Ramsar Information Sheet

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Bosnia and Herzegovina

Hutovo Blato

Designation date	24 September 2001
Site number	1105
Coordinates	43°03'06"N 17°47'12"E
Area	7 824,00 ha

Color codes

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

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

1 - Summary

Summary

The Hutovo Blato Nature Park was established in 1995. This area has been recognized as a wetland of international importance and entered on the Ramsar list on 24 September 2001. Hutovo Blato is a small shallow wetland of Mediterranean area, situated in the lower course of the Neretva River, 20 km upstream from the Adriatic Sea, near the border with the Republic of Croatia. It encompasses wetland, lakes and rivers that provide good conditions for survival of numerous species living in wetlands and those species who enter area of Hutovo Blato during their migration. Water occupies the majority of the Hutovo Blato Nature Park area, i.e. 39% of the total surface area. The Nature Park consists of two separate geomorphological units: Lake Deran or Gornje Blato and Lake Svitava or Donje Blato. Gornje Blato consists of 5 smaller lakes: Deran, Orah, Drijen, Jelim and Škrka, interconnected by gullies, while Donje Blato, namely Lake Svitava was converted into a reservoir of the Čapljina Pumped-storage Hydroelectric Power Plant during the 1960ies. The wetland is supplied with water from numerous karst springs and the Neretva River connected with the Deran lake through the Krupa River. This area is a significant nesting site for the migratory birds on their way from northern and central Europe towards Africa. The birds use this area during the periods of migration, but also for wintering or permanently, as a habitat for some endangered species. The lower stream of Neretva River has a special value due to its prominent biodiversity which is confirmed by the presence of numerous rare and endemic species and species with the status VU, EN and CR according to the IUCN Red List of Threatened Species (version 2017-3). Considerable biodiversity of habitats has been recorded in the Hutovo Blato area - 45 associations grouped in 16 vegetation types. Fragmentation and destruction of habitats and overexploitation of resources in the post-war period caused a dramatic increase in the environmental degradation in the territory of Bosnia and Herzegovina generally, including the Hutovo Blato area.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Jaroslav Vego
Institution/agency	Institute for Physical Planning and Environmental Protection HNC
Postal address	Stjepana Radića 3, 88 000 Mostar Bosnia & Herzegovina
E-mail	jaroslav.vego@gmail.com
Phone	+387 36 312 189
Fax	+387 36 312 190

Compiler 2

Name	Barbara Pinjuh
Institution/agency	Institute for Physical Planning and Environmental Protection HNC
Postal address	Stjepana Radića 3, 88 000 Mostar Bosnia & Herzegovina
E-mail	barbara.pinjuh27@gmail.com

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

From year	2010
To year	2018

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Hutovo Blato

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

(Update) A. Changes to Site boundary	Yes ◉ No ○
(Update) The boundary has been delineated more accurately	☑
(Update) The boundary has been extended	☐
(Update) The boundary has been restricted	☐
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	☐
(Update) The Site has been delineated more accurately	☑
(Update) The Site area has increased because of a boundary extension	☐
(Update) The Site area has decreased because of a boundary restriction	☐

2.1.5 - Changes to the ecological character of the Site

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

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps	0

Boundaries description

The Ramsar Site boundaries are the ones of the Nature park "Hutovo Blato" in Bosnia and Herzegovina, part of the wider transboundary wetland complex of great natural importance that includes the Neretva Delta in Croatia. The Delta encompasses 30 km long reach of the Neretva River, from Hutovo Blato to the estuary. The lower Neretva valley occupies about 20,000 ha, of which 37% belongs to Hutovo Blato and 63% to the Neretva Delta. These two sites are equal considering ecological aspects, and the same birds use both sites during migration, wintering and mating. The full boundaries of the Hutovo Blato Site are shown on GIS shapefile.

2.2.2 - General location

a) In which large administrative region does the site lie? Federation of Bosnia and Herzegovina

b) What is the nearest town or population centre? Čapljina and Mostar are the nearest towns

2.2.3 - For wetlands on national boundaries only

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

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

2.2.4 - Area of the Site

Official area, in hectares (ha): 7824

Area, in hectares (ha) as calculated from GIS boundaries: 7843.4

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Mediterranean
Freshwater Ecoregions of the World (FEOW)	419: Dalmatia

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

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

Hydrological services provided	Hutovo Blato wetland is a typical freshwater wetland of Mediterranean climate, with an open system of lakes and streams with lush vegetation of rivers and wet meadows. It consists of two distinct geomorphologic entities; Deransko or Gornje Blato and Svitavsko or Donje Blato. The Gornje Blato consists of five smaller lakes: Deran, Orah, Drijen, Jelim and Škrka (lakes have rocky bottom at 2 to 7 m below sea level, where permanent upward springs are present), which are interconnected by ravines, while the Donje Blato, or Lake Svitava, at the end of the seventies of the twentieth century was converted into an accumulation lake for the reversible hydroelectric power plant Čapljina. Most of these streams and lakes are shallow (1-5 m deep) and have muddy bottoms, except for the lake Jelim (17m). It is surrounded by massive uplifts and karst fields with typical geological forms characteristic for karst, so surface runoff is extremely reduced. Water is mainly running under the ground, through a complex system of underground flows. Storage of water in enclosed karst fields, happening because of a large quantity of precipitation, and consequently, a large inflow of water during the period of rains, causes activation of sinkholes and sinkhole zones which replenish springs at the lower horizons. Under natural conditions, during dry periods, when the fields are dry, there is no water infiltration into the underground and, consequently, no replenishment of Hutovo Blato. A marsh depression of Hutovo Blato is simultaneously affected by two large hydrological systems: the Trebišnjica River (with the Bregava River) hydrological system and the Neretva River hydrological system. The entire quantity of water flowing into the Hutovo Blato comes from the immediate Hutovo Blato catchment, from sinking water in the lower reach of the Bregava channel, from water sinking in the lower part of Popovo Polje field, and from water which is under the influence of the Neretva River. The area is replenished with water from springs and spring areas in the northern and northwestern edge of the Svitavsko Blato depression, and the southern, eastern and north-western edge of the Deransko Blato depression. These springs have determined underground connections with sinkholes in the downstream part of Popovo Polje (Crnulja and Doljašnica), and in sinkhole zones in Dabarsko Polje and the Bregava River channel. The ground elevations in the area of the Svitavsko Blato-Deransko Blato depression are between 1.5 and 3.0 m a.s.l., while the Krupa River bottom elevation along the entire length is 1.5 m below sea level (el. -1.5 m a.s.l.). As consequence, when the Neretva River water levels are extremely high, the water flows upstream, i.e. the Neretva flows upstream into the Krupa River and Deransko Blato depression. This is the reason that under natural conditions Hutovo Blato has a role of natural retention basin, mitigating high water waves in the downstream reach of the Neretva River.
Other ecosystem services provided	Due to its natural features, Hutovo Blato is one of the most important parts of the Neretva River, and as such was declared a Nature Park in 1995, and in 2001 it was entered into the Ramsar Convention as a wetland of international significance. This is the last remnant of a wetland in the river basin of the lower Neretva River course in Bosnia and Herzegovina. Generally, this area is valuable for the preservation of an overall landscape and biological diversity of Europe, particularly because of its importance for migrations and survival of numerous bird species, prominent biodiversity of freshwater fish fauna and the high level of endemism. The diversity of its vegetation is unique because of the vicinity of the Adriatic Sea and abundance of water surrounded by karst mountain land. The specific geomorphological and hydromorphological characteristics are also of great importance since the Site is, together with the Neretva Delta, a rare remnant of a wetland in the Mediterranean, and a rare remnant of a wetland in karst.
Other reasons	Hutovo Blato is a Ramsar site in which the Neretva River transits from its canyon reach into the delta area, unique for its specific geomorphological, geological, hydrological, biological and landscape characteristics, significant for archaeological sites and economically valuable for the local population and greater region. Conservation and preservation of these characteristics and valuable assets for the present and future generations rely on setting up of high and exemplary standards of the environmental management and creation of a baseline for survival and development of the local community as the only safeguard of the Hutovo Blato sustainability and its protection against external impacts.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification

The International Council for Bird Preservation (ICBP), currently the Birdlife, enlisted Hutovo Blato as an internationally important bird habitat in 1998. The IBAs are key areas for preservation, sufficiently small to be preserved in their entirety, and frequently already included into a network of protected areas. Within IBA, two wetland-dependent threatened bird species have been recognized which regularly appear in Hutovo Blato in significant numbers. These are Aythya nyroca (ferruginous duck) and Phalacrocorax pygmeus (pygmy cormorant).
In the area of Hutovo Blato species characteristic for this biogeographic region and numerous endemic species are recorded. Some of endemic species such as Adriatic roach, (Rutilus basak) and Neretvanian nase (Chondrostoma knerii), survived only in smaller parts of lake Svitava, rich in underwater springs that create refugees for these species, especially during warming of the lake in the summer season. In general, water is very rich in nutrients, which is followed by the high growth of macro algae and water plants during summer season. The most valued species in term of biodiversity and conservation are endemic native species. Few of them are characteristic only of lower Neretva river and Hutovo blato wetlands, such as Dentex Trout, Neretvanian Nase and Neretvan Spinned loach, as well as small Gobies that are potentially new species of these small fishes in Svitava lake. The other endemic species have a wider distribution, mostly also in other rivers of eastern Adriatic catchment area. Among all other native species, the Adriatic dace adapted well to newly created living conditions in artificial Svitava lake.
According to the Life project (2001), in the area of the Nature Park "Hutovo blato" there were 163 species of birds from 39 families, more than 700 plant species were found. The swamp and water plant communities are the main ecosystems in the Park, and the basic factor for the development of certain types of vegetation is the level of groundwater. In the research of fish fauna in the area of wetland of Hutovo blato, 43 species of fish were registered, among which 12 endemic species of the very narrow area of occurrence. In the survey conducted in 2011, representatives of 9 species of amphibians were identified and representatives of 13 reptile species were recorded. More about Amphibians and Reptiles in 4.3.2 Animal species >Other noteworthy animal species.

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

☑ Criterion 6 : >1% waterbird population

☑ Criterion 7 : Significant and representative fish

Justification

Recent ichthyological research have found that most of the 43 species, 35 genus and 19 fish families found in Hutovo Blato (63%) are indigenous species, of which 15 are endemic species of the narrow area of distribution and 15 are alien species. Of the total number of species, 30% are covered by Annex III of the Bern Convention, and more than half are in one of IUCN categories of vulnerability. The waters of the Hutovo Blato are also specific to the fact that there is a number of sea fishes that temporarily reside in this area, among which is a particularly interesting Platichthys flesus (European Flounder) that comes here to feed before the spawning at the estuary of Neretva River.

☑ Criterion 8 : Fish spawning grounds, etc.

Justification

Hutovo Blato wetland supports a large number of indigenous fish species, species and families in certain life stages where they come into the waters of this area. The Hutovo Blato area is a valuable habitat which provides quality conditions for the development, spawning, feeding, nursery and courting of fish species that are dependent of this type of habitat, thus contributing to global biodiversity. Further information available in 3.3. Animal species.

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

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Baldellia ranunculoides	Lesser Water-plantain, Crowfoot-Alisma	☑	☐	☐	NT	☐	National Red List - CR	
Carex divisa	Salt Meadow Sedge	☑	☐	☐	LC	☐	National Red List - VU	
Celtis tournefortii	Oriental Hackberry	☑	☐	☐		☐	National Red List - VU	
Cyclamen hederifolium hederifolium	Persian violet	☑	☐	☐		☐	National Red List - CR	
Cyclamen repandum	Wavy Cyclamen	☑	☐	☐		☐	National Red List - CR	
Hippuris vulgaris	Mare's-tail	☑	☐	☐	LC	☐	National Red List - VU	
Hottonia palustris	Water Violet	☑	☐	☐	LC	☐	National Red List - EN	
Hydrocharis morsus-ranae	European Frogbit	☑	☐	☐	LC	☐	National Red List - VU	
Ludwigia palustris	Hampshire-Purslane	☑	☐	☐	LC	☐	National Red List - CR	
Marsilea quadrifolia	Water Shamrock, Common Water Clover	☑	☐	☐	LC	☐	National Red List - VU	
Nuphar variegata	Yellow Water-lily	☑	☐	☐		☐	National Red List - VU	
Orchis simia	Monkey Orchid	☑	☐	☐		☐	National Red List - VU	
Orchis spitzelii	Spitzel's Orchid, Spitzel's Orchis	☑	☐	☐		☐	National Red List - CR	
Periploca graeca	Silk Vine	☑	☐	☐		☐	National Red List - VU	
Ruscus aculeatus	Butcher's-broom	☑	☐	☐		☐	National Red List - VU	
Thelypteris palustris	Marsh Fern	☑	☐	☐	LC	☐	National Red List - VU	
Utricularia vulgaris	Greater Bladderwort	☑	☐	☐	LC	☐	National Red List - VU	
Veronica anagalloides	Véronique Faux Mouron	☑	☐	☐	LC	☐	National Red List - VU	

Ruscus aculeatus, known as butcher's-broom, is a low evergreen Eurasian shrub, with flat shoots known as cladodes that give the appearance of stiff, spine-tipped leaves. Small greenish flowers appear in spring, and are borne singly in the centre of the cladodes. The female flowers are followed by a red berry, and the seeds are bird-distributed, but the plant also spreads vegetatively by means of rhizomes. Ruscus aculeatus occurs in woodlands and hedgerows, where it is tolerant of deep shade, and also on coastal cliffs. It is also widely planted in gardens, and has spread as a garden escapee in many areas outside its native range.

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

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
Birds																		

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Aquila chrysaetos*	Golden Eagle	☑	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	National Red List - EN Annex I Birds Directive	The species is sedentary. In the area of Nature Park Hutovo blato is registered throughout the entire year (December-November). Sexually mature in the fifth year, monogamous. The nest is on the cliff or in the tree trunks. The nest building starts early in February. The female lays 1-3 eggs on which it lies 42-43 days. Diurnal feeder, Carnivorous. Hunts along the mountain slopes or forest edges. His diet consists mostly of rabbits, lizards and other birds. Wing range 1.90-2.20 m, life span - more than 25 years. This area is important for wintering, nesting and nursing of species, diet and raising young.
CHORDATA / AVES	*Aquila clanga*	Greater Spotted Eagle	☑	☑	☐	☐	☐	☐	☐	☐					☐	☑		Inhabits lowland forests, often beside lakes and rivers and swamps. Found in open areas only during migration season. They tend to return to their breeding grounds in February and March. Birds migrate on a broad front, tending to pass in singles, twos and threes with the occasional larger group. In Europe, over extensively managed agricultural land birds soar to c.100 m high when hunting. In the area of Nature Park Hutovo blato it arrives during autumn migration, September-November. Wing range 1,53-1,77 m, life span - more than 25 years. Inhabits lowland forests, often beside lakes and rivers and swamps. Important feeding and resting area.
CHORDATA / AVES	*Aquila pomarina*	Lesser Spotted Eagle	☑	☑	☐	☐	☐	☐	☐	☐					☐	☐	National Red List - CR Annex I Birds Directive	Hutovo Blato is important wintering grounds December-February, and important resting and feeding site during Autumn migration. Lesser Spotted Eagle feds on small birds, small mammals and reptiles. Migratory. Lives in forests near wet meadows and floodplain areas. Nests in the tree trunks of Oaks and Ash trees of floodplain area.
CHORDATA / AVES	*Ardea alba*	Great White Egret	☑	☑	☐	☐	☐	☐	☐	☐	17	2012		LC	☐	☐	National Red List - VU Annex I Birds Directive	Inhabits Hutovo Blato as important Wintering site December-February, during spring migration March-April and during autumn migration September-November. Lives in colonies near the rivers and swamps whose shores are overgrown with green vegetation. Builds nest in dense vegetation from intertwined branches and sticks. Male and female both take care of young (3-5 eggs). Feeds on smal animals found in water, fishes,small mammals, frogs and sometimes feeds on small birds and reptiles. Outside of the breeding season the species may feed solitarily or in small loose groups, flocks of hundreds or more individuals may form where food is abundant,Diurnal feeder but is most active at dawn and dusk.
CHORDATA / AVES	*Ardeola ralloides*	Squacco Heron	☑	☑	☐	☐	☐	☐	☐	☐	69	2012		LC	☐	☐	National Red List - VU Annex I Birds Directive	Inhabits areas near water with dense vegetation, difficult to notice, nests in colonies with other Herons. The nest is built from sticks and branches or in reed beds. After eggs laying (4-6 eggs), female or male incubates them. Period of incubation is 22-24 days. After incubation they feed their young for 45 days. Life span is 5-10 years. Wing range 71-86 cm. Hutovo blato supports species during nesting which occurs in May-August and during spring migration in March-April. The species is mainly crepuscular, roosting by day and night.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	*Aythya ferina*	Common Pochard	☑	☑	☐	☐	☐	☐	☐	☐	40	2012		VU	☐	☐		frequently nests in wetlands with dense reed beds.Requires well-vegetated eutrophic to neutral swamps, marshes, lakes and slow-flowing rivers with areas of open water and abundant emergent fringing vegetation.Nests in colonies. Female lays 8-10 eggs. The species is omnivorous, its diet consisting of seeds, roots, rhizomes, the vegetative parts of grasses, sedges and aquatic plants as well as aquatic insects and larvae, molluscs, crustaceans, worms, amphibians and small fish.Registetred in Hutovo Blato during wintering season, spring migration December-April, and during autumn migration September-November.
CHORDATA/ AVES	*Aythya nyroca*	Ferruginous Duck	☑	☑	☐	☐	☑	☐	☐	☐	1847	2012		NT	☐	☑	National Red List - EN Annex I Birds Directive	Hutovo Blato supports this species during entire year December-November. Lays eggs between May and June. Inhabits wetlands and feeds on insects and aquatic plants. It shows a strong preference for fresh standing water and is very rarely found on flowing streams or river. It requires shallow water 30-100 cm deep close to littoral vegetation for feeeding and generally avoids large open areas, also found on shallow mudflats, possibly as a result of more accessible and abundant invertebrate food sources in this habitat. Nest is made of aquatic plants on the ground. Lifespan is 8years. Wingspan 60-67 cm.
CHORDATA/ AVES	*Bubo bubo*	Eurasian Eagle-Owl	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - VU Annex I Birds Directive	The species inhabits extremely varied habitats, from cliff faces in mountainous regions to steep slopes in low woodlands. In winter, occurs on flat land. The diet consists of small and medium-sized mammals and birds. The species is monogamous. It nests on sheltered cliff ledges or in crevices, in a cave entrance, on the ground on steep slope or on flatter ground in taiga. Occasionally it uses old tree nests of other species and rarely in hole in tree. The same site is often used for several years. Clutches are usually two to four eggs. Hutovo Blato wetland suports this species during spring migration and during autumn migration (September-February). Life span 10-20 years.Wing span 1,38-1,70m
CHORDATA/ AVES	*Ciconia ciconia*	White Stork	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - EN Annex I Birds Directive CMS Appendix II	Inhabits open areas, generally avoiding regions with persistent cold, wet weather or large tracts of tall, dense vegetation. The birds prefer natural or extensively managed lowland wet grassland or cultivated farmland, preferably with ponds and streams, as this provides abundant prey. The species is carnivorous and opportunistic. Diet mainly consists of frogs, snakes, fish and rodents. Nests are placed mainly on houses, but there are also colonies on trees and infrequently on rocks. The nest is constructed of sticks and is commonly positioned up to 30 m above the ground.T his site supports White Stork during spring migration (March-April) and during autumn migration(September-November).
CHORDATA/ AVES	*Circaetus gallicus*	Short-toed Snake Eagle	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - VU Annex I Birds Directive	Feeds mostly on snakes and lizards, rarely rats or other small mammals. Nesting is generally in high trees, and thus requires areas of mature woods alternanting with open habitats in plains or hills. Hutovo Wetland supports this species during spring migration, nesting and autumn migration. Inhabits open lowlands along the edge of the hill.
CHORDATA/ AVES	*Circus aeruginosus*	Western Marsh Harrier	☑	☐	☐	☐	☐	☐	☐	☐	39	2012		LC	☐	☐	National Red List - VU Annex I Birds Directive	The species is tied to larger reedbeds of lagoons, rivers or ponds. Predator. Feeds mostly on small birds, small mammals and reptiles. The nest is a pile of reeds built in dense marsh vegetation. Present in Hutovo Blato during entire year. Life span over 15 years. Wings span 1,10-1,25 m.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Circus pygargus*	Montagu's Harrier	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - VU Annex I Birds Directive	Hutovo Blato supports this species during autumn migration September-November. Looks for open land, usually inhabits lowlands with low vegetation where it can easily spot its prey. Feeds on small animals and birds. Female builds nests from grass in high vegetation.
CHORDATA / AVES	*Egretta garzetta*	Little Egret	☑	☑	☐	☐	☐	☐	☐	☐	488	2012		LC	☐	☐	National Red List - VU Annex I Birds Directive	Nests in colonies in swamps and river estuaries with trees which are essential for nest building. Nests are usually distanced 3-4m. The site supports the species during an entire year. It is a highly opportunistic feeder, taking mainly small fish under 20 g in weight and less than 10 cm long, aquatic and terrestrial insects and crustaceans as well as amphibians, molluscs, spiders, worms, reptiles and small birds.
CHORDATA / AVES	*Eremophila alpestris*	Horned Lark	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - VU	
CHORDATA / AVES	*Falco columbarius*	Merlin	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - VU Annex I Birds Directive	Inhabits open spaces, hills and during the winter it can be found along shores. Feeds mostly on small birds. The nest is built on the ground, in tree cavities or uses old Crows nests. The site supports the species during spring (March-April) and autumn migration (September-November).
CHORDATA / AVES	*Gallinago gallinago*	Common Snipe	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - EN	Frequent in wetlands, most active during the night. Hides in shrubs. During courting, male slides down sharply with a loud buzzing. The feathers on the tail produce the buzzing sound. The species uses Hutovo Blato wetland as wintering grounds and as stopovers during spring and autumn migration.
CHORDATA / AVES	*Gallinago media*	Great Snipe	☑	☑	☐	☐	☑	☐	☐	☐				NT	☐	☐	Annex I Birds Directive	The preferred nesting habitats are marshland, flood-plain meadows and river valleys. Outside the breeding period, the species inhabits stubble fields and fern-covered ground. Its diet consists predominantly of earthworms as well as gastropods, adult and larval terrestrial insects (beetles, tipulids), and the seeds of marsh plants. It breeds from early-May to early-July and nests solitarily, although it has a polygamous mating system. Great Snipe uses Hutovo Blato wetland as a stopover during spring (March-April) and autumn migration (September-November).
CHORDATA / AVES	*Grus grus*	Common Crane	☑	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	National Red List - NT Annex I Birds Directive	Before mating, Common cranes perform very loud and complicated courting dance which is commonly named „Crane dance". The nest is a mound of wetland vegetation (which may be re-used from year to year), generally placed in or near water. Whilst breeding, pairs are solitary with large nesting territories. The species is registered in area of Hutovo Blato during spring migration March-April, and during autumn migration September-November. Common crane uses this site as a stopover and feeding area.
CHORDATA / AVES	*Ixobrychus minutus*	Little Bittern	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - EN Annex I Birds Directive	Inhabits dense swamp vegetation especially reed beds where it nests. The nest is constructed from reeds and twigs. Little Bittern arrives at Hutovo Blato wetland during spring migration March-April where it stays during nesting April-July. Female lays 4-8 eggs. It lives site in time for autumn migration (September-November). The diet is composed mostly of insects, and secondarily small fish and amphibians.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Lanius minor*	Lesser Grey Shrike	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - NT Annex I Birds Directive CMS Appendix II	Inhabits open areas with trees. Arrives at Hutovo Blato wetland during spring migration in March-April. It nests in this area from May to Jul. Female lays 5-6 eggs. The nest is built by both sexes. Prey is taken from the ground and air. Food hoarding is rare. Stays on the site till November when it leaves for wintering grounds in south.
CHORDATA / AVES	*Limosa limosa*	Black-tailed Godwit	☐	☑	☐	☐	☑	☐	☐	☐				NT	☐	☐	National Red List - DD	Inhabits wet meadows and during winter it is found along seashore. Hutovo Blato is used as a stopover during spring (May-April) and autumn migration (September-November). During the autumn migration it may roost in flocks of tens of thousands at favoured sites, and this is the main moulting period for adult birds.
CHORDATA / AVES	*Microcarbo pygmeus*	Pygmy Cormorant	☑	☐	☑	☐	☐	☐	☐	☐	2232	2012	2.37		☐	☐	National Red List - CR Annex I Birds Directive	Sedentary species. Pygmy Cormorants prefer wetlands, fresh or brackish, with abundant marshy vegetation, and during winter they inhabit areas with higher salinity and estuaries. They nest from May to Jul. Feed mainly fish, caught by diving in shallow water (fish up to 15 cm long). The preferred nesting habitat is willow Salix trees. Population: Black Sea and Mediterranean. http://wpe.wetlands.org/view/1489
CHORDATA / AVES	*Nycticorax nycticorax*	Black-crowned Night-Heron; Black-crowned Night Heron	☑	☑	☐	☐	☐	☐	☐	☐	47	2012		LC	☐	☐	National Red List - EN Annex I Birds Directive	Usually on trees during the day. Crepuscular and nocturnal, but may feed diurnally. Arrives at the site during spring migration March-May and remains during nesting season May-July. The birds need freshwater wetland habitats with dense vegetation: ponds, marshes, rice fields, humid meadows, etc. Behaviour outside of the breeding season varies much throughout its range, some populations remaining highly gregarious throughout the year and gathering in flocks of hundreds or thousands to roost, others being largely solitary except when roosting or on migration.
CHORDATA / AVES	*Pandion haliaetus*	Western Osprey; Osprey	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - EN Annex I Birds Directive CMS Appendix II	Birds are generally solitary and usually migrate alone, but may congregate in small groups at roosts or plentiful food sources. Carnivorous. Almost its entire diet consists of live fish. Birds usually build large nests high in exposed trees. Smaller raptor species can normally finish their moult before the post-breeding migration, but larger ones, which take longer to grow their feathers, arrest moult during migration, and continue after reaching winter quarters. Arrives at the site during spring (March-May) and autumn (September-November) migration. Uses the site as a stopover for resting and feeding.
CHORDATA / AVES	*Platalea leucorodia*	Eurasian Spoonbill	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - VU Annex I Birds Directive CITES Appendix II CMS Appendix II	Present at the site during spring (March-May) and autumn (September-November) migration. Most active during the morning and evening and often roosts communally up to 15 km away from feeding areas. It inhabits either fresh, brackish or saline marshes, rivers, lakes, flooded areas and mangrove swamps, especially those with islands for nesting or dense emergent vegetation (e.g. reedbeds) and scattered trees or scrubs (preferably willow Salix spp., oak Quercus spp. or poplar Populus spp.). Carnivorous. Nest is a platform of sticks and vegetation. Both male and female incubate eggs.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Plegadis falcinellus*	Glossy Ibis	☑	☑	☐	☐	☐	☐	☐	☐	10	2012		LC	☐	☐	National Red List - EN Annex I Birds Directive CMS Appendix II	Often nests close to Herons and Spoonbills. Feed on insects and larvae. Present on the site during spring migration March-May. All populations of this species undergo post-breeding dispersal movements and are considerably nomadic. It shows a preference for marshes at the edges of lakes and rivers, as well as lagoons, flood-plains, wet meadows, swamps, reservoirs, sewage ponds, rice-fields and irrigated cultivation. The nest is a platform of twigs and vegetation usually positioned less than 1 m above water in tall dense stands of emergent vegetation (e.g., low trees or bushes over water).
CHORDATA / AVES	*Streptopelia turtur*	European Turtle Dove; European Turtle-Dove	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☐	CMS Appendix II	Resident species. It mainly feeds on the ground taking seeds and fruits of weeds and cereals, but rarely also berries, fungi and invertebrates. Nesting at the site commences in May and lasts till July. The nest is a small platform of twigs lined with plant material and placed in the lowest parts of trees and in shrubs and hedges.
CHORDATA / AVES	*Tringa totanus*	Common Redshank	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - EN	Present in area of Hutovo Blato during winter December-February, during spring migration which occurs March-May and during autumn migration. The species takes insects, spiders and annelid worms, as well as molluscs, crustaceans and occasionally small fish and tadpoles. The nest is a shallow scrape or hollow on a hummock or at the base of a tuft of grass, often well hidden by overhanging leaves. The species usually nests solitarily inland but in loosely colonial groups on the coast.
CHORDATA / AVES	*Turdus pilaris*	Fieldfare	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	National Red List - CR	Hutovo Blato wetland is used by this species as a wintering ground December-February and it's present during the spring migration March-May and autumn migration September-November. Feeds on insects, fruit and larvae. The nest is a bulky, untidy cup, made of twigs, roots, moss, lichen, grass and leaves, lined with animal hair, rootlets and fine grass, and cemented with mud. It is generally sited in the fork of a tree or against the trunk or on a branch, usually towards upper levels of tree and normally at least two metres off the ground but occasionally on ground, or in a cliff face. Lifespan 5-10 years.
CHORDATA / AVES	*Vanellus vanellus*	Northern Lapwing	☑	☑	☐	☐	☑	☐	☐	☐				NT	☐	☐	National Red List - VU	Present at the site during winter December-February, spring migration March-May and autumn migration September-November. Feed on insects and larvae. The nest is a shallow scrape in short grass vegetation.
Fish, Mollusc and Crustacea																		
CHORDATA / ACTINOPTERYGII	*Alburnus neretvae*	Neretva Bleak, Neretvanska Ukljeva	☐	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐		Endemic species, native to Bosnia and Herzegovina and Croatia. Found in the Neretva River drainage including Lakes Kuti and Bačinska, Hutovo blato wetland, waters of karstic fields Rastoke and Jezero near Vrgorac, Mušnica River (Gatačko polje), Trebišnjica River (Popovo polje) and Tihaljina/Trebižat River system.Even though there are threats to other endemic fishes in the Neretva river (invasive species), dams, water abstraction, drought and agricultural pollution are threats to the species) these do not seem to impact this species in a way that qualifies for any threatened category.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	*Anguilla anguilla*	European eel; European eel; European eel; European eel; European eel	☑	☑	☐	☐	☐	☐	☐	☑				CR	☐	☐	National Red List - LC CITES Appendix II CMS Appendix II	At the end of their growth period, they become sexually mature and the eels migrate to the sea where they inhabit deep waters. They live on the bottom, under stones, in the mud or in crevices. They evolve into small eels before moving into freshwater basins.in all Neretva estuary eel is highly esteemed in the area of Hutovo Blato, and because of that major object of all fish activities The pressure is especially high in the last years, because of excellent price and bad social conditions in the area. It is evident that even eel use cold streams, rich in juveniles of endemic species, as a feeding grounds. The Deran Lake is surely the best habitat for eel, and this is confirmed by its quantity
CHORDATA/ ACTINOPTERYGII	*Chondrostoma knerii*	Dalmation Nase	☑	☑	☐	☐	☑	☐	☑	☑				VU	☐	☐	National Red List - EN	It is endemic species found in Lower Stream of the Neretva River, Buna and Hutovo Blato. Chondrostoma knerii is potentialy endangered by the increasing degradation of the habitat and pollution of the lower Neretva river. Present during migration and spawning in the Hutovo blato wetlands, also after spawning and metamorphosis to juvenile fish, neretvanian nase use streams of Hutovo blato wetlands, such as Londža and Jelimski potok stream as nursery grounds (December to April).
CHORDATA/ ACTINOPTERYGII	*Cobitis narentana*	Neretvanski vijun	☑	☐	☐	☐	☑	☐	☑	☑				VU	☐	☐	National Red List - VU	Endemic species, native to Bosnia and Herzegovina. This species is restricted to a single part of a river basin where it is threatened by the introduction of alien species, water pollution, and impacts from agriculture. The sistematic status of species in confused as in the www.fishbase.org list is cited as Cobitis taenia taenia (Linnaeus, 1758). But, new findings of Croatian authors (Mrakovčić et al., 2001) cited it as a separate and endemic species of Neretva river in Croatia recognised as Cobitis narentana. Spawning occurs two or three times from April to the beginning of August, depending on the size and age of the females.
CHORDATA/ ACTINOPTERYGII	*Gasterosteus aculeatus*	Three-spined stickleback	☑	☑	☐	☐	☐	☐	☐	☑				LC	☐	☐	National Red List - EN	Inhabits vegetated areas, usually over mud or sand. Forms schools. Feeds on worms, crustaceans, larvae and adult aquatic insects, drowned aerial insects, and small fishes. Just before breeding, males become very territorial. Once a nest is built, the male entices the female into the nest by performing a courtship dance, which is a series of zigzag movements. A receptive female follows the male who points the opening of the nest by posing above it with his head down. The female enters the nest, deposits eggs, and is driven out by the male after eggs have been deposited. The male then enters the nest to fertilise the eggs. The male guards and ventilates the eggs and young.
CHORDATA/ ACTINOPTERYGII	*Knipowitschia croatica*	Neretva dwarf goby	☑	☐	☐	☐	☑	☐	☑	☑				VU	☐	☐		Endemic species native to Bosnia and Herzegovina and Croatia restricted to the karstic River Matica, Neretva and Lake Baćina (Polje Jezero) in Croatia and Bosnia-Herzegovina. Spawning season occurs in February. Main threats are eutrophication, water pollution and extraction and alteration of the habitat.
CHORDATA/ ACTINOPTERYGII	*Knipowitschia radovici*	Norin goby	☑	☐	☐	☐	☑	☐	☑	☑				VU	☐	☐		Endemic species native to Bosnia and Herzegovina and Croatia. There is no enough data about biology of this species so it is difficult to identify the exact causes of the threat. However, due to limited range of this type is certainly sensitive to eutrophication, pollution and any other change in habitats. It is assumed that the spawning is taking place during February and March, as in other species from the genus Knipowitschia.

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			2	4	6	9	3	5	7	8								
CHORDATA / CEPHALASPIDOMORPHI	*Lethenteron zanandreai*	Lombardy Brook Lamprey, Lombardy Lamprey	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II and III ,Habitats Directive Annex II and V	
CHORDATA / ACTINOPTERYGII	*Liza saliens*	Leaping mullet	☐	☑	☐	☐	☐	☐	☐	☑				LC	☐	☐		It inhabits coastal waters. Mostly feeds on plant decomposed material and detritus. Utilised for roe, but also fresh, smoked and frozen. This is most abundant mullet species in the Eastern Adriatic, and especially in low saline waters and estuaries. The big schools of juveniles are frequent on the sand and mud beaches of the Neretva River. Leaping mullet is less esteemed species of all mullets, but ability to grow in freshwater bodies makes them interesting for aquaculture. The finding of leaping mullet is surprising, as it is rear to find this species is freshwater bodies, although they may tolerate low salinity. Only older fish migrate to these waters.
CHORDATA / ACTINOPTERYGII	*Mugil cephalus*	Bright mullet	☐	☑	☐	☐	☐	☐	☐	☑				LC	☐	☐		Very frequent in Mediterranean and Adriatic coastal water, with higher abundance in the zones with lower salinities. Adult fish tend to feed mainly on algae while inhabiting fresh waters. Reproduction takes place in the sea, from July to October. Females spawn 5 to 7 million eggs provided with a notable vitellus. This is one of the traditional and esteemed fish commodities in the Neretva river estuary, most favoured by local people. Very important commercial species due to high quality flesh and excellent prize of dried and smoked roe.
CHORDATA / ACTINOPTERYGII	*Perca fluviatilis*	Redfin perch	☐	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐		Endemic species in Bosnia and Herzegovina, native. No major threats known. In Hutovo Blato it was found only in Deransko jezero lake.
CHORDATA / CEPHALASPIDOMORPHI	*Petromyzon marinus*	Stone sucker; Nannie nine eyes	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Habitats Directive Annex II ,Bern Convention Annex III	
CHORDATA / ACTINOPTERYGII	*Platichthys flesus*	Flounder	☐	☑	☐	☐	☐	☐	☐	☑				LC	☐	☐		During winter adults retreat to the deeper, warmer waters where they spawn in spring. Feeds on small fishes and invertebrates. Nocturnal and burrowing. Both juveniles and adults enter freshwater bodies searching for prey. Flounder is esteemed and expensive fish in the local markets in Croatia, but not because of high flesh quality. The reason is that it is very rare. This species was caught mostly in eel traps in Krupa river.
CHORDATA / ACTINOPTERYGII	*Pomatoschistus canestrinii*	Canestrini's Goby	☐	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐		Endemic species,
CHORDATA / ACTINOPTERYGII	*Salmo dentex*	Dentex trout	☐	☐	☐	☐	☑	☐	☑	☑					☐	☐	National Red List - DD	Endemic species native to Bosnia and Herzegovina, Albania, Croatia, Greece and Montenegro. There is very few information on this species. It is suspected that it hybridises with trout species, but not enough information exists to determine the impact of this. Potential threats for the species might be illegal fishing because species is most likely targeted because of its size. It is also interesting to mention dentex trout as a sport-fishing object. Among, all salmonids in the Lower Neretva it is mostly appreciated. Migrates to Hutovo blato in advanced life stage and uses the site as nursery grounds. Found only in water bodies with colder and stable temperature conditions.
CHORDATA / ACTINOPTERYGII	*Salmo marmoratus*	Marbled trout	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Habitats Directive Annex II	
CHORDATA / ACTINOPTERYGII	*Sander lucioperca*	European pike-perch	☐	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐		Native endemic species in Bosnia and Herzegovina. On territory of Hutovo Blato it was found in Deransko jezero lake. There are no known major widespread threats.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	*Scardinius plotizza*	Neretva rudd, Peškelj	☐	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	National Red List - DD	Endemic species of the narrowest regional Adriatic coast of Croatia and Bosnia and Herzegovina - Lower Stream of the Neretva River. Due to its limited range, Scardinius plotizza is very sensitive to fragmentation and reduction of habitats, uncontrolled pumping of fresh water and its contamination.
CHORDATA/ ACTINOPTERYGII	*Scardinius scardafa*	Rudd	☑	☐	☐	☐	☐	☐	☐	☑				CR	☐	☐		In the Hutovo blato rudd spawns from March to June, depending on climatic conditions. Females attach eggs on the underwater plants. In Deran Lake adult fish dominate, while colder waters are used as nursery grounds, and are inhabited mostly with smaller fish. The Svitava Lake is dominated with of common carp species and they influence rudd population, through competition for food and possible preying of rudd eggs. We may conclude that rudd population in Svitava Lake is endangered.
CHORDATA/ ACTINOPTERYGII	*Squalius squalus*	No common name, Strugača	☐	☐	☐	☐	☑	☐	☑	☑				LC	☐	☐		Endemic species, native to Bosnia and Herzegovina, Croatia, Italy, Slovenia and Switzerland. Most abundant in small rivers and streams with riffles and pools. May be restricted to very small pools during summer. Spawns in shallow riffle habitats in fast-flowing water. Also along shores of slowly flowing lowland rivers, even in very small mountain streams. Also in large lakes, undertaking spawning migrations to inflowing streams or spawning in very shallow water, over stones close to surf zone. This species is harvested for human consumption, and for sport fishing.
CHORDATA/ ACTINOPTERYGII	*Squalius svallize*	Adriatic dace	☑	☐	☐	☐	☑	☐	☑	☑				VU	☐	☐	National Red List - VU	Adriatic dace is endemic species of Adriatic freshwater rivers and lakes. Adriatic dace reproduces from April to June. It is open water spawner, attaching eggs on the substratum and plants. Dace use small and cold stream as a nursery grounds. Found in Jelimska jaruga stream and Londža stream. The number is significantly smaller in colder lakes, such as Škrka, Jelim and Deran lakes, but is constant and stable.
Others																		
CHORDATA/ AMPHIBIA	*Bombina variegata*	Yellow–bellied Toad	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II,Habitats Directive Annex II and IV	
CHORDATA/ REPTILIA	*Elaphe quatuorlineata*	Four-lined Snake	☑	☐	☐	☐	☐	☐	☐	☐				NT	☐	☐	Bern Convention Annex II,Habitats Directive Annex II and IV	
CHORDATA/ REPTILIA	*Emys orbicularis*	European Pond Turtle	☑	☐	☐	☐	☐	☐	☐	☐					☐	☐	Bern Convention Annex II,Habitats Directive Annex II and IV	
CHORDATA/ REPTILIA	*Hierophis gemonensis*	Balkan Whip Snake	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Habitats Directive Annex IV	
CHORDATA/ AMPHIBIA	*Hyla arborea*	Coomon Tree Frog	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II, Habitats Directive Annex II	
CHORDATA/ REPTILIA	*Lacerta trilineata*	Balkan Green Lizard	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II,Habitats Directive Annex II and IV	
CHORDATA/ REPTILIA	*Lacerta viridis*	Green Lizard	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II,Habitats Directive Annex IV	
CHORDATA/ MAMMALIA	*Lutra lutra*	European Otter	☑	☐	☐	☐	☑	☐	☐	☐				NT	☑	☐	National Red List - EN	Lutra lutra inhabits rivers, lakes, swamps, along the shore of the sea at the river estuaries, ponds, is found in all water environments where is high productivity of fish populations and where in peaceful conditions can raise its young. It is particularly frequent in the lowlands. Although predominantly feeds on fish, it may on feed tiny mammals and birds.
CHORDATA/ REPTILIA	*Natrix tessellata*	Dice Snake, Tessellated Water Snake	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Habitats Directive Annex IV, Bern Convention Annex II	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / REPTILIA	*Platyceps najadum*	Dahl's Whip Snake	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Habitats Directive Annex IV	
CHORDATA / REPTILIA	*Podarcis melisellensis*	Dalmatian Wall Lizard	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II,Habitats Directive Annex IV	
CHORDATA / REPTILIA	*Pseudopus apodus*	European Glass Lizard	☑	☐	☐	☐	☐	☐	☐	☐					☐	☐	Habitats Directive Annex IV	
CHORDATA / AMPHIBIA	*Rana dalmatina*	Agile Frog	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II, Habitats Directive Annex II	
CHORDATA / AMPHIBIA	*Rana graeca*	Greek Stream Frog	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Habitats Directive Annex IV	
CHORDATA / REPTILIA	*Testudo hermanni*	Hermann's Tortoise	☑	☐	☐	☐	☐	☐	☐	☐				NT	☐	☐	Bern Convention Annex II ,Habitats Directive Annex II and IV	
CHORDATA / REPTILIA	*Vipera ammodytes*	Nose-horned Viper	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Bern Convention Annex II, Habitats Directive Annex IV	

1) Percentage of the total biogeographic population at the site

Rutilus basak - Adriatic roach-This species is permanent inabitant of all waters in Hutovo blato wetlands, living and actively spawning there. It spawns in March-May period. This species is permanent inabitant of all waters in Hutovo blato wetlands, living and actively spawning there. The spawning period of Adriatic roach in Hutovo blato wetlands is March-April. The spawning sites are deeper and colder lakes such as Orah and Drijen. They spawn close to the lake banks, where they attached eggs to reed and other water plants.These fish occupied small streams like Londža and Jelimski potok where they can be found in large agreggations. Species contributes under criteria 3, 7 and 8.

Lutra lutra is permanently protected species under the hunting regulations of the Federation of BiH and Republika Srpska.

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Nuphar lutea	☑	N. lutea has leathery leaves, slightly oval in shape, to 40cm across. Yellow, cupped flowers are borne on stalks rising above the water from early summer to early autumn.	National Red List - VU
Typha angustifolia	☐	Perennial, growing to 3 m. It flowers from June to July. The species is monoecious and are pollinated by wind. It is noted that it's attracting wildlife.	Provides important reproduction, feeding and resting habitat for marsh birds.
Nymphaea alba	☑	This plant roots in the mud at the bottom of the lake, the circular floating leaves are dark green on the upper surface, and reddish below. The flowers float, the petals are white, and the stamens are bright yellow.	National Red List - VU
Phragmites australis	☐	Helophyte, forms reed beds, where conditions are suitable it can spread at 5 metres or more per year by horizontal runners,grows in damp ground,in standing water or as a floating mat,stems grow to 2–6 metres tall,the flowers are produced in late summer	Provides important reproduction, feeding and resting habitat for marsh birds.

Optional text box to provide further information

Hygrophytic and aquatic plant communities are the basic ecosystems in the Nature Park, and the basic factor for development of individual types of vegetation is groundwater level. Hygrophytic vegetation mostly belongs to class of the Phragmitetea, order of the Phragmitetalia, alliance of the Phragmition, association of the Scirpo Phragmitetum. It covers larger surfaces of uncultivated marsh, and borders channels, canals, brooks and the Krupa River. Association of the Myriophyllo Nupharetum occurs sporadically. Among aquatic vegetation, it is important to mention Yellow pond-lily (Nuphar luteum) L and white water-lily (Nymphaea alba) L, and species of wetland habitats, such as narrowleaf cattail (Typha angustifolia), common reed (Phragmites communis) Trin. and sedge (Carex sp.). The saw-sedge (Cladium mariscus) (L.) Pohl. and Bowles' golden sedge (Carex elata) All are encountered in somewhat higher, dryer grounds. The species to be mentioned among ground flora are common sage (Salvia officinalis) L., immortelle (Helichrysum italicum) (Roth.) Mill. Corr. Guss., winter savory (Satureja montana) L. etc. Different species of trees include South European flowering ash (Fraxinus ornus) L., Hop hornbeam (Ostrya carpinifolia) Scop., Mediterranean hackberry (Celtis australis) L., and shrubs include pomegranate (Punica granatum) L., Christ's thorn (Paliurus spina christi) Mill., Dalmatian laburnum (Petteria ramentacea) Presl., European cornel (Cornus mas) L., etc. Within the Nature Park, a natural revitalization is happening of the Narrow-leafed Ash (Fraxinus angustifolia) L. Another plants encountered here include osier (Salix purpurea) L., white willow (Salix alba) L., white mulberry (Morus alba) L., and fig tree (Ficus carica) L. In the surrounding hills, element of maquis are encountered typical for sub-Mediterranean areas, such as the Prickly juniper (Juniperus oxycedrus) L. and European holly (Phillyrea media) L.), and the largest areas under these trees are established on Crno Brdo. Among significant species, terebinth (Pistacia terebinthus) L. was found, and laurel (Laurus nobilis) L. was found in only one isolated island within the marsh.

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

4.1 - Ecological character

For the functioning of terrestrial and aquatic ecosystems, especially for the protection of water from different pollutants soil features are of key importance. Healthy soils are of great importance for agriculture and forestry sector - the economic sphere crucial to the sustainable development of Nature park and the inhabitants of its environment. At the same time, this role of the soil allows the survival of plant species of natural and aesthetic value, which is the attraction of the Park. Their soil provides a living space and contributes to the genetic wealth. In every type of soil, the best conditions are found by other plant species, which means that in Hutovo Blato we find a large number of species and variety appropriate to the type of soil. Water analysis showed that there is a slight chlorophyll deficiency, which is a characteristic of wetland areas, and in the summer period there is an evident increase in conductivity indicating an increase in salt in water. However, the general conclusion is that water meets the criteria in a respectable way (Good-Very good). The problem is actually reducing water in the Deransko Lake area. In such conditions, overgrowth of gullies and lakes is guaranteed, ie drying of wetland vegetation and its deposition. Since the hydromorphological state affects the final assessment of the ecological state or the total water status, it is estimated that certain measures related to inter-entity influences could lead to ecological state that would keep the ecological or total standing in good condition. Soil is a climate regulator because is the source of greenhouse gases - CO2 CH4 and NOx. This carbon can be kept in the soil in the form of humus or peat or emitted into the atmosphere, contributing to the "greenhouse effect" affecting the climate. Although the surface of Hutovo Blato is small, the amount of "greenhouse gases" especially carbon dioxide and methane is respectable. Hutovo Blato is of great importance as a huge "storage" of CO2. The Nature Park consists of two separate geomorphologic units: Deransko or Gornje blato and Svitavsko or Donje blato. In the area of the Gornje blato which is currently relatively intact, and which includes habitats of lakes, streams, springs and sunken meadows, mainly due to the temperature difference, there are important differences in the composition of the fish community. Amphibians are permanently endangered by water regime changes, various anthropogenic impacts such as polluting and flooding water surfaces and enriching water with nutrients, thus rapidly developing primary producers so that water surfaces are rapidly overgrown by herbs, leading to both drying and natural overgrowth of wetland habitats. The particular wealth of Hutovo Blato are bird species which in this area have abundant food and appropriate conditions for resting. A total of 8 mammal species were recorded on the Site.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	J	2	1402	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools	Ms	2		Representative
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils	Lp	1		Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Mp	1		Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands	Ms	1		Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Mp	3		Representative
Fresh, saline, brackish or alkaline water > Subterranean >> Zk(b): Karst and other subterranean hydrological systems		2		Representative

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
6: Water storage areas/Reservoirs	Svitavsko jezero	1	1000	Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Mountain area	3059

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/ACTINOPTERYGII	*Ameiurus nebulosus*	Horned pout;Horned pout;Minister;Hornpout;Mudcat;Northern brown bullhead;Brown catfish;Common catfish	No impacts	No change
CHORDATA/ACTINOPTERYGII	*Carassius gibelio*	Golden carp;Goldfish	No impacts	No change
CHORDATA/ACTINOPTERYGII	*Cyprinus carpio*	Common carp	No impacts	decrease
CHORDATA/ACTINOPTERYGII	*Gambusia holbrooki*	Holbrooks mosquitofish	Potentially	No change
CHORDATA/ACTINOPTERYGII	*Gymnocephalus cernua*	Ruffe	Potentially	unknown
CHORDATA/ACTINOPTERYGII	*Lepomis gibbosus*	Punky;Sun bass;Sunny;Yellow sunfish;Pumpkinseed sunfish	Actually (major impacts)	No change
CHORDATA/ACTINOPTERYGII	*Tinca tinca*	Green tench	No impacts	No change

Optional text box to provide further information

The reasons for the introduction of alien fish species are diverse, some of them are: a) improvement of economic fishing 60%, b) random 20% (introduced during
Restocking with Wild Common Carp as target species), c) regulation of water vegetation and plankton 13%, d) to control the number of mosquitoes 7%.
Lepomis gibbosus – Pumpkinseed- This species origin is North America. Occurs in quiet and vegetated lakes, ponds, and pools of creeks and small rivers. Feeds mainly on worms, crustaceans and insects but may also feed on small fishes and other vertebrates, as well as fish eggs. Considered undesirable catch. First reports about findings of this fish in Hutovo blato wetlands originated from research in the early seventies and reported in Kosorić (1978). They caught it only sporadically, but even in that time declared it as very dangerous. Their opinion about presence of pumpkinseed in their catch was that it was introduced during massive repopulation of common carp in Hutovo blato in the 1970-73 period. For the first time in the Neretva delta we noticed this fish during 1993, while fishermen in Hutovo blato reported that the species in fast propagation (Glamuzina, unpublished data). This coincides with war activities in the area of Hutovo blato, and no existence of any kind of control. This led to enormous fishing efforts in the wetlands with all kinds of fishing gear. Pumpkinseed spread not only inside Hutovo blato wetlands, but also to wetlands in the Croatian part of the estuary, starting to enter even brackish water. Originally warm water species, it has started to acclimate to cold water conditions of Hutovo blato wetlands. One of the early topic in preparation of topic proposal was the elimination of pumpkinseed from the Hutovo blato wetlands. Among tested the best fishing method is a trap for eel fishing. The gillnets are also efficient but need a lot of time and intensive work to be cleaned of fish. The main problem is the elimination of fish from reed-weed zones, which are difficult to access. In order to plan a project on massive elimination of pumpkinseed from Hutovo blato wetlands and waters of lower Neretva estuary, different fishing gear strategy are recommended, each gear applied in the specific habitat.

4.4 - Physical components

4.4.1 - Climate

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

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 1

a) Maximum elevation above sea level (in metres): 432

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

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

Neretva River Basin (Adriatic catchment)

4.4.3 - Soil

No available information ☑

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

Please provide further information on the soil (optional)

More information about salinity in section 5.2. How is the Site managed? > Threats and responses.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	decrease

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from groundwater	☑	decrease
Water inputs from rainfall	☑	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change
To downstream catchment	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

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

Hutovo Blato Nature Park is surrounded by karst massifs of highland and karst fields with typical geological forms characteristic of karst, so the surface runoff is ultimately reduced. Water flow is mostly under the ground, through a complex system of underground streams. Accumulation of water in closed karst fields, due to the large amount of precipitation and thus the high water flow in the rainy season, triggers the activation of abyss and abyss zones that feed the springs at lower horizons. In natural conditions during the dry season, when the fields are dry, there is no infiltration of the water in the underground or even the recharge of Hutovo Blato. The Hutovo Blato wetland depression is simultaneously under influence of two major hydrological systems: the hydrological system of the Trebišnjica River (along with Bregava) and the hydrological system of the Neretva River. Considering position, Svitavska and Deran depressions are open towards the valley of the Neretva River. The depression of Hutovo Blato is under the influence of the surface and underground waters of the Neretva, Trebišnjica and Bregava rivers. There is no direct flow of open surface flows. Underground water is the only means of recharging this area with water. The total amount of water flowing into Hutovo Blato is induced by water from the immediate Hutovo Blato river basin, the waters immersing in the lower part of the Bregava basin, the waters falling into the downstream part of Popova polje and the waters affected by the Neretva. The watering of this area is carried out through the spring and spring zones in the south and southwestern edges of Svitava depression, and in the south, east and northwestern part of Deranian depression. These springs have established underground connections with the underground waters in the downstream part of the Popova polje (Crnulja and Doljašnica), the abundant zones in the Dabarsko polje and in the Bregava river basin.

4.4.5 - Sediment regime

Sediment regime unknown ☐

<no data available>

4.4.6 - Water pH

Alkaline (pH>7.4) ☑

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

Unknown ☐

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

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

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic ☐

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

Mesotrophic ☐

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

Oligotrophic ☐

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

Dystrophic ☐

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

Unknown ☑

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

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

Surrounding area has greater urbanisation or development ☑

Surrounding area has higher human population density ☑

Surrounding area has more intensive agricultural use ☑

Surrounding area has significantly different land cover or habitat types ☑

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Water for irrigated agriculture	High
Fresh water	Water for energy production (hydro-electricity)	High
Fresh water	Drinking water for humans and/or livestock	High
Wetland non-food products	Livestock fodder	High
Genetic materials	Medicinal products	Medium
Genetic materials	Genes for resistance to plant pathogens	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Erosion protection	Soil, sediment and nutrient retention	High
Pollution control and detoxification	Water purification/waste treatment or dilution	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High
Climate regulation	Local climate regulation/buffering of change	High
Biological control of pests and disease	Support of predators of agricultural pests (e.g., birds feeding on locusts)	High
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	High
Soil formation	Accumulation of organic matter	High
Nutrient cycling	Carbon storage/sequestration	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Pollination	Support for pollinators	High

Within the site: 526

Outside the site: 41000

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

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland ☐

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☑

Description if applicable

Indigenous people and the local communities can contribute to Hutovo blato wetland to preserve biological and landscape diversity through extensive livestock farming, which keeps pastures and agricultural areas from plant owergrowth, but unfortunately in the last few years an ever smaller population is engaged in livestock farming. Agricultural areas under the fields located within the boundaries of the Park are mostly under cultivation intended for wild animals feeding. The development of beekeeping is on the rise, which contributes to the site in terms of an increased number of pollinators.

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland ☐

4.6 - Ecological processes

<no data available>

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

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Local authority, municipality, (sub)district, etc.	☑	☑
National/Federal government	☑	☑

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	☑	☑

Other

Category	Within the Ramsar Site	In the surrounding area
Unspecified mixed ownership	☑	☑

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

Distribution of private and state ownership within Nature Park Hutovo Blato: 47% is in private ownership and 53% is in state ownership.

5.1.2 - Management authority

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

Management of Nature park Hutovo Blato: Public Enterprise Hutovo Blato Nature Park, Čapljina, established by the
Herzegovina-Neretva Canton Assembly

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

Nikola Zovko, Manager

Postal address:

Karaotok bb, 88307 Višići
Herzegovina-Neretva Canton, Bosnia and Herzegovina
Telephone/Fax:+387 36 814 716/ +387 36 814 715
Email: info@hutovo-blato.ba,

E-mail address:

nikola.zovko.karaotok@tel.net.ba

5.2 - Ecological character threats and responses (Management)

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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Commercial and industrial areas	Low impact	Medium impact	☑	increase	☑	increase
Tourism and recreation areas	Low impact	Low impact	☑	No change	☑	No change
Housing and urban areas	Low impact	Medium impact	☑	No change	☑	increase

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Salinisation	Medium impact	High impact	☑	No change	☑	increase
Canalisation and river regulation	High impact	High impact	☑	No change	☑	increase

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Annual and perennial non-timber crops	Low impact	Low impact	☑	No change	☑	increase
Marine and freshwater aquaculture	Low impact	Medium impact	☑	increase	☑	increase
Livestock farming and ranching	Low impact	Low impact	☑	decrease	☑	increase

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Low impact	Low impact	☑	No change	☑	increase

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Utility and service lines (e.g., pipelines)	Low impact	Medium impact	☑	No change	☑	increase
Roads and railroads	Medium impact	High impact	☑	No change	☑	increase

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fishing and harvesting aquatic resources	Low impact	Medium impact	☑	No change	☑	increase
Gathering terrestrial plants	Low impact	Low impact	☑	No change	☑	No change
Hunting and collecting terrestrial animals	Medium impact	High impact	☑	No change	☑	No change

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Low impact	Medium impact	☑	No change	☑	No change
(Para)military activities	Medium impact	unknown impact	☑	decrease	☑	decrease

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression	Medium impact	High impact	☑	decrease	☑	increase
Dams and water management/use	High impact	High impact	☑	No change	☐	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	High impact	High impact	☑	increase	☑	increase

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water	Low impact	Medium impact	☑	No change	☑	increase
Agricultural and forestry effluents	Medium impact	Medium impact	☑	No change	☑	increase
Air-borne pollutants	Medium impact	Medium impact	☑	No change	☑	increase
Excess heat, sound, light	unknown impact	Medium impact	☑	No change	☑	increase
Garbage and solid waste	Medium impact	High impact	☑	No change	☑	increase

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Habitat shifting and alteration	Medium impact	High impact	☑	increase	☑	increase
Temperature extremes	Medium impact	High impact	☑	No change	☑	increase
Droughts	Medium impact	High impact	☑	No change	☑	No change
Storms and flooding	Medium impact	High impact	☑	No change	☐	No change

Please describe any other threats (optional):

Hydrological interventions in the Neretva river and the Trebišnjica river basin, such as reallocation of water, resulted in significant changes within these basins. By reducing the natural inflow of water, floods have been reduced, electricity production and improvement of the built infrastructure have been enabled, but the negative consequences of such water diverting on hydro power plants built within the "Upper Horizons" project are far more serious. The project "Upper Horizons" within which are by now built hydroelectric power plants Trebinje I, Trebinje II, PHE Čapljina and HE Plat, started in 1956 in former Yugoslavia and today are managed by the HEP, EP HZHB, EP BiH and EP RS companies without systematic coordination. The protected area of Nature Park Hutovo blato and part of the Neretva River Delta in the Republic of Croatia form a complete ecosystem and is dependent on developments in the upper stream of the Neretva River and for this reason it is necessary to consider the negative consequences that this project carries with it on a cross-border level. Negative impacts became more pronounced over time as water inflow from higher horizons decreased and consequently, penetration of sea water upstream of the Neretva River flow became easier, which further resulted in secondary soil salination and thereby is endangering agriculture, plant and animal communities and their habitats in these areas. The planned expansion of the project would cause changes in several karst springs and the groundwater level that inflows in Hutovo blato. In order to avoid irreparable damage to ecosystems, additional cross-border and cross-sectoral coordination in the management, use and protection of resources in the Neretva and Trebišnjica basins should be established, as well as the development of permanent measurement, monitoring and water resource management systems in basins.
In 2007, secondary acces road to the Hutovo blato (Klepci-(M17)-Prebilovci-Karaotok) was built, which unlike the road on the main entrance (Klepci(M17)-Gnjilišta-Karaotok), is not burdened by densely built facilities. The road Klepci (M17)- Prebilovci – Karaotok has good technical elements and good traffic permeability but it passes through an ecologically sensitive area and borders the swamp land near the Lake Škrka and it could potentialy interfere with nesting birds in this area.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Park	Hutovo blato		whole
Ornitho-fauna reserve	Hutovo blato		partly
Strict bird reserve	škrka		partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area		http://datazone.birdlife.org/site/factsheet/hutovo-blato-iba-bos nia-and-herzegovina	whole

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

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

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

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☐

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☑

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Habitat manipulation/enhancement	Proposed
Soil management	Proposed
Catchment management initiatives/controls	Implemented
Improvement of water quality	Partially implemented
Hydrology management/restoration	Partially implemented
Land conversion controls	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented
Control of invasive alien animals	Partially implemented

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Implemented
Livestock management/exclusion (excluding fisheries)	Implemented
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented
Regulation/management of recreational activities	Implemented
Research	Implemented
Regulation/management of wastes	Implemented
Management of water abstraction/takes	Implemented

Other:

Control of invasive alien animals: see information in section 4.3.2. Biological components.

5.2.5 - Management planning

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

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

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

URL of site-related webpage (if relevant): http://hutovo-blato.ba/

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

Further information

The restoration plan is partially implemented due to insufficient financial resources. Therefore, it is necessary to use the legal framework that foresees that the damage caused in the environment is borne by the one who caused the damage (Law on Environmental Protection of the Federation of Bosnia and Herzegovina and Law on environmental protection Herzegovina-Neretva Canton).

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Proposed
Water quality	Implemented
Soil quality	Implemented
Plant community	Implemented
Plant species	Implemented
Animal community	Implemented
Animal species (please specify)	Implemented
Birds	Implemented

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

1. Bukvić V.: (2012) Report on the status of amphibian populations in the Hutovo blato Nature Park, „Monitoring stanja biljnog i životinjskog svijeta nakon požara, devastacije i raspuštanja lovočuvarske službe“ period , srpanj 2012.- svibanj 2013.g., Čapljina
2. Dalmatin M.: (2013) Monitoring the status of avian populations in the Hutovo blato area for project purposes „Monitoring stanja biljnog i životinjskog svijeta nakon požara, devastacije i raspuštanja lovočuvarske službe“ period , srpanj 2012.- svibanj 2013.g., Čapljina
3. Dalmatin M., (2012) Monitoring of the status of bird populations in the area of Hutovo blato in relation to water levels in the period of April-September 2012. through the project “Dinaric Arc Sustainable Hydropower Initiative” of WWF Mediteranean Programme Office
4. Dalmatin M., Ćuktertaš M.,(2013) „Raj za ptice Hutovo blato“, Guide for bird watchers in Hutovo blato, Čapljina
5. Glamuzina, B., Tutman, P., Conides, A.: (2001) Report on ichthyological survey on Hutovo Blato wetlands. Europaean Union LIFE Third Countries Program and the Ministry of Civil Engineering and Nature Protection of Neretva – Herzegovina Cantonal Goverment/LTCY/035/BiH project: «Development of a new management policy for Hutovo Blato wetlands, Bosnia-Herzegovina»
6. Glamuzina,B., (2009). The fish population of Hutovo Blato wetland and its conservation status before and after dams were constructed and after construction. WWF Mediterranean Programme, Mostar, Bosnia and Herzegovina.
7. Tutman, P., Glamuzina, B., Bartulović, V,. Buntić, I. (2002) Endemic ichthyofauna of Hutovo Blato wetland. «Nova politika gospodarenja vlažnim područjima Hutova Blata». Završni simpozij LIFE Projekta LIFECY p. 45-48.
8. Tutman, P., Glamuzina B., Dulčić J., Zovko N.,(2012) Ichtyofauna of the Hutovo blato wetland (lower river Neretva, Bosnia and Herzegovina); Status and vulnerability,. g. , Croatian Journal Of Fisheries, 70, 2012, (4),169-185
9. The Hutovo blato Nature park management plan, Area of special features for the area of importance for the Herzegovina-Neretva canton „The Hutovo blato Nature park“, Mostar, Zagreb, June 2014.
10. Physical Plan for Areas of Special Features for the Area of Importance for the Herzegovina-Neretva Canton - the Hutovo Blato Nature Park 2013. - 2023., Mostar, February 2013.
11. Red List of fauna of the Federation of Bosnia and Herzegovina
12. Red List of flora of the Federation of Bosnia and Herzegovina
13. The IUCN Red List of Threatened Species. Version 2017-3. .
14. http://datazone.birdlife.org/species/search
15. http://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/per_species_en.htm

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<5 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<1 file(s) uploaded>

v. site management plan
<1 file(s) uploaded>

vi. other published literature
<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Educational trail (*Barbara Pinjuh, 20-04-2018*)


Karaotok (*Barbara Pinjuh, 20-04-2018*)


Karaotok (*Barbara Pinjuh, 20-04-2018*)


Karaotok (*Barbara Pinjuh, 20-04-2018*)


Karaotok (*Barbara Pinjuh, 20-04-2018*)


Educational trail (*Barbara Pinjuh, 20-04-2018*)


Educational trail (*Barbara Pinjuh, 20-04-2018*)


Lake Škrka (*Barbara Pinjuh, 20-04-2018*)


Lake Svitava (*Barbara Pinjuh, 20-04-2018*)


Nuphar lutea (*Barbara Pinjuh, 20-04-2018*)


Natrix tesselata (*Barbara Pinjuh, 20-04-2018*)


Vipera ammodytes (*Barbara Pinjuh, 20-04-2018*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation	2001-09-24