

Nakkas Basaksehir Highway, Turkey

Critical Habitat Assessment

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1. INTRODUCTION

1.1 Background and Purpose

The investment costs of the "Nakkas Basaksehir Motorway Project" (hereinafter "the Project") will be potentially financed by debt and equity under a Project Finance structure involving numerous international Lenders. Accordingly, the Project seeks to comply with relevant international lender requirements, including those of the European Bank for Reconstruction and Development (EBRD) and its E&S Policy. This extends to include EBRD's Performance Requirement 6 (PR6) 'Biodiversity Conservation and Sustainable Management of Living Natural Resources'.

The purpose of this Report is to determine the extent of Critical Habitat and Priority Biodiversity Features that could be affected by the Project. Critical Habitat and Priority Biodiversity Features represent significant areas of importance to high value biodiversity. PR6 requires projects to achieve net gains in the biodiversity values for which Critical Habitat is designated and at least no net loss for those designated Priority Biodiversity Features.

1.2 The Project

The Project is located in Istanbul Province, Turkey and is the last portion (section 8) of the "Northern Marmara Motorway" (NMM). Sections 1-6 are already constructed and operational, while section 7 will complete construction in 2021. The location of the Project (i.e. section 8) is presented in Figure 1 below and comprises the following key components:

- 24,17 km long main road with a 2x4-lane and 2x3 lane connecting roads
- 6,47 km long connection roads; and
- a 1,600 m cable-stayed bridge with 46 m width and tower height of 196 m at the Sazlıdere creek.
- Three batch plants will facilitate the Project's construction.

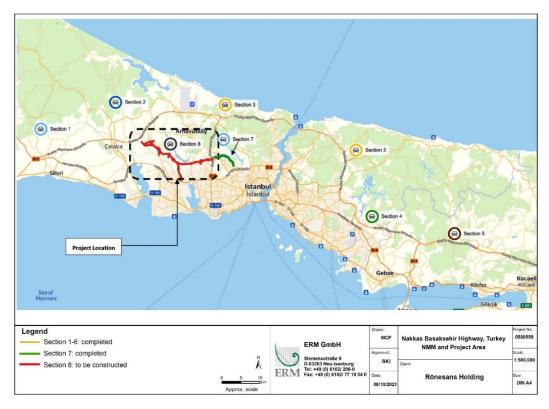


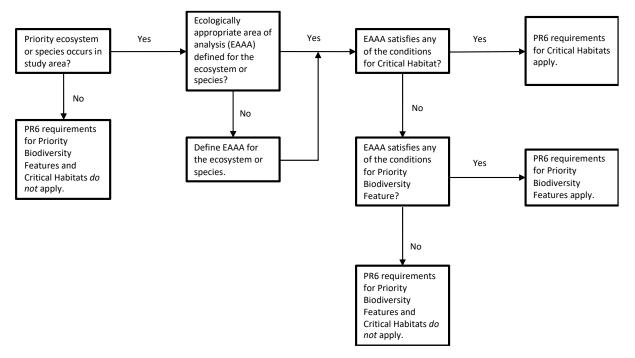
Figure 1 Project Location and Wider NNM (sections 1-5 only shown)

2. METHODOLOGY

The Critical Habitat Assessment methodology followed EBRD Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (v. January 1, 2020 – unpublished). The steps of the assessment were:

- 1. Screening of the ESIA biodiversity baseline data to identify any candidate Critical Habitat or Priority Biodiversity Features regularly occurring in the study area. The study area encompassed the area affected by the Project's direct and indirect impacts i.e. the Area of Influence, and the surrounding landscape.
- Where candidates were identified, an Ecologically Appropriate Area of Analysis (EAAA) was defined (refer Appendix A for EAAA mapping). The EAAAs were mapped according to EBRD GN6, as supplemented with information from the International Finance Corporation's (IFC) GN6 (i.e. paragraph GN59).
- 3. The criteria for Critical Habitat and Priority Biodiversity Features (explained fully in section 2.2 below) were applied to the EAAAs to determine whether each candidate qualified as such or not.
- 4. Where Critical Habitat and Priority Biodiversity Features were confirmed present (or likely present), the implications for the Project under PR6 were then set out. This information was used to inform the Project's impact assessment process.

A summary of the methodology is presented in the following sub-sections and shown graphically in Figure 2 below.



Source: emerging EBRD 'Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources' Jan 2020 (unpublished).

Figure 2 Assessment Process Flow Chart

2.1 Criteria for Priority Biodiversity Features and Critical Habitat

Table 1 presents the criteria used to identify Priority Biodiversity Features (PBF) and Critical Habitat (CH). The following additional matters were also applied in accordance with PR6, which are not listed in Table 1, i.e:

- PR6 paragraph 12-iii: significant biodiversity features identified by a broad set of stakeholders or governments (including in this Report legally protected and internationally / nationally recognized areas of high conservation value);
- PR6 paragraph 12-iv: ecological structure and functions needed to maintain the viability of PBFs described in this paragraph; and
- PR6 paragraph 14-v: Areas associated with key evolutionary processes.

Where applicable to the Project, these additional matters were determined as PBFs or CH using professional judgement.

As Turkey is a signatory to the Bern Convention on the 'Conservation of European Wildlife and Natural Habitats', habitats or species listed in the Bern Convention (Resolutions 4¹ and Resolution 6², respectively) qualified automatically as PBFs or CH, as appropriate based on the relevant EBRD PR6 qualifying criteria (refer to Table 1).

For remaining Priority Ecosystems and Priority Species, an Ecologically Appropriate Area of Analysis (EAAA) was defined and that EAAA unit evaluated against the conditions for CH (Table 1). The EAAAs were identified according to the EBRD GN6 supplemented with information from the International Finance Corporation's (IFC) Guidance Note 6. The EAAA approach to the analysis was not adopted for features which did not qualify as a PBFs or CH at this step were not taken further in the assessment.

It should be noted that because Turkey is not a member of the European Union, the PR6 criteria in relation to the Habitats Directive (92/43/EEC) and Birds Directive (2009/147/EC) do not apply to the Project. As such, the PBF and CH criteria in respect of these EU Directives have not been applied to PBF and CH identification for the Project.

Irrespective of any international listing, all species were also considered based on whether they are (Table 2):

- Globally threatened according to IUCN Red List (CR, EN or VU);
- Endemic and range restricted species; and
- Migratory and congregatory species.

2.2 Data Sources

The Project ESIA was used to provide all desktop and field survey data on which this Report is based. Supplementary information on the ecology of certain biodiversity values was sought through various sources and these are referenced in the text where used.

¹ Resolution No. 4 (of 1996) listing endangered natural habitats requiring specific conservation measures.

² Resolution No. 6 (of 1998) listing the species requiring specific habitat conservation measures (revised list adopted in 2011).

Table 1 Criteria and conditions for identifying Critical Habitats and Priority Biodiversity Features (Note – references to EU Habitat/Birds Directives not applicable to present CHA – see 'Red' text)

	ority Ecosystem or Priority ecies	Prie	ority Biodiversity Feature	Cri	tical Habitat
1.	Priority ecosystems	<u> </u>			
1i ⁻	Threatened ecosystems				
(a)	Habitats listed in Annex 1 of EU Habitats Directive (EU members only) or Resolution 4 of Bern Convention	(c)	EAAA is habitat type listed in Annex 1 of EU Habitats Directive (EU members only) or Resolution 4 of Bern Convention	(e)	EAAA is habitat type listed in Annex 1 of EU Habitats Directive marked as "priority habitat type" (EU members only)
(b)	IUCN Red-List EN or CR ecosystems	(d)	EAAA < 5% of the global extent of an <i>ecosystem</i> type with IUCN status of CR or EN	(f)	EAAA ≥5% of global extent of an ecosystem type with IUCN status of CR or EN
				(g)	EAAA is ecosystem determined to be of high priority for conservation by national systematic conservation planning
2.	Priority Species and their H	abita	ts		
2iT	hreatened Species				
(a)	Species and their habitats listed in EU Habitats Directive and Birds Directive (EU members only) or Bern Convention	(e)	EAAA for species and their habitats listed in Annex II of Habitats Directive, Annex I of Birds Directive (EU members	(i)	EAAA for species and their habitats listed in Annex IV of the Habitats Directive (EU members only)
(b)	IUCN Red List EN or CR species	(f)	only), or Resolution 6 of Bern Convention EAAA supports < 0.5% of global	(j)	EAAA supports ≥ 0.5% of the global population AND ≥ 5 reproductive units of a CR or EN
(c)	IUCN Red List VU species	(1)	population OR < 5 reproductive units of a CR or EN species.	(k)	species EAAA supports globally significant
(d)	Nationally or regionally (e.g., Europe) listed EN or CR species	(g)	EAAA supports VU species		population of VU species necessary to prevent a change of IUCN Red List status to EN or CR, and actiging threshold (b)
		(h)	EAAA for regularly occurring nationally or regionally listed EN or CR species	(I)	and satisfies threshold (b) EAAA for important concentrations of a nationally or regionally listed
					EN or CR species
211	Range-restricted species				
			(a) EAAA for regularly occurring range-restricted species	(b)	EAAA regularly holds \ge 10% of global population AND \ge 10 reproductive units of the species***
2ii	i Migratory and congregatory	spec	ies		
			(a) EAAA identified per Birds Directive (EU members only) or recognized national or international process as important for migratory birds	(b)	EAAA sustains, on a cyclical or otherwise regular basis, ≥ 1 percent of the global population at any point of the species' lifecycle
			(esp. wetlands)	(c)	EAAA predictably supports ≥10 percent of global population during periods of environmental stress

*** The IUCN Key Biodiversity Areas standard cites the following definition for reproductive unit: "the minimum number and combination of mature individuals necessary to trigger a successful reproductive event at a site. Examples of five reproductive units include five pairs, five reproducing females in one harem, and five reproductive individuals of a plant species.

Table 2 provides the screening results for PBFs and CH. In summary:

- Overall, there are three CH qualifying biodiversity features identified, which include:
 - one plant (*Cirsium polycephalum,* CR); and
 - two Internationally Recognised Areas [Küçükçekmece Basin Important Bird Area (IBA) & Key Biodiversity Area (KBA), and the West Istanbul Grasslands Important Plant Area (IPA)].
- The Internationally Recognized Areas are heavily degraded and it is probable that they no longer support biodiversity which qualifies as CH or PBFs. The Study Area partly overlaps with the eastern end of the West Istanbul Grasslands IPA. This part of the IPA is already heavily impacted by urban development through buildings and infrastructure (see ESIA, Chapter 6.2.4 and Figure 3). The citation for this IPA notes many species for which it was designated are no longer present in this Internationally Recognized Area. It is therefore not considered to be able to support populations of its characterizing plant species¹ anymore. However, conservatively the IPA is considered to be CH at this time based purely on its designation as such. A similar finding has been determined for the Küçükçekmece Basin IBA/KBA.
- A total of 15 threatened species (CR, EN, VU) were considered in the assessment. Of these, 12 qualify as PBFs (based on threat status and/or listing in terms of the Bern Convention: Resolution 6) and this includes:
 - six bird species;
 - four mammals (including 3 bats);
 - one reptile species;
 - one plant species.
- In addition to the threatened species PBFs, an additional 93 species of fauna have been identified as PBFs in terms of their listing in Resolution 6 of the Bern Convention (bringing the total number PBFs in terms of fauna species identified to 105) and these comprise the following:
 - 79 birds (74 LC species, 5 NT species);
 - 10 mammals (mainly bats and small mammals, five NT species, five of LC);
 - one amphibians of LC;
 - two reptiles (1 LC, 1 NT);
 - one species of fish (LC).
- No migratory or congregatory species are present in numbers which qualify as CH or PBFs. The majority of birds pass through the area only on passage and the EAAA does not sustain a significant population for any species.
- No "Priority Habitat Types" listed in Resolution 4 of the Bern Convention are found. The habitats present are not considered to be in good condition or representative for being designated as Emerald site (which is the purpose of their listing on Resolution 4 of the Bern Convention).
- No areas associated with PR6 paragraph 12-iv: "Ecological structure and functions needed to maintain the viability of priority biodiversity features" were identified present, or areas associated with key evolutionary processes were identified present (PR6 paragraph 14-v).

¹ 122turkiyeninonemlibitki_alanlar.pdf (panda.org). Last viewed on 24.06.2022.

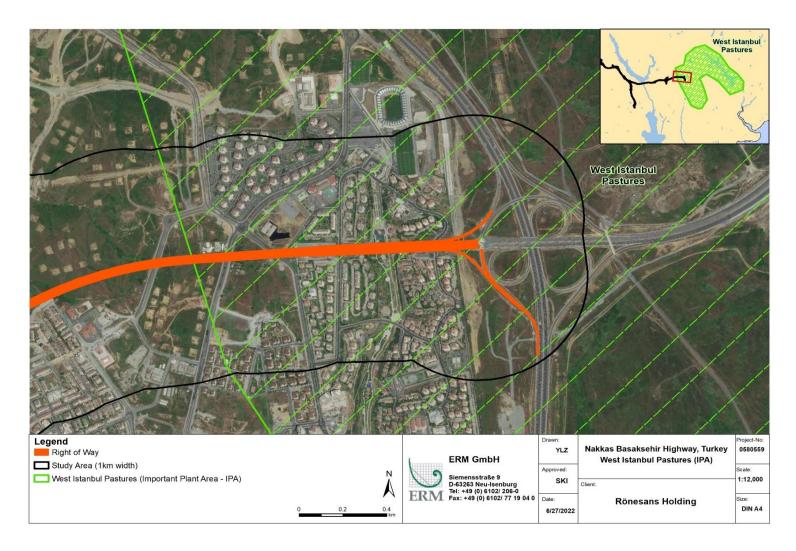


Figure 3 Study Area within West Istanbul Pastures IPA. Note existing development within the IPA. Note extent of existing residential and infrastructure development within this part of the IPA relative to proposed motorway corridor (shown in orange).

Table 2 Assessment of Critical Habitat (CH) and Priority Biodiversity Features (PBFs)

3.1 Threatened Species

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
Birds	<u>-</u>	<u></u>					'	·	
Egyptian Vulture	Neophron percnopterus	-	EN	R6	-	X	This species is a passage migrant within the Study Area. It was not recorded during field surveys. The number of individuals migrating through the Bosporus is very limited during spring and autumn, for example only 11 and four birds in total were counted during spring autumn migrations in 2014 respectively ⁴ . Whilst the Bosporus is recognised as an important migration bottleneck for birds of prey, most Egyptian vultures during the spring migration travel via the Dardanelles at the south- western margin of the Marmara Sea ⁵ (south of the Bosporus straits and the Study Area). It is likely the same route is followed post- breeding in the autumn.	EAAA: The regional airspace for migrating birds through the Bosporus is considered to be the EAAA for this species. In Europe 3,000-4,700 pairs are estimated breeding. Within the EAAA, as a migratory species, the species requires temporary nocturnal roosts on trees, cliffs or power pylons that offer safety from predators. Migration occurs usually as solitary birds or small groups ⁵ . The proportion of the population within the EAAA (conservatively 0.4% and intermittently during migration only) is not significant to the conservation of this EN or R6-listed species. The EAAA does not provide an important function in maintaining or supporting the species' population.	This species qualifies as a Priority Biodiversity Feature (Criterio 2i.e – species listed in terms of Resolution 6 of Bern Convention

⁴ Fülüp *et al.* (2014). Autumn migration of soaring birds at Bosporus: validating a new survey station design. Bird Study. 61:264.269.

⁵ Panuccio, M.; Mellone, U. and Agostini, N. Migration Strategies of Birds of Prey in the Western Palearctic. 2021.

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
Eurasian Turtle Dove	Streptopelia turtur	Y	VU	-	-	X	This globally vulnerable species was recorded present during the ESIA surveys (no abundance data recorded). The Study Area is located within the breeding range of this species. It also migrates through the Study Area but there is no evidence of large-scale passage through the Bosporus ⁶ . The species uses a variety of woodland types, as well as steppe and semi-desert, frequently relying on agricultural land for feeding. It may also use hedges, borders of forest, groves, spinneys, coppices, young tree plantations, scrubby wasteland, woody marshes, scrub and garigue.	The EAAA for this assessment is the garrigue and woodland habitat. The present Turkish population size and trend is not known but was estimated in 2004 at being 300,000 – 900,000 and decreasing. Kirwan et al 2008 ⁷ describe it as a widespread and common summer visitor. The population or the habitats within the EAAA are not considered to be important to the Turkish or global populations of this VU species.	This species does not qualify as a Priority Biodiversity Feature or Critical Habitat.
Greater Spotted Eagle	Clanga clanga	-	VU	-		X	This species is a passage migrant in the Study Area. This species was not recorded during the ESIA studies. Although the Bosporus is a key migration route for the species on passage low annual average numbers are recorded during migration I.e. four birds in 2010, six birds in 2008 and 2014 ⁸ respectively	The global population is estimated at $5,000 - 13,200$ individuals ⁹ . The regional airspace for migrating birds through the Bosporus is considered to be the EAAA for this species. The proportion of the population within the EAAA (conservatively = 0.1%) is not significant to the conservation of this species.	This species does not qualify as a Priority Biodiversity Feature or Critical Habitat.

 $^{6}\ https://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/20181002\%20Final_draft_European\%20Turtle-Dove.pdf$

⁹ http://datazone.birdlife.org/species/factsheet/greater-spotted-eagle-clanga-clanga/text

⁷ KIRWAN GM, BOYLA K, CASTELL P, DEMIRCI B, ÖZEN M, WELCH H and MARLOW T (2008) The Birds of Turkey. Christopher Helm, London.

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
								The EAAA does not provide an important function in maintaining or supporting the species' population.	
Imperial Eagle	Aquila heliaca	-	VU	R6	-	X	This species is a passage migrant in the Study Area. The Study Area is outside its breeding range in Turkey. Very low numbers are recorded during migration through the area (total four birds in 2014) ¹⁰ .	The regional airspace for migrating birds through the Bosporus is considered to be the EAAA for this species. The global population is estimated to be <4,000 birds. The stronghold of the population is in Russia and Kazakhstan. The proportion of the population within the EAAA (conservatively = 0.1% and intermittently during migration only), is not significant to the conservation of this VU or R6-listed species. The EAAA does not provide an important function in maintaining or supporting the species' population.	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention & Criterion 2i.g – EAAA supports VU species)
Pochard	Aythya ferina	-	VU	-	-	X	This species is a winter visitor which could potentially occur on lakes or waterbodies within the Study Area.	The species has been recorded as a winter visitor on the Küçükçekmece Lake IBA/KBA totalling 7,336 birds. The EAAA for this assessment is taken to be the Küçükçekmece Lake and nearby Büyükçekmece Lake and Terkos Basin (Figure 5). Across the EAAA the total population estimate is 23,599 birds The Global population is estimated to be c.	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.g – EAAA supports VU species)

 $^{^{10}\} https://www.researchgate.net/publication/262068319_Autumn_migration_of_soaring_birds_at_Bosporus_Validating_a_new_survey_station_design/link/5512e0e40cf268a4aaeb48e4/download$

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
								1,950,000-2,250,000 individuals. The proportion of the population within the EAAA is approximately 1% of the global population of this VU and R6 listed species and considered to be of significance. The EAAA is likely to have some important function in maintaining or supporting the species' population.	
Red-Breasted Goose	Branta ruficollis	-	VU	R6	-	X	Red-breasted goose is a winter visitor to Turkey. It has not been recorded during the ESIA field studies or historically at the Küçükçekmece Lake IBA/KBA.	N/A	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention)
Steppe Eagle	Aquila nipalensis	-	EN	R6	-	X	This species was not recorded during field surveys. Core populations are found in Kazakhstan and Mongolia. Isolated breeding sites in Turkey encompass the Ankara, Konya, and Kayseri triangle which are not near the Study Area. Passage via the Bosporus is considered non-existent. Eagles from Central Turkey migrate via the Levant.	N/A	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention)
White-headed Duck	Oxyura leucocephala	-	EN	R6	-	X	This species was not recorded during ESIA field surveys but considered potentially present on passage and over winter at Küçükçekmece IBA/KBA.	EAAA: Küçükçekmece IBA/KBA Less than three birds (combined) have been recorded at Küçükçekmece IBA/KBA since beginning of MWC records in 1993, which	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e – Species listed in terms of

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
								is approximately 0.06% of the global population. The proportion of the population within the EAAA is not significant to the conservation of this species. The EAAA does not provide an important function in maintaining or supporting the species' population.	Resolution 6 of Bern Convention)
Mammals									
European souslisk	Spermophilus citellus	-	EN	R6	-		This species was not recorded during baseline studies for the present Project but has been directly observed approximately 2 km from the Project area as part of the Hakkali- Ispartakulecerkezkoy Railway ESIA and in similar habitats. This location is at the eastern edge of this species' range in Europe ¹¹ . The habitat preference is short-grass steppe habitat on well drained soils in the Thrace region, the south- eastern extent of its global range.	The EAAA for this assessment extends over unoccupied grasslands and pastures (Figure 7). The global population is unknown, however, considered decreasing ¹² . Using information from the Hakkali- Ispartakulecerkezkoy Railway ESIA and CHA the population in the EAAA is considered likely to be up to 250 individuals, representing 0.3% of the global population (upper estimated) within the EAAA. Given that the Study Area is at the edge of this species' range and the EAAA supports <0.5% of the global population, the EAAA is - conservatively - considered to be of significance to the conservation of this EN and R6-listed species.	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e - species listed in terms of Resolution 6 of Bern Convention & Criterion 2i.f – EAAA supports <0.5% of global population of EN species)

¹¹The IUCN Red List of Threatened Species (2022): https://www.iucnredlist.org/species/20472/91282380. Downloaded on 08.06.2022.

¹² The IUCN Red List of Threatened Species (2022): https://www.iucnredlist.org/species/20472/91282380. Downloaded on 08.06.2022.

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
Greater noctule bat	Nyctalus lasiopterus	Y	VU	R6	-	-	This species was recorded on two occasions at low activity rates (peak 6 passes). It was recorded along the shores of the dam as well as along the canal south of the project site. The species occupies forest and shrubland, and also wetlands and swampy areas. It roosts in bat boxes, roof spaces and larger caves ¹³ . Within the study area, it is only known as a migrating species along wetlands.	The EAAA for this assessment stretches along the shore of the Sazlidere lake and along the Sazlidere canal down south. The global population is estimated at 9,999 bats. The proportion of the population within the EAAA is not significant to the conservation of this species. The EAAA does not provide an important function in maintaining or supporting the species' population.	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention)
Long-fingered bat	Myotis capaccinii	Y	VU	R6			The presence of this species was not confirmed. A roost has been recorded approximately 10 km west of the Project at Gokceali as part of the Halkali Railway Line ESIA (WSP, 2021). This species is almost exclusively found in cave-rich karst limestone areas with large waterbodies. Other areas are only potentially suitable if cave roosts are available. It rarely roosts outsides caves or mines in bridges, buildings, cellars or buildings ¹⁴ .	Based on its habitat preferences and regarding the abundance of limestone areas in the study area, all unoccupied shrubland within a radius of 15 km including water bodies is conservatively considered the EAAA (Figure 8). The population within the EAAA is unknown, as is its global population. Conservatively the EAAA is considered significant for this VU and R6-listed species by taking into account its restriction to limestone areas such as those present in the Study Area.	This species qualifies as a Priority Biodiversity Feature (Criteria 2ia – EAAA for R6 species and 2i.g – EAAA supports VU species & Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention)

¹³ Dietz and Kiefer 2014 Bats of Britain and Europe.

¹⁴ Dietz and Kiefer 2014 Bats of Britain and Europe.

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
Marbled polecat	Vormela peregusna	Y	VU	R6	-	-	This species was not recorded in the Study Area and there are no historical records. The species occupies shrubland, grassland and rocky areas and could potentially occur within natural habitats in the study area. They nest in hollows of rock crevices, trees or underground.	The EAAA for this assessment is considered to be all non-wooded areas outside of occupied areas within the study area (Figure 9). The Thrace region is considered to be a relative stronghold for this species in Turkey although the national population and global population sizes are unknown ¹⁵ . Conservatively the EAAA is considered significant for this VU and R6-listed species.	This species qualifies as a Priority Biodiversity Feature (Criteria 2ia – EAAA for R6 species and 2i.g – EAAA supports VU species)
Mehely's Horseshoe Bat	<i>Rhinolophus</i> <i>mehelyi</i>	Y	VU	R6	-	-	This is the rarest of the medium-sized horseshoe bat in Turkey. The European population is estimated at c. 50,000 bats. The presence of this species was confirmed during the field survey close to the Sazlidere dam at the camp site. This species roosts exclusively in caves but sometimes mines or cellars ¹⁶ . It forages in Mediterranean shrubland and woodland, dry steppes and water bodies ¹⁷ .	Considering the generalist nature of its habitat, the whole study area, except occupied land, is considered to be the EAAA for this assessment (Figure 10). Conservatively the EAAA is considered significant for this VU and R6-listed species.	This species qualifies as a Priority Biodiversity Feature (Criteria 2ia - EAAA for R6 species and 2i.g – EAAA supports VU species & Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention)

RESULTS

¹⁵ HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE Critical Habitat Assessment (WSP, 2021)

¹⁶ Dietz and Kiefer 2014 Bats of Britain and Europe.

¹⁷ The IUCN Red List of Threatened Species (2022): https://www.iucnredlist.org/species/19519/21974380#habitat-ecology. Downloaded on 09.06.2022.

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English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
Herptiles									
Mediterranean Spur-thighed Tortoise	Testudo graeca	Y	VU	R6	-	-	The species was recorded in the study area at study point 3 in the south west of the Sazlidere Dam, with plantations bushes and rocky areas.	The EAAA is considered to extend across all non- wooded areas outside of occupied (developed) areas. Arslan et al 2021 ¹⁸ assume a population size of 5.7 individuals per ha in the Gediz Delta, Turkey (Aegean) which is comparable to the only other studied population in Muğla, Turkey. It also confers with other population estimates in Donana, Spain, Jebilet, Morroco and elsewhere in southern Mediterranean basin. It is considered unlikely that the population or the habitats within the EAAA are of significant importance to the Turkish or global populations of this VU and R6-listed species.	This species qualifies as a Priority Biodiversity Feature (Criterion 2i.e – Species listed in terms of Resolution 6 of Bern Convention)
Fish									
Common carp	Cyprinus carpio	Y	VU	-	-	-	This species was recorded just below Sazlidere Dam (station 3) within an area of suitable habitat i.e., warm, deep, slow-flowing and still waters. Native wild populations are listed as globally vulnerable.	Native wild populations are threatened by the regulation of water in particular changes to flooded areas required for spawning, as well as hybridisation with domesticated stocks, which have been introduced within all of its Turkish range. It has not been possible to confirm whether the individual recorded within	This species does not qualify as a Priority Biodiversity Feature or Critical Habitat.

¹⁸ https://www.researchgate.net/publication/351845605_Demography_distribution_and_threat_assessment_of_the_Spurthighed_Tortoise_Testudo_graeca_in_the_Gediz_Delta_Turkey_Reptilia_Testudines

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
								the Study Area is a native wild specimen or from introduced stock. However, wild stocks are known to occur naturally only in rivers draining to the Black, Caspian and Aral Seas ¹⁹ . The Sazlidere drains into the Mediterranean Sea. Therefore, the recorded individuals are considered introduced.	
Flora									
-	Cirsium polycephalum	Y	CR	-	X		<i>Cirsium polycephalum</i> was recorded during field surveys within Black Sea garrigue habitat, <i>Spartium junceum</i> fields, Maquis habitat, Pinus plantation forest and Meso and eutrophic mixed deciduous forest.	The species is endemic to the Marmaras region (67,000 km ² in size). Based on its habitat, the EAAA comprises all garrigue habitat, <i>Spartium junceum</i> fields, shrubland/woodland and forest (plantation) withing the Area of Influence (Figure 6). The population of this species within the Study Area was 2,020 individuals recorded across four sampling locations. This population is taken to represent 0.4% - 0.6% the population within the EAAA. The EAAA therefore supports c. 0.5% of the global population and more than 5 reproductive units of this CR species.	The species qualifies as a Critical Habitat (Criterion 2j – EAAA supports >0.5% of global population AND >5 reproductive units of a CR species).

¹⁹The IUCN Red List of Threatened Species (2022): https://www.iucnredlist.org/species/6181/12559362#geographic-range. Downloaded on 27.06.2022.

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
-	Euphorbia amygdaloides var. robbiae	X	NT	-	X	-	It was recorded during an additional rapid habitat survey and ground-truthing exercise completed by ERM in May 2022. It was noted as commonly occurring in almost all habitats, particularly the garrigue.	Based on its habitat preferences, all garrigue habitat within the study area is considered the EAAA (Figure 12). It is known to occur throughout the whole Marmara region. Therefore, it is highly unlikely, that the EAAA supports ≥10 % of the global population, thus not qualifying for Critical Habitat. The Marmara region extents over an area of 67,000 km ² , therefore exceeding the EOO threshold of 50,000 km ² defined by IFC for range restricted species ²¹ . The population within the EAAA is not considered to be important to the Turkish or global populations of this species.	This species does not qualify as a Priority Biodiversity Feature or Critical Habitat.
Snowdrop	Galanthus x valentinei	X	VU	-	X	-	50 individuals were observed of the snowdrop <i>Galanthus x</i> <i>valentinei.</i> The species was recorded in Mediterranean riparian woodland.	The species is found only in the Thrace region in Turkey. Its population is estimated to be 25,000 individuals ²⁰ . Based on its habitat preferences, Mediterranean riparian woodland within the Area of Influence is considered the EAAA for this species in this assessment (Figure 11). The total extent of occurrence is less than 20,000 km ² . This is below	This species qualifies as a Priority Biodiversity Feature (Criterion 2iia – EAAA for regularly occurring range- restricted species).

English Name	Scientific Name	Directly Observed	IUCN RL (Global)	Bern Convention	Endemic	Migratory/ Congregatory	Screening Comments	EAAA and Population	CH/PBF
								the 50,000 km2 threshold used to define range restricted species ²¹ . Conservatively the EAAA is considered to support a regularly occurring range restricted species.	

3.2 Threatened Ecosystems

Name	Priority Habitat	Bern Convention	Description	EAAA	CH / PBF
Habitats listed in I	Resolution 4	of Bern Convent	ion		
Water-fringing reedbeds and tall helophytes other than canes (Eunis code C3.2)		R4	<text></text>	The EAAA is the habitat within the Aol.	This habitat qualifies as Priority Biodiversity Feature (Criterior 1.i – ecosystems habitats listed in terms of Resolution 4 of Bern Convention)

²¹ International Finance Corporation (IFC) Guidence Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. 2012.

Name	Priority Habitat	Bern Convention	Description	EAAA	CH / PBF
			The presence of this habitat below Sazlidere dam is not typical of the area and is considered to be a modified habitat which has formed artificially as a result of the excavation and straightening/canalization of the section of the previous natural watercourse present before dam construction and operation. Indeed, the extensive reed/bulrush growth observed is considered to be linked to the eutrophic status of the watercourse and elevated nutrient levels, exemplified by the presence of extensive algal blooms within the water column. The habitat is therefore not considered representative of the natural 'Water-fringing reedbeds and tall helophytes' type which would be more commonly associated with natural wetland ecosystems in the region.		
Moeso-Thracian mesophile hay meadows (Eunis code E2.252)	-	R4	Found in a small area along the motorway as well as near the end of the motorway route at a larger size. This habitat type is grazed heavily by cattle with the dominant species of soft rush (<i>Juncus effusus</i>), <i>Ranunculus constantinopoliatanus</i> , ribwort plantain (<i>Plantago lanceolate</i>), hemlock (<i>Conium maculatum</i>), blessed thistle (<i>Silybum marianum</i>), radish (<i>Raphanus raphanistrum</i>), cutleaf teasel (<i>Dipsacus laciniatus</i>), alfalfa (<i>Medicago sativa</i>), cat grass (<i>Dactylis glomerata</i>), and Bermuda grass (<i>Cynodon dactylon</i>).	The EAAA is the habitat within the Aol.	This habitat qualifies as Priority Biodiversity Feature (Criterion 1.i – ecosystems / habitats listed in terms of Resolution 4 of Bern Convention)
			P2: Moeso-Thracian mesophile hay meadows		
			This habitat is not considered representative of natural hay meadows or grasslands which would be sustained naturally by several environmental and climatic drivers and is rather considered a secondary grassland type forming as a result of the clearance of Black Sea garrigue or as a result of overgrazing by livestock which has diminished the woody vegetation component and maintained the short herbaceous/grass cover.		
Mediterranean Riparian Woodland (Eunis code G1.3)	-	R4	This habitat develops along alluvial valley grounds with high groundwater table level and along streams. This habitat type is represented at study point 5 and 6. The characteristic tree species are field elm (<i>Ulmus minor</i>), white willow (<i>Salix alba</i>) and narrow-leaved ash (<i>Fraxinus angustifolia</i>). While there are bush species holy bramble (<i>Rubus sanctus</i>) and blackthorn (<i>Prunus spinose</i>) in the underbrush, there are high	The EAAA is the habitat within the Aol.	This habitat qualifies as Priority Biodiversity Feature (Criterion

Name	Priority Habitat	Bern Convention	Description	EAAA	CH / PBF
			 water-use species such as Juncus heldreichianus, bulrush (Typha latifolia), lesser water-parsnip (Berula erecta), common club-rush (Schoenoplectus lacustris), common rush, common reed (Phragmites australis), common fleabane (Pulicaria dysenterica), ribwort plantain, and cutleaf teasel. Fishort plantain, and cutleaf teasel. 		1.i – ecosystems / habitats listed in terms of Resolution 4 of Bern Convention)
Internationally Re	cognized Are	eas			
West Istanbul Grasslands IPA	-	-	The IPA comprises the remaining fragments of limestone grassland, rock outcrops and dry acid heath grassland, situated on the low hills north-west of Istanbul. The site hosts 19 threatened flora species, seven of which are endemic to the area. The part of the study area that falls into the IPA, however, is already heavily disturbed and transformed by urban development. This part is not considered able to support these species anymore.	EAAA assumed to be the entire IPA (14,900 ha in size) (Figure 4). It is probable that the IPA no longer contains biodiversity at Critical Habitat levels. However, it is conservatively considered to be Critical Habitat at this time until consultation with Plantlife confirms otherwise.	Qualifies as Critical Habitat (Criterion 1i g)

Name	Priority Habitat	Bern Convention	Description	EAAA	CH / PBF	
Küçükçekmece IBA/KBA	-	-	The site comprises natural brackish lagoon which holds significant numbers of wintering waterbirds ²² . The main area of the IBA/KBA expected to be impacted by the Project is the Sazlıdere creek. This area is considered largely to consist of modified habitat (see ESIA, Chapter 6.2.4).	 EAAA assumed to be the entire IBA/KBA (11,715 ha in size) (Figure 4). It is known or thought to hold congregations of ≥1% of the global population of one or more species, in this case waterbirds, on a regular or predictable basis. The qualifying features of the IBA are (estimated population in brackets): Pygmy cormorant (126 – 160 individuals) Great cormorant (10,200 individuals) Species group – waterbirds (21,177-21,273 individuals) 	The IBA qualifies as Critical Habitat (Criterion 2iii b)	
					The IBA/KBA is located in an area subject to intense development pressure. It is unknown if the qualifying	
				features are still present. Conservatively it is assumed to be Critical Habitat.		

²² BirdLife International (2022) Important Bird Areas factsheet: Küçükçekmece Basin. Downloaded from http://www.birdlife.org on 21/06/2022.

3.3 **Priority Species, Habitats and Ecosystems in terms of the Bern Convention (Resolution 4 & 6)**

Feature

Priority Ecosystems

- Three habitats listed in Resolution 4 of the Bern Convention that qualify habitat as PBFs (none of which are "priority habitats").
- Two internationally recognized areas important for migratory species.

Priority Species and their Habitats

- Five IUCN CR / EN species (one plant, three birds, one mammal).
- Ten IUCN VU species (nine fauna, one flora species).
- 12 threatened species qualify habitat as PBFs (11 fauna, one species of flora)
- 93 additional fauna species (PBFs) that are not threatened (i.e. NT, LC) but listed in Resolution 6 of the Bern Convention (see full list of species in **Appendix B**)
- Four range-restricted species

CH and PBFs have been determined as occurring within the Study Area. The Project is therefore located in Critical Habitat and an area supporting Priority Biodiversity Features. Table 3 below summaries these elements.

Table 3 Results of PBF/CH Assessment Process

Feature		

Critical Habitat (CH)

Flora habitat:

Cirsium polycephalum (CR)

Internationally Recognised Areas:

- Küçükçekmece Basin IBA and KBA
- West Istanbul Grasslands IPA

Priority Biodiversity Features (PBFs)

Habitats:

- Water-fringing reedbeds and tall helophytes other than canes (Eunis code C3.2)
- Moeso-Thracian mesophile hay meadows (Eunis code E2.252)
- Mediterranean Riparian Woodland (Eunis code G1.3)

Threatened fauna (11):

- Egyptian Vulture (EN)
- Steppe Eagle (EN)
- White-headed Duck (EN)
- European Souslik (EN)
- Pochard (VU)
- Imperial Eagle (VU)
- Red--Breasted Goose (VU)
- Long-fingered bat (VU)
- Marbled polecat (VU)
- Mehely's horseshoe bat (VU)
- Mediterranean Spur-thighed Tortoise (VU)

Threatened flora:

Snowdrop Galanthus x valentinei (VU)

Additional:

- An additional 93 fauna species (NT, LC, DD) qualify as PBFs based on their listing in terms of Resolution 6 of the Bern Convention:
 - 79 birds (74 LC species, 5 NT species);
 - 10 mammals (5 of LC, 5 NT, including bats and small mammals);
 - one amphibian (LC);
 - two reptiles (one of LC, one NT);
 - one species of fish (LC)

4. CONCLUSIONS AND IMPLICATIONS FOR THE PROJECT

Having identified the qualifying biodiversity values that meet the criteria for PBFs and CH, the following sections detail the requirements of PR6. Compliance against these requirements will be covered by the CESMP and BAP as appropriate. In summary, no net loss and no residual impact will be achieved by the mitigation hierarchy, including on-site restoration for the CH identified feature, *Cirsium polycephalum*.

4.1 Critical Habitat

Paragraph 16 of PR6 states that: "Critical habitat must not be further fragmented, converted or degraded to the extent that its ecological integrity or biodiversity importance is compromised. Consequently, in areas of critical habitat, the client will not implement any project activities unless:

- no other viable alternatives within the region exist for development of the project in habitats of lesser biodiversity value
- stakeholders are consulted in accordance with PR 10
- the project is permitted under applicable environmental laws, recognising the priority biodiversity features
- the project does not lead to measurable adverse impacts on those biodiversity features for which the critical habitat was designated
- the project is designed to deliver net gains (through a biodiversity offset to enhance habitat and protect and conserve biodiversity) for critical habitat impacted by the project
- the project is not anticipated to lead to a net reduction in the population of any endangered or critically endangered species over a reasonable time period
- a robust and appropriately designed, long-term biodiversity monitoring and evaluation programme aimed at assessing the status of critical habitat is integrated into the client's adaptive management programme."

To achieve a Net Gain (NG) in terms of CH, which in this instance is linked to the rare and endangered plant species, *Cirsium polycephalum*, Küçükçekmece Basin IBA and KBA and the West Istanbul Grasslands IPA, the following is recommended:

- The ESIA describes measures to avoid and minimize impacts on CH. These measures will be documented within the BAP and ESMP / CESMP and include embedded mitigation and measures to be implemented as part of construction and operational activities. It will also include measures to restore and recreate habitats used by CH features temporarily disturbed within the construction footprint but outside the final operating area, where appropriate. Further involvement from local specialists to design and implement these measures and during construction works.
- Avoidance and mitigation measures for impacts on *Cirsium polycephalum* will require areas of land to be identified and agreed with relevant land holders as being able to receive translocated or propagated specimens from areas to be disturbed by construction works. These areas should be of similar habitat type or better and not proposed for future development in the long term.
- A review of the key threats affecting the species for which Critical Habitat has been identified.
- Habitat management enhancements or creation to achieve net gains at the scale of the EAAA.
- Monitoring and management based on pre-established targets and goals using quantified data. Reviews at appropriate intervals to determine the success of the measures and the need to design and implement adaptive management measures.

4.2 Internationally Recognised Areas

In relation to internationally recognised areas paragraph 22 states: if the assessment identifies that the project has the potential to adversely impact the conservation objectives and integrity of the site,

priority biodiversity features and/or critical habitat within the internationally recognised areas the client will seek to avoid such impacts. In addition, the client will:

- demonstrate that the development is legally permitted, which may have entailed that a specific assessment of the project related impacts on the protected area has been carried out as required under national law;
- act in a manner consistent with any government recognised management plans for such areas;
- consult protected areas managements, relevant authorities, local communities and other stakeholders on the proposed project in accordance with PR10; and
- implement additional programmes as appropriate to promote and enhance conservation objectives of area.

For Küçükçekmece Basin IBA and KBA and the West Istanbul Grasslands IPA, the following is recommended:

- Consultation with Birdlife International and Plantlife International (and any other relevant NGOs or conservation groups) to be undertaken to discuss potential project impacts on the KBAs and IPA and mitigation strategy.
- NG measures to be investigated further should include:
 - Preparation or updating of site management plans and conservation objectives to effectively manage the sites;
 - Identification of key threats (expected to be regional and local development pressures) and designing and implementing measures to reduce those threats e.g. formal protection for the sites under national and regional planning laws and policies;
 - Restoration of degraded areas within the site lost to agricultural development or other development / activities;
 - Supporting management of the sites through the provision of resources and capacity building, based on a Needs and Capacity Assessment; and
 - The approach should be documented within the Project BAP.

4.3 **Priority Biodiversity Features**

Paragraph 13 of PR6 states that: "Where the assessment has identified that the project could have significant, adverse and irreversible impacts to priority biodiversity features, the client <u>should not</u> <u>implement any project-related activities</u> unless:

- there are no technically and economically feasible alternatives;
- the overall benefits outweigh the project impacts on biodiversity;
- stakeholders are consulted in accordance with PR 10;
- the project is permitted under applicable environmental laws, recognising the priority biodiversity features;
- appropriate mitigation measures are put in place, in accordance with the mitigation hierarchy, to ensure no net loss and preferably a net gain of priority biodiversity features over the long term, to achieve measurable conservation outcomes."

"No net loss" (NNL) is defined as the point at which project-related biodiversity losses are balanced by gains resulting from measures taken to avoid and minimise these impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on appropriate geographic scale.

NNL would typically need to be applied to the following habitats identified (listed in Resolution 4 of Bern Convention):

- Water-fringing reedbeds and tall helophytes other than canes (Eunis code C3.2)
- Moeso-Thracian mesophile hay meadows (Eunis code E2.252)
- Mediterranean Riparian Woodland (Eunis code G1.3)

It must be noted however that habitats are not "Priority Habitat Types" listed in Resolution 4 of the Bern Convention - the habitats present are considered to be largely secondary, are not in good condition or representative for being designated as Emerald site (which is the purpose of their listing on Resolution 4 of the Bern Convention).

In terms of species, NNL will be required for PBFs identified, including the habitat supporting the list of EN and VU fauna (mainly birds, bats, one reptile) and the plant species, Snowdrop *Galanthus x valentinei* (VU). An additional 93 species (mainly birds and mammals) also qualify habitat as PBFs and NNL will need to be considered for these PBFs as well (see full list in **Appendix B**).

To achieve a NNL objective for PBFs, the following is recommended for inclusion in the Biodiversity Action Plan (BAP) for the Project and ESMMP / CESMP as relevant:

- The ESIA describes measures to avoid and minimise impacts on Priority Biodiversity Features. These measures will be documented within the BAP and ESMMP/CESMP and include embedded mitigation included as part of the Project design and additional measures to be implemented as part of construction and operational activities. It will also include measures to restore and recreate habitats temporarily disturbed within the construction footprint but outside the final operating area.
- Areas of land suitable to receive translocated flora and fauna from areas to be disturbed by construction works, should be identified and agreed with relevant land holders before any construction clearing works commence. These areas should be of similar habitat type or better and not proposed for future development in the long term.
- The process for calculating and delivering any necessary offsets to achieve NNL will be set out in the BAP.
- NNL interventions will be planned and specific to PBF habitats and species, and include the following as possible measures:

- Habitat restoration and recreation to compensate for the losses of key habitats, including but not necessarily restricted to the identified PBF habitats associated with 'Water-fringing reedbeds and tall helophytes other than canes', 'Moeso-Thracian mesophile hay meadows' and 'Mediterranean Riparian Woodland';

- Cable-stayed suspension bridge design and mitigation to be commensurate with risk of bird collisions with the structure under certain circumstances;

- Identify where possible key local wildlife corridors suitable for potential terrestrial species movement between habitats that may be obstructed or severed by the road development;

- Design and implemented appropriate wildlife crossings as part of the road design, in order to maintain connectivity between habitats and key local corridors for terrestrial fauna (focus will be on accommodating threatened species and PBFs, including small mammals, reptiles and amphibians in particular);

- Inclusion of micro-habitat enhancements that benefit affected species e.g. bat boxes (of various designs to benefit a large number of species);

- Enhancement to reptile and amphibian habitats to benefit all stages of their life cycles (through habitat creation, corridor enhancement, rehabilitation of disturbed aquatic and semi-aquatic habitats for example);

- Surveys and population counts for European Souslik and Marbled polecat to take place and where identified, enhancements to the existing habitats to be planned and implemented;

- Look into options for the reduction in surrounding agricultural run-off into Sazlıdere Dam where possible or other habitat enhancement to support amphibians/fish; and

- Translocation and/or replacement of Snowdrop (*Galanthus x valentinei*) where potentially disturbed at wooded riparian crossings.

Note that while mitigation to reduce bridge collision impact risk and habitat recreation and enhancement will generally support a NNL objective for the various PBFs related to bird species, the focus of NNL mitigation recommendations here has been on supporting terrestrial species which are

likely to be most affected potentially due to the nature of the project. The CHA has not considered the individual requirements of the full list of PBFs given the large number of faunal species, but has focused rather on threatened species where project design and mitigation can factor in species-specific requirements.

APPENDIX A EAAA FIGURES

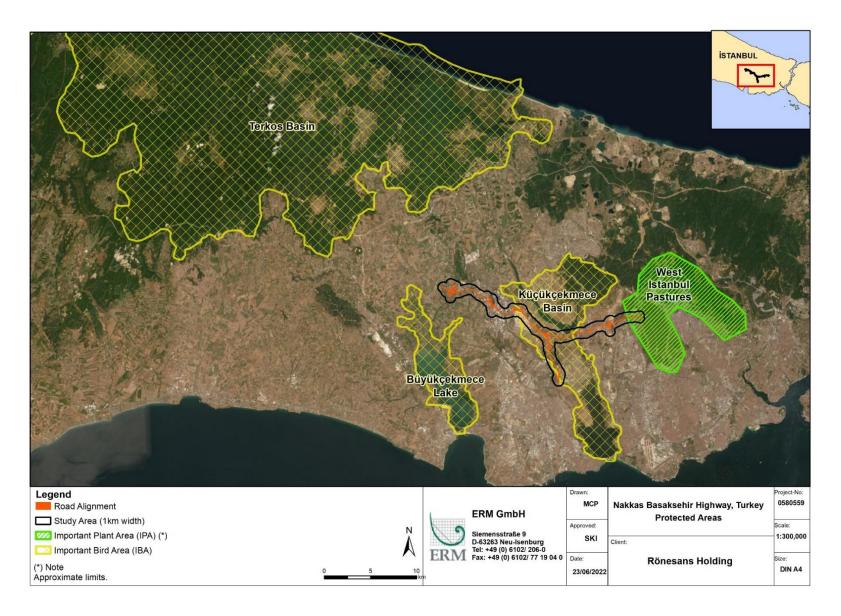


Figure 4 Important Areas

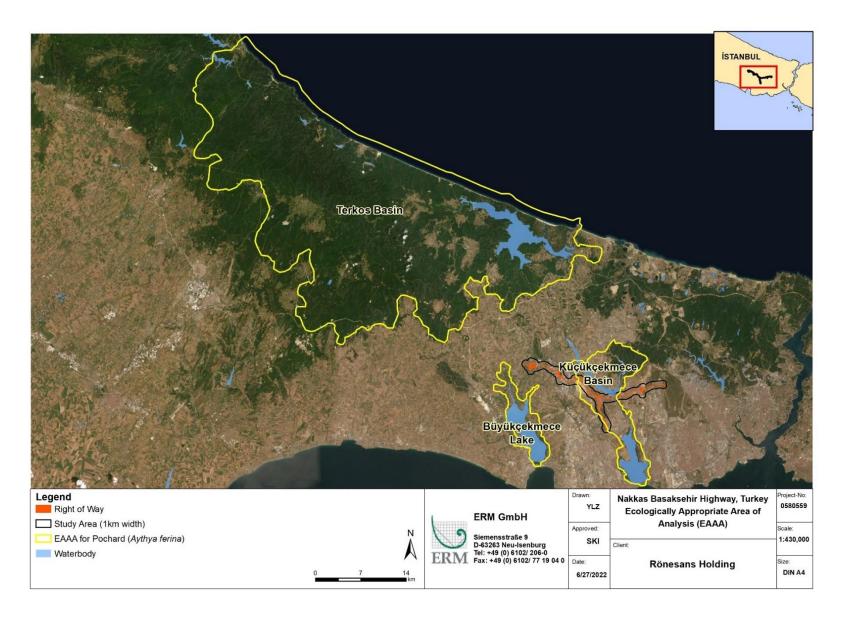


Figure 5 EAAA Pochard

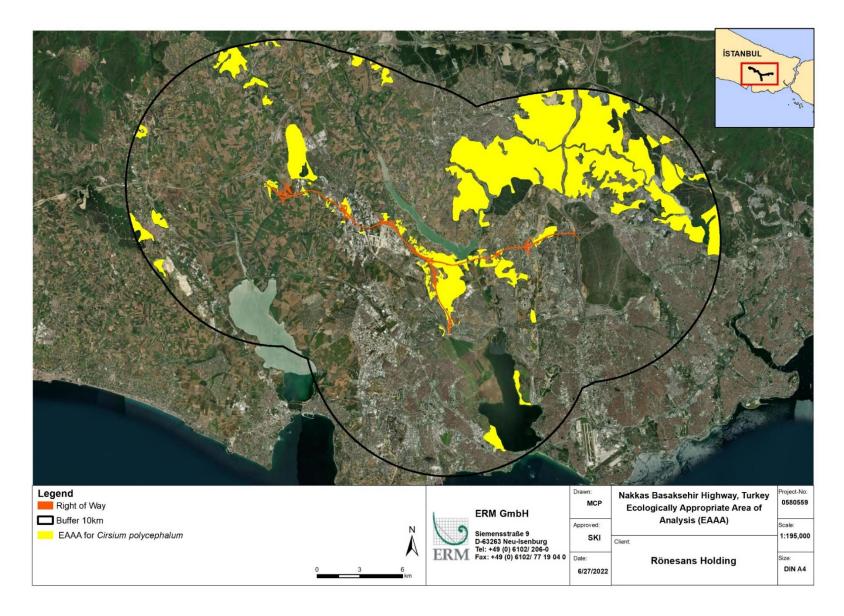


Figure 6 EAAA Cirsium polycephalum

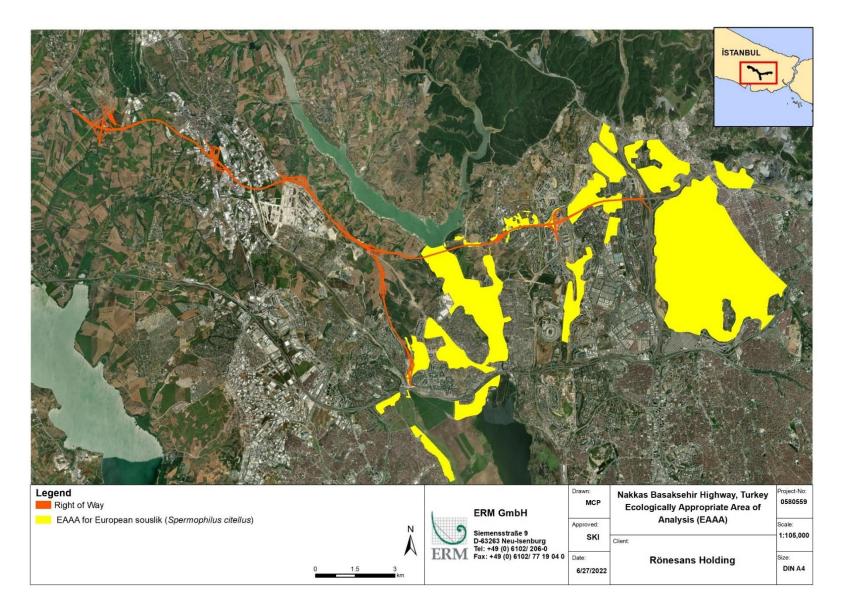


Figure 7 EAAA European souslik

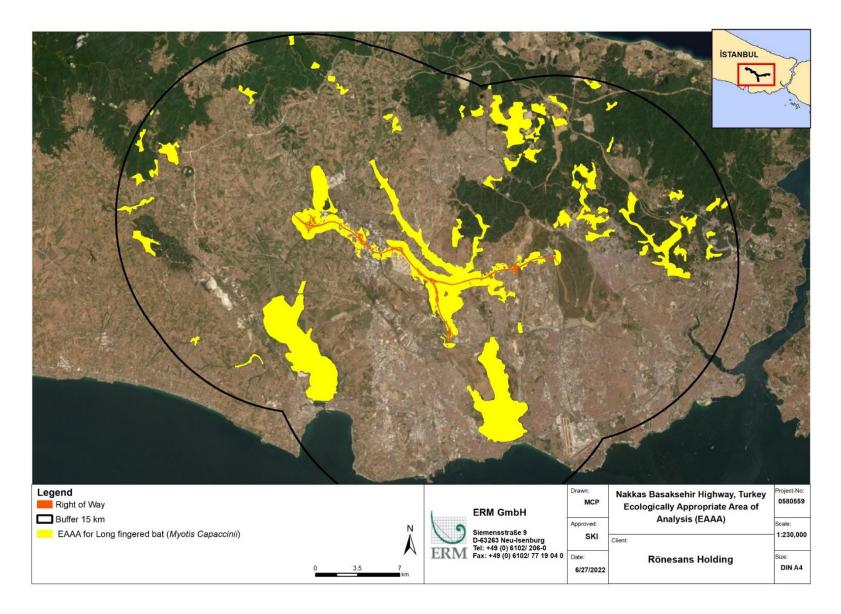


Figure 8 EAAA Long fingered bat

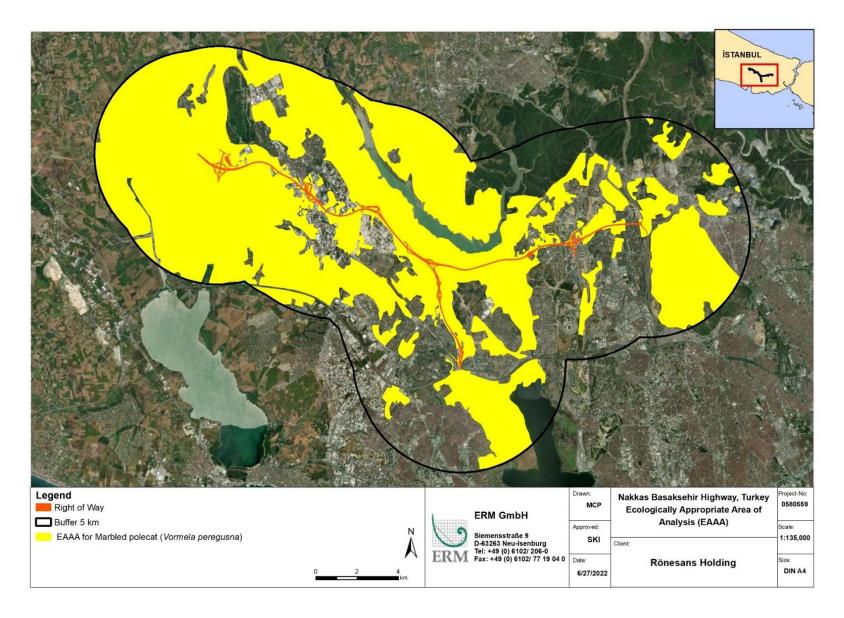


Figure 9 EAAA Marbled polecat

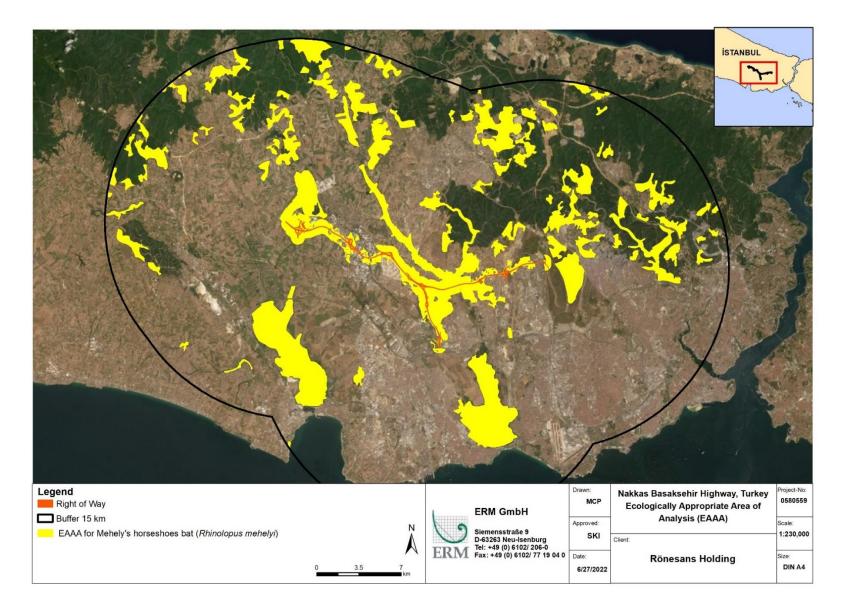


Figure 10 EAAA Mehely's horseshoe bat

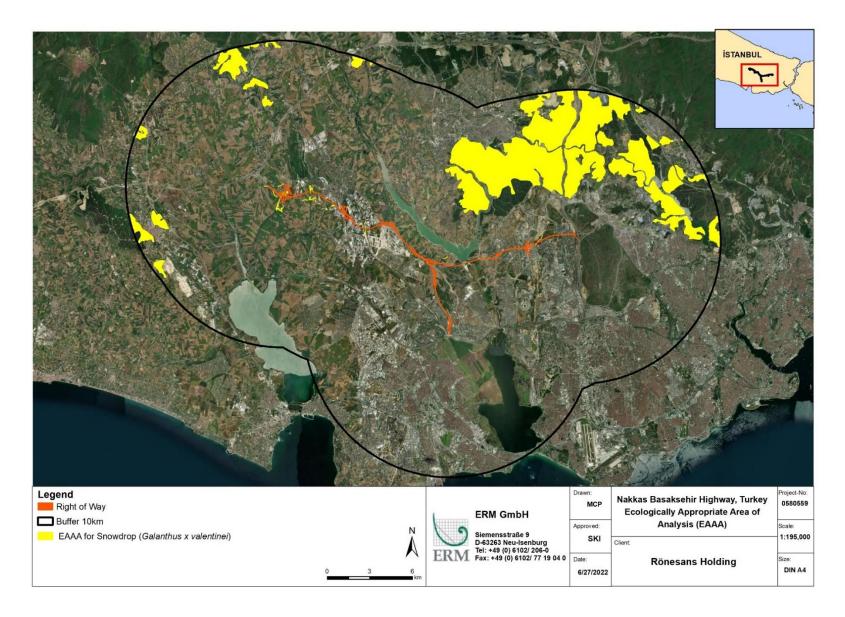


Figure 11 EAAA Snowdrop

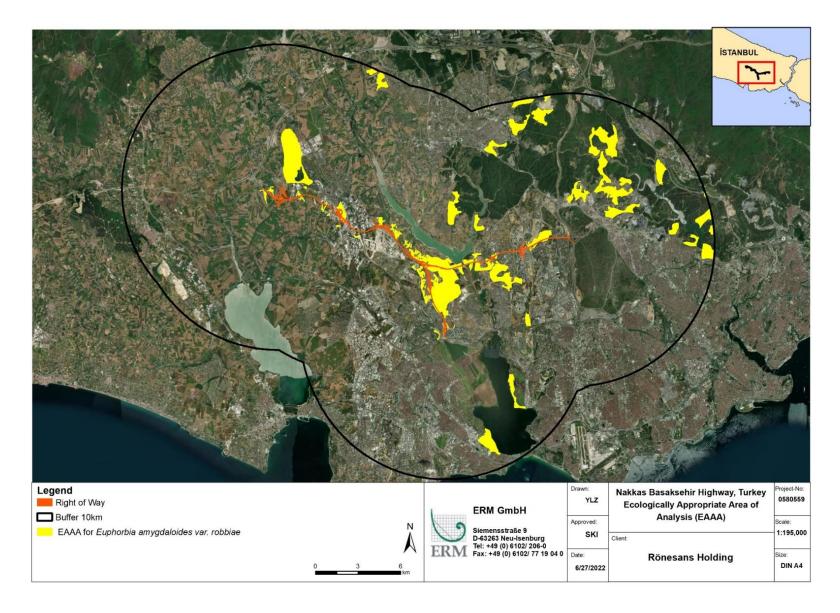


Figure 12 EAAA Euphorbia amygdaloides var. robbiae

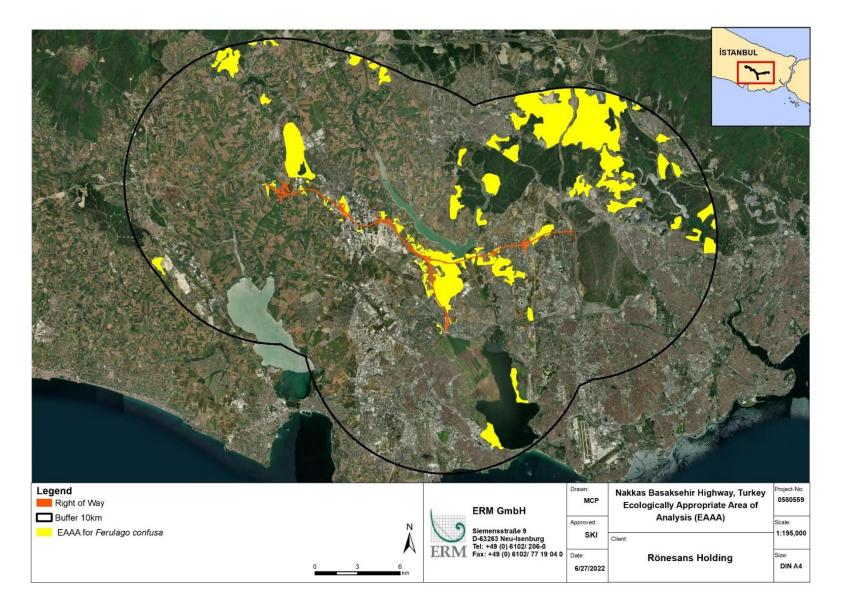


Figure 13 EAAA Ferulago confusa

APPENDIX B LIST OF QUALIFING PBF FAUNA SPECIES IN TERMS OF RESOLUTION 6 OF THE BERN CONVENTION

Table 4 List of faunal species qualifying as PBFs in terms of the Bern Convention (Res 6)

	Faunal		Species: Common		IUCN (Global)		Qualifying	Qualifying	
No.	Group	Direct Observation	Name	Species: Latin Name	RDLThreat Status	Bern Convention	as PBF Habitat	as CH	Comments
1		Desktop: potential presence only	Agile Frog	Rana dalmatina	LC	Annex II Bern Convention			
2		Desktop: potential presence only	Balkan-Anatolian Crested Newt	Triturus ivanbureschi	LC	Annex II Bern Convention			
3		Desktop: potential presence only	Common toad	Bufo bufo	LC				
4	Amphibians	Desktop: potential presence only	European fire-bellied toad	Bombina bombina	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
5		Desktop: potential presence only	Green Frog	Hyla orientalis	LC	Annex II Bern Convention			
6		Desktop: potential presence only	Green Toad	Bufotes viridis	LC				
7		Yes	Marsh frog	Pelophylax ridibundus	LC				
8		Desktop: potential presence only	Smoot Newt	Lissotriton schmidtleri	LC				
9		Desktop: potential presence only	Syrian spadefoot	Pelobates syriacus	LC	Annex II Bern Convention			
10		Yes	Levant sparrowhawk	Accipiter brevipes	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
11		Desktop: potential presence only	Goshawk	Accipiter gentilis	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
12		Yes	Sparrowhawk	Accipiter nisus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
13	Birds	Desktop: potential presence only	Black Vulture	Aegypius monachus	NT	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
14		Yes	Kingfisher	Alcedo atthis	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
15		Yes	Purple Heron	Andrea purpurea	LC	Annex II Bern Convention			
16		Yes	Tawny Pipit	Anthus campestris	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
17]	Desktop: potential presence only	Red-Thorated Pipit	Anthus cervinus	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
18		Yes	Meadow Pipit	Anthus pratensis	LC	Annex II Bern Convention			
19		Yes	Tree Pipit	Anthus trivialis	LC	Annex II Bern Convention			
20		Yes	Alpine Swift	Apus melba	LC	Annex II Bern Convention			
21		Yes	Pallid Swift	Apus pallidus	LC	Annex II Bern Convention			
22		Desktop: potential presence only	Imperial Eagle	Aquila heliaca	VU	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention & Criterion 2i.g: EAAA supports VU species
23		Desktop: potential presence only	Steppe Eagle	Aquila nipalensis	EN	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
24		Yes	Great Egret	Ardea alba	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
25		Desktop: potential presence only	Purple Heron	Ardea purpurea	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
26		Desktop: potential presence only	Squacco Heron	Ardeola ralloides	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
27		Desktop: potential presence only	Short-Eared Owl	Asio flammeus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
28		Desktop: potential presence only	Long-Eared Owl	Asio otus	LC				
29		Yes	Little Owl	Athene noctua	LC	Annex II Bern Convention			
30		Desktop: potential presence only	Pochard	Aythya ferina	VU		Y		Qualifies as PBF under Criterion 2i.g: EAAA supports VU species
31		Desktop: potential presence only	Ferruginous Duck	Aythya nyroca	NT	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
32		Desktop: potential presence only	Eurasian Bittern	Botaurus stellaris	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
33		Desktop: potential presence only	Red-Breasted Goose	Branta ruficollis	VU	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
34		Desktop: potential presence only	Cattle Egret	Bubulcus ibis	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
35		Desktop: potential presence only	Stone Curlew	Burhinus oedicnemus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
36		Yes	Common Buzzard	Buteo buteo	LC	Annex II Bern Convention			
37		Desktop: potential presence only	Rough-Legged Buzzard	Buteo lagopus	LC				
38		Yes	Long-legged Buzzard	Buteo rufinus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
39		Yes	Greater Short-toed Lark	Calandrella brachydactyla	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
40		Desktop: potential presence only	Dunlin	Calidris alpina	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
41		Desktop: potential presence only	Broad-Billed Sandpiper	Calidris falcinellus	LC				
42		Desktop: potential presence only	Curlew Sandpiper	Calidris ferruginea	NT				
43		Desktop: potential presence only	Little Stint	Calidris minuta	LC				
44		Desktop: potential presence only	Nightjar	Caprimulgus europaeus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
45		Desktop: potential presence only	Linnet	Carduelis cannabina	LC				
46		Yes	Goldfinch	Carduelis carduelis	LC	Annex II Bern Convention			
47		Yes	Greenfinch	Carduelis chloris	LC	Annex II Bern Convention			
48		Desktop: potential presence only	Siskin	Carduelis spinus	LC				
49		Yes	Red-rumped Swallow	Cecropis daurica	LC	Annex II Bern Convention			
50		Desktop: potential presence only	Short-Toed Tree Creeper	Certhia brachydactyla	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
51		Desktop: potential presence only	Tree Creeper	Certhia familiaris	LC				
52		Desktop: potential presence only	Kentish Plover	Charadrius alexandrinus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
53		Desktop: potential presence only	Little Ringed Plover	Charadrius dubius	LC				
54		Desktop: potential presence only	Ringed Plover	Charadrius hiaticula	LC				
55		Desktop: potential presence only	Dotterel	Charadrius morinellus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
56		Desktop: potential presence only	Whiskered Tern	Chlidonias hybridus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
57		Yes	White-winged Tern	Chlidonias leucopterus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
58		Desktop: potential presence only	Black Tern	Chlidonias niger	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
59		Yes	White Stork	Ciconia ciconia	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
60		Yes	Black Stork	Ciconia nigra	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
61		Yes	Short-toed Snake Eagle	Circaetus gallicus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
62		Yes	Eurasian Marsh-Harrier	Circus aeruginosus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
63		Yes	Hen Harrier	Circus cyaneus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
64		Desktop: potential presence only	Pallid Harrier	Circus macrourus	NT	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
65		Desktop: potential presence only	Montagu's Harrier	Circus pygargus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
66		Desktop: potential presence only	Great Spotted Cuckoo	Clamator glandarius	LC				
67		Desktop: potential presence only	Greater Spotted Eagle	Clanga clanga	VU				Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
68		Yes	Lesser Spotted Eagle	Clanga pomarina	LC	Annex II Bern Convention			

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69		Desktop: potential presence only	Hawfinch	Coccothraustes coccothraustes	LC				
70		Yes	European Roller	Coracias garrulous	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
71		Desktop: potential presence only	Roller	Coracias garrulus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
72		Desktop: potential presence only	Corncrake	Crex crex	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
73		Yes	Sardinian Warbler	Curruca melanocephala	LC	Annex II Bern Convention			
74		Yes	Barred Warbler	Curruca nisoria	LC	Annex II Bern Convention			
75		Desktop: potential presence only	Bewick's Swan	Cygnus columbianus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
76		Desktop: potential presence only	Whooper Swan	Cygnus cygnus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
77		Yes	House Martin	Delichon urbicum	LC	Annex II Bern Convention			
78		Desktop: potential presence only	Great-Spotted Woodpecker	Dendrocopos major	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
79		Desktop: potential presence only	Middle Spotted Woodpecker	Dendrocopos medius	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
80		Desktop: potential presence only	Lesser Spotted Woodpecker	Dendrocopos minor	LC				
81		Yes	Syrian Woodpecker	Dendrocopos syriacus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
82		Yes	Little Egret	Egretta garzetta	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
83		Desktop: potential presence only	Rock Bunting	Emberiza cia	LC				

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84		Yes	Cirl Bunting	Emberiza cirlus	LC	Annex II Bern Convention			
85		Desktop: potential presence only	Yellowhammer	Emberiza citrinella	LC				
86		Yes	Black-headed Bunting	Emberiza melanocephala	LC	Annex II Bern Convention			
87		Desktop: potential presence only	Reed Bunting	Emberiza schoeniclus	LC				
88		Desktop: potential presence only	Robin	Erithacus rubecula	LC				
89		Desktop: potential presence only	Merlin	Falco columbarius	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
90		Yes	Lesser Kestrel	Falco naumanni	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
91		Yes	Peregrine Falcon	Falco peregrinus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
92		Yes	Hobby	Falco subbuteo	LC	Annex II Bern Convention			
93		Yes	Eurasian Kestrel	Falco tinnunculus	LC	Annex II Bern Convention			
94		Desktop: potential presence only	Red-Footed Falcon	Falco vespertinus	NT	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
95		Yes	Collared Flycatcher	Ficedula albicollis	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
96		Desktop: potential presence only	Pied flycatcher	Ficedula hypoleuca	LC				
97]	Desktop: potential presence only	Red-breasted flycatcher	Ficedula parva*	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
98		Desktop: potential presence only	Semi-collared flycatcher	Ficedula semitorquata	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention

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99		Yes	Eurasian Jay	Garrulus glandarius	LC	Annex II Bern Convention			
100		Desktop: potential presence only	Gull-Billed Tern	Gelochelidon nilotica	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
101		Desktop: potential presence only	Collared Pranticole	Glareola pratincola	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
102		Desktop: potential presence only	Crane	Grus grus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
103		Desktop: potential presence only	Griffon Vulture	Gyps fulvus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
104		Desktop: potential presence only	Eurisan Oystercatcher	Haematopus ostralegus	NT				
105		Yes	Booted Eagle	Hieraaetus pennatus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
106		Yes	Black-winged Stilt	Himantopus himantopus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
107		Desktop: potential presence only	Red-Rumped Swallow	Hirundo daurica	LC				
108		Yes	Barn Swallow	Hirundo rustica	LC	Annex II Bern Convention			
109		Desktop: potential presence only	Little Gull	Hydrocoloeus minutus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
110		Desktop: potential presence only	Caspian Tern	Hydroprogne caspia	LC				
111		Yes	Mediterranean Gull	lchthyaetus melanocephalus	LC	Annex II Bern Convention			
112		Yes	Eastern Olivaceous Warbler	Iduna pallida	LC	Annex II Bern Convention			
113		Desktop: potential presence only	Little Bittern	Ixobrychus minutus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention

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114		Yes	Wryneck	Jynx torquilla	LC	Annex II Bern Convention			
115		Yes	Red-backed Shrike	Lanius collurio	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
116		Desktop: potential presence only	Great Grey Shrike	Lanius excubitor	LC				
117		Yes	Lesser Grey Shrike	Lanius minor	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
118		Yes	Masked shrike	Lanius nubicus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
119		Yes	Woodchat Shrike	Lanius senator	LC	Annex II Bern Convention			
120		Desktop: potential presence only	Armenian Gull	Larus armenicus	NT				
121		Desktop: potential presence only	Slender-Billed Gull	Larus genei	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
122		Desktop: potential presence only	Mediterranean Gull	Larus melanocephalus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
123		Desktop: potential presence only	Black-Tailed Godwit	Limosa limosa	NT				
124		Yes	Thrush Nightingale	Luscinia luscinia	LC	Annex II Bern Convention			
125		Yes	Common Nightingale	Luscinia megarhynchos	LC	Annex II Bern Convention			
126		Desktop: potential presence only	Bluethroat	Luscinia svecica	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
127		Yes	Calandra lark	Melanocorypha calandra	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
128		Desktop: potential presence only	Smew	Mergus albellus	LC				

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129		Yes	European Bee-eater	Merops apiaster	LC	Annex II Bern Convention			
130		Yes	Pygmy Cormorant	Microcarbo pygmaeus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
131		Yes	Black Kite	Milvus migrans	LC	Annex II Bern Convention			
132		Yes	Pied wagtail	Motacilla alba	LC	Annex II Bern Convention			
133		Yes	White Wagtail	Motacilla alba	LC	Annex II Bern Convention			
134		Desktop: potential presence only	Grey Wagtail	Motacilla cinerea	LC				
135		Desktop: potential presence only	Citrine Wagtail	Motacilla citreola	LC				
136		Yes	Western Yellow Wagtail	Motacilla flava	LC	Annex II Bern Convention			
137		Yes	Spotted Flycatcher	Muscicapa striata	LC	Annex II Bern Convention			
138		Desktop: potential presence only	Egyptian Vulture	Neophron percnopterus	EN	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
139		Desktop: potential presence only	Curlew	Numenius arquata	NT				
140		Desktop: potential presence only	Black-crowned Night Heron	Nycticorax nycticorax	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
141		Desktop: potential presence only	Isabellina Wheatear	Oenanthe isabellina	LC				
142		Yes	Northern Wheatear	Oenanthe oenanthe	LC	Annex II Bern Convention			
143		Yes	Eurasian Golden Oriole	Oriolus oriolus	LC	Annex II Bern Convention			
144		Yes	Eurasian Scops-Owl	Otus scops	LC	Annex II Bern Convention			
145		Desktop: potential presence only	White-Headed Duck	Oxyura leucocephala	EN	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention

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146		Desktop: potential presence only	Osprey	Pandion haliaetus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
147		Yes	Blue tit	Parus caeruleus	LC	Annex II Bern Convention			
148		Yes	Great Tit	Parus major	LC	Annex II Bern Convention			
149		Desktop: potential presence only	Marsh Tit	Parus palustris	LC				
150		Desktop: potential presence only	Dalmatian Pelican	Pelecanus crispus	NT	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
151		Desktop: potential presence only	White Pelican	Pelecanus onocrotalus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
152		Yes	Eurasian Honey- Buzzard	Pernis apivorus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
153		Desktop: potential presence only	Rock Sparrow	Petronia petronia	LC				
154		Yes	Greater Flamingo	Phoenicopterus roseus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
155		Desktop: potential presence only	Black Redstart	Phoenicurus ochruros*	LC				
156		Desktop: potential presence only	Redstart	Phoenicurus phoenicurus	LC				
157		Yes	Common Chiffchaff	Phylloscopus collybita	LC	Annex II Bern Convention			
158		Desktop: potential presence only	Wood Warbler	Phylloscopus sibilatrix	LC				
159		Yes	Willow Warbler	Phylloscopus trochilus	LC	Annex II Bern Convention			
160		Desktop: potential presence only	Grey-Headed Woodpecker	Picus canus	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
161		Desktop: potential presence only	Green Woodpecker	Picus viridis	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
162		Desktop: potential presence only	Eurasian Spoonbill	Platalea leucorodia	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
163		Yes	Glossy ibis	Plegadis falcinellus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
164		Desktop: potential presence only	Black-Necked Grebe	Podiceps nigricollis	LC				
165		Desktop: potential presence only	Spotted Crake	Porzana porzana	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
166		Desktop: potential presence only	Dunnock	Prunella modularis	LC				
167		Desktop: potential presence only	Avocet	Recurvirostra avosetta	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
168		Desktop: potential presence only	Firecrest	Regulus ignicapillus	LC				
169		Desktop: potential presence only	Goldcrest	Regulus regulus	LC				
170		Yes	Sand martin	Riparia riparia	LC	Annex II Bern Convention			
171		Yes	Whinchat	Saxicola rubetra	LC	Annex II Bern Convention			
172		Yes	European Stonechat	Saxicola rubicola	LC	Annex II Bern Convention			
173		Desktop: potential presence only	Stonechat	Saxicola torquata	LC				
174		Desktop: potential presence only	Serin	Serinus serinus	LC				
175		Desktop: potential presence only	Nuthatch	Sitta europaea	LC				
176		Desktop: potential presence only	Little Tern	Sterna albifrons	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
177		Yes	Common Tern	Sterna hirundo	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
178		Yes	Eurasian Turtle Dove	Streptopelia turtur	LC				
179		Desktop: potential presence only	Tawny Owl	Strix aluco	LC				
180		Yes	Blackcap	Sylvia atricapilla	LC	Annex II Bern Convention			
181		Desktop: potential presence only	Garden Warbler	Sylvia borin	LC				
182		Yes	Greater Whitethroat	Sylvia communis	LC	Annex II Bern Convention			
183		Yes	Lesser Whitethroat	Sylvia curruca	LC	Annex II Bern Convention			
184		Desktop: potential presence only	Orphean Warbler	Sylvia hortensis	LC				
185		Desktop: potential presence only	Sardinian Warbler	Sylvia melanocephala	LC				
186		Desktop: potential presence only	Barred Warbler	Sylvia nisoria	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
187		Yes	Little grebe	Tachybaptus ruficollis	LC	Annex II Bern Convention			
188		Desktop: potential presence only	Alpine Swift	Tachymarptis melba*	LC				
189		Desktop: potential presence only	Ruddy Shelduck	Tadorna ferruginea	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
190		Desktop: potential presence only	Shelduck	Tadorna tadorna	LC				
191		Desktop: potential presence only	Sandwich Tern	Thalasseus sandvicensis	LC				
192		Yes	Wood Sandpiper	Tringa glareola	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
193		Yes	Green Sandpiper	Tringa ochropus	LC	Annex II Bern Convention			
194		Desktop: potential presence only	Marsh Sandpiper	Tringa stagnatilis	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
195		Desktop: potential presence only	Wren, Winter Wren	Troglodytes troglodytes	LC	Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
196		Desktop: potential presence only	Redwing	Turdus iliacus	NT				
197		Desktop: potential presence only	Ring Ouzel	Turdus torquatus	LC				
198		Desktop: potential presence only	Barn Owl	Tyto alba	LC				
199		Yes	Eurasian Hoopoe	Upupa epops	LC	Annex II Bern Convention			
200		Yes	Lapwing	Vanellus vanellus	NT				
201		Desktop: potential presence only	Little Crake	Zapornia parva	LC				
202		Yes	Chub	Squailus cephalus	LC				
203		Yes	Common carp	Cyprinus carpio	LC				
204		Yes	Dnieper Chub	Petroleuciscus borysthenicus	LC				
205		Yes	European bitterling	Rhodeus amarus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
206	Fish	Yes	Freshwater bream	Abramis brama	LC				
207	-	Yes	Monkey goby	Neogobius fluviatilis	LC				
208		Yes	Pike-perch	Sander lucioperca	LC				
209		Yes	Prussian carp	Carassius gibeli	NE				
210		Yes	Round goby	Neogobius melanostomus	LC				
211	Mammals	Desktop: potential presence only	Alcathoe bat	Myotis alcathoe	DD	Annex II Bern Convention			

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
212		Desktop: potential presence only	Bechstein's bat	Myotis bechsteinii	NT	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
213		Desktop: potential presence only	Beech marten	Martes foina	LC				
214		Desktop: potential presence only	Bicolored shrew	Crocidura leucodon	LC				
215		Desktop: potential presence only	Black rat	Rattus rattus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
216		Desktop: potential presence only	Blasius's horseshoe bat	Rhinolophus blasii	LC	Annex II Bern Convention			
217		Desktop: potential presence only	Brandt's bat	Myotis brandtii	LC	Annex II Bern Convention			
218		Desktop: potential presence only	Brown Long-eared Bat	Plecotus auritus	LC	Annex II Bern Convention			
219		Yes	Brown rat	Rattus norvegicus	LC				
220		Desktop: potential presence only	Caucasian squirrel	Sciurus anomalus	LC	Annex II Bern Convention			
221		Desktop: potential presence only	Common bent-wing bat	Miniopterus schreibersii	NT	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
222		Yes	Common noctule	Nyctalus noctula	LC	Annex II Bern Convention			
223		Yes	Common pipistrelle	Pipistrellus pipistrellus	LC				
224		Desktop: potential presence only	Daubenton's bat	Myotis daubentonii	LC	Annex II Bern Convention			
225		Desktop: potential presence only	Eurasian otter	Lutra lutra	NT	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
226		Desktop: potential presence only	European badger	Meles meles	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
227		Desktop: potential presence only	European hare	Lepus europaeus	LC				
228		Indirect: signs of presence	European mole	Talpa europaea	LC				
229		Desktop: potential presence only	European souslisk	Spermophilus citellus	EN	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e - species listed in terms of Resolution 6 of Bern Convention & Criterion 2i.f – EAAA supports <0.5% of global population of EN species
230		Desktop: potential presence only	Forest Dormouse	Dryomys nitedula	LC				
231		Desktop: potential presence only	Geoffroy's bat	Myotis emarginatus	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
232		Desktop: potential presence only	Golden jackal	Canis aureus	LC				
233		Desktop: potential presence only	Greater horseshoe bat	Rhinolophus ferrumequinum	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
234		Desktop: potential presence only	Greater mouse-eared bat	Myotis myotis	LC	Annex II Bern Convention			
235		Yes	Greater noctule bat	Nyctalus lasiopterus	VU	Annex II Bern Convention			
236		Desktop: potential presence only	Grey dwarf hamster	Cricetulus migratorius	LC				
237		Desktop: potential presence only	Grey Long-eared Bat	Plecotus austriacus	NT	Annex II Bern Convention			
238		Indirect: signs of presence	Harting's vole	Microtus hartingi	LC				
239		Desktop: potential presence only	House Mouse	Mus domesticus	LC				
240		Indirect: signs of presence	Kuhl's pipistrelle	Pipistrellus kuhlii	LC	Annex II Bern Convention			
241		Desktop: potential presence only	Least weasel	Mustela nivalis	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
242		Desktop: potential presence only	Lesser horseshoe bat	Rhinolophus hipposideros	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
243		Indirect: signs of presence	Lesser mole rat	Nannospalax leucodon	DD				
244		Desktop: potential presence only	Lesser mouse-eared bat	Myotis blythii	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
245		Yes	Lesser noctule	Nyctalus leisleri	LC	Annex II Bern Convention			
246		Desktop: potential presence only	lesser white-toothed shrew	Crocidura suaveolens	LC				
247		Desktop: potential presence only	Long-fingered bat	Myotis capaccinii	VU	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention & Criterion 2i.g: EAAA supports VU species
248		Desktop: potential presence only	Macedonian mouse	Mus macedonicus	LC				
249		Desktop: potential presence only	Marbled polecat	Vormela peregusna	VU	Annex II Bern Convention	Y		Qualifies as PBF under Criteria 2i.a: EAAA for R6 species & 2i.g: EAAA supports VU species
250		Desktop: potential presence only	Mediterranean horseshoe bat	Rhinolophus Euryale	NT	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
251		Desktop: potential presence only	Mehely's Horseshoe Bat	Rhinolophus mehelyi	VU	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criteria 2i.a: EAAA for R6 species, Criterion 2i.g: EAAA supports VU species & Criterion 2i.g: EAAA supports VU species
252		Desktop: potential presence only	Nathusius's pipistrelle	Pipistrellus nathusii	LC	Annex II Bern Convention			
253		Desktop: potential presence only	Natterer's bat	Myotis nattereri	LC	Annex II Bern Convention			
254		Desktop: potential presence only	Northern white-breasted hedgehog	Erinaceus roumanicus	LC				
255		Yes	Parti-coloured bat	Vespertilio murinus	LC	Annex II Bern Convention			
256		Desktop: potential presence only	Red wolf	Vulpes vulpes	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
257		Yes	Savi's pipistrelle	Hypsugo savii	LC	Annex II Bern Convention			
258		Desktop: potential presence only	Serotine bat	Eptesicus serotinus	LC	Annex II Bern Convention			
259		Yes	Soprano pipistrelle	Pipistrellus pygmaeus	LC				
260		Desktop: potential presence only	Southern vole	Microtus mystacinus	LC				
261		Desktop: potential presence only	Southern water shrew	Neomys anomalus	LC				
262		Desktop: potential presence only	Steppe Whiskered Bat	Myotis aurascens	LC	Annex II Bern Convention			
263		Desktop: potential presence only	Western Barbastelle	Barbastella barbastellus	NT	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
264		Desktop: potential presence only	Whiskered bat	Myotis mystacinus	LC	Annex II Bern Convention			
265		Desktop: potential presence only	Wild boar	Sus scrofa	LC				
266		Desktop: potential presence only	Wildcat	Felis silvestris	LC	Annex II Bern Convention			
267		Desktop: potential presence only	Wood mouse	Apodemus sylvaticus	LC				
268		Desktop: potential presence only	Yellow-necked Mouse	Apodemus flavicollis	LC				
269		Desktop: potential presence only	Aesculapian snake	Zamenis longissimus	LC	Annex II Bern Convention			
270		Yes	Balkan green lizard	Lacerta trilineata	LC	Annex II Bern Convention			
271	Amphibians	Yes	Balkan wall lizard	Podarcis taurica	LC	Annex II Bern Convention			
272		Desktop: potential presence only	Blotched snake	Elaphe sauromates	LC				
273		Yes	Caspian whip snake	Dolichophis caspius	LC				

No.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
274		Desktop: potential presence only	Common wall lizard	Podarcis muralis	LC	Annex II Bern Convention			
275		Desktop: potential presence only	Dahl's whip snake	Platyceps najadum	LC	Annex II Bern Convention			
276		Desktop: potential presence only	Dice snake	Natrix tessellate	LC	Annex II Bern Convention			
277		Desktop: potential presence only	Eastern montpellier snake	Malpolon insignitus	LC				
278		Desktop: potential presence only	European glass lizard	Pseudopus apodus	LC	Annex II Bern Convention			
279		Yes	European green lizard	Lacerta viridis	LC	Annex II Bern Convention			
280		Yes	European pond turtle	Emys orbicularis	NT	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
281		Desktop: potential presence only	European ratsnake	Zamenis situla	LC	Annex II Bern Convention			
282		Yes	Grass snake	Natrix natrix	LC	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
283		Yes	Italian wall lizard	Podarcis sicula	LC	Annex II Bern Convention			
284		Desktop: potential presence only	Kotschy's gecko	Mediodactylus kotschyi	LC	Annex II Bern Convention			
285		Yes	Mediterranean Spur- thighed Tortoise	Testudo graeca	VU	Annex II Bern Convention Revised Annex I of Resolution 6	Y		Qualifies as PBF under Criterion 2i.e: Species listed in terms of Resolution 6 of Bern Convention
286		Desktop: potential presence only	Nose-horned viper	Vipera ammodytes	LC	Annex II Bern Convention			
287		Desktop: potential presence only	Red whip snake	Platyceps collaris	LC				
288		Desktop: potential presence only	Ring-headed dwarf snake	Eirenis modestus	LC				
289		Desktop: potential presence only	Sand Boa	Eryx jaculus	LC				
290		Desktop: potential presence only	Slow worm	Anguis fragilis	LC				
291		Desktop: potential presence only	Smooth snake	Coronella austriaca	LC	Annex II Bern Convention			

N	о.	Faunal Group	Direct Observation	Species: Common Name	Species: Latin Name	IUCN (Global) RDLThreat Status	Bern Convention	Qualifying as PBF Habitat	Qualifying as CH	Comments
29	92		Yes	Snake-eyed lizard	Ophisops elegans	LC	Annex II Bern Convention			
29	93		Yes	Snake-eyed skink	Ablepharus kitaibelii	LC	Annex II Bern Convention			
29	94		Desktop: potential presence only	Soosan snake	Telescopus fallax	LC	Annex II Bern Convention			
29	95		Yes	Western caspian turtle	Muaremys rivulata	NE				
29	96		Desktop: potential presence only	Worm snake	Typhlops vermicularis	LC				

Key: Threat Status: CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened, DD = Data Deficient, LC = Least Concern Shaded rows indicate PBF threatened species (CR, EN, VU threat status)

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