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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

40th meeting
Strasbourg, 1-4 December 2020

DRAFT SUMMARY REPORTING UNDER RESOLUTION NO. 8 (2012)

FIRST OBSERVATIONS

MARCH 2020

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1. Context and history

In 2012, the Standing Committee of the Bern Convention adopted Resolution No. 8 (2012) regarding the national designation of adopted Emerald Network sites and the implementation of management, monitoring and reporting measures. Following the instruction on reporting in this resolution, the Group of Experts on Protected Areas and Ecological Networks prepared a reporting format which was adopted in 2017 and published in document T-PVS/PA (2017) 9 for the reporting period 2013-2018. The format is accompanied with detailed guidelines, part 1 (T-PVS/PA (2017) 17) and part 2 (T-PVS/PA (2018) 10).

The format itself is fully harmonised and standardised with the format of the reporting formats of Art. 12 and Art. 17 (under both the EU Habitats and Birds Directives) but takes into account birds as part of the same legal framework and the Resolution No. 8 (2012) has only one format for all features.

As foreseen in Resolution No. 8 (2012), the reporting period is 6 years and the first reporting round was due in 2018 and covered the period 2013-2018, coinciding with the reporting rounds under the Art. 17 and Art. 12 of the EU Nature Directives.

Knowing it is the first reporting round for non-EU countries and recognising the importance of the reporting exercise, the Group of Experts also agreed to limit the number of features (species and habitats) to report on. Forty six features were selected in such a way, and each country was expected to report on approximately 35 features to balance the efforts (T-PVS/PA (2017) 11)¹. This first reporting round is clearly more important for building up experience and capacity. It is even to be considered as a test period for reporting.

In 2018, a data entry tool was created also based on the Art. 12 and Art. 17 tools, but merging the two into one tool for Resolution No. 8 (2012).

During 2018 and 2019, training workshops were organised with the non-EU Contracting Parties to the Bern Convention to explain all the principles of the reporting and data requirements. Countries were asked to create a number of test forms. Finally, a database containing the reports for each country had to be delivered on the Common Data Repository (CDR) of the European Environment Agency (EEA) by the end of December 2019.

The present document represents a first general overview of the delivered data and an exploration of possible scientific analysis. A more substantial analysis will be published later this year.

All documents referred to can be found on the Reporting under Resolution No. 8 (2012) Reference Portal: <https://www.coe.int/en/web/bern-convention/reporting-res.-8-2012->

¹ <https://rm.coe.int/subset-of-species-from-resolution-no-6-1998-and-habitats-from-resoluti/168075fd56>

2. Opportunities and limitations

Information on the conservation status of protected species and habitats can be used for different purposes: nature conservation and resource administration, research and education. In this chapter we share some important observations about data collected under the current reporting under Resolution No. 8 (2012) round and outline opportunities and also some limitations in data use.

It is important to stress that data collection under the reporting under Resolution No. 8 (2012) is the same as in the Habitats Directive Art. 17 and Birds Directive Art. 12 reporting process. The contents of MS Access databases which Parties to the Bern Convention and EU Member States use as a reporting format are harmonised and there are only minor differences, mainly as a result of the different habitat classifications (i.e. Habitats Directive Annex I and EUNIS).

This enables various opportunities to analyse, arrange and present data from EU and non-EU countries **together**. In our opinion, it is very difficult to focus only on non-EU countries. Even if all non-EU Contracting Parties would have participated in this reporting test round, most of them are scattered alone or in small groups across the European continent and it would be difficult to perform meaningful analyses in isolation from the EU data (Figure 1). In addition, if summarising of reporting data makes sense for the EU because it is a political union of countries, this is not the case with other Parties to the Bern Convention.

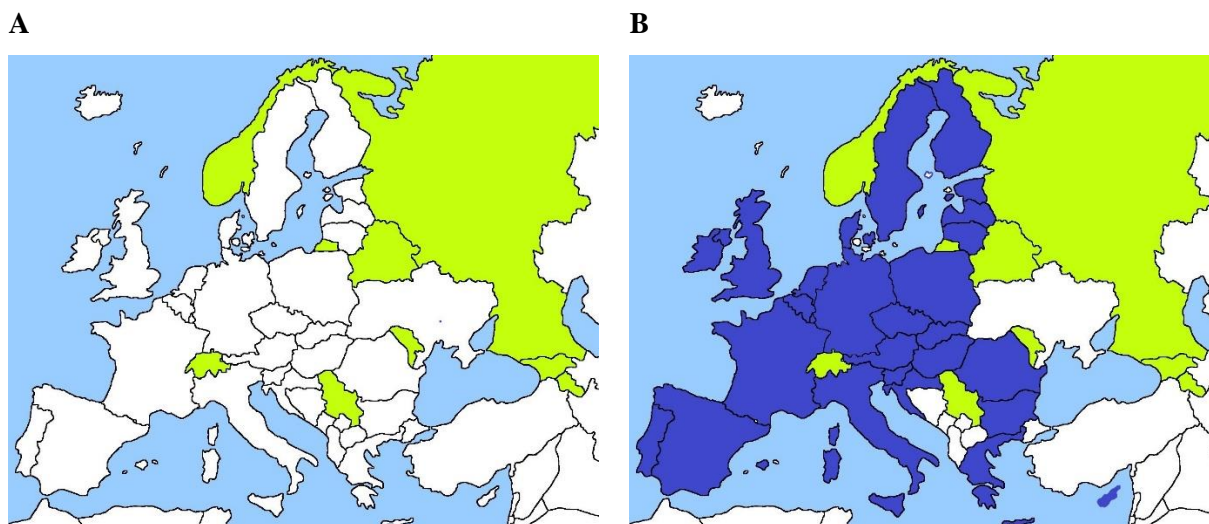


Figure 1. Distribution of countries involved in reporting on the conservation status of species and habitats. Dark blue – EU countries, Green – non-EU countries, parties to the Bern Convention and the Russian Federation. Figure A shows Parties to the Bern Convention which have submitted data under the reporting trial in 2019. Figure B adds the EU Member States.

Remark: For this report and all maps shown, the Eurostat guidelines on the representation of the UK apply:

“...the withdrawal of the United Kingdom from the EU does not mean that history is to be re-written. Maps and visualisations that are clearly meant to depict the situation before the date of withdrawal and whose scope does not go beyond January 2020, are in principle not to be modified.”

Analyses at Pan-European level are especially important for migratory and wide-ranging species. For them isolated conservation efforts in some countries may not bring desired results, thus conservation measures should be planned at least at the Pan-European context. The contribution of non-EU Contracting Parties is particularly important for features where significant proportions of their global resource is situated outside EU (see Chapter 5 below).

Of course, authorities and general public could be interested to examine the general status of protected species and habitats in a particular country. For this purpose, in the EU, such information is summarised in the

so called “national summary dashboards”². Here information and statistics is arranged by country on different topics such as status, trends, pressures and threats, representativeness in the Natura 2000 network and conservation measures. Yet, for the reporting under Resolution No. 8 (2012) round in the non-EU Contracting Parties such presentation of information is not feasible because it was designed only as a test and covered **only a number of selected species and habitats** (< 10% of the total number of features listed in the complete checklists of the reporting under Resolution No. 8 (2012)). Thus, it would be premature to judge about the general status of wildlife in a country based only on this sample.

Very few people use MS Access on a daily basis and thus data presentation in a raw database is quite heavy and not user-friendly. In the EU, specific Article 12 and Article 17 web-tools³ have been offered to users. Using this tool is very easy to search for conservation status and many other elements (such as population, area, range, trends etc.) for every species and habitat of Community interest by country and by biogeographical region (see Chapter 6 below for more details). Most information here is presented in a tabular format, but the tool also includes distribution maps, general information on species (fact-sheets) and audit trail of reporting history. Ideally in the future data collected within the reporting under Resolution No. 8 (2012) could be presented together with EU data but obviously it would require special arrangements with the EEA as owner of this particular web-page.

Meanwhile, following chapters provide examples of some possible analyses and ways of data presentation. It is planned that more examples will be provided in the final report in September 2020.

It is necessary also to mention one important difference between Art.17 and Art.12 which is also reflected in the reporting under Resolution under Resolution No. 8 (2012) procedures. The key difference is that for bird species, unlike for non-avian species and habitats, the report itself does not include final conclusions about current conservation status. The report (i.e. MS Access database) includes only all elements which are necessary to draw the conclusion. In the EU, the final conclusion is done by BirdLife International as a separate (second) step in the process, yet this needs to be clarified. There is no such agreement of cooperation regarding the bird data collected under Resolution No. 8 (2012) between BirdLife International and the Bern Convention Secretariat. Thus in this report we shall delimit our analyses to the elements which can be found in the existing databases.

3. Submissions and completeness

All countries have directly used the tool developed for the reporting under Resolution No. 8 (2012) to deliver the tabular data. The first real version became available in April 2019. This version was shown during the training workshop in May 2019 in Paris. Gradually countries started to use the tool and reported a few problems. They were all fixed and new versions of the tool soon became available. The last version is still available on the Reporting Reference Portal and dates back to December 2019.

To be able to deliver the data to the Common Data Repository (CDR), countries had to export the data to xml-formatted files using the export routine of the tool. The data are subsequently delivered as four files:

- General_report.xml (Annex A of the reporting format)
- Species_reports.xml (Annex B of the reporting format)
- Habitats_reports.xml (Annex D of the reporting format)
- Birds_reports.xml (Annex F of the reporting format)

The tool also includes the agreed checklist that is listing the species and habitats for which countries are expected to deliver a report. As this is the first (testing) reporting round, this checklist is subject to possible changes according to any new available scientific information. The tool allows countries to amend the checklist and the changes are recorded accordingly. The modified checklist is also exported by the tool and delivered in three xml-files:

- Birds_checklist.xml
- Habitats_checklist.xml
- Species_checklist.xml

² <https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards>

³ <https://nature-art17.eionet.europa.eu/article17/reports2012/>

The tool itself is using MSAccess for data storage. All the above-mentioned information is stored in one MSAccess file. Countries were asked to also upload this file.

The spatial layer for the distribution maps had to be created using the standard Pan-European grid system (10 x10 km grids). The standard grid-maps were created by the EEA as individual country files and available from the Reporting Reference Portal. In principle, as explained to the countries during the training workshops, the distribution maps should have been delivered in three layers, one for each feature group (birds, non-avian species and habitats). Unfortunately, no strict rules were instituted. As a consequence, some countries delivered maps for individual feature. All maps were uploaded in the same country folder on the CDR.

No further analysis was performed on the distribution maps in the framework of the present report, but it will be included in the September report.

Figure 1.A illustrates the 8 countries which delivered data within the reporting under Resolution No. 8 (2012). To be able to start efficient analysis, the individual country data needed to be merged. Unfortunately, no standard merging procedures for xml-files are available and it was decided to directly work with the MSAccess files. All the data related to the full reporting format (4 annexes) are stored in 22 MSAccess tables. For this first report, it was decided to work with five of the tables containing the most relevant information on the conservation status:

- Data_birds
- Data_habitats
- Data_habitats_regions
- Data_species
- Data_species_regions

As explained in chapter 2, it is very difficult to focus the analysis only on non-EU Contracting Parties. For this reason, it was decided to merge the data collected under Resolution No. 8 (2012) with the data of the EU-reporting under the Nature Directives (Art. 12 and Art. 17). Data structure, table names and field definitions are fully harmonised and merging data from the different sources was fairly easy. Only the EU-data related to the species and habitats as identified in the checklist of the reporting under Resolution No. 8 (2012) were merged. The resulting tables contain the data on conservation status for 46 features in 36 countries (28 EU and 8 non-EU countries). The tables are as follows (BC=Bern Convention, PEU=Pan-European):

- BC_RES8_PEU_data_birds
- BC_RES8_PEU_data_habitats
- BC_RES8_PEU_data_habitattype_regions
- BC_RES8_PEU_data_species
- BC_RES8_PEU_data_species_regions

In this chapter, only the data for the 8 countries having delivered within Resolution No. 8 (2012) by the end of 2019 were used. For all other analysis in the report the complete set of merged data from 36 countries was used (28 EU and 8 non-EU countries).

The number of reports delivered by countries are shown in Table 1 for bird species, Table 2 for non-avian species and Table 3 for habitats. The reporting is at the level of the biogeographical regions within the country where the species occurs as agreed in the checklist. For birds, the reporting is at country level without taking into account the biogeographical regions, but different reports have to be delivered for each of the population seasons as identified in the checklist (Breeding, Winter and Passage).

Table 1.

Number of reports per country per bird species according to the population seasons (Breeding, Winter and Passage) for which a report is delivered (sorted by species code)

Species code	Species name	AM	BY	CH	GE	MD	NO	RS	RU
A021	<i>Botaurus stellaris</i>	1	1	2	3	1		2	
A030	<i>Ciconia nigra</i>	1	1		2	1		2	1
A060	<i>Aythya nyroca</i>	1	1	3	1	1		2	1
A091	<i>Aquila chrysaetos</i>	1	1	2	1		2	2	
A122	<i>Crex crex</i>	1	1	2	2	1	2	2	
A127	<i>Grus grus</i>	1	1		2	1	2	2	
A151	<i>Philomachus pugnax</i>	1	2	1	1	1	2		
A196	<i>Chlidonias hybridus</i>	1	1		1	1		2	
A215	<i>Bubo bubo</i>	1	1	1	1	1	2	1	
A231	<i>Coracias garrulus</i>	1	1		2	1		2	
A239	<i>Dendrocopos leucotos</i>		1	1	1	1	2	1	
A339	<i>Lanius minor</i>	1	1			1		2	

Table 2.

Number of biogeographical regions for which a report is delivered per country per non-avian species (sorted by species code)

The maximum number corresponds to the number of biogeographical regions occurring in the country. (AM = 2, BY = 2, CH = 2, GE = 3, MD = 2, NO = 4, RS = 3, RU = 5)

Species code	Species name	AM	BY	CH	GE	MD	NO	RS	RU
1014	<i>Vertigo angustior</i>	1	2	1	2	1	2		3
1032	<i>Unio crassus</i>		2			1		2	
1042	<i>Leucorrhinia pectoralis</i>	1	2	1	3	1	2	2	
1060	<i>Lycaena dispar</i>		2	1	3	1		3	
1083	<i>Lucanus cervus</i>		1	1	1	2		3	
1084	<i>Osmoderma eremita</i>		2			2	1	2	
1096	<i>Lampetra planeri</i>		2	2			2		
1134	<i>Rhodeus sericeus amarus</i>	1	2	1	1	2		3	
1146	<i>Sabanejewia aurata</i>	2	1		2	2		2	
1163	<i>Cottus gobio</i>		2	2		1	2	2	
1193	<i>Bombina variegata</i>			2		1		3	
1220	<i>Emys orbicularis</i>	1	2	1	3	2		2	
1308	<i>Barbastella barbastellus</i>		2	1	3	1		2	
1352	<i>Canis lupus</i>	2	2	2	3	1	2	3	
1354	<i>Ursus arctos</i>	2	2		3		2	2	
1355	<i>Lutra lutra</i>	2	2		3	2	4	2	
1428	<i>Marsilea quadrifolia</i>			1	1	1		2	1
1528	<i>Saxifraga hirculus</i>	1	1	1			2		
1617	<i>Angelica palustris</i>		2						
1758	<i>Ligularia sibirica</i>	2			2				
1902	<i>Cypripedium calceolus</i>		2	2		1	3	1	5
1939	<i>Agrimonia pilosa</i>		2		2				
2098	<i>Paeonia tenuifolia</i>	1			2			2	
2292	<i>Frittilaria montana</i>							3	
6216	<i>Hamatocaulis vernicosus</i>		2	2	1		3	1	

Table 3.

Number biogeographical regions for which a report is delivered per country per habitat type (sorted by habitat code)

The maximum number corresponds to the number of biogeographical regions occurring in the country. (AM = 2, BY = 2, CH = 2, GE = 3, MD = 2, NO = 4, RS = 3, RU = 5)

Habitat code	Habitat Title	AM	BY	CH	GE	MD	NO	RS	RU
B1.6	Coastal dune scrub				1				
C1.25	Charophyte submerged carpets in mesotrophic waterbodies		2	2				3	
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	2	2	2	2	2	3	1	
E1.3	Mediterranean xeric grassland	2			1				
F3.241	Central European subcontinental thickets				1			2	
G1.6	Fagus woodland	1		2	2	1	2	3	3
G1.A4	Ravine and slope woodland	1	2	2	2	2	2	3	5
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	2			3				
H1	Terrestrial underground caves, cave systems, passages and waterbodies	2		2	3	1		3	

As indicated before, the Standing Committee to the Bern Convention agreed in 2017 upon a selection of species and habitats for which countries are requested to report on. This list is based on the known distribution, resulting from the biogeographical seminars process under the Emerald Network. All species groups are represented and the selection criteria were developed in such a way to harmonise the number of reports between countries. (see TPVS-PA 2017-10)⁴. Larger countries have a tendency to have more species and habitats and also more biogeographical regions, multiplying the number of reports to be delivered. For this reason, Ukraine and the Russian Federation received exemptions for reporting for 15 of the identified features.

In 2018, an officially agreed checklist was designed defining a detailed list of features and biogeographical regions for which countries needed to submit a report. For birds, reporting is at country level but the population season for which separate reports need to be created are identified. The complete checklist is available on the Reporting Reference Portal (pa05e_2018_Res8_checklists)

Table 4 presents an overview of the data delivery for species and habitats according to the initially agreed checklist. All countries reported more than 75% of the expected reports, except Russia. Belarus reported all features in the checklist. We should admit that the size and the administrative complexity of the Russian Federation is for sure hampering the data collection. The fact that Russia has delivered at least reports on few features can be seen as a good start to build up capacity and knowledge for future reporting activities. For the other countries, the reasons for not delivering a report for some features is unknown, but possibly due to a mixture of lack of data, lack of expertise, or no specific interest for the moment for some of the features. It should be stressed, the figures only represent the deliveries of reports without any evaluation of the technical and scientific quality.

⁴ <https://rm.coe.int/selecting-a-subset-of-species-from-the-resolution-no-6-1998-and-habita/1680744322>

Table 4.

Number of reports for birds delivered and percentage according to the agreed checklist

Country	Birds			Non-avian Species			Habitats			Total	
	In checklist but not delivered	Delivered	% delivered	In checklist but not delivered	Delivered	% delivered	In checklist but not delivered	Delivered	% delivered	Delivered	% delivered
AM	0	11	100	4	16	80	0	10	100	37	90,24
BY	0	12	100	0	37	100	0	6	100	55	100,00
CH	4	6	60	2	21	91	0	10	100	37	86,05
GE	1	11	91	1	35	97	0	15	100	61	96,83
MD	1	10	90	3	22	88	2	5	71	37	86,05
NO	0	6	100	5	25	83	6	7	53	38	77,55
RS	0	11	100	11	40	78	7	14	66	65	78,31
RU	17	2	10	51	9	15	24	8	25	19	17,12
Total	23	69	75	77	205	73	39	75	66	349	71

The details of the data delivery can be found in the Appendixes (i.e. Appendix 1: non-avian species, Appendix 2: habitats, Appendix 3: birds)

4. Quality of data for conservation status assessment

The assessment of the conservation status of species and habitats depends on various parameters such as population size (or area in habitats) and trends, range size, future prospects and others. Thus countries, in order to be able to report these values, need to have a solid knowledge base which grounded on large-scale inventories and long-term monitoring within each country.

The quality of data is determined by various factors like duration, geographical coverage, frequency and methods used in specific research projects or programmes. The quality of data is an important, if not a key, aspect showing how durable are the conservation status assessments submitted by countries under the EU Habitats Directive (Art. 17) and Birds Directive (Art. 12), and Resolution No. 8 (2012). The range of reporting parameters in the reporting formats are very diverse and often very detailed.

The self-assessment by the countries on the quality of the key parameters determining the final conservation status assessment is an integral part of the database. Parameters such as population size, population trend, or habitat area and habitat trend are accompanied with the associated fields named “Method used” which are supposed to indicate the assumed data accuracy which depends on the scientific or situational approaches behind the studies undertaken. “Methods used” foresee following coding and categories:

3 = Complete survey or a statistically robust estimate

2 = Based mainly on extrapolation from a limited amount of data

1 = Based mainly on expert opinion with very limited data

0 = Insufficient or no data available

In practice, there is also a fifth category “unreported”, because country may have submitted a reporting value but not attached the “quality tag”. In the databases this appears as a blank data field.

Below in Figures 2 to 4 basic statistics are presented about the data quality as reported by the countries. The charts present individual characteristics of each reporting country with a comparison to the EU average. It should be noted that the purpose of the comparison, the same selection of species and habitats was considered

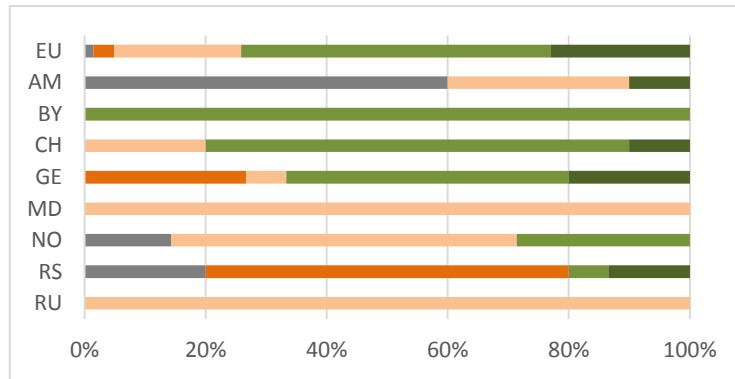
for both EU and EU countries. In these analyses we focused only on short-term trends, as it was obvious that much less data are available for the long-term trends.

Figures 2 to 4 can be best viewed by examining the width of “green parts” of each country bar. Both dark and light green colours indicate the two “acceptable” categories of quality: complete survey and extrapolation based on partial data (see above). The ultimate objective for any country should be to achieve a quality assessment corresponding to one of the green colours. The next category, i.e. light orange (i.e. some data and expert opinion) is also acceptable to a certain extent, and definitely better than “insufficient” or “unreported”.

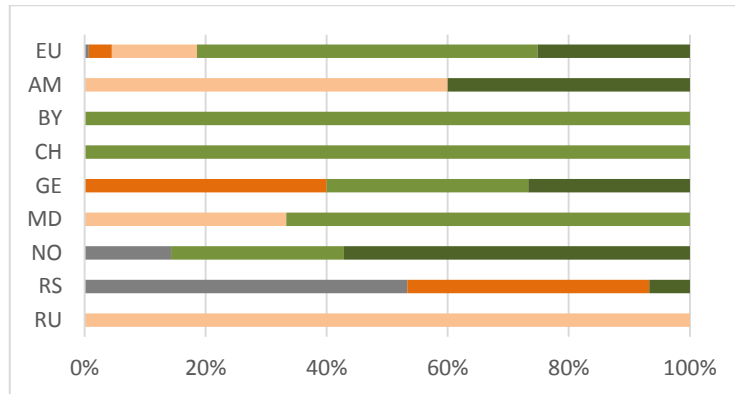
Small sample sizes from the non-EU countries may result in biased proportions. For example, a high ratio of Russian Federation “green assessments” (in case of non-avian species) could be explained by the fact that this country reported only on a selection of 9 possibly well-known species. A similar observation applies for habitats in the Republic of Moldova (only 6 habitats reported). Quality assessments of birds distribution data are also very questionable, and several countries have not indicated any quality category at all. Regarding habitats, some countries like Belarus, Switzerland, and Norway reported very good data. However the fact that in some parameters they are much better than the EU average may cast some doubts about realism of these assessments.

Presumably in many countries there are also large differences in data quality between different taxonomic groups of non-avian species, but this is more a speculation because current reporting sample size does not allow reliable comparisons within different groups.

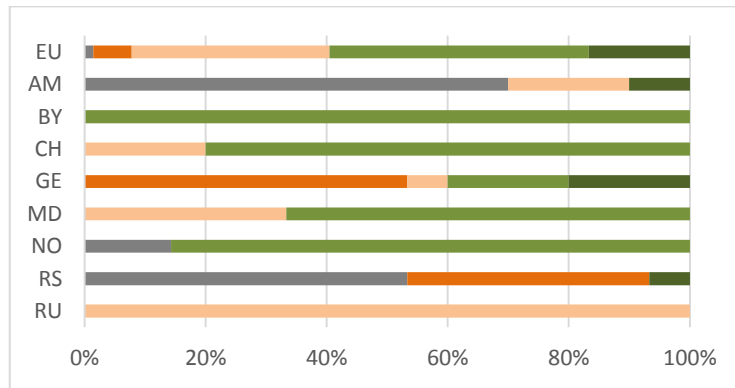
A. Range trend



B. Coverage



C. Coverage trend



D. Habitat condition

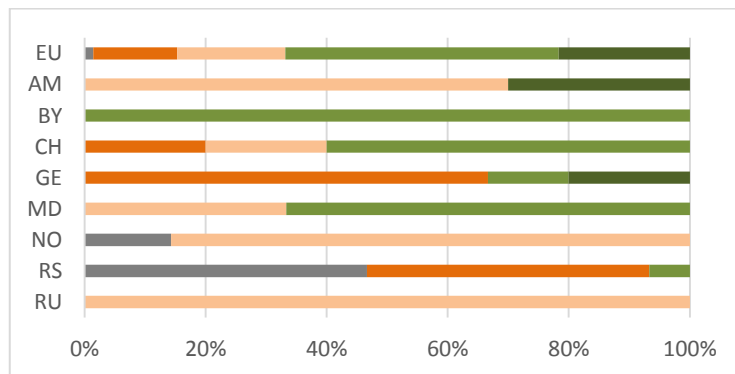
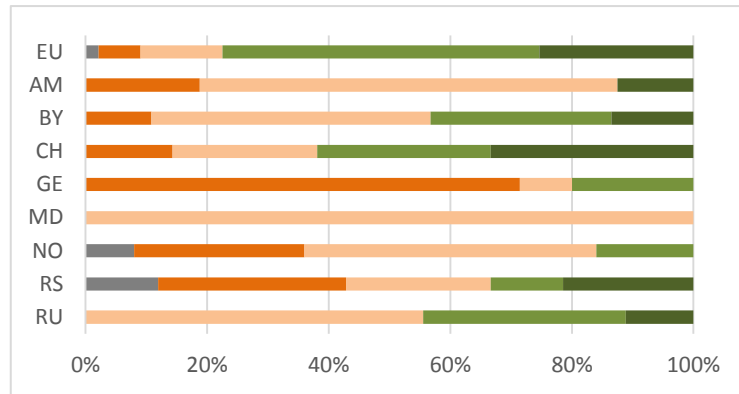
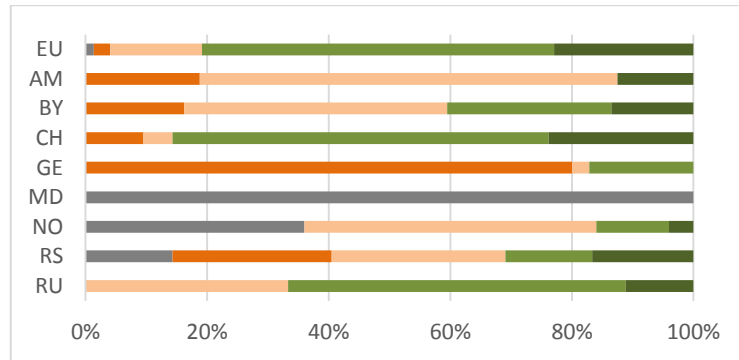


Figure 2. Proportions of categories of quality self-assessments by reporting countries for *habitats* compared to the EU average. Categories of quality: dark green: complete survey or a statistically robust estimate, light green: based mainly on extrapolation from a limited amount of data, light orange: based mainly on expert opinion with very limited data, dark orange: insufficient or no data available, grey: quality not reported.

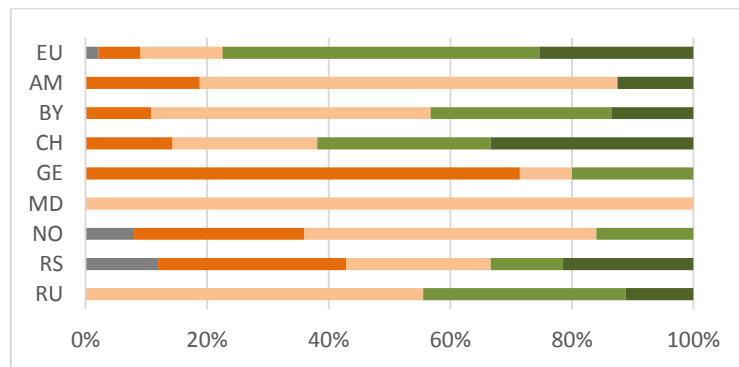
A. Range trend



B. Population size



C. Population trend



D. Typical habitat trend

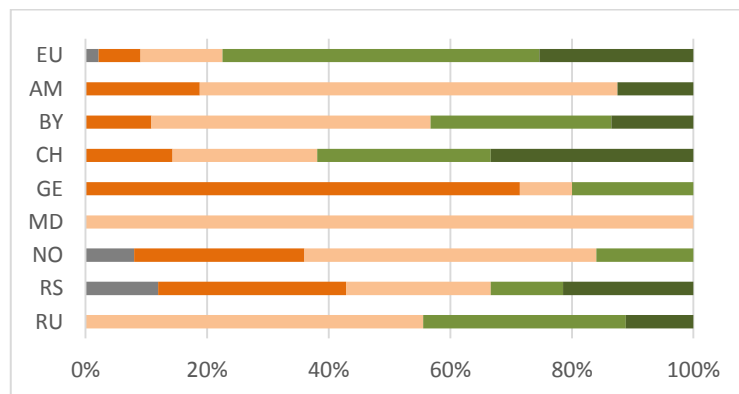
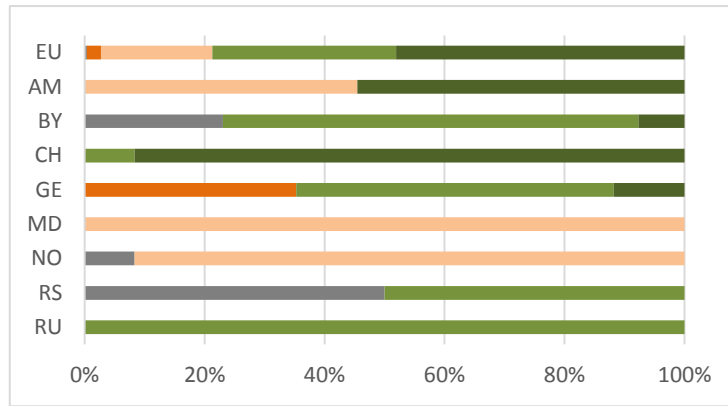
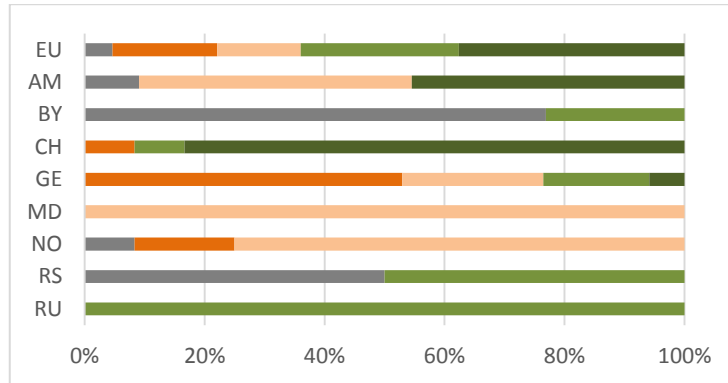


Figure 3. Proportions of categories of quality self-assessments by reporting countries for *non-avian species* compared to the EU average. Categories of quality: dark green: complete survey or a statistically robust estimate, light green: based mainly on extrapolation from a limited amount of data, light orange: based mainly on expert opinion with very limited data, dark orange: insufficient or no data available, grey: quality not reported.

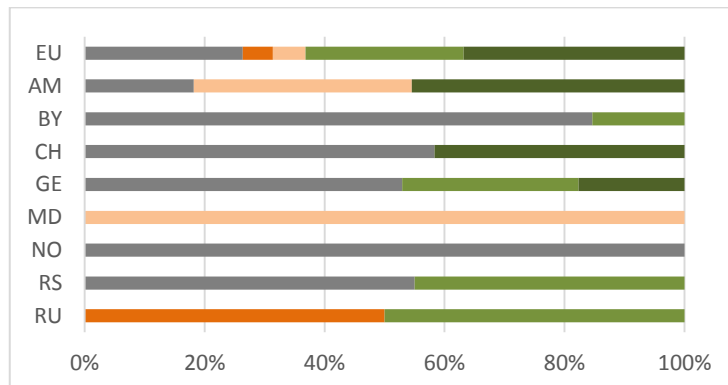
A. Population



B. Population trend



C. Distribution



D. Distribution trend

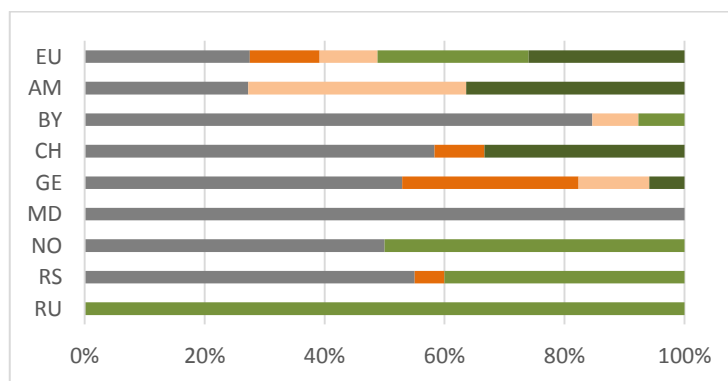


Figure 4. Proportions of categories of quality self-assessments by reporting countries for *bird species* compared to the EU average. Categories of quality: dark green: complete survey or a statistically robust estimate, light green: based mainly on extrapolation from a limited amount of data, light orange: based mainly on expert opinion with very limited data, dark orange: insufficient or no data available, grey: quality not reported.

5. Species and habitats resources in non-EU Contracting Parties, compared to EU countries

The conservation status of species and habitats ideally should be viewed and analysed at Pan-European level thus ignoring political sub-divisions of the continent as nature knows no boundaries. Apart territorial integrity aspect (see Chapter 2 above) it is also important to recognise how the species and habitat resources are shared across the two country groups (i.e. non-EU and EU) in the Pan-European context.

For example, if non-EU countries hold significantly large parts of all-European resource, then the conservation status in these countries may strongly affect EU-based conservation efforts. If non-EU countries host strongholds of certain species, then habitat conservation measures in neighboring EU countries aiming to recover or to increase local populations may bring more immediate and better results if source populations are situated in a greater distance. It is also important for mobile wide-ranging animals. For example, it is well known that many large carnivore populations in Finland, the Baltic States, and Poland are supported by individuals arriving from the Russian Federation and Belarus.

In this chapter we analyse populations in non-EU countries versus population in EU countries for **7 bird species** which were reported on by the highest number of countries to enable meaningful comparisons (Figure 5). Similar analyses would be more difficult for non-avian species because reporting countries have used different population units (e.g. not only individuals or pairs which are most commonly used in birds, but also number of grids, localities, animal groups (packs), etc.). In such cases a substantial additional work is required to interpret and commute various units into one common unit to enable any calculations and analyses at Pan-European level. Such analyses have not been yet tested, but could be possible, for habitats using the actual reported coverage (area).

For the more detailed September report, the population size aspect should be also investigated together with the range and trends. This would be similar to the approach used in the Birds of Europe book collated by the BirdLife International⁵. It would be very informative to see if positive or negative trends are occurring in strongholds or in “marginal populations”.

As a result (Figure 5), it can be observed that non-EU countries do host significant breeding populations of the 7 species in focus. For some species such as golden eagle, ferruginous duck, black stork and the Eurasian roller the populations in the non-EU country group can even be considered as very important (i.e. over 25% of the whole Pan-European resource).

Yet the results presented in Figure 5 should be viewed with caution because the provided statistics are based only on countries which reported particular species, but they do not necessarily represent the whole species' distribution range in Europe. Particularly it applies to the non-EU countries where the reporting obligations were not seen as mandatory, and countries have reported somehow selectively, probably based on the availability of data. For example, two of the largest countries, with presumably large resources, the Russian Federation has reported only few species and Ukraine has reported no species.

⁵ <https://www.nhbs.com/birds-in-europe-book>. Unfortunately this source is not freely available at the web and the book can be only commercially purchased.

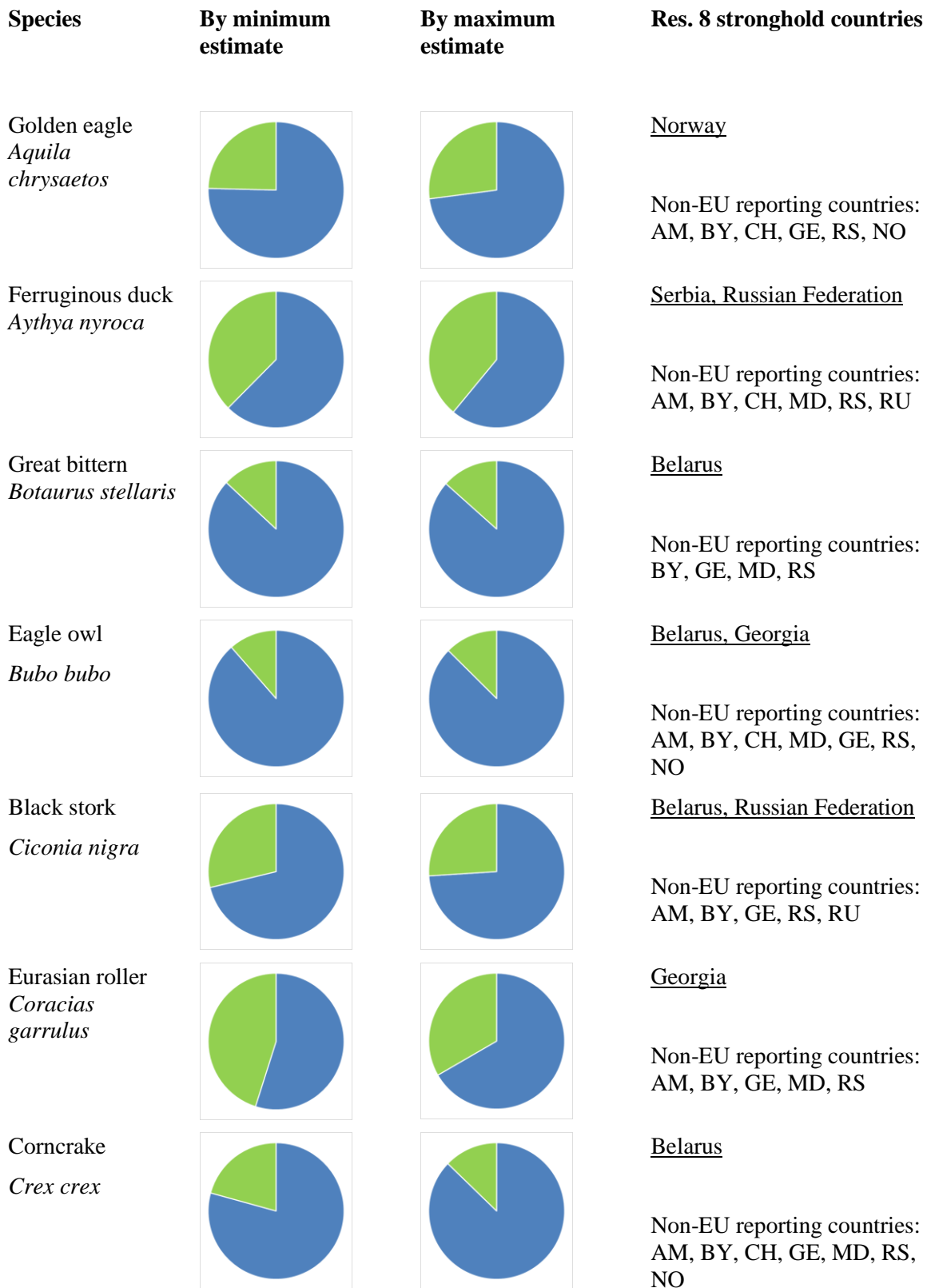


Figure 5. Proportions of bird species resources in terms of breeding pairs between EU (blue) and non-EU (green) countries. Resource: Res. 8 database and Art. 12 database. Minimum and maximum estimates reflect the values indicated in the databases submitted by the EU and non-EU countries.

Although the absence of reports from very large countries such as the Russian Federation and Ukraine is a recognised problem, this review shows that even some relatively “small” countries may play a significant role in conserving protected bird species in the existing stronghold locations, i.e. Norway in the case of golden eagle, Serbia for ferruginous duck, Belarus for corncrake and Georgia for Eurasian roller.

6. Presentation of the Resolution 8 reporting data

In this chapter we discuss possible ways for presenting key information on the conservation status of species and habitats across Europe and we also present the first results on few selected features from the first reporting exercise. When looking at the possibilities, the ideas were primarily sought from the experience with the dissemination of information on EU’s reporting under the Nature Directives.

Most comprehensive information on the outcomes of the EU Habitats Directive (Article 17) and the Birds Directive (Article 12) reporting processes are available from the Eionet portal’s Article 17 (<https://nature-art17.eionet.europa.eu/article17/reports2012/>) and Article 12 (<https://nature-art12.eionet.europa.eu/article12>) web-tools. A recent presentation by the ETC/BD at the “Expert group on Reporting under the Nature Directives” on 26 March 2020, informed that no substantial changes are planned in these tools at least in near future. Nevertheless, the Article 12 tool will now also have information on species trends.

Figure 6 below presents the web tool in a general way are generally shown (Figure 6). To summarise, this tool contains four main elements:

1. Searchable database by reporting year, taxonomic group, feature, country, bio-geographical region where the output includes the key elements determining the conservation status: range, population (in case of species), typical habitat, future prospects, overall assessment and distribution. [Results available as auto-generated table]
2. Species (and habitat) datasheets with the basic information on distribution and ecology [information available as a free text].
3. Audit trail (to be used for stakeholder’s comments during consultation process). For example, public consultation of draft Art. 17 EU-level assessments in 2020 provided 162 comments. [Not available at the moment]
4. Distribution of the species or habitat. [Distribution shown on the map with actual distribution grids marked in a colour reflecting the conservation status (red, amber, green, grey) in the bio-geographical region]

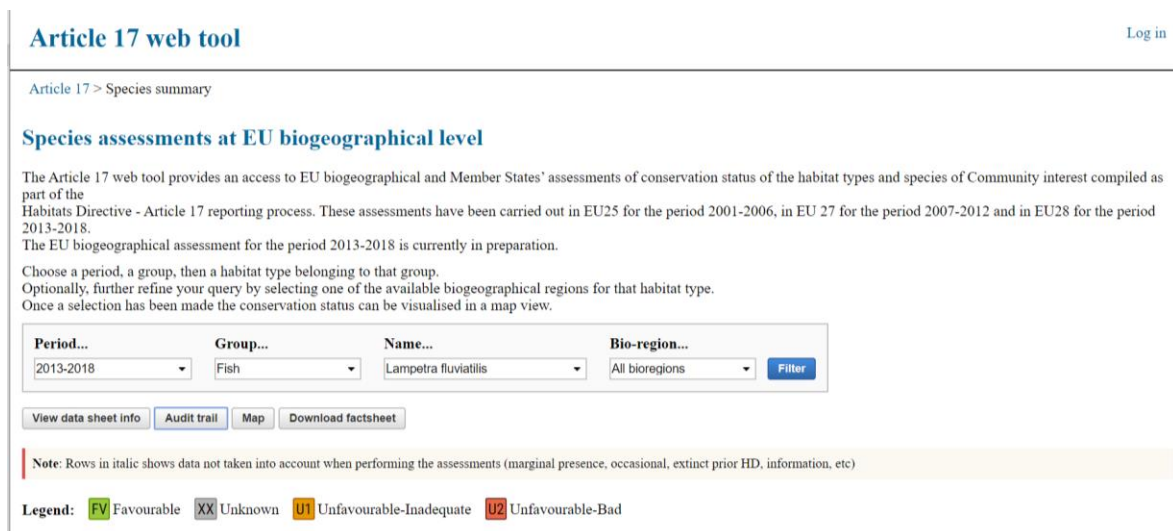


Figure 6. Screenshot from the front page of the Art. 17 web-tool.

Looking forward how data collected within the reporting under Resolution No. 8 (2012) could be presented in future, we consider the Art.17 and Art. 12 web-tools as a very thorough and efficient way for displaying data. Still it is also known that a lot of resources are needed to reach such level of data presentation, which includes technical development of web-tools, data collection and processing. Art. 17 EU assessment in

2019/2020 was undertaken by the ETC/BD and EEA and it required 3.5 months of work with 33 experts involved from 7 organisations across EU (source: ETC/BD presentation “Expert group on Reporting under the Nature Directives”).

Given the limited financial capacities of the Bern Convention Secretariat, it would be worthwhile to discuss with the European Environment Agency the possibility to integrate data collected within Resolution No. 8 (2012) into the common European database and in present information related to data from Resolution No. 8 (2012) together with Art. 17 and Art. 12 data in the future. Otherwise significant investments would be necessary to develop a dedicated web-portal and constitute own groups of experts and knowledge base.

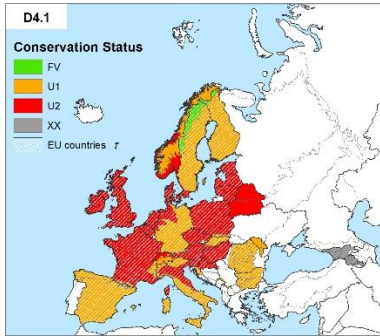
One of the aims of this preliminary exploratory report is to demonstrate the **value of presenting data from non-EU countries together with EU data**. Given the very limited resources available for this report we have collated spatial information for two habitats and six non-avian species from different taxonomic groups with the most comprehensive coverage from the non-EU part of Europe (Figure 7). The conservation status of birds was not assessed by the reporting countries, thus similar maps cannot be produced at this stage.

It should be noted that this information is based on the (raw) data as recorded in the databases submitted by Parties, as no systematic QA/QC procedure has been implemented. **Automated QA/QC procedures**, which are in operation as part of Art. 17 and Art. 12 reporting processes, is another element of work that needs to be introduced in the reporting under Resolution No. 8 (2012) as manual QA/QC would require a lot of expert man-days and may result in diverging approaches. The contents of QA/QC for the reporting under Resolution No. 8 (2012) may be developed on the basis of existing QA/QC procedures in the EU. The reporting timeline should also foresee time when possible incompleteness and errors are communicated back to countries and they are given time to do appropriate amendments and corrections (which was not the case in the current reporting trial).

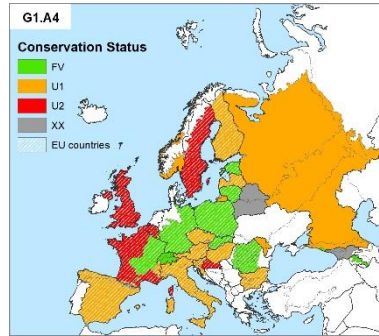
Yet Figure 7 provides a few potentially interesting observations and also problems which should be taken into account in more thorough data analyses:

- Common maps may demonstrate distinctively different conservation status in different regions of Europe (e.g. the dragonfly *Leucorrhinia pectoralis* where conservation status in the Baltics and Scandinavia is FV and in most other parts is U1 or U2, unfortunately the conservation status is unknown in Belarus and not reported by Russia and Ukraine)
- More detailed analyses may focus on specific bio-geographical regions and species characteristic to those regions. Status and distribution can be combined also with resources (population sizes for species and areas of habitats) in each country/region (see Chapter 5).
- Unfortunately some important non-EU countries have either not submitted any data (e.g. Ukraine) or very partial data on few features (e.g. Russian Federation). This makes any conclusions difficult at a broad Pan-European level.
- Many assessments in non-EU countries are unknown. Thus some of the maps produced are not very informative, even if the feature is reported in the database. It is also not clear if the “unknown” assessments (“greys”) indicate marginal (not numerous, or near extinct) populations, sensitive species (e.g. wolf in Norway) or actual lack of information?

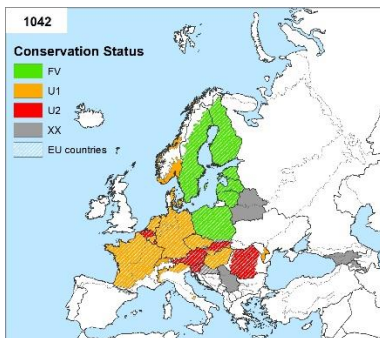
It is planned that more attempts to visualize data collected within Resolution No. 8 (2012) will be provided in the September 2020 report. It could also include summary tables as given in the Art. 17 and Art. 12 web-tools.



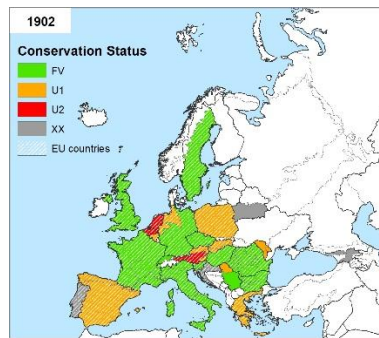
D4.1 (7230) Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks



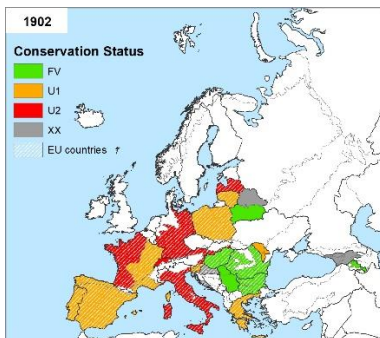
G1.A4 (9180) Ravine and slope woodland



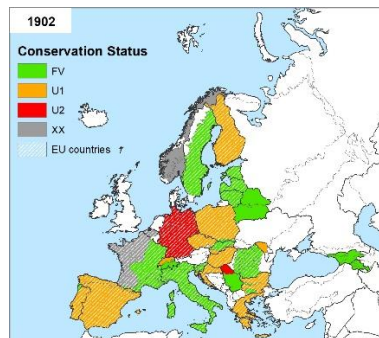
1042 *Leucorhina pectoralis*



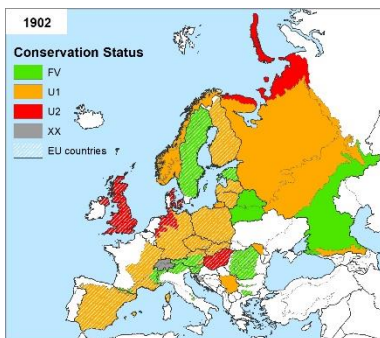
1083 *Lucanus cervus*



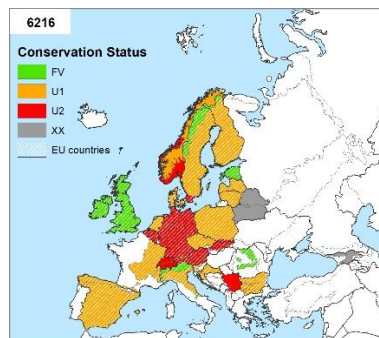
1220 *Emys orbicularis*



1352 *Canis lupus*



1902 *Cypripedium calceolus*



6216 *Hamatocaulis vernicosus*

Figure 7. Conservation status of eight features in the EU countries (Art. 17 data 2013-2018) and non-EU countries (Resolution No. 8 (2012) data 2019): first results. Data are presented by country and by biogeographical region.

7. Conclusions and follow-up

Within this initial report, the authors share the first observations which are useful for planning future work:

- Eight countries, out of approximately 15 possible countries, submitted data according to the reporting format of the Resolution No. 8 (2012), using the dedicated delivery folders on the Common Data Repository (CDR) of the EEA.
- The deliveries included tabular and spatial data. In some cases, spatial data were incomplete compared with the tabular data. Norway did not supply any spatial data.
- For the non-EU Contracting Parties, the delivery on the CDR is rather a “static” process. Automated reply procedures on QA/QC, as is the case for EU countries, is not operational for the data deliveries within Resolution No. 8 (2012). As a consequence, considerable time was spent in January 2020 to manually verify the deliveries. For all countries, a request was made for second or even third re-delivery. The manual checking procedure only included basic technical verifications of the correctness of the formats and completeness of the number of files to be delivered for tabular data and the number of layers for the spatial data.
- Thanks to the intensive harmonisation and standardisation between the Resolution No. 8 (2012) and the Art. 17 and Art.12 data, it was fairly easy to merge tabular data collected within Resolution No. 8 (2012) with the EU data to become a Pan-European data set on conservation status for the Bern Convention subset of features. Both databases do have the same structure, database files and field names.
- All countries agreed to report on the features (species and habitats) according to the agreed checklist on presence/absence of each species and habitat in each country and biogeographical region and population season for birds. Unfortunately, in most countries, one or more feature reports are missing in the data delivery. We can only guess for the reasons for not reporting, such as lack of data, resources, staff, time etc. On the other hand, countries may have selected those features which are “charismatic” or for which data were most at hand. Asking countries for more details on this issue could be part of a survey among the countries (see suggested action below)
- For the 8 countries and according to the agreed checklist of features, overall, 71% of the reports have data in the database. Vice versa, for 29% of the defined reports in the checklist, no data have been supplied.
- The checklist for the Russian Federation contains a number of exceptions for which no report is expected despite the feature is present in the country and biogeographical region. Being the largest country with the highest number of bio-geographical regions and features present, the Group of Experts agreed to limit the number of features to more or less balance the maximum number of reports for each country. Nevertheless, the number of expected reports is still the highest for the Russian Federation. It is still appreciated that at least some reports have been delivered and this highlights the importance of the contribution of the Russian Federation to the conservation status assessments at the Pan-European level.
- Further analysis of the fully merged set, which includes both non-EU and EU data, would provide a broader pan-European vision on conservation status. This report includes a few examples showing that non-EU countries host large proportions of the whole European resource for several if not many species and habitats.
- Yet the common presentation of data could have even greater value if more countries would have reported data and for those countries which did report would have less “unknown” assessments.
- Quality of data for the conservation status assessments is very variable among non-EU countries, but in general the quality is lower than the EU average. In some instances the self-assessments of quality in the databases does not seem reliable.

From the above it is also possible to suggest possible actions and recommendations:

- Due to limited resources, no standard QA/QC procedures, based on the xml formatted data, are in place. As a consequence, QA/QC was delimited only to completeness of submitted databases and only a limited number of QA/QC procedures are developed on the most important data fields. For this reporting round, no second data delivery opportunity was given to countries, also due to limited resources and lack of QA/QC procedures. The analysis is based on the data as they are delivered.

- For this report, only the most important tabular data on the conservation status have been merged. For the final report, all remaining data (threats, pressures, measures and the general report) will be merged and will be available for eventual analysis in the September report.
- A limited number of further QA/QC procedures could be developed, mainly for advising countries for the next reporting round.
- Although the training workshops in 2018 and 2019 explained the principles of gathering the spatial data for the distribution maps, the results show a variety of problems. For some features tabular data are delivered but without associated spatial data layer. For others, the shape file cannot be read. Further analysis is needed to identify how and if the submitted distribution maps can contribute to the September report.
- The two examples of habitats selected for this report, have a one to one relationship with some habitat of the Annex I of the Habitats directive. The other four habitats in the selection have a one to many relationship with the Annex I of the Habitats Directive. Further analysis will be needed on how to deal with the different “subtypes” present in the EU countries of one habitat of Resolution No. 8 (2012) (e.g. the beech forest appears as only one classification unit in the Resolution No. 8 (2012), but in Annex I of the Habitats Directive different geographically distinct sub-types of beech forest are listed)
- For the reporting under Resolution No. 8 (2012), it was decided to operate at the level of the species’ scientific names as published in Resolution No. 6 (1998). No taxonomic evolution or revision has been taken into account as was the case for the EU reporting. In the future, careful analysis on a species by species level should be done to compare data collected within Resolution No. 8 (2012) with data from Art. 17 and Art. 12.
- Assessing the conservation status and scientific evaluation of the delivered data is in high demand of external expertise which is presently very limited for the Resolution No. 8 (2012). It is suggested to explore possibilities of collaboration with other institutions such as the European Environment Agency and its Topic Centre on Biological Diversity and BirdLife International with a view to broaden the international expertise. This collaboration should also lead to harmonised procedures for analysis and presentation of results, such as common data formats with a view to possible use in the same presentation environments (web-tools).
- Despite of good preparatory work and active engagement in the preparatory workshops, Ukraine has not delivered data. Given the central position and the size of the country it is advised at least to offer Ukraine an opportunity to deliver data by the end of May to be able to include it in the final analysis.
- In the future, in the framework of the meetings of the Group of Experts, a questionnaire to parties who submitted databases could be developed to identify difficulties encountered and the needs for further assistance. In the same way, it could be worthwhile to ask countries about their needs and ideas.

Appendix 1: Detailed table of delivered and missing reports for non-avian species according to the initially agreed checklist per biogeographical region

(0 = Not delivered, 1 = delivered)

Species code	Species name	country	region	Delivery Status
1014	Vertigo angustior	AM	ALP	1
1014	Vertigo angustior	BY	BOR	1
1014	Vertigo angustior	BY	CON	1
1014	Vertigo angustior	CH	CON	1
1014	Vertigo angustior	GE	ALP	1
1014	Vertigo angustior	GE	BLS	1
1014	Vertigo angustior	MD	CON	1
1014	Vertigo angustior	NO	ATL	1
1014	Vertigo angustior	NO	BOR	1
1014	Vertigo angustior	RS	ALP	0
1014	Vertigo angustior	RS	CON	0
1014	Vertigo angustior	RS	PAN	0
1014	Vertigo angustior	RU	ALP	1
1014	Vertigo angustior	RU	BOR	1
1014	Vertigo angustior	RU	CON	1
1032	Unio crassus	BY	BOR	1
1032	Unio crassus	BY	CON	1
1032	Unio crassus	MD	CON	1
1032	Unio crassus	RS	ALP	0
1032	Unio crassus	RS	CON	1
1032	Unio crassus	RS	PAN	1
1032	Unio crassus	RU	BOR	0
1032	Unio crassus	RU	CON	0
1032	Unio crassus	RU	STE	0
1042	Leucorhina pectoralis	AM	ALP	1
1042	Leucorhina pectoralis	BY	BOR	1
1042	Leucorhina pectoralis	BY	CON	1
1042	Leucorhina pectoralis	CH	CON	1
1042	Leucorhina pectoralis	GE	ALP	1
1042	Leucorhina pectoralis	GE	BLS	1
1042	Leucorhina pectoralis	GE	STE	1

Species code	Species name	country	region	Delivery Status
1042	Leucorrhinia pectoralis	MD	STE	1
1042	Leucorrhinia pectoralis	NO	ATL	1
1042	Leucorrhinia pectoralis	NO	BOR	1
1042	Leucorrhinia pectoralis	RS	ALP	0
1042	Leucorrhinia pectoralis	RS	CON	1
1042	Leucorrhinia pectoralis	RS	PAN	1
1042	Leucorrhinia pectoralis	RU	ALP	0
1042	Leucorrhinia pectoralis	RU	BOR	0
1042	Leucorrhinia pectoralis	RU	CON	0
1042	Leucorrhinia pectoralis	RU	STE	0
1060	Lycaena dispar	AM	ALP	0
1060	Lycaena dispar	AM	ANA	0
1060	Lycaena dispar	BY	BOR	1
1060	Lycaena dispar	BY	CON	1
1060	Lycaena dispar	CH	CON	1
1060	Lycaena dispar	GE	ALP	1
1060	Lycaena dispar	GE	BLS	1
1060	Lycaena dispar	GE	STE	1
1060	Lycaena dispar	MD	CON	1
1060	Lycaena dispar	MD	STE	0
1060	Lycaena dispar	RS	ALP	1
1060	Lycaena dispar	RS	CON	1
1060	Lycaena dispar	RS	PAN	1
1060	Lycaena dispar	RU	ALP	0
1060	Lycaena dispar	RU	BLS	0
1060	Lycaena dispar	RU	BOR	0
1060	Lycaena dispar	RU	CON	0
1060	Lycaena dispar	RU	STE	0
1083	Lucanus cervus	BY	CON	1
1083	Lucanus cervus	CH	CON	1
1083	Lucanus cervus	GE	ALP	1
1083	Lucanus cervus	MD	CON	1
1083	Lucanus cervus	MD	STE	1
1083	Lucanus cervus	NO	BOR	0

Species code	Species name	country	region	Delivery Status
1083	Lucanus cervus	RS	ALP	1
1083	Lucanus cervus	RS	CON	1
1083	Lucanus cervus	RS	PAN	1
1083	Lucanus cervus	RU	ALP	0
1083	Lucanus cervus	RU	BLS	0
1083	Lucanus cervus	RU	BOR	0
1083	Lucanus cervus	RU	CON	0
1083	Lucanus cervus	RU	STE	0
1084	Osmoderma eremita	BY	BOR	1
1084	Osmoderma eremita	BY	CON	1
1084	Osmoderma eremita	MD	CON	1
1084	Osmoderma eremita	MD	STE	1
1084	Osmoderma eremita	NO	BOR	1
1084	Osmoderma eremita	RS	ALP	1
1084	Osmoderma eremita	RS	CON	1
1084	Osmoderma eremita	RS	PAN	0
1084	Osmoderma eremita	RU	ALP	0
1084	Osmoderma eremita	RU	BOR	0
1084	Osmoderma eremita	RU	CON	0
1084	Osmoderma eremita	RU	STE	0
1096	Lampetra planeri	BY	BOR	1
1096	Lampetra planeri	BY	CON	1
1096	Lampetra planeri	CH	ALP	1
1096	Lampetra planeri	CH	CON	1
1096	Lampetra planeri	NO	ATL	1
1096	Lampetra planeri	NO	BOR	1
1096	Lampetra planeri	RU	BOR	0
1096	Lampetra planeri	RU	CON	0
1134	Rhodeus sericeus amarus	AM	ANA	1
1134	Rhodeus sericeus amarus	BY	BOR	1
1134	Rhodeus sericeus amarus	BY	CON	1
1134	Rhodeus sericeus amarus	CH	ALP	0
1134	Rhodeus sericeus amarus	CH	CON	1
1134	Rhodeus sericeus amarus	GE	BLS	1

Species code	Species name	country	region	Delivery Status
1134	Rhodeus sericeus amarus	MD	CON	1
1134	Rhodeus sericeus amarus	MD	STE	1
1134	Rhodeus sericeus amarus	RS	CON	1
1134	Rhodeus sericeus amarus	RS	PAN	1
1134	Rhodeus sericeus amarus	RU	BLS	0
1134	Rhodeus sericeus amarus	RU	BOR	0
1134	Rhodeus sericeus amarus	RU	CON	0
1134	Rhodeus sericeus amarus	RU	STE	0
1146	Sabanejewia aurata	AM	ALP	1
1146	Sabanejewia aurata	AM	ANA	1
1146	Sabanejewia aurata	BY	CON	1
1146	Sabanejewia aurata	GE	ALP	1
1146	Sabanejewia aurata	GE	STE	1
1146	Sabanejewia aurata	MD	CON	1
1146	Sabanejewia aurata	MD	STE	1
1146	Sabanejewia aurata	RS	ALP	1
1146	Sabanejewia aurata	RS	CON	1
1146	Sabanejewia aurata	RS	PAN	0
1146	Sabanejewia aurata	RU	ALP	0
1146	Sabanejewia aurata	RU	CON	0
1146	Sabanejewia aurata	RU	STE	0
1163	Cottus gobio	BY	BOR	1
1163	Cottus gobio	BY	CON	1
1163	Cottus gobio	CH	ALP	1
1163	Cottus gobio	CH	CON	1
1163	Cottus gobio	MD	CON	1
1163	Cottus gobio	NO	ALP	1
1163	Cottus gobio	NO	BOR	1
1163	Cottus gobio	RS	ALP	1
1163	Cottus gobio	RS	CON	1
1163	Cottus gobio	RS	PAN	0
1163	Cottus gobio	RU	ALP	0
1163	Cottus gobio	RU	ARC	0
1163	Cottus gobio	RU	BOR	0

Species code	Species name	country	region	Delivery Status
1163	Cottus gobio	RU	CON	0
1163	Cottus gobio	RU	STE	0
1193	Bombina variegata	CH	ALP	1
1193	Bombina variegata	CH	CON	1
1193	Bombina variegata	MD	CON	1
1193	Bombina variegata	RS	ALP	1
1193	Bombina variegata	RS	CON	1
1193	Bombina variegata	RS	PAN	1
1220	Emys orbicularis	AM	ALP	1
1220	Emys orbicularis	BY	BOR	1
1220	Emys orbicularis	BY	CON	1
1220	Emys orbicularis	CH	CON	1
1220	Emys orbicularis	GE	ALP	1
1220	Emys orbicularis	GE	BLS	1
1220	Emys orbicularis	GE	STE	1
1220	Emys orbicularis	MD	CON	1
1220	Emys orbicularis	MD	STE	1
1220	Emys orbicularis	RS	ALP	0
1220	Emys orbicularis	RS	CON	1
1220	Emys orbicularis	RS	PAN	1
1220	Emys orbicularis	RU	ALP	0
1220	Emys orbicularis	RU	BLS	0
1220	Emys orbicularis	RU	BOR	0
1220	Emys orbicularis	RU	CON	0
1220	Emys orbicularis	RU	STE	0
1308	Barbastella barbastellus	AM	ALP	0
1308	Barbastella barbastellus	BY	BOR	1
1308	Barbastella barbastellus	BY	CON	1
1308	Barbastella barbastellus	CH	ALP	1
1308	Barbastella barbastellus	GE	ALP	1
1308	Barbastella barbastellus	GE	BLS	1
1308	Barbastella barbastellus	GE	STE	1
1308	Barbastella barbastellus	MD	CON	1
1308	Barbastella barbastellus	MD	STE	0

Species code	Species name	country	region	Delivery Status
1308	Barbastella barbastellus	RS	CON	1
1308	Barbastella barbastellus	RS	PAN	1
1308	Barbastella barbastellus	RU	ALP	0
1308	Barbastella barbastellus	RU	BLS	0
1308	Barbastella barbastellus	RU	STE	0
1352	Canis lupus	AM	ALP	1
1352	Canis lupus	AM	ANA	1
1352	Canis lupus	BY	BOR	1
1352	Canis lupus	BY	CON	1
1352	Canis lupus	CH	ALP	1
1352	Canis lupus	CH	CON	1
1352	Canis lupus	GE	ALP	1
1352	Canis lupus	GE	BLS	1
1352	Canis lupus	GE	STE	1
1352	Canis lupus	MD	CON	1
1352	Canis lupus	NO	ALP	1
1352	Canis lupus	NO	ARC	0
1352	Canis lupus	NO	ATL	0
1352	Canis lupus	NO	BOR	1
1352	Canis lupus	RS	ALP	1
1352	Canis lupus	RS	CON	1
1352	Canis lupus	RS	PAN	1
1352	Canis lupus	RU	ALP	0
1352	Canis lupus	RU	ARC	0
1352	Canis lupus	RU	BLS	0
1352	Canis lupus	RU	BOR	0
1352	Canis lupus	RU	CON	0
1352	Canis lupus	RU	STE	0
1354	Ursus arctos	AM	ALP	1
1354	Ursus arctos	AM	ANA	1
1354	Ursus arctos	BY	BOR	1
1354	Ursus arctos	BY	CON	1
1354	Ursus arctos	GE	ALP	1
1354	Ursus arctos	GE	BLS	1

Species code	Species name	country	region	Delivery Status
1354	Ursus arctos	GE	STE	1
1354	Ursus arctos	NO	ALP	1
1354	Ursus arctos	NO	ARC	0
1354	Ursus arctos	NO	ATL	0
1354	Ursus arctos	NO	BOR	1
1354	Ursus arctos	RS	ALP	1
1354	Ursus arctos	RS	CON	1
1354	Ursus arctos	RU	ALP	0
1354	Ursus arctos	RU	ARC	0
1354	Ursus arctos	RU	BLS	0
1354	Ursus arctos	RU	BOR	0
1354	Ursus arctos	RU	CON	0
1354	Ursus arctos	RU	STE	0
1355	Lutra lutra	AM	ALP	1
1355	Lutra lutra	AM	ANA	1
1355	Lutra lutra	BY	BOR	1
1355	Lutra lutra	BY	CON	1
1355	Lutra lutra	GE	ALP	1
1355	Lutra lutra	GE	BLS	1
1355	Lutra lutra	GE	STE	1
1355	Lutra lutra	MD	CON	1
1355	Lutra lutra	MD	STE	1
1355	Lutra lutra	NO	ALP	1
1355	Lutra lutra	NO	ARC	1
1355	Lutra lutra	NO	ATL	1
1355	Lutra lutra	NO	BOR	1
1355	Lutra lutra	RS	ALP	0
1355	Lutra lutra	RS	CON	1
1355	Lutra lutra	RS	PAN	1
1355	Lutra lutra	RU	ALP	0
1355	Lutra lutra	RU	ARC	0
1355	Lutra lutra	RU	BLS	0
1355	Lutra lutra	RU	BOR	0
1355	Lutra lutra	RU	CON	0

Species code	Species name	country	region	Delivery Status
1355	<i>Lutra lutra</i>	RU	STE	0
1428	<i>Marsilea quadrifolia</i>	CH	ALP	0
1428	<i>Marsilea quadrifolia</i>	CH	CON	1
1428	<i>Marsilea quadrifolia</i>	GE	BLS	1
1428	<i>Marsilea quadrifolia</i>	MD	STE	1
1428	<i>Marsilea quadrifolia</i>	RS	CON	1
1428	<i>Marsilea quadrifolia</i>	RS	PAN	1
1428	<i>Marsilea quadrifolia</i>	RU	STE	1
1528	<i>Saxifraga hirculus</i>	AM	ALP	1
1528	<i>Saxifraga hirculus</i>	BY	BOR	1
1528	<i>Saxifraga hirculus</i>	CH	CON	1
1528	<i>Saxifraga hirculus</i>	NO	ALP	1
1528	<i>Saxifraga hirculus</i>	NO	ATL	1
1528	<i>Saxifraga hirculus</i>	RU	ALP	0
1528	<i>Saxifraga hirculus</i>	RU	ARC	0
1528	<i>Saxifraga hirculus</i>	RU	BOR	0
1528	<i>Saxifraga hirculus</i>	RU	CON	0
1617	<i>Angelica palustris</i>	BY	BOR	1
1617	<i>Angelica palustris</i>	BY	CON	1
1617	<i>Angelica palustris</i>	RS	CON	0
1617	<i>Angelica palustris</i>	RU	ALP	0
1617	<i>Angelica palustris</i>	RU	BOR	0
1617	<i>Angelica palustris</i>	RU	CON	0
1617	<i>Angelica palustris</i>	RU	STE	0
1758	<i>Ligularia sibirica</i>	AM	ALP	1
1758	<i>Ligularia sibirica</i>	AM	ANA	1
1758	<i>Ligularia sibirica</i>	GE	ALP	1
1758	<i>Ligularia sibirica</i>	GE	BLS	1
1758	<i>Ligularia sibirica</i>	RU	ALP	0
1758	<i>Ligularia sibirica</i>	RU	ARC	0
1758	<i>Ligularia sibirica</i>	RU	BOR	0
1758	<i>Ligularia sibirica</i>	RU	CON	0
1902	<i>Cypripedium calceolus</i>	BY	BOR	1
1902	<i>Cypripedium calceolus</i>	BY	CON	1

Species code	Species name	country	region	Delivery Status
1902	<i>Cypripedium calceolus</i>	CH	ALP	1
1902	<i>Cypripedium calceolus</i>	CH	CON	1
1902	<i>Cypripedium calceolus</i>	MD	CON	1
1902	<i>Cypripedium calceolus</i>	NO	ALP	1
1902	<i>Cypripedium calceolus</i>	NO	ATL	1
1902	<i>Cypripedium calceolus</i>	NO	BOR	1
1902	<i>Cypripedium calceolus</i>	RS	CON	1
1902	<i>Cypripedium calceolus</i>	RU	ALP	1
1902	<i>Cypripedium calceolus</i>	RU	ARC	1
1902	<i>Cypripedium calceolus</i>	RU	BOR	1
1902	<i>Cypripedium calceolus</i>	RU	CON	1
1902	<i>Cypripedium calceolus</i>	RU	STE	1
1939	<i>Agrimonia pilosa</i>	BY	BOR	1
1939	<i>Agrimonia pilosa</i>	BY	CON	1
1939	<i>Agrimonia pilosa</i>	GE	ALP	1
1939	<i>Agrimonia pilosa</i>	GE	BLS	1
1939	<i>Agrimonia pilosa</i>	MD	STE	0
1939	<i>Agrimonia pilosa</i>	RU	ALP	0
1939	<i>Agrimonia pilosa</i>	RU	BOR	0
1939	<i>Agrimonia pilosa</i>	RU	CON	0
1939	<i>Agrimonia pilosa</i>	RU	STE	0
2098	<i>Paeonia tenuifolia</i>	AM	ALP	1
2098	<i>Paeonia tenuifolia</i>	GE	ALP	1
2098	<i>Paeonia tenuifolia</i>	GE	STE	1
2098	<i>Paeonia tenuifolia</i>	RS	PAN	1
2098	<i>Paeonia tenuifolia</i>	RU	ALP	0
2098	<i>Paeonia tenuifolia</i>	RU	BLS	0
2098	<i>Paeonia tenuifolia</i>	RU	CON	0
2098	<i>Paeonia tenuifolia</i>	RU	STE	0
2292	<i>Fritillaria montana</i>	RS	ALP	1
2292	<i>Fritillaria montana</i>	RS	CON	1
2292	<i>Fritillaria montana</i>	RS	PAN	1
6216	<i>Hamatocaulis vernicosus</i>	AM	ALP	0
6216	<i>Hamatocaulis vernicosus</i>	BY	BOR	1

Species code	Species name	country	region	Delivery Status
6216	Hamatocaulis vernicosus	BY	CON	1
6216	Hamatocaulis vernicosus	CH	ALP	1
6216	Hamatocaulis vernicosus	CH	CON	1
6216	Hamatocaulis vernicosus	GE	ALP	1
6216	Hamatocaulis vernicosus	GE	STE	0
6216	Hamatocaulis vernicosus	NO	ALP	1
6216	Hamatocaulis vernicosus	NO	ATL	1
6216	Hamatocaulis vernicosus	NO	BOR	1
6216	Hamatocaulis vernicosus	RS	CON	1
6216	Hamatocaulis vernicosus	RU	ALP	0
6216	Hamatocaulis vernicosus	RU	ARC	0
6216	Hamatocaulis vernicosus	RU	BOR	0
6216	Hamatocaulis vernicosus	RU	CON	0

Appendix 2: Detailed table of delivered and missing reports according to the initially agreed checklist for habitats per biogeographical region

(0 = Not delivered, 1 = delivered)

Habitat code	Habitat Title	country	region	Delivery Status
B1.6	Coastal dune scrub	GE	BLS	1
B1.6	Coastal dune scrub	RU	ARC	0
B1.6	Coastal dune scrub	RU	BLS	0
B1.6	Coastal dune scrub	RU	BOR	0
B1.6	Coastal dune scrub	RU	CON	0
B1.6	Coastal dune scrub	RU	STE	0
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	BY	BOR	1
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	BY	CON	1
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	CH	ALP	1
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	CH	CON	1
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	MD	STE	0
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RS	CON	1
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RS	PAN	1
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RU	ALP	0
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RU	ARC	0
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RU	BOR	0
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RU	CON	0
C1.25	Charophyte submerged carpets in mesotrophic waterbodies	RU	STE	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	AM	ALP	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	AM	ANA	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	BY	BOR	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	BY	CON	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	CH	ALP	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	CH	CON	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	GE	ALP	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	GE	BLS	1

Habitat code	Habitat Title	country	region	Delivery Status
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	MD	CON	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	MD	STE	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	NO	ALP	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	NO	ARC	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	NO	ATL	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	NO	BOR	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RS	ALP	1
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RS	CON	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RU	ALP	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RU	ARC	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RU	BLS	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RU	BOR	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RU	CON	0
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks	RU	STE	0
E1.3	Mediterranean xeric grassland	AM	ALP	1
E1.3	Mediterranean xeric grassland	AM	ANA	1
E1.3	Mediterranean xeric grassland	GE	STE	1
E1.3	Mediterranean xeric grassland	RS	ALP	0
E1.3	Mediterranean xeric grassland	RS	CON	0
E1.3	Mediterranean xeric grassland	RU	ALP	0
E1.3	Mediterranean xeric grassland	RU	STE	0
F3.241	Central European subcontinental thickets	GE	STE	1
F3.241	Central European subcontinental thickets	RS	ALP	0
F3.241	Central European subcontinental thickets	RS	CON	1
F3.241	Central European subcontinental thickets	RS	PAN	1

Habitat code	Habitat Title	country	region	Delivery Status
G1.6	Fagus woodland	AM	ALP	1
G1.6	Fagus woodland	CH	ALP	1
G1.6	Fagus woodland	CH	CON	1
G1.6	Fagus woodland	GE	ALP	1
G1.6	Fagus woodland	GE	BLS	1
G1.6	Fagus woodland	MD	CON	1
G1.6	Fagus woodland	NO	ATL	1
G1.6	Fagus woodland	NO	BOR	1
G1.6	Fagus woodland	RS	ALP	1
G1.6	Fagus woodland	RS	CON	1
G1.6	Fagus woodland	RS	PAN	1
G1.6	Fagus woodland	RU	ALP	1
G1.6	Fagus woodland	RU	BLS	1
G1.6	Fagus woodland	RU	CON	1
G1.A4	Ravine and slope woodland	AM	ALP	1
G1.A4	Ravine and slope woodland	BY	BOR	1
G1.A4	Ravine and slope woodland	BY	CON	1
G1.A4	Ravine and slope woodland	CH	ALP	1
G1.A4	Ravine and slope woodland	CH	CON	1
G1.A4	Ravine and slope woodland	GE	ALP	1
G1.A4	Ravine and slope woodland	GE	BLS	1
G1.A4	Ravine and slope woodland	MD	CON	1
G1.A4	Ravine and slope woodland	NO	ALP	0
G1.A4	Ravine and slope woodland	NO	ATL	1
G1.A4	Ravine and slope woodland	NO	BOR	1
G1.A4	Ravine and slope woodland	RS	ALP	1
G1.A4	Ravine and slope woodland	RS	CON	1
G1.A4	Ravine and slope woodland	RS	PAN	1
G1.A4	Ravine and slope woodland	RU	ALP	1
G1.A4	Ravine and slope woodland	RU	BLS	1
G1.A4	Ravine and slope woodland	RU	BOR	1
G1.A4	Ravine and slope woodland	RU	CON	1
G1.A4	Ravine and slope woodland	RU	STE	1

Habitat code	Habitat Title	country	region	Delivery Status
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	AM	ALP	1
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	AM	ANA	1
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	GE	ALP	1
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	GE	BLS	1
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	GE	STE	1
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	RS	ALP	0
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	RS	CON	0
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	RS	PAN	0
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	RU	ALP	0
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	RU	BLS	0
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae	RU	STE	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	AM	ALP	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	AM	ANA	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	CH	ALP	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	CH	CON	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	GE	ALP	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	GE	BLS	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	GE	STE	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	MD	CON	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	MD	STE	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	NO	ALP	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	NO	ARC	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	NO	ATL	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	NO	BOR	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RS	ALP	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RS	CON	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RS	PAN	1
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RU	ALP	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RU	ARC	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RU	BLS	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RU	BOR	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RU	CON	0
H1	Terrestrial underground caves, cave systems, passages and waterbodies	RU	STE	0

Appendix 3: Detailed table of delivered and missing reports according to the initially agreed checklist for birds and population season

(0 = Not delivered, 1 delivered); (B=Breeding, P= Passage and W= Wintering)

Species code	Species name	Country	Season	Delivery Status
A021	Botaurus stellaris	AM	P	0
A021	Botaurus stellaris	AM	W	1
A021	Botaurus stellaris	BY	B	1
A021	Botaurus stellaris	CH	P	1
A021	Botaurus stellaris	CH	W	1
A021	Botaurus stellaris	GE	B	1
A021	Botaurus stellaris	GE	P	1
A021	Botaurus stellaris	GE	W	1
A021	Botaurus stellaris	MD	B	1
A021	Botaurus stellaris	RS	B	1
A021	Botaurus stellaris	RS	P	1
A021	Botaurus stellaris	RU	B	0
A021	Botaurus stellaris	RU	P	0
A021	Botaurus stellaris	RU	W	0
A030	Ciconia nigra	AM	B	1
A030	Ciconia nigra	AM	P	0
A030	Ciconia nigra	BY	B	1
A030	Ciconia nigra	BY	P	0
A030	Ciconia nigra	CH	P	0
A030	Ciconia nigra	GE	B	1
A030	Ciconia nigra	GE	P	1
A030	Ciconia nigra	MD	B	0
A030	Ciconia nigra	RS	B	1
A030	Ciconia nigra	RS	P	1
A030	Ciconia nigra	RU	B	1
A030	Ciconia nigra	RU	P	0
A060	Aythya nyroca	AM	B	1
A060	Aythya nyroca	AM	P	0
A060	Aythya nyroca	BY	B	1
A060	Aythya nyroca	BY	P	0
A060	Aythya nyroca	CH	B	1

Species code	Species name	Country	Season	Delivery Status
A060	Aythya nyroca	CH	P	1
A060	Aythya nyroca	CH	W	1
A060	Aythya nyroca	GE	P	1
A060	Aythya nyroca	GE	W	0
A060	Aythya nyroca	MD	B	1
A060	Aythya nyroca	RS	B	1
A060	Aythya nyroca	RS	P	1
A060	Aythya nyroca	RU	B	1
A060	Aythya nyroca	RU	P	0
A091	Aquila chrysaetos	AM	B	1
A091	Aquila chrysaetos	BY	B	1
A091	Aquila chrysaetos	BY	P	0
A091	Aquila chrysaetos	CH	B	1
A091	Aquila chrysaetos	CH	P	1
A091	Aquila chrysaetos	GE	B	1
A091	Aquila chrysaetos	GE	W	0
A091	Aquila chrysaetos	NO	B	1
A091	Aquila chrysaetos	NO	P	0
A091	Aquila chrysaetos	NO	W	1
A091	Aquila chrysaetos	RS	B	1
A091	Aquila chrysaetos	RS	P	1
A091	Aquila chrysaetos	RU	B	0
A091	Aquila chrysaetos	RU	P	0
A091	Aquila chrysaetos	RU	W	0
A122	Crex crex	AM	B	1
A122	Crex crex	AM	P	0
A122	Crex crex	BY	B	1
A122	Crex crex	BY	P	0
A122	Crex crex	CH	B	1
A122	Crex crex	CH	P	1
A122	Crex crex	GE	B	1
A122	Crex crex	GE	P	1
A122	Crex crex	GE	W	0

Species code	Species name	Country	Season	Delivery Status
A122	Crex crex	MD	B	1
A122	Crex crex	MD	W	0
A122	Crex crex	NO	B	1
A122	Crex crex	NO	P	1
A122	Crex crex	RS	B	1
A122	Crex crex	RS	P	1
A122	Crex crex	RU	B	0
A122	Crex crex	RU	P	0
A127	Grus grus	AM	B	1
A127	Grus grus	AM	P	0
A127	Grus grus	BY	B	1
A127	Grus grus	BY	P	0
A127	Grus grus	CH	P	0
A127	Grus grus	GE	B	1
A127	Grus grus	GE	P	1
A127	Grus grus	MD	W	1
A127	Grus grus	NO	B	1
A127	Grus grus	NO	P	1
A127	Grus grus	NO	W	0
A127	Grus grus	RS	P	1
A127	Grus grus	RS	W	1
A127	Grus grus	RU	B	0
A127	Grus grus	RU	P	0
A127	Grus grus	RU	W	0
A151	Philomachus pugnax	AM	P	1
A151	Philomachus pugnax	BY	B	1
A151	Philomachus pugnax	BY	P	1
A151	Philomachus pugnax	CH	P	1
A151	Philomachus pugnax	GE	P	1
A151	Philomachus pugnax	MD	B	0
A151	Philomachus pugnax	MD	P	1
A151	Philomachus pugnax	MD	W	0
A151	Philomachus pugnax	NO	B	1

Species code	Species name	Country	Season	Delivery Status
A151	Philomachus pugnax	NO	P	1
A151	Philomachus pugnax	RU	B	0
A151	Philomachus pugnax	RU	P	0
A196	Chlidonias hybridus	AM	B	1
A196	Chlidonias hybridus	AM	P	0
A196	Chlidonias hybridus	BY	B	1
A196	Chlidonias hybridus	BY	P	0
A196	Chlidonias hybridus	CH	B	0
A196	Chlidonias hybridus	CH	P	0
A196	Chlidonias hybridus	GE	P	1
A196	Chlidonias hybridus	MD	B	1
A196	Chlidonias hybridus	RS	B	1
A196	Chlidonias hybridus	RS	P	1
A196	Chlidonias hybridus	RU	B	0
A196	Chlidonias hybridus	RU	P	0
A215	Bubo bubo	AM	B	1
A215	Bubo bubo	BY	B	1
A215	Bubo bubo	BY	P	0
A215	Bubo bubo	CH	B	1
A215	Bubo bubo	GE	B	1
A215	Bubo bubo	GE	P	0
A215	Bubo bubo	MD	B	1
A215	Bubo bubo	NO	B	1
A215	Bubo bubo	NO	P	0
A215	Bubo bubo	NO	W	1
A215	Bubo bubo	RS	B	1
A215	Bubo bubo	RU	B	0
A215	Bubo bubo	RU	P	0
A231	Coracias garrulus	AM	B	1
A231	Coracias garrulus	BY	B	1
A231	Coracias garrulus	CH	P	0
A231	Coracias garrulus	GE	B	1
A231	Coracias garrulus	GE	P	1

Species code	Species name	Country	Season	Delivery Status
A231	Coracias garrulus	MD	B	1
A231	Coracias garrulus	RS	B	1
A231	Coracias garrulus	RS	P	1
A231	Coracias garrulus	RU	B	0
A231	Coracias garrulus	RU	P	0
A239	Dendrocopos leucotos	BY	B	1
A239	Dendrocopos leucotos	GE	B	1
A239	Dendrocopos leucotos	GE	P	0
A239	Dendrocopos leucotos	MD	B	0
A239	Dendrocopos leucotos	MD	W	1
A239	Dendrocopos leucotos	NO	B	1
A239	Dendrocopos leucotos	NO	P	0
A239	Dendrocopos leucotos	NO	W	1
A239	Dendrocopos leucotos	RS	B	1
A239	Dendrocopos leucotos	RU	B	0
A239	Dendrocopos leucotos	RU	P	0
A339	Lanius minor	AM	B	1
A339	Lanius minor	AM	P	0
A339	Lanius minor	BY	B	1
A339	Lanius minor	GE	B	0
A339	Lanius minor	GE	P	0
A339	Lanius minor	MD	B	1
A339	Lanius minor	RS	B	1
A339	Lanius minor	RS	P	1
A339	Lanius minor	RU	B	0
A339	Lanius minor	RU	P	0