

# Monitoring on Bird Communities Present in a Regional Nature Reserve in the Municipality of Rome

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## Abstract

The Marcigliana Regional Natural Reserve was established in 1997 in the northern area of Rome district. It is 4,729 hectares wide and it is managed by the Regional Istitutio "Roma Natura" and the importance of the area, object of our study, is demonstrated by the specific richness and mainly by the percentage of Passerine/Non Passerine that show the great importance of mosaic agriculture areas for birds' conservation.

**Keywords:** Bird communities; Marcigliana Regional Natural Reserve; Municipality of Rome

## Study Area

The Marcigliana Regional Natural Reserve was established in 1997 in the northern area of Rome district. It is 4,729 hectares wide and it is managed by the Regional Istitutio "Roma Natura" [1].

Its environment is mainly constituted by low-high hills, which are cultivated with wheat, corn and *Medicago sativa*, by areas which are destined to grazing and finally by valleys all covered by oak-woods (*Quercus* spp.), often mixed white mapels (*Acer campestre* and elms (*Ulmus campestris*) [2,3].

There are several channels e some ponds with Igrophilic vegetation, among which we can find of poplar (*Populus* spp.) and willows (*Salix* spp.).

Only 2% of entire area is urbanized.

All though this is an area of great environmental importance, it has never been studied until this study.

## Material and Methods

The authors have carried out the researches between November 2012 and august 2013, with two trips per month, and from January 2011, with less frequent trips are also carried three night trips [4-7].

This study is at preliminary step and is going to last at least for one more year.

Surveys with the Regional reserve guard have been also carried out to get more information about the presence of some species [8,9].

On the basis of the dates of examination and of the behaviour of the single species, we tried to attribute these species with the following Phenology:

- W (wintering)=Species observed in winter time o during winter birds census (15 December. 15 January)
- B (breeding) certainly=See the nest, juvenile, transport breakful or transport material for the nest
- B probably=Song, territorial defense or mating
- B possible=Specie observed during the reproductive period
- M (migratory)=All remaining cases (reg=regular, irr=irregular)

Species	Phenology	Spec List	Italian Red List	Latium Regional Red List	European Status
<i>Anas crecca</i>	W, M		EN	NA	
<i>Anas platyrhynchos</i>	W, M, B cert.		EN	NA	
<i>Phalacrocorax carbo</i>	W, M		EN	NA	
<i>Ardea cinerea</i>	W, M		LR	NA	
<i>Bubulcus ibis</i>	W, M		VU	NA	
<i>Egretta garzetta</i>	W, M			NA	
<i>Ardeola ralloides</i>	M irr.				
<i>Pernis apivorus</i>	M, B prob.	3	VU	VU	Vulnerable
<i>Aquila pennata</i>	M irr.	3			

<i>Circus cyaneus</i>	M reg. W		Ex		Declining
<i>Circus pygargos</i>	M reg., B?		VU	EN	
<i>Circus aeruginosus</i>	M reg.		En		
<i>Milvus migrans</i>	M reg, B prob.	3	VU	VU	Vulnerable
<i>Accipiter nisus</i>	W, M, B prob.				
<i>Buteo buteo</i>	W, M, B prob.				
<i>Falco peregrinus</i>	W, M, B poss.		VU	NT	
<i>Falco tinnunculus</i>	W, M, B cert.	3			Rare
<i>Falco naumanni</i>	M				
<i>Falco subbuteo</i>	B poss.		VU	VU	
<i>Phasianus colchicus</i>	W, M, B cert.				
<i>Grus grus</i>	M irr.				
<i>Gallinula chloropus</i>	W, M, B cert.				
<i>Himantopus himantopus</i>	M irr.		LR	NA	
<i>Philomachus pugnax</i>	M irr.				
<i>Tringa ochropus</i>	M reg.				
<i>Gallinago gallinago</i>	M reg.				
<i>Scolopax rusticola</i>	M reg.				
<i>Vanellus vanellus</i>	M reg., W reg.				
<i>Larus michaellis</i>	W, M reg.				
<i>Chroicocephalus ridibundus</i>	W, M				
<i>Columba livia (feral pigeon)</i>	M, W, B				
<i>Columba palumbus</i>	W, M, B poss.				
<i>Streptopelia decaocto</i>	W, M, B prob.				
<i>Streptopelia turtur</i>	M, B prob.				Declining
<i>Psittacula krameri</i>	W, M, B cert.				
<i>Cuculus canorus</i>	M, B prob.				
<i>Strix aluco</i>	W, B cert				
<i>Athene noctua</i>	W, B cert	3			Declining
<i>Asio otus</i>	B poss.				
<i>Tyto alba</i>	W, B poss.				
<i>Apus apus</i>	M reg, B prob.				
<i>Alcedo atthis</i>	W				
<i>Upupa epops</i>	M, B poss.	3			Declining
<i>Merops apiaster</i>	M reg, B prob.	3			Depauperate
<i>Picus viridis</i>	W, B prob.	2	LR		Depauperate

<i>Dendrocops minor</i>	W, B poss.		LR		
<i>Dendrocops major</i>	W, B prob.				
<i>Galerida cristata</i>	W, M, B prob.	3	DD		Depauperate
<i>Alauda arvensis</i>	W, M, B poss.	3			Depauperate
<i>Anthus pratensis</i>	W, M	4	NE		
<i>Motacilla alba</i>	W, M, B prob.				
<i>Motacilla flava</i>	W				
<i>Hirundo rustica</i>	W, M, B cert.	3			Declining
<i>Cecropis daurica</i>	M irr.		CR	NA	
<i>Delichon urbicum</i>	M, B prob.	3			
<i>Prunella modularis</i>	W		DD		Depauperate
<i>Troglodytes troglodytes</i>	W, B poss.				
<i>Luscinia megarhynchos</i>	M reg, B prob.				
<i>Saxicola torquatus</i>	W, M, B poss.				
<i>Phoenicurus ochruros</i>	W				
<i>Turdus merula</i>	W, M, B cert.				
<i>Turdus philomelos</i>	M reg.				
<i>Sylvia atricapilla</i>	W, M, B prob.				
<i>Sylvia melanocephala</i>	W, M, B prob.				
<i>Sylvia cantillans</i>	M, B poss.				
<i>Cisticola juncidis</i>	W, M, B prob.				
<i>Cettia cetti</i>	W, M, B prob.				
<i>Hippolais polyglotta</i>	M, B cert.				
<i>Phylloscopus collybita</i>	W, M, B prob.				
<i>Phylloscopus sibilatrix</i>	M reg.				
<i>Regulus regulus</i>	W				
<i>Regulus ignicapilla</i>	W, M, B prob.				
<i>Parus major</i>	W, M, B prob.				
<i>Cyanistes caeruleus</i>	W, M, B prob.				
<i>Aegithalos caudatus</i>	W, M, B prob.				
<i>Certhia brachydactyla</i>	W, M, B prob.				
<i>Lanius collurio</i>	M, B cert.	3			Depauperate
<i>Lanius senator</i>	M, B poss.	2			Depauperate
<i>Pica pica</i>	W, M, B cert.				
<i>Garrulus glandarius</i>	W, M, B prob.				
<i>Corvus monedula</i>	W, B prob.				

<i>Corvus cornix</i>	W, M, B cert.			
<i>Sturnus vulgaris</i>	W, M, B cert.	3		Declining
<i>Oriolus oriolus</i>	M, B poss.			
<i>Passer italiae</i>	W, M, B cert.	3		Declining
<i>Passer montanus</i>	W, M, B poss.	3		Declining
<i>Fringilla coelebs</i>	W, M, B prob.			
<i>Carduelis carduelis</i>	W, M, B prob.			
<i>Chloris chloris</i>	W, M, B prob.			
<i>Serinus serinus</i>	W, M, B prob.			
<i>Emberiza schoeniclus</i>	W			
<i>Emberiza cirius</i>	W, M, B poss.			
<i>Emberiza calandra</i>	W, M, B prob.	2		Declining

**Table 1:** Check List of Marcigliana Natural Reserve

## Results

The species of birds that were observed in the Reserve are 97 in total, of which 52 are Non-Passerine (54%) while 45 are Passerine (46%) (Table 1). In the present research it was not included Calandrella brachydactyla, which was spotted during a previous research on the birds of this Reserve, but that was not reconfirmed in the present study.

There are 19 species (18.7%) which are included in the European SPEC 1-3 lists; 19 species (18.7%) are included in the Italian Red List and 14 species (13.1%) are instead included in the Regional Red List of Latium. Particularly interesting is the high number of species of raptors spotted (12), 7 of which breeding, and 5 wintering. Among the breeding species the most important is the *Circus pygargos*, which is at risk of extinction of great importance is also the density of Strigiformes, with at least 14 territories of *Athene noctua*, 9 of *Strix aluco* and at least one each of *Tyto alba* and *Asio otus*.

Despite being the right habitat for *Caprimulgus europaeus* and *Otus scops*, these species have never been spotted during previous researches.

It would be interesting to do some more researches on the following species:

*Circus pygargus*, first spotted in 2012. During our study, it was observed 5 times between May and August. It would be necessary to confirm the breeding of this species in this Reserve, for the conservation of this species in Latium.

*Milvus migrans*, regularly observed with many individuals and so there might be pairs breeding in this Reserve.

*Lanius minor*, of which there are 5 pairs in the Reserve.

*Lanius senator*, of which there is one pair in the Reserve (Carlo Catoni, personal communication).

## Conclusion

The importance of the area, object of our study, is demonstrated by the specific richness and mainly by the percentage of Passerine/Non Passerine that show the great importance of mosaic agriculture areas for birds' conservation.

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## Summary

Birds of the Regional Reserve of the Marcigliana, Rome, Central Italy.

## References

1. Birdlife International (2004) Birds in the European Union: a Status assessment. Wageningen The Netherlands Birdlife International
2. Brunelli M, Corbi F, Sarrocco S, Sorace A (a cura di) (2009) L'avifauna acquatica svernante nelle zone umide del Lazio. Edizioni ARP (Agenzia Regionale Parchi), Roma-Edizioni Belvedere, Latina: 176.
3. Brunelli M, Sarrocco S, Corbi F, Sorace A, Boano A ( 2011) Nuovo Atlante degli Uccelli Nidificanti nel Lazio. Edizioni ARP (Agenzia Regionale Parchi), Roma: 464
4. Boano et alii (Ed) (1995) Atlante degli uccelli nidificanti nel Lazio. Alula, II (1-2): 1-224.
5. Cignini B., Zapparoli M. (a cura di) (1996) Atlante degli uccelli nidificanti a Roma.
6. Fratelli Palombi Editorial.
7. Peronace V, Cecere JC, Gustin M, Rondonini C (2012) Lista Rossa 2011 degli Uccelli Nidificanti in Italia. Avocetta: 36.
8. Sarrocco S et al (2002) L'avifauna delle aree naturali protette del Comune di Roma gestite
9. dall'Ente RomaNatura, Alula, vol. IX (1-2)-2002: 3-31.