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Observation of the reproductive couples of Nightjars (*Caprimulgus europaeus*) in a reduced area of the Piana Reatina

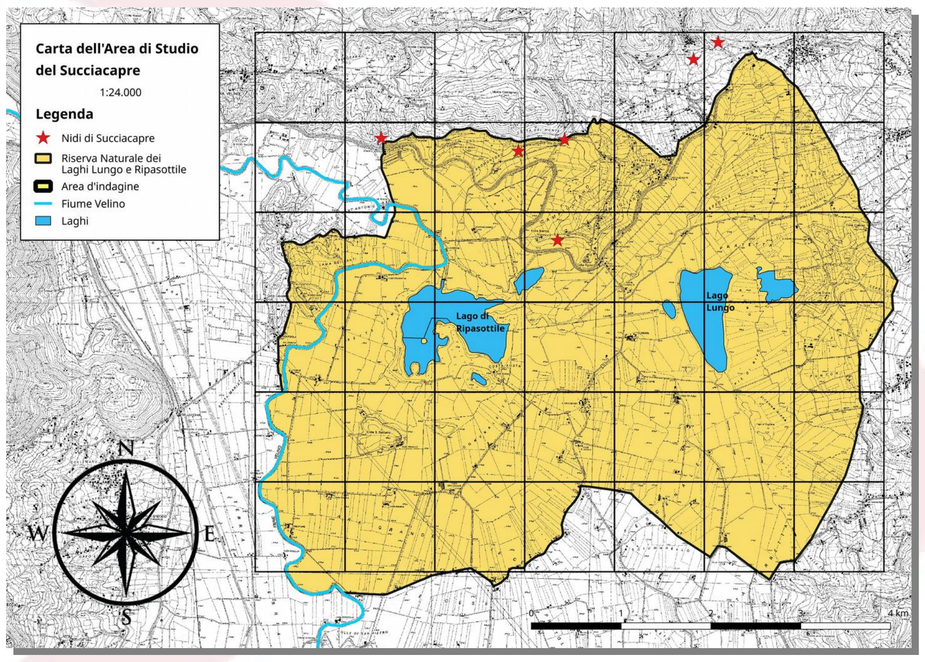
Sterpi M.*, Sterpi L.**, Rampi E.***
*Ornithologist, Rieti, Italy (e-mail: mauryste@gmail.com);
**Ornithologist, Rieti, Italy (e-mail: lucaste08@gmail.com);
***Ornithologist, Rieti, Italy (e-mail: ericarampini1994@gmail.com).

INTRODUCTION

The Nightjar (*Caprimulgus europaeus)* it's a species with nocturnal habits, of which we lack of complete and full knowledge (Pedrini et all, 2003; Bon et all, 2004; Gagliardi et all, 2007). The research was based on the reproductive couples of the Nightjar species present in a limited area including the Natural Reserve of the lakes Lungo and Ripasottile, the SIC (Sites of Community Importance), and the APS (Special Protection Area) IT6020011. Such portion of territory have been designed as ASC (Special Area of Conservation).

Study Area

The analysed area covers 4.200 ha, and it comprehends a territory which is mainly used for agriculture. The presence of headwaters, lakes, rivers, and canals create a remarkable hydrographic scheme. In addition, in the research area there is also a presence of forests, shrubs, and uncultivated meadows. For additional information refer to (Rampini E. 2018), (Mariani M. 2018), (Di Carlo *et al*., 1960, 1981).



Succiacapre (*Caprimulgus europaeus*).

MATERIALS AND METHODS

Thanks to the usage of the cartographic software QGIS, the studied territory was divided in square shaped survey units. Such survey units have been obtained through the overlapping of the UTM grid with square mesh of 1x1 km. 42 particles were collectively obtained. From these particles, all those units that did not meet the ambient eligibility requirements to host the Nightjar couples during the reproductive phase, were excluded. Then a listening station was positioned in each suitable unit. Once the research started, the operator in charge stayed in the station for 20 minutes. The same particle has been checked three times during the whole reproductive period, coming to a total of 9 times during the three years of research (2014-2015-2016).

RESULTS

For the whole three years of research (2014-2015-2016), it was taken a census on 5 couples of Nightjar (*Caprimulgus europaeus*) during the reproductive period in the analysed area. All the couples were positioned in the stretch of territory with presence of gravel, at the border of the stretch of territory itself, or at the border of some wooded areas. In such wooded areas, the agricultural activities do not disturb the presence and the reproduction of the Nightjar species.

DISCUSSION

The meagre number of couples of Nightjars encountered during this research, has surely to be attributed to the peculiarities of the analysed territory. In fact, the territory involves, within different areas, lands intensively exploited in agriculture, sustained by an intense usage of pesticides. In addition, when it comes to the reproduction of such species, the Nightjars generally avoids mountains, forests, highlands dense of vegetation, mature plantations, cultivations, reeds, and high-altitude meadows. In fact, the Nightjars, to reproduce its species, prefers dry, open and well-drained habitats, which are hard to be found in the territory of the Protected Area, exception made for hilly areas. Indeed, all the discovered nests, were found in hilly areas.

Year	Couple 1	Couple 2	Couple 3	Couple 4	Couple 5
2014	*	*	*	*	
2015		*	*	*	*
2016	*	*	*	*	*

CONCLUSIONS

The Nightjar species can be found in the Attached I of the Birds Directive (2009/147/CE ex 79/409/CEE). By being a matter of public interest, it is appropriate to start some measures for the conservation of the environments used and needed during the reproductive period. It also needs to be taken in consideration the reduction of the usage of pesticides, which can reduce the trophic resource.
In the Lista Rossa of nestlings' birds in Italy, the species is considered to be "of Minor Concern" (Peronace *et al.,* 2012). In addition, the species itself results to have insufficient data (DD) (Brunelli *et al.,* 2011), and in Italy the population is suffering of a general decrease (LIPU, 2009) and (Calvario *et al.,* 2010). This research represents a starting point on the knowledge of the species of the Nightjar within Rieti's Province, and it will be handful to the preservation of the species itself.

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