

# 2014 NATIONAL REPORT OF PARTIES ON THE IMPLEMENTATION OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

**The deadline for submission of the reports is 1 May 2014. The reporting period is 15 June 2011 to 1 May 2014.**

Parties are encouraged to respond to all questions. Parties are also requested to provide comprehensive answers, including, where appropriate, a summary of activities, information on factors limiting action and details of any assistance required.

Reporting format agreed by the Standing Committee at its 40th Meeting (Bonn, November 2012) for mandatory use by Parties, for reports submitted to the Eleventh Meeting of the Conference of the Parties (COP11) 2014.

The questions below combine elements of Resolution 4.1 (Party Reports) adopted by the Fourth Meeting of the Conference of the Parties (Nairobi, June 1994) and Resolution 6.4 (Strategic Plan for the Convention on Migratory Species 2000-2005), adopted by the Sixth Meeting of the Conference of the Parties (Cape Town, November 1999), the COP8 Strategic Plan 2006-2011 and Resolution 8.24 adopted by the Conference of the Parties (Nairobi 2005), as well as commitments arising from other operational Resolutions and Recommendations of the Conference of the Parties.

COP Resolution 9.4 adopted at Rome called upon the Secretariats and Parties of CMS Agreements to collaborate in the implementation and harmonization of online reporting implementation. The CMS Family Online Reporting System (ORS) has been successfully implemented and used by AEWA in their last Meeting of the Parties (MOP 5, 2012) reporting cycle. CMS now offers the Convention's Parties to use the ORS for submitting their national reports for the COP11 (2014) reporting cycle.

Please enter here the name of your country

> Croatia

Which agency has been primarily responsible for the preparation of this report?

> Ministry of Environmental and Nature Protection, Nature Protection Directorate, Republike Austrije 14, HR - 10000 Zagreb

Please list any other agencies that have provided input

> State Institute for Nature Protection, Trg Mazuranica 5, HR - 10000 Zagreb

Institute for Ornithology to the Croatian Academy of Arts and Science, Gundulićeva 24, HR - 10000 Zagreb

## I(a). General Information

Please enter the required information in the table below:

### Party

Date of entry into force of the Convention in your country

> 1 October 2000

Period covered

> 2011-2014

Territories to which the Convention applies

> Croatia

### Designated National Focal Point

Full name of the institution

> MINISTRY OF ENVIRONMENTAL AND NATURE PROTECTION, NATURE PROTECTION DIRECTORATE

Name and title of designated Focal Point

> Ms Ana Kobašić, Head of Service for Strategic Affairs in Nature Protection

Mailing address

> Republike Austrije 14, 10000 Zagreb, CROATIA

Telephone

> +385 1 4866 125

Fax

> +385 1 4866 100

E-mail

> ana.kobasic@mzoip.hr

### Appointment to the Scientific Council

Full name of the institution

> Institute for Ornithology

Name and title of contact officer

> Jelena Kralj, PhD

Mailing address

> Gundulićeva 24, 10000 Zagreb, CROATIA

Telephone

> +385 1 4825 401

Fax

> +385 1 4825 392

E-mail

> jkralj@hazu.hr

### Submission

#### Name and Signature of officer responsible for submitting national report

Name:

> Nenad Strizrep, Assitant Minister for Nature Protection, Ministry of Environemental and Nature Protection

**Address:**

> Republike Austrije 14, HR - 10000 Zagreb, CROATIA

**Tel.:**

> +385 1 4866 102

**Fax:**

> +385 1 4866 100

**E-mail:**

> nenad.strizrep@mzoip.hr

**Implementation****Competent Authority:**

> Ministry of Environmental and Nature Protection, Nature Protection Directorate

**Relevant implemented legislation:**

> Law on Ratification of the Bonn Convention (OG – International Treaties, No 6/2000); Nature Protection Act (OG 80/13); Ordinance on strictly protected species (OG 144/13), Strategy and Action Plan for the Protection of Biological and Landscape Diversity of the Republic of Croatia (OG 143/08), Regulation on the Proclamation of the Ecological Network (OG 124/13), Ordinance on conservation objectives and conservation measures for birds in Special Protection Areas (OG 15/14)

**Other relevant Conventions/ Agreements (apart from CMS) to which your country is a Party:**

> Convention on Biological Diversity (CBD); Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); Convention on Conservation of European Wildlife and Natural Habitats (“Bern Convention”); Convention on Wetlands of International Importance Especially as Waterfowl Habitat (“Ramsar Convention”); Convention for the Protection of the World Cultural and Natural Heritage; Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (“Barcelona Convention”); Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (“SPA and Biodiversity Protocol”); International Convention on Regulation of Whaling

**National policy instruments (e.g. national biodiversity conservation strategy, etc.):**

> Strategy and Action Plan for the Protection of Biological and Landscape Diversity of the Republic of Croatia (OG 143/08)

**CMS Agreements/MoU**

**Please indicate whether your country is part of the following Agreements/MoU. If so, please indicate the competent national institution**

**Wadden Sea Seals (1991)****Wadden Sea Seals (1991)**

Non Range State

**EUROBATS (1994)****EUROBATS (1994)**

Party

**Appointed member of the Advisory Committee****Name**

> Ms Daniela Hamidović

**Address**

> State Institute for Nature Protection, Trg Mažuranića 5, 10000 Zagreb, CROATIA

**Tel**

> +385 1 5502 952

**Fax**

> +385 1 5502 901

## E-mail

> daniela.hamidovic@dzzp.hr

**Administrative Focal Point**

## Name

> Ms Zrinka Domazetović

## Address

> Ministry of Environmental and Nature Protection – Nature Protection Directorate, Republike Austrije 14, 10 000 Zagreb, CROATIA

## Tel

> +385 1 48 66 127

## Fax

> +385 1 48 66 100

## E-mail

> zrinka.domazetovic@mzoip.hr

**ASCOBANS (1994)****ASCOBANS (1994)**

Non Range State

**AEWA (1999)****AEWA (1999)**

Party

**National Focal Point**

## Name

> Ms Ivana Jelenic

## Address

> Ministry of Environmental and Nature Protection – Nature Protection Directorate, Republike Austrije 14, 10 000 Zagreb, CROATIA

## Tel

> +385 1 4866 122

## Fax

> +385 1 4866 100

## E-mail

> ivana.jelenic@mzoip.hr

**Appointed member of the Technical Committee**

## Name

> Jelena Kralj, PhD, Institute of Ornithology

## Address

> Gundulićeva 24, 10000 Zagreb, CROATIA

## Tel

> +385 1 4825 401

## Fax

> +385 1 4825 392

## E-mail

> jkralj@hazu.hr

**ACAP (2001)****ACAP (2001)** Non Range State**Gorilla Agreement (2008)****Gorilla Agreement (2008)** Non Range State**ACCOBAMS (2001)****ACCOBAMS (2001)** Party**National Focal Point**

## Name

&gt; Ms Ana Štrbenac

## Address

&gt; State Institute for Nature Protection, Trg Mažuranića 5, 10000 Zagreb, CROATIA

## Tel

&gt; +385 1 5502 912

## Fax

&gt; +385 1 5502 901

## E-mail

&gt; ana.strbenac@dzzp.hr

**Appointed member of the Scientific Committee**

## Name

&gt; Mr Draško Holcer

## Address

&gt; Croatian Natural History Museum, Demetrova 1, 10000 Zagreb, CROATIA

## Tel

&gt; +385 1 4851 700

## Fax

&gt; +385 1 4851 644

## E-mail

&gt; Drasko.Holcer@hpm.hr

**Siberian Crane MoU (1993/1999)**

Siberian Crane MoU (1993/1999)

 Non Range State**Slender-billed Curlew MoU (1994)**

Slender-billed Curlew MoU (1994)

 Signatory**Competent authority**

## Name

&gt; Ministry of Environmental and Nature Protection – Nature Protection Directorate

## Address

&gt; Republike Austrije 14, 10 000 Zagreb, CROATIA

## Tel

> +385 1 4866 122 (125)

## Fax

> +385 1 4866 100

## E-mail

> ivana.jelenic@mzoip.hr; jkralj@hazu.hr; ana.kobaslic@mzoip.hr

**Atlantic Turtles MoU (1999)**

Atlantic Turtles MoU (1999)

Non Range State

**Middle-European Great Bustard MoU (2001)**

Middle-European Great Bustard MoU (2001)

Signatory

**Competent authority**

## Name

> Ms Ivana Jelenic

## Address

> Ministry of Environmental and Nature Protection – Nature Protection Directorate, Republike Austrije 14, 10000 Zagreb, CROATIA

## Tel

> +385 1 4866 122

## Fax

> +385 1 4866 100

## E-mail

> ivana.jelenic@mzoip.hr

**Contact point**

## Name

> Jelena Kralj, PhD, Institute of Ornithology

## Address

> Gundulićeva 24, 10000 Zagreb, CROATIA

## Tel

> +385 1 4825 401

## Fax

> +385 1 4825 392

## E-mail

> jkralj@hazu.hr

**IOSEA Marine Turtles MoU (2001)**

IOSEA Marine Turtles MoU (2001)

Non Range State

**Bukhara Deer MoU (2002)**

Bukhara Deer MoU (2002)

Non Range State

**Aquatic Warbler MoU (2003)**

Aquatic Warbler MoU (2003)

Non Range State

### **West African Elephants MoU (2005)**

West African Elephants MoU (2005)

Non Range State

### **Pacific Islands Cetaceans MoU (2006)**

Pacific Islands Cetaceans MoU (2006)

Non Range State

### **Saiga Antelope MoU (2006)**

Saiga Antelope MoU (2006)

Non Range State

### **Ruddy-headed Goose MoU (2006)**

Ruddy-headed Goose MoU (2006)

Non Range State

### **Monk Seal in the Atlantic MoU (2007)**

Monk Seal in the Atlantic MoU (2007)

Non Range State

### **Southern South American Grassland Birds MoU (2007)**

Southern South American Grassland Birds MoU (2007)

Non Range State

### **Dugong MoU (2007)**

Dugong MoU (2007)

Non Range State

### **Western African Aquatic Mammals MoU (2008)**

Western African Aquatic Mammals MoU (2008)

Non Range State

### **Birds of Prey (Raptors) MoU (2008)**

Birds of Prey (Raptors) MoU (2008)

Non-signatory Range State

### **Contact point**

Name

> Ministry of Environmental and Nature Protection – Nature Protection Directorate

Address

> Republike Austrije 14, 10 000 Zagreb, CROATIA

Tel

> +385 1 4866 125

Fax

> +385 1 4866 100

E-mail

> ana.kobaslic@mzoip.hr

### **High Andean Flamingos MoU (2008)**

High Andean Flamingos MoU (2008)

Non Range State

## Sharks MoU (2010)

Sharks MoU (2010)

Non-signatory Range State

### Contact point

Name

> Ministry of Environmental and Nature Protection – Nature Protection Directorate

Address

> Republike Austrije 14, 10 000 Zagreb, CROATIA

Tel

> +385 1 4866 125

Fax

> +385 1 4866 100

E-mail

> ana.kobaslic@mzoip.hr

## South Andean Huemul MoU (2010)

South Andean Huemul MoU (2010)

Non Range State

### Involvement of other government departments/NGOs/private sector

1. Which other government departments are involved in activities/initiatives for the conservation of migratory species in your country? (Please list.)

> State Institute for Nature Protection (SINP), Ministry of Science, Education and Sport (MSES)

2. If more than one government department is involved, describe the interaction/relationship between these government departments:

> The State Institute for Nature Protection was established by virtue of a Regulation of the Government of the Republic of Croatia (OG 126/02), pursuant to the National Strategy and Action Plan for the Protection of Biological and Landscape Diversity of the Republic of Croatia (NSAP; OG 81/99) and the Implementation Plan for the Stabilization and Association Agreement, signed by Croatia and the European Union in 2001. Pursuant to the Nature Protection Act (OG 80/2013), the Institute carries out expert tasks of nature protection for the Republic of Croatia, in particular, tasks pertaining to: inventorisation; monitoring and assessing the state of nature; preparing expert base proposals for the protection of natural values; conserving parts of nature; establishing the conditions for nature protection; managing protected areas and the use of natural resources; developing expert base proposals for the assessment of acceptability of interventions in nature; reporting on the state of nature; participation in the implementation of international agreements on nature protection and organising and implementing educational and promotional activities in nature protection. The Institute began its operations in September 2003, and actively co-operates with state administration bodies, agencies, universities, non-governmental organisations, school and other interest groups.

The Ministry of Science, Education and Sport finances scientific research projects and monitoring activities of some migratory species and their habitats.

3. Has a national liaison system or committee been established in your country?

No

4. List the main non-governmental organizations actively involved in activities/initiatives for the conservation of migratory species in your country, and describe their involvement:

> Association for Animal protection, Ruščica

Association- BIOM - research, monitoring, conservation of birds and their habitats

Association for Bat Conservation Tragus (ABC Tragus) - research, monitoring, conservation of bats and their habitats

AWAP- Association for wild animal protection, Zagreb

Biology Students Association BIUS, Bird Group, Bat Group - research, monitoring, conservation of birds, bats and their habitats

Blue World Institute of Marine Research and Conservation, Veli Lošinj - research, monitoring, conservation of



cetaceans, marine turtles and other endangered marine vertebrates and their habitats  
 Centre for Nature Research and Conservation Fokus - research, monitoring, conservation of bats and their habitats  
 Croatian Biospeleological Society (CBSS) - research, monitoring, conservation of bats and their habitats  
 Croatian Ornithological Society, Zagreb - research, monitoring, conservation of birds and their habitats  
 Croatian Society for the Conservation of Birds and Nature, Zagreb - research, monitoring, conservation of birds and their habitats  
 Grifon - Birds of Prey Conservation Centre, Senj - research, monitoring, conservation of the Griffon Vulture  
 Mediterranean Monk Seal Group, Zagreb - rising of public awareness about the potential presence of the Monk Seal (*Monachus monachus*) and conservation of its potential habitats  
 MOC- Marine Educational Centre for marine turtles protection, Pula  
 Raptor Rescue Croatia - Falconry, conservation of birds of prey, wildlife hospital, education and research, Dubrava - Šibenik  
 Society for nature conservation "Val", Zagreb - scientific research, popularization and education of marine mammals

5. Describe any involvement of the private sector in the conservation of migratory species in your country:

> Not significant - mostly through sponsorship of conservation projects

6. Note any interactions between these sectors in the conservation of migratory species in your country:

> The private sector sometimes, but rarely, provides financial support for conservation projects of NGOs. The governmental sector implements relevant legislation, organizes conservation activities and provides technical and financial support for the project

## **I(b). Information about involved Authorities**

Identify the ministry, agency/department or organization that is responsible for leading actions relating to Appendix I species

### 1- Birds

> Ministry of Environmental and Nature Protection- Nature Protection Directorate, State Institute for Nature Protection and Institute of Ornithology

### 2- Aquatic Mammals

> Ministry of Environmental and Nature Protection- Nature Protection Directorate, State Institute for Nature Protection

### 3- Reptiles

> Ministry of Environmental and Nature Protection- Nature Protection Directorate, State Institute for Nature Protection

### 4- Terrestrial Mammals

> N/A

### 5- Fish

> Ministry of Environmental and Nature Protection- Nature Protection Directorate, State Institute for Nature Protection

## II. Appendix I species

### 1. BIRDS

#### 1.1 General questions on Appendix I bird species

1. Is the taking of all Appendix I bird species prohibited by the national implementing legislation cited in Table I(a) (General Information)?

Yes

1a. If the taking of Appendix I bird species is prohibited by law, have any exceptions been granted to the prohibition?

No

2. Identify any obstacles to migration that exist in relation to Appendix I bird species:

Electrocutation

Habitat destruction

Wind turbines

2a. What actions are being undertaken to overcome these obstacles?

> Strategy and Action Plan for the Protection of Biological and Landscape Diversity of the Republic of Croatia (OG 143/08), prescribes 7 Action Plans addressing this issue: - AP 6.10.1.2 Continue to incorporate nature protection requirements and measures, and ecological network conservation guidelines when planning locations of power supply/distribution facilities in spatial plans - AP 6.10.1.3 Strengthen the principles of conservation of biological and landscape diversity in the course of development of the environmental impact study in relation to the potential impact of construction of power plants and other energy supply/distribution facilities on overall biological and landscape diversity, particularly in the ecological network area - AP 6.10.1.9 Apply technical solutions in the course of construction of overhead power transmission lines and replacement of worn-out electricity poles and lines within the existing network in order to minimise bird mortality (collisions, electrocution) - AP 6.10.1.4 When designating sites for wind farms, avoid ornithological reserves, flight corridors and areas important as gathering places of a large number of birds during migration - AP 6.10.1.6 When planning and building wind farms, and in the course of their operation, implement bird and bat protection measures - AP 6.10.1.7 Define the protocol for monitoring the impact of wind farms on species and habitats through co-operation between the energy and nature protection sectors - AP 6.10.1.8 Develop an action plan for monitoring birds of prey in the Central Dalmatia area in order to establish the cumulative impact of planned wind farms on their populations.

According to provisions of NPA from 2013, the National Ecological Network, proclaimed by the Regulation from 2007, has been substituted by the EU ecological network Natura 2000. The final list of Natura 2000 sites (SPAs and pSCIs) was adopted in September 2013 by the Government. The Ecological network Natura 2000 covers 36.67% of land territory and 16.39% of internal waters and territorial sea - 742 proposed Sites of Community Importance (pSCIs) (of which 171 sites are cave objects) and 38 Special Protected Areas (SPAs) are included. SPAs have been defined for 126 bird species. Ordinance on conservation objectives and conservation measures for birds in Special Protection Areas (OG 15/14) has been adopted.

Corridor/bottleneck for bird migration (provides birds migratory route across the Adriatic sea) and corridor for sea turtles are designated as ecologically significant areas.

Croatia has established the process of Ecological Network Impact Assessment (ENIA) in 2007, upon proclamation of National Ecological Network. ENIA was designed according to the relevant mechanism of the Habitats Directive and it was additionally harmonized with it by the new NPA from 2013. ENIA is a procedure which is used to assess whether there is likelihood that the implementation of a plan, program or project independently or together with other plans, programs or projects, might have a significant impact on conservation objectives and on the coherence of the territory of the ecological network. ENIA is conducted also for the strategies which have obligation to perform SEA. The ENIA assessment is not obligatory for plans, programs or projects which are directly contributing to the management of the ecological network, ENIA procedure is fully integrated in the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) mechanisms, meaning that if EIA and SEA are obligatory procedures, ENIA is included as the constituent part.

Physical plans are subject to the procedure of Strategic Environmental Assessment (SEA) which is the most important mechanism of introducing nature protection issues in physical planning. This procedure is still relatively new in Croatia and its implementation should be significantly strengthened in future. Nature Protection Act (NPA) prescribes the obligation to perform the Ecological Network Impact Assessment (ENIA) for all spatial plans. For spatial plans for which the Strategic Environmental Assessment is conducted Ecological Network Impact Assessment is its integral part, whilst for the other spatial plans Ecological Network Impact Assessment is being conducted through issuing and incorporating the nature protection requirements in spatial plans.

2b. Please report on the progress / success of the actions taken.

> Habitat destruction: For plan, program or project that independently or together with other plans, programs or projects, might have a significant impact on conservation objectives and on the coherence of the territory of the ecological network, Ecological Network Impact Assessment (ENIA) is preformed.

Electrocution: For plan, program or project that independently or together with other plans, programs or projects, might have a significant impact on conservation objectives and on the coherence of the territory of the ecological network, Ecological Network Impact Assessment (ENIA) is preformed.

According to the Regulation on Environmental Impact Assessment (OG 61/2014), for electricity transmission facilities of 220 kV or more and 10 km or more the Environmental Impact Assessment is obligatory, while for overground electricity transmission lines of 110 kV or more the screening procedure is prescribed.

Since July 30 2009 national distribution company "HEP- Operator distribucijskog sustava d.o.o." has begun collecting data about bird electrocution on distribution lines. In case of frequently transient faults on overhead lines, monitored by SCADA system, they send fieldworkers to check the reason of noted problems. Notes on date and place of electrocution (part of the power line) and bird species (if possible) are sent to central office. Bird electrocution monitoring is a standard activity of overhead lines inspection procedure in "HEP - Operator distribucijskog sustava d.o.o."- Parts of distribution network with highest bird casualties and with casualties of endangered bird species are rated as priorities for retrofitting or changes for bird conservation.

Wind Turbines: For plan, program or project that independently or together with other plans, programs or projects, might have a significant impact on conservation objectives and on the coherence of the territory of the ecological network, Ecological Network Impact Assessment (ENIA) is preformed.

According to the Regulation on Environmental Impact Assessment (OG 61/2014), the Environmental Impact Assessment (EIA) is obligatory for the installation of wind turbines of 20 MW or more, while screening procedure is prescribed for all other wind turbine installation. The EIA procedures are under the jurisdiction of the national or local government, depending on the size of the project. Ministry of Environmental and Nature Protection has published guidelines for environmental impact assessment of windturbines on birds and bats, which set minimal standards for the EIA study and monitoring programme. After the installation of wind turbines the monitoring is prescribed and new mitigation measures can be prescribed if the negative impact occurs. The summaries of all EIA studies are available on the web site of the Ministry of Environmental and Nature protection.

Potential wind farm sites are identified in the physical plans

3. What are the major pressures to Appendix I bird species (transcending mere obstacles to migration)?

- Illegal trade
- Poaching

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger bird species beyond actions to prevent disruption to migrating behaviour?

> In regards to illegal hunting (prevention), keeping in captivity and trade in wild birds, training for enforcement authorities is being conducted.

3b. Please report on the progress / success of the actions taken.

> Regular training of customs, border and criminal police, veterinary inspection and nature protection inspection and supervision services in protected areas through workshops and seminars on the control of transboundary movement and trade in wild species.

## 1.2 Questions on specific Appendix I bird species

In the following section, using the table format below, please fill in each Appendix I bird species for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

### Species name: *Aythya nyroca*

1. Please provide published distribution reference:

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp.

2a. Summarise information on population size (if known):

- decreasing

> 1000-2000 pairs

- stable

2b. Summarise information on distribution (if known):

- stable

> Lowland Croatia; around 90% of breeding population depends on carp fishponds.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Monitoring
- Habitat protection

5. Describe any future activities that are planned for this species:

> Monitoring of breeding population on carp fishponds

### **Species name: *Haliaeetus albicilla***

1. Please provide published distribution reference:

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp.  
 Radovic, A., Mikuska, T. (2009): Population size, distribution and habitat selection of the white-tailed eagle *Haliaeetus albicilla* in the alluvial wetlands of Croatia. *Biologia* 64(1): 156-164.

2a. Summarise information on population size (if known):

- increasing
- > 135-155 pairs
- stable

2b. Summarise information on distribution (if known):

- stable
- > Alluvial wetlands and carp fishponds in lowland Croatia surrounded by alluvial forests.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Research
- Monitoring
- Habitat protection
- Other

> colour-ringing

5. Describe any future activities that are planned for this species:

> Monitoring of breeding population.

### **Species name: *Aquila clanga***

1. Please provide published distribution reference:

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

2a. Summarise information on population size (if known):

- stable
- > 3-8 wintering birds

2b. Summarise information on distribution (if known):

- stable
- > Nature Park Kopački rit and Nature Park Lonjsko polje

### **Species name: *Aquila heliaca***

1. Please provide published distribution reference:

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

2a. Summarise information on population size (if known):

- not known
- unclear
- > possibly 1 pair, or RE

2b. Summarise information on distribution (if known):

- unclear
- > Eastern Croatia

**Species name: Falco naumanni**

1. Please provide published distribution reference:

- > Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp;
- Mikulić, K. (2013): The return of the Lesser Kestrel Falco naumanni as a breeding bird to Croatia. Acrocephalus. 34(156/157): 71-74.

2a. Summarise information on population size (if known):

increasing

- > New population (20-25 pairs) was discovered

2b. Summarise information on distribution (if known):

increasing

- > Island of Rab

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Research
- Monitoring
- Other

- > Ringing

5. Describe any future activities that are planned for this species:

- > Monitoring, awareness rising, nest boxes on suitable areas.

**Species name: Falco cherrug (except Mongolian populations)**

1. Please provide published distribution reference:

- > Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp;

2a. Summarise information on population size (if known):

stable

- > 3-5 pairs

2b. Summarise information on distribution (if known):

stable

- > Eastern Croatia

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Monitoring
- Other

- > ringing

5. Describe any future activities that are planned for this species:

- > National Action plan is under preparation.

**Species name: Numenius tenuirostris**

2a. Summarise information on population size (if known):

not known

2b. Summarise information on distribution (if known):

not known

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Research
- Education/awareness rising

**Species name: Larus audouinii**

1. Please provide published distribution reference:

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

2a. Summarise information on population size (if known):

stable

> 60-70 pairs

2b. Summarise information on distribution (if known):

stable

> Small islands in the Southern Adriatic

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Monitoring

Other

> colour-ringing

5. Describe any future activities that are planned for this species:

> Future monitoring, research on competition with Yellow-legged Gulls.

### **Species name: Otis tarda (Middle-European population)**

1. Please provide published distribution reference:

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

2a. Summarise information on population size (if known):

not known

> irregular and rare during winter

2b. Summarise information on distribution (if known):

not known

> Most recent data are from North West Croatia

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> Analysis of status and mortality factors.

Other

> collecting data on observations

5. Describe any future activities that are planned for this species:

> Identification of any regular wintering or staging sites and establishing habitat management.

Miscellaneous information or comments on Appendix I birds in general:

> Anser erythropus, Pelecanus crispus, Pelecanus onocrotalus, Acrocephalus paludicola, are rare species in Croatia.

## **2. AQUATIC MAMMALS**

### **2.1 General questions on Appendix I aquatic mammals**

1. Is the taking of all Appendix I aquatic mammals species prohibited by the national implementing legislation cited in Table I(a) (General Information)?

Yes

1a. If the taking of Appendix I aquatic mammals species is prohibited by law, have any exceptions been granted to the prohibition?

No

2. Identify any obstacles to migration that exist in relation to Appendix I aquatic mammals:

By-catch

Pollution

Other threats to migration (please provide details)

> Lack of knowledge and conservation-awareness within fishermen sector, lack of detailed scientific information.

2a. What actions are being undertaken to overcome these obstacles?

> See point 3a

2b. Please report on the progress / success of the actions taken.

> See point 3b

3. What are the major pressures to Appendix I aquatic mammals species (transcending mere obstacles to migration)?

Pollution

By-catch

Other (please specify)

> Degradation and habitat loss, noise, lack of food.

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger aquatic mammals species beyond actions to prevent disruption to migrating behaviour?

> • Faculty of Veterinary Medicine (FVM), „Val“ Association and Blue World Institute of Marine Research and Conservation (BWI) have been involved in collection of cetacean stranding data. This information is gathered in the central database, organised by the State Institute for Nature Protection (SINP) and available through SINP's Information catalogue on request. These data includes species, geographic location, condition of animal, weight, sex, age, cause of death. In addition, data are filled in MEDACES database on regularly basis.

• SINP has organised a national stranding network for protected marine species (marine mammals, marine turtles and chondrichthyans) in cooperation with the competent Ministry of Environment and Nature Protection. Protocols for reporting and operation have also been developed. This network started to be operational in September 2010. At the moment, the national network involves several entitled veterinary ambulances on the coast and islands, Faculty of Veterinary Medicine (FVM), which provides mortality analysis, Croatian Veterinary Institute (CVI), Marine Educational Center Pula (MEC) etc. All strandings are reported to the National emergency center which forwards information directly to SINP.

• In the scope of IPA Adriatic CBC project NETCET - Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic, SINP held several workshops that were focused on setting up and operating of emergency/rescue centres; cetacean and sea turtle monitoring survey methods; improvement and standardisation of veterinary care, surgical approaches, necropsy protocol and stranding management for cetaceans and sea turtles; handling, recovering, releasing and recording accidentally caught/stranded cetaceans and sea turtles. Target audience were veterinarians, port authorities, civil protection workers, nature protection workers, NGOs.

• Blue World Institute of Marine Research and Conservation (BWI) performs the «Adriatic Dolphin Project» that is the longest study on the resident community of bottlenose dolphins in the Mediterranean Sea and the only one known in the Adriatic. The project includes monitoring of the Common bottlenose dolphin populations in Kvarnerić or rather the field study, mortality analysis and data processing, research of anthropogenic noise in the critical habitats research of the Common bottlenose dolphins behaviour and research of genetic variations on dolphin's population in Kvarnerić (in cooperation with University of Potsdam). The population that inhabited Lošinj archipelago is still small, but research indicate to presence of Adriatic meta-population which is composed of smaller sub-populations. Also, it is determined that there are genetic variations among animals which inhabiting eastern and western side of Island of Lošinj. In addition, level of investigated anthropogenic noise was very high during the touristic season and it was going to decline during months of September and October.

• Within NETCET project the aerial survey of cetacean and sea turtle abundance in the Adriatic Sea was carried out. The survey took place from July to August 2013. It was coordinated by ISPRA and BWI with support from International Whaling Commission.

• Croatian Natural History Museum (CNHM) in partnership with Blue World has been involved in the research activities carried out on the previously mentioned location in the Adriatic Sea. As a central depositor of the national natural-history collections CNHM is keeping samples collected from the stranded animals. General data about animals (samples) are available on request.

• Faculty of Veterinary Medicine, University of Zagreb and “Val” Association Faculty of Veterinary Medicine is mostly involved in research of causes of mortality, health status, sex and age population structure, morphologic and genetic peculiarities of cetaceans (in cooperation with the Gesellschaft zur Rettung der Delphine from Germany). During the entire period covered by the report all marine mammal carcasses found by the Faculty in the Croatian part of the Adriatic Sea are being collected and analysed. Anatomical, pathological, parasitological and genetic analyses are performed. Age has been determined for each individual using GLG method. Also tissue samples have been collected for toxicological and other analysis.

• Mediterranean Monk Seal Group has more than 15 years experience in dealing with the problems of the Mediterranean monk seal in the Adriatic. Since 2006 the group has been carrying out a systematic study of sea caves along the eastern coast of the Adriatic Sea. Mediterranean Monk Seal Group placed the 12 cameras in some caves on the coast to recording a Monk seal occurrence. Based on years of research and monitoring of



the population of Mediterranean monk seal, it is assumed that the Mediterranean monk seal permanently lives in the northern part of Adriatic (Istria). Because of that reason and because it is a strictly protected species, the Ministry and SINP prepared a code of conduct and activities designed to protect and improve the Mediterranean monk seal population in the Croatian Adriatic. Informational panels have been developed by public institution managing protected area where monk seal regularly appears (Istria, cape Kamenjak).

- Cetaceans enjoy protection within the territory of the protected areas according to Nature Protection Act (National park Mljet, National park Brijuni, National park Kornati, Nature park Lastovo archipelago, Nature park Telašćica). NATURA 2000 proposal was prepared and adopted at national level with 6 sites for *Tursiops truncatus* in Ecological network of Croatia: Aquatorium of western Istria, National park Kornati, Aquatorium of J.Molat-Dugi-Kornat-Murter-Pašman-Ugljan-Rivanj-Sestrunj-Molat; Aquatorium of the island of Vis, Lastovo and Mljet channel and Cres - Lošinj aquatorium.

- Various public awareness and educational activities are carried out: The Dolphins Day is celebrated every year in Veli Lošinj since 1992. Marine educational centre in Lošinj, operated by the Blue World offers educational programmes for visitors.

- Cooperation programmes: In cooperation with partners from Italy, Slovenia, Albania and Montenegro, Croatian partners – SINP, BWI and MEC implement three year project “Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic - NETCET” (2012 – 2015). Project is implemented with the support from the EU IPA – Adriatic cross-border cooperation programme 2007–2013. One of the specific objectives of the project proposal is to increase local actors and public awareness especially amongst fishermen, boat drivers and school children of the presence and conservation needs of cetaceans and sea turtles.

Faculty of Veterinary Medicine has been cooperating with the Gesellschaft zur Rettung der Delphine from Germany in research of causes of mortality, health status, sex and age population structure, morphologic and genetic peculiarities of cetaceans.

Mediterranean Monk Seal group has been cooperating with Gruppo foca monaca, Italy in terms of technical support or reading data from the cameras for recording a Monk seal occurrence.

- SINP is going to prepare the common strategy and national action plan for the conservation of Cetaceans in the Adriatic in the scope of NETCET project.

3b. Please report on the progress / success of the actions taken.

> Better knowledge of mortality, biology, behaviour etc. that give better insight into state of population and thus contribute to appropriate conservation and management..

3c. Describe any factors that may limit action being taken in this regard:

> Lack of human, technical and financial resources.

## 2.2 Questions on specific Appendix I aquatic mammals

In the following section, using the table format below, please fill in each Appendix I aquatic mammals species for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

### Species name: *Delphinus delphis* (Mediterranean population)

1. Please provide published distribution reference:

> Tvrtković, N. et al. (2006): Red Book of Mammals of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Lazar, B. et al (2012): Organochlorine contaminant levels in tissues of a short-beaked common dolphin, *Delphinus delphis*, from northern Adriatic Sea, *Natura Croatica*, Vol.21 No.2

2b. Summarise information on distribution (if known):

unclear

> Only occasional visiting animals are recorded very rarely at few sites in the northern part of Adriatic Sea. According to available data we can conclude that the animals are not residing anymore in the southern part of Adriatic Sea.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

5. Describe any future activities that are planned for this species:

> Preparation of the common strategy and national action plan for the conservation of Cetaceans in the Adriatic in the scope of NETCET project.

### Species name: *Balaenoptera physalus*

## 1. Please provide published distribution reference:

> Gomerčić, T. et al. (2006): Fin whale (*Balaenoptera physalus*) calf stranded on the island Prvić near island Krk, Natural history researches of the Rijeka region : the 2nd Scientific Symposium , Rijeka

## 3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

Other

> VEF is researching fin whale populations in the Adriatic Sea based on the data collected from the dead specimens/stranded whales. BWI is monitoring fin whale populations in Adriatic sea and informing the public on acceptable behavior in their presence.

## 5. Describe any future activities that are planned for this species:

> Activates regarding awareness raising and education of general public and preparation of the common strategy and national action plan for the conservation of Cetaceans in the Adriatic in the scope of NETCET project.

**Species name: *Monachus monachus***

## 1. Please provide published distribution reference:

> Tvrtković, N. et al. (2006): Red Book of Mammals of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb;

Gomerčić, H. et al. (2006): Mediterranean monk seal in the Northern Adriatic Sea?, Natural history researches of the Rijeka region : the 2nd Scientific Symposium , Rijeka;

Gomerčić, T. et al (2011): Presence of the Mediterranean Monk Seal (*Monachus monachus*) in the Croatian Part of the Adriatic Sea, Aquatic Mammals 2011, 37(3), 243-247.

## 2a. Summarise information on population size (if known):

not known

## 2b. Summarise information on distribution (if known):

unclear

> From the beginning of 2014 one specimen of Monk Seal have been recorded very often at few sites in the north part of Adriatic Sea. Lately, the most common sightings were in City of Pula.

## 3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

Monitoring

Education / awareness rising

Species protection

Other

> One of the reasons for larger number of sightings in last two decades could be attributed to greater awareness by public, since awareness raising campaigns were also implemented by different groups of scientists, NGOs as well as government and public institutions.

Mediterranean Monk Seal Group has more than 15 years experience in dealing with the problems of the Mediterranean monk seal in the Adriatic. Since 2006 the group has been carrying out a systematic study of sea caves along the eastern coast of the Adriatic Sea. Mediterranean Monk Seal Group placed the cameras in some caves on the coast to recording a Monk seal occurrence. Based on years of research and monitoring of the population of Mediterranean monk seal, it is assumed that the Mediterranean monk seal permanently lives in the northern part of Adriatic (Istria). Because of that reason and because it is a strictly protected species, the Ministry and SINP prepared a code of conduct and activities designed to protect and improve the Mediterranean monk seal in the Croatian Adriatic. Informational panels have been developed by public institution managing protected area where monk seal regularly appears (Istria, cape Kamenjak). In conclusion, even no obvious obstacles exist for its natural return to Adriatic and in spite of all the efforts – strict protection, decades of research on monk seal and its potential habitats, monitoring of monk seal sightings and public awareness campaigns, no breeding or permanent presence of more than one individual has been confirmed for Croatia. We presume this situation is likely to continue in long-term, but more research is still needed to confirm such assumption and to investigate possible obstacles to natural spreading.

## 5. Describe any future activities that are planned for this species:

> Mediterranean Monk Seal Group is going to continue recording of Monk Seal with 12 cameras placed within caves in areas of its most frequent occurrence – cape Kamenjak, eastern and western coast of Istria and Island of Cres; continues with collecting of data based on reports on sightings at whole Croatian Adriatic; collecting faeces, hair samples and mucus from the nose from the caves and beaches where it stays for DNA analysis,

virological, parasitological and bacteriological laboratory processing.

Miscellaneous information or comments on Appendix I marine mammals in general:

> Several visits of adult animals or females with calves occur regularly each year. Visiting animals are part of the Mediterranean stock. Animals usually follow the sea currents and travel along the eastern Adriatic coast towards North. Occasionally, some animals strand or die.

### 3. REPTILES

#### 3.1 General questions on Appendix I reptiles

1. Is the taking of all Appendix I reptiles species prohibited by the national implementing legislation cited in Table I(a) (General Information)?

Yes

1a. If the taking of Appendix I reptiles species is prohibited by law, have any exceptions been granted to the prohibition?

No

2. Identify any obstacles to migration that exist in relation to Appendix I reptiles species:

By-catch

Pollution

2a. What actions are being undertaken to overcome these obstacles?

> See point 3a

2b. Please report on the progress / success of the actions taken.

> See point 3a

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger reptiles species beyond actions to prevent disruption to migrating behaviour?

> • State Institute for Nature Protection (SINP) has organised a national stranding network for protected marine species (marine mammals, marine turtles and chondrichthyans) in cooperation with the competent Ministry of Environment and Nature Protection. Protocols for reporting and operation have also been developed. This network started to be operational in September 2010. At the moment, the national network involves several entitled veterinary ambulances on the coast and islands, VEF, Croatian Veterinary Institute, Marine Educational Center Pula (NGO) etc. All strandings are reported to the National emergency center which forwards information directly to SINP.

• Croatian Natural History Museum (CNHM) in partnership with Blue World has been involved in the research activities carried out in the Adriatic Sea. As a central depositor of the national natural-history collections CNHM is keeping samples collected from the stranded animals.

• Within NETCET project the aerial survey of cetacean and sea turtle abundance in the Adriatic Sea was carried out. The survey took place from July to August 2013. It was coordinated by ISPRA and BWI with support from International Whaling Commission.

• Sea turtles enjoy protection within the territory of the protected areas according to Nature Protection Act (National park Mljet, National park Brijuni, National park Kornati, Nature park Lastovo archipelago, Nature park Telašćica).

• Marine Turtle Rescue Centre within "Aquarium Pula" and the association "Marine Educational Centre Pula" was founded in 2006 as official Government rescue centre. It operates apart from the care and treatment of sea turtles, the centre activities includes turtle tagging in the field and informing the local population, especially fisherman, who are commonly in contact with turtles, as part of their everyday job.

• The BWI NGO opened the new Sea Turtle Rescue Centre (TRC) in Mali Lošinj on the 19th of July 2013. The internal construction and equipping of the TRC was funded through NETCET project. The Sea Turtle Rescue Centre is a place where injured sea turtles get all the help they need. It consists of an operating room with an intensive care pool and an area open to the public, which has three recovery pools and visitors information space. Sea turtles will be released upon recovery and some of them will be tagged for future monitoring. The tags will enable BWI staff to track their movement, observe their recovery and learn more about the biology of Sea turtles. Another important role of the Sea Turtle Rescue Centre is education.

• In the scope of IPA Adriatic CBC project NETCET - Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic, SINP held several workshops that were focused on setting up and operating of emergency/rescue centres; cetacean and sea turtle monitoring survey methods; improvement and standardisation of veterinary care, surgical approaches, necropsy protocol and stranding management for cetaceans and sea turtles; handling, recovering, releasing and recording accidentally caught/stranded cetaceans and sea turtles. Target audience were veterinarians, port authorities, civil protection workers, nature protection workers, NGOs.

• SINP has been implementing awareness raising campaign on the presence and conservation of sea turtles

through 15 meetings with fishermen in 30 Croatian ports from January to December of 2014 in the scope of IPA Adriatic CBC NETCET project. SINP has provided the basic information about biology and conservation of sea turtles, their distribution in the Adriatic and procedures to reduce post-release mortality of turtles, also through information materials (t-shirts, stickers and posters).

• SINP is going to prepare the common strategy and national action plan for the conservation of Sea turtles in the Adriatic in the scope of NETCET project.

3b. Please report on the progress / success of the actions taken.

> See 3a

3c. Describe any factors that may limit action being taken in this regard:

> Lack of human and financial resources.

3d. What assistance, if any, does your country require to overcome these factors?

> Technical and financial support.

### 3.2 Questions on specific Appendix I reptiles

In the following section, using the table format below, please fill in each Appendix I reptiles species for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

#### Species name: *Caretta caretta*

1. Please provide published distribution reference:

> Lazar, B. et al. (2003): Temporal and spatial distribution of the loggerhead sea turtle *Caretta caretta* in the eastern Adriatic Sea: a seasonal migration pathway? Pages 283-284. In: Seminoff J.A. (Ed) Proceedings of the Twenty-second Annual Symposium on Sea Turtle Biology and Conservation. NOAA Tech. Memo. NMFS-SEFSC-503, Miami: 283-284

Lazar, B. et al (2004): Tag recoveries of the loggerhead sea turtle *Caretta caretta* in the eastern Adriatic Sea: implications for conservation, *Journal of the Marine Biological Association of the UK*, Volume 84, Issue 02, pp 475-480

Lazar B et al (2006): Diet composition of loggerhead sea turtle *Caretta caretta* in the Adriatic Sea. U: Book of Abstracts, 26th Annual Symposium on Sea Turtle Biology and Conservation. International Sea Turtle Society: 194.

Tvrković, N. et al. (2006): Red Book of Amphibians and Reptiles of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Lazar, B. et al (2011): Ingestion of marine debris by loggerhead sea turtles, *Caretta caretta*, in the Adriatic Sea, *Marine Pollution Bulletin*, Volume 62, Issue 1, Pages 43-47

Lazar, B. et al (2011): Accumulation of organochlorine contaminants in loggerhead sea turtles, *Caretta caretta*, from the eastern Adriatic Sea, *Chemosphere*, Volume 82, Issue 1, Pages 121-129

Lazar, B. et al (2011): Loggerhead sea turtles (*Caretta caretta*) as bioturbators in neritic habitats: an insight through the analysis of benthic molluscs in the diet, *Marine Ecology*, Volume 32, Issue 1, pages 65-74

Casale, P., Lazar, B. et al. (2012): Foraging grounds, movement patterns and habitat connectivity of juvenile loggerhead turtles (*Caretta caretta*) tracked from the Adriatic Sea, *Marine Biology*, Volume 159, Issue 7, pp 1527-1535

2a. Summarise information on population size (if known):

not known

> Dietary studies, size class distribution analysis and spatio-temporal analyses further emphasized this region as an important Mediterranean neritic habitat for juveniles and adults, as well as a wintering ground. Although population size is unknown at present, by-catch estimates showed minimum of 2,500 catches per year only by the eastern Adriatic trawl fleet.

2b. Summarise information on distribution (if known):

not known

> The Loggerhead Turtle is the only sea turtle species resident in the Croatian part of Adriatic. Wintering and feeding sites are mostly in the North and Middle Adriatic. Results on tag recovery distribution emphasized that the Adriatic Sea, northern part in particular, is one of the two regions with the highest number of tag returns in the Mediterranean, indicating importance of critical habitat for existence of this species deriving mostly from the nesting places in Greece.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Research
- Monitoring
- Education/awareness rising
- Species protection

5. Describe any future activities that are planned for this species:

> Preparation of the common strategy and national action plan for the conservation of Sea turtles in the Adriatic in the scope of NETCET project.

Education of professional fishermen in the scope of NETCET project along the Croatian part of Adriatic coast.

### Species name: *Dermochelys coriacea*

1. Please provide published distribution reference:

> Lazar, B. & Tvrtković, N. (1995): Marine turtles in the eastern Adriatic Sea: Preliminary research. *Natura Croatica* 4: 59-74.

Lazar, B. et al. (2005): Occurrence of leatherback turtle *Dermochelys coriacea* in the eastern Adriatic Sea. *Journal of the Marine Biological Association U.K.*

2a. Summarise information on population size (if known):

- not known

2b. Summarise information on distribution (if known):

- unclear

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

- Education/awareness rising
- Species protection

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> This is not resident species, only errant, so particular activities focused on research / monitoring are not feasible.

5. Describe any future activities that are planned for this species:

> Preparation of the common strategy and national action plan for the conservation of Sea turtles in the Adriatic in the scope of NETCET project.

Education of professional fishermen in the scope of NETCET project along the Croatian part of Adriatic coast.

## 5. FISH

### 5.1 General questions on Appendix I fish species

1. Is the taking of all Appendix I fish species prohibited by the national legislation listed as being implementing legislation in Table I(a) (General Information)?

- Yes

1a. If the taking of Appendix I fish species is prohibited by law, have any exceptions been granted to the prohibition?

- No

2. Identify any obstacles to migration that exist in relation to Appendix I fish species:

- Lack of legislation
- Other threats to migration (please provide details)

> Insufficient legislation, By-catch

2a. What actions are being undertaken to overcome these obstacles?

> See point 3a

2b. Please report on the progress / success of the actions taken.

> See point 3a

3. What are the major threats to Appendix I fish species (transcending mere obstacles to migration)?

- Other (please specify)

> Lack of information, Insufficient legislation

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger fish species beyond actions to prevent disruption to migrating behaviour?

> State Institute for Nature Protection (SINP) has organised a National stranding network for protected marine species (marine mammals, marine turtles and chondrichthyans) in cooperation with the competent Ministry of Environment and Nature Protection. Protocols for reporting and operation have also been developed. This network started to be operational in September 2010. All strandings are reported to the National emergency center which forwards information directly to SINP that contact competent scientist.

3b. Please report on the progress / success of the actions taken.

> See point 3a

3c. Describe any factors that may limit action being taken in this regard:

> Lack of human and financial resources

## 5.2 Questions on specific Appendix I fish species

In the following section, using the table format below, please fill in each Appendix I fish species, for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

### Species name: *Cetorhinus maximus*

1. Please provide published distribution reference:

> Soldo, A. and Jardas, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy) 2000. ICRAM, ARPAT and SFI: 141-155

Soldo, A. and Jardas, I. (2002b): Occurrence of great white shark, *Carcharodon carcharias* (Linnaeus, 1758) and basking shark, *Cetorhinus maximus* (Gunnerus, 1765) in the Eastern Adriatic and their protection. *Periodicum Biologorum* 104(2): 195-201

Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper  
Jardas, I. et al. (2008): Red Book of Marine Fish of Croatia, Ministry of Culture, State Institute for Nature protection

Soldo, a. et al. (2008): Basking shark (*Cetorhinus maximus*) occurrence in relation to zooplankton abundance in the eastern Adriatic Sea, *Cybiurn* 2008, 32(2): 103-109.

Dulčić, J. et al. (2009): Expertise and scientific background document for drafting action plan for protection cartilaginous fishes, Institute of Oceanography and Fisheries - Split, University Center for Maritime Studies - Split and Marine Biology Station, Piran for State Institute for Nature Protection

2a. Summarise information on population size (if known):

not known

2b. Summarise information on distribution (if known):

increasing

> This is the only species of sharks in the Adriatic, which number of sightings increased in the last decade in relation to the previous period. This unusual phenomenon is related to changes in the concentration of one species of zooplankton which is the main food of Basking Shark (Soldo et al, 2008).

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Monitoring

Education/awareness rising

Species protection

Other

> Species is strictly protected in Croatia by Nature protection act. There is not classical monitoring program, just collection of sporadical records. Educational materials for determination are prepared and distributed to fishermen and system for monitoring of accidental capture and killing is in place.

5. Describe any future activities that are planned for this species:

> Management plan with action plan for the protection of the cartilaginous fish.

### Species name: *Carcharodon carcharias*

## 1. Please provide published distribution reference:

- > SOLDI, A. and JARDAS, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy) 2000. ICRAM, ARPAT and SFI: 141-155
- SOLDI, A. and JARDAS, I. (2002b): Occurrence of great white shark, *Carcharodon carcharias* (Linnaeus, 1758) and basking shark, *Cetorhinus maximus* (Gunnerus, 1765) in the Eastern Adriatic and their protection. *Periodicum Biologorum* 104(2): 195-201
- Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper
- SOLDI, A. and DULČIĆ, J. (2005): New record of a great white shark *Carcharodon carcharias* (Lamnidae) from the eastern Adriatic Sea. *Cybium* 29(1): 89-90
- SOLDI, A. and PEIRCE, R. (2005): Shark chumming in the eastern Adriatic. *Annales Series Historia Naturalis Koper*15(2): 203-208
- Jardas, I. et al. (2008): Red Book of Marine Fish of Croatia, Ministry of Culture, State Institute for Nature protection
- Dulčić, J. et al. (2009): Expertise and scientific background document for drafting action plan for protection cartilaginous fish, Institute of Oceanography and Fisheries - Split, University Center for Maritime Studies - Split and Marine Biology Station, Piran for State Institute for Nature Protection

## 2a. Summarise information on population size (if known):

decreasing

> Number of sightings of the great white shark in the Adriatic Sea is steadily decreasing. In the early 20th century it was considered as regular species, while in the last 30 years there were only twice sightings (Soldo and Peirce, 2005). A large role in reducing the population has pollution due to the development of industry, tourism and other human activities, and also due to the decrease of the population of tuna that are in the Adriatic and the Mediterranean their main prey.

## 2b. Summarise information on distribution (if known):

decreasing

## 3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

## 5. Describe any future activities that are planned for this species:

> Management plan with action plan for the protection of the cartilaginous fish.

**Species name: *Acipenser sturio***

## 1. Please provide published distribution reference:

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

Jardas, I. et al. (2008): Red book of sea fishes of Croatia. State Institute for Nature Protection, Zagreb.

## 2a. Summarise information on population size (if known):

stable

> Extinct at National level

## 2b. Summarise information on distribution (if known):

stable

> Extinct at National level

**6. LISTING OF OTHER ENDANGERED MIGRATORY SPECIES IN APPENDIX I**

1. Is your country a Range State for any other endangered migratory species currently listed in Appendix I? (according to the latest IUCN red data list). N.B.: States in which a species occurs as a vagrant (i.e. not "on its normal migration route") should not be treated as Range States. Please refer to Article 1 of the Convention for clarification.

No

## III. Appendix II Species

### 1. INFORMATION ON APPENDIX II SPECIES

Information pertaining to the conservation of Appendix II species that are the object of CMS Agreements will have been provided in periodic Party reports to those instruments. It will suffice therefore to reference (below), and preferably append, a copy of the latest report that has been submitted to the Secretariat of each of the Agreement/MoUs to which your country is a Party.

#### EUROBATS (1994)

Date of last report:

> June 2010

Period covered:

> 2006 - June 2010

#### AEWA (1999)

Date of last report:

> February 2012

Period covered

> 2009-2011

#### ACCOBAMS (2001)

Date of last report:

> September 2010

Period covered:

> 2008-2010

#### Middle-European Great Bustard MoU (2001)

Date of last report:

> February 2013

Period covered:

> 2008-2012

## 2. QUESTIONS ON CMS AGREEMENTS

### Questions on the development of new CMS Agreements relating to Bird Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Bird Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Bird Species ?

Yes

If Yes, please provide details:

> African-Eurasian Migratory Landbirds Action Plan (AEMLAP)

4. Is the development of any CMS Agreement for Bird Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### Questions on the development of new CMS Agreements relating to Marine Mammal Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Marine Mammal Species ?



No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Marine Mammal Species ?

No

4. Is the development of any CMS Agreement for Marine Mammal Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### **Questions on the development of new CMS Agreements relating to Marine Turtle Species**

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Marine Turtle Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Marine Turtle Species ?

No

4. Is the development of any CMS Agreement for Marine Turtle Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### **Questions on the development of new CMS Agreements relating to Terrestrial Mammal (other than bats) Species**

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Terrestrial Mammal (other than bats) Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Terrestrial Mammal (other than bats) Species ?

No

4. Is the development of any CMS Agreement for Terrestrial Mammal (other than bats) Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### **Questions on the development of new CMS Agreements relating to Bat Species**

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Bat Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Bat Species ?

No

4. Is the development of any CMS Agreement for Bat Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### **Questions on the development of new CMS Agreements relating to Fish**

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Fish ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Fish ?

No

If Yes, please provide details:

> Memorandum of Understanding on the Conservation of Migratory Sharks

4. Is the development of any CMS Agreement for Fish, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### **3. LISTING OF MIGRATORY SPECIES IN APPENDIX II**

1a. Is your country taking any steps to propose the listing of this/these species in Appendix II?

Yes

## IV. National and Regional Priorities

1. What priority does your country assign to the conservation and, where applicable, sustainable use of migratory species in comparison to other biodiversity-related issues

Medium

2. Are migratory species and their habitats addressed by your country's national biodiversity strategy or action plan?

Yes

2.1. If Yes, please indicate and briefly describe the extent to which it addresses the following issues:

Conservation, sustainable use and/or restoration of migratory species

Conservation, sustainable use and/or restoration of the habitats of migratory species, including protected areas

Actions to prevent, reduce or control factors that are endangering or are likely to further endanger migratory species (e.g. alien invasive species or by-catch)

Minimizing or eliminating barriers or obstacles to migration

Research and monitoring of migratory species

3. Does the conservation of migratory species currently feature in any other national or regional policies/plans (apart from CMS Agreements)

Yes

3.1. If Yes, please provide details:

> Strategy and Action Plan for the Protection of Biological and Landscape Diversity of the Republic of Croatia (2008), Nature Protection Act (2013), Ordinance on strictly protected species (2013), Ordinance on conservation objectives and conservation measures for birds in Special Protection Areas (OG 15/14): all CMS Appendix I and partly II species for which Croatia is range state are strictly protected. This protection regime prohibits any action that would disturb or interfere with the natural life cycle and growth of the animal (it is forbidden to deliberately capture, keep and kill strictly protected animals, damage or destroy their development forms, disturb them at the time of propagation and rearing young, destroy their reproduction or resting sites, hide, keep, breed, trade in or in any way acquire these animals from nature). By way of derogation, in the case of overriding public interest and provided the derogation will not be harmful for the survival of a particular population, the operations for the sake of: protection of plants, fungi and animals, preventing severe damage to crops, livestock, forests, fishponds, water and other forms of property, protection of public health and safety, air safety or other overriding public interests, research and education, repopulation, reintroduction and necessary reproduction can be permitted. On a selective basis and to a limited extent, the taking, holding and other reasonable use of certain strictly protected wild taxa in small quantities under strict control in order to maintain the favourable status of the species can be authorised. Cross-border movement and trade in protected species Act (2013) transposes the provisions of the CITES Convention, as well as the EU legislation on transboundary movement and trade in endangered species of wild fauna and flora. Ordinance concerning the conditions of keeping protected animals in captivity, marking methods and keeping records thereof (2009), Regulation on Ecological Network (2013) - a system of interconnected or spatially close ecologically important areas that significantly contribute to the preservation of nature balance and biodiversity with their biogeographic balance, and they consist of ecologically important areas of the Republic of Croatia, and also includes ecologically important sites of the EU Natura 2000. Ordinance on the appropriate assessment of the impact of plans, programmes and projects on the ecological network (2009) for plans, programs and projects which individually or in combination with other plans, programs and projects may have significant effect on conservation objectives and integrity of ecological network. Ordinance on kinds of habitat types, habitats map, threatened and rare habitat types and on measures for conservation of habitat types (2006, 2009) prescribes measures for the conservation of endangered and rare habitat types, both on the European and national level, in a favourable state.

### 3a. Do these policies/plans cover the following areas?

Exploitation of natural resources (e.g. fisheries, hunting, etc.)

Yes

Economic development

No

Land-use planning

Yes

Pollution control

Yes

## Designation and development of protected areas

 Yes

## Development of ecological networks

 Yes

## Planning of power lines

 Yes

## Planning of fences

 Yes

## Planning of dams

 Yes

## 4. Results - please describe the positive outcomes of any actions taken

> Results - please describe the positive outcomes of any actions taken

In 2013, Croatian Government adopted Regulation on Ecological Network. The EN covers 36,67% of the land and 16,39% of the internal waters and territorial sea of the Republic of Croatia. In the reporting period mechanisms in place insuring conservation of EN have been developed including management plans for EM sites and implementation of ecological network impacts assessment (appropriate assessment) for plans, programs and projects which individually or in combination with other plans, programs and projects may have significant effect on conservation objectives and integrity of ecological network.

## V. Protected Areas

1. Are migratory species taken into account in the selection, establishment and management of protected areas in your country?

Yes

If Yes, please provide details:

> Since most of the migratory species for which Croatia is a range state are strictly protected by Nature Protection Act, they are considered in the process of proclamation of protected areas.

1a. Please identify the most important national sites for migratory species and their protection status:

> Important sites for some migratory birds: Ornithological reserve Crna Mlaka - breeding and stopover site for Ferruginous Duck; Nature Park Lonjsko Polje - important site for Corncrake, Lesser Spotted Eagle, Spoonbills and several heron species; Nature Park Kopacki rit - important breeding site for several heron species and stopover site for Spoonbills; breeding colonies of Griffon Vulture are protected as Ornith. Reserve (Island Prvić, partly island Cres and partly island Krk). In 2011 new protected area, Regional Park Mura Drava, was proclaimed - important site for White-tiled Eagle, Black Stork and Little Tern.

Cetaceans and other protected marine species enjoy protection within the territory of the protected areas according to Nature Protection Act (National park Mljet, National park Brijuni, National park Kornati, Nature park Lastovo archipelago, Nature park Telašćica).

Natura 2000 ecological network proposal was prepared and adopted at national level with 6 sites for *Tursiops truncatus* in Ecological network of Croatia: Aquatorium of western Istria, National park Kornati, Aquatorium of J.Molat-Dugi-Kornat-Murter-Pašman-Ugljan-Rivanj-Sestrunj-Molat; Aquatorium of the island of Vis, Lastovo and Mljet channel and Cres - Lošinj aquatorium.

Corridor/bottleneck for bird migration (provides birds migratory route across the Adriatic sea) and corridor for sea turtles are designated as ecologically significant areas.

### 1b. Do these protected areas cover the following areas?

Terrestrial

Yes

If Yes, please provide details and include the amount of protected areas coverage and the number of protected areas

> Protected Areas: 10,97% (including areas under preventive protection)

Natura 2000: 36.67% of land territory

Marine

Yes

If Yes, please provide details and include the amount of protected areas coverage and the number of protected areas

> Protected Areas: 1.94% of internal waters and territorial sea

Natura 2000: 16,39 % of the marine area

1c. Identify the agency, department or organization responsible for leading on this action in your country:

> Ministry of Environmental and Nature Protection Directorate, State Institute for Nature Protection

2. Results - please describe the positive outcomes of any actions taken

> see under 1a

## VI. Policies on Satellite Telemetry

1. In the current reporting period, has your country undertaken conservation/research projects that use satellite telemetry?

No

If yes what is the state of those projects

completed

Please provide details

> In Splitsko-Dalmatinska County, County Public Institution for Management of Protected Areas is monitoring through satellite telemetry Falco eleonore species. From the bats species, Hypsugo savii population is being monitored.

In addition, some individual telemetry cases have been undertaken for species not included by Convention: grey wolf (Canis lupus) and Black-headed Bunting (Emberiza melanocephala).

2. Are any future conservation/research projects planned that will use satellite telemetry?

Yes

If Yes, please provide details (including the expected timeframe for these projects):

> Considering the Bats (Hypsugo savii) in the 2014 there is an approval for telemetry research on 15 specimens. In the scope of NETCET project satellite telemetry of sea turtles will be implemented.

## VII. Membership

1. Have actions been taken by your country to encourage non- Parties to join CMS and its related Agreements?

No

If Yes, please provide details. (In particular, describe actions taken to recruit the non-Parties that have been identified by the Standing Committee as high priorities for recruitment.)

> N/A

## VIII. Global and National Importance of CMS

1. Have actions been taken by your country to increase national, regional and/or global awareness of the relevance of CMS and its global importance in the context of biodiversity conservation?

Yes

If Yes, please provide details:

> Celebration of the World Migratory Bird Day (each year since 2009), Exhibition about bird migration with reference to AEWA (including AEWA movie in 2011).

2. Identify the agency, department or organization responsible for leading on this action in your country:

> Ministry of Environmental and Nature Protection - Nature Protection Directorate, State Institute for Nature Protection

3. Results - please describe the positive outcomes of any actions taken

> Good response of wider public on awareness activities.



## IX. Mobilization of Resources

1. Has your country made financial resources available for conservation activities having direct benefits for migratory species in your country?

Yes

If Yes, please provide details (Indicate the migratory species that have benefited from these activities):

> With regard to the nature protection system (including migratory species conservation the state budget of Croatia is the primary source of financing. Croatia has had a stable biodiversity growth in the national budget in the last years. Additionally, Government has in place the overall multiannual strategic program (based on sectorial analyses), which also includes the identified short and long term objectives of the nature protection sector, as well as indicators and linkages to financing mechanism. Regarding the EU funding perspective (2014-2020), Croatia is finalising related strategic documents (Partnership Agreement and operational programmes) needed for defining the funding needs and priorities in the next 7-year period. Biodiversity (including protection of strictly protected species - most of them are covered by CMS) is recognised as one of the funding priorities, giving the objective of biodiversity conservation a strong political support.

State Institute for Nature Protection (SINP) has organised a national stranding network for protected marine species (marine mammals, marine turtles and chondrichthyans) in cooperation with the competent Ministry of Environment and Nature Protection. Protocols for reporting and operation have also been developed. This network started to be operational in September 2010. At the moment, the national network involves several entitled veterinary ambulances on the coast and islands, Faculty of Veterinary Medicine, Croatian Veterinary Institute, Marine Educational Center Pula (NGO) etc. All strandings are reported to the National emergency center which forwards information directly to SINP.

In cooperation with partners from Italy, Slovenia, Albania and Montenegro, Croatian partners - SINP, BWI and MEC implement three year project "Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic - NETCET" (2012 - 2015). Project is implemented with the support from the EU IPA - Adriatic cross-border cooperation programme 2007-2013. One of the specific objectives of the project proposal is to increase local actors and public awareness especially amongst fishermen, boat drivers and school children of the presence and conservation needs of cetaceans and sea turtles in Adriatic.

2. Has your country made voluntary contributions to the CMS Trust Fund to support requests from developing countries and countries with economies in transition?

No

3. Has your country made other voluntary financial contributions to support conservation activities having direct benefits for migratory species in other countries (particularly developing countries)?

No

4. Has your country provided technical and/or scientific assistance to developing countries to facilitate initiatives for the benefit of migratory species?

No

5. Has your country received financial assistance/support from the CMS Trust Fund, via the CMS Secretariat, for national conservation activities having direct benefits for migratory species in your country?

No

6. Has your country received financial assistance/support from sources other than the CMS Secretariat for conservation activities having direct benefit for migratory species in your country?

No

## **X. Implementation of COP Resolutions and Recommendations**

**Please provide information about measures undertaken by your country relating to recent Resolutions and Recommendations since the last Report. For your convenience please refer to the list of COP Resolutions and Recommendations listed below:**

### **Resolutions**

Bycatch (incl. Recommendation) (6.2 / 7.2 / 8.14 / 9.18 / 10.14)

> Implementation of the resolution is reflected through other sections in the Report.

Wind Turbines and Migratory Species (7.5)

> Implementation of the resolution is reflected through other sections in the Report.

Impact Assessment and Migratory Species (7.2)

> Implementation of the resolution is reflected through other sections in the Report.

Sustainable Use (8.1)

> Implementation of the resolution is reflected through other sections in the Report.

### **Other resolutions/recommendations:**

> Resolution 10.28

Participation in the Saker Falcon Task Force – Stakeholders’ Action Planning Workshop in Abu Dhabi, UAE, in September 2013 and contributing in the development of Saker GAP.

## Annex: Updating Data on Appendix II Species

1. The drop-down lists below contain the list of all species listed in Appendix II. New Parties which have acceded since COP10 in 2011 and Parties which did not submit a National Report in time in 2011 are requested to complete the entire form.

Parties that did submit a timely report in 2011 are requested to review and update the data (e.g. new published distribution references and details concerning species added to Appendix II at COP9 and COP10).

### Chiroptera

#### Rhinolophidae spp (European populations)

Please choose the one that applies.

Range State

#### Vespertilionidae spp (European populations)

Please choose the one that applies.

Range State

#### Miniopterus schreibersii (African populations)

Please choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb.  
Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).

#### Tadarida teniotis

Please choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate, August 2006

#### Acipenser gueldenstaedtii

Please choose the one that applies.

Extinct at National level

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

### Cetacea

#### Physeter macrocephalus

Please choose the one that applies.

Not a Range State

Published distribution reference

> Bearzi, G., Pierantonio, N., Affronte, M., Holcer, D., Maio, N. and Notarbartolo di Sciara, G. (2011): Overview of sperm whale *Physeter macrocephalus* mortality events in the Adriatic Sea, 1555–2009, Mammal Review, volume 41, issue 4, pages 276–293

#### Tursiops truncatus (Mediterranean population)

Please choose the one that applies.

Range State

## Published distribution reference

> Tvrtković, N. et al. (2006): Red Book of Mammals of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Pompe-Gotal, J., Srebocan, E., Gomercic, H., Prevendar Crnic, A. (2009): Mercury concentrations in the tissues of bottlenose dolphins (*Tursiops truncatus*) and striped dolphins (*Stenella coeruleoalba*) stranded on the Croatian, Adriatic coast, *Veterinarni Medicina*, 54, 2009 (12): 598-604

Vuković, S. et al (2010): Histological Structure of the Adrenal Gland of the Bottlenose Dolphin (*Tursiops truncatus*) and the Striped Dolphin (*Stenella coeruleoalba*) from the Adriatic Sea, *Anatomia, Histologia, Embryologia*, Volume 39, Issue 1, pages 59-66

Horvat, S. et al (2011): Evaluation of some biological features of the bottlenose dolphin (*Tursiops truncatus*) using the degree of ossification of the bones of the pectoral fins. *Veterinar* 49: 1-10

Bilandžić, N. et al (2011): The concentration of toxic elements in tissues of bottlenose dolphin (*Tursiops truncatus*) and striped dolphins (*Stenella coeruleoalba*) from the Adriatic Sea. *Veterinarska stanica* 42: 129-137.

Galov, A. et al (2011): High genetic diversity and possible evidence of a recent bottleneck in Adriatic bottlenose dolphins (*Tursiops truncatus*). *Mammalian Biology* 76: 339-344

Vuković, S. et al (2011): Anatomical and histological characteristics of the pituitary gland in the bottlenose dolphin (*Tursiops truncatus*) from the Adriatic Sea. *Veterinarski arhiv* 81: 143-151.

Holcer, D, Fortuna, C.M. (2011): The aerial survey of cetacean abundance in the areas of Kvarner/Kvarnerić and Central Adriatic: August 2010. A project report. 27 pages. Blue World Vis,Vis.

Bilandžić, N. et al. (2012): Toxic Element Concentrations in the Bottlenose (*Tursiops truncatus*), Striped (*Stenella coeruleoalba*) and Risso's (*Grampus griseus*) Dolphins Stranded in Eastern Adriatic Sea, *Bulletin of Environmental Contamination and Toxicology*, Volume 89, Issue 3, pp 467-473

Lucić, H. et al. (2012): Relation of the morphometric and densitometric parameters of the right flipper as an indicator of maneuvering ability in bottlenose dolphin (*Tursiops truncatus*) and striped dolphin (*Stenella coeruleoalba*) from the Adriatic sea, *Zbornik sažetaka 11. hrvatski biološki kongres s međunarodnim sudjelovanjem / Jelaska, Sven ; Klobučar, Goran Ivan Vinko ; Šerić Jelaska, Lucija ; Leljak Levanić, Dunja ; Lukša, Žaklin (ed). - Zagreb : Hrvatsko biološko društvo 1885 , 2012. 113-114, Šibenik*

Duras Gomercic, M. et al (2012): Sexual dimorphism in pelvic rudiment of bottlenose dolphin (*Tursiops truncatus*). In: Abstract book of 26th Annual Conference of the European Cetacean Society (B. McGovern, S. Berrow, E. McKeogh, I. O'Connor, eds). Galway-Mayo Institute of Technology, Galway. 26-28 March 2012. Galway, Ireland. 82.

Divac Brnic, D. et al (2012): Mitochondrial DNA control region diversity of the bottlenose dolphin (*Tursiops truncatus*) from the Adriatic Sea. In: Abstract book of 26th Annual Conference of the European Cetacean Society (B. McGovern, S. Berrow, E. McKeogh, I. O'Connor, eds). Galway-Mayo Institute of Technology, Galway. 26-28 March 2012. Galway, Ireland. 248.

Škrčić, D. et al (2012): Caudal spine lesions in bottlenose dolphins (*Tursiops truncatus*) from the Adriatic sea. Proceeding of abstracts of the 11th Croatian biological congress (S.D. Jelaska, G.I.V. Klobučar, L. Šerić Jelaska, D. Leljak Levanić, Ž. Lukša eds). Hrvatsko biološko društvo 1885, Zagreb. 16-21 September 2012., Šibenik. 86-87.

Arbanasić, H. et al (2012): Diversity of MHC class II DRA gene in the Adriatic bottlenose dolphins (*Tursiops truncatus*). Proceeding of abstracts of the 11th Croatian biological congress (S.D. Jelaska, G.I.V. Klobučar, L. Šerić Jelaska, D. Leljak Levanić, Ž. Lukša eds). Hrvatsko biološko društvo 1885, Zagreb. 16-21 September 2012., Šibenik. 151-152.

Rako, N., Picciulin, M., Mackelworth, P., Holcer, D., & Fortuna, C. M. (2012). Long-term monitoring of anthropogenic noise and its relationship to bottlenose dolphin (*Tursiops truncatus*) distribution in the Cres-Lošinj Archipelago, Northern Adriatic, Croatia. In *The Effects of Noise on Aquatic Life* (pp. 323-325). Springer New York.

Bilandžić, N. et al. (2013): Toxic element concentrations in three dolphins species stranded in eastern Adriatic sea, *Knjiga sažetaka. Simpozij parazitarne zoonoze i teški metali u kopnenih i morskih predatora. / Cvetnić, Slavko i sur. (ed). - Zagreb : Hrvatska akademija znanosti i umjetnosti , 2013. 14-15.*

Pleslić, G. et al (2013). The abundance of common bottlenose dolphins (*Tursiops truncatus*) in the former special marine reserve of the Cres-Lošinj Archipelago, Croatia. *Aquatic Conservation: Marine and Freshwater Ecosystems*.

Rako, N. et al (2013). Leisure boating noise as a trigger for the displacement of the bottlenose dolphins of the Cres-Lošinj archipelago (northern Adriatic Sea, Croatia). *Marine pollution bulletin*, 68(1), 77-84.

## **Stenella coeruleoalba (Mediterranean population)**

Please choose the one that applies.

Not a Range State

**Published distribution reference**

> Vuković, S. et al (2005): Morphology of the lymph nodes in bottlenose dolphin (*Tursiops truncatus*) and striped dolphin (*Stenella coeruleoalba*) from the Adriatic Sea, *Acta Veterinaria Hungarica*, Volume 53, Number 1, p 1-11

Šeol, B. et al. (2006): Isolation of *Clostridium tertium* from a Striped Dolphin (*Stenella coeruleoalba*) in the Adriatic Sea. *Journal of Wildlife Diseases*, 42 (3), pp. 709-711

Nikolić, N. et al. (2006): Diversity of mitochondrial DNA control region of striped dolphin (*Stenella coeruleoalba*) from the Croatian part of the Adriatic sea - a preliminary research. *Proceedings of Abstracts of 9th Croatian Biological Congress, Rovinj 23. - 29. rujna 2006.*, Hrvatsko biološko društvo, Zagreb

Pompe-Gotal, J., Srebocan, E., Gomercic, H., Prevendar Crnic, A. (2009): Mercury concentrations in the tissues of bottlenose dolphins (*Tursiops truncatus*) and striped dolphins (*Stenella coeruleoalba*) stranded on the Croatian, Adriatic coast, *Veterinarni Medicina*, 54, 2009 (12): 598-604

Galov, A. et al. (2009): Records and genetic diversity of striped dolphins (*Stenella coeruleoalba*) from the Croatian coast of the Adriatic Sea. *Marine Biodiversity Records*, 2, e98

Rako, N. (2009): Visitor or invader? Recent occurrences of striped dolphins (*Stenella coeruleoalba*) in the Croatian part of the Adriatic Sea. *European Congress of Conservation Biology "Conservation biology and beyond: from science to practice"*, Prague

Rako, N. (2009): Long-term inshore observation of a solitary striped dolphin, *Stenella coeruleoalba*, in the Vinodol channel, Northern Adriatic Sea (Croatia), *Natura Croatica*, vol. 18, No2, 427-436, Zagreb

Vuković, S. et al (2010): Histological Structure of the Adrenal Gland of the Bottlenose Dolphin (*Tursiops truncatus*) and the Striped Dolphin (*Stenella coeruleoalba*) from the Adriatic Sea, *Anatomia, Histologia, Embryologia*, Volume 39, Issue 1, pages 59-66

Nimak-Wood, M. et al. (2011): Presence of a solitary striped dolphin (*Stenella coeruleoalba*) in Mali Lošinj harbour, Northern Adriatic Sea, Croatia, *Vie et milieu - life and environment*, 61 (2): 87-93

Holcer, D, Fortuna, C.M. (2011): The aerial survey of cetacean abundance in the areas of Kvarner/Kvarnerić and Central Adriatic: August 2010. A project report. 27 pages. Blue World Vis,Vis

Đuras Gomerčić, M. et al. (2012): High number of striped dolphin (*Stenella coeruleoalba*) deaths during 2012 in the Adriatic sea, *Zbornik sažetaka 11. hrvatski biološki kongres s međunarodnim sudjelovanjem / Jelaska, Sven ; Klobučar, Goran Ivan Vinko ; Šerić Jelaska, Lucija ; Leljak Levanić, Dunja ; Lukša, Žaklin (ed). - Zagreb : Hrvatsko biološko društvo 1885. 203-204. Šibenik*

Bilandžić, N. et al. (2012): Toxic Element Concentrations in the Bottlenose (*Tursiops truncatus*), Striped (*Stenella coeruleoalba*) and Risso's (*Grampus griseus*) Dolphins Stranded in Eastern Adriatic Sea, *Bulletin of Environmental Contamination and Toxicology*, Volume 89, Issue 3, pp 467-473

Lucić, H. et al. (2012): Relation of the morphometric and densitometric parameters of the right flipper as an indicator of maneuvering ability in bottlenose dolphin (*Tursiops truncatus*) and striped dolphin (*Stenella coeruleoalba*) from the Adriatic sea, *Zbornik sažetaka 11. hrvatski biološki kongres s međunarodnim sudjelovanjem / Jelaska, Sven ; Klobučar, Goran Ivan Vinko ; Šerić Jelaska, Lucija ; Leljak Levanić, Dunja ; Lukša, Žaklin (ed). - Zagreb : Hrvatsko biološko društvo 1885 , 2012. 113-114, Šibenik*

Bilandžić, N. et al. (2103): Toxic element concentrations in three dolphins species stranded in eastern Adriatic sea, *Knjiga sažetaka. Simpozij parazitarne zoonoze i teški metali u kopnenih i morskih predatora. / Cvetnić, Slavko i sur. (ed). - Zagreb : Hrvatska akademija znanosti i umjetnosti , 2013. 14-15.*

**Delphinus delphis (Mediterranean population)**

Please choose the one that applies.

No information available

**Published distribution reference**

> Tvrtković, N. et al. (2006): Red Book of Mammals of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Lazar, B. et all (2012): Organochlorine contaminant levels in tissues of a short-beaked common dolphin, *Delphinus delphis*, from northern Adriatic Sea, *Natura Croatica*, Vol.21 No.2

Holcer, D, Fortuna, C.M. (2011): The aerial survey of cetacean abundance in the areas of Kvarner/Kvarnerić and Central Adriatic: August 2010. A project report. 27 pages. Blue World Vis,Vis

**Balaenoptera physalus**

Please choose the one that applies.

Not a Range State

#### Published distribution reference

> Gomerčić, T. et al. (2006): Fin whale (*Balaenoptera physalus*) calf stranded on the island Prvić near island Krk, Natural history researches of the Rijeka region : the 2nd Scientific Symposium , Rijeka  
 Holcer, D, Fortuna, C.M. (2011): The aerial survey of cetacean abundance in the areas of Kvarner/Kvarnerić and Central Adriatic: August 2010. A project report. 27 pages. Blue World Vis,Vis

### **Carnivora**

#### **Monachus monachus**

Please choose the one that applies.

Extinct at National level

#### Published distribution reference

> Tvrtković, N. et al. (2006): Red Book of Mammals of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Gomerčić, H. et al. (2006): Mediterranean monk seal in the Northern Adriatic Sea?, Natural history researches of the Rijeka region : the 2nd Scientific Symposium , Rijeka

Gomerčić, T. et al (2011): Presence of the Mediterranean Monk Seal (*Monachus monachus*) in the Croatian Part of the Adriatic Sea, Aquatic Mammals 2011, 37(3), 243-247

### **Gaviiformes**

#### **Gavia stellata (W. Palaearctic)**

Please choose the one that applies.

Range State

#### Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

#### **Gavia arctica arctica**

Please choose the one that applies.

Range State

#### Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

### **Podicipediformes**

#### **Podiceps grisegena grisegena**

Please choose the one that applies.

Range State

#### Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Podiceps auritus (W. Palaearctic)**

Please choose the one that applies.

Range State

### **Pelecaniformes**

#### **Phalacrocorax pygmeus**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Pelecanus crispus**

Please choose the one that applies.

Extinct at National level

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Ciconiiformes**

#### **Botaurus stellaris stellaris (W. Palaearctic)**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Ixobrychus minutus minutus (W. Palaearctic)**

Please choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

#### **Casmerodius albus albus (W. Palaearctic)**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Ardea purpurea purpurea (Populations breeding in the W Palaearctic)**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp.

#### **Ciconia nigra**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Ciconia ciconia**

Please choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Plegadis falcinellus**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Platalea leucorodia**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Anseriformes****Anatidae spp**

Please choose the one that applies.

Range State

**Falconiformes****Pandion haliaetus**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Galliformes****Coturnix coturnix coturnix**

Please choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Gruiformes****Porzana porzana (Populations breeding in the W Palaearctic)**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Porzana parva parva**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Porzana pusilla intermedia**

Please choose the one that applies.



Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Fulica atra atra (Mediterranean and Black Sea populations)**

Please choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

### **Crex crex**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Otis tarda**

Please choose the one that applies.

Extinct at National level

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Charadriiformes**

#### **Recurvirostridae spp**

Please choose the one that applies.

Range State

#### **Burhinus oedicnemus**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Glareola pratincola**

Please choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

#### **Charadriidae spp**

Please choose the one that applies.

Range State

#### **Scolopacidae spp**

Please choose the one that applies.

Range State

#### **Larus melanocephalus**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Larus audouinii**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Sterna nilotica nilotica (West Eurasian and African populations)**

Please choose the one that applies.

Range State

Published distribution reference

› Radovic, D. et al. (2003): Red Data Book of Birds of Croatia. Ministry of Environmental Protection and Physical Planning, Zagreb, 179 pp.

### **Sterna caspia (West Eurasian and African populations)**

Please choose the one that applies.

Range State

Published distribution reference

› Radovic, D. et al. (2003): Red Data Book of Birds of Croatia. Ministry of Environmental Protection and Physical Planning, Zagreb, 179 pp.

### **Sterna sandvicensis sandvicensis**

Please choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

### **Sterna hirundo hirundo (Populations breeding in the W Palaearctic)**

Please choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

### **Sterna albifrons**

Please choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Chlidonias niger niger**

Please choose the one that applies.

Range State

Published distribution reference

› Radovic, D. et al. (2003): Red Data Book of Birds of Croatia. Ministry of Environmental Protection and

Physical Planning, Zagreb, 179 pp.

### **Chlidonias leucopterus (West Eurasian and African populations)**

Please choose the one that applies.

Range State

### **Columbiformes**

#### **Streptopelia turtur turtur**

Please choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

### **Coraciiformes**

#### **Merops apiaster**

Please choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

#### **Coracias garrulus**

Please choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Testudinata**

#### **Cheloniidae spp**

Please choose the one that applies.

Range State

#### **Dermochelyidae spp**

Please choose the one that applies.

Not a Range State

Published distribution reference

> Lazar, B. & Tvrtković, N. (1995): Marine turtles in the eastern Adriatic Sea: Preliminary research. Natura Croatica 4: 59-74.

Lazar, B. et al. (2005): Occurrence of leatherback turtle *Dermochelys coriacea* in the eastern Adriatic Sea. Journal of the Marine Biological Association U.K.

### **Lamniformes**

#### **Cetorhinus maximus**

Please choose the one that applies.

Range State

Published distribution reference

> SOLDI, A. and JARDAS, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy)

2000. ICRAM, ARPAT and SFI: 141-155

SOLDO, A. and JARDAS, I. (2002b): Occurrence of great white shark, *Carcharodon carcharias* (Linnaeus, 1758) and basking shark, *Cetorhinus maximus* (Gunnerus, 1765) in the Eastern Adriatic and their protection.

*Periodicum Biologorum* 104(2): 195-201

Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper  
Jardas, I. et al. (2008): Red Book of Marine Fish of Croatia, Ministry of Culture, State Institute for Nature protection

Soldo, a. et al. (2008): Basking shark (*Cetorhinus maximus*) occurrence in relation to zooplankton abundance in the eastern Adriatic Sea, *Cybium* 2008, 32(2): 103-109.

Dulčić, J. et al. (2009): Expertise and scientific background document for drafting action plan for protection cartilaginous fishes, Institute of Oceanography and Fisheries - Split, University Center for Maritime Studies - Split and Marine Biology Station, Piran for State Institute for Nature Protection

## **Carcharodon carcharias**

Please choose the one that applies.

Not a Range State

Published distribution reference

> SOLDO, A. and JARDAS, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy)

2000. ICRAM, ARPAT and SFI: 141-155

SOLDO, A. and JARDAS, I. (2002b): Occurrence of great white shark, *Carcharodon carcharias* (Linnaeus, 1758) and basking shark, *Cetorhinus maximus* (Gunnerus, 1765) in the Eastern Adriatic and their protection.

*Periodicum Biologorum* 104(2): 195-201

Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper

SOLDO, A. and DULČIĆ, J. (2005): New record of a great white shark *Carcharodon carcharias* (Lamnidae) from the eastern Adriatic Sea. *Cybium* 29(1): 89-90

SOLDO, A. and PEIRCE, R. (2005): Shark chumming in the eastern Adriatic. *Annales Series Historia Naturalis Koper* 15(2): 203-208

Jardas, I. et al. (2008): Red Book of Marine Fish of Croatia, Ministry of Culture, State Institute for Nature protection

Dulčić, J. et al. (2009): Expertise and scientific background document for drafting action plan for protection cartilaginous fish, Institute of Oceanography and Fisheries - Split, University Center for Maritime Studies - Split and Marine Biology Station, Piran for State Institute for Nature Protection

## **Isurus oxyrinchus**

Please choose the one that applies.

Not a Range State

Published distribution reference

> Jardas, I. et al. (2008): Red Book of Marine Fish of Croatia, Ministry of Culture, State Institute for Nature protection

SOLDO, A. and JARDAS, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy)

2000. ICRAM, ARPAT and SFI: 141-155

Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper

Kružić, P. and Petrov-Rančić, I. (2006): Families Scyliorhinidae and Triakidae (Squaliformes) in fishing catch in the Croatian part of the Adriatic sea, Zbornik sažetaka priopćenja 9. Hrvatskog biološkog kongresa. Rovinj, 23. - ; 29. rujna 2006. / Besendorfer Višnja, Klobučar Goran (ed). - Zagreb , Rovinj

## **Lamna nasus**

Please choose the one that applies.

Not a Range State

Published distribution reference

> SOLDO, A. and JARDAS, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy)

2000. ICRAM, ARPAT and SFI: 141-155

Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper

Kružić, P. and Petrov-Rančić, I. (2006): Families Scyliorhinidae and Triakidae (Squaliformes) in fishing catch in the Croatian part of the Adriatic sea, Zbornik sažetaka priopćenja 9. Hrvatskog biološkog kongresa. Rovinj, 23. - ; 29. rujna 2006. / Besendorfer Višnja, Klobučar Goran (ed). - Zagreb , Rovinj

Jardas, I. et al. (2008): Red book of sea fishes of Croatia. State Institute for Nature Protection, Zagreb.

## Squaliformes

### **Squalus acanthias (Northern hemisphere populations)**

Please choose the one that applies.

Range State

Published distribution reference

> SOLDI, A. and JARDAS, I. (2002a): Large sharks in the Eastern Adriatic. Pp.141-155. In: Vacchi, M., La Mesa, G., Serena, F. and Seret, B. (eds.). Proceedings of the 4th Elasmobranch Association Meeting, Livorno, (Italy) 2000. ICRAM, ARPAT and SFI: 141-155

Lipej, J., De Maddalena, A. and Soldo, A. (2004): Sharks of the Adriatic Sea, Univerza na Primorskem, Koper  
Pallaoro, A. et al (2005). Weight-length relationships for 11 chondrichthyan species in the eastern Adriatic Sea. *Cybiurn*, 2005, 93-96.

Jardas, I. et al. (2008): Red Book of Marine Fish of Croatia, Ministry of Culture, State Institute for Nature protection

Gajić, A., Čehajić, F., & Davidov, B. (2012): Contribution to the knowledge of morphology of teeth and jaws of spiny dogfish, *Squalus acanthias* L. (Elasmobranchii: Squaliformes: Squalidae) from the Adriatic sea. The 16th Symposium of Biology Students in Europe, 27, 20-21.

Gračan, R. et al (2013): Maturation, fecundity and reproductive cycle of spiny dogfish, *Squalus acanthias*, in the Adriatic Sea. *Marine Biology Research*, 9(2), 198-207.

## Acipenseriformes

### **Huso huso**

Please choose the one that applies.

Extinct at National level

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

### **Acipenser naccarii**

Please choose the one that applies.

Range State

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb. Jardas, I. et al. (2008): Red book of sea fishes of Croatia. State Institute for Nature Protection, Zagreb.

### **Acipenser nudiventris**

Please choose the one that applies.

Extinct at National level

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

### **Acipenser ruthenus (Danube population)**

Please choose the one that applies.

Range State

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

**Acipenser stellatus**

Please choose the one that applies.

Extinct at National level

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

**Acipenser sturio**

Please choose the one that applies.

Extinct at National level

Published distribution reference

> Mrakovcic, M. et al. (2006): Red book of freshwater fishes of Croatia. State Institute for Nature Protection, Zagreb.

Jardas, I. et al. (2008): Red book of sea fishes of Croatia. State Institute for Nature Protection, Zagreb.

**2. All species of each of the Families below are listed in Appendix II. If your country is a Range State for any of the species in these Families, please indicate whether your country is a Range State or the species is extinct and, where appropriate, please provide published distribution references.**

**Order FALCONIFORMES, Family ACCIPITRIDAE****Accipiter brevipes**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Accipiter gentilis**

Choose the one that applies.

Range State

**Accipiter nisus**

Choose the one that applies.

Range State

**Aquila chrysaetos**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Aquila pomarina**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Buteo buteo**

Choose the one that applies.

Range State

**Buteo lagopus**

Choose the one that applies.

Range State

**Buteo rufinus**

Choose the one that applies.

Range State

**Circaetus gallicus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Circus aeruginosus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Circus cyaneus**

Choose the one that applies.

Range State

**Circus pygargus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Gyps fulvus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Hieraaetus pennatus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Milvus migrans**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Milvus milvus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Pernis apivorus**

Choose the one that applies.

Range State

### **Order FALCONIFORMES, Family FALCONIDAE**

#### **Falco biarmicus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Falco columbarius**

Choose the one that applies.

Range State

#### **Falco eleonora**

Choose the one that applies.

Range State

#### **Falco peregrinus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Falco subbuteo**

Choose the one that applies.

Range State

#### **Falco tinnunculus**

Choose the one that applies.

Range State

### **Order PASSERIFORMES, Family MUSCICAPIDAE**

#### **Acrocephalus arundinaceus**

Choose the one that applies.

Range State

#### **Acrocephalus melanopogon**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

#### **Acrocephalus paludicola**

Choose the one that applies.

Extinct

Published distribution reference



> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Acrocephalus palustris**

Choose the one that applies.

Range State

### **Acrocephalus schoenobaenus**

Choose the one that applies.

Range State

### **Acrocephalus scirpaceus**

Choose the one that applies.

Range State

### **Cettia cetti**

Choose the one that applies.

Range State

### **Erithacus rubecula**

Choose the one that applies.

Range State

### **Ficedula albicollis**

Choose the one that applies.

Range State

### **Ficedula hypoleuca**

Choose the one that applies.

Range State

### **Ficedula parva**

Choose the one that applies.

Range State

### **Hippolais icterina**

Choose the one that applies.

Range State

### **Hippolais olivetorum**

Choose the one that applies.

Range State

Published distribution reference

> Barišić, S., Ćiković, D., Tutiš, V. (2012): Range expansion of the Olive-tree Warbler (*Hippolais olivetorum*) along the Croatian coast. *Acrocephalus* 152/153: 105-107.

### **Hippolais pallida**

Choose the one that applies.

Range State

### **Hippolais polyglotta**

Choose the one that applies.

Range State

**Locustella fluviatilis**

Choose the one that applies.

Range State

**Locustella luscinioides**

Choose the one that applies.

Range State

**Locustella naevia**

Choose the one that applies.

Range State

**Luscinia luscinia**

Choose the one that applies.

Range State

**Luscinia megarhynchos**

Choose the one that applies.

Range State

**Luscinia svecica**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Monticola saxatilis**

Choose the one that applies.

Range State

**Monticola solitarius**

Choose the one that applies.

Range State

**Muscicapa striata**

Choose the one that applies.

Range State

**Oenanthe hispanica**

Choose the one that applies.

Range State

**Oenanthe oenanthe**

Choose the one that applies.

Range State

**Panurus biarmicus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Phoenicurus ochruros**

Choose the one that applies.

Range State

### **Phoenicurus phoenicurus**

Choose the one that applies.

Range State

### **Phylloscopus bonelli**

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Phylloscopus trochilus**

Choose the one that applies.

Range State

### **Regulus ignicapillus**

Choose the one that applies.

Range State

### **Regulus regulus**

Choose the one that applies.

Range State

### **Saxicola rubetra**

Choose the one that applies.

Range State

### **Saxicola torquata**

Choose the one that applies.

Range State

### **Sylvia atricapilla**

Choose the one that applies.

Range State

### **Sylvia borin**

Choose the one that applies.

Range State

### **Sylvia cantillans**

Choose the one that applies.

Range State

### **Sylvia communis**

Choose the one that applies.

Range State

### **Sylvia curruca**

Choose the one that applies.

Range State

### **Sylvia hortensis**

Choose the one that applies.

Range State

**Sylvia melanocephala**

Choose the one that applies.

Range State

**Sylvia nisoria**

Choose the one that applies.

Range State

**Turdus iliacus**

Choose the one that applies.

Range State

**Turdus merula**

Choose the one that applies.

Range State

**Turdus philomelos**

Choose the one that applies.

Range State

**Turdus pilaris**

Choose the one that applies.

Range State

**Turdus torquatus**

Choose the one that applies.

Range State

**Order ANSERIFORMES, Family ANATIDAE****Anas fabalis**

Choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Anas platyrhynchos**

Choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Anas strepera**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Anser albifrons**

Choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

### **Anser anser**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Aythya ferina**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Aythya fuligula**

Choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

### **Aythya nyroca**

Choose the one that applies.

Range State

Published distribution reference

› Radovic, D. et al. (2003): Red Data Book of Birds of Croatia. Ministry of Environmental Protection and Physical Planning, Zagreb, 179 pp.

### **Bucephala clangula**

Choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

### **Cygnus olor**

Choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

### **Melanitta fusca**

Choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

### **Mergellus albellus**

Choose the one that applies.

Range State

Published distribution reference

› Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

**Mergus merganser**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Mergus serrator**

Choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Netta rufina**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Oxyura leucocephala**

Choose the one that applies.

Extinct

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Tadorna tadorna**

Choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Order CHARADRIIFORMES, Family RECURVIROSTRIDAE****Himantopus himantopus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Order CHARADRIIFORMES, Family CHARADRIIDAE****Charadrius alexandrinus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Charadrius dubius**

Choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. Larus 46: 1-112

**Charadrius hiaticula**

Choose the one that applies.

Range State

Published distribution reference

> Kralj (1997): Croatian ornithofauna in the last 100 years. *Larus* 46: 1-112

**Pluvialis apricaria**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Pluvialis squatarola**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Vanellus vanellus**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Order CHARADRIIFORMES, Family SCOLOPACIDAE****Calidris alba**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Calidris alpina**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Calidris ferruginea**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Calidris minuta**

Choose the one that applies.

Range State

Published distribution reference

> Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

**Calidris temminckii**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Gallinago gallinago**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Gallinago media**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Limicola falcinellus**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Lymnocyptes minimus**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Numenius arquata**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Numenius phaeopus**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Numenius tenuirostris**

Choose the one that applies.

Extinct

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Philomachus pugnax**

Choose the one that applies.

Range State



Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa erythropus**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa glareola**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa hypoleucos**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa nebularia**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa ochropus**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa stagnatilis**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

### **Tringa totanus**

Choose the one that applies.

Range State

Published distribution reference

› Tutiš, V. et al. (2013): Red Data Book of Birds of Croatia. MENP & SINP, Zagreb, 258 pp

## **Order CHIROPTERA, Family RHINOLOPHIDAE (European populations)**

### **Rhinolophus blasii**

Choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
 Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).  
 Ratko, M. i Zrnčić, V. (2013): Izvještaj Sekcije za šišmiše 2011. Istraživanje faune šišmiša uz tok rijeke Zrmanje. U: Basrek, L. i Đud, L. (ur.): Zbornik radova projekta „Istraživanje bioraznolikosti područja rijeke Zrmanje 2010. Udruga studenata biologije – „BIUS“ i JU Park prirode Velebit: 236-269

### **Rhinolophus euryale**

Choose the one that applies.

Range State

#### Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
 Hamidović, D. (2008): Zaštita dugonogog šišmiša, *Myotis capaccinii*, za zaštitu krškog staništa. Hrvatsko biospeleološko društvo. Zagreb.  
 Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).  
 Ratko, M. i Zrnčić, V. (2013): Izvještaj Sekcije za šišmiše 2011. Istraživanje faune šišmiša uz tok rijeke Zrmanje. U: Basrek, L. i Đud, L. (ur.): Zbornik radova projekta „Istraživanje bioraznolikosti područja rijeke Zrmanje 2010. Udruga studenata biologije – „BIUS“ i JU Park prirode Velebit: 236-269. Aptreeva, V. i Pušić, A. (2013): Rezultati istraživanja Sekcije za šišmiše, BIUS Istraživačko edukacijski projekt "Dinara 2012", neobjavljeni podaci.

### **Rhinolophus ferrumequinum**

Choose the one that applies.

Range State

#### Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
 Hamidović, D. (2008): Zaštita dugonogog šišmiša, *Myotis capaccinii*, za zaštitu krškog staništa. Hrvatsko biospeleološko društvo. Zagreb. Hamidović, D. (2009): Projekt Ombla-Paleombla, istraživanje šišmiša. Hrvatsko biospeleološko društvo. Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).  
 Pavlinić, I. & Đaković, M. (2010): The greater horseshoe bat, *Rhinolophus ferrumequinum* in Croatia: present status and research recommendations. Natura Croatica, Vol.19 No.2, (339-356).  
 Bedek, J., Hamidović, D., Lukić, M., Ozimec, R., Bilandžija H., Slapnik R., Pavlek, M., Dražina, T., Iepure, S., Žvorc, P. i Gottstein, S. (2009): Vrednovanje i zaštita podzemne faune i špiljskih vrsta šišmiša šireg područja kanjona u Rijeke dobre. Hrvatsko biospeleološko društvo.  
 Kipson, M. (2012): „Fauna šišmiša (Chiroptera) na odabranim područjima Regionalnog parka Mura - Drava“.  
 Kipson, M. (2012): Izvješće o provedenom istraživanju strogo zaštićenih i zaštićenih vrsta u okviru izrade doktorske disertacije „Ecology and synanthropy of bats in the Mediterranean region in comparison with the Central Europe“ Ministarstvu zaštite okoliša i prirode.  
 Ratko, M. i Zrnčić, V. (2013): Izvještaj Sekcije za šišmiše 2011. Istraživanje faune šišmiša uz tok rijeke Zrmanje. U: Basrek, L. i Đud, L. (ur.): Zbornik radova projekta „Istraživanje bioraznolikosti područja rijeke Zrmanje 2010. Udruga studenata biologije – „BIUS“ i JU Park prirode Velebit: 236-269.

### **Rhinolophus hipposideros**

Choose the one that applies.

Range State

#### Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
 Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).  
 Fressel, N. i Kovač, D. (2011): Istraživanje faune šišmiša u proljetnom i jesenskom migracijskom razdoblju. U: Čolić, L. i Kapelj, S. (ur.): Zbornik istraživačkih radova Udruge studenata biologije - "BIUS" u Nacionalnom parku Paklenica. BIUS: 163-178.  
 Hamidović, D. (2012): "Preliminarna istraživanja šišmiša na području ornitološki vrijednog područja Jezero kod Njivica na otoku Krku". Državni zavod za zaštitu prirode.  
 Ratko, M. i Zrnčić, V. (2013): Izvještaj Sekcije za šišmiše 2011. Istraživanje faune šišmiša uz tok rijeke Zrmanje. U: Basrek, L. i Đud, L. (ur.): Zbornik radova projekta „Istraživanje bioraznolikosti područja rijeke Zrmanje 2010. Udruga studenata biologije – „BIUS“ i JU Park prirode Velebit: 236-269.  
 Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb

Hamidović, D. (2008): Zaštita dugonogog šišmiša, *Myotis capaccinii*, za zaštitu krškog staništa. Hrvatsko biospeleološko društvo. Zagreb.

Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. *Natura Croatica*, Vol.19 No.2, (295-337).

Ratko, M. i Zrnčić, V. (2013): Izvještaj Sekcije za šišmiše 2011. Istraživanje faune šišmiša uz tok rijeke Zrmanje. U: Basrek, L. i Đud, L. (ur.): Zbornik radova projekta „Istraživanje bioraznolikosti područja rijeke Zrmanje 2010. Udruga studenata biologije – „BIUS“ i JU Park prirode Velebit: 236-269. Aptreeva, V. i Pušić, A (2013): Rezultati istraživanja Sekcije za šišmiše, BIUS Istraživačko edukacijski projekt "Dinara 2012", neobjavljeni podaci

### **Rhinolophus mehelyi**

Choose the one that applies.

Extinct

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb

### **Order CHIROPTERA, Family VESPERTILIONIDAE (European populations)**

#### **Barbastella barbastellus**

Choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb

Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. *Natura Croatica*, Vol.19 No.2, (295-337).

Fressel, N. i Kovač, D. (2011): Istraživanje faune šišmiša u proljetnom i jesenskom migracijskom razdoblju. U: Čolić, L. i Kapelj, S. (ur.): Zbornik istraživačkih radova Udruge studenata biologije - "BIUS" u Nacionalnom parku Paklenica. BIUS: 163-178.

Kipson, M. (2012): „Fauna šišmiša (Chiroptera) na odabranim područjima Regionalnog parka Mura - Drava“.

#### **Eptesicus nilssonii**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

#### **Eptesicus serotinus**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006.

#### **Hypsugo savii**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate, August 2006

#### **Miniopterus schreibersii**

Choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb.  
 Hamidović, D. (2009): Projekt Ombla-Paleoombla, istraživanje šišmiša. Hrvatsko biospeleološko društvo  
 Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).  
 Ratko, M. i Zrnčić, V. (2013): Izvještaj Sekcije za šišmiše 2011. Istraživanje faune šišmiša uz tok rijeke Zrmanje. U: Basrek, L. i Đud, L. (ur.): Zbornik radova projekta „Istraživanje bioraznolikosti područja rijeke Zrmanje 2010. Udruga studenata biologije – „BIUS“ i JU Park prirode Velebit: 236-269. Kipson, M. (2012): „Fauna šišmiša (Chiroptera) na odabranim područjima Regionalnog parka Mura - Drava“.

### **Myotis alcathoe**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

### **Myotis aurascens**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

### **Myotis bechsteini**

Choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
 Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. Natura Croatica, Vol.19 No.2, (295-337).  
 Fressel, N. i Kovač, D. (2011): Istraživanje faune šišmiša u NP Paklenica s posebnim naglaskom na visinsku raspodjelu. U: Čolić, L. i Kapelj, S. (ur.): Zbornik istraživačkih radova Udruge studenata biologije - "BIUS" u Nacionalnom parku Paklenica. BIUS: 187-220.  
 Kipson, M. (2012): „Fauna šišmiša (Chiroptera) na odabranim područjima Regionalnog parka Mura - Drava“

### **Myotis blythii**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

### **Myotis brandtii**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Myotis capaccinii**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
Hamidović, D. (2008): Zaštita dugonogog šišmiša, *Myotis capaccinii*, za zaštitu krškog staništa. Hrvatsko biospeleološko društvo. Zagreb.

Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. *Natura Croatica*, Vol.19 No.2, (295-337).

Kipson, M. (2012): Izvješće o provedenom istraživanju strogo zaštićenih i zaštićenih vrsta u okviru izrade doktorske disertacije „Ecology and synanthropy of bats in the Mediterranean region in comparison with the Central Europe“ Ministarstvu zaštite okoliša i prirode.

**Myotis dasycneme**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
Pavlinić, I., Đaković, M. &

Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. *Natura Croatica*, Vol.19 No.2, (295-337).

**Myotis daubentonii**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Myotis emarginatus**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
Hamidović, D. (2009): Projekt Ombla-Paleoombla, istraživanje šišmiša. Hrvatsko biospeleološko društvo.  
Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. *Natura Croatica*, Vol.19 No.2, (295-337).

Fressel, N. i Kovač, D. (2011): Istraživanje faune šišmiša u NP Paklenica s posebnim naglaskom na visinsku raspodjelu. U: Čolić, L. i Kapelj, S. (ur.): Zbornik istraživačkih radova Udruge studenata biologije - "BIUS" u Nacionalnom parku Paklenica. BIUS: 187-220.

Bedeck, J., Bilandžija, H., Bregović, P., Dražina, T., Fressel, N., Lukić, M., Ozimec, R. , Pavlek, M., Slapnik, R. i Žvorc, P. (2011): Trajna zaštita špilje u kamenolomu Tounj, Fauna beskralješnjaka i šišmiša. Hrvatsko biospeleološko društvo. Zagreb. U DZZP (2012): Stručna podloga za zaštitu područja “Špilja u kamenolomu Tounj i špilja Tounjčica” geomorfološki spomenik prirode.

Kipson, M. (2012): Izvješće o provedenom istraživanju strogo zaštićenih i zaštićenih vrsta u okviru izrade doktorske disertacije „Ecology and synanthropy of bats in the Mediterranean region in comparison with the Central Europe“ Ministarstvu zaštite okoliša i prirode.

**Myotis myotis**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb  
Pavlinić, I., Đaković, M. & Tvrtković, N. (2010): The Atlas of Croatian Bats, Part I. *Natura Croatica*, Vol.19 No.2, (295-337).

Kipson, M. (2012): „Fauna šišmiša (Chiroptera) na odabranim područjima Regionalnog parka Mura - Drava“.  
Aptreeva, V. i Pušić, A (2013).: Rezultati istraživanja Sekcije za šišmiše, BIUS Istraživačko edukacijski projekt

"Dinara 2012", neobjavljeni podaci Kipson, M. (2012): Izvješće o provedenom istraživanju strogo zaštićenih i zaštićenih vrsta u okviru izrade doktorske disertacije „Ecology and synanthropy of bats in the Mediterranean region in comparison with the Central Europe“ Ministarstvu zaštite okoliša i prirode.

### **Myotis mystacinus**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

### **Myotis nattereri**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006.

### **Nyctalus lasiopterus**

Choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia - Mammals. State Institute for Nature Protection Zagreb  
Kovač, D., Hamidović, D., Fressel, N. & Drakulić, S. (2011): Nyctalus lasiopterus Schreber, 1780 (Chiroptera: Vespertilionidae: first record for Kornati archipelago and first recent capture for Croatia

### **Nyctalus leisleri**

Choose the one that applies.

Range State

Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia - Mammals. State Institute for Nature Protection Zagreb

### **Nyctalus noctula**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006.

### **Pipistrellus kuhlii**

Choose the one that applies.

Range State

Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006.

### **Pipistrellus nathusii**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Pipistrellus pipistrellus**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006.

**Pipistrellus pygmaeus**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Pipistrellus savii**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Plecotus auritus**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 - 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Plecotus austriacus**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia - Mammals. State Institute for Nature Protection Zagreb  
Kipson, M. (2012): „Fauna šišmiša (Chiroptera) na odabranim područjima Regionalnog parka Mura - Drava“.  
Mazija M., Domazetović Z. (2012): Istraživanje šumskih vrsta šišmiša u Parku prirode Medvednica, Tragus

**Plecotus kolombatovici**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia - Mammals. State Institute for Nature Protection Zagreb.

**Plecotus macrobullaris**

Choose the one that applies.

Range State

## Published distribution reference

> Tvrtkovic, N. (2006): Red Data Book of Croatia – Mammals. State Institute for Nature Protection Zagreb.

**Vespertilio murinus**

Choose the one that applies.

Range State

## Published distribution reference

> EUROBATS - Fourth National Report on the Implementation of the Agreement in Croatia 2004 – 2006, Inf. Eurobats.Mop5.15.rev.1, Croatian Natural History Museum and Ministry of Culture, Nature Protection Directorate , August 2006

**Order TESTUDINATA, Family CHELONIIDAE****Caretta caretta**

Choose the one that applies.

Range State

## Published distribution reference

> Lazar, B. et al. (2003): Temporal and spatial distribution of the loggerhead sea turtle *Caretta caretta* in the eastern Adriatic Sea: a seasonal migration pathway? Pages 283-284. In: Seminoff J.A. (Ed) Proceedings of the Twenty-second Annual Symposium on Sea Turtle Biology and Conservation. NOAA Tech. Memo. NMFS-SEFSC-503, Miami: 283-284

Lazar, B. et al (2004): Tag recoveries of the loggerhead sea turtle *Caretta caretta* in the eastern Adriatic Sea: implications for conservation, *Journal of the Marine Biological Association of the UK*, Volume 84, Issue 02, pp 475-480

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Tvrtković, N. et al. (2006): Red Book of Amphibians and Reptiles of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Lazar, B. et al (2011): Ingestion of marine debris by loggerhead sea turtles, *Caretta caretta*, in the Adriatic Sea, *Marine Pollution Bulletin*, Volume 62, Issue 1, Pages 43-47

Lazar, B. et al (2011): Accumulation of organochlorine contaminants in loggerhead sea turtles, *Caretta caretta*, from the eastern Adriatic Sea, *Chemosphere*, Volume 82, Issue 1, Pages 121-129

Lazar, B. et al (2011): Loggerhead sea turtles (*Caretta caretta*) as bioturbators in neritic habitats: an insight through the analysis of benthic molluscs in the diet, *Marine Ecology*, Volume 32, Issue 1, pages 65-74

Casale, P., Lazar, B. at al. (2012): Foraging grounds, movement patterns and habitat connectivity of juvenile loggerhead turtles (*Caretta caretta*) tracked from the Adriatic Sea, *Marine Biology*, Volume 159, Issue 7, pp 1527-1535

**Chelonia mydas**

Choose the one that applies.

Range State

## Published distribution reference

> Lazar, B. et al. (2004): The presence of green sea turtle *Chelonia mydas* in the Adriatic Sea. *Herpetological Journal* 14: 143-147.

Tvrtković, N. et al. (2006): Red Book of Amphibians and Reptiles of Croatia, Ministry of Culture, State Institute for Nature Protection, Zagreb

Lazar, B. et al. (2010): Diet composition of a green turtle, *Chelonia mydas*, from the Adriatic Sea, *Natura Croatica*, Vol. 19, N°1, 263-271