PRELIMINARY OBSERVATION REGARDING THE AVIFAUNA FROM CORCOVA AREA (MEHEDINȚI COUNTY)

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Abstract

Preliminary data on the avifaunal diversity of the Corcova area (Mehedinți County) are presented in this study. Corcova commune, located in a hilly area, on the right bank of Motru River, in the eastern part of the Coșustei Piedmont, is known as an important wine-growing center; the vineyards of Corcova were recognized in documents since the 15th century. The diversity of natural habitats (deciduous forests, meadows, pastures, hayfields, grassy lands, river courses, wetlands, ponds, riparian zones), which are interwoven with anthropogenic habitats (cultivated fields, access roads, rural perimeters, etc.) existing in the investigated area, represent suitable feeding, roosting and breeding sites for numerous bird species. The preliminary list includes 86 bird species observed in July-October 2023 and 2024. Of the birds highlighted, the species of European conservation concern listed in the Annexes of international legislation (Birds Directive EC /2009, Annex 1) caught our attention: Ciconia ciconia, Egretta garzetta, Pernis apivorus, Falco vespertinus, Alcedo atthis, Coracias garrulus, Picus canus, Dendrocoptes medius (Leiopicus medius), Dendrocopos syriacus, Lanius collurio, Ficedula albicollis, F. parva, Anthus campestris; and in need of conservation measures in order to mitigate the anthropogenic pressures and threats to which they are exposed (agricultural and forestry practices, extension of built-up areas, land use changes, fishing, etc.) and climatic pressures.

Key words: birds, hilly area, habitat, diversity, threats

INTRODUCTION

The area under study attracted our attention because of its great biodiversity and economic factor. It is also recognized for its vineyards, from which important wine varieties are produced. It is mentioned that viticulture has existed since Dacian times; since 1497 the Corcova vineyard is mentioned in documents; it experienced a period of prosperity, as the estate of the Bibescu family, at the end of the 19th century and in the first half of the 20th century (https://ro.wikipedia.org/wiki/Podgoria_Corcova).

The commune of Corcova is located in the North-Eastern part of Mehedinți County, about 13 km from the town of Strehaia, on the national road DN 67. From an administrative point of view, it comprises 13 villages: Breța, Cernaia, Corcova (the commune's residence), Cordun, Croica, Gârbovățu de Jos, Imoasa, Jirov, Măru Roșu, Pârvulești, Pușcașu, Stejaru and Vlădășești (Figure 1). The geographical coordinates of the area are $44^{0}41^{0}02$"N and $23^{0}03^{0}40$"E. (https://ro.wikipedia.org/wiki/Comuna_Corcova,Mehedin%C8%9Bi)

The area has a predominantly hilly relief, with altitudes between 280-300 m, and a maximum of about 360 m. The landscape on the hills, mosaic-type, is characterized by compact forests, with pastures, meadows, hayfieds, agricultural crops, orchards, vineyards.

The Coșușteа River - the main watercourse of the commune, running in a W-E direction, a right tributary of the Motru, has a discharge level of 137 m above sea level (https://ro.wikipedia.org/wiki/R%C3%A2ul_Co%C8%99u%C8%99tea). The Motru River, located to the right of the commune, has a sinuous course, smooth flow, wide major bed

and fluctuating flow rate is influenced by rainfall. Groundwater occurs in the form of springs, some of which are arranged as public fountains.

The climate is temperate continental with Mediterranean influences, characterized by mild winters, compared to the eastern part of the country, and sunny and warm summers. The average annual amount of precipitation is approx. 660 mm according to data available in the European Climate Assessment & Dataset database (https://www.ecad.eu/).

The lithological structure of the soil, varied, with a rich mineralization, is the result of the interaction of pedogenetic factors: climate, fauna and flora, relief, rock, time, evolution.

The diverse and rich flora and vegetation are influenced by the soil and mild climate. Specific to the area is the presence, alongside Eurasian species, of Mediterranean and sub-Mediterranean species, which are dominant in numerous plant associations (Cucu & Popva-Cucu, 1981).

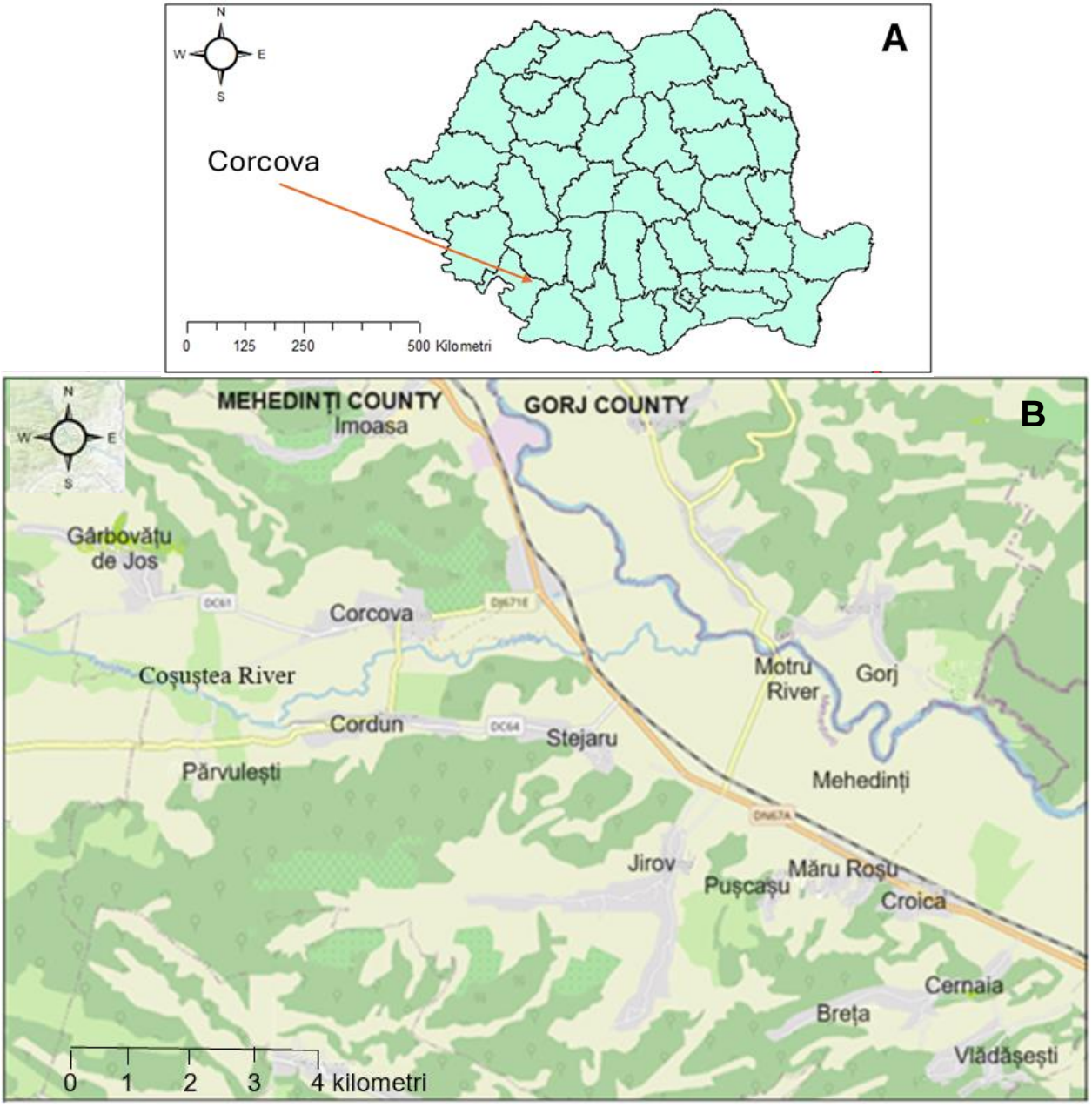

Figure 1. Corcova commune. A: Localization in România and Mehedinți county B: the vilages of the commune; (processed). Source: https://corcova-mh.pe-harta.ro/

In the researched area, the predominant natural vegetation belongs to the thermophilic-submesophilic oak zone. The main sub-Mediterranean species that make up the natural forests, in a good state of conservation, are Turkey oak (*Quercus cerris*) and Hungarian oak (*Q. frainetto*), to which are added other oak species: *Q. robur, Q. pubescens* and *Q. pedunculiflora* (southern Pontic element), and further north, the Dalechamps oak (*Q. dalechampii*). In association with Quercus species, other broad-leaved species are found in the forests on the hills: *Fraxinus ornus*, *F. angustifolia*, *Acer campestre*, *A. tataricum*, *Ulmus sp.*, *Tilia tomentosa*, etc. Shrubs are well represented by numerous species: *Crataegus monogyna*, *C. pentagyna*, *Prunus spinosa*, *Lingustrum vulgare, Cornus, sanguinea, C. mas, Carpinus orientalis, Rosa canina*, Mediterranean species, *Ruscus aculeatus, R. hypoglossum*, etc. The grass cover in forests is very diverse. Numerous xerophilous and xeromesophilous species can be found in glades and meadows. Different species of fungi and mosses are found in shady places (Costache, 2011). The floodplain forests in the area of Motru and Coșuștea Rivers are dominated by willows and poplars (*Salix alba, S. fragilis, Populus alba, P. nigra etc*), and black alder (*Alnus glutinosa*). In addition to the above-mentioned shrubs, the riparian area is also home to numerous lianas: *Clematis vitalba, Humulus lupulus, Vitis sylvestris*.

The commune of Corcova, with a total area of about 75.32 km^2, includes a complex of habitats, of which terrestrial habitats predominate over aquatic habitats, as shown in Table 1 (https://www.comunacorcova.ro/geografia/).

The commune of Corcova is not only an economic objective (through the wine industry, agriculture, animal husbandry, etc.), but also an objective of scientific interest due to the biodiversity of natural (terrestrial, aquatic) and anthropogenic habitats it has. All these habitats (of high conservation value), harbor a diverse flora and fauna (Bălescu & Bușe-Dragomir, 2023a, 2023b).

However, scientific works about the birds of Corcova are not found in the specialized literature. Only one species (*Oriolus oriolus*) is cited in the catalog of the Oltenia bird collection as being collected from Corcova (Ridiche Mirela, 2011).

Table 1. The component and surface area of the main habitats in Corcova commune - Mehedinți county

Habitat category	**Component**	**Surface in hectares (ha)**
Natural deciduous forest	Species of *Quercus,* predominantly Turkey oak and Hungarian oak; and other deciduous species	2069 ha
Pastures/ natural meadow	Xeromesophytes and xerophytes	1388 ha
Hayfields	Spontaneous flora; Grassy vegetation	414 ha
Arable lands	Crops of maize, wheat, barley, sunflower, etc	2518 ha
Uncultivated land	Weeds	240 ha
Vineyards	Hybrid vine varieties Noble vine	74 ha 55 ha
Orchards	Apples, pears, cherries, sour cherries/cherry, walnuts, plums, etc	20 ha
Water surface	stagnant and flowing waters	80 ha

Corcova is also included in the Natura 2000 Site ROSCI0366 Motru River. Following the field surveys carried out during 2014, a provisional list of bird species evidenced along the site was drawn up. No bird species in the area of Corcova commune are recorded in the management plan. (https://www.mmediu.ro/app/webroot/uploads/files/2015-12-07_Raul_Motru.pdf)
Starting from these findings we aimed to study the Corcova area from an ornithological point of view. The main purpose of the work is to make a preliminary list of the main birds existing in the different habitats of Corcova commune. The obtained data will be used to complete the existing ornithological database.

MATERIAL AND METHODS

Classical methods were used to monitor the species: the itinerary method, direct observation, photography, field survey and field data processing method.
The trips to the different habitats of the commune took place in the periods: 24-26.07.2023; 11-14.08.2023, 13-15.09.2023, 15.10.2023 respectively 17-20.07.2024, 1-4.08.2024, 7-8.09.2024, 20-22.09.2024. They were carried out during the serotinal and autumnal season on well-established routes. Observations were made from fixed points as well as on the move, both with the naked eye and with optical devices (Norconia 10x50 binoculars, Bushnell 12x42 binoculars, cameras: Canon Sx70HS digital camera, Panasonic SDR-H20 camera). They took place in the mornings between 8 am and 2 pm; less frequently in the afternoons between 4-7 pm and in the evenings between 6-9 pm. The time allocated to observations per day varied between 3-6 hours. In of species identification and documentation, specialized field guides were used (Delin & Svensson, 2016; Svensson et al., 2017 etc). Some bird species were identified by sound. Information from the foresters was useful in supplementing data on some raptor species as well as other birds. The field survey, our own observations (detection of nests, presence of adult birds with insects in their beak flying to nests, presence of juveniles, etc), supplemented with data from the specialized literature (Fântână et al., 2022; Munteanu, 2012; Ardelean & Béres, 2000; Radu, 1984, etc,) allowed us, in the case of some bird species, to establish their phenology (sedentary/ migratory) and nesting / non-nesting status). The studies are preliminary, and we will continue to collect ornithological data from other ecological aspects of the year.
The classification adopted in making the taxonomic list was done in accordance with Avibase (https://avibase.bsc-eoc.org/checklist. jsp?region=RO).

RESULTS AND DISCUSSIONS

We present the preliminary list of the identified bird species, with brief information on the observation sites of the species in the habitats they inhabiting and some phenological, ecological aspects, as well as the estimated numbers (minimum-maximum) of some species.

Order ANSERIFORMES
Family Anatidae

1. ***Anas platyrhynchos*** - aquatic species; a few isolated birds observed on the Motru River sector in the villages of Măru Roșu, Croica, Cernaia in August and September 2024; 2-4 birds, in passage.

Order GALLIFORMES
Family Phasianidae

2. ***Phasianus colchicus*** – common species found in the area of deciduous forests on hills with arboretum, through thickets and shrubby; in grassy vegetation with bushes near agricultural land, agricultural crops; among the willows, in the riparion zone of Motru; nesting and sedentary species.
3. ***Perdix perdix*** – a constant presence, common on farmland, in low bushes on the edge of agricultural fields; upon our appearance 7-10 juveniles, very quickly, took to flight, hiding in the vegetation of shrubby on the edge of the railway; also

found on hills: in woodland edges and în the meadows with bushes; in vineyards; sedentary and nesting species.

4. ***Coturnix coturnix*** – identified by sound in July and August on cultivated land, in grassy vegetation near arable land, meadows, and bushes; in Croica, Stejaru, Jirov, Imoasa; summer visitor, nesting species.

Order COLUMBIFORMES

Family Columbidae

5. ***Columba livia domestica*** – a synanthropic species, common in the study area; sedentary, nesting species.

6. Columba palumbus – observed in the deciduous forests on the hills of the villages, in clearings, in the riparian vegetation of the Motru River, grasslands and agricultural fields; juveniles and adults; both in isolated birds, in small groups, but also in flocks of more than 80-90 birds during the autumn season; nesting species.

7. Streptopelia decaocto – synanthropic species, common in the study area; sedentary, nesting species.

8.Streptopelia turtur – a discreet species, reported in bright deciduous forests on hills, at the forest edge, in glades; in groups of trees and shrubs at the edge of arable land; on wires between electric poles; on stubble fields in search of food (on 7.09.2024); adults and juveniles, 4-12 birds; to Cernaia, Breța, Croica, Pușcașu, Măru Roșu, Jirov, Corcova; summer visitor, nesting species

Order CUCULIFORMES

Family Cuculidae

9. ***Cuculus canorus*** – a common species, widespread in deciduous forests on the hills, in the riparian vegetation of trees and shrubs along the Motru and Coșușstea Rivers; after August 15 not heard; summer visitor.

Order CICONIIFORMES

Family Ciconiidae

10. ***Ciconia Ciconia*** – a constant presence in the investigated area; observed in flight as well as on the ground, on dry or wet grasslands, agricultural lands, and marshy land; at the Motru and Coșușstea Rivers, near puddles, springs; it is semiaquatic species; summer visitor, nesting species in the villages of commune, synanthropic species.

Order PELECANIFORMES

Family Ardeidae

11. ***Egretta garzetta*** – semiaquatic species; 1-2 birds signaled in August 2023 on the banks of the Coșușstea River in the village of Corcova; they come for food and rest.

12. ***Ardea cinerea*** – semiaquatic species, highlighted in 2024; 1-2 birds along the Motru River, in the villages of Cernaia, Croica, Măru Roșu, Jirov; at the Corcova bridge, on the bank of the Coșușstea River; they come for food and rest.

Order ACCIPITRIFORMES

Family Accipitridae

13. ***Pernis apivorus*** – reported in September 2023 at Croica and Măru Roșu one each in flight over the agricultural land near Motru River.

14. ***Accipiter nisus*** – in deciduous forests near the dwellings; reported at Cernaia, Breța, Pușcașu, Croica; nesting species.

15. ***Accipiter gentilis*** – present in forest habitats, oak woodland edges near human settlements; in shrub vegetation separating cultivated land; in Croica, Jirov, Stejaru; nesting species.

16. ***Buteo buteo*** – common presence, observed on all trips; in trees or in flight; frequently above agricultural land, but olso over the deciduous forest on the hills; sometimes at high altitudes flying over the area in search of food; in shrubby vegetation that separates agricultural land plots; seen solitary or in pairs, juveniles and adults in various stages of plumage; in the village of Jirov, on 7.09.2024, we recorded 10 birds in flight above the agricultural land; nesting species.

Order STRIGIFORMES

Family Tytonidae

17. ***Tyto alba*** – anthropophilic species, identified by sounds at Croica, in the trees in the gardens of local inhabitants; information from foresters gives it as

present in the localities of Corcova, Gârbovățu de Jos, Pușcașu; resident, nesting species.

Family Strigidae

18. ***Athene noctua*** – according to the locals, it is one of the most common nocturnal predators, present in the forest area, in the riparian vegetation of the Motru River, the clumps of trees and shrubs that separate cultivated land, localities, the area of cemeteries, etc.; we have reported it on the roofs of houses, chimneys, on poles, on tree branches in people's gardens in Pușcașu, Cernaia, Croica, Măru Roșu, Corcova; it is resident, nesting species.

19. ***Asio otus*** – a species reported by foresters in Gârbovățu de Jos, Corcova, Cordun, Pârvulești, Stejaru, Jirov; we have reported it in Croica and Breța in the deciduous forests on the hills; one bird each during the day, sitting still on oak branches; resident, nesting species.

20. ***Strix aluco*** – it inhabits deciduous forests on the hills: in Breța, Pușcașu, Jirov, Cordun, Pârvulești, Imoasa; its presence in the area was reported during the field survey (records from foresters); resident, nesting species.

Order BUCEROTIFORMES

Family Upupidae

21. ***Upupa epops*** – common species; 1-3 birds reported in the investigation area in different habitats; in grassy vegetation on the periphery of maize fields; in the clumps of bushes and trees separating cultivated fields; meadows, forest edges on hills, gardens, orchards, vineyards; summer visitor, nesting species.

Order CORACIIFORMES

Family Alcedinidae

22. ***Alcedo atthis*** – aquatic species, constantly observed in all trips along the Motru River (in 2024); 1-2 birds; possible nesting in galleries dug in the steep banks of the Motru River.

Family Meropidae

23. ***Merops apiaster*** – frequent species, reported in the area of Motru River in Cernaia, Croica, Măru Roșu, Jirov; large number of juveniles and adults; observed both in flight over meadows and stationary on tree branches and electrical wires; they nested in the high and steep banks of the river; summer visitor, nesting species.

Family Coraciidae

24. ***Coracias garrulus*** – reported in July and August at Croica, Măru Roșu and Jirov; in the bright oak forests, in the clumps of hollow trees on the edge of cultivated land; often on the wires between utility poles; 2-7 adults and juveniles; summer visitor, nesting species.

Order PICIFORMES

Family Picidae

25. ***Jynx torquilla*** **–** inconspicuous species, difficult to spot in the canopy of trees where it forages for food; observed on the bark and branches of tree on hillsides, edges, grassland; also on the branches of fruit trees in local people's gardens; 1-2 birds; in Croica, Cernaia; summer visitor, breeding species.

26. ***Dendrocoptes medius*** (***Leiopicus medius***) – in oak and other deciduous woods on the hills; 1-2 birds; sedentary, nesting species.

27. ***Dendrocopos major*** – frequently heard and observed in deciduous forests on hillsides, in gardens and orchards of households, in tree clumps near agricultural fields; in the riparian tree vegetation; 1-4 birds; adults and juveniles; sedentary, nesting species.

28. ***Dendrocopos syriacus*** – identified in forests on hillsides, edges, trees along streets, in gardens and orchards of households; 1-4 birds, adults and juveniles; nesting, sedentary.

29. ***Dryobates minor*** – rare species observed in 2023 in the glade of deciduous woodland at Imoasa; nesting species.

30. ***Picus canus*** – reported in sparse forests on the hills, in the tree clumps on the edge of arable land; in Croica and Jirov; rarer than *P. viridis*; nesting species.

31. ***Picus viridis*** – identified sonically and visually in light oak forests on hillsides, edge of forests; in tree clumps near arable land; in orchards and tree

gardens; both on the ground and in trees; 1-3 birds, adults and juveniles; sedentary, nesting.

Order FALCONIFORMES

Family Falconidae

32. ***Falco tinnunculus*** – observed in the villages of Cernaia, Croica, Măru Roșu, Jirov, Corcova; in flight, and stationary in the tree clumps on agricultural land; at the forest edges on the hills, in the riparian vegetation of the Motru River; nesting species.

33. ***Falco subbuteo*** – species recorded at Croica in 2024, both visually and based on the sounds emitted; in the forest habitat on the hills, in the clumps of shrubs and trees on agricultural land; 1-2 birds; possibly nesting.

34. ***Falco vespertinus*** – species reported in the tree and shrub vegetation along the Motru Riverbank in 2024, during the autumn migration in Cernaia; one male bird observed in a poplar.

Order PASSERIFORMES

Family Oriolidae

35. ***Oriolus oriolus*** –observed in deciduous forests, at the edges, in trees in the Coșușteа river meadow, orchards, in the tree clumps near vineyards; at Corcova, Gârbovățu de Jos; adults and juveniles; 2-8 birds; summer visitor, nesting species.

Family Laniidae

36. ***Lanius collurio*** –species frequently observed in the investigated area during all trips; in clumps of bushes and trees on agricultural land, in thickets on hills, at forest edges; bushes along the railway, and in vineyard area; a summer visitor, nesting species.

Family Corvidae

37. ***Garrulus glandarius*** – a common species observed in all habitats and during all trips; sedentary, nesting.

38. ***Pica pica*** - a common species observed in all habitats and during all trips; sedentary, nesting.

39. ***Corvus monedula*** – a common species observed in all habitats and during all trips; sedentary, nesting.

40. ***Corvus frugilegus*** – a common species observed in all habitats and during all trips; sedentary, nesting.

41. ***Corvus cornix*** – a common species observed in all habitats and during all trips; sedentary, nesting.

Family Paridae

42. ***Poecile palustris*** – observed in September 2023 in the deciduous oak forests of Croica and Stejaru localities; +15 birds.

43. ***Cyanistes caeruleus*** – inconspicuous species, more numerous in the passage; in deciduous forests, in the riparian vegetation along the Coșușteа and Motru Rivers, in gardens; the bushes along the railway; nesting species.

44. ***Parus major*** – common species, observed in almost all habitats and trips; sedentary, nesting species.

Family Alaudidae

45. ***Alauda arvensis*** – observed in agricultural fields, meadows, pastures, stubble; 2-18 birds; summer visitor, nesting species.

46. ***Galerida cristata*** – observed in agricultural fields, meadows, open land, along paths, and on stubble; 2-8 birds; nesting species.

Family Acrocephalidae

47. ***Hippolais icterina*** – observed in autumn in deciduous forests with shrubby vegetation; in clumps of bushes, shrubs, and trees separating agricultural land; in the trees and shrubs along the Motru and Coșușteа Rivers banks.

Family Hirundinidae

48. ***Hirundo rustica*** – anthropophilic species, constant in the area; adults and juveniles; observed above grassland and agricultural lands, as well as over the Motru and Coșușteа Rivers in search of insects; summer visitors, nesting species.

49. ***Delichon urbicum*** – anthropophilic species, observed in the localities: Cernaia, Croica, Jirov, Stejaru, Corcova, Imoasa; reported in flight over the agricultural lands near the Motru floodplain, as well as above the Coșușteа and Motru Rivers; summer visitors, nesting species.

50. Riparia riparia – colonial species, reported in flight after insects; +20 birds above the agricultural land near the Motru River on 8.09. 2024 in the locality Croica; we do not have certain data regarding the nesting of the species in the studied area.

Family Phylloscopidae

51. *Phylloscopus sibilatrix* – identified in bright areas of deciduous forest, in the bushes on the edge of the agricultural land, in the autumn passage; +18 birds.

52. *Phylloscopus trochilus* – recorded in the autumn passage in forest habitats, forest edges, glades, thickets; in shrubby vegetation, on open land, in the riparian vegetation of the Motru and Coșușteа Rivers; + 25 birds

53. *Phylloscopus collybita* – observed in the autumn season in bright forests on the hills, in shrubs; în bushes sectors on agricultural land; in the floodplain of the Motru River; in the gardens and orchards of the inhabitants; +20 birds.

Family Aegithalidae

54. *Aegithalos caudatus* – species present in oak and other deciduous forests on the hills, in thickets and bushes, in the gardens and orchards of villagers, in the floodplain of the Motru River; juveniles and adults; very active in the trees canopy; in the autumn passage more numerous, +12 birds; in the forests of Croica, Măru Roșu, Breța; breeding species; two subspecies of the long-tailed tit were observed in the investigated area: the subspecies with a completely white head and the subspecies with a black stripe above the eye.

Family Sylviidae

55. *Sylvia borin* – observed in deciduous forests with scrub; in clumps of bushes, shrubs, and trees along the edges of the cultivated land; in shrubby vegetation along the railroad tracks; in the riparian vegetation along the Coșușteа and Motru Rivers; in the localities: Imoasa, Corcova, Jirov, Măru Roșu, Croica, Cernaia; summer visitor, nesting species.

56. *Sylvia atricapilla* – inconspicuous species, found in the forest sector of Corcova, at the forest edge, in bushes; nesting species, summer visitors.

57. *Curruca curruca* – frequent occurrence in dense bushes and brambles in the forest habitat, forest margins, hedgerows, in riverside thickets, gardens and orchards; at Stejaru, Cordun, Croica, Breța; summer visitors; nesting species.

58. *Curruca communis* – mentioned in clumps of trees and bushes at the edges of cultivated land, along the railway tracks; in shrubby vegetation near forest edges; at Cernaia and Croica; summer visitors, nesting species.

Family Regulidae

59. *Regulus regulus* – observed during the autumn passage, in oak and other deciduous forests with underbrush, in bushes, gardens; in the villages of Vlădășești, Breța, Croica, Măru Roșu.

Family Sittidae

60. *Sitta europaea* – reported in the deciduous forests on the hills; in the villages of Cernaia, Croica, Măru Roșu, Pușcașu, Corcova; 1-2 birds each on the bark of trees; sedentary, nesting species.

Family Certhiidae

61. *Certhia familiaris* – homochromic species, observed by chance on the bark of oak trees in deciduous forests; one specimen in each village: Cordun, Pârvulești, and Stejaru.

Family Troglodytidae

62. *Troglodytes troglodytes* – mentioned in September 2024 in the autumn passage in the thickets along the Coșușteа River; at the forest edge on the hill, on piles of dry twigs; 1-2 birds; at Corcova and Gârbovățu de Jos.

Family Sturnidae

63. *Sturnus vulgaris* – common species in the investigated area; gregarious, nesting species.

Family Turdidae

64. *Turdus philomelos* – species observed in the forest vegetation on the hills, in the bushes near agricultural land, in the thickets along the Motru River; at Croica, Măru Roșu, Jirov, Corcova; possibly nesting species.

65. *Turdus viscivorus* – observed at the edge of the deciduous forest, in the forest

glades; in the autumn passage in Corcova.

66. *Turdus merula* – common species, reported in the thickets on the Motru meadow, in deciduous forests with numerous shrubs and bushes, in grasslands and pastures; in shrubby vegetation along the railroad; and in shrub clumps between agricultural fields; nesting species.

Family Muscicapidae

67. ***Muscicapa striata*** – observed in deciduous forest edges, in clearings, in open woods, and in orchards; in the localities: Cernaia, Breța, Croica, Stejaru; possible nesting species.

68. *Erithacus rubecula* – present in the floodplain of the Motru River; in *Quercus spp.* and other deciduous forests with dense shrubs and undergrowth; in gardens with shrubby vegetation; nesting species.

69. *Luscinia megarhynchos* – highlighted by both sound and sight in the study area; in forest habitats, in tree and shrub thickets, and dense bushes; in the floodplains of the Motru and Coșușteа Rivers; summer visitor, nesting species.

70. *Ficedula parva* – silent presence, in open deciduous forest, in bushes; in the autumn passage at Croica.

71. *Ficedula albicollis* – observed in oak and other deciduous forests with underbrush and tall bushes; more numerous in the autumn passage; in Croica, Măru Roșu, Stejaru, Corcova; possible nesting species.

72. *Phoenicurus phoenicurus* – present in deciduous forests on the hills, at edges, in clearings, rarities, and in the Motru River floodplain (in the willows); at Cernaia, Vlădășești; possible nesting species.

73. *Saxicola rubetra* – present in agricultural crops, in bushes, brambles and shrubs along paths separating agricultural plots, meadows and pastures, in vegetation near springs and stubble; summer visitor, nesting species.

74. *Saxicola torquatus* – common species in the area, through grasses and bushes in agricultural fields, uncultivated land with grassy vegetation; summer visitor, nesting.

Family Passeridae

75. *Passer domesticus* – common, anthropophilic species; sedentary, nesting species.

76. *Passer montanus* – common, anthropophilic species; sedentary, nesting species.

Family Motacillidae

77. *Motacilla flava* – observed on wet grasslands near springs, pastures, cultivated arable land, and stubbles; juveniles and adults, in variable numbers, 4-20 birds; summer visitor, nesting species; the subspecies *Motacilla flava flava* predominated.

78. *Motacilla alba* – present along the Coșușteа and Motru Rivers; at the edge of agricultural fields, wet meadows, grassy land with or without bushes; 2-6 birds, juveniles and adults; summer visitor, nesting species.

79. *Anthus campestris* – reported on cultivated agricultural land, paths between agricultural crops, grasslands with low vegetation, uncultivated land, stubbles; summer visitor, nesting species.

80. *Anthus trivialis* – observed in the area of deciduous forests: forest edges, thickets, bushes and brambles; in the shrubby vegetation between agricultural crops; nesting species; more numerous in the passage.

Family Fringillidae

81. *Fringilla coelebs* –species present in the deciduous forests, in the gardens and orchards of the inhabitants, in the trees on the banks of Coșușteа River; nesting species.

82. *Coccothraustes coccothraustes* – reported in deciduous forests; in large numbers in the autumn passage, when +40 birds were counted in the forests of Măru Roșu.

83. *Carduelis carduelis* – frequently observed in most habitats of the commune; juveniles and adults; sedentary, nesting species.

84. ***Chloris chloris*** – forest margins, open land with bushes, in tree gardens;

reported in Imoasa, Corcova, Jirov; nesting species.

Family Emberizidae

85. *Emberiza calandra* – present in open lands with grassy vegetation, bushes and trees in the vicinity of cultivated fields, stubble; nesting species.

86. *Emberiza citrinella* – found in deciduous forest edges, meadows, bushes, farmland, grassy vegetation in the area of vine plantations; nesting species.

The preliminary list of the main bird species observed in July-October in 2023 and 2024 includes 86 species systematically distributed in 13 orders and 36 families. Most birds belong to the Order Passeriformes: it comprises 52 species, grouped in 21 families, well represented being muscicapids (8 species), corvids (5 species), sylviids, motacillids, fringillids (each with 4 species), hirundinids, parids, phylloscopids, turdids (each with 3 species). These together with the non-passerines, they make up the avifaunistic picture of the area (Piciformes - 7 species; Columbiformes, Accipitriformes, Strigiformes each with 4 species, Galliformes, Coraciiformes, Falconiformes with 3 species, Pelecaniformes -2 species, 4 families with 1 species each: Anseriformes, Cuculiformes, Ciconiiformes, Bucerotiformes (Figure 2).

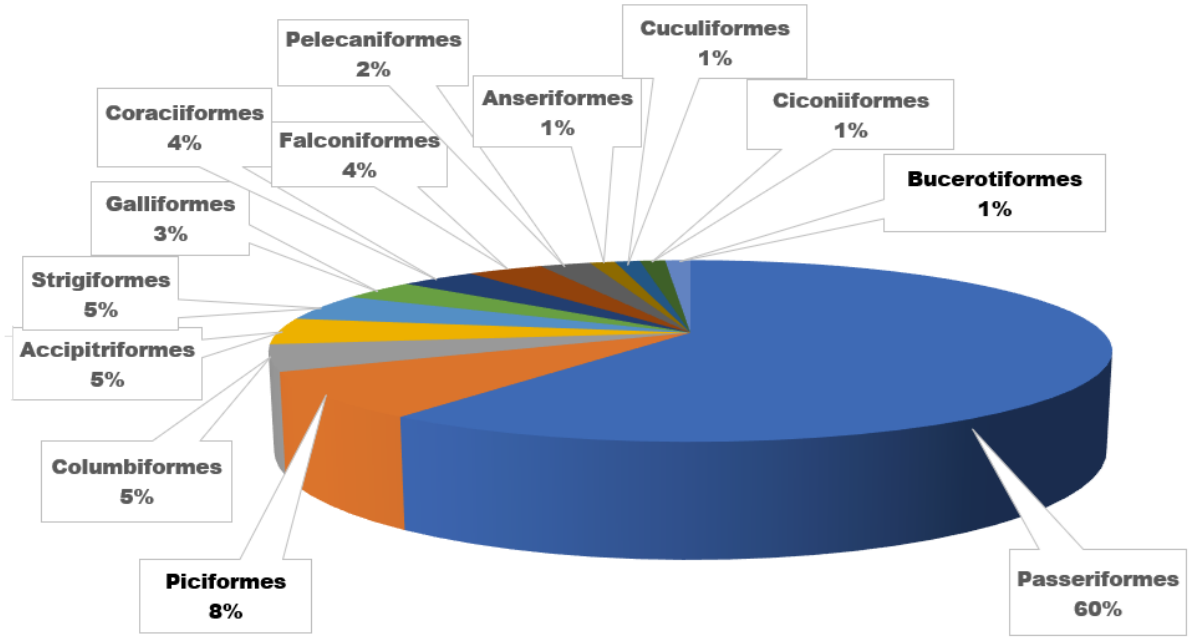

Figure 2. The percentage representation of the systematic orders in the composition of the avifauna of the Corcova area

Wooded biotopes alternating with open and aquatic ones favor the presence of birds of prey, most of them are nesting. *Pernis apivorus* and *Falco vespertinus* were only recorded in the autumn of 2024. In the quiet of the night, the sounds of night raptors (are all nesting) remain impressive. At Croica, the little owl has found nesting places in the attics of uninhabited houses and chimneys, 3-4 pairs.

The woodpeckers, characteristic forest faunal elements, were first heard from tens of meters away and then observed and identified. Out of the 10 species of woodpeckers in the country, 7 species were recorded in the area, all are nesting. Among the Columbidae, the turtle dove is listed as a less numerous species, with declining numbers in most of the country (Fântână et al., 2022, Munteanu, 2005). In the analyzed area, it is a constant and

important breeding species of deciduous forests.

Concerning the white stork (*Ciconia ciconia*): in 2023, 13 stork nests were monitored, all of them located on telegraph poles: 1 nest each in Cordun, Cernaia, Croica, Jirov, 2 nests each in Pârvulești, Imoasa, Măru Roșu and 3 nests in Corcova. At the beginning of 2024 there were works for the installation of cable telephone wires which led to the reduction of the number of stork nests to a total of 5: 1 nest each in the villages: Pârvulești, Imoasa, Măru Roșu and 2 nests in Corcova. The number of chicks varied annually - between 3 and 4.

It is worth mentioning that during the research we recorded a small number of aquatic and semiaquatic species (*Anas platyrhynchos*, *Egretta garzetta*, *Ardea cinerea, Ciconia ciconia, Alcedo atthis*). We believe that there could be three causes for this: the lack of data from the other ornithological seasons; lack of wetlands with extensive reeds; we did not cover the entire route along the Motru and Coșustea Rivers, due to the lush vegetation, that is why the observations were made from few accessible points.

Among the aquatic species, we were attracted by *Alcedo atthis* (common kingfisher), the attraction of the Motru River, one of the most charming birds, with its superb plumage, appearance, way of catching food, etc. We witnessed: - its fast flight, at a short distance from the water surface; when he diving in the water after fish, after standing whole minutes on the branches of willows and alders on the banks of the Motru River.

Terrestrial species predominate, being observed in the different habitats of the study area.

In the composition of the terrestrial ornitofauna, species characteristic of the forest and bush habitats are relevant: oak forests/ and other deciduous forests with undergrowth on hills, forest edges, brambles and thickets, meadow forests, clumps of trees and bushes more or less compact, etc - where a great diversity of nesting birds meets (from families: Accipitridae, Falconidae, Strigidae, Columbidae, Upupidae, Coraciidae, Picidae, Oriolidae, Laniidae, Corvidae, Paridae, Aegithalidae, Sittidae, Certhiidae, Troglodytidae, Turdidae, Muscicapidae, Fringillidae, etc.)

Cultivated and uncultivated arable land, pastures and meadows account for a significant part of the area of Corcova commune. As such, in these habitats as well as in other open grassy lands with xerophylous or hygrophilous vegetation, in the vicinity of which there are brambles and tall bushes, numerous species of birds can be found; Examples - Phasianidae: *Coturnix coturnix, Perdix perdix*; Alaudidae: *Alauda arvensis, Galerida cristata*; Motacillidae: *Motacilla flava*, *M. alba*, *Anthus campestris*, Muscicapidae: *Saxicola torquatus, S. rubetra*, etc

Anthropophilic birds are also significant - they use buildings for nesting (cracks in walls, eaves, bridges, etc.): *Tyto alba, Athene noctua, Hirundo rustica, Delichon urbicum, Sturnus vulgaris*, etc.; trees in the immediate vicinity: *Columba livia domestica, Streptopelia decaocto, Dendrocopos syriacus***,** etc.

In general, most bird species are found in several types of habitats, being eurytopic species. For example: the diurnal raptors birds, which use forests as nesting places and open/ agricultural lands as hunting grounds. Spectacular was the vibrant flight (on the spot), from about 18-20 m high of a male *Falco tinnunculus*- over the arable land in Croica - in search of food; scrutinize every movement on the ground; it quickly grabbed the prey (a lizard) and then disappeared in nearby clumps of trees. The barn swallows, the western house martins, nest at the eaves of buildings, and insects catch them from flight over open lands (meadows, pastures), as well as above water. *Asio otus*, one of the common species of strigiformes, nests in wooded areas and hunts mostly in open ground, on the agricultural land (Munteanu, 2012), etc.

The birds in the study area belong to the columbid stage, which corresponds to the oak vegetation subzone (Radu, 1984).
Most species inventoried are breeding and possibly breeding (69 secies). Among the summer visitor species that constantly nested in both years we list: *Coturnix coturnix, Streptopelia turtur, Cuculus canorus, Ciconia ciconia, Upupa epops, Merops apiaster, Coracias garrulus, Jynx torquilla, Oriolus oriolus, Lanius collurio, Hirundo rustica, Delichon urbicum, Sylvia borin, S. atricapilla, Curruca curruca, C. communis, Alauda arvensis, Erithacus rubecula, Luscinia megarhynchos, Saxicola rubetra, S. torquatus, Motacilla flava, M. alba, Anthus campestris, A. pratensis.*
The majority of the trips made coincided with the serotinal season (July 15 - September 15). The number of identified birds amounted to 76 species. During this period, we observed:
- Completion of reproduction in species that later laid brood (adults with food in beak heading towards nests);
- A new breeding period; in species that lay 2 or 3 eggs/year, e.g. starlings, sparrows, great tit, etc.;
-Juveniles and adults dispersing over shorter or longer distances in search of favorable feeding and resting places;
- An increased population of nesting birds. For example: at Croica on September 13, 2023, in the clearing of a broadleaf forest (from a fixed point of observation), we recorded: 6 common buzzards (*Buteo buteo*), 4 great spotted woodpeckers (*Dendrocopos major*) + 25 great tits (*Parus major*); +12 long-tailed tits (*Aegithalos caudatus*); +10 collared flycatchers (*Ficedula albicollis*), + 14 yellowhammers (*Emberiza citrinella*).
- Preparation of summer visitor birds for autumn migration through intensive feeding. On August 13, 2023, the white stork (*Ciconia ciconia*) was seen in numerous flocks in the agricultural fields and meadows of the Mărul Roșu; more than 45-50 birds were looking for food; as we approached, they took flight, rising; we afterwards noticed that other storks joined by this flock, probably from the villages of the neighboring communes. Very noisy individuals of *Merops apiaster*, above the agricultural ecosystem near Motru, in flocks of +30 - 40 birds, in search of insects; etc.
The diversity of species in the serotinal season is much more evident than in the autumnal season (15 September - 31 October), characterized by the actual autumn migration. There was a decrease in the number of bird species surveyed - 60 species. A main factor in this reduction is the seasonal climate changes. A main factor in this reduction is the season specific climate changes.
The months of September and October were characterized by the departure of summer visitor birds and the passage of many passerine species: leaf warblers, icterine warblers, goldcrests, etc. Is the period when the rotation between migratory birds (summer visitors leave, winter birds come). Sedentary species become predominant. Large flocks of columbids and corvids have been recorded, forming flocks on agricultural land: e.g. *Corvus frugilegus, C. cornix, C. monedula*, +100-150 birds. *Columba livia domesticus, C. palumbus* over 40-90 ex. *Sturnus vulgaris* holds the record in the area: numerous flocks, each over +70-100 birds, above the vineyards, orchards, agricultural land, etc.
The birds of the surveyed area are subject to both climatic changes (very hot summers with prolonged droughts, heavy/torrential rains and soil erosion) and anthropogenic pressure, which lead to periodic changes in species dynamics and frequency.
For example, climatically, the summer of 2024 was the hottest, with record temperatures, tropical days and nights. The average monthly temperature at Drobeta Turnu Severin exceeded 27°C in July and August, the summer average being 26.6 °C (https://doi.org/10.1002/joc.773). The number of hot days was high, the maximum temperature ≥ 35°C. The drought installed in August (the amount of precipitation was 2.3 mm) lasted until

mid-September; between September 14-16 there were torrential rains. The last period of September was also warm (reaching an average of 26.7°C). The month of October was characterized by beautiful, warm weather (at the beginning of the month the average temperature was 22.6°C, and towards the end it dropped to an average of about 21°C) (https://www.vremearomania.com/europe/romania/mehedini/october). All these variations have direct implications on the biorhythm of living things, leading to increased vulnerability of populations.

The anthropogenic impact on birds manifests itself differently depending on the type of activity performed. The most exposed to anthropogenic action remain compact natural forests. Below we list some of the main actions with negative effects on avifauna in the area:

- forestry activities (forest exploitation through uncontrolled cutting of trees and shrubs, removal of the most valuable woody specimens, excessive use of chemicals to combat harmful insects - which threatens the life of birds in forest ecosystems);
-agricultural activities (mechanized agricultural works, use of chemical substances: insecticides and pesticides with a high degree of toxicity, removal of shrubs from agricultural land, early mowing, intensive grazing – all of which affects birds in agricultural ecosystems both trophically and reproductively);
-infrastructure (through construction of buildings, extension of the extravilan of the commune, modification of natural lands);
-abandonment of waste (which leads to pollution);
-leisure activities (individual fishing, picnics in forests);
-unintended activities (risk of fire, accidental shooting), etc.

Despite anthropogenic pressure, most birds have adopted different adaptation strategies in these habitats that have become anthropized. The protection of birds is closely linked to the maintenance of unaltered characteristics of existing ecosystems through specific conservation programs and involves joint responsibilities of both the competent authorities and the inhabitants.

According to the threatened status of species at the national level, 8 species with unfavorable conservation status requiring protection were highlighted in the researched territory, being included in the Red Book of Vertebrates in Romania (Munteanu, 2005): 2 endangered species: *Egretta garzetta* – it coming for food and rest, *Jynx torquilla* - nesting in forest vegetation; 6 vulnerable species: *Ciconia ciconia*, *Streptopelia turtur*, *Upupa epops*, *Tyto alba* - constant nesting species, *Pernis apivorus* - passing through for feeding and *Falco vespertinus*. Most species recorded in the area have a good conservation status, their populations maintaining in their natural habitats.

Concerning the protection status, we found that 13 bird species observed in the area are subject to special conservation measures, being listed in Annex 1 of the Birds Directive. These are: *Egretta garzetta, Pernis apivorus, Falco vespertinus, Ciconia ciconia, Alcedo atthis, Coracias garrulus, Picus canus, Dendrocoptes medius* ***(****Leiopicus medius*), *Dendrocopos syriacus, Lanius collurio, Anthus campestris, Ficedula parva, F. albicollis.*

CONCLUSIONS

The preliminary avifaunistic list carried out in Corcova commune (Mehedinți), in the years 2023 and 2024 during the months of July-October, includes 86 species distributed in 13 orders and 37 families, of which species of the Order Passeriformes predominate. The diversity of species is a consequence of the variety of natural habitats that combine with anthropogenic habitats, as well as physical-geographical and climatic peculiarities.

From the faunistic point of view, the typically forestry species are important components of the studied ornithological fauna, being the most representative and varied. Birds of agroecosystems and

anthropophilic birds are also significant in the area.

The data being preliminary, monitoring must be continued in the habitats of the commune and in the other ecological seasons in order to complete the avifaunistic list. This will allow us to better knowledge about: the existing species, the exact phenological status of the identified birds, the behavior, the dynamics of bird populations, the preferences of bird populations for a given biotope, a better management of species with unfavorable conservation status at both national and European level. In the future, it would be interesting to investigate the contribution of vine plantations in maintaining biodiversity, and therefore also birds, taking into account the fact that the vineyards of Corcova are nationally renowned.

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