

CURRENT STATUS OF ENDANGERED BIRD SPECIES IN BRĂILA COUNTY: CONSERVATION AND MANAGEMENT APPROACH

Elena Buzea

Received: 06.10.2025 / Accepted: 05.12.2025

Abstract: Wetlands are essential for bird conservation, providing important breeding, nesting, feeding, and resting places, especially for waterbirds. The loss and degradation of wetlands (due to drainage, pollution, water diversion, etc.) threatens waterbirds, making it necessary to protect them through initiatives such as Ramsar sites and habitat restoration, although prioritizing natural wetlands is essential for biodiversity, requiring integrated management, monitoring, and community involvement for effective conservation. The wetlands in Brăila County cover a fluctuating area of over 2,000 km² in southeastern Romania. These wetlands consist of grasslands, lakes, and ponds, each with its own characteristics and ecological importance. This document only refers to the critically endangered, threatened and vulnerable bird species living in these wetlands, in order to draw attention to the dangers threatening these species, to their important conservation status, in order to take specific measures on the ground. A total of 14 species in different conservation categories, globally threatened species, have been identified in the Brăila County region (nesting or non-nesting species). The study presents the conservation status of these bird species, which include nine species of water birds and five species of water-related birds, in addition to those commonly found around and within the region. It also presents current information on specific habitats, estimated population numbers in Romania, the main threats, and the measures needed to protect and conserve endangered bird species and their habitats.

Keywords: conservation measures, endangered birds species, habitats, wetlands

Introduction:

Birds have always aroused human curiosity and interest, since the dawn of history, influencing culture and later serving as a source of inspiration for the invention and

development of flight mechanisms. At the same time, they have been hunted continuously and served as a source of food. Over time, the development of human activities has led to the degradation and significant alteration of the natural habitats where they lived, damaging their nesting, roosting, feeding, and breeding areas. As a result, many species have declined in number, with some disappearing completely. At present, there are few places left where birds can find refuge and favorable living conditions, and wetlands account for a significant proportion of these.

Among the global problems facing humanity, environmental protection has

Elena Buzea:

Museum of Braila "Carol I"
Department of Natural Sciences
Aleea Parcului No. 15
810296 Braila
Romania

email:
elenabuzea@gmail.com

gained significant importance in recent decades, with both positives and negatives in terms of nature management.

On the positive side, we can refer to the numerous legislative or concrete actions taken by various governmental and non-governmental, national and international organisations and institutions to protect and preserve the biodiversity of planet Earth.

Despite these particularly important measures, we must note that the negative effects of human actions on the environment are far more numerous than those carried out for the benefit of nature. The desire for economic development, and progress in general, has not taken, and does not take, into account the natural laws of nature. As a result, many areas of the planet are threatened with degradation or even disappearance in the near or distant future. Perhaps the most affected areas on earth are wetlands and forests, whose surface area is shrinking dramatically every year. In fact, a considerable number of key wetlands, which are home to a multitude of habitats and species, are suffering from various types of threats.

Materials and methods:

Study area

The study was based on specific selective research methods: identifying the research problem, defining the research framework, collecting information, processing data, analyzing and interpreting it, and formulating conclusions. The sources of information used are official data obtained from scientific publications, guides, and field studies. This paper also uses the latest version of the IUCN Red List - Version 3.1 (2021) to classify the conservation status of the birds studied.

Braila County is located in the southeastern part of Romania. It borders Constanța County to the southeast and Tulcea County to the east, Galati County to the north, Vrancea County to the northwest,

Buzau County to the west, and Ialomița County to the south, with coordinates: 44°44' 45°30'N and 27°04' 28°10'E (Fig. 1).

The territory of Braila County is mostly centered on the plain unit — central and northern Bărăgan — and on the Danube Meadow — known as Braila Marsh (Balta Brăilei). Added to these are the floodplains of the Siret, Buzău, and Călmățui rivers, i.e., the lower sections of these watercourses (Gâștescu and Gruescu 1973).

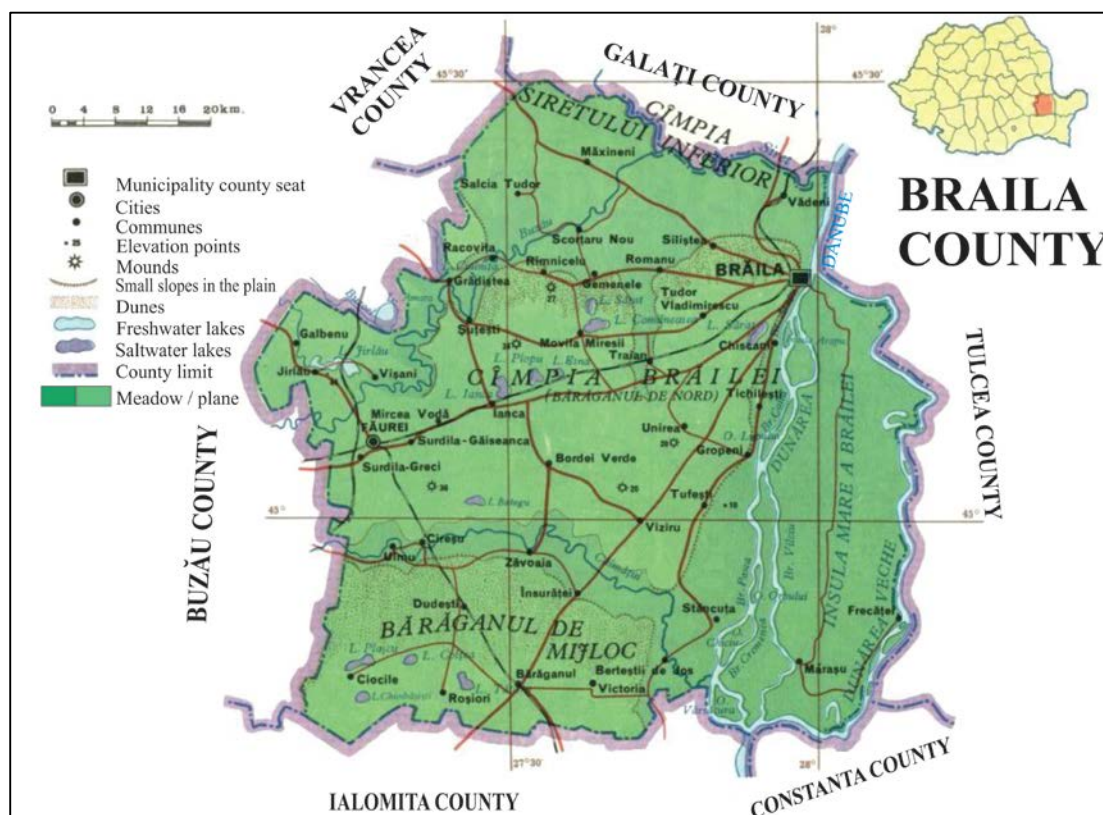
The hydrographic network of Braila County is one of the poorest in comparison with other areas of the country and it consists of flowing waters (Buzău, Siret, Călmățui, and Danube River) and lakes — steppe and floodplain lakes.

The natural lakes are river estuary, floodplain, and subsidence depression lakes, located in the north and center of the county, north and south of the Buzau River, from left to right: Jirlău, Batogu, Plopu, Seaca, Salt Lake, near the Danube (eastern edge), and to the southeast, Tataru Lake.

The first category consists of lakes located in large loess (Ianca 332 ha, Plopu 300 ha, Lutul Alb 357 ha) subsidence depressions. Another category of lake basins is formed by river estuaries (Jirlău 1086 ha, Căineni 74 ha, Ciulnița 92 ha). Meander and abandoned arm lakes are found mainly in the Danube Meadow (Blasova 400 ha, Japșa Plopilor 76 ha), on the Calmatui terrace (Salt Batogu, Bentu Batogu) and near Braila (Salt Lake) (C.J. Brăila 2025).

Alongside the plain, the Danube and the floodplain (Braila Marsh) form the second geographical feature of Braila County. The Braila Meadow has its own formations: islands, meanders, abandoned riverbeds, and lakes.

Brăila Marsh, located between the two branches of the Danube, the navigable Danube (Cremenea Arm) to the west and the Old Danube (Macin Arm) to the east, was one of the most important hydrobiological units in the Danube Meadow.

Figure no. 1 Braila County Map

Source: www.blog.worldlifetimejourneys.com/braila-map.html

For our country, but especially for the geographical area of Braila County, the existence half a century ago of the Braila Marsh (and its sister, the Borcea Marsh) represented a true oasis of vegetation and light, a true paradise for numerous species of aquatic and non-aquatic plants and animals. Functioning as a huge ecotone area, the Braila Marsh attracted, like a magnet, a biodiversity rarely found on the Danube River, comparable only to that of the Danube Delta. Perhaps this is why some people called this huge wetland the "Braila Delta".

The developments carried out between 1964 and 1970 on the Braila Marsh through drainage, embankment, and agricultural use of the land (Big Island of Braila) radically altered both the relief and the local microclimate. The construction of embankments on both sides of the Danube, with a total length of over 150 km, removed

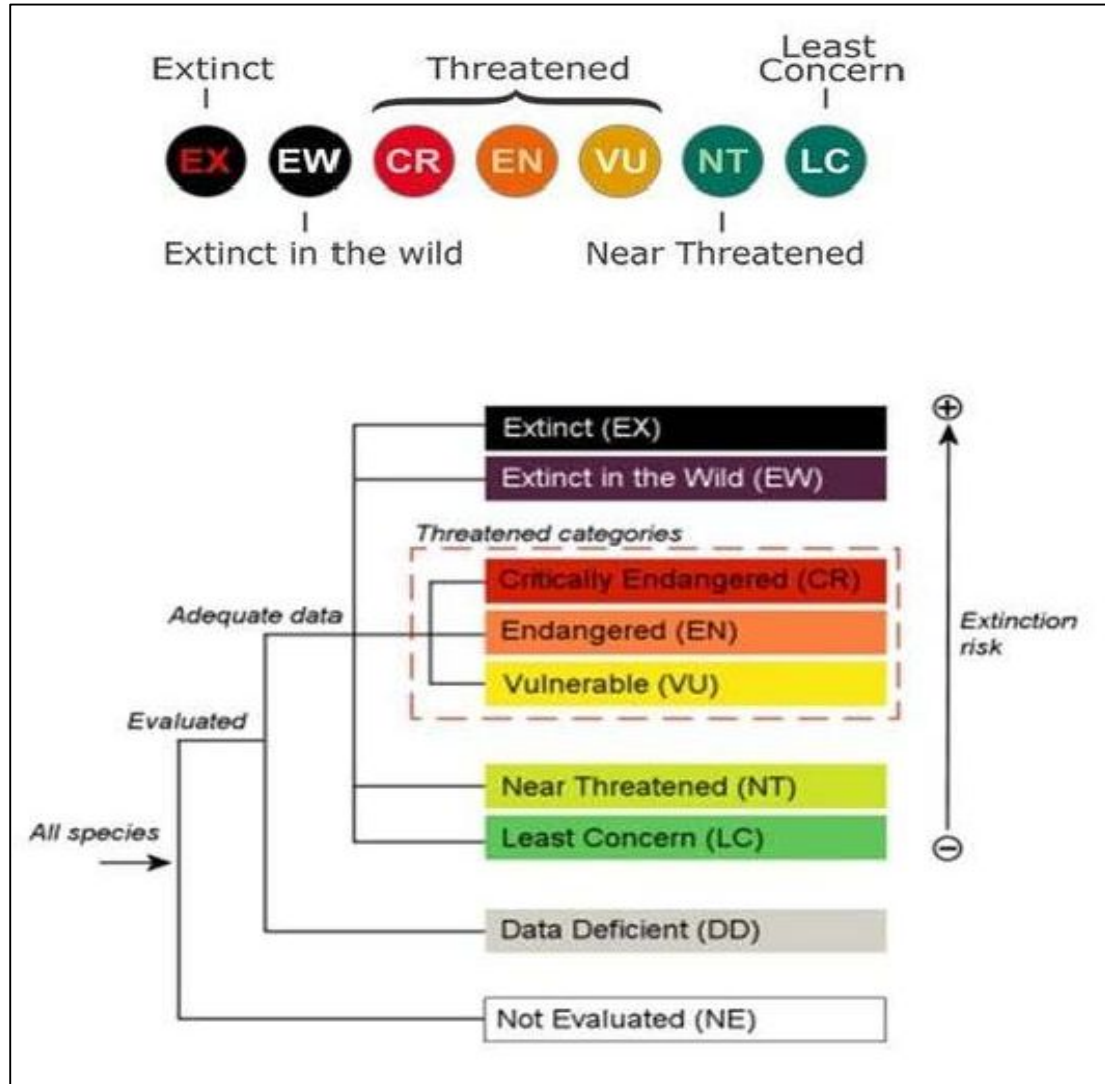
an area of 72,382 ha from the river's natural floodplain (Onea 2014).

Human intervention in this biome, motivated by the desire to give it a new appearance and use, resulted in the disappearance of the Braila Marsh from the country's map. In its place, through drainage and dike construction, a huge agroecosystem known as Big Island of Braila emerged. Over time, it became clear that man's "beneficial" intention to transform nature had some of the most undesirable effects, of which soil salinization and degradation are among the most serious (Onea and Buzea 2006).

This document only addresses endangered, threatened, and vulnerable bird species living in Braila's wetlands, for their important conservation status and to assist the management to take specific action on the ground. The figure below (Fig. 2) shows the scope in this paper which involves only

the Critically Endangered, Endangered, and Vulnerable bird species that live inside and around the Braila County region.

Figure no. 2 Structure of the categories



Map source: IUCN Red List (2021)

In order to highlight the specific conditions and current status of each species concerned, this document briefly describes the current situation of the 14 species found in Romania and, implicitly, in our area, their specific habitats, populations in Europe, as well as the threats or conservation measures that are required. In addition to the results of field observations (Onea 2014), the

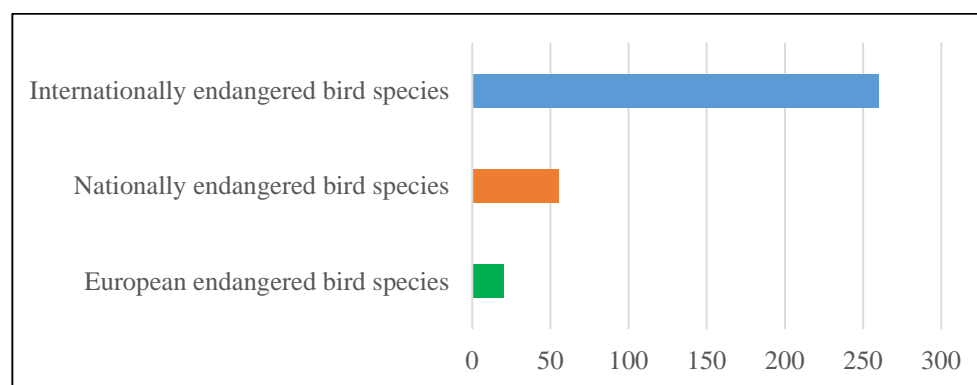
description of bird species in Braila County and their habitats was based on the "Catalogue of habitats, species and Natura 2000 sites in Romania" (Mănoiu and Brânzan 2013). Also, Hagemeyer et al. 1997; Brunn et al. 1999; BirdLife International 2021; Ciochia 1992, 2002; Fântână et al. 2022; IUCN Red List 2025-2 and information provided by the Romanian

Ornithological Society (2025) were used to describe the bird species in Braila County, their habitats and conservation status.

In parallel with the development of the national red list, BirdLife International undertook a European-level assessment process based on the results of reporting by European Union member states for Article 12 of the Birds Directive (Directive 2009/147/EC of the European Parliament and of the Council of November 30, 2009 on the conservation of wild birds) for the period 1980-2018, which, combined with data collected from BirdLife national partners in European countries that are not members of

the European Union, resulted in the Red List of European Birds published in 2021 (BirdLife International 2021). Naturally, by applying the same criteria to different data sets, the results are not entirely identical, resulting in a number of differences. These differences resulted from and are interpreted by Romania's central or peripheral position in a species' range, by the number of individuals of a species being lower in Romania than in Europe, by population trends that sometimes differ at European and national level, etc. A summary of these differences is illustrated in Figure 3.

Figure no. 3: The status of endangered species at national and European level, from the list of species assessed at national level



Data source: MMAP (2022)

Areas of importance for birdlife

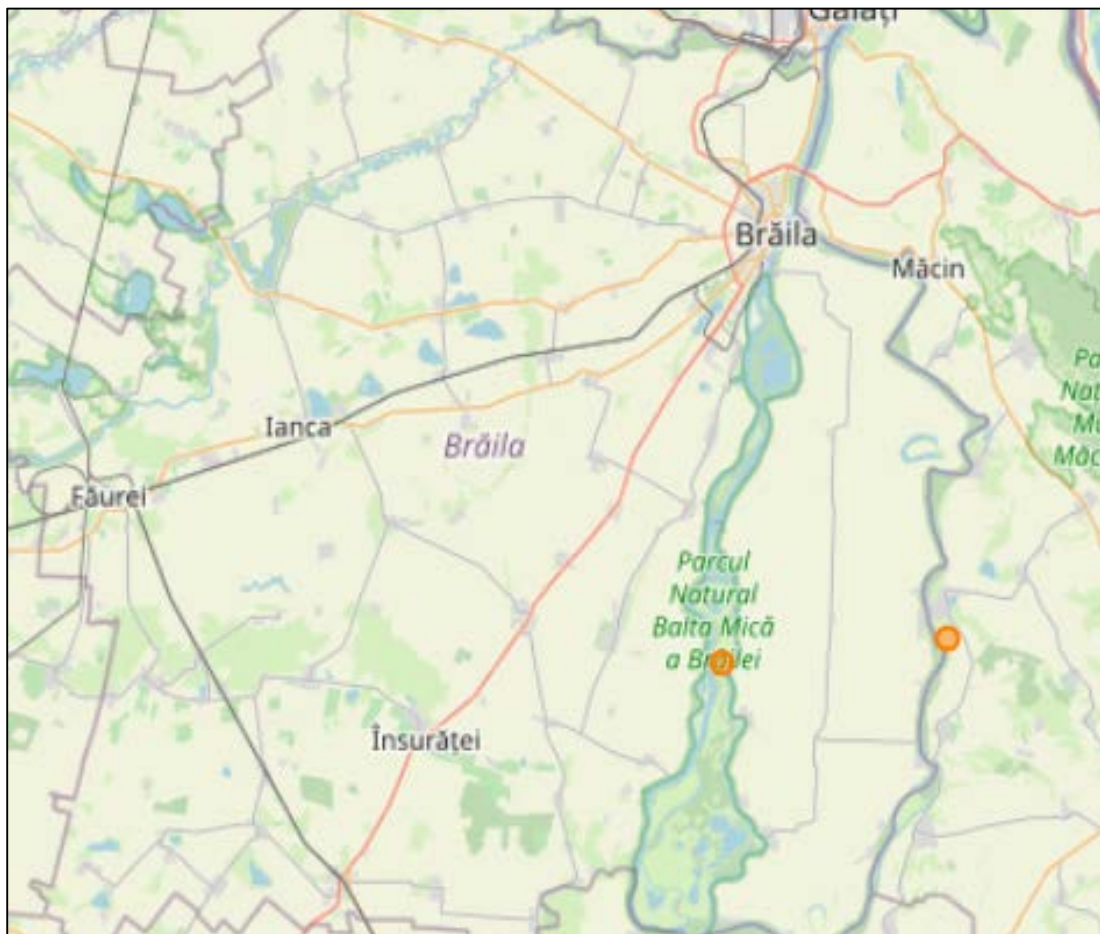
Today, Romania has 20 Ramsar sites designated by the Ramsar Convention Secretariat, with a total area of 1,175,880 ha,

representing approximately 5% of the country's area. Braila County is home to 2 Ramsar sites, as international habitats for waterfowl (Tab. 1; Fig. 4):

Table no. 1 Wetlands in Brăila County designated as RAMSAR sites

Crt. No.	Name	National Code	INSPIRE Code	Area (ha)
1.	Balta Mică a Brăilei Natural Park	RO1074	RORMS0002	17586
2.	Old Danube-Măcin Arm	RO2116	RORMS0019	26792

Source: ANMAP (2025)

Figure no. 4 Ramsar Sites from Braila County

Map source: <https://rsis Ramsar.org/#list>

Balta Mica a Brailei Natural Park (Parcul Natural Balta Mică a Brailei (PNMB)). RORMS0002; 44°58'N 02755°E.

An area of international importance for birdlife, it was designated a RAMSAR site in 2001 and included in the Natura 2000 network in 2008. Furthermore, in 2007, Small Braila Island was declared both a special bird protection area (SPA) and a site of Community Importance (SCI).

According to the criteria developed by BirdLife International for designating Areas of Importance for Birdlife, 34 bird species have been reported in this area that are internationally recognized as endangered or vulnerable, and their protection is absolutely necessary.

Balta Mica a Brailei Natural Park (PNBMB) is the only area that remains in a natural hydrological regime (floodplain) after the embankment of approximately 75% of the former Braila Marsh and the creation of The Big Island of Braila agricultural enclosure. It is an area of great importance from an ornithological point of view - the existing avifauna represents 53% of that of Romania - Small Island of Braila is located on the most important bird migration corridor in the lower basin of the Lower Danube (ADR-SE 2025).

The total area of the Balta Mica a Brailei Natural Park is approximately 27,000 ha, representing the area that remained flood-free after the embankment of Braila Marsh

was completed. Due to its size and ecological importance, the Balta Mica a Brailei Natural Park is of particular interest to the scientific community, as it is still a largely unstudied area (Onea 2014).

Old Danube – Macin Arm (Dunărea Veche-Brațul Măcin). RORMS0019; 44°59'N 28°09'14"E

Another area that became a RAMSAR site in February 2013 is the Old Danube – Măcin Arm. The Old Danube – Macin Arm RAMSAR site is a wetland of international importance whose purpose is to ensure the protection and conservation of the site with biodiversity specific to wetlands, especially as a habitat for water birds and important migration corridor.

Located in the southeast of the country, in the counties of Braila, Constanța, and Tulcea, the area covers a total of 26,792 ha.

The protected area is part of the steppe geographical bioregion and is a natural area (rivers, lakes, marshes, peat bogs, steppes, natural grasslands, cultivated arable land, deciduous forests) that provides food, nesting, and living conditions for several species of migratory, passage, or sedentary birds, of which 51 species have international protection status.

In addition to these, Braila County also has other wetlands, protected natural areas of Community interest (SCI, SPA) - as an integral part of the European ecological network Natura 2000 in Romania (Tab. 2 and 3; Fig. 5).

Table no. 2 Special avifaunistic protection areas (SPA) in Braila county

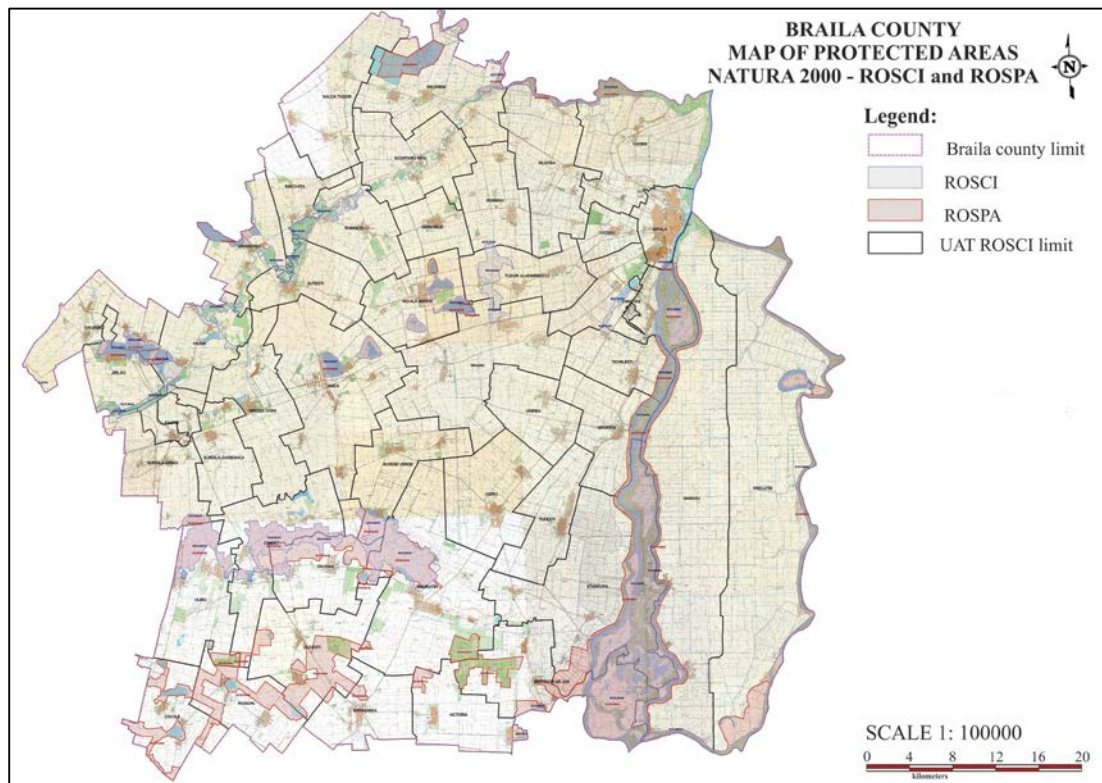
Crt. no.	Name	National Code	INSPIRE Code
1.	Balta Albă-Amara-Jirlău	ROSPA0004	ROSPA0004
2.	Balta Mică a Brăilei Natural Park	ROSPA0005	ROSPA0005
3.	Tătaru Marsh	ROSPA0006	ROSPA0006
4.	Old Danube - Măcin Arm	ROSPA0040	ROSPA0040
5.	Ianca-Plopu-Sărat	ROSPA0048	ROSPA0048
6.	The Lower Siret Meadow	ROSPA0071	ROSPA0071
7.	Măxineni	ROSPA0077	ROSPA0077
8.	Berteștii de Sus – Gura Ialomiței	ROSPA0111	ROSPA0111
9.	Valea Călmățuiului	ROSPA0145	ROSPA0145
10.	Buzău Meadow	ROSPA0160	ROSPA0160

Source: ANANP (2025)

Table no. 3 Sites of community importance (SCI) in Brăila county

Crt. no.	Name	National Code	INSPIRE Code
1.	Balta Albă-Amara-Jirlău-Lacu Sărat Căineni	ROSCI0005	ROSCI0005
2.	Balta Mică a Brăilei Natural Park	ROSCI0006	ROSCI0006
3.	Măcin Arm	ROSCI0012	ROSCI0012
4.	Buzău Meadow	ROSCI0103	ROSCI0103
5.	The Lower Siret Meadow	ROSCI0162	ROSCI0162
6.	Valea Călmățuiului	ROSCI0259	ROSCI0259
7.	Ianca-Plopu - Sărat-Comăneasca	ROSCI0305	ROSCI0305
8.	Lacu Sărat - Brăila	ROSCI0307	ROSCI0307
9.	Sărăturile de la Gura Ialomiței - Mihai Bravu	ROSCI0389	ROSCI0389

Source: ANANP (2025)

Figure no. 5 Map of Natura 2000 protected sites of Braila County – ROSCI and ROSPA

Map source: C.J. Braila (2016)

The Natura 2000 network of protected areas

Natura 2000 is a type of protected area established by the European Union in 1992 on the basis of the Birds Directive and the Habitats Directive, and is a cornerstone of EU nature conservation policy.

The Natura 2000 network is a pan-European network of protected areas, including both SCIs (Sites of Community Importance) and SPAs (Special Protection Areas). They have a dual designation, covering both directives. In Romania, there are hundreds of such sites covering various ecoregions: alpine, continental, Pannonian, Pontic, and steppe (ANANP 2025).

SPAs and SCIs are the two main types of sites that make up the European Natura 2000 ecological network in Romania, their purpose being to conserve bird species (SPA) and habitats/species of Community interest (SCI) in order to maintain a

favorable conservation status, many of them overlapping on national territory.

Special Protection Areas for Birds (SPA)

The main purpose of these areas is to conserve, maintain, and, where necessary, restore favorable conditions for bird species, based on the European Union's Birds Directive (Directive 79/409/EEC).

Through the designation of these special protection areas, over 200 bird species have been given an important role in the designation of Natura 2000 areas, as their protection contributes to the protection of many other species (umbrella effect) (Kelemen et al. 2019).

Sites of Community Importance (SCI)

These sites aim to conserve plant and animal species (other than birds) and natural habitat types of European interest, in accordance with the Habitats Directive (92/43/EEC).

SCIs are designated either for the protection of 231 natural habitat types or for the protection of over 800 priority species (Kelemen et al. 2019).

Results and discussion:

A total of 14 aquatic species are classified as endangered (EN), vulnerable (VU), or

critically endangered (Tab. 4) on both national and global conservation category. The birds listed below are species that have been globally assessed by the IUCN Red List (2021) as "threatened" species. These bird species include true waterbirds and those that can be found near ponds and depend on these wetlands for either feeding or resting.

Table no. 4 List of bird species and category at national and global level

Crt.	Species Name	National Cat.	Global Cat.
1.	<i>Falco cherrug</i> (Saker Falcon)	EN	EN
2.	<i>Falco vespertinus</i> (Red-footed Falcon)	VU	NT
3.	<i>Clanga (Aquila) clanga</i> (Greater Spotted Eagle)	EN	VU
4.	<i>Melanocorypha calandra</i> (Calandra Lark)	EN	LC
5.	<i>Branta ruficollis</i> (Red-breasted Goose)	VU	VU
6.	<i>Milvus migrans</i> (Black Kite)	CR	LC
7.	<i>Haliaeetus albicilla</i> (White-tailed Sea-eagle)	VU	LC
8.	<i>Circus pygargus</i> (Montagu's Harrier)	VU	LC
9.	<i>Lanius minor</i> (Lesser Grey Shrike)	VU	LC
10.	<i>Glareola pranticola</i> (Collared Pratincole)	VU	LC
11.	<i>Porzana (Zapornia) pusilla</i> (Baillon's Crake)	VU	LC
12.	<i>Crex crex</i> (Corncrake)	VU	LC
13.	<i>Eudromias (Charadrius) morinellus</i> (Eurasian Dotterel)	CR/PE	LC
14.	<i>Grus grus</i> (Common Crane)	RE	LC

Note: EN – endangered; VU – vulnerable; CR/PE – critically endangered/potentially extinct; RE – regionally extinct; LC – least concern

1. *Falco cherrug* (Saker Falcon) – Fam. Falconidae.

This species has been assessed at national level as endangered, based on its current conservation status, due to the massive decline in the global breeding population. The Saker Falcon is a predator specific to large, open areas such as steppes, agricultural fields, or mountain plateaus. It nests in semi-open, forest-steppe areas. In Romania, this species was quite common in the past, but has suffered a dramatic decline, currently reaching only 4-30 nesting pairs, with a slight upward trend. During migration, between 50 and 200 specimens can be observed in our country.

Main threats: capture by falconers, disturbance caused by forestry and human

activities, alteration of food resources, pollution and illegal use of poisons, poaching near nesting sites, and collision with high-voltage power lines are dangers that have a significant impact on the species. The fact that females are preferred by falconers leads to a sex imbalance in the wild population. Approximately 90% of the specimens estimated to be caught annually by falconers during migration are females.

Conservation measures: A conservation program for the nesting population in Hungary and Romania is currently being carried out through a LIFE project, and partners in Romania are SOR/BirdLife Romania and the Milvus Group.

Sites designated for conservation: Măxineni.

2. *Clanga (Aquila) clanga* (Greater Spotted Eagle) – Fam. Accipitridae.

This species is endangered both nationally and globally. In Romania, it is a rare migratory species (50-100 individuals) and a localized winter visitor. The species is characteristic of low-altitude forested areas located near wetlands. Unlike the lesser spotted eagle, it shows a clear preference in all seasons for the proximity of water or wetlands, even those that have been altered by humans.

Main threats: Reduction of forested areas and wetlands, human activities, alteration of food resources, pollution, and illegal use of poisons or poaching are the main threats to this species.

Conservation measures: An International Action Plan was developed in 2000. A National Action Plan was developed in Belarus.

Sites designated for conservation: Măxineni.

3. *Falco vespertinus* (Red-footed Falcon) – Fam. Falconidae.

This endangered species is one of the birds of prey encountered during the migration season. A decline of up to 30% over three generations (approximately 17 years) is estimated for this species. The nesting population in Romania is estimated to be between 1,500 and 2,500 pairs and follows the European population trend, which is also declining. A typical lowland species, it prefers open areas alternating with clusters of trees in steppe and forest-steppe habitats, but it also likes clusters of trees located between arable land.

Main threats: The absence of nesting sites due to the reduction of crow populations in some areas, the clearing of tree clusters in nesting areas, and the intensification of agriculture through the use of pesticides are the main threats to the species.

Conservation measures: A program to conserve the nesting population in Hungary and western Romania was carried out through a LIFE project in which the Milvus Group was a partner in Romania.

Sites designated for conservation: Balta Albă-Amara-Jirlău, Balta Mica a Brailei Natural Park, Tataru Lake, Old Danube-Macin Arm, Ianca-Plopu-Sărat.

4. *Branta ruficollis* (Red-breasted Goose) – Fam. Anatidae.

This species, which is vulnerable both locally and globally, is in moderate decline. The species does not nest in Romania, being present here only for wintering. In Romania, between 5,488 and 10,887 specimens (out of an estimated 56,000 globally) can be observed during migration, with between 9,915 and 16,141 specimens wintering here. It can also be found sporadically in other areas of Western Europe during winter migration, together with populations of other species of the same genus (*Branta bernicla* or *Branta leucopsis*).

Main threats: habitat loss and alteration, pollution and poor water management, poaching, anthropogenic disturbance.

Necessary conservation measures: avoiding the use of treated seeds in the vicinity of wetlands; encouraging organic production; encouraging the use of selective and low-toxicity agrochemicals; maintaining uncultivated strips of at least 1.5 m between cultivated land and wetlands, where the use of chemicals is strictly prohibited; control and enforcement of hunting legislation; cooperation between environmental protection organizations, hunting organizations, gendarmerie, and the Environmental Guard against poaching; compliance with restrictions in riparian and coastal areas; waste and wastewater management in areas of important habitats for the species; management of water levels in reservoirs in accordance with the ecological needs of the species; identification of migration, feeding, and aggregation areas important for the conservation of the species; promotion of studies on various aspects of the species' biology, including those related to demographic parameters.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Balta Mica a Brailei Natural Park, Balta Tătaru, Old

Danube-Macin Arm, Ianca-Plopu-Sărat, Măxineni.

5. *Melanocorypha calandra* (Calandra Lark) – Fam. Alaudidae.

This species is endangered at the regional level. Calandra Lark (or The Baragan Lark) is characteristic of arid and cultivated lowlands, grasslands, and natural steppes. The European population is large, ranging from 10,000,000 to 24,000,000 pairs. It experienced a moderate decline between 1970 and 1990. Although in some countries, such as Turkey, it remained stable between 1990 and 2000, at European level the population suffered a moderate decline. In Romania, the presence of 85,000-105,000 pairs is estimated. The largest populations are found in Russia, Turkey, and Spain.

Main threats: The use of insecticides in agriculture, poaching, and the increase in the number of grazing animals have a strong negative impact.

Conservation measures needed: Improving agricultural practices and reducing poaching are priorities.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Tataru Lake, Old Danube-Macin Arm, Ianca-Plopu-Sărat.

6. *Milvus migrans* (Black Kite) – Fam. Accipitridae.

This species has been assessed at the national level as critically endangered, based on its current conservation status. It is a medium-sized diurnal bird of prey, characteristic of forests located near wetlands. The European population of the species is relatively small, ranging between 64,000 and 100,000 pairs. It declined considerably between 1970 and 1990. Although the population in France was stable or increased between 1990 and 2000, it continued to decline in the rest of the territory. In Romania, the estimated population is 120-160 pairs.

Main threats: Electrocutation of birds when they land on medium-voltage power lines, collision with motor vehicles when they are caught trying to pick up rodents and other dead animals from the roads, poisoning

through the consumption of dead animals, especially rodents, and poaching are the main dangers affecting the species.

Necessary conservation measures: Preserving the quality of characteristic habitats and stopping hunting are measures that can be easily implemented with significant effects.

Sites designated for conservation: Small Island Braila and Old Danube-Macin Arm.

7. *Haliaeetus albicilla* (White-tailed Eagle) – Fam. Accipitridae.

Although globally The White-tailed Eagle has relatively stable populations, nationally it has vulnerable species status. It is a diurnal bird of prey, characteristic of open areas near sea coasts and freshwater lakes, close to which there are old trees or rocky islands. The European population of the species is small, between 5,000 and 6,600 pairs. A population increase was noted between 1970 and 1990, a trend that continued between 1990 and 2000. In Romania, the estimated population is 28-33 pairs, but in the past it was a common sight. The largest populations are in Norway, Russia, and Poland.

Main threats: destruction of wetland habitats, deforestation, increased disturbance from human activities, accidental poisoning, and collision with wind turbine blades are the main threats affecting the species.

Conservation measures: An International Action Plan has been developed for the conservation of the species.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Balta Mica a Brailei Natural Park, Old Danube-Macin Arm, Măxineni.

8. *Circus pygargus* (Montagu's Harrier) – Fam. Accipitridae.

A vulnerable species at national level, but with stable populations globally. The Montagu's Harrier is a species characteristic of open areas, dry steppes, and agricultural land near rivers, lakes, or seas. The European population of the species is relatively small, ranging between 35,000 and 65,000 pairs. It increased significantly between 1970 and

1990, after which, although the increase slowed down, it continued to grow. In Romania, the estimated population is 1-12 pairs. The largest populations are found in Russia, France, Spain, and Belarus.

Main threats: Habitat degradation in nesting areas, through the reduction of pastures and the intensification of agriculture, are the main threats affecting the species.

Necessary conservation measures: In Western Europe, about 70% of the population nests in agricultural crops, being vulnerable due to the high risk of nest destruction. Under these conditions, once the nests have been identified, they are either relocated or the area where the nest is located is left unharvested. In France, over 60% of chicks are saved through these measures.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Old Danube-Macin Arm, Măxineni.

9. *Zapornia (Porzana) pusilla* (Baillon's Crane) – Fam. Rallidae.

The Baillon's Crane is a species characteristic of freshwater or saltwater wetlands, flooded pastures, and shallow marshes. The European population of the species is very small, ranging between 760 and 3,200 pairs. It remained stable between 1970 and 1990. Although a decline was observed in some countries between 1990 and 2000, it is difficult to assess the population trend because no data is available for Russia. Being a small population, it is always at risk, which is why the species is considered rare. In Romania, the estimated population is 10-20 pairs. The largest populations are in Russia, Serbia, Bulgaria, and Croatia.

Main threats: The destruction and degradation of wetlands, the cutting and burning of reeds at inappropriate times, and collisions with power lines during migration are the main dangers affecting the species.

Necessary conservation measures: Monitoring water levels in artificial fish ponds and ensuring the maintenance of

aquatic vegetation on their banks are necessary measures for the conservation of the species.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău.

10. *Crex crex* (Corncrake) – Fam. Rallidae.

This migratory species has been assessed as vulnerable at regional level, based on its current conservation status. The Corn crane is characteristic of lowland areas such as wet pastures, but also agricultural crops (cereals, rapeseed, clover, potatoes). The European population of the species is very large, ranging between 1,300,000 and 2,000,000 pairs. It declined significantly between 1970 and 1990. Although there was an upward trend between 1990 and 2000 in many countries, the population in Russia fluctuated, so that overall the population remained stable. In Romania, the estimated population is 44,000-60,000 pairs, with larger numbers in Russia and Ukraine.

Main threats: The destruction and degradation of habitats represented by wet grasslands, the destruction of nests and nesting sites during mowing in the case of grasslands and harvesting in the case of crops are the main threats affecting the species.

Necessary conservation measures: The agri-environmental measure whereby farmers are paid for complying with certain conditions (mowing date, etc.) that ensure the survival of the species on their land supports the conservation of the species (proposed by SOR/BirdLife Romania).

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Măxineni.

11. *Grus grus* (Common Crane) – Fam. Gruidae.

This migratory species has been assessed as vulnerable at regional level, based on its current conservation status. The Common Crane is characteristic of lowland areas such as wet pastures, but also agricultural crops (cereals, rapeseed, clover, potatoes). The European population of the species is very large, ranging between 1,300,000 and

2,000,000 pairs. It declined significantly between 1970 and 1990. Although there was an upward trend between 1990 and 2000 in many countries, the population in Russia fluctuated, so that overall the population remained stable. In Romania, the estimated population is 44,000-60,000 pairs, with larger numbers in Russia and Ukraine.

Main threats: The destruction and degradation of habitats represented by wet grasslands, the destruction of nests and nesting sites during mowing in the case of grasslands and harvesting in the case of crops are the main threats affecting the species.

Necessary conservation measures: The agri-environmental measure whereby farmers are paid for complying with certain conditions (mowing date, etc.) that ensure the survival of the species on their land supports the conservation of the species (proposed by SOR/BirdLife Romania).

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Măxineni.

12. *Glareola pratincola* (Collared Pratincole) – Fam. Glareolidae.

This vulnerable species is a common visitor during the breeding season. The Collared Pratincole is a species characteristic of open, salty, sandy areas with little vegetation, near lagoons. The European population of the species is relatively small, ranging between 10,000 and 18,000 pairs. It declined significantly between 1970 and 1990. Due to the decline recorded in Spain and Turkey between 1990 and 2000, the European population continues to decline. In Romania, the estimated population is 450-800 pairs. The largest populations are found in Spain and Turkey.

Main threats: Habitat degradation through the use of insecticides and disturbance of colonies are the main threats affecting the species.

Conservation measures needed: This species benefits from conservation measures targeting its characteristic habitats.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău, Tataru Lake, Ianca-

Plopu-Sărat, The Lower Siret Meadow, Măxineni.

13. *Lanius minor* (Lesser Grey Shrike) – Fam. Laniidae.

A vulnerable species in our country, it does not raise concerns at the international level. The Lesser Grey Shrike is characteristic of open agricultural areas with isolated bushes and trees. The European population is large, ranging between 620,000 and 1,500,000 pairs. It experienced a moderate decline between 1970 and 1990. Although in some countries the numbers remained stable between 1990 and 2000, most countries recorded a decline, including Romania, which has the largest population (364,000-857,000 pairs). Thus, the population is experiencing a moderate decline.

Main threats: Habitat degradation, intensification of agriculture, and the development of monocultures have a significant effect on the population.

Necessary conservation measures: Maintaining a mosaic of habitats with shrubs and brambles in open agricultural areas and pastures contributes to the conservation of the species.

Sites designated for conservation: Balta Alba-Amara-Jirlău, Tataru Lake, Old Danube-Macin Arm, Ianca-Plopu-Sărat, The Lower Siret Meadow.

14. *Eudromias (Charadrius) morinellus* (Eurasian Dotterel) - Fam. Charadriidae.

This critically endangered species, also known as the The Eurasian Dotterel, is characteristic of arctic and alpine areas with wet grasslands. The European population of the species is relatively small, ranging between 11,000 and 42,000 pairs. It remained stable between 1970 and 1990. Although there was a decline in numbers in Finland and the United Kingdom between 1990 and 2000, the European population declined only slightly overall because it remained stable in Norway and Sweden. In Romania, nests were reported in the Cindrel area at the beginning of the last century. For the other areas of the country, it is a

migratory bird. The largest nesting populations are in Norway, Sweden, and Russia.

Main threats: Habitat degradation caused by overgrazing and increased disturbance are the main threats affecting the species.

Necessary conservation measures: The establishment of buffer zones around lakes or ponds, restrictions on grazing within protected areas, and urban expansion planning in accordance with the ecological requirements of characteristic species are necessary.

Sites designated for conservation: Balta Alba Lake-Amara-Jirlău and Măxineni.

Of the 14 species presented, three species also have national or global endangered status: the Red-breasted Goose (*Branta ruficollis*), vulnerable both nationally and globally, Lesser Grey Shrike (*Lanius minor*), vulnerable nationally. For this reason, these species also qualify for the list of priority species for conservation.

In addition to the species listed above, there are another bird species that have been assessed at the regional level as vulnerable for various reasons and factors. We mention here The Little Crake (*Zapornia parva*). This species are not necessarily endangered, but because a significant proportion of the European population lives in Romania, it requires a special responsibility to ensure the survival of this populations (MMAP 2022).

The wetlands in the Braila region provide vital breeding habitats for considerable populations of aquatic bird species, in addition to those living around these areas. These wetlands are considered important stopover sites for birds migrating from their breeding grounds in Eurasia to Africa to spend the winter.

Various types and categories of threats are leading to a decline in sedentary and migratory bird populations. In fact, these threats affect both the birds themselves (such as poaching or electrocution) and their breeding, feeding, or resting habitats.

Considering into account the results presented in this document, we would like to

present and highlight the following recommendations:

- Threatened wetlands bird species should be treated as a priority issue in this ecologically important area, and special attention should be paid to updating the management plan for the natural components of the area.
- Particular concern for the breeding, resting and feeding habitats of the endangered birds species mentioned in this document, in addition to giving greater priority to their conservation.
- A program dedicated to monitoring endangered birds in Brăila County area, covering both sedentary and migratory bird species, should be implemented.
- Also, it is recommended that closer institutional cooperation and coordination at both local and national level should be established and implemented in the field to facilitate efforts and minimize the resources required for monitoring and protection activities.
- Long-term capacity-building programs are needed for staff directly involved in the monitoring program, with a greater focus on bird identification.
- A series of long-term education and awareness programs regarding the importance of threatened birds and their habitats need to be designed and implemented at the local and national levels.

Among the global problems facing humanity, environmental protection has gained significant importance in recent decades. Concern for a clean environment and the protection of biological diversity are supported legally, in particular through the adoption of international treaties and conventions; thus, all signatory states to these agreements are obliged to comply with the regulations adopted in this regard.

The first intergovernmental treaty of global significance is the Ramsar

Convention, signed on February 2, 1971. According to this convention, wetlands include areas of ponds, marshes, natural or artificial waters, permanent or temporary, where the water is flowing or standing, fresh, with a fundamental feature of complex interaction between their basic components – soil, water, animals, and plants.

Romania's accession to some of these international legislative acts on the conservation of habitats and wildlife required the establishment of a new domestic legislative framework. To this end, the Romanian Government, through Emergency Ordinance No. 236 (of November 24, 2000) and Law No. 462 (of 2001 for the adoption of Emergency Ordinance 236), joins the environmental policy of European states on the regime of protected natural areas, the conservation of natural habitats, and wild flora and fauna.

In 1994, the Romanian Ornithological Society launched the Areas of Importance for Birdlife (A.I.A.) program in Romania. This program is international in nature and was initiated by Bird Life International with a view to identifying, inventorying, monitoring, and protecting all bird species, as well as the areas where they live, at the global, regional, or subregional level.

From the outset, the A.I.A. program has had numerous supporters; ornithologists from different parts of the country responded to the appeal made by the Romanian Ornithological Society, sending data on the structure of areas with exceptional avifaunal biodiversity (Onea and Buzea 2006).

Measures that can contribute to species conservation

Conserving endangered birds involves large-scale habitat protection and restoration, captive breeding/reintroduction programs, controlling threats like pesticides/poaching, and public education. However, the most important measure is to protect the territories populated by birds by conserving habitats and avoiding fragmentation.

Habitat and Ecosystem Protection

- **Habitat Restoration:** Restoring degraded areas and protecting natural habitats (forests, wetlands) is crucial.
- **Protected Areas:** Establishing national parks, refuges, and wildlife areas safeguards critical bird homes.
- **Pollinator Gardens:** Planting native plants provides food and shelter for birds and their insect prey
- **Sustainable agriculture:** Motivating farmers through compensation payments for the application of nature-friendly farming methods.

Direct Species Management (Ex-Situ and In-Situ)

- **Captive Breeding:** Breeding birds in facilities for later release to boost wild populations.
- **Reintroduction/Translocation:** Moving birds to suitable areas to establish new or replenish old populations.
- **Intensive Management:** Interventions like supplemental feeding, disease control, and predator management.

Reducing Human-Caused Threats

- **Window Collisions:** Placing decals or murals on windows to prevent birds from flying into them.
- **Pesticide/Chemicals:** Reducing or eliminating use of harmful pesticides and herbicides that poison birds and their food.
- **Indoor Pets:** Keeping cats indoors, as they are major predators of birds.
- **Lights Out:** Turning off building lights at night to help migratory birds navigate.
- **Illegal Trade:** Awareness and strict laws against buying/selling endangered bird products.
- **Litter/Plastic:** Reducing plastic and not littering to keep habitats clean.
- **Putting power lines underground** to avoid collisions.

Public Engagement and Policy

- Education: Teaching others about local endangered species and conservation.
- Advocacy: Supporting laws like the U.S. Endangered Species Act.
- Volunteering: Participating in local cleanups, habitat restoration, in bird protection organisations and bird monitoring.

By presenting these bird species for the first time as a key component of the biodiversity of this region, highlighting the main threats to their survival, estimating their numbers, and determining their spatial distribution, this document hopes to contribute to the prioritization of bird conservation efforts in the wetland ecosystems of Braila County.

Conclusions:

The importance of wetlands in the conservation of bird species, especially endangered ones, was highlighted. Several recommendations were formulated regarding the conservation of birds and their habitats, emphasizing the importance of raising awareness and public participation in their protection.

This document summarizes and identifies the state of endangerment and implicitly the conservation status of bird species in the wetlands of Braila County and identifies species that are a priority for conservation. These terms (degree of endangerment and conservation status) are in a direct correlation relationship, with threatened species being at the same time species with an unfavorable conservation status at the national level and species that are not threatened being species with a favorable conservation status.

These species must be carefully evaluated and measures or programs must be developed and implemented for them (if for some species these programs or action plans exist, they just need to be implemented).

Of the 14 species, 3 also have a national or global endangered status: the Red-breasted Goose (*Branta ruficollis*), vulnerable both nationally and globally, and the Lesser Grey Shrike (*Lanius minor*), vulnerable at national level - for this reason these species also qualify on the list of priority species for conservation. For the Red-breasted Goose, monitoring activities must be continued and the national action plan implemented. For the Lesser Grey Shrike (*Lanius minor*) which have dual status as priority species for conservation and species for which Romania has special conservation responsibilities and for Little Crake (*Zapornia parva*), the necessary conservation measures must be identified and implemented to stop the negative population trend of the species. The rest of the species must only be carefully monitored to detect possible population disturbances in advance that would automatically qualify them on the list of priority species for conservation.

It is encouraging that the vast majority of bird species in Romania are not threatened, but adequate funding and implementation of identified conservation measures, species action plans and management plans for protected areas are necessary, the network of natural areas must be strengthened and agricultural land must also be managed for the benefit of biodiversity, so that over time we can achieve the European Union's conservation target, namely to "put Europe's biodiversity on a recovery path by 2030, for the benefit of people, the climate and the planet" (EURO-LEX 2020).

Anthropogenic threats and pressures are more intense at the level of bird species in wetlands and open habitats, such as: meadows, pastures, hayfields, arable land. These habitats are home to most threatened species or species with negative population trends. For example, open lands are threatened by increasingly intensive agriculture, the use of pesticides, monocultures that are preferred over mosaic lands, with patches of vegetation. Wetlands are threatened by drainage, fish farming or

intensive fishing that can cause direct mortality, due to the nets in which birds are caught. Added to these anthropogenic threats and pressures is the effect of climate change (SOR 2025).

The Red List is the first step in identifying species that urgently need protection and creates the legal framework for prioritizing conservation actions for bird species in Romania to ensure their survival.

Rezumat:

SITUAȚIA ACTUALĂ A SPECIILOR DE PĂSĂRI AMENINȚATE CU DISPARIȚIA DIN JUDEȚUL BRĂILA: ABORDARE DE CONSERVARE ȘI GESTIONARE

Zonele umede sunt esențiale pentru conservarea păsărilor, oferind locuri importante de reproducere, cuibărit, hrănire și odihnă, în special pentru păsările acvatice. Pierderea și degradarea zonelor umede (din cauza drenării, poluării, devierea cursurilor de apă etc.) amenință păsările acvatice, făcând necesară protejarea acestora prin inițiative precum siturile Ramsar și refacerea habitatelor, deși acordarea priorității zonelor umede naturale este esențială pentru biodiversitate, necesitând o gestionare integrată, monitorizare și implicarea comunității pentru o conservare eficientă. Zonele umede din județul Brăila acoperă o suprafață fluctuantă de peste 2.000 km² în sud-estul României. Aceste zone umede sunt formate din pajiști, lacuri și iazuri, fiecare cu propriile caracteristici și importanță ecologică. Acest document se referă doar la speciile de păsări pe cale de dispariție, amenințate și vulnerabile care trăiesc în aceste zone umede, pentru a atrage atenția asupra pericolelor ce amenință aceste specii, asupra statutului important de conservare, în vederea luării unor măsuri specifice pe teren.

În total, 14 specii din diferite categorii de vulnerabilitate, specii amenințate la nivel global, au fost identificate în regiunea județului Brăila (specii cuibăritoare sau necuibăritoare). Studiul prezintă starea de

conservare a acestor specii de păsări, care includ nouă specii de păsări acvatice și cinci specii de păsări legate de apă, pe lângă cele întâlnite frecvent în jurul și în interiorul regiunii. De asemenea, sunt prezentate informații actuale despre habitatele specifice, efectivele estimative ale populațiilor din România, principalele amenințări și măsurile necesare pentru protejarea și conservarea speciilor de păsări amenințate cu dispariția și a habitatelor.

References:

- AGENȚIA NAȚIONALĂ PENTRU ARII NATURALE PROTEJATE (ANANP) (2025), *Annual report regarding the environmental state in county Brăila per year 2012*, Agency for the Environmental Protection.
- AGENȚIA PENTRU DEZVOLTARE REGIONALĂ SUD-EST (ADR-SE) (2025), https://www.adrse.ro/Regiunea/Arii_protejate. Accessed on October 05, 2025.
- BIRDLIFE INTERNATIONAL (2021), *Birds in the European Union: a Status Assessment*, BirdLife International Publication Wageningen.
- BRUNN B., DELIN H., SVENSSON L., SINGER A. (1999), *Păsările din România și Europa* (romanian version – Munteanu D.), Octopus Publishing Group Ltd., Londra.
- CIOCHIA V. (1992), *Păsările clocitoare din România*, Ed. Științifică, București.
- CIOCHIA V. (2002), *Dicționarul păsărilor*, Ed. Pelecanus, Brașov.
- CONSILIUL JUDEȚEAN BRĂILA (2016), *Harta Ariilor Protejate Natura 2000*. https://cjbraila.ro/dm_cj/portal.nsf/allbyunid/
- CONSILIUL JUDEȚEAN BRĂILA (2025), *Geografia județului*. https://cjbraila.ro/dm_cj/portal.nsf/AllByUNID/Geografia-judetului-00001272?OpenDocument
- EUR-LEX (2020), *Strategia UE privind biodiversitatea pentru 2030 – Readucerea naturii în viețile noastre*, EUR-LEX. COM (2020) 380 final, 20.05.2020, Bruxelles.
- FÂNTÂNĂ C., ISTVAN K., ZOLTAN B., DOMȘA C., JUDIT V.-S. (eds.) (2022) *Atlas al speciilor de păsări de interes comunitar din România*, ediția a II-a, București, Ministerul Mediului, Apelor și Pădurilor.

- GÂȘTESCU P., GRUESCU I.S., (1973), *Județul Brăila*, col. „Județele patriei”, Ed. Academiei R.S.R., București.
- HAGEMEIJER E.J.M., BLAIR M.J. (1997), *The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance*, T & A Poyser, London.
- KELEMEN K., NAGY A., PAPP J. (eds.) (2019), Misterioasa dropie la Salonta, Ed. Milvus Transilvania Vest. In: *Rețeaua de arii protejate Natura 2000*. <https://www.drophia.eu/ro/articles/reteaua-de-arii-protejate-natura-2000>
- MĂNOIU T., BRĂNZAN T. (eds.) (2013), *Catalogul habitatelor, speciilor și siturilor Natura 2000 din România*, Fundația Centrul Național pentru Dezvoltare Durabilă, București, pp. 784.
- MINISTERUL MEDIULUI, APELOR ȘI PĂDURILOR (MMAP) (2022), *Lista speciilor de interes comunitar pentru care România are o responsabilitate mare în asigurarea conservării acestora*, Ord. nr. 2.014 din 26 iulie 2022, publicat în M. Of. No. 796 (11.08.2022), partea I, Ministerul Mediului, Apelor și Pădurilor, România.
- NATURA 2000 (2024), *Natura 2000 data – the European network of protected sites*, European Environment Agency <http://natura2000.eea.europa.eu>. Accessed on August 15, 2025.
- ONEA N. (2014), *Păsările din ariile strict protejate și tampon din Parcul Natural Balta Mică a Brăilei*, Ed. Istros a Muzeului Brăilei „Carol I”, 168 p.
- ONEA N., BUZEA ELENA (2006), Zonele umede din Insula Mare a Brăilei. Refugii ornitologice de importanță națională și internațională, *Analele Brăilei – Serie nouă 7*: 125-150, Ed. Istros a Muzeului Brăilei „Carol I”, Brăila.
- SOCIETATEA ORNITOLOGICĂ ROMÂNĂ (SOR) (2025). <https://pasaridinromania.sor.ro/Specii>. Accessed on July 15, 2025.
- THE IUCN RED LIST (IUCN) (2021), *IUCN Red List Categories and Criteria* (Version 3.1), Second Edition. Accessed on October 17, 2025. <https://www.iucnredlist.org/search>
- THE IUCN RED LIST (IUCN) (2025-2), *IUCN Red List of threatened species 2025-2*. Accessed on November 24, 2025. <https://www.iucnredlist.org/>
- *** *Județul Brăila – orașe și hidrografie*. <https://tactileimages.org/ro/orientare/harti/judetul-braila-orase-si-hidrografie/>
- *** <https://rsis Ramsar.org/#list>
- *** <https://blog.worldlifetimejourneys.com/braila-map.html>

Annexes: