko Lake, Ornithological Reserve (Public Institution Vransko Lake Nature Park, 21-12-2008)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2013-02-02