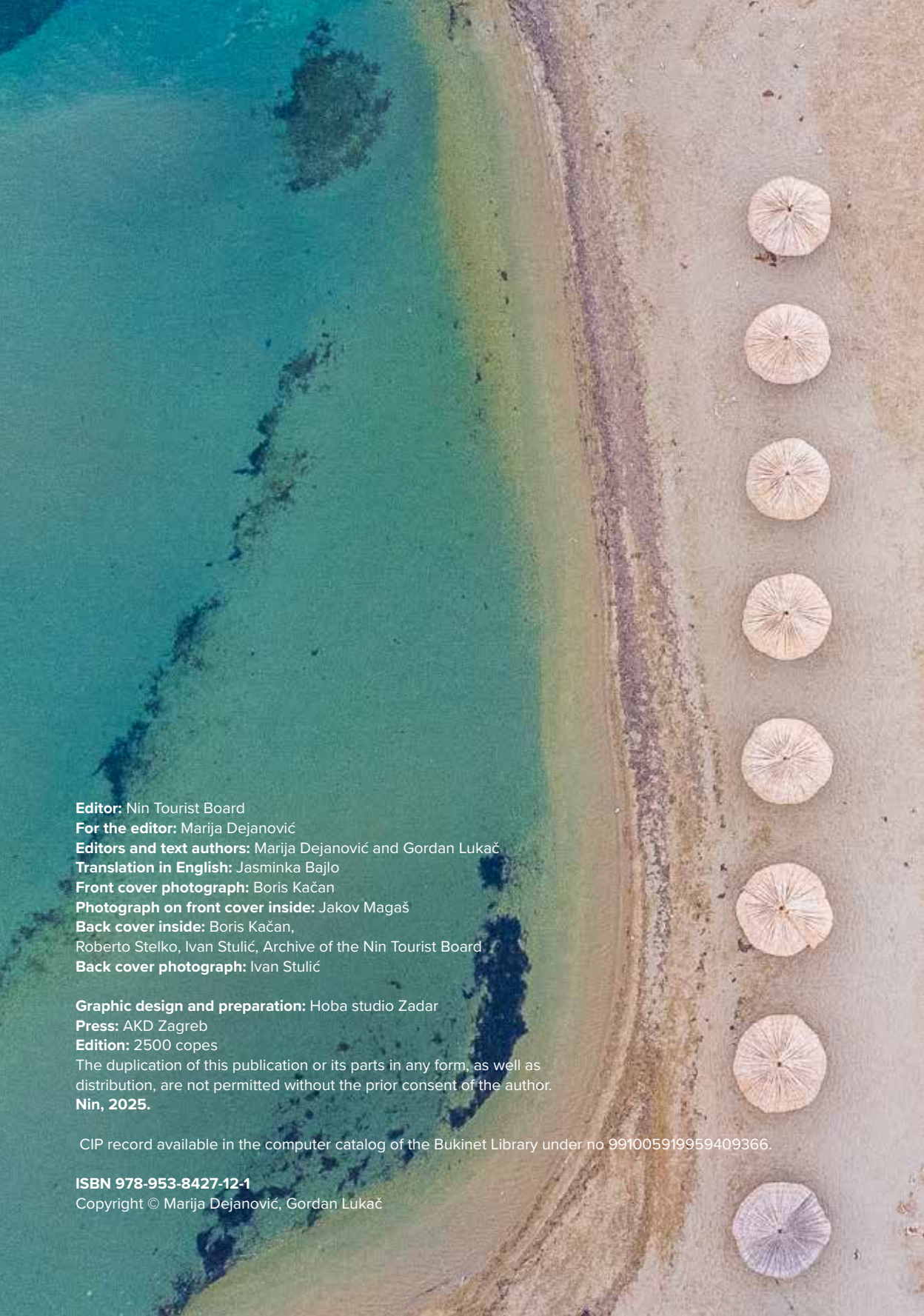
EKO
Birds in
Nin

THE BIRDS OF THE BAY OF NIN

N&N ZADAR REGION CROATIA Full of life



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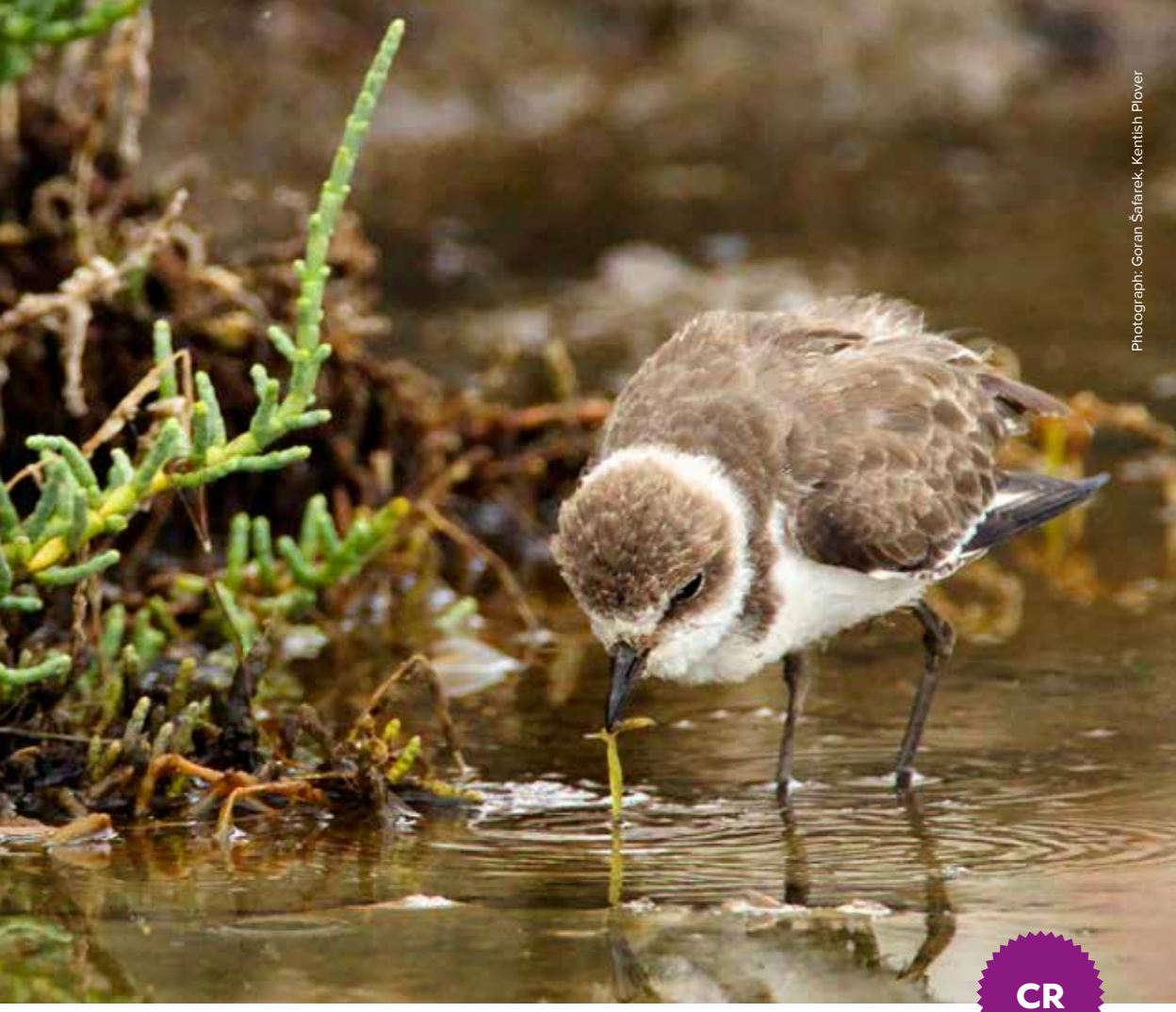


Photograph: Goran Šafarek, Kentish Plover

CR

Photograph: Roberto Stelko, Shelduck

The location and natural features of the city of Nin

The ancient and royal city of Nin developed on the eastern coast of the Adriatic Sea, in Northern Dalmatia, 14 km north of the city of Zadar, on the shores of the Bay of Nin. Nin is known as the oldest Croatian royal city, extremely attractive for its rich cultural heritage. Salt pans, medicinal mud, sandy beaches and the European known Zaton Campsite within Zaton Holiday Resort. The Nin area is marginal in relation to the hinterland and, in the northwest, it occupies the lowest and most flat part of Ravni Kotari. The 25 km long Miljašić jaruga (Ričina) River which springs near Suhovare[2] flows through this area. Throughout the thousand years of flowing into the Bay of Nin, north from the islet one of its branches runs under the Lower City Bridge – known to the professional public as Princess Bridge.[3] The millennial influence of the river created a peninsula along one of the branches which due to later digging became an islet where the 3000-year-old city of Nin was positioned. During Liburnian and Roman times Nin was a settlement along the river and distant from the seashore.

[1] Damir, MAGAŠ, *The Historical and Geographical Basis of the Development of Nin and the Problems of its Contemporary Valorization,* Institute for Historical Sciences HAZU in Zadar, Zadar, 1995, p. 7

[2] IBIDEM, p. 27.

[3] Boris, ILAKOVAC, *"The origin and development of Nin (Aenona) bridges", on the threshold of Nin (Ad limina Aenone),* Central Croatian Cultural and Publishing Society Nin, 2002, p. 39; L. Jelić, sp. dj.: 157.M. Novak-Sambrailo, sp. dj.: 168.

During the years, the Miljašić jaruga River and the sea currents influenced the creation of the present seashore configuration. The region along the river is situated within the NATURA 2000 area under number HR2001325 Ninski Stanovi – meadows. But the river caused floods for centuries, and malaria spread, which affected the demography of Nin, the decrease in the number of inhabitants respectively. Therefore, a new river bed was dug from 1903 to 1909. The river thus acquired a new mouth located 500 m northeast of the historic island saving the lagoon and the economic development of the royal city of Nin was rendered possible. With its river flow, the river brought fertile river sediment that settled at the bottom of the bay. Due to the mixing of salt and fresh water and their sediments, swamp areas with healing mud were created.

The Nin Lagoon within Nin Bay is enclosed by two beaches: Ždrijac and Queen's Beach, and from these Prodorica Beach continues to the north. The shores are sandy, shallow and muddy. It is precisely this last characteristic that favors the bird world, so the birds are happy to stay in the wider area of the Nin Lagoon, as residents, flyovers and nesters. The birds chose the lagoon for their home due to the clean and preserved Surroundings and the abundance of food. Salt marsh vegetation (halophyta) provides optimal conditions for wetland bird species to live and reproduce. / Photograph: Boris Kačan

The Bay of Nin and Nin Lagoon

The Bay of Nin is included in the Croatian Ecological Network under number HR3000176. The protection of saline habitats and halophilic plant species, certain bird species, which are the primary conservation objectives for NATURA 2000[4] is of particular importance. The Croatian Botanical Society and the BIOM Association carried out a professional botanical and ornithological survey of the Bay of Nin on May 7, 2016. They listed 231 plant species on the shores of the bay. Part of their report is as follows: The Bay of Nin is a relatively shallow bay protected from the open sea. *Also known as the Nin Lagoon, it is recognizable by its sandy landscape, which was formed during and just after the last Ice Age, brought by wind, currents and sedimentation in closed and occasionally flooded hydrodynamic conditions. The entire area is a unique and rare landscape on the dominantly rocky eastern Adriatic coast. The sandy and muddy sea coast, influenced by the inundated fresh waters from the land, is also a stage for unique and rare habitats, plant and animal species of the eastern Adriatic. The entire area of the Nin Lagoon is protected within the NATURA 2000 ecological network, and the protection refers to specific muddy and sandy habitats with associated plants and a large number of bird species. The wider area around the Nin Lagoon is NATURA 2000 under number HR4000005 and called Privlaka*

- Ninski Bay - Ljubački Bay. The Nin mud is additionally detached as one of the 94 botanically important areas (IPA[5]) in the territory of the Republic of Croatia.[6] / Photograph: Marija Dejanović

[4] Toni, NIKOLIĆ, Jasenka, TOPIĆ, Nina, VUKOVIĆ, *Botanically Important Croatian areas*, Školska knjiga Zagreb, Faculty of Science and Mathematics, University in Zagreb, Zagreb, 2010, p. 292 – 293.

[5] Croatian Botanic Importance Areas (engl. Important plant area or abbrev. IPA.).

[6] Croatian Botanic Association, Association BIOM Zagreb, *Report on plant species in the Bay of Nin,* May 7, 2016

Photograph: Boris Kačan

Botanically important area IPA NIN

Expertly inspecting the area of the Nin Bay and Nin Lagoon, famous Croatian biologists have come to the city of Nin over the years. The ecological significance of this area for Croatia, Europe and the world has been regularly taught for years by Jasenka Topić, Goran Šafarek, Gordan Lukač, Ivan Budinski, Vedran Lucić and the employees of Natura Jadera, a public institution for managing protected areas of nature in Zadar County. Immense thanks to all of them for the encouragement and realization of this manual. Authors T. Nikolić, J. Topić and N. Vuković have written about how important IPA NIN is for Croatia. *IPA is located in the immediate vicinity of the city of Nin and consists of two smaller and mutually separate sub-areas. A larger sub-area, the so-called Ninsko blato (Nin mud), located northwest of Nin, has an elongated shape, includes the Ždrijac peninsula, and faces the Nin Bay. A smaller sub-area is located southeast of the city of Nin, and contains part of the Nin Salt Pans. Due to the geographical location of Nin (separated from the sea by the Privlaka peninsula, facing the Nin Bay) area on the coast of the Adriatic Sea, the climate is typical Mediterranean. The average annual amount of precipitation is 900-1000 mm, with rare snowfall (...). Temperatures are pleasant with an annual average of 14-16°C, and an average of 2300 – 2400 annual hours of sun. The main feature of this IPA is the presence of well-preserved halophilic plant communities and characteristic species of coastal muddy-sand banks.*[7]

[7] Toni, NIKOLIĆ, Jasenka, TOPIĆ, Nina, VUKOVIĆ, *Botanically Important Croatian Areas* Školska knjiga Zagreb, Faculty of Science and Mathematics, University in Zagreb, Zagreb, 2010., p. 292 – 293.

The ecological significance of Nin Salt Pans

In Nin Salt Pans, salt is collected using the traditional method once used by the ancient Romans. As a result of the partitioning, basins were obtained that serve the economic use of the sea. Inside the pool, sea water flows through gates and the process of salt crystallization is carried out. Part of the pool is not used, and as it represents an artificial wetland habitat with halophilic plants, birds have found a safe haven here. Many birds, including the endangered Black-winged Stilt species, have chosen Nin Salt Pans as their home and nesting site. The Black-winged Stilt is interesting to bird watchers as well as to all who encounter this bird for the first time. The experience of a close encounter with this unusual bird that regularly nests along the salt pans is possible. When speaking of nesting in Nin Salt Pans, this refers to muddy partitions, the so-called borders, which divide the sea basins. They are made of mud and are partitioned with boards on both sides whereby the mud does not collapse into the pans. This is a compact mixture of mud, shells, salt and pebbles. Vegetation has grown on these borders, which has taken root and helps prevent these paths from collapsing. The Nin Salt Pans is included in the National Ecological Network under number HR3000421 and is of significant importance for the protection halophilic plant species, target habitats and bird species.[8] / Photograph: Ana Glavan

[8] Toni, NIKOLIĆ, Jasenka, TOPIĆ, Nina, VUKOVIĆ, *Botanically Important Croatian Areas Školska knjiga Zagreb,* Faculty of Science and Mathematics, University in Zagreb, Zagreb, 2010., p. 292 – 294.

Photograph: Arleta Vidić

Nin, EDEN destination

Nin became the national winner in the selection for EDEN – European destination on the theme “Tourism by water”, and the acknowledgement with the EDEN statue was handed in Brussels and confirmed in Rovinj in 2010. With this award, Nin joined the EDEN family of one hundred chosen nontraditional tourist destinations. The project of European Destination of Excellence (EDEN) was launched by the European Commission in 2006 with the aim of creating a European network of the most beautiful destinations of sustainable tourism and the promotion of new nontraditional tourist destinations. The theme of the competition changes every year. The purpose of the project is to promote less developed touristic destinations under the slogan “Discover the hidden treasures of Europe”, highlight the diversity and quality of European destinations, reduce seasonality and reward sustainable forms of tourism. Along with 27 EDEN destination countries, Nin signed the Memorandum of Understanding, the so-called Declaration on the European Network of Destinations of Excellence for Sustainable Tourism, which obliges mutual exchange of knowledge, information on tourism development and cooperation. Contests are regularly held within the EDEN network as awards for innovation and creativity, and they are an example to the members as a role model in developing some projects, arranging and organizing new activities in the destination. During 12 years, the destination of Nin has received 4 awards for innovation, based on examples of good practice in the

Photograph: Olaf Pappers

The city of Nin as bearer of the EDEN destination title promotes itself on the European Commission web pages (see: https://youredenexperience.com/destination/nin/) then (see: https://www.europeanbestdestinations.com/best-of-europe/best-romantic-and-sustainable-destinations/) and the National Tourist Board (see https://croatia. hr/hr-HR/eden). With all the benefits that Nin possesses: outstanding magical natural heritage, valuable cultural heritage and EDEN recognition attracted the attention of the Commission, and in 2015 the ancient city was awarded with the title of one of the most romantic destinations in Europe (see: https://www.europeanbestdestinations.com/top/best- romantic-destinations-in-europe-3/).

development of sustainable tourism, the visibility of the EDEN brand in Croatia and on the foreign market.

Nin is a true small oasis of special forms of tourism on the European tourist market. It is the EDEN recognition that obliges great attention to be paid to the preservation of the environment and biodiversity and the development of sustainable and responsible tourism. Encouraged by the guidelines of the European Commission, in 2010, tourism workers started an annual ecological meeting in the lagoon called Celebrating the European Day of Bird Counting and the publicity Eco Park project of the Nin Lagoon.[9]

[9] Marija, DEJANOVIĆ, Goran, ŠAFAREK, Gordan, LUKAČ, *Nin – Bird Watching, brochure*, Nin, 2019.

Photograph: Marin Gospić

Nin Lagoon Eco Park Project

In becoming the winner of EDEN 2010, Nin was included in the European network of EDEN destinations and accepted to respect the principles of sustainable development. According to this, the city of Nin Tourist Office launched the Eco Park Project of the Nin Lagoon. A parallel process took place in which 7 NATURA 2000 habitats[10] were recorded in the wider area of Nin, which were the reason for the declaration of as many as 5 ecological network areas in such a small region.[11] Those two facts stimulated the local community's increased interest in professional biological research. The fourth reason imposed itself as a logical sequence, so the continuous cooperation of tourist workers with famous Croatian biologists took place. The mission and vision of development of the Nin Lagoon Eco Park Project was set. The mission states: to provide the citizens and visitors of Nin with an insight into the greatest values of the natural heritage hidden by the lagoon while increasing ecological awareness and preserving the area for future generations through the promotion of the lagoon under the slogan Nin Lagoon Eco Park, education, establishment of ecological associations and the publication of publications. The vision states: To arrange in the future the entire area of the lagoon with the necessary infrastructure: wooden walkways, small wooden bridges, bird observatories, viewpoints, brown information boards, walking

[10] Toni, NIKOLIĆ, Jasenka, TOPIĆ, Nina, VUKOVIĆ, *Botanically Important Areas of Croatia,* Školska knjiga Zagreb, Faculty of Science and Mathematics, University of Zagreb, Zagreb, 2010, p. 292– 294

[11] NATURA-JADERA JU, *Management Plan for the Areas of the Ecological Network of the Bay of Nin and its Surroundings 2022. – 2031, Zadar,* 2021, p. 4

Photograph: Boris Kačan

and jogging trails, development of a bird watching center, etc. Then, due to the better quality of life of the resident population and a more comfortable stay for tourists, along with the planned development of ecological forms of tourism: birdwatching, photo-tourism, cycling, archeological tourism promenades, flowering plant watching tourism and other. Through the development of the Nin Lagoon Eco Park Project, the story of the magical beauty and preservation of a special corner of paradise, the royal city and EDEN destination is taking shape as a special small and chosen site in Europe. The aims of the project are: further protect biological diversity, valuable habitats in untouched parts of nature, increased care for endemic plants and endangered bird species, focus activities on preserving the traditional way of life, as well as advocating for the development of sustainable management in the area of the lagoon, the Bay of Nin and beyond. Nin is an EDEN destination directed towards the development of an ecological type of tourism with emphasis on the bird world. The process of shaping the birdwatching tourist product started already 15 years ago. Intensive promotion of ECO EDEN NIN destination has been led since then (brochures, video films, social media). Educational processes are being carried out: ecological gatherings in the fields of the Nin Salt Pans, protected area of the locality of medicinal mud along Queen's Beach, exhibitions and lectures, and the commemoration of the European Bird Counting Day. Activities take place with the cooperation of the Nin Salt Pans, biologists, volunteer ornithologists Nin elementary school and kindergarten as well as some elementary schools in Zadar. The mentioned promotion is accompanied by the arrangement of the wider area of the city of Nin with wooden walkways and theme trails.

A Facebook page was created to better promote the project and the birds on social networks: https://www.facebook.com/Eko-park-Ninska-laguna- Ninski-zaljev-1025594730852612/. In 2019, Nin was presented on the Internet as a destination for bird watching within the framework of pages advertising the best European destinations within the Best in Europe page: https://www.europeanbestdestinations.com/best-of-europe/best-birdwatching-destinations-in-europe/

Photograph: Boris Kačan

IUCN category of bird endangerment

The International Union for Conservation of Nature (IUCN) adopted standards, rules and criteria for creating the red lists and red books of Europe. According to these standards, the Red Book of Croatian Birds was created. According to the IUCN, there are 9 threatened categories:

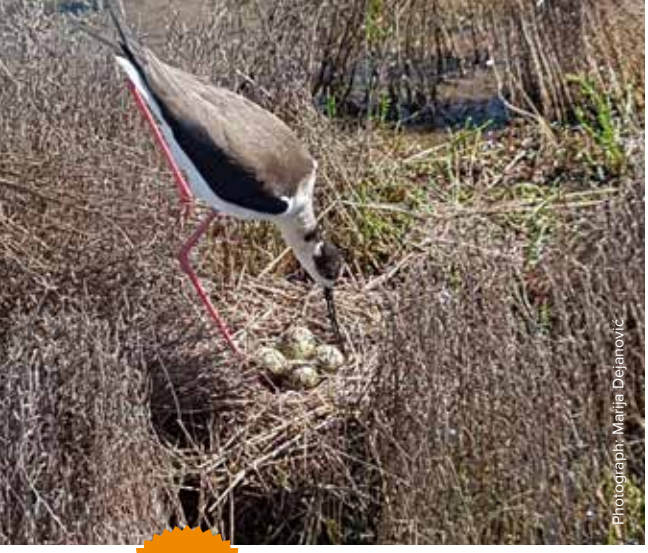
- **EX** **extinct in Croatia (but they can be seen in flight),**
- **EW** **extinct in nature,**
- **CR** **critically endangered species,**
- **EN** **endangered species,**
- **VU** **vulnerable species,**
- **NT** **near threatened species,**
- **LC** **least concern worrisome, stable species**
- **DD** **insufficiently known species**
- **NE** **not evaluated.**[12]

U In the manual, next to the title of each species of bird, the designation of the endangered category according to the Red Book of Birds of Croatia is written. Bird lovers can observe many of the 240[13] species of birds in the wider area of Nin. Nesting, migrating and wintering birds stay in the area of the Nin Lagoon, and most numerous during the autumn and spring migration. Gordan Lukač is the known Croatian biologist and ornithologist that has been coming to Nin since 1987 for occasional bird watching. Author Lukač visits Queen's Beach where he registered 77 bird species of which 14 species classified into different categories of vulnerability.[14]

[12] Vesna, TUTIŠ, Jelena, KRALJ, Dragan, RADOVIĆ, Davor, ĆIKOVIĆ, Sanja, BARIŠIĆ ur., *Red Book of Birds of Croatia* Ministry of Environment and Nature Protection, State Institute for Nature Protection, Zagreb, 2013,p. 13

[13] Gordan, LUKAČ, *Birdwatching guide: Localities of Paška Blata and Surroundings of Nin, p. 17;* Gordan Lukač, Field research, January–December 2019; Gordan Lukač, Field research January – December 2021.

[14] Gordan, LUKAČ, *The Richness and Diversity of the Queen's Beach Bird World,* Research work, city of Nin, September 2015, p. 27



Photograph: Marija Dejanović

Photograph: Matija Stolić

VU

Black-winged Stilt

Himantopus himantopus

Endangered status: VU – vulnerable species

The Black-winged Stilt is the brandmark of the Nin Lagoon. The bird belongs to the order of waders and the Stilt genera, it stands out among European birds with its distinctive slender white body, black wings and long black bill. Due to its elegant body, the bird is distinguished as nobility among birds. The body of the bird is from 33 to 36 cm with its long bill. As thin as a needle, about 6.5 cm in length, the bird uses its black bill to take food from the marshy area. The tail of the bird is of white color from the top and bottom side. What stands out particularly and vividly in the Black-winged Stilt are its long black legs that seem fragile and are used very skillfully to move around the shallows. With its reddish-pink legs, 14 to 17 cm high, it waddles unhindered across shallow marshy terrains. The red color of the legs becomes more emphasized with growth. An adult bird is recognized by its black upper parts of the body that glitter green.[15] The younger birds have brown upper body parts. The bird feeds mainly on aquatic invertebrates: shellfish, snails, crayfish, aquatic insects, tadpoles, small fish, etc., and sometimes eats seeds or flying insects. The maximum depth at which it can find food is 20 cm, and it is very important for the birds to have shallow areas in their habitat.[16] They nest in South and Central Europe, Ukraine, South Russia, Asia and Africa. They build their nest as a lined niche on bare ground, islands or shoals surrounded by shallow water, and sometimes on dry ground. Building nests, laying on eggs and raising the young are the tasks of both sexes. The Black-winged Stilt usually lays four eggs from which small birds hatch in 22 to 25 days. The birds are capable of flying after four weeks (28-32 days), and they become independent after 2 to 4 more weeks, when they learn to find food in the shallows and flying skills from their parents. Females are monogamous, and the relationship between partners lasts for one nesting season. They are very rarely lonesome, and gather in large flocks in the rest areas. They nest in colonies that most often count from 10 to 40 pairs.

[15] Lars, SVENSSON, ur.: Vedran, LUCIĆ, Miloš, MARTINOVIĆ, *Birds of Croatia and Europe,* Biom Association, Zagreb, 2018, p. 134

[16] Dragan, RADOVIĆ, Krešimir, LESKOVAR, *"The Black-winged Stilt",* Red Book of Birds of Croatia, Ministry of Environment and Nature Protection, State Institute for Nature Protection, Republic of Croatia, 2013,p. 198

Photograph: Goran Šafarek

Photograph: Ivan Stulić

During observation in the time of nesting, one should be careful not to disturb the birds as much as possible and not have them leave their nest. The general recommendation is to observe this species with a telescope from a distance of 60 to 100 m from the nest.[17] If the Black-winged Stilts feel that their nest is threatened, then they group together, fly into the air or scream, and if a person gets too close, they fly towards the head of the unwanted intruder to drive him away. In order to distract the attention of the observer, the Black-winged Stilt can often feign being hurt, such as pretending to have broken wings and throwing itself on the ground. By thus drawing the attention of the observer, it protects its nest and its young birds. Black-winged Stilts are very sociable, and outside the nesting season they remain in small flocks, usually 5-10 birds together. They often mix in mixed flocks with other birds. Black-winged Stilts choose shallow fresh, brackish or salt water for their home - such as marshes, salt flats, lagoons, estuaries, shallow lakes, rivers, sedimentation ponds, ponds and the like.[18] They are migrating birds that winter mainly in Africa.

The Black-winged Stilt is registered in the IUCN red list of endangered bird species in Croatia and Europe. According to known data, these birds started nesting in Croatia at the end of the 20th century. There are few nesting sites in only a few places along the Adriatic coast: on the salt pans in Nin and Pag and at the mouth of the Neretva River. During the spring migration, they are observed in several other localities. They can be observed in the artificial habitat in Nin – the Nin Salt Pans. The first nesting was registered by R. Crnković in 1999 and six pairs then nested in the Nin Salt Pans fields. According to K. Leskovar, the Black-winged Stilt nests regularly there and the number of pairs amounted to 28 in 2007 and 18-25 in 2008.

[17] Gordan, LUKAČ, *A Guide for Bird Watching: Localities of Paško blato and Nin Surroundings of p.* 17

[18] Dragan, RADOVIĆ, Krešimir, LESKOVAR, *"Black-winged Stilt"*, Red Book of Birds of Croatia, Ministry of Environment and Nature Protection, State Institute for Nature Protection, Republic of Croatia, 2013., p. 198

Photograph: Marin Stulić

According to Leskovar, in 2008 nesting of eight pairs was reported in two locatilities on the island of Pag.[19] Mr. Lukač registered bird nesting of 10-12 pairs on the Nin Salt Pans in 2010. The estimate of the total nesting population in Croatia is 80-120 pairs, and in 2025 there were 45-60 pairs nesting on the salt flats. The bird is threatened on the continent by the disappearance of sedimentation plants and pig farms, and on the coast by the disappearance of shallow wetlands and muddy seashores, hunting and poaching. The development of tourism and recreational activities disturb birds and make it impossible for them to nest and feed unhindered. The recommended measures of preservation and protection: the Black-winged Stilt is protected by the Protection of Nature Act, as a strictly protected species. It is internationally protected by the Bonn Convention, the Bern Convention and the Birds Directive. The Black-winged Stilt is a target species preserved in four important NATURA 2000 areas for birds, where about 95% of the total Croatian population nests. Recommendation, in addition to regular monitoring of the nesting population, is especially important to take care of the preservation and restoration of muddy and sandy sea shores, preserve and revitalize wet habitats, and encourage the current way of production in salt pans.[20] The Black-winged Stilt has chosen the Nin Lagoon for nesting and species extension due to the shallow waters, marshy areas and the salt pans where tradition production takes place.

A kind of drawing together between man and bird occurred in the Nin Salt Pans. Birds that return in the new season behave as hosts and are not afraid as those in other areas where they are disturbed. Every day salt collectors pass by them and the birds are used to tourists coming in organized groups to see the economic, ecological and ornithological significance of the Nin Salt Pans.

[19] Dragan, RADOVIĆ, Krešimir, LESKOVAR, *"The Black-winged Stilt",* Red Book of Birds of Croatia, Ministry of Environment and Nature Protection, State Institute for Nature Protection, Republic of Croatia, p. 197.

[20] IBIDEM, p. 199.

Photograph: Marin Stulić, Hoopoe

The richness and diversity of the bird world of Nin Salt pans and Queen's Beach

Lukač recorded 158 bird species at Nin salt pans. Many birds, more than 200 species are expected. There are 41 endangered species and 117 are stable species, while 77 species of birds were recorded on the Queen's Beach, which 14 species included in one of the threat categories. In the category of Critically Endangered species (CR) are: Kentish Plover (*Charadrius alexandrinus*), Redshank (*Tringa totanus*) and Snipe (*Gallinago gallinago*). In the category of Endangered (EN) species are: Little Tern (*Sternula albifrons*) and Curlew (*Numenius arquata*). Among the Vulnerable species (VU), are the Little Egret (*Egretta garzetta*) and Common Sandpiper (*Acitis hypoleucos*). In the category of Near Threatened (NT) species, there are: Cormorant (*Phalacrocorax carbo*), Garganey (*Anas querquedula*), Ringed Plover (*C. hiaticula*), Black-headed Gull (*L. ribidundus*), Common Tern (*Sterna hirundo*), Sandwich Tern (*Thalasseus sandvicensis*) and Kingfisher (*Alcedo atthis*).[21]

The Nin lagoon is habitat for nesting birds, migratory birds and wintering birds. Many birds, 240 species have chosen this area because the halophyte vegetation provides optimum conditions for wetland birt. Bird watchers can view all the mentioned bird species here. Additionally, they can also spot the rare Black-winged Stilts, Plover,

[21] Gordan Lukač, *Bogatstvo i raznolikost ptičjeg svijeta Kraljičine plaže*, research work, September 2015, p. 27.

Photograph: Boris Kačan, Bee-eater

Lapwing, Shag, Grey Heron, Mallard, Wigeon, Teal, Red-breasted Merganser, Kestrel, Sparrowhawk, Pheasant, Collared Pratincole, Ruff, Woodsandpiper, Greenshank, Common Sandpiper, Yellow legged Gull, Black Tern, Rock Dove, House Dove, Wood Pigeon, Turtle Dove, Collared Dove, Swift, Bee-eater, Hoopoe, Scops Owl, Wreyneck, Barn Swallow, House Martin, Tree Pipit, Grey Wagtail, White Wagtail, Yellow Wagtail, Robin, Nightingale, Black Redstart, Whinchat, Common Stonechat, Wheatear, Blackbird, Reed Warbler, Great Reed Warbler, Subalpine Warbler, Blackcap, Wood Warbler, Chiffchaff, Goldcrest, Firecrest, Grey-spotted Flycatcher, Pied Flycatcher, Blue Tit, Great Tit, Golden Oriole, Red-backed Shrike, Magpie, Hooded Crow, Raven, House Sparrow, Spanish Sparrow, Eurasian Tree Sparrow, Chaffinch, Serin, Greenfinch, Black-headed Bunting and so on.[22]

Since recorded time, humans have watched birds, and birds have been important to mankind. This 7th century ring and its engraved bird motif testifies to this. Ring is exposed in the Museum of Nin antiques.

[22] Gordan Lukač, *Bogatstvo i raznolikost ptičjeg svijeta Kraljičine plaže*, research work, September 2015, p. 27.

Photograph: Ivan Stulić

Greater Flamingo

Phoenicopterus roseus

Endangered status: least concern status

The Greater Flamingo has a 120 to 145 cm long body with a 170 cm range of wings. The wings are covered in red and the flight feathers are black. The young, immature birds have brownish body parts.[23] The bill, legs and feathers of adults become red due to the food they take from the marshy habitat, while the young ones are much lighter, covered in brown-gray color. The Greater Flamingos are popularly called flamingo birds. They rarely dwell in Croatia, and from time to time appear on the seashores in small numbers. Towards the end of 2016, one such exotic bird flew to the Nin Lagoon and remained there for some time. It stayed mostly by the pools of the Nin Salt Pans because of the abundance of food. It was a young flamingo, about three years old, for flamingos only get their pink color in their fourth year. It stayed there for a long time and even with the stormy bora wind that blew in the area of the lagoon and the Bay of Nin. According to the opinion of experts, the flock dwells in Venice, and this finding indicates that the population is increasing and that the salt pans in Nin were a resting place on their flight. The following year, in 2017, 6 flamingos flew over and stayed from the beginning of September to January 2018. They stayed during the big flood in Nin, when they only moved to Queen's Beach and then returned to the area of the salt pans. They were also present during the great cold weather in January, when the sea in the shallow port of Nin froze. One bird was of adult age, and experts believe that it was the one from the previous year and several other young birds came with it. In October 2022, a flamingo flew over and then another in 2023, while in September 2024 a whole flock of 13 flamingos flew over to our bay. Flamingos are widespread in Africa, along the shores of the Mediterranean to Southwestern and Southern Asia. There is a high probability that this attractive bird will get into the habit of landing in Nin more often, and with climate change, the lagoon may become suitable for their nesting.

[23] Lars, SVENSSON, ur.: Vedran, LUCIĆ, Miloš, MARTINOVIĆ, *Birds of Croatia and Europe,* Biom Association, Zagreb, 2018, p. 86

Photograph: Marin Stulić

Bird list

	LATIN NAME	CROATIAN NAME	ENGLISH NAME	OBSERVATION MONTH
1.	*Gavia arctica*	crnogrli plijenor	Black-throated Loon	XII,I
2.	*Tachybaptus ruficollis*	mali gnjurac	Little Grebe	I-XII
3.	*Podiceps cristatus*	ćubasti gnjurac	Crested Grebe	I-XII
4.	*Podiceps grisegena*	riđogrli gnjurac	Red-necked Grebe	VII-V
5.	*Podiceps nigricollis*	crnogrli gnjurac	Black-necked Grebe	II-V, VII-XII
6.	*Podiceps auritus*	ušati gnjurac	Horned Grebe	I
7.	*Phalacrocorax carbo*	veliki vranac	Cormorant	II-VI, VII-XII
8.	*Phalacrocorax aristotelis*	morski vranac	Shag	I-XII
9.	*Microcarbo pygmaeus*	mali vranac	Pygmy Cormorant	I-XII
10.	*Botaurus stellaris*	bukavac	Bittern	I-XII
11.	*Ixobrychus minutus*	čapljica	Little Bittern	V, VIII
12.	*Nycticorax nycticorax*	gak	Night Heron	III-VII, VIII-XI
13.	*Ardeola ralloides*	žuta čaplja	Squacco Heron	III-V, VIII-IX
14.	*Bubulcus ibis*	čaplja govedarica	Cattle Egret	IV
15.	*Egretta garzetta*	mala bijela čaplja	Little Egret	I-XII
16.	*Ardea alba*	velika bijela čaplja	Great Egret	I-XII
17.	*Ardea purpurea*	čaplja danguba	Purple Heron	III-VIII
18.	*Ardea cinerea*	siva čaplja	Gray Heron	I-XII
19.	*Ciconia ciconia*	bijela roda	White Stork	IV-V, VIII-IX
20.	*Plegadis falcinellus*	blistavi ibis	Glossy Ibis	III
21.	*Platalea leucorodia*	žličarka	Spoonbill	II-IV
22.	*Phoenicopterus roseus*	plamenac	Greater Flamingo	XI-II
23.	*Anser anser*	divlja guska	Greylag Goose	III
24.	*Anser albifrons*	lisasta guska	White-fronted Goose	XII, I
25.	*Anser fabalis*	guska glogovnjača	Bean Goose	I,II
26.	*Cygnus atratus*	crni labud	Black Swan	III
27.	*Cygnus olor*	crvenokljuni labud	Mute Swan	XI-III
28.	*Cygnus columbianus*	mali labud	Bewick's Swan	XII-I
29.	*Tadorna tadorna*	utva	Shelduck	I-XII
30.	*Anas penelope*	patka zviždara	Wigeon	I-IV, IX-XII
31.	*Anas strepera*	patka kreketaljka	Gadwall	I-VII, VIII-XII
32.	*Anas crecca*	patka kržulja	Teal	I-IV, IX-XII
33.	*Anas platyrhynchos*	divlja patka	Mallard	I-XII
34.	*Anas acuta*	patka lastarka	Pintail	I-IV, IX-XII
35.	*Anas querquedula*	patka kreketaljka	Garganey	III-V, VII-X
36	*Anas clypeata*	patka žličarka	Shoveler	III-VII, VII-X
37.	*Netta rufina*	patka gogoljica	Red-crested Pochard	XI
38.	*Aythya ferina*	glavata patka	Pochard	I-V, VIII-XII
39.	*Aythya nyroca*	patka njorka	Ferruginous Duck	I-XII
40.	*Aythya fuligula*	krunata patka	Tufted Duck	I-IV, IX-XII
41.	*Aythya marila*	patka crninka	Greater Scaup	XII-II

42.	*Bucephala clangula*	patka batoglavica	Goldeneye	I-III, X-XII
43.	*Melanitta nigra*	crna patka	Common Scoter	XII
44.	*Melanitta fusca*	patka kulašica	White-winged Scoter	XII,I
45.	*Mergus serrator*	mali ronac	Red-breasted Merganser	VIII-V
46.	*Mergus merganser*	veliki ronac	Goosander	XII, I
47.	*Pandion haliaetus*	bukoč	Osprey	VIII,IX
48.	*Milvus migrans*	crna lunja	Black Kite	VIII
49.	*Gyps fulvus*	bjeloglavi sup	Griffon Vulture	IV-VI
50.	*Circaetus gallicus*	zmijar	Short-toad Snake Eagle	III-IX
51.	*Circus aeruginosus*	eja močvarica	Marsh Harrier	I-XII
52.	*Circus cyaneus*	eja strnjarica	Hen Harrier	I-V, X-XII
53.	*Circus pygargus*	eja livadarka	Montagu's Harrier	III-IX
54.	*Aquila chrysaetos*	suri orao	Golden Eagle	IV, V
55.	*Aquila nipalensis*	stepski orao	Steppe Eagle	X
56.	*Accipiter nisus*	kobac	Sparrowhawk	I-IV,X-XII
57.	*Accipiter gentilis*	jastreb	Goshawk	I-III, X-XII
58.	*Buteo buteo*	škanjac	Common Buzzard	I-XII
59.	*Pernis apivorus*	škanjac osaš	Honey Buzzard	V
60.	*Falco tinnunculus*	vjetruša	Kestrel	I-XII
61.	*Falco naumanni*	bjelonokta vjetruša	Lesser Kestrel	IV, V
62.	*Falco vespertinus*	crvenonoga vjetruša	Red-footed Falcon	IV, V, VIII-IX
63.	*Falco subbuteo*	sokol lastavičar	Hobby	IV, V, VII-IX
64.	*Falco biarmicus*	krški sokol	Lanner	IV
65.	*Falco peregrinus*	sivi sokol	Peregrine Falcon	I-XII
66.	*Falco columbarius*	mali sokol	Merlin	II, XII
67.	*Phasianus colchicus*	fazan	Pheasant	I-XII
68.	*Corurnix coturnix*	prepelica	Quail	III-V, VII-IX
69.	*Alectoris graeca*	jarebica kamenjarka	Rock Partridge	I-XII
70.	*Perdix perdix*	trčka	Grey Partridge	I-XII
71.	*Rallus aquaticus*	kokošica	Water Rail	I-XII
72.	*Porzana porzana*	riđa štijoka	Spotted Crake	IV-VII
73.	*Porzana parva*	siva štijoka	Little Crake	IV-VII
74.	*Crex crex*	kosac	Corncracke	IV, V
75.	*Galinulla chloropus*	mlakuša	Moorhen	I-XII
76.	*Fulica atra*	liska	Coot	I-XII
77.	*Grus grus*	ždral	Crane	V
78.	*Himantopus himantopus*	vlastelica	Black-winged Stilt	III-IV
79.	*Haematopus ostralegus*	oštrigar	Oystercatcher	IV, V
80.	*Recurvirostra avosetta*	krivokljuna sabljarka	Avocet	IV
81.	*Burhinus oedicnemus*	ćukavica	Stone-curlew	IV-IX
82.	*Glareola pratincola*	zijavac	Collared Pratincole	IV,V
83.	*Charadrius hiaticula*	kulik blatarić	Ringed Plover	III-IV
84.	*Charadrius dubius*	kulik sljepčić	Little Ringed Plover	IX, IV
85.	*Charadrius alexandrinus*	morski kulik	Kentish Plover	III- VIII
86.	*Pluvialis squatarola*	zlatar pijukavac	Grey Plover	X, II-III

87.	*Pluvialis apricaria*	troprsti zlatar	Golden Plover	IX
88.	*Vanellus vanellus*	vivak	Lapwing	IX-XI, II-V
89.	*Vanellus leucurus*	bjelorepi vivak	White-tailed Lapwing	VI
90.	*Calidris minuta*	mali žalar	Little Stint	IV-V. VII-X
91.	*Calidris temminckii*	sijedi žalar	Temminck's Stint	IV
92.	*Calidris alpina*	žalar cirikavac	Dunlin	III-V,VII-XI
93.	*Calidris ferruginea*	krivokljuni žalar	Curlew Sandpiper	IV, VIII-IX
94.	*Calidris canutus*	sivi žalar	Knot	VIII
95.	*Calidris alba*	bijeli žalar	Sanderling	V, VIII
96.	*Calidris pugnax*	pršljivac	Ruff	III-V, VII-X
97.	*Calidris falcinellus*	plosnatokljuni žalar	Broad-billed Sandpiper	VIII
98.	*Calidris maritima*	morski žalar	Purple Sandpiper	I
99.	*Arenaria interpres*	žalar kovačić	Ruddy Turnstone	XII-I
100.	*Lymnocryptes minimus*	mala šljuka	Jack Snipe	XII-I
101.	*Gallinago gallinago*	šljuka kokošica	Snipe	I-IV, VII-XII
102.	*Gallinago media*	šljuka livadarka	Great Snipe	X
103.	*Scolopax rusticola*	šljuka	Woodcoock	XII-I
104.	*Limosa limosa*	crnorepa muljača	Black-tailed Godwit	III-IV, VIII-X
105.	*Limosa lapponica*	riđa muljača	Bar-tailed Godwit	VIII
106.	*Numenius arquata*	veliki pozviždač	Curlew	I-IV, VII-XII
107.	*Numenius phaeopus*	prugasti pozviždač	Whimbrel	III, VII-IX
108.	*Tringa erythropus*	mrka prutka	Spotted Redshank	III, VII-IX
109.	*Tringa totatnus*	crvenonoga prutka	Redshank	II-V, VII-XII
110.	*Tringa nebularia*	krivokljuna prutka	Greenshank	II-V, VII-XI
111.	*Tringa stagnatilis*	dugonoga prutka	Marsh Sandpiper	V,VIII
112.	*Tringa ochropus*	crnokrila prutka	Green Sandpiper	II-IV, VIII-XII
113.	*Tringa glareola*	prutka migavica	Wood Sandpiper	III-V, VII-X
114.	*Actitis hypoleucos*	mala prutka	Common Sandpiper	II-V, VII-X
115.	*Phalaropus lobatus*	tankokljuna liskonoga	Red-necked Phalarope	VIII
116.	*Chroicocephalus ridibundus*	riječni galeb	Black-headed Gull	I-IV, VII-XII
117.	*Chroicocephalus genei*	tankokljuni galeb	Slender-billed Gull	V
118.	*Larus canus*	olujni galeb	Common Gull	I-IV, XI-XII
119.	*Larus michahellis*	galeb klaukavac	Yellow legged Gull	I-XII
120.	*Gelochelidon nilotica*	debelokljuna čigra	Gull-billed Tern	V
121.	*Chlidonias hybridus*	bjelobrada čigra	Whiskered Tern	IV-V, VIII-IX
122.	*Chlidonias niger*	crna čigra	Black Tern	IV-V, VIII
123.	*Chlidonias leucopterus*	bjelokrila čigra	White-winged Tern	IV-V, VIII
124.	*Sterna hirundo*	čigra	Common Tern	IV-IX
125.	*Sternula albifrons*	mala čigra	Little Tern	V-VIII
126.	*Thalasseus sandvicensis*	dugokljuna čigra	Sandwich Tern	XI-IV
127.	*Hydroprogne caspia*	velika čigra	Caspian tern	VIII
128.	*Columba livia*	divlji golub	Rock Dove	I-XII
128.	*Columba livia* f. *domestica*	pitomi golub	House Dove	I-XII
129.	*Columba palumbus*	golub grivnjaš	Wood Pigeon	XII
130.	*Streptopelia decaocto*	gugutka	Collared Dove	I-XII

131.	*Streptoleia turtur*	grlica	Turtle Dove	IV-IX
132.	*Cuculus canorus*	kukavica	Cuckoo	III-VIII
133.	*Clamator glandarius*	afrička kukavica	Great spotted Cuckoo	IV-VIII
134.	*Athene noctua*	sivi ćuk	Little owl	I-XII
135.	*Otus scops*	ćuk	Scops Owl	IV-IX
136.	*Asio otus*	mala ušara	Long-eared Owl	IV-IX
137.	*Apus apus*	crna čiopa	Swift	IV-VIII
138.	*Apus pallidus*	smeđa čiopa	Pallid Swift	IV-X
139.	*Tachymarptis melba*	bijela čiopa	Alpine Swift	IV-IX
140.	*Alcedo atthis*	vodomar	Kingfisher	VIII-XII, I-IV
141.	*Merops apiaster*	pčelarica	Bee-eater	IV-IX
142	*Upupa epops*	pupavac	Hoopoe	III-IX
143.	*Coracias garrulus*	zlatovrana	European Roller	III-X
144.	*Jynx torquilla*	vijoglav	Wryneck	III-X
145.	*Dendrocopos major*	veliki djetlić	Great Spotted Woodpecker	IX-IV
146.	*Melanocorypha calandra*	velika ševa	Calandra Lark	II-VIII
147.	*Calandrella brachydactyla*	kratkoprsta ševa	Short-toed Lark	II-VIII
148.	*Galerida cristata*	kukmasta ševa	Crested Lark	I-XII
149.	*Lullula arborea*	ševa krunica	Woodlark	I-IV, X-XII
150.	*Alauda arvensis*	poljska ševa	Skylark	I-XII
151.	*Riparia riparia*	bregunica	Sand Martin	IV, V, VIII-IX
152.	*Hirundo rustica*	lastavica	Barn Swallow	III-X
153.	*Cecropis daurica*	pećinska lastavica	Red-rumped Swallow	IV-IX
154.	*Delichon urbicum*	piljak	House Martin	IV-X
155.	*Anthus campestris*	primorska trepteljka	Tawny Pipit	IV-IX
156.	*Anthus trivialis*	šumska trepteljka	Tree Pipit	IV-X
157.	*Anthus pratensis*	livadna trepteljka	Meadow Pipit	X-XII, I-V
158.	*Anthus spinoletta*	planinska trepteljka	Water Pipit	X-XII , I-V
159.	*Anthus richardi*	velika trepteljka	Richard's Pipit	XII
160.	*Anthus cervinus*	rusogrla trepteljka	Red-throated Pipit	I, II
161.(1)	*Motacilla flava flava*	žuta pastirica	Yellow Wagtail	IV-V, VII-X
161.(2)	*Motacilla flava feldegg*	crnoglava pastirica	Black-headed Wagtail	IV-IX
161.(3)	*Motacilla flava cinereocapilla*	bjelogrla pastirica	Western Yellow Wagtail	IV-V, VII-IX
162.	*Motacilla cinerea*	gorska pastirica	Grey Wagtail	I-IV, X-XII
163.	*Motacilla alba*	bijela pastirica	White Wagtail	I-XII
164.	*Motacilla citreola*	limunasta pastirica	Citrine Wagtail	VIII,IX
165.	*Trogoldytes troglodytes*	palčić	Wren	I-IV, X-XII
166.	*Prunella modularis*	sivi popić	Dunnock	I-IV, X-XII
167.	*Erithacus rubecula*	crvendać	Robin	I-V, IX-XII
168.	*Luscinia megarhynchos*	slavuj	Nightingale	IV-X
169.	*Luscinia svecica*	modrovoljka	Bluethroat	X
170.	*Phoenicurus ochruros*	mrka crvenrepka	Black Redstart	I-IV, IX-XII
171.	*Phoenicurus phoenicurus*	šumska crvenrepka	Redstart	IX
172.	*Saxicola rubetra*	smeđoglava travarka	Whinchat	III-V, VII-IX

173.	*Saxicola rubicola*	crnoglava travarka	Stonechat	I-IV, VIII-XII
174.	*Oenanthe oenanthe*	sivkasta bjeloguza	Wheatear	III-V, VIII-X
175.	*Oenanthe hispanica*	primorska bjeloguza	Black-eared Wheatear	IV-IX
176.	*Turdus merula*	Kos	Blackbird	I-XII
177.	*Turdus pilaris*	drozd bravenjak	Fieldfare	I-IV, X-XII
178.	*Turdus philomelos*	drozd cikelj	Song Thrush	I-V, X-XII
179.	*Turdsu viscivorus*	drozd imelaš	Mistle Thrush	I-IV, X-XII
180.	*Cettia cetti*	krovarica svilovka	Cetti's Warbler	I, II
181.	*Cisticola juncidis*	šivalica muharka	Zitting Cisticola	VIII
182.	*Locustella luscinioides*	trstenjak slavić	Savi's Warbler	IV-V
183.	*Acrocephalus schoenobaenus*	trstenjak rogožar	Sedge Warbler	IV-V, VIII-X
184.	*Acrocephalus scirpaceus*	trstenjak cvrkutić	Reed Warbler	IV-VIII
185.	*Acrocephalus arundinaceus*	veliki trstenjak	Great Reed Warbler	IV-VIII
186.	*Iduna pallida*	sivi voljić	Pallid Warbler	V-VIII
187.	*Hippolais icterina*	žuti voljić	Icterine Warbler	IV, V, VIII,IX
188.	*Hippolais polyglotta*	kratkokrili voljić	Melodious Warbler	IV-VIII
189.	*Sylvia cantillans*	bjelobrka grmuša	Subalpine Warbler	IV-IX
190.	*Sylvia melanocephala*	crnoglava grmuša	Sardinian Warbler	I-XII
191.	*Sylvia crassirostris*	velika grmuša	Eastern Orphean Warbler	IV-IX
192.	*Sylvia communis*	grmuša pjenica	Withethroat	IV-V, VII-X
193.	*Sylvia curruca*	grmuša čevrljinka	Lesser Whitethroat	IV-V, VII-IX
194.	*Sylvia borin*	siva grmuša	Garden Warbler	IV-V, VIII-IX
195.	*Sylvia atricapilla*	crnokapa grmuša	Blackcap	I-XII
196.	*Phylloscopus sibilatrix*	šumski zviždak	Wood Warbler	IV-V, VIII-X
197.	*Phylloscopus collybita*	zviždak	Chiffchaff	I-IV, X-XII
198.	*Phylloscopus trochilus*	brezov zviždak	Willow Warbler	IV-V, VIII-X
199.	*Phylloscopus bonelli*	brdski zviždak	Bonelli s Warbler	IV
200.	*Regulus regulus*	zlatoglavi kraljić	Goldcrest	VIII-XII
201.	*Regulus ignicapilla*	vatroglavi kraljić	Firecrest	I-V, VII-XII
202.	*Muscicapa striata*	muharica	Spotted Flycatcher	IV-V, VIII-X
203.	*Ficedula albicollis*	bjelovrata muharica	Collared Flycatcher	IV-V, VII-X
204.	*Ficedula hypoleuca*	crnovrata muharica	Pied Flycatcher	III-V, VII-X
205.	*Cyanistes caeruleus*	plavetna sjenica	Blue Tit	I-XII
206.	*Parus major*	velika sjenica	Great Tit	I-XII
207.	*Poecile palustris*	crnoglava sjenica	Marsh Tit	XII-III
208.	*Poecile lugubris*	mrka sjenica	Sombre Tit	III-X
209.	*Aegithalos caudatus*	dugorepa sjenica	Long - tailed Tit	I-XII
210.	*Remiz pendulinus*	sjenica mošnjarka	Penduline Tit	XI
211.	*Sitta europaea*	brgljez	Nuthatch	I-IV, X-XII
212.	*Oriolus oriolus*	vuga	Golden Oriole	IV-IX
213.	*Lanius collurio*	rusi svračak	Red-backed Shrike	IV-X
214.	*Lanius minor*	sivi svračak	Lesser Grey Shrike	IV-X
215.	*Lanius senator*	riđoglavi svračak	Woodchat Shrike	IV-X
216.	*Lanius excubitor*	veliki svračak	Great Gray Shrike	I-III, X-XII

217.	*Pica pica*	svraka	Magpie	I-XII
218.	*Garrulus glandarius*	šojka	Jay	I-XII
219.	*Coloeus monedula*	čavka	Jackdaw	I-XII
220.	*Corvus cornix*	siva vrana	Hooded Crow	I-XII
221.	*Corvus frugilegus*	vrana gačac	Rook	XII,I
222.	*Corvus corax*	gavran	Raven	I-XII
223.	*Sturnus vulgaris*	čvorak	Starling	I-IV, VII-XII
224.	*Sturnus roseus*	ružičasti čvorak	Rose-coloured Starling	VI
225.	*Passer domesticus*	vrabac	House Sparrow	I-XII
226.	*Passer hispaniolensis*	španjolski vrabac	Spanish Sparrow	IV-X
227.	*Passer montanus*	poljski vrabac	Tree Sparrow	I-XII
228.	*Fringilla coelebs*	zeba	Chaffinch	I-XII
229.	*Fringilla montifringilla*	sjeverna zeba	Brambling	I-IV, XI-XII
230.	*Serinus serinus*	žutarica	Serin	I-XII
231.	*Chloris chloris*	zelendur	Greenfinch	I-XII
232.	*Carduelis carduelis*	češljugar	Goldfinch	I-XII
233.	*Spinus spinus*	čižak	Siskin	I-IV, X-XII
234.	*Linaria cannabina*	jurčica	Linnet	I-XII
235.	*Coccothraustes coccothraustes*	batokljun	Hawfinch	I-IV, IX-XII
236.	*Emberiza cirlus*	crnogrla strnadica	Cirl Bunting	I-XII
237.	*Emberiza cia*	strnadica cikavica	Rock Bunting	I-IV, X-XII
238.	*Emberiza schoeniclus*	močvarna strnadica	Reed Bunting	I-IV, IX-XII
239.	*Emberiza melanocephala*	crnoglava strnadica	Black-headed Buntig	V-VIII
240.	*Emberiza calandra*	velika strnadica	Corn Bunting	I-XII

Gordan Lukač is the author of the present table, their Latin, Croatian and English names and the months of observation in the Nin Lagoon and Bay of Nin area.

Photograph: Iva Skočić

Conclusion

The Bay of Nin and the Nin Lagoon with its muddy and sandy shallow waters of coastline and its wetland, next to Queen's Beach and the Salt Pans environment are an exceptional biological value and represent rare habitats in Croatia, Europe and the world, where 240 recorded bird species can be observed. It is the birds that are considered to be the best indicators of the overall state of the environment. If all the birds were to leave the Bay of Nin, it would be a warning that the area is no longer suitable for human life. Everything in the Bay of Nin is connected – from plants, sea, tides, wind and sun, to soil, coasts and beaches. The area is very fragile. If just one part of it disappears, whether through construction, littering, overpopulation, or other reasons, some birds will certainly disappear from this beautiful site. Therefore, let's protect our unique location – the Nin Lagoon Eco Park! The Birds of the Bay of Nin brochure will help you better recognize the types of birds seen in the area and point out the endangered species that live around us. Bird watching is an interesting activity for everyone, for it is as fun as hunting, only without killing. There is great enjoyment in recognizing the feathered friends, which has become a fascinating hobby for many families. Those interested in observing and discovering the species that live in the wider area of the city of Nin can participate, and those who find their leisure time in the outdoor and fresh air. Little or almost unknown species can be searched for in the environment using the bird list. If you choose to walk in a wider area along the shores of the Bay of Nin, you will experience exciting moments photographing various endangered bird species. The brochure will benefit visitors and residents, especially those involved in tourism, because it includes critically endangered birds that nest in this area. These species are of interest to birdwatching tourists. The largest birdwatching movement is in England, and with increasing concern for the environment, the number of enthusiasts is growing in other countries. When someone sees a kingfisher or a beekeeper in a photo, they often ask themselves: *Are these some kind of exotic birds?* Of course, that is not true, these birds live in the Bay of Nin, they are very beautiful, but they are difficult to spot because they are small and fast. Good bird experts, biologists and ornithologists, know much more than this brochure offers. Nature-loving tourists have already been coming to Nin, individually or in groups, for birdwatching. Therefore, there is a promotional message on the website:" Spend an active vacation in the Nin Lagoon Eco Park, take a walk on the sandy beaches, ride a bike around the area or run along the coast, and then enrich your stay with a photo of the black-winged stilt, which you can take from March to early September.!" Nin became an EDEN – European Destination of Excellence in 2010. This recognition and designation indicate sustainable tourism development, which was an incentive for the development of the brand and the Nin Lagoon Eco Park Project. Increased promotion and education on the recognition of many bird species and their protection have been an integral part of the activities of the local tourist board for fifteen years. The aim of the brochure is to increase knowledge about bird species among the youngest residents, as only they will be able to take greater care of birds in the future and thus of the ecological preservation of this unique Croatian lagoon. Everywhere there is a struggle between the need to preserve nature and the strong desire for economic progress. Following more than a decade of education and promotion of the presence of the rich birdlife that lives in the wider Nin area, the Nin Lagoon Eco Park Project would be of great benefit to develop an ornithological society. After all, the area had been studied even earlier by Antun Maštrović from Nin, who founded the Ornithological Institute in Zagreb in 1945. Bird observatories should be built in addition to the existing wooden walkways and bridges in the bay. Once the Bird Watching Center is developed, it will be a great blessing and will contribute to the stronger development of Nin and the Nin region. The experience of the story of birds in the Nin Bay, lagoon and Nin Salt Pans – places that birds have chosen as their home – can be experienced all year round. Resident birds live here, wintering birds are here in the winter, and migratory birds can be seen during their migrations in spring and autumn. Waterfowl and nesting birds migrate and, depending on the species, return to Nin in the spring and leave in early

autumn. Nature lovers and visitors shall have the opportunity to learn about the rich bird life with this brochure. It is recommended that in order to learn more about birds and their observation in the Bay of Nin, the help of a professional ornithologist guide should be sought, one who is familiar with the biodiversity of the environment and has extensive knowledge of these birds.

We invite you to watch movies on Youtube:
Birdwatching Croatia The Black – winged Stilt, 2018.(4:00, link:
https://www.youtube.com/watch?v=n_KcpfAvhGc
Birdwatching Nin, 2016. (1:56), link:
https://www.youtube.com/watch?v=M402Lmt4VZU
The birds homeland - Nin Croatia, 2015. (2:48), photo, link:
https://www.youtube.com/watch?v=Bs4A2CAVNMs

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