

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN - NICULIȚEL

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ABSTRACT. In this paper is presented the current state of conservation for some species of birds, included in the Annex I of the Birds Directive, observed in the recent years in ROSPA0073 Măcin-Niculițel. During the period of research-study, 19 species of birds of the 21 considered were observed, but it is also possible the presence of the other two: one, *Pelecanus crispus*, was seen in passage and the other, *Falco cherrug*, bred here in the last years. The majority have a favourable status of conservation, the rest having an unknown status, because of insufficient or inexistent concluding data. Also, other appreciations on the measures of conservation that it must be taken for assurance of a favourable future of these species are done. The most important of them are: the adequate management of the forests, the banning of the new wind farm building, the diminishing of rocks exploitation, the stopping of uncontrolled tourism, the practice of a traditional agriculture, the blocking of the poaching, the elimination of the pollution, etc.

Keywords: conservation state, Birds Directive, ROSPA0073 Măcin-Niculițel.

REZUMAT. Evaluarea statutului de conservare pentru unele specii de păsări din ROSPA0073 Măcin - Niculițel. În această lucrare, este prezentată starea actuală de conservare a unor specii de păsări incluse în Anexa I a Directivei Păsări, care au fost observate în anii recentți în ROSPA0073 Măcin-Niculițel. În perioada de studiu, din cele 21 de specii considerate, au fost observate 19, însă este posibilă și prezența celorlalte două: prima, *Pelecanus crispus*, a fost observată în pasaj iar cealaltă, *Falco cherrug*, a cuibărit aici în ultimii ani. Majoritatea speciilor au un statut de conservare favorabil, restul având un statut necunoscut, din cauza datelor insuficiente sau neconcludente. Se fac, de asemenea, unele aprecieri privitoare la măsurile de conservare care trebuie luate pentru asigurarea unui viitor favorabil acestor specii de păsări. Dintre acestea, cele mai importante sunt: managementul adecvat al pădurilor, interzicerea construirii de noi ferme eoliene, diminuarea exploatărilor de rocă, oprirea turismului necontrolat, practicarea unei agriculturi tradiționale, stoparea braconajului, eliminarea poluării etc.

Cuvinte cheie: stare de conservare, Directiva Păsări, ROSPA0073 Măcin-Niculițel.

INTRODUCTION

The birds' conservation in sites designed by law is necessary to maintain the stability of the protected species populations and the high biodiversity, fact that is realisable through the conservation of the specific habitats for breeding, passage or wintering, using an adequate management against the damaging factors.

The data that this paper is based on were collected through the project „Studii pentru elaborarea Planului de Management integrat al PNMM prin revizuirea și integrarea prescripțiilor de management pentru siturile Natura 2000 (SPA-ul Măcin - Niculițel și SCI-ul Munții Măcinului) ce includ PNMM”/„Studies for the elaboration of the Integrated Management Plan of NPMM by reviewing and integrating management prescriptions for Natura 2000 sites (Măcin-Niculițel SPA and Măcin Mountains SCI) including NPMM” (Contract no. 286/POS/August 29, 2011 between RNP Romsilva Administrația Parcului Național Munții Măcinului RA and S.C. Multidimension Research and Development S.R.L./S.C. Geosystems Romania S.R.L.).

21 species of birds were considered: *Pelecanus onocrotalus* Linnaeus, 1758, *Pelecanus crispus* Bruch, 1832, *Ciconia ciconia* (Linnaeus, 1758), *Ciconia nigra* (Linnaeus, 1758), *Aquila heliaca* Savigny, 1809, *Aquila clanga* (Pallas, 1811), *Hieraaetus pennatus* (Gmelin, 1788), *Circaetus gallicus* (Gmelin, 1788), *Buteo rufinus* (Cretzschmar, 1827), *Accipiter brevipes* (Severtzov, 1850), *Circus cyaneus* (Linnaeus, 1758), *Falco cherrug* Gray, 1834, *Falco columbarius* Linnaeus, 1758, *Burhinus oedicephalus* (Linnaeus, 1758), *Caprimulgus europaeus* Linnaeus, 1758, *Coracias garrulus* Linnaeus, 1758, *Dendrocopos syriacus* (Hemprich & Ehrenberg, 1833), *Dendrocopos medius* (Linnaeus, 1758), *Lullula arborea* (Linnaeus, 1758), *Oenanthe pleschanka* (Lepechin, 1770) and *Emberiza hortulana* Linnaeus, 1758. They are part of the Annex I of the Birds Directive (<http://ec.europa.eu/environment/nature>).

MATERIALS AND METHODS

ROSPA0073 Măcin - Niculițel, where the research-study was performed, is located in the north-western part of Tulcea County, in Dobrudja. Its surface (67,361 ha) includes the Măcin Mountains and Niculițel Hills. The maximum height is Țuțuianu Peak (467 m) and the lowest, the Jijila Pond (0 m). The Măcin Mountains have two crests: Pricopan-Megina and Măcin, which are separated by the Greci Depression. The Niculițel Hills are disposed in the eastern part of the area; their altitude is lower than that of the Măcin Mountains. The road DJ 222A divides almost in equal parts the two components.

The Danube flows close to the West, North and North-East borders. Other small rivers are: the Jijila, the Greci, the Taița, the Isaccea, the Luncavița (Fig. 1).

The excessive temperate-continental climate is characterised by very dry summers and very cold winters (-15 °C in January, 35 °C in July, 10-11 °C, the annual average temperature). The precipitations vary between 350 and 450

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

mm/year. The winds are intense and relatively constant and blow predominantly from North and North-East.

The vegetation is formed by species of steppe: *Agropyron repens* (L.), *Stipa pennata* L., *Chrysopogon gryllus* (L.) Trin., *Festuca* sp., *Andropogon* sp., *Thymus* sp., *Artemisia* sp., *Potentilla* sp., *Verbascum* sp., *Ononis spinosa* L., etc. and silvo-steppe: *Cotinus coggygia* (Scop.), *Crataegus monogyna* (Poir.) Mutel, *Prunus spinosa* L., *Quercus pedunculiflora* K. Koch, *Quercus pubescens* Willd., *Fagus sylvatica* L. - the last, in Valea Fagilor Reserve, etc.

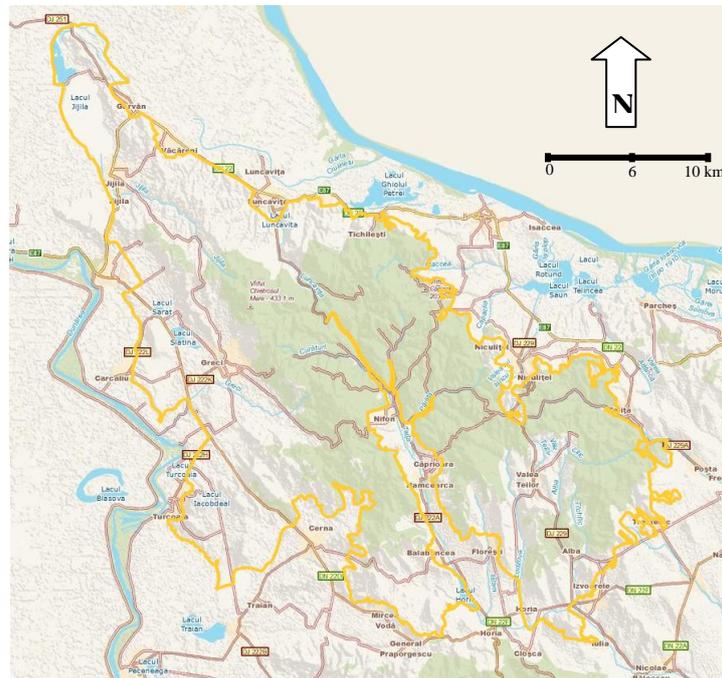


Figure 1 - The map of ROSPA0073 Măcin-Niculitel (bordered by orange line, cf. infonatura2000).

There are numerous species of animals, some of them being protected: *Lycaena dispar* (Haworth, 1802), *Lucanus cervus* (Linnaeus, 1758), *Osmoderma eremita* (Scopoli, 1763), *Morimus funereus* Mulsant, 1862, *Euphydryas maturna* (Linnaeus, 1758), *Bombina bombina* (Linnaeus, 1758), *Bufo bufo* (Linnaeus, 1758), *Testudo graeca* Linnaeus, 1758, *Elaphe quatuorlineata* (Lacepede, 1789), *Rhinolophus ferrumequinum* (Schreber, 1774), *Spermophilus citellus* (Linnaeus, 1766), *Mesocricetus newtoni* (Nehring, 1898), *Mustela eversmannii* Lesson, 1827, *Felis silvestris* Schreber, 1775, etc. Almost 200 species of birds were observed in the last decades in area. 56 of them are also protected: *Ciconia ciconia* (Linnaeus, 1758), *Accipiter brevipes* (Severtzov, 1850), *Aquila pomarina* C. L. Brehm, 1831, *Buteo rufinus* (Cretzschmar, 1827), *Circus pygargus* (Linnaeus, 1758), *Falco peregrinus* Tunstall, 1771, *Falco cherrug* Gray, 1834, *Burhinus oedicnemus*

(Linnaeus, 1758), *Coracias garrulus* Linnaeus, 1758, *Dendrocopos leucotos* (Bechstein, 1803), *Picus canus* Gmelin, 1788, *Lullula arborea* (Linnaeus, 1758), *Anthus campestris* (Linnaeus, 1758), *Sylvia nisoria* (Bechstein, 1795), *Oenanthe pleschanka* (Lepechin, 1770), *Ficedula albicollis* (Temminck 1815), *Lanius minor* Gmelin, 1788, *Emberiza hortulana* Linnaeus, 1758, etc. (cf. infonatura2000).

The understanding of the conservation status of a species at the level of a protected area can be done following some attributes that define a favourable state of conservation (Tab. 1). They are related to a value of reference (Tab. 2), conformable to a general evaluation matrix (<https://circabc.europa.eu/>).

The data were gathered between March, 2012 and July, 2013. Minimum 20 hours of field observations were performed every month. Some observations were done in January - October 2012, too. Two methods were applied: the transect method and the method of the fixed points of observations. Also, occasional observations were added. Binoculars and spotting scopes were used and the locations were registered with GPS receivers.

Table 1 - The attributes used in the evaluation process of the conservation status.

Attributes	Objectives	Acceptable limits of the reference value
The distribution of the species inside the area	The maintaining of a favourable area of distribution for the target species	- The distribution of the species in the area in 2011 is considered value of reference
The size of the population	The maintaining of a favourable value for the population size	- The population mentioned in the standard form of the area is considered value of reference
The species habitat	The maintaining of a habitat quality	- The habitat quality at the moment of this study (2011) is considered value of reference
The trend of evolution	The insurance of a favourable trend for species inside the area	There are considered: - the threats on the species - the threats on the habitat integrity of the species - existing measures of conservation

Table 2 - The general matrix for the evaluation of the conservation status of the species at the level of the protected area.

Parameter	Conservation Status			
	Favourable ("green")	Unfavourable - Inadequate ("amber")	Unfavourable - Bad ("red")	Unknown (insufficient information to make an assessment)
Local distribution (the distribution of	Stable (Loss and extension in balance) or increasing <u>AND</u>	Any other combination	Large decline: Equivalent to a loss of more than 1% per year within period specified	No or insufficient reliable information

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

the species inside the area)	not smaller than the “favourable reference range”		<u>OR</u> more than 10% below favourable reference range	<i>available</i>
Population	Population(s) not lower than “favourable reference population” <u>AND</u> reproduction, mortality and age structure not deviating from normal (if data available)	Any other combination	Large decline: Equivalent to a loss of more than 1% per year within period specified <u>AND</u> below “favourable reference population” <u>OR</u> More than 25% below favourable reference population <u>OR</u> Reproduction, mortality and age structure strongly deviating from normal (if data available)	<i>No or insufficient reliable information available</i>
Species habitat	Area of habitat is sufficiently large (and stable or increasing) <u>AND</u> habitat quality is suitable for the long term survival of the species	Any other combination	Area of habitat is clearly not sufficiently large to ensure the long term survival of the species <u>OR</u> Habitat quality is bad, clearly not allowing long term survival of the species	<i>No or insufficient reliable information available</i>
Future prospects (as regards to population, range and habitat availability)	Main pressures and threats to the species not significant; species will remain viable on the long-term	Any other combination	Severe influence of pressures and threats to the species; very bad prospects for its future, long-term viability at risk	<i>No or insufficient reliable information available</i>
Overall assessment of the conservation status	All “green” <u>OR</u> three “green” and one “unknown”	One or more “amber” but no “red”	One or more “red”	Two or more “unknown” combined with green or all “unknown”

RESULTS AND DISCUSSIONS

During the period of the research-study, 19 species of the 21 investigated were observed. They are: *Pelecanus onocrotalus*, *Ciconia ciconia*, *Ciconia nigra*,

Aquila heliaca, *Aquila clanga*, *Hieraaetus pennatus*, *Circaetus gallicus*, *Buteo rufinus*, *Accipiter brevipes*, *Circus cyaneus*, *Falco columbarius*, *Burhinus oedicephalus*, *Caprimulgus europaeus*, *Coracias garrulus*, *Dendrocopos syriacus*, *Dendrocopos medius*, *Lullula arborea*, *Oenanthe pleschanka*, and *Emberiza hortulana*. *Pelecanus crispus* and *Falco cherrug* were not observed but they were recorded in the area in the recent years. We considered that 13 species (*Pelecanus onocrotalus*, *Ciconia ciconia*, *Ciconia nigra*, *Hieraaetus pennatus*, *Buteo rufinus*, *Accipiter brevipes*, *Burhinus oedicephalus*, *Coracias garrulus*, *Dendrocopos syriacus*, *Dendrocopos medius*, *Lullula arborea*, *Oenanthe pleschanka*, and *Emberiza hortulana*) have a favourable status and 8 species (*Pelecanus crispus*, *Aquila heliaca*, *Aquila clanga*, *Circaetus gallicus*, *Circus cyaneus*, *Falco cherrug*, *Falco columbarius*, *Caprimulgus europaeus*) have an unknown status (Tab. 3 - 23).

Table 3 - The matrix for the evaluation of the conservation state of the White Pelican (*Pelecanus onocrotalus*).

Parameter	Indicator	Comments
Local distribution	“green”	It is not breeding in the area, but it was observed many times in flight and on the Rachelu Lake from vicinity.
Population	“unknown”	Insufficient data. 101 individuals in April 2013 and 64 individuals in June 2013 seen in flight over the area. Other evaluations: 1,500-2,500 individuals in migration (cf. Natura 2000 Standard Form), 4,361 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat does not allow the breeding in the area, but it does not present any problem for transit.
Perspectives	“green”	The species has favourable perspectives. Its strengths depend mainly on the protection offered in the breeding quarters from Danube Delta, protection that, currently, is assured.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 4 - The matrix for the evaluation of the conservation state of the Dalmatian Pelican (*Pelecanus crispus*).

Parameter	Indicator	Comments
Local distribution	“unknown”	It is not breeding in the area and it was not observed flying over it.
Population	“unknown”	Inexistent concluding data. Probably, it moves over the area, but in small number. Previous evaluations: 25-40 individuals in migration (cf. Natura 2000 Standard Form), 2 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat does not allows the breeding of the species, but it not presents any problem for migration.

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

Perspectives	“green”	The strengths of the species depend on the protection from the breeding quarters from Danube Delta, protection that currently is assured.
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

Table 5 - The matrix for the evaluation of the conservation state of the White Stork (*Ciconia ciconia*).

Parameter	Indicator	Comments
Local distribution	“green”	The species breeds in many localities from the area and its vicinity. The open lands, with herbs, and the cultivated ones are places of feeding, both in the breeding and passage times.
Population	“green”	22 active nests and one inactive were recorded (Mestecăneanu et al., 2014). An estimation of the individuals passing over the area did not have been performed. Other evaluations: 14-16 breeding pairs and 30,000-40,000 individuals in migration (cf. Natura 2000 Standard Form), 38,800 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable for breeding and feeding.
Perspectives	“green”	The species breeds mainly on the concrete pylons of the low voltage lines, with the risk of electrocution, especially for the chicks. If nests are mounted on metal supports and all electrical connections of the power lines are isolated, the prospects are favourable.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 6 - The matrix for the evaluation of the conservation state of the Black Stork (*Ciconia nigra*).

Parameter	Indicator	Comments
Local distribution	“green”	Perhaps, the species is breeding here, some individuals being observed in summer. Also, in migration some birds fly over the area and, probably, stop here for rest and food.
Population	“unknown”	It is expected the presence of at least one breeding pair in area or in its immediate neighbourhood. An estimation of the individuals passing over the area did not have been performed. Other evaluations: 800-1,000 individuals in migration (cf. Natura 2000 Standard Form), 476 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable for breeding and feeding.
Perspectives	“green”	The perspectives are favourable if the standing crop is managed in conformity with the species requests (the maintaining of the forest peace and the preservation

		of the old trees, necessary for the installation of the nests) and, also, if the soil and water are not polluted.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 7 - The matrix for the evaluation of the conservation state of the Imperial Eagle (*Aquila heliaca*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was observed between Rachelu and Revărsarea.
Population	“unknown”	Perhaps, no breeding pair in the area; the individuals that were seen here in the recent years are, most likely, migratory birds or birds that do not breed here. Observed in September, 2012. Other evaluations: 4-10 individuals in migration (cf. Natura 2000 Standard Form), 2 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable for breeding and feeding.
Perspectives	“green”	Because of the tendency of the youth to disperse in search of new territories, the species is expected to reoccupy in the future (with favourable habitat and protection) the breeding area.
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

Table 8 - The matrix for the evaluation of the conservation state of the Greater Spotted Eagle (*Aquila clanga*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was observed between Rachelu and Revărsarea.
Population	“unknown”	The breeding population is most likely zero. Insufficient data. The individuals observed here in the last years are migratory birds or winter visitors. Other evaluations: 4-10 individuals in migration (cf. Natura 2000 Standard Form), 2 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable for breeding and feeding.
Perspectives	“green”	Because of the efficient measures of protection, adopted at European, national and local levels, it is expected that the species will reoccupy the ancient breeding area and, consequently, will be seen more frequent in passage and in winter. In the future, it is possible even the breeding in the area.
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

Table 9 - The matrix for the evaluation of the conservation state of the Booted Eagle (*Hieraaetus pennatus*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was seen inside the park, both in the forested area (of breeding) and in the open one (of feeding), from Măcin-Greci-Cerna and Hamcearca-Valea Teilor.
Population	“green”	The breeding population is estimated at 10-12 pairs. Other evaluations: 10-14 breeding pairs and 50-80 individuals in migration (cf. Natura 2000 Standard Form), 49 individuals in migration (Râioasa Peak) between August and October, 2006; also, 6-8 breeding pairs in the Munții Măcinului National Park (Pap, 2007).
Habitat of species	“green”	The habitat provides food (ground-squirrels and other small rodents) for the breeding population but, because some birds eat outside the area (as it was observed, for instance, near Cerna), it is necessary the keeping of the current terrain employments (pastures, crops).
Perspectives	“green”	Through the maintaining of the conservation/exploitation status of the woods and open areas at least at the present level, the species has favourable perspective. However, the disposing of wind farms within the park has negative effects on the birds (collisions, the restraining of the feeding areas, etc.).
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 10 - The matrix for the evaluation of the conservation state of the Short-toed Eagle (*Circaetus gallicus*).

Parameter	Indicator	Comments
Local distribution	“unknown”	It breeds in forests and it feeds mainly in the open areas (pastures, rocky places, crops, etc.). Insufficient concluding data.
Population	“unknown”	The species was rarely observed (in April and June), mainly because of its quite timid behaviour. Minim two breeding pairs, but below the previous estimations of 10-14 pairs (cf. Natura 2000 Standard Form) and 5-7 pairs in the Munții Măcinului National Park (Pap, 2007). Other estimations: 80-120 individuals in migration (cf. Natura 2000 Standard Form) and 81 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is quite large and its quality allows the surviving of the species on long term.

Perspectives	“green”	The perspectives are favourable, but the placing of wind farms within the park has negative effects on the birds (collisions, the restraining of the feeding areas, etc.).
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

Table 11 - The matrix for the evaluation of the conservation state of the Long-legged Buzzard (*Buteo rufinus*).

Parameter	Indicator	Comments
Local distribution	“green”	The species is distributed mainly in the south-west part of the area, across the Luncașița-Horia line.
Population	“unknown”	The population is 15-18 pairs or a bit more. Other evaluations: 20-26 breeding pairs and 40-60 individuals in migration (cf. Natura 2000 Standard Form), 20-25 breeding pairs in the Munții Măcinului National Park and 21 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable for the species, the proof being its recent spreading in the area. This fulfils the requirements for nesting (cliffs, tall and old trees and even pylons of the lines of high voltage) and feeding (open steppe or agricultural crops).
Perspectives	“green”	The perspectives are very good, if the rock exploitations and the disturbance of the nesting places are stopped and the organic agriculture is practiced.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 12 - The matrix for the evaluation of the conservation state of the Levant Sparrowhawk (*Accipiter brevipes*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was identified in the breeding time only in the south-west part of the area, over the Luncașița-Horia line. In other parts, insufficiently studied, it is probably present, but in small number.
Population	“green”	The whole population is estimated at 8-12 breeding pairs or a bit more. Other evaluations: 20-30 breeding pairs and 15-20 individuals in migration (cf. Natura 2000 Standard Form), 10-15 breeding pairs in the Munții Măcinului National Park and 65 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable, mainly the one from the foothills, where the forest, composed by short trees and bushes, intercalates with the grassland.

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

Perspectives	“green”	The perspectives are favourable, because at the moment there are not important pressures and disturbing factors that endanger the future of species in the area.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 13 - The matrix for the evaluation of the conservation state of the Hen Harrier (*Circus cyaneus*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was observed in many points of the park, particularly during the migration. It searches the food over the steppe, humid areas and cultivated terrains.
Population	“unknown”	It is hardly to estimate the number of individuals that winter here, because it varies from year to year depending on the climate; it was rather small (below 10 individuals) but in warmer winters, it certainly grows. Other evaluations: 30-50 individuals in winter and 30-60 individuals in migration (cf. Natura 2000 Standard Form), and 68 individuals in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is favourable for feeding and resting.
Perspectives	“green”	The perspectives are favourable, because the species can find here the habitat it needs.
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

Table 14 - The matrix for the evaluation of the conservation state of the Saker Falcon (*Falco cherrug*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was not observed within the area.
Population	“unknown”	Probably, it does not breed in the present in the park. It was checked for nests the rocky places and few pylons of high voltage lines. No aerial presence anywhere. Previous estimations: 3-5 breeding pairs and 2-10 individuals in migration (cf. Natura 2000 Standard Form), and 2-3 breeding pairs in the Munții Măcinului National Park and 1 individual in migration (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat has the necessary conditions for breeding (rockeries, big trees, high voltage lines) and feeding (rodents, mainly European ground squirrel).
Perspectives	“green”	The perspectives are favourable for few breeding pairs; in order to have a steady population in the area, the species must recover within and around the protected area.

The evaluation of the conservation status	“unknown”	UNKNOWN STATUS
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Table 15 - The matrix for the evaluation of the conservation state of the Merlin (*Falco columbarius*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was seen once in the area.
Population	“unknown”	It is relatively rare (1 individual, observed at January 24, 2012). In March (2012 and 2013), in six days of field observations, it was not spotted. Previous estimations: 30-50 wintering individuals and 2-10 individuals in migration (cf. Natura 2000 Standard Form), and 3 individuals in passage (Râioasa Peak) between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The quality of the habitat permits its abiding in winter.
Perspectives	“green”	The perspectives are favourable, because, generally, the territories of feeding and resting are peaceful and the food requirements (especially birds) are fulfilled.
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

Table 16 - The matrix for the evaluation of the conservation state of the Stone Curlew (*Burhinus oedicnemus*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was observed on the pastures from Greci and between Cerna and Mircea Vodă.
Population	“green”	The population is relatively small. The most individuals were noted near Greci: 3 individuals on June 24, 2012 and 2 individuals on April 22, 2013), the estimated strength being 1-3 pairs/km ² in favourable habitat that means a total of 6-9 pairs or a bit more. Other evaluations: 50-80 breeding pairs (cf. Natura 2000 Standard Form), and 11 breeding pairs between May and June, 2006 (Pap, 2007).
Habitat of species	“green”	The quality of the habitat allows the breeding, but only in small territories. The human derange (the shepherd, the pastoral beekeeping) can be one of the causes.
Perspectives	“green”	The perspectives are favourable, if the anthropogenic pressure is limited.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

Table 17 - The matrix for the evaluation of the conservation state of the European Nightjar (*Caprimulgus europaeus*).

Parameter	Indicator	Comments
Local distribution	“unknown”	The species was observed at the forest skirt from Greci. Certainly, the area of spreading is larger than it is known.
Population	“unknown”	Incomplete data. Precedent evaluation: 150-200 breeding pairs (cf. Natura 2000 Standard Form).
Habitat of species	“green”	The rare woods, margins and orchards constitute the usual habitat of the species.
Perspectives	“green”	As long as the forested areas are maintained, prospects are favourable.
The evaluation of the conservation status	“unknown”	UNKNOWN STATUS

Table 18 - The matrix for the evaluation of the conservation state of the Roller (*Coracias garrulus*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was seen mainly in the west of the area.
Population	“unknown”	In the favourable habitats, 2-3 pairs/km ² and a total of 50-80 pairs or more. Previous evaluations: 160-240 breeding pairs (cf. Natura 2000 Standard Form) and 1 individual between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The quality of the habitat allows the surviving of the species on long term.
Perspectives	“green”	There is no significant influence of the main anthropogenic pressure and disturbing factors that threatens the future of the species in the area.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 19 - The matrix for the evaluation of the conservation state of the Syrian Woodpecker (*Dendrocopos syriacus*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was observed in few places from Greci and Rachelu-Revărsarea.
Population	“unknown”	Insufficient concluding data. Previous evaluation: 80-100 breeding pairs (cf. Natura 2000 Standard Form).
Habitat of species	“green”	The quality of the habitat (rare forests, orchards) allows the surviving on long term of the species.
Perspectives	“green”	The species can be threat by the deforestation, the cutting of the orchards, the using of the pesticides, etc. Currently, there are not major pressures to diminish the strengths and the distribution of the species.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 20 - The matrix for the evaluation of the conservation state of the Middle Spotted Woodpecker (*Dendrocopos medius*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was observed in the deciduous forests from the area.
Population	“unknown”	Ca. 0.7-1 pair/10 ha in the favourable places. Precedent evaluation: 400-600 breeding pairs (cf. Natura 2000 Standard Form). 2 individuals were observed during August-October, 2006 (Pap, 2007).
Habitat of species	“green”	The quality of the habitat allows the surviving on long term of the species.
Perspectives	“green”	The species can be threat by the deforestation, the using of the pesticides, etc. Currently, there are not major pressures to diminish the strengths and the distribution of the species.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 21 - The matrix for the evaluation of the conservation state of the Woodlark (*Lullula arborea*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was observed at margins, clearings, crops and grasslands.
Population	“unknown”	In characteristic habitat, ca. 3 pairs/10 ha, that mains a total of 500-800 breeding pairs. Other evaluations: 800-1,400 breeding pairs and 15,000-20,000 individuals in migration (cf. Natura 2000 Standard Form); 20 individuals were observed between August and October, 2006 (Pap, 2007).
Habitat of species	“green”	The habitat is big enough and its quality allows the surviving on long term of the species.
Perspectives	“green”	The future of the species can be menaced by the pesticide use but, currently, there are not major pressures to diminish their number and its distribution.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 22 - The matrix for the evaluation of the conservation state of the Pied Wheatear (*Oenanthe pleschanka*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was observed in two places: Cavalu Peak and Caramalău Peak.
Population	“unknown”	Ca. 10-15 breeding pairs, probably more. Other evaluations: 100-150 breeding pairs (cf. Natura 2000 Standard Form).

THE EVALUATION OF THE CONSERVATION STATUS FOR SOME BIRDS SPECIES FROM ROSPA0073 MĂCIN-NICULIȚEL

Habitat of species	“green”	The habitat is big enough and its quality allows the surviving on long term of the species.
Perspectives	“green”	The species responds to the human derange and pesticide use but, currently, there are not major pressures to diminish the strengths and the distribution of the species.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

Table 23 - The matrix for the evaluation of the conservation state of the Ortolan Bunting (*Emberiza hortulana*).

Parameter	Indicator	Comments
Local distribution	“green”	The species was observed in few places: the rare forest with scrubs from Măcin-Greci-Cerna area and the forest skirt at Hamcearca.
Population	“unknown”	In 2013, 10 individuals were registered. Insufficient data, but, probably, 50-100 breeding pairs. Previous evaluations: 250-400 individuals in winter (cf. Natura 2000 Standard Form).
Habitat of species	“green”	The habitat is big enough and its quality allows the surviving on long term of the species.
Perspectives	“green”	There is not a significant influence of the main pressures and disturbing factors that endanger the future of the species in the area.
The evaluation of the conservation status	“green”	FAVOURABLE STATUS

General measures for the species conservation:

- The achieving of new cores of strict protection for the most important species from the area, without any type of human intervention in nature, except the situations of urgency;
- An adequate forestry management, with the maintaining of the old and hollow trees;
- The banning of new wind farm buildings;
- The diminishing of the stone exploitation;
- The stopping of uncontrolled tourism;
- The practice of a traditional agriculture inside and outside the area (on the limitrophe terrains);
- The limitation of the spreading of invasive species;
- The elimination of the poaching;
- The prevention of the pollution;
- The periodical monitoring of the conservation state for species and habitats;
- The information of the local communities and visitors regarding the importance of the area, etc.

Particular measures for the species conservation:

- The installing of nesting platforms in vicinity of the area, the combating of poaching (for *Pelecanus onocrotalus* and *Pelecanus crispus*);
- The placing of artificial platforms for the nests from the top of the pylons of low voltage lines and the electrical isolation of the wires (for *Ciconia ciconia*);
- The guarding of the nests, the keeping of the peace inside the forests and wetlands, the banning of the trees cutting in the breeding places, the electrical isolation of the low voltage wires (for *Ciconia nigra*);
- The maintaining of old trees and the diminishing of the human derange, mainly hunting (for *Aquila heliaca*);
- The keeping of old forests and wetlands, the isolation against the electrocution of the high voltage lines, the stopping of the poaching (for *Aquila clanga*);
- The sustainable management of the woods, the stopping of the poaching, the practice of an extensive agriculture (for *Hieraaetus pennatus* and *Circaetus gallicus*);
- The conserving of the steppe, the encouraging of the traditional agriculture, the banning of the stone exploitation in the breeding places (for *Buteo rufinus*);
- The keeping in good conditions of the forested habitats and the maintaining of silence near the nests (for *Accipiter brevipes*);
- The restoration of the humid areas, the elimination of the pesticides used in agriculture, the banning of the poaching (for *Circus cyaneus*);
- The forbidding of the poaching (including the illegal capturing of falcons and eggs taking), the stopping of the habitats degradation, the practice of agriculture on ecological bases, the placing of artificial nests (for *Falco cherrug*);
- The preservation of the favourable habitats, the practice of the agriculture without pesticides (for *Falco columbarius*);
- The preservation of the pastures, the practice of the agriculture without pesticides (for *Burhinus oediconemus*);
- The avoiding of the pesticides use, the sustainable utilization of the pastures and forests (for *Caprimulgus europaeus*);
- The preservation of the existing habitats, with hollows trees and slide banks, the avoiding of pesticide, the banning of poaching (for *Coracias garrulus*);
- The sustainable management of the forests, the preservation of the old fruiterers in orchards, the seeding of trees in localities (for *Dendrocopos syriacus*);
- The preservation in good conditions of the forests (especially of oak and hornbeam), the keeping of quietness in the breeding areas (for *Dendrocopos medius*);
- The maintaining of the quality of the favourable habitats (margins, clearings, crops and grasslands), the elimination of the pollution (for *Lullula arborea*);
- The prohibition of the derange in the breeding grounds, the practice of the organic agriculture (for *Oenanthe pleschanka*);
- The banning of poaching, the preservation in good conditions of the favourable habitats, the practice of a friendly agriculture in relation to the environment (for *Emberiza hortulana*), etc.

CONCLUSIONS

Generally, the situation of the protected species of birds from ROSPA0073 Măcin-Niculițel is favourable. However, 8 species of the 21 researched have an unknown status, because of the insufficient or inexistent concluding data.

2 species (*Pelecanus crispus* and *Falco cherrug*) were not observed during the study, but they were recorded here in the recent years.

The future of the species in the area is correlated to the measures of conservation. The most important of them are: an adequate forestry management, the banning of new wind farm buildings, the diminishing of the stone exploitation, the stopping of unattended tourism, the practice of a traditional agriculture inside the area, the limitation of the spreading of invasive species, the restoration of the humid areas, the elimination of the poaching, the prevention of the pollution, the isolation against the electrocution of the voltage lines, the periodical monitoring of the conservation state for species and habitats, and the information of the local communities and visitors regarding the importance of the area for the fauna, flora, habitats, and geology.

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