UN environment

CMS

CONVENTION ON MIGRATORY SPECIES

Distribution: General

UNEP/CMS/COP12/Doc.25.1.18/Rev.1
19 September 2017

English
Original: French and English

12th MEETING OF THE CONFERENCE OF THE PARTIES
Manila, Philippines, 23 - 28 October 2017
Agenda Item 25.1

PROPOSAL FOR THE INCLUSION OF THE GREAT GREY SHRIKE *(Lanius excubitor excubitor)* ON APPENDIX II OF THE CONVENTION

Summary:

The European Union (EU) has submitted the attached proposal* for the inclusion of the Great Grey Shrike *(Lanius excubitor excubitor)* on Appendix II of CMS.

Rev.1 includes amendments submitted by the proponent to make the proposal more precise with regard to the distribution range of the population assessed, in accordance with Rule 21, paragraph 2 of the Rules of Procedure for meetings of the Conference of the Parties (UNEP/CMS/COP12/Doc.4/Rev.1), and taking into account the recommendations of the Second Meeting of the Sessional Committee of the Scientific Council, contained in UNEP/CMS/COP12/Doc.25.1.18/Add.1.

PROPOSAL FOR THE INCLUSION OF THE GREAT GREY SHRIKE *(Lanius excubitor excubitor))* ON APPENDIX II OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. PROPOSAL

Listing the nominate subspecies of the Great Grey Shrike (*Lanius excubitor excubitor)* on Appendix II

B. PROPONENT: The European Union

C. SUPPORTING STATEMENT

1. Taxonomy

1.1 Class : Aves
1.2 Order : Passeriformes
1.3 Family : Laniidae
1.4 Species and subspecies : *Lanius excubitor excubitor* Linné, 1758
1.5 Scientific synonyms /
1.6 Common name(s) in all applicable languages used by the Convention
Pie-grièche grise, Great Grey Shrike, Alcaudón Norteño

© S. SIBLET Great Grey Shrike *Lanius excubitor*, Jan.21, 2017, an individual wintering in Seine-et-Marne (F)

2. Overview

The Great Grey Shrike is a member of the family *Laniidae*, a family widely distributed throughout the world with the exception of South America and Australia. Many shrike species are in an unfavourable conservation status, although few are considered globally threatened at this time. As regards their biology, *Laniidae* are in a way both songbirds and birds of prey and it appears that they share some threats with birds of prey.

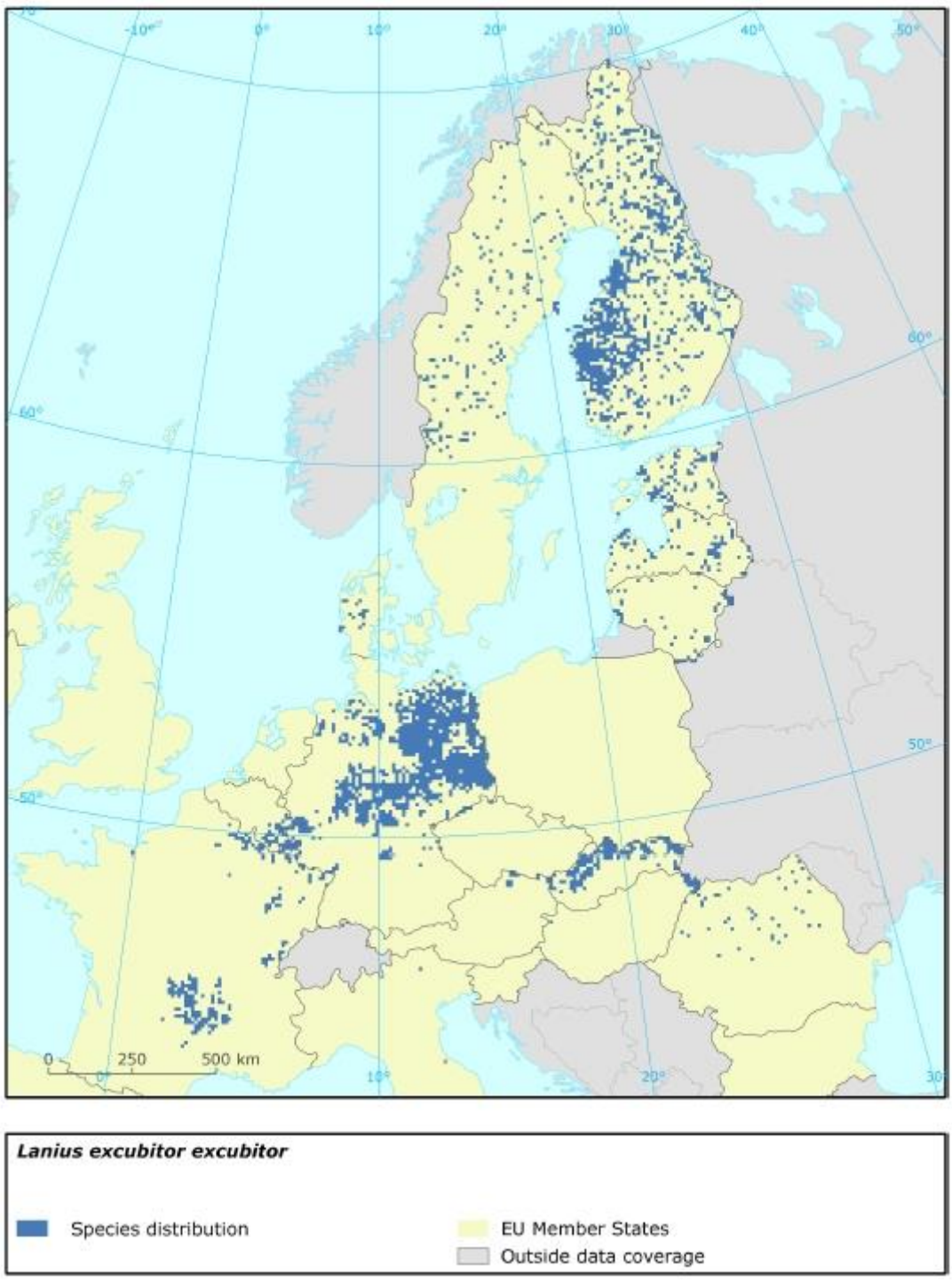
François Turrian, in Lefranc (1993) points out that "their contrasting plumage, their proud small bird of prey appearance, their predatory behaviour and their scarcity in Western Europe make them worthy of interest ". One might add that these species have had to suffer human persecution because of their bad reputation, just like birds of prey. However, while all birds of prey are listed in Appendix II, there are currently very few passerine species in this appendix, and in the end no shrikes are listed in the CMS Appendices.

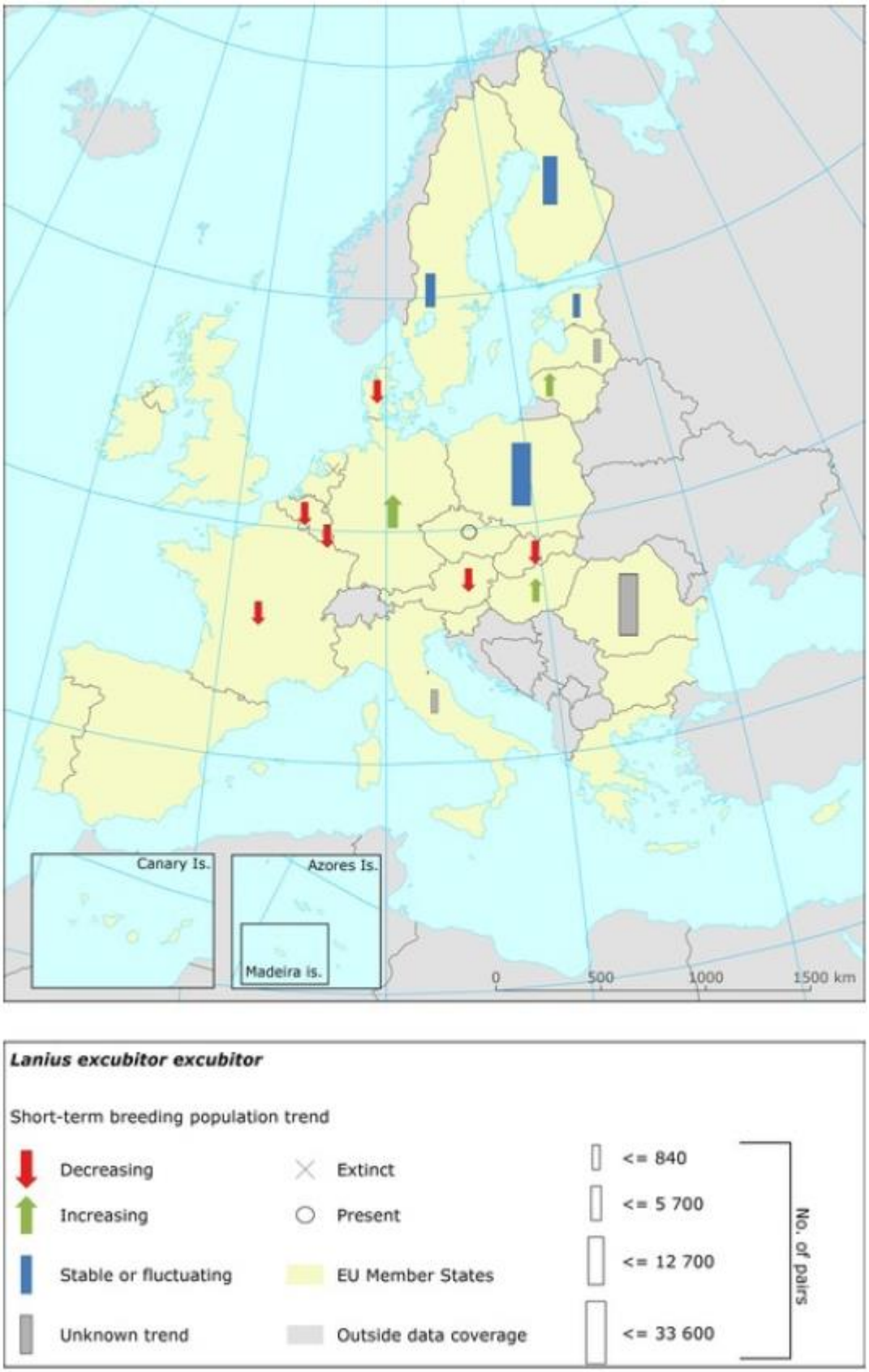
Although not globally threatened, the Great Grey Shrike is not in a favourable conservation status. It is even in a very unfavourable situation in Europe. Its range has been considerably reduced for half a century and the species has already disappeared from several countries. Where it is still present, it is most often threatened.

The present proposal aims at including all populations of the nominate subspecies of the Great Grey Shrike. According to Dickinson & Christidis (2014), *Lanius excubitor excubitor* is distributed in the N, C and E of Europe, as well as in the NW of Siberia [excluding *homeyeri* subspecies (E Balkans, S Russia, SW Siberia), *koenigi* (Canary Islands), *algeriensis* (NW Africa), etc.].

© J. LAIGNEL Great Grey Shrike *Lanius excubitor*

The following maps are excerpts from: *Lanius excubitor excubitor* Report under the Article 12 of the Birds Directive (for the period 2008-2012).





3. Migrations

3.1 Kinds of movements, distance, the cyclical and predicable nature of the migration

The Great Grey Shrike is a partial migrant. Most birds in northern Europe leave to the south or south-west as early as mid-September, or even earlier. The species is likely to be considered some years as subject to invasive type of movements probably due to large fluctuations in prey populations. The proportion of European birds that migrate is difficult to estimate. It is probably

variable according to the weather and / or food availability. Observations at mid-latitudes suggest that it is mainly adult males that tend to remain sedentary, faithful to their territory all year. The departure from the wintering zones is observed from mid-February on fine weather. Birds banded in the spring in Scandinavia, Central Europe and Germany have been controlled in France. During the period 1977-1981 (Yeatman-Berthelot & Jarry 1991), the species was reported more or less almost everywhere in France [in winter], including in Aquitaine and here and there in Brittany, but by then there was no distinction between *excubitor* and *meridionalis*. The numbers were roughly estimated as "several thousand".

For more details on the directions of postnuptial migration of European birds and the difference in migratory character according to population, see Lefranc (1993): the general direction is SW / S, but a small contingent moves towards S / SE. Birds of high latitudes are highly migratory, so the N of Sweden and Norway is normally deserted in the cold season. Some birds banded in Germany remained in the country, others went to France, even in the N of Italy and in Hungary. Great Britain receives every winter approx. 150 birds whose origin is clearly Scandinavian.

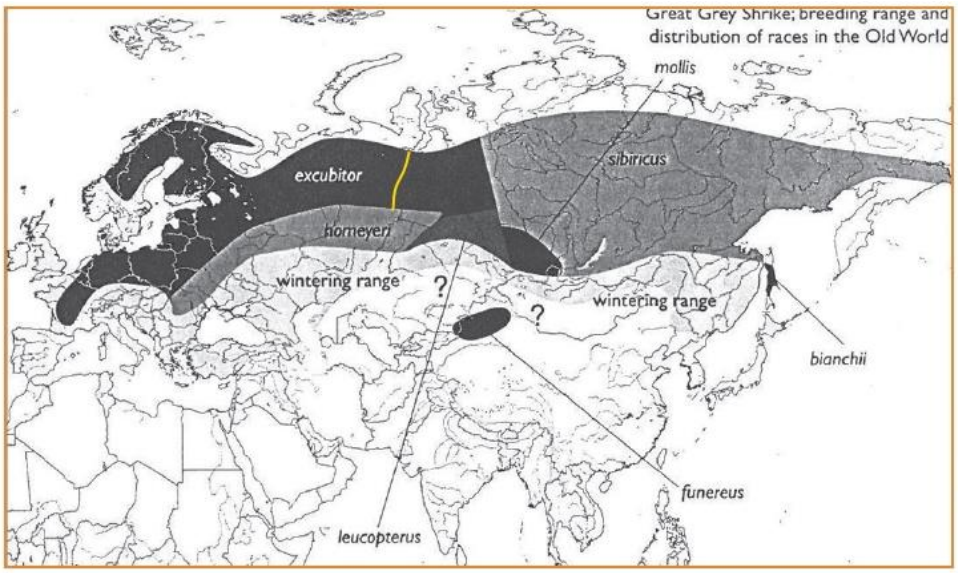
3.2 Proportion of the population migrating, and why that is a significant proportion

As a consequence of taxonomic progress, Iberian populations (and S. France) which are largely sedentary are not concerned by the present proposal, although they are also heavily threatened. It seems that at least half of the individuals in the population treated here are likely to be cross-border migrants, given the numerical size of the most migratory northern or central European populations and the fact that only adult males may be tempted to winter on-site. We can therefore estimate that a significant proportion is migrating.

4. Biological data (other than migration)

4.1 Distribution (current and historical)

The range of *Lanius excubitor excubitor* illustrated below (after LEFRANC & WORFOLK, 1997) **has been modified to exclude populations located east of the yellow line**, following the breeding distribution given by BirdLife and HBW in the newly published Illustrated Checklist Vol. 2 : ***"N, C & NE Europe (E from Scandinavia and C France) E to NW Siberia (lower River Ob) S to S Russia (Kazan area)".***



5.1. Distribution paléarctique

Fig 2 : Distribution paléarctique des taxons européens et asiatiques de la Pie-grièche grise Lanius excubitor (Lefranc & Worfolk 1997).

However, the distribution has considerably reduced in about 20 years, to cover now some 770,000 km^2 in Europe (see 4.2). The distribution map presented earlier in the document (species distribution) illustrates that distribution is no longer continuous in Europe, but that fragmentation is under way. This is particularly the case in France where the long-term distribution trend is at least -70 per cent to -80 per cent (Comolet-Tirman et al., 2015),

calculated from data from breeding bird atlases 1985-1989 (Yeatman-Berthelot & Jarry 1994) and 2009-2012 (Issa & Muller, 2015).
Similar results are provided by the "Grey Shrike" survey carried out in 2009 on the status and distribution of the species in France, highlighting a dramatic evolution since the previous survey of 1993-1994 (Lefranc & Paul 2011).

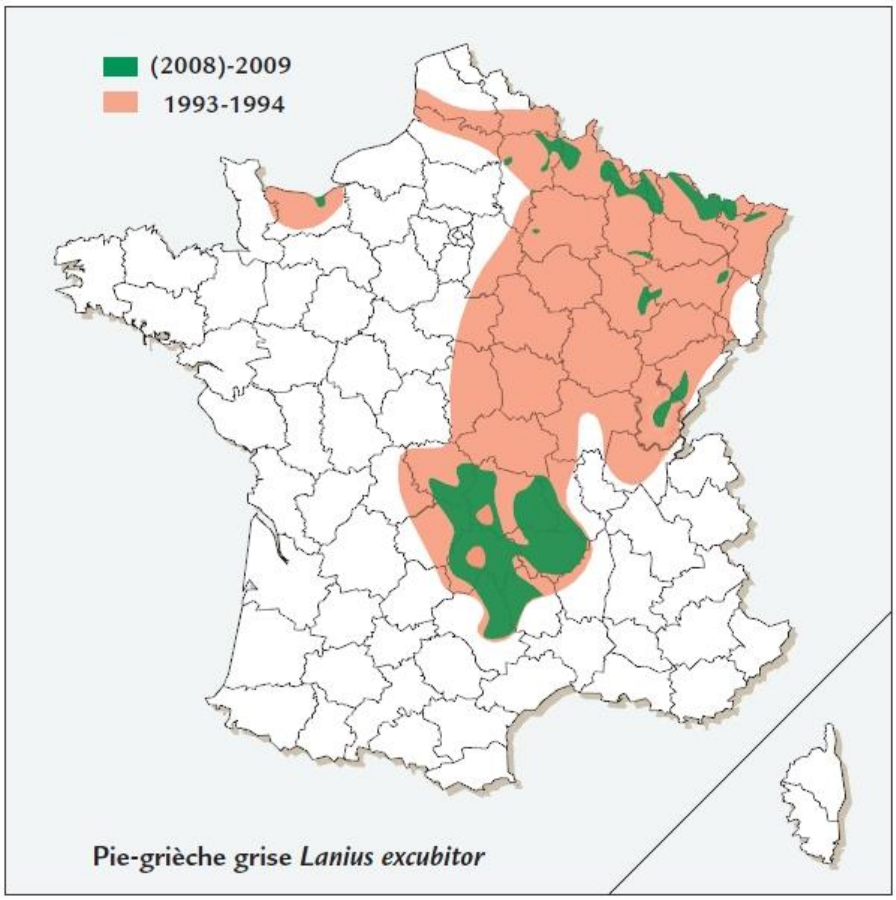


fig. 1. Évolution de la répartition de la Pie-grièche grise *Lanius excubitor* en période de nidification en France entre les enquêtes 1993-1994 et 2008-2009. *Changes in the breeding range of the Great Grey Shrike in France from 1993-1994 to 2008-2009.*

4.2 Population (estimates and trends)

In 2004, BirdLife International estimated the European population at 250,000-400,000 pairs, but this included the southern form *Lanius (excubitor) meridionalis* now considered a distinct species (it is necessary to subtract some 200,000 to 250,000 pairs corresponding to the total Spanish population).

Today, the European population has been updated as part of the (pan) European Red List of Birds contracted to Birdlife by the European Commission (Birdlife, 2015). The European Red List includes specific assessments related to the EU27 population, based on data reported by Member States under Article 12 of the Birds Directive for the period 2008-2012. Under this reporting data were collected separately for the two forms *Lanius (excubitor) excubitor* and *Lanius (excubitor) meridionalis*, but subsequently a common assessment was carried out, which led to a threatened species, declining in Europe (EU27), both in the short term and in the long term ("The EU population status of *Lanius excubitor* was assessed as Threatened, as the species meets one or more of the IUCN Red List criteria for threatened at the EU27 scale").

- Birdlife calculated 53,850 to 138,850 pairs of *Lanius (excubitor) excubitor* from the reporting data, with a range covering an area of 773,660 km^2.

- At the same time the assessment for southern shrikes *Lanius (excubitor) meridionalis* gave 372,150 to 656,150 pairs, with a range covering an area of 596,340 km^2.

If the total of the two forms is made, 426,000-795,000 pairs and a distribution area of 1,370,000

km^2 are obtained, and it is on this basis, and by analyzing the trends of each country, that BirdLife conducted an evaluation leading to Vulnerable in Europe and VU in EU27.

Lanius excubitor (Great Grey Shrike)

Table 1. Reported national breeding population size and trends in Europe[1].

Country (or territory)[2]	Population estimate				Short-term population trend[4]				Long-term population trend[4]				Subspecific population (where relevant)
	Size (pairs)[3]	Europe (%)	Year(s)	Quality	Direction[5]	Magnitude (%)[6]	Year(s)	Quality	Direction[5]	Magnitude (%)[6]	Year(s)	Quality	
Austria	12-37	<1	2008-2012	good	-	10-20	2001-2012	good	?				L. e. excubitor
Belarus	600-1,200	<1	2001-2012	medium	0	0	2001-2012	medium	0	0	1980-2012	medium	
Belgium	90-100	<1	2008-2012	good	-	63-67	2000-2012	medium	-	71-74	1973-2012	medium	L. e. excubitor
Czech Rep.	1,000-2,000	<1	2012	medium	F	0	2000-2012	good	0	0	1982-2012	good	L. e. excubitor
Denmark	4-6	<1	2011	good	-	50-100	1999-2011	medium	0	0	1980-2011	medium	L. e. excubitor
Estonia	300-500	<1	2008-2012	medium	0	0-10	2001-2012	medium	-	20-50	1980-2012	medium	L. e. excubitor
Finland	7,000-23,000	2	2006-2012	medium	0	0	2001-2012	medium	+	40-50	1980-2012	medium	L. e. excubitor
France	552-1,275	<1	2009	good	-	75	1995-2009	good	-	75-85	1980-2012	poor	L. e. excubitor
France	650-1,150	<1	2009-2012	good	-	40-42	1995-2009	good	-	40-50	1980-2012	poor	L. e. meridionalis, [including koenigi]
Germany	2,100-3,200	<1	2005-2009	good	+	11-40	1998-2009	medium	-	21-50	1985-2009	medium	L. e. excubitor
Hungary	5-40	<1	2003-2007	good	+	0-450	2003-2012	medium					L. e. excubitor
Italy	0-2	<1	2010	poor	?				?				L. e. excubitor
Latvia	98-216	<1	2000-2004	medium	?				0	0	1994-2004	poor	L. e. excubitor
Lithuania	200-300	<1	2008-2012	medium	+	20-50	2001-2012	medium	+	150-275	1980-2012	medium	L. e. excubitor
Luxembourg	30-65	<1	2008-2012	good	-	30-50	2000-2012	good	-	60-80	1980-2012	medium	L. e. excubitor
Moldova	0-2	<1	2000-2010	medium	+		2000-2010		+		1980-2010		
Netherlands	0	<1	2008-2011	good	-	100	2000-2011	good	-	100	1977-2011	medium	L. e. excubitor
Norway	1,000-5,000	<1	2013	poor	F	0	2000-2013	medium	?				
Poland	23,000-49,000	6	2008-2012	good	0	0	2000-2012	good	?				L. e. excubitor
Portugal	10,000-50,000	4	2008-2012	medium	-	13-39	2004-2011	medium	?				L. e. meridionalis, [including koenigi]
Romania	15,000-50,000	5	2010-2013	medium	?				?				L. e. excubitor
Russia	10,000-20,000	2	2000-2008	poor	+		2000-2012	poor	F	0	1980-2012	poor	
Slovakia	500-800	<1	2000-2012	medium	-	10-20	2000-2012	medium	-	10-20	1980-2012	medium	L. e. excubitor
Spain	359,000-595,000	78	2004-2006	good	-	57	1998-2012	good	-		1980-2012	good	L. e. meridionalis, [including koenigi]
ES: Canary Is	2,500-10,000	1	1997-2003	poor	?				?				L. e. meridionalis, [including koenigi]
Sweden	4,000-8,000	1	2008-2012	medium	0	0	2001-2012	medium	0	0	1980-2012	medium	L. e. excubitor
Ukraine	600-900	<1	2000	medium	F	10-15	1998-2010	medium	F	10-30	1980-2010	medium	
EU27	**426,000-795,000**	**97**			**Decreasing**								
Europe	**438,000-822,000**	**100**			**Decreasing**								

THE IUCN RED LIST OF THREATENED SPECIES™ BirdLife International (2015) European Red List of Birds

Note on Bulgaria (absent from table):
Nankinov and Nikolov (2003) describe the status of the species and its subspecies. The subspecies that interests us winters there but may also breed irregularly. NIKOLOV et al. (2004) examined the species' feeding during the winter season.

4.3 Habitat (short description and trends)

Tendency to the decrease of favorable habitats.

The open taiga punctuated with peat bogs could be considered the original habitat of this shrike. In many Nordic countries, it nests almost exclusively in this type of environment. The species favors flat or gently sloping, semi-open areas where woodland or small cluster of trees alternate with much more open landscapes, with perches (trees, shrubs, etc.) of varying heights. The size of the home range at the time of breeding varies between 20 and 100 ha depending on its quality: distribution of perches, abundance and accessibility to adequate food, etc.

Data from Schon (1994), who has long studied Great Grey Shrike in a sector of Bavaria (Germany), specify the habitat structure and can therefore guide management actions. In breeding territories, he found that on average, dense areas (between 10 and 500 trees / perches per ha) occupied 35 per cent of the space, while the very open areas occupied 40 per cent. In the winter territories, the mean values were somewhat different: 55 per cent of the space was very open (0-4 perches per ha) and 20 per cent very dense. In both winter and spring, the intermediate sectors (5-10 perches per hectare), important for hunting, occupied 25 per cent of the space. The average distance between two perches used was 30 m in spring and 45 m in winter. The ideal would be the presence of 5 or 6 perches per ha, spaced about 30 metres apart. A good distribution of perches in a territory is essential, as the prey must be sufficient but also accessible. Power lines or telephone lines can also be used as suitable perches.

In France (Lefranc 1999, Lefranc & Paul 2011), the species breeds from very low altitudes near the sea level (marshes of the Dives in Calvados for example), up to around 1,300 m (probable breeding record: 1,467 m), altitude reached on the plateaux of Auvergne. In this area, the species locally has good densities at altitudes between 800 and 1,000 m in grazing areas strewn with clear groves of Scots pines. The proximity of wetlands (marshes, ponds, flooded meadows) seems particularly appreciated, as in the Jura mountains at altitudes close to 850 m. This predilection for fresh and even wet areas is verified in many areas, for example locally in Picardy, where the booklet on "Threatened breeding birds" (Gavory 1995) goes this far as to place Great Grey Shrikes among wetland birds; among the chosen habitats, there are, in fact, the marshes behind the littoral and the wet meadows strewn with young poplars. Bocage type habitats are also appreciated.

In all cases, it can be noted the importance of hedges, groves, meadows and especially pastures. The species can also be found in "new" environments with rapid natural evolution, such as young plantations created as a result of logging. This is (or was) the case in the southern part of the North Department where forests located near the core of wetlands appear to be substitutes. In the plains, the species had adapted well to mixed farming where, on small areas, plots with varied crops, vineyards, meadows and orchards succeeded each other. It is the latter which often shelter the nests, classically concealed in mistletoe balls growing on apple trees, for example. This shrike also subsists here and there along rivers bordered by the indispensable meadows punctuated by more or less wooded / planted habitats (plantations, groves) and of more open environments, but rich in potential hunting perches.

On the whole, potential habitats tend to decrease. Furthermore, even if some landscapes seem mostly unchanged the habitats there may not be favourable any more (e.g. for trophic reasons).

4.4 Biological characteristics

Breeding

Depending on the season, weather conditions and food possibilities, the home range of the Great Grey Shrike varies between 20 and 100 ha. The bird is usually solitary throughout the year, except in the nesting period. Pairs are formed in March-early April, sometimes earlier, as early as February, when weather conditions are favourable and food abundant.

At that time, pairs tend to group together in aggregates, and although the nests are generally spaced at least 1,000 m apart (minimum in a Vosges study: 280 m), there is a real social life in the population. The displays are demonstrative: the male perches prominently, sings or performs astonishing "boomerang" flights that take him to several tens of metres high and several hundred metres in length before returning it practically to the starting point. More rarely, the male performs short hovering flights at very high heights

In the early spring, there are also some very noisy 'reconciles', which usually bring together four (up to eight) birds, male and female, for several minutes, sometimes almost an hour, in the vicinity of the future territories. Thereafter, there are often bird incursions into neighbouring territories and it has been proved that extra-conjugal copulations were not exceptional (LOREK 1995).

The ideal densities, exceptional today in these population nuclei, are one pair / km^2 of favorable environment. These values were noted in 1994 in studies in the Saint-Dié des Vosges region (14 pairs + 2 single birds on a little more than 1500 ha) and in the Drugeon, Doubs (22 pairs of 2,236 ha) (Montadert et al., 1996).

The site of the nest, proposed by the male, usually offers an unobstructed view of most of the territory. Its height varies from 2 m in a bush, 4-6 m in a fruit tree, to 8-15 m (or more) in other trees. The nest is sometimes concealed in a mistletoe. As soon as the pair is formed, the male feeds the female. Depending on the weather, it takes between one and two weeks for the pair to build their nest. The latter is quite large, somewhat disorderly and easily recognizable. Egg laying starts very rarely at the end of March. The peak is generally around mid-April and

replacement clutches may still begin in June. The four to six (seven) eggs are incubated for 17 days and the young normally leave the nest at the age of 19-21 days. The male occasionally takes part in brooding, but its main role is to provide food, both to the female and to the young. A second normal clutch, after successful first brood, has been very rarely reported for the nominate subspecies and has never been proved in France.

Population dynamics

The Great Grey Shrike breeds at the age of one year. Its potential longevity is of the order of eight years. In Finland, a ringed bird was controlled at the age of 8 years and two months (BTO-Birdfacts). Adult mortality from one year to the next is not known, but it is probably close to that of passerines in general: around 50 per cent.

In France, the fluctuations and the decline until the disappearance of a population were followed over a period of 23 years in a valley of the Middle Vosges (Lefranc 2010). The study area covered 3,500 ha, but favourable environments were scarcely more than 1,500 ha. In all years, 135 pairs were monitored. 75 of them (55.5 per cent) managed to produce between 1 and 6 young. Successful breeding pairs produced an average of 3.5 +/- 0.78 young, while all breeding pairs produced an average of only 2 young. Depending on the year, the number of young birds varied between 4 and 41 and clearly had an impact on the number of breeding pairs the following year. The success of nesting was positively correlated with good densities of an essential prey: The Common Vole, *Microtus arvalis*. The Great Grey Shrike responded rapidly, positively or negatively, to fluctuations in *Microtus* densities. The severe decline of this shrike is largely due to negative demographics due to several unfavourable factors combining their effects: poor weather conditions, food problems, habitat degradation. This last aspect could favor the destruction of the nests by Carrion Crows, an aggravating factor.

The restricted and declining population, which remained with difficulty in Lower Austria, was also monitored in detail (Sachslehner et al., 2004). Between 1998 and 2003, the proportion of pairs breeding successfully varied from 57 per cent in 2003 (n = 46) to 80 per cent in 2001 (n = 40). Success also appeared to depend largely on the density of voles, but the number of pairs present from year to year was also determined by the sometimes, severe winter weather conditions. The number of young reared by pairs which nested successfully was very close to that of the Vosges: 3.4 +/- 1.1.

In a relatively prosperous population in western Poland, very good reproductive parameters were observed by monitoring 180 nests in two large areas between 1999 and 2003 (Antczak et al., 2004). Egg size: M = 6.6 eggs. Average number of young per pair: 4.1. Average number of young per pair breeding successfully: 5.25. The success of constructed nests (and not pairs) varied between 41 and 52.6 per cent. The losses were mainly due to predation. They were larger (78.6 per cent) in linear habitats than in other habitats (50 per cent). The avenues of trees seemed to favour predation by serving as true corridors for winged predators: Hooded Crow *Corvus corone cornix* and Jay *Garrulus glandarius*. Substantial partial losses (8.2 per cent for n = 147) were noted at the level of young birds who sometimes twisted in plastic strings used as building materials. The authors insist that young birds rarely die of hunger. Despite predation, the good parameters observed were attributed to the quality of the habitat: small family farms with traditional farming and the presence of a high proportion of grassland with zero or very limited use of pesticides.

Food

The Great Grey Shrike is easily spotted when it is in hunting action, perched prominently, usually between two and eight m high, above a grassy area. It can stay in the same spot for half an hour, watching for the appearance of her favourite prey: The Common Vole *Microtus arvalis*. PROBST (2003) showed that, like raptors, this Shrike was able to see in the ultra violet which is reflected in the urine and excrement of small rodents and thus was able to locate the vole's areas of activity.

Hunting on the lookout with perch changes is by far the most common. In wintering birds in

southern Sweden, OLSSON (1984) noted that there was a change in support every eight to nine minutes or so and that an individual travelled about 12 km per day on average in flying from one perch to another. This shrike also hunts by making small festoon flights, interspersed with stationary flights.

The vast majority of prey are caught on the ground. In bad weather, it also happens to look for small prey by hopping in the meadows in the manner of a Wheatear (genus *Oenanthe*). Lastly, small passerines that sometimes attract its attention, especially in winter and / or when voles are rare, can be pursued in the manner of a European Sparrowhawk *Accipiter nisus*. They are often handicapped and taken by surprise.

The Great Grey Shrike regularly spears some of its prey on various supports: barbed wire, rough plant surfaces (especially in thorn bushes), etc. These larders have a pantry function that can be used in bad weather when potential prey, which are not very active, are difficult to detect. Small vertebrates are often embedded in thin bush forks, which greatly facilitates the work of cutting.

The food of the Great Grey Shrike has not been studied in detail in France, but the needs of the species are well known (synthesis in Lefranc & Worfolk 1997). Small vertebrates play an essential role, especially in winter. Voles of the genus *Microtus* are particularly sought after and in all seasons account for between 66 per cent and 90 per cent of the prey biomass caught in prairie habitats. The common vole is an ideal prey. Measuring 9 to 11 cm long and weighing on average 30 g, this small rodent is rather slow and does not hesitate to move in the short grass. Locally, other types of voles may be harvested, such as the Bank Vole *Clethrionomys glareolus* in large forest clearings. Other small vertebrates are caught regularly, but less often: Shrews *Sorex sp*., Harvest Mouse *Micromys minutus* and small passerine and lizards, especially the Viviparous Lizard *Lacerta vivipara*, which inhabit the same types of habitats, and amphibians.

Regularly captured invertebrates include earthworms and especially insects. The latter generally measure between 6 and 19 mm (75 per cent), but sometimes between 20 and 25 mm (20 per cent). In number, insects dominate all other catches, but their biomass rarely represents more than 15 per cent of that of all prey. They are mostly represented by coleoptera (beetles), orthoptera and hymenoptera, generally in this descending order of importance. Some groups or species can be caught in winter as long as there is no snow cover, for example Field Crickets *Gryllus campestris*, *Geotrupes sp* beetles. Spiders are taken all year round, including on snow where they are very visible.

Predation and competition

Like all shrikes that hunt on the lookout, well exposed, the Great Grey Shrike is likely to be caught by ornithophagous raptors. The impact of this predation, which is difficult to measure, is probably very low. Three plumes of adults were found during the monitoring of the Vosges population in 23 years (Lefranc 2010). Raptors, including the Buzzard *Buteo buteo* and the Kestrel *Falco tinnunculus*, also pose a danger to nestlings. Locally, the main threat is represented by the corvids and in particular by the Carrion Crow *Corvus corone*. Food competition is likely with the latter also harvesting a large portion of its food from the soil.

4.5 Role of the taxon in its ecosystem

Shrikes are excellent biological indicators. They play an important role in the food chains of certain ecosystems, as predators and sometimes, more rarely, as prey. In terms of interspecific relationships, Lefranc (1993) reports that this species and the Fieldfare *Turdus pilaris* are often closely associated with reciprocal benefits.

5. Conservation status and threats

5.1 IUCN Red List Assessment (if available)

NE at the global level (not evaluated, probably Least Concern1), but Vulnerable in Europe (subject to clarification in relation to the revision of the species limits). EN (endangered) for the national breeding populations according to IUCN France et al. (2016).

5.2 Equivalent information relevant to conservation status assessment

The species is in marked decline throughout Western Europe. It last bred in Switzerland (Ajoie) in 1985 while it was still quite regular in the 1960s, especially in the lower cultivated regions of the Jura plateau and the Rhone valley. (...) In Eastern Europe, the situation is, for the moment, much less worrying. For Poland, recent work (...) is concerned about possible threats to habitats favourable to this shrike, following Poland's adoption of the Common Agricultural Policy (KUCZYNSKI et al., 2010).

5.3 Threats to the population (factors, intensity)

Weather and Climate Change

The nominate subspecies of the Great Grey Shrike is expected to be less affected by adverse weather conditions in the spring due to its global range. In the ornithological literature, its historical fluctuations have often been related to harsh and snowy winters. In Austria, SACHSLEHNER et al. (2004) found a significant impact of winter conditions on the number of pairs present in the following spring. In the spring, low temperatures and persistent rains can contribute to reducing productivity, ie the number of fledged young (Lefranc 2010).

For this species, data on the possible consequences of climate change are particularly pessimistic. In the forecast map published in the Climatic Atlas of Huntley et al. (2007), the species *excubitor* and *meridionalis* were treated together, making the interpretations complex. The Great Grey Shrike may experience a sharp contraction of its breeding range. It could even disappear from France and all of Western Europe, with the exception of the northern countries.

Habitat transformation

For about fifty years, the landscapes favourable to the Great Grey Shrike have been disrupted by the continuous development of industrial agriculture. Diversified environments, generated by extensive agriculture involving mixed farming and livestock farming, have gradually disappeared, especially at low altitudes. In many parts of the lowlands (the Paris Basin, the north or the center of France), the landscape today consists almost entirely of a succession of totally wooded (forests) and totally open (arable land) environments. Species such as shrikes, specialized in semi-open or intermediate habitats, can no longer survive due to the disappearance of their habitats.

The case of Alsace illustrates this evolution perfectly. In the early 1960s the species was still widespread from north to south in the plains, hilly areas or open valleys of the Vosges (CEOA 1989). Today, there are only about 20 pairs grouped in two populations in areas of hills and orchards in Alsace bossue (“hunchback” Alsace) and in the Vosges du Nord. Elsewhere, favourable environments have disappeared or have declined sharply, such as the reeds, vast expanses of wet meadows that have gradually given way to cereal monocultures, including maize (Lefranc & Paul 2011).

Like many other species dependent on agricultural environments, the Great Grey Shrike has suffered from a decline in the area occupied by grasslands (e.g. -25 per cent in France between 1970 and 1995 according to IFEN 1996), widespread fertilization (dense grass structure, fewer plant species, fewer arthropods), the large regression of hedges (e.g. loss of about 45,000 km per year between 1975 and 1987 according to Pointereau 2002), drainage, increasing field size, and the scarcity of high-stem orchards.

1 According to YOSEF and ISWG (2017): Not assessed. Probably not globally threatened, but until recently treated as conspecific with *L. meridionalis* and separate evaluation now required.

Agricultural intensification is still relevant, encouraged in particular by the possibility of new outlets such as agro-fuels. The few areas of favourable habitat are at risk of being damaged or even destroyed.

Locally, as shown by a 23-year study in the Vosges (Lefranc 2010), rapid urbanization and the development of infrastructures contribute to reducing the favorable habitats and fragmenting the surviving populations: bypass roads, creations or extensions of industrial or recreational areas in the valleys.

Threats to food

Breeding success depends very much on the local density in small mammals and in particular those of voles of the genus *Microtus*. The latter, when experiencing population explosions are sometimes and at least locally controlled by the use of rodenticides (bromadiolone, etc.), which can cause damage in food chains. The impact of these products on the Great Grey Shrike is not known, but it may be important in view of the damage caused by these products to other bird species such as the Red Kite *Milvus milvus* in the Franche-Comté (Jacquat & Michel 2000).

During years with low-density of voles, the species apparently finds it increasingly difficult to find substitute prey, following a generalized depletion of biodiversity in rural areas: large insects (*Melolontha melolontha* is a classic example) and small lowland passerines (e.g. Whinchat *Saxicola rubetra* or Skylark *Alauda arvensis*).

Several studies as well as the results of the 2009 survey (Lefranc & Paul 2011) indicate that the populations of the Great Grey Shrike have entered a phase of almost continuous decline after having had a good last period in the mid-1990s. The year 1993 seems to have been particularly favorable for this shrike in several regions (Abel & Strenna 2005, Juillard 1999, Kery et al.1996, Lefranc 2010, Montadert et al., 1996), but also for other large consumers of voles, notably the Short-eared Owl *Asio flammeus* (Michelat 1997). Among the new concerns: the rarefaction and even the disappearance of the species of quite large natural regions, presenting landscapes a priori still favorable, unchanged for several decades. Could this new fact be explained by a change in the general and recent dynamics of the numbers of its main prey: the common vole (and locally other *Microtus*)? Observations in the Vosges department suggest (lack of follow-up by a rigorous protocol) that the peak populations of these rodents may be more spaced out over time and / or more blunted than in the past, causing serious problems for the successful reproduction of the species (Lefranc 2010) and probably also its winter survival. This is an important hypothesis to be explored and possibly linked to the effects of climate change discussed above.

Predation and other threats to the nests

Predation of nests by the Carrion Crow is probably only one factor that could be described as aggravating. Locally, in already degraded environments, the medium-term impact of corvid predation on *Lanius excubitor* populations deserves to be studied and evaluated.

Another threat seems to be confirmed at least locally: the presence in nests, as building materials, of plastic twine used in agriculture. The case of young birds dying in these plastic strings in Poland has already been evoked (see 4.4 / population dynamics), leading to important chick mortality. In 2012, LPO Franche-Comté also found plastic ties from wrapping nets of round bales in three Great Grey Shrike nests. One case of mortality has also been reported in Burgundy for the Woodchat Shrike *Lanius senator*: a young one entangled in residues of blue PVC string for agricultural use.

Disturbances

Although the Great Grey Shrike may become accustomed to certain regular activities, such as dense road traffic only 100 metres from its nest, it remains very sensitive to human disturbances linked to uncontrolled leisure activities in the natural environment: quads or other

motorized activities for example.

5.4 Threats connected especially with migrations

In migration and wintering, the Great Grey Shrike is subject to the same threats, in particular the intensification of agriculture and the artificialization of habitats. In many cases, threats are aggravated by the fact that some individuals move from northern ecosystems that are still preserved to more degraded habitats due to a north-east southwest gradient of landscape artificialization.

5.5 National and international utilization

There is no international use as such, but use as a pet or display animals is indicated by BirdLife. Furthermore, Brochet et al. (2016) indicate that six species of shrikes, of which the latter, are the subject of illegal harvesting in the Mediterranean region.

6. Protection status and species management

6.1 National protection status

Protected species in the European Union Member States.

6.2 International protection status

Listed in Appendix II of the Bern Convention on the Conservation of European Wildlife and Natural Habitats
EU Birds Directive: Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds
CMS: in category C of the African-European Migratory Land Bird Action Plan (AEMLAP).

6.3 Management measures

Since it is not included in Appendix I of the Birds Directive, Great Grey Shrikes have rarely been the species for which Natura 2000 sites have been designated. However, this is the case as regularly occurring migrating species in Germany, Luxembourg, Poland and Slovakia, where the percentage of the national population represented in the Special Protection Areas network has sometimes been assessed (29.77 per cent in Germany, 17.54 per cent in Luxembourg, 16.12 per cent in Slovakia).

A Great Grey Shrike Action Plan exists in the Grand Duchy of Luxembourg. Written in 2009 by the Letzebuerger Natur-A Vulleschutzliga Ornithological Center and the Sicona-West Biological Station, it was validated by the Ministry of Sustainable Development and Infrastructure. After recalling general information about the species and the threats to it, the 8-page document (available in German) outlines the objectives of the Plan and proposes a list of conservation measures accompanied by a summary budgetary evaluation. The work also includes important annexes. Among others: results of the 2006 survey on the distribution and status of the species in the country; 1/50,000 maps showing all Great Grey Shrike territories; map showing the distribution of the known territories since 2000 and the location of the Natura 2000 sites.

Objectives of the Plan:

- maintain the existing population estimated at about one hundred pairs in 2006
- reach out to a population of 150 pairs by creating or recreating new favourable areas through targeted work on the quality of the habitat. The ideal would be to create at least five new areas per year for five years, each zone being able to accommodate at least two pairs.

Among the proposed measures:

- maintenance or restoration of hay meadows and extensive pastures,
- creation of grassed strips at least ten m wide and punctuated with perches near the silage zones, maintenance of grassed roads avoiding at all costs the tarring,

- maintenance or restoration of hems of vegetation at the edge of fields,
- establishment in some areas of hedgerows, orchards, groves, isolated trees or even additional fences in order to increase nesting and feeding possibilities (perches),
- rehabilitation of wetlands,
- study on the possibility of preserving orchards in the west of the country in the long term.

Although validated, measures cannot be imposed and there is no protection for Great Grey Shrike territories (in fact, several important sites are currently under threat from infrastructure projects.

The measures provided for in the Plan may benefit from financial aid under the Grand Ducal Regulation of 22 March 2002 establishing a set of aid schemes for the conservation of biological diversity. On a practical basis, for a given site, precise actions can be recommended by the Bird Center, but contacts with municipalities and landowners are usually made via biological stations. There are four of them in the country as a whole, with specialists in nature protection (biodiversity) paid, at least in part, by inter-municipal unions. The equivalent does not exist in France, but the role of some eco-advisers of local authorities can be quite similar (G. Biver com.pers.).

In France: there are apparently no conservation actions specifically targeted to Great Grey Shrike. However, the problems related to this species have already been taken into consideration by DREAL Champagne-Ardenne following the 2009 Grey Shrike National survey relayed locally by LPO Champagne-Ardenne. It was therefore decided to define a Priority Action Zone covering the majority of Grey Shrike nesting sites. Within this zone will be defined territories in which agro-environmental measures (AETMs) can be proposed. In a limited budgetary context, these measures will be aimed primarily at maintaining the habitats (A-S Gadot, E. Bentz pers. com.).

6.4 Habitat conservation

The national action plan evokes the protected areas such as nature reserves that harbor some populations of the species in France (Lefranc & Issa 2013). A major conservation issue concerns the fate of former military areas, notably following the reunification of Germany (Klapkarek, 1999). There are open areas of sand, moors and dry grasslands that host populations of several sensitive species including the Great Grey Shrike. This issue has also affected other countries including France (Gavory, 1995).

6.5 Population monitoring

This species is the subject of much attention in Europe, but it seems to be too rare and localized for EBCC monitoring. The follow-up and surveys set up at the national level are detailed in the shrikes 2014-2018 national action plan (see also 4.1).

7. Effects of the proposed amendment

7.1 Anticipated benefits of the amendment

Implementation of the international actions foreseen in the shrikes 2014-2018 national action plan.

7.2 Potential risks of the amendment

None.

7.3 Intention of the proponent concerning development of an Agreement or Concerted Action

The proposal aims to strengthen international cooperation to better understand the status of *Lanius excubitor excubitor* populations and to provide better protection for this subspecies both at its breeding sites and on its wintering grounds.

8. Range States

Breeding: Austria, Belarus, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy (very rare), Latvia, Lithuania, Luxembourg, Norway, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Sweden, Ukraine.

Wintering: Bulgaria (may also breed occasionally?), Netherlands (extinct as a breeding species?), Slovenia, Spain (nominate subspecies is a rare wintering bird in N, N-E and exceptionally in the Balearic Islands), Switzerland (used to breed), United Kingdom.

Vagrant or presence of subspecies to be confirmed: Cyprus, Greece, Malta, Turkey.

9. Consultations

Experts and authorities of the EU Member States were consulted on this proposal but not authorities of the other range states.

10. Additional remarks

Given the difficulty of proposing the inclusion of an entire genus (migratory species of *Lanius spp.*) in Appendix II, a specific listing was used. However, other Parties to the CMS may later consider to propose the inclusion of other closely related species.

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