

Taxonomic List

Although in the area of Crna Mlaka and Pokupski Bazen there are no globally threatened species with IUCN status CR, EN or VU, there is a number of species of European conservation concern (European Red List status added along with the name of species) (State Institute for Nature Protection, NATURA 2000 database) .

From **non-avian species**, some are dependent on wetland and some on forest habitats. The most important species that represent target features of proposed NATURA 2000 site - Habitats Directive (HD) Annex II species:

The Otter (*Lutra lutra*) – NT: According to recent research and evaluation of sites important for this species in Croatia (Emys, 2009), the Pokupski Bazen area has an excellent value for conservation of the Otter and its habitats are considered to be well preserved. The population was estimated at 47 ind. That makes cca 3.5% of national population. Fishponds of Pokupski Bazen, including Crna Mlaka, are of outmost importance for this fish-feeding species. Otters are regularly being recorded on Crna Mlaka by fishery employees and researchers.

The Beaver (*Castor fiber*) – LC: The Beaver was reintroduced in Croatia in 1996, after it had become extinct from Croatia in the middle of 19th century. 85 animals released in several sites of Sava and Drava catchment area have spread relatively quickly throughout the north Croatia. Today the Beaver inhabits the whole Pokupski Bazen (Grubešić et al., 2008) and is regularly being observed on Crna Mlaka fishponds.

The European Pond Turtle (*Emys orbicularis*) – NT is common and numerous on Crna Mlaka fishponds.

The Yellow-bellied Toad (*Bombina variegata*) – LC and the **Italian Crested Newt (*Triturus carnifex*)**

– **LC** use different water habitats on fishponds and in surrounding forest, like small ponds and canals. Both live in Pokupski Bazen area but the Italian Crested Newt was so far registered only on Draganići fishponds (Hyla, 2009).

An isolated population of the HD dragonfly species, the **Yellow-spotted Whiteface (*Leucorrhinia pectoralis*) – LC** was registered on Draganići fishponds situated few km NW from Crna Mlaka (Franković and Bogdanović, 2009).

Protected species of forest beetles (HD) that inhabit Pokupski Bazen are connected to old stands and deadwood. They include **the Cerambyx Longicorn (*Cerambyx cerdo*) – NT**, **the Stag Beetle (*Lucanus cervus*) – NT** and **the Rosalia Longicorn (*Rosalia alpina*) – LC**. Generally, the Rosalia Longicorn is mostly connected to the Beech forests but in the wet zone of alluvial forests (*Leucoio-Fraxinetum*), surprisingly rich population of this beetle was discovered in 2009 (Faculty of Forestry, 2009).

Regarding **ornithofauna**, Crna Mlaka supports significant number of birds under BirdLife categories of Species of European Concern (SPEC 2 and SPEC 3) (Burfield and van Bommel, 2004) and protected as the Annex I species of the Birds Directive (BD).

Breeding populations of BD Annex I waterbirds on Crna Mlaka fishponds that are important on national or international level are listed in the following table (Croatian Ornithological Society, 2011a).

Species	Common Name	Breeding popul.	Status in CRO	Nat. Red List			EU status	Global status
				B	S	W		
<i>Ixobrychus minutus</i>	Little Bittern	50-80 p.	B, S	NT			(Depleted)	
<i>Ciconia nigra</i>	Black Stork	2-15 ind.*	B, S	VU			Rare	
<i>Aythya nyroca</i>	Ferruginous Duck	70-80 p.	B, S	VU	NT		(VU)	NT
<i>Milvus migrans</i>	Black Kite	2 p.*	B	VU			(VU)	
<i>Haliaeetus albicilla</i>	White-tailed Eagle	2-3 p.*	B	EN			Rare	NT
<i>Circus aeruginosus</i>	Marsh Harrier	0-1 p.	B, S, W	EN				
<i>Porzana parva</i>	Little Crake	3-10 p.	B, S	DD				
<i>Chlidonias hybridus</i>	Whiskered Tern	0-200 p.	B, S	VU	NT		Depleted	

*Individuals feeding on fishponds breed in adjacent forest Status: B – breeding; S – staging; W - wintering

Additionally, 3-5 pairs of the **Gadwall (*Anas strepera*)** breed on Crna Mlaka (Croatian Ornithological Society, 2011a). This is not the BD Annex I species but the breeding population of 40-50 pairs is threatened in Croatia (EN – Croatian Red List) (Institute for Ornithology, 2010).

There is a stable breeding population of the **Ferruginous Duck (*Aythya nyroca*)** on Crna Mlaka fishponds of 70-80 pairs (Croatian Ornithological Society, 2011c). Monitoring of this species in Pokupski Bazen in period 2004-2011 indicates significant fluctuations through years, probably depending on fishery production of three close-by fishponds (Draganići fishpond was not working for few years). The breeding population should be regarded on the level of whole Pokupski Bazen. It seems to be stable, fluctuating from 135-260 pairs.

The **Marsh Harrier (*Circus aeruginosus*)** and the **Whiskered Tern (*Chlidonias hybridus*)** are not regularly breeding. Monitoring of the Whiskered Tern in Pokupski Bazen from 2004-2011 (Croatian Ornithological Society, 2011d) shows that this species has bred on Crna Mlaka only in 2004 (100-130 p.) and in 2007 (200 p.). No breeding was registered during this period on other two near-by fishponds Draganići and Pisarovina.

The **Black Stork (*Ciconia nigra*)**, the **White-tailed Eagle (*Haliaeetus albicilla*)** and the **Black Kite (*Milvus migrans*)** breed in forests of Pokupski Bazen and use Crna Mlaka fishponds for feeding. Out of 11 pairs of the White-tailed Eagle (*Haliaeetus albicilla*) registered for Pokupski Bazen in 2010 and 2011 (Croatian Ornithological Society, 2011e), 2-3 pairs are dependent on Crna Mlaka for feeding.

It should be noted that the breeding of the **Lesser Spotted Eagle (*Aquila pomarina*)** in the ornithological reserve of Jastrebarski Lugovi was not confirmed recently. The Pokupski Bazen area contains 4-6 pairs that make 6.6% of national breeding population (Institute for Ornithology, 2010).

Crna Mlaka is the site of utmost importance for **post-breeding dispersion and fall migration of Ferruginous Duck (*Aythya nyroca*)**, supporting more than 10% of E Europe, E Mediterranean and Black Sea biogeographical population (1% threshold is 450 ind. according to WPE4 of Wetlands International, 2006). This is the largest congregation of migratory population of this species in middle Europe. Results show relatively large fluctuations but there is no significant decline through years. It must be noted that in wider area of Pokupski Bazen there are three fishponds and that in some years these congregations are divided between them (mostly between Crna Mlaka and Draganići fishponds).

Registered numbers during monitoring in period 2002-2011 are as follows (Croatian Ornithological Society, 2011b):

Crna Mlaka	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Individuals	5,181	3,563	-	6,658	5,918	3,534	2,617	3,800	-	2

In 2004 and 2010 there was no monitoring and in 2011 for the first time there were no congregations of the Ferruginous Duck on fishponds of Pokupski Bazen with any obvious reason.

There are **12 bird species** listed in Annex I of the Birds Directive that represent trigger species (**bold**) of proposed NATURA 2000 (SPA) and IBA site **Pokupski Bazen**, 5 of them in addition to birds mentioned for Crna Mlaka. Populations of BD Annex I species in Pokupski Bazen are estimated as follows (Institute for Ornithology, 2010):

Species	Common name	Status	Breeding Min.- Max.	% of nat.pop.	Staging min.- max.	Wint. min-max	% of nat.pop.
<i>Acrocephalus melanopogon</i>		S					
<i>Alcedo atthis</i>		B	20	30	2.86		
<i>Aquila pomarina</i>	Lesser Spotted Eagle	B	4	6	6.6		
<i>Ardea purpurea</i>		S					
<i>Ardeola ralloides</i>		S					
<i>Asio flammeus</i>		B	0	3	20		
<i>Aythya nyroca</i>	Ferruginous Duck	B S	150	300	15	2600	6700
<i>Botaurus stellaris</i>		B S W	2	3	5		
<i>Chlidonias</i>		B	0	200			
<i>Chlidonias niger</i>		S					
<i>Ciconia ciconia</i>	White Stork	B	55	75	5		
<i>Ciconia nigra</i>	Black Stork	B S	10	13	4.5		

<i>Circus aeruginosus</i>		B			1	2	2.5					
<i>Circus cyaneus</i>				W						20	30	2
<i>Circus pygargus</i>		B			1	3	1.6					
Crex crex	Corncrake	B			20	80	2.8					
Dendrocopos medius	Middle Spotted Woodpecker	B			500	800	2.9					
<i>Dendrocopos syriacus</i>		B			2	5	0					
<i>Drvcopus martius</i>		B			10	17	0.83					
<i>Egretta alba</i>			S	W						50	200	3.3
<i>Egretta garzetta</i>			S									
<i>Erithacus svecica</i>			S									
Ficedula albicollis	Collared Flycatcher	B			3000	6000	5					
<i>Grus grus</i>			S									
Haliaeetus albicilla	White-tailed Eagle	B			9	11	6.67					
Ixobrychus	Little Bittern	B	S		70	140	5.83					
<i>Lanius collurio</i>		B			7000	9000	2.33					
<i>Lanius minor</i>		B			10	20	0.43					
Milvus migrans	Black Kite	B			6	8	6.67					
<i>Nycticorax nycticorax</i>			S									
<i>Pernis apivorus</i>		B			4	7	2.67					
<i>Philomachus pugnax</i>			S									
<i>Picus canus</i>		B			80	120	2.29					
<i>Platalea leucorodia</i>			S									
Porzana parva	Little Crake	B			10	30	12.5					
<i>Porzana porzana</i>		B			0	2						
<i>Sterna hirundo</i>			S									
<i>Strix uralensis</i>		B			7	10	2.25					
<i>Sylvia nisoria</i>		B			50	70	2.33					
<i>Tringa glareola</i>			S									

Status: B – breeding; S – staging; W - wintering

