

European Birds of Conservation Concern: some constructive comments

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Abstract – Since 1994 BirdLife International embarked on a very important initiative by producing and updating (in 2004 and 2017) a list of Species of European Conservation Concern (SPECs). Notwithstanding, the present authors noted some flaws in the compilation of data and propose improvement to the methodology followed by BirdLife. In particular, the importance to consider local populations, in most cases described as subspecies; as already highlighted by many researchers, the SPECs methods do not consider them as such. Their conservation is necessary for the potential evolution and acquisition of unique characteristics, which represent important components of biological diversity. The effort to consider subspecies has already been carried out by the 2009/147 EU Directive. Some particular cases are reported and commented upon.

Key-words: SPECs, subspecies conservation, local populations, monitoring.

INTRODUCTION

European bird species are among the best studied and most popular groups of animals; according to Murray *et al.* (2015) the research effort on birds was not well targeted with respect to either European or global threat status, and there was little support for the suggestion that inclusion of species in legislative instruments such as Annex I of the EU Birds Directive that might stimulate research. BirdLife International (2017) published its latest report on the comprehensive assessment of the conservation status of European bird species, also termed Species of European Conservation Concern (SPECs). This is the third report, following the first and second (Tucker & Heath 1994, BirdLife International 2004). It is mainly based on the Red List published by BirdLife International in 2015 and on the estimate of bird populations living in each country. Each species was assigned to one of five SPEC categories, depending on its global conservation status on the Red List, its European population status and the proportion of its global population or range in Europe (BirdLife International 2017). The effort for bird conservation carried out by BirdLife in the last two decades was very important; the present paper represents a constructive point of view of two ornithologists involved in many projects on bird biology and

bird conservation. Two different problems were noticed: a) Information sources on population estimates and trends provided by different countries are heterogeneous and have a variable quality. Some threatened species could face the risk failing to obtain the necessary attention at European level or vice versa other species could be assigned SPEC category without being really threatened. The estimation of population totals for each country is much heterogeneous, and some values are old or unreliable; thus, the inclusion or exclusion of some species within the SPEC categories may result unsuitable. Some common and widespread species generally considered as stable or declining in some countries, were listed in the same SPEC category together with others, which conversely are local, but increasing in some other countries. The resilience of their populations is basically different and in most cases it should be very useful to consider their historical fluctuations. Hereby some particular cases are reported. b) EU Bird Directives 409/79 and 2009/147 tried to consider subspecific taxa, when it was really necessary for conservation purposes (e.g.: *Phalacrocorax aristotelis desmarestii*, *Lagopus muta helvetica*, *Alectoris graeca whitakeri*, *Alectoris graeca saxatilis*, *Perdix perdix italica*, *Perdix perdix hispaniensis*, etc.). Bird subspecies are allopatric subpopulations, generally maintained by spatial segregation, that share i) a unique geo-

graphic range or habitat, ii) a group of phylogenetically concordant array of phenotypic and genetic characters, iii) a unique natural history relative to other subdivisions of the species, (still) genetically compatible with other subpopulations (O'Brien & Mayr 1991, Amadon & Short 1992). Several island populations have rare or absent gene-flow with continental populations, and consequently we could expect that they diverge in isolation. Therefore, island populations will diverge at a faster rate than continental ones. Their conservation is necessary for the potential evolution and acquisition of unique characteristics, which represent important components of biological diversity; if effectively isolated, they may become new species through genetic isolating mechanisms. Maintaining biodiversity means preserving species on the whole, and as well as their isolated subspecies; recently Schmeller *et al.* (2008) pointed out that it is very important to conserve the geographic range of species, as well as their genetic diversity, ecological functionality and behavioral distinctiveness. Each of the geographical forms classed as subspecies occupy particular areas which, all together, give the range of the species as a whole. If these geographical forms were classed as allospecies (populations derived from the same common ancestor whose ranges differ and do not touch), we would have several smaller ranges in place of a large one (Newton 2003, Massa 2006). For the above listed reasons, we do not share the method followed by BirdLife International since 1994; even if this may be considered an iconoclastic statement, from the conservation point of view there is an important difference to treat a species as whole or its subspecies separately. Praiseworthy conservation aims by BirdLife are undermined when they do not consider subspecies, especially those populations that are separated by a different natural history; this choice could have been objectively corrected during 23 years period from the first (1994) to the third (2017) report. In the following pages the authors present some examples of biogeographical populations that would benefit of a stricter conservation approach.

Definition of SPECs (BirdLife International)

- SPEC1** European species of global conservation concern, classified as Critically Endangered, Endangered, Vulnerable or Near Threatened at global level.
- SPEC2** Species whose global population is concentrated in Europe, and which is classified as Regionally Extinct, Critically Endangered, Endangered, Vulnerable, Near Threatened, Declining, Depleted or Rare at European level.
- SPEC3** Species whose global population is not

concentrated in Europe, but which is classified as Regionally Extinct, Critically Endangered, Endangered, Vulnerable, Near Threatened, Declining, Depleted or Rare at European level.

Non-SPEC^E Species whose global population is concentrated in Europe, but whose European population status is currently considered to be Secure.

Non-SPEC Species whose global population is not concentrated in Europe, and whose European population status is currently considered to be Secure.

ANNOTATED SPECIES

Mediterranean Storm Petrel *Hydrobates pelagicus melitensis* or *Hydrobates melitensis*?

Two biometrically and genetically distinct subspecies have been recorded, *H. p. pelagicus* in the Atlantic, and *H. p. melitensis* in the Mediterranean, the latter characterized by a larger size and some different reproductive parameters (Hemery & D'Elbée 1985, Catalisano *et al.* 1988, Bretagnolle 1992, Lo Valvo & Massa 2000, Lalanne *et al.* 2001, Cagnon *et al.* 2004). Overall, Mediterranean basin hosts 8,500-15,200 pairs of *H. p. melitensis*, an unsubstantial proportion of the whole European population, estimated between 438,000 and 514,000 pairs (BirdLife International 2017). The IUCN status is Least Concern, although of 13 populations listed, only four have reliable population size estimates, and for the remaining eight, size and trend remain unknown (BirdLife International 2015, Perkins *et al.* 2018). Mediterranean populations are declining and critically threatened in their breeding sites, mainly due to human impact and predation by rats and Yellow-legged Gull *Larus michahellis* (Massa & Sultana 1991, Sultana *et al.* 2011). These birds are highly phylopatric and the young return almost always to their natal site (Borg *et al.* 2014). Thousands of individuals have been ringed in the last 50 years both in Malta and Marettimo Is. (Sicily), but only few cases of exchanges between colonies are known in the Mediterranean: one individual ringed from Filfla (Malta) has been recovered breeding at Marettimo Is. (Sicily) when 5 years old and 4 individuals hatched from Marettimo Is. have been recovered at Filfla when 1, 2, 4 and 6 years old, respectively (Borg *et al.* 2014). Two individuals hatched from Marettimo have been recovered in colonies on the Balearic Is. It seems that there are very rare cases of Mediterranean individuals found in the Atlantic and contacts between the two taxa *H. p. melitensis* and *H. p. pelagicus*

are absent. As far as we know, genetic and biometric differences highlighted above allowed scientists to recognize as a valid taxon the Mediterranean subspecies, the absence of contacts and of any known cases of hybridization between the two taxa consent finally to consider them as two separate and distinct species (also following the guidelines by Helbig *et al.* 2002). In addition, Soldatini *et al.* (2014, 2016) have reported interesting relationships between Mediterranean sea surface temperature and wintering of Mediterranean Storm petrels, and Martínez *et al.* (2018) have shown that Mediterranean populations winter in the Sicilian Channel (Tunisian waters). Thus, we should consider *Hydrobates melitensis* as a valid species, as previously proposed by Sangster *et al.* (2012). At present, as already happened in the past, this species has been considered by Tucker & Heath (1994) and BirdLife International (2004, 2017) as NonSPEC^E, because methods to assess bird species of conservation concern did not include subspecies, in the present case very isolated populations without any contact with others. If we consider the Mediterranean population as a separated species on the basis of genetic, morphological, biological and distributional data, the taxon should enter the Spec1 category.

Scopoli's Shearwater *Calonectris diomedea* and Cory's Shearwater *C. borealis*

When Tucker & Heath (1994) and BirdLife International (2004) assessed previous lists of European birds of conservation concern, *Calonectris diomedea* was represented by one Atlantic subspecies (*C. d. borealis*) and one present in the Mediterranean (*C. d. diomedea*). Massa (2006) highlighted that within the Mediterranean at least two biometrically different populations live and that all biogeographical populations needed to be preserved. Later, *C. diomedea* and *C. borealis* were raised to species level; thus, their conservation status should remain within the SPEC2 category. It is surprising that while *C. borealis*, with 252-253,000 pairs and unknown trend, remained in the SPEC2 category, *C. diomedea*, with 30,500-48,100 pairs and decreasing trend, now has been moved to the NonSPEC list. This new status is based on the new estimation of 141,000–223,000 pairs of the population of Zembra (Tunisia) carried out by Defos du Rau *et al.* (2015); did this new possible estimate downgrade the Scopoli's Shearwater from SPEC2 to the NonSPEC category? However, the new estimate of Zembra population has been methodologically criticized by Borg *et al.* (2016), who consider it much less numerous. In 2010 Defos du Rau *et al.* counted shearwater nests along 174 line-transects, following a distance-sampling methodology. This effort resulted in a new estimate of 141,780 breeding pairs breeding on Zembra Island. This methodology alone

will present incorrect and inflated figures and needs to be corroborated with other methodologies (Borg & Sultana 2002, Borg 2017). Also, an intense knowledge on the ecology and biology of the study subject and taking into consideration the different degrees of difficulties in counting burrow nesting birds, is fundamental before executing any type of census work. The discrepancy in a very high total number presented by Defos du Rau *et al.* (2015) stems from the fact that one cannot multiply the totals amassed during the survey, for the entire island. For instance there would be large areas which are unsuitable for breeding birds as in the case of Zembra. With over a 30 years background knowledge of the birds' behaviour, a survey of the entire island and repeated counts of incoming birds carried out on Zembra by one of us (JJB) in May 2013 resulted in an estimated breeding population of about 30,000 pairs, a figure relatively close to those of Gaultier (1981) and Isenmann *et al.* (2005). New figures presenting inaccurate data on breeding populations can result in negative conservation assessments of the species. Additionally, Mediterranean populations live mainly on inhabited islands and are much threatened by human depredation, rats and light and sound pollution, the former disorienting fledglings on their maiden flight. For conservation aims it should be more reasonable to move *C. diomedea* to the SPEC3 category.

Lanner Falcon *Falco biarmicus feldeggii*

This species is considered Endangered in Europe with unknown status (BirdLife International 2015), listed within the SPEC3 category, decreasing, by BirdLife International (2017). Of the 13 European countries holding Lanner Falcons, only Greece, Italy, Macedonia and Turkey have populations accounting for more than the 4% of the total breeding pairs (Fig. 1). At present, this raptor is declining due to poaching and falconry and not by direct competition with the Peregrine Falcon *Falco peregrinus* (Sarà *et al.* 2016), which conversely is increasing. Previously Massa (2006) has pointed out that *F. biarmicus feldeggii* has clearly separated and morphologically distinguishable isolated populations, breeding in Southern Europe and small part areas of the Middle East, while *F. b. erlangeri* and *F. b. tanypterus* cover North Africa, and *F. b. biarmicus* and *F. b. abyssinicus* Africa South of Sahara¹. For conservation purposes, it should be more consistent to consider a specific initiative for subspecies/local populations of these sedentary biogeographical populations, among which ap-

¹ BirdLife International (2017, pg. 103) published a photo of a Lanner Falcon in the page for the Macedonia assessment; the yellow pattern of the head without any frontal dark stripe should exclude it from being *F. b. feldeggii*, but it probably is a *F. biarmicus abyssinicus* (possibly falconry specimen).

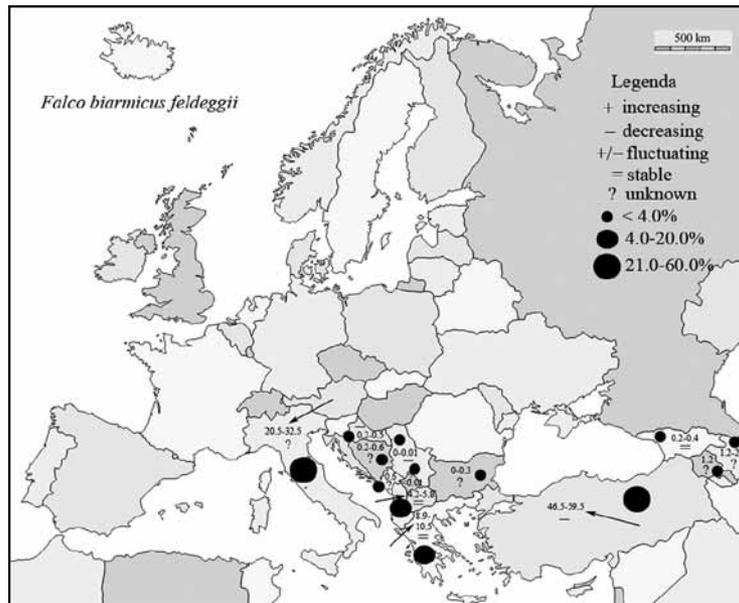


Fig. 1. Status of Lanner Falcon *F. biarmicus feldeggii* in European countries (number of pairs and trend), according to BirdLife International (2017). Numbers are percentage of population in each country, arrows mark the most important European populations. Data after BirdLife International (2017).

parently there is no gene flow, and to include the “rare” European subspecies within the SPEC2 category (species concentrated in Europe), not to SPEC3 (not concentrated in Europe).

Rock Partridge *Alectoris graeca*

BirdLife International (2015) considers the Rock Partridge as Near Threatened in Europe, Vulnerable in EU 27, but because the highest population size of the species is found in Greece and Italy, a Vulnerable status should be certainly more suitable. Populations of this species are sedentary and highly threatened by hunting activities and abandonment of sylvo-pastoral mountain activities. According to BirdLife International (2017) the Italian population should amount to 10-20 thousand pairs, but there are not recent censuses. The Alpine population (*A. graeca saxatilis*) is continuously declining (cf. Maffei *et al.* 2018), the Apennine population (*A. g. orlandoi*) was evaluated by Sorace *et al.* (2013) as much as 1,939-2,436 pairs, decreasing, while recent figures for the Sicilian subspecies (*A. g. whitakeri*) are not available; the last Sicilian census dates back to 90’ of the past century. At present the only available Italian estimate is the old one reported by Brichetti & Fracasso (2004), and was reproduced by BirdLife International (2017); nowadays certainly the Italian population is noticeably lower than 10-20 thousand pairs. In addition, Lucchini & Randi (1998) and Randi *et al.* (2003) identified

two phylogroups of mitochondrial DNA, that separate Sicilian Rock Partridge *A. g. whitakeri* from other populations (*A. g. saxatilis* and *A. g. graeca*) with a genetic distance of 0.035, corresponding to 65% of the mean distance between strictly related species of the genus *Alectoris*; these authors defined the Sicilian population “distinct evolutionary significant unit”. Even if temporarily protected by Regional law, in reality, this endemic taxon has a serious conservation status, due to poaching and Wild Boars *Sus scrofa* impact on the habitats and its nests. In the period 1993-2006 its population drop has been calculated as much as -17.5% of its Sicilian distribution (Ientile & Massa 2008). Even if the species has been correctly included in the SPEC1 category, a specific initiative for subspecies/local populations is advisable in future, taking into consideration that their destiny is dependent on habitat management at a regional scale.

Common Sandpiper *Actitis hypoleucos*

BirdLife International (2015) considers the Common Sandpiper as a species of Least Concern in Europe, Near Threatened in EU 27, BirdLife International (2017) lists it as SPEC3, decreasing. However, among 37 countries where this species is present, it is stable in 10, decreasing in seven, fluctuating in three, with an unknown status in 16 countries and increasing in one; countries holding the highest populations are Finland (13%, decreasing),

Norway (11%, unknown), Russia (59%, stable) and Sweden (10%, stable). The status is mainly stable, not decreasing, and the conservation concern category of the Common Sandpiper should be NonSPEC.

Common Buttonquail *Turnix sylvaticus*

Almost certainly this species has become extinct in Europe, and it is on the verge of extinction in North Africa (Morocco, the last Mediterranean region where it probably still lives). BirdLife International (2017) reports 0 pairs with unknown trend; however, this species is considered as still present in other regions outside the Mediterranean area. Violani & Massa (1993) found remarkable biometrical differences between the Mediterranean *T. s. sylvaticus* (bigger) and sub-Saharan and Asiatic ones (smaller), concluding that its extinction will result in the disappearance of a Mediterranean endemism. Expósito *et al.* (2011) have recently highlighted the risk of extinction of this subspecies and the clear morphological differences from the sub-Saharan *T. sylvaticus lepuranus* (but see also Pertoldi *et al.* 2006). To improve the chances of saving the last Moroccan individuals from extinction, it would be advisable to promote a series of specific conservation initiatives focused on subspecies/local populations of the Mediterranean with no contact with others. This objective would be more easily achieved if the taxon would be upgraded from SPEC3 to SPEC1 category.

Common Barn-Owl *Tyto alba*

BirdLife International (2015) lists it as Least Concern, BirdLife International (2017) as SPEC3, fluctuating. The Italian Red List reported it as a species of Least Concern, decreasing in the North but stable or increasing in the South of the country (Peronace *et al.* 2012). At present, according to BirdLife International (2017) the main populations are found in France (14%, fluctuating), Germany (14%, fluctuating), Greece (3%, unknown), Italy (6%, decreasing), Portugal (5%, stable), Serbia (2%, decreasing), Spain (42%, stable) and the United Kingdom (2%, increasing). Apart from some discrepancies in the Italian assessment, this species could be considered secure and moved to the NonSPEC category.

Common Swift *Apus apus*

Considered as Least Concern (BirdLife International 2015), declining in Europe and included in the SPEC3 category. In Italy Peronace *et al.* (2012) considered it as Least Concern and stable. This species is very anthropophilous and its populations are mainly linked to urban habitats. According to BirdLife International (2017), 66% of the European population is found in Spain (where it is decreasing),

11% in Russia (also decreasing), 8% in Turkey (stable) and 3% in Italy (stable), in the other European countries populations do not exceed 1%. The percentage of populations present in the different European countries probably has to be carefully verified. It is very likely that the current Italian population has been underestimated (between 500,000 and 1,000,000 pairs). Being a species not concentrated in Europe, its placement in the SPEC3 category is correct in our opinion, but we advise for a particular attention to its population trends in future, since Common swifts are being threatened by renovation projects on historical buildings leading to the total exclusion of swifts to their nesting sites in all European countries (Ferri 2014). This, in a few years time can result in a significant decline of this species, which today still seemingly common and widespread.

House Martin *Delichon urbicum*

Considered Near Threatened (with a declining status) by the Italian Red List (Peronace *et al.* 2012), Least Concern and declining by BirdLife International (2015), and listed within the category SPEC2 by BirdLife International (2017). Results show the species as decreasing in 17 countries, stable in eight, increasing in five, with an unknown status in 13 and fluctuating in one country (BirdLife International 2017) (Fig. 2). There are areas where this species is still widespread and increasing, as in southern Italy, where annually it is able to raise two or three broods (Lo Valvo *et al.* 1993, pers. obs.). Overall, it seems that it cannot be considered as generally decreasing in Europe and its placement within SPEC2 is not justified, also because the global population is not concentrated in Europe. It should be moved to the SPEC3 category.

Woodlark *Lullula arborea*

Like the previous species, it is reported as of Least Concern by BirdLife International (2015) and within the SPEC2 category (increasing) by BirdLife International (2017); additionally it is listed as Least Concern in the Italian Red List (Peronace *et al.* 2012). It is decreasing in six countries, stable in 16, increasing in nine, with unknown status in 12 and fluctuating in one country (Fig. 3). Because the Woodlark is considered increasing or stable in countries where important populations are present and it is not concentrated in Europe, there are no reasons to maintain it within the SPEC2 category. We therefore suggest to move the species to the SPEC3 category.

Calandra Lark *Melanocorypha calandra*

Considered as Vulnerable by the Italian Red List (Peronace *et al.* 2012), Least Concern by BirdLife International (2015) and listed within the SPEC3 category (decreasing)

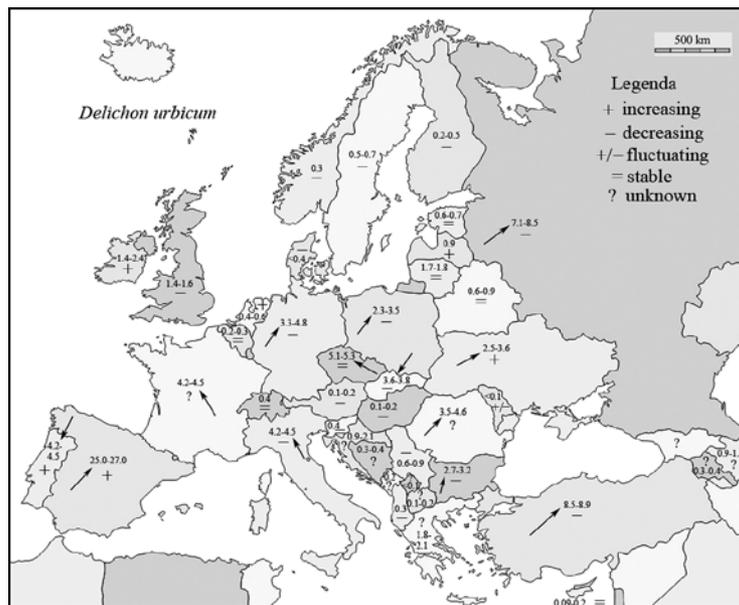


Fig. 2. Status of House Martin *Delichon urbicum* in European countries (number of pairs and trend), according to BirdLife International (2017). Numbers are percentage of population in each country, arrows mark the most important European populations. Data after BirdLife International (2017).

by BirdLife International (2004, 2017), due to the fact that its distribution covers areas other than Europe (Asia and North Africa). At present it is one of the rarest Alaudidae in Italy and the rest of Europe (Massa & La Mantia 2010), where it is decreasing and it requires in the future a careful analysis of the population trend. Main European populations live in Romania (7%, unknown status), Russia (21%, fluctuating), Spain (28%, decreasing) and Turkey (42%, stable). Considering its good status outside Europe (e.g., Isenmann *et al.* 2005), we would highlight the importance of future improvements of the status of this bird at least for the Mediterranean region.

Northern Wheatear *Oenanthe oenanthe*

This species has been considered Near Threatened, decreasing in Italy by Peronace *et al.* (2012), but Least Concern by BirdLife International (2015) and in the SPEC3 category, stable by BirdLife International (2017). Interestingly, results by Bairlein *et al.* (2012) provided the first evidence of a migratory songbird (the Northern Wheatear) capable of linking African ecosystems of the Old World with Arctic regions of the New World. Main European populations live in Italy (2%, increasing), Norway (8%, unknown), Romania (3%, unknown), Russia (9%, stable), Spain (13%, decreasing), Sweden (3%, stable), Turkey (44%, stable), Ukraine (2%, fluctuating), United Kingdom (3%, stable). Apart from some discrepancies in the Italian

assessment, it seems objectively that populations of this species are either stable or more or less fluctuating. In addition, this species is represented by three Palearctic subspecies (*O. o. oenanthe*, *O. o. leucorhoa* and *O. o. libanotica*; *Oenanthe seebhomii* from Morocco and Algerian mountains is now considered as separate species); some of them certainly are not strictly isolated and interbreed, but, interestingly, there are populations strictly confined to high mountains environments, while others breeding at lower quotes on hillsides and plains. Only some of them are declining, probably those present below the tree line, where the abandonment of grazing and haymaking is causing an invasion of woody vegetation, and therefore subjected to habitat loss. Overall, we recommend that the Wheatear should be moved to the NonSPEC^E category.

Dartford Warbler *Sylvia undata*

It is considered Near Threatened, decreasing in Europe and included in the SPEC1 category (BirdLife International 2015, 2017); Italian Red List (Peronace *et al.* 2012) reports it as Vulnerable, with 20-60 thousand pairs. However, according to BirdLife International (2017) 10-30 thousand pairs have been estimated in Italy, and its status is considered unknown; this discrepancy is remarkable. Many small populations are scattered in small Mediterranean islands, where no estimation have been done. In addition, no disturbing factors (with the exception of fires)

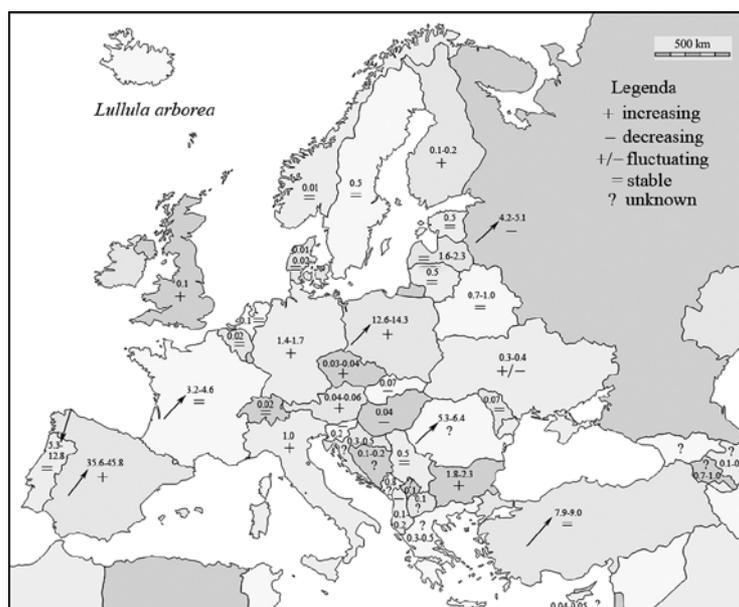


Fig. 3. Status of Woodlark *Lullula arborea* in European countries (number of pairs and trend), according to BirdLife International (2017). Numbers are percentage of population in each country, arrows mark the most important European populations. Data after BirdLife International (2017).

are really known. We suspect that much of the population is actually overlooked and its inclusion in SPEC1 category may result excessive if more precise population data would be available.

Marmora's Warbler *Sylvia sarda* and Balearic Warbler *Sylvia balearica*

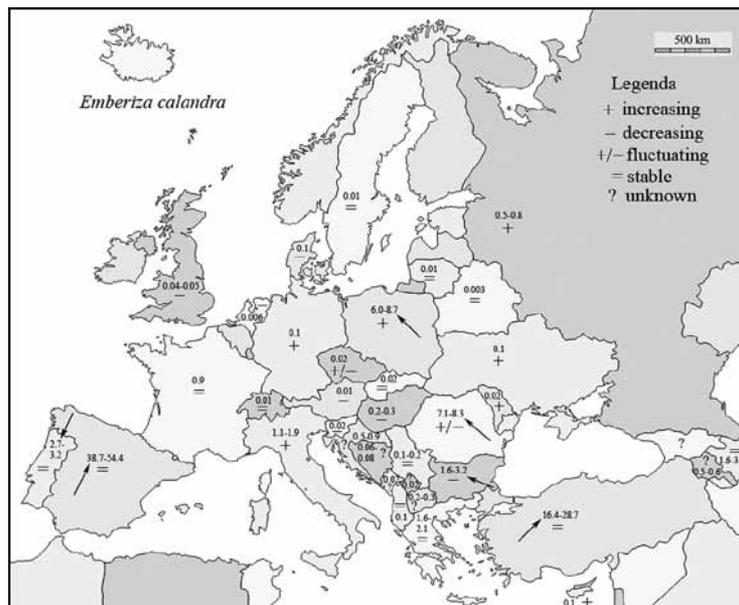
According to Shirihai *et al.* (2001) a superspecies comprises two insular allospecies, *S. balearica*, endemic to Balearics, and *S. sarda*, living in Corsica, Sardinia and Tuscany Is.; it became extinct from the island of Pantelleria (Corso *et al.* 2012, Massa *et al.* 2015). It is unexplainable that these species, reported as Least Concern by BirdLife International (2015) (compilers of the 2015 report still considered *S. balearica* subspecies of *S. sarda*), with an European population of 25-30 thousand (of which 10-20 thousand pairs in Italy) and 14-25 thousand pairs, and an unknown and stable status, respectively, are listed by BirdLife International (2017) as NonSPEC^E. Italian Red List (Peronace *et al.* 2012) includes *S. sarda* as Least Concern, with stable populations. According to Del Hoyo *et al.* (2006) by 2000 the total population of *S. sarda* was estimated at 15,000-50,000 pairs (10-40,000 in Corsica and 5-10,000 in Sardinia). These figures still highlight the uncertainty of the numerical data. However, it is contradictory that these local species fall within NonSPEC^E category, while the Dartford Warbler *S. undata*, with 646,000-1,480,000 pairs widespread over

more than 1,000,000 km², even if decreasing and subjected to large historical decline, lies in the SPEC1.

Both species (*S. sarda* and *S. balearica*) are endemic, very concentrated in few islands. All the taxa restricted only to some archipelagos (e.g.: Canary Is., Sardinia-Corsica, Balearic Is., Cyprus, etc.) demand attention at the highest level, because some of them cover a distribution lying within an Endemic Bird Area (EBA), holding two or more restricted range species (= with a range covering less than 50,000 Km²) (Long *et al.* 1996). According to Massa (2006) Sardinia, Corsica and Tuscany Is., amounting to less than 35,000 Km², could be qualified as an EBA; in addition, following the Important Bird Areas global criteria (A level, category 2) (Fishpool & Evans 2001), the Balearic Is., Sardinia, Corsica and the Tuscany archipelago, amounting to less than 50,000 Km², could be qualified as an EBA, since they host the following endemic taxa that have a range covering less than 50,000 Km²: *Puffinus mauretanicus* (Balearic Is.), *Sylvia sarda*, *Serinus corsicanus* (Sardinia, Corsica and Tuscany archipelago), *Sitta whiteheadi* (Corsica) and *Sylvia balearica* (Balearic Is.). Thus, *Sylvia sarda* and *S. balearica* listed in NonSPEC^E category (BirdLife International 2017) show a concentration that should be used as a prerequisite to upgrade them at least to the SPEC2 category.

Spotted Flycatcher *Muscicapa striata*

It is reported as a species of Least Concern and stable by



ing both continental and island subspecies about 36% of traditional avian subspecies are phylogenetically distinct (Phillimore & Owens 2006). Following Reilly (2018), governmental conservation policies are often determined by species, not subspecies, and since the phylogenetic species concept enables more taxa to be regarded as endangered, its adoption permits a greater number of species to qualify for legal protection. Even if we may agree with this opinion, it should not be a scientific position; independently from the species concept, the conservation of isolated populations or subspecies should be mandatory, not a possible way to choose. According to Phillimore & Owens (2006) subspecies may be of considerable conservation utility.

The aim of bird conservation adopted by the EU Directive 2009/147 is the preservation of sufficient habitat to maintain European bird populations. The absence outside Europe of possible related taxa of European species has to be considered as an additional value for their conservation, but all European taxa listed in the appendices of the Bird Directive should be considered at the same level, in particular when no data are available to demonstrate the complete identity of European and non-European populations of the same species. Needless to say, is that when data demonstrating clear taxonomical differences are available, then those taxa should receive the maximum level of attention.

Thus, we propose a specific initiative for some subspecies/local populations for a new assessment of European Birds of Conservation Concern. In addition, we also propose to consider as conservation prerequisite the presence of endemic taxa within a restricted range (Endemic Bird Area covering less than 50,000 km²).

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