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### Summary of task

Reporting under Articles 12 of the Birds Directive, Article 17 of the Habitats Directive and reporting on Natura 2000 sites are the most comprehensive and regularly updated and coordinated datasets on biodiversity in the European Union. These datasets are used in support to EU biodiversity policies (through generation of maps, indicators and other statistics) and also by the academic world and stakeholders. It is essential that the data are of the highest quality as possible. This task sets out to highlight critical gaps or inconsistencies in Article 12 and Article 17 reporting to guide Member States to improve data quality for the nature reporting period 2019 – 2024. The task additionally addresses inconsistencies in reporting Natura 2000.

### For which purposes are the data used at the European level?

The data collected under the nature directives have to be 'fit' for the following main purposes<sup>1</sup>:

- assessing and enhancing completeness of the Natura 2000 network (Natura 2000 sufficiency assessments)

<sup>1</sup> The list is not exclusive

- preparation of the Union Lists (sites designated under the Habitats Directive by biogeographical region)
- quantification of restoration needs and prioritization in the PAFs
- providing a regular assessment of the State of Nature in the EU
- informing on progress towards the EU biodiversity strategy to 2030
- providing the biodiversity component of “The European Environment – State and Outlook report” (SOER)
- underpinning outreach products such as the “Natura 2000 Barometer and Viewer”

Furthermore, the information reported on species and habitats distribution, conservation status and trends, as well as on threats and pressures is highly relevant to assess cross-sectoral policy impacts.

The following analyses are better understood when seen together with the relevant dashboards. A description of the methodologies used in the following analyses and the dashboards can be found in links below. In some cases, the numbers of reported habitat types or species are small and this makes the calculated percentages for these particular cases not statistically robust. Therefore, attention should be paid to these values. Where possible, the number of observations has been placed in brackets next to the percentages. The analysis below is based on Member State level. Some of the online dashboards may contain a filter for biogeographic/marine region should the user wish to further investigate. The EU average refers to EU28.

## Summary of the results for AT

### 1. Coherence check of nature reporting data with data reported under Natura 2000

For the analysis comparing values in Natura 2000 with those reported in the Article 12 and 17 reports, ‘comparable’ records are those which could be linked between the 2 datasets based on a combination of fields for habitats (Member State, biogeographic/marine region, habitat code, area), non-bird species (Member State, biogeographic/marine region, species code, population unit, population value), and bird species (Member State, species code, season, population unit, population value). Where one or more of these links could not be made, the record was ‘non-comparable’.

It must be noted that this is not a validity check of the reported habitat area and species population values.

#### 1.1 Habitats: comparison of Article 17 and Natura 2000 habitat areas

*There should be coherence in data between the Natura 2000 database and the information provided in the Article 17 report, e.g. for a given habitat type, the combined area reported in Natura 2000 sites in the Member State’s Natura 2000 database should not exceed the national area reported in the Article 17 report. Additionally, the combined Natura 2000 habitat area reported in the Natura 2000 database should be the same (or similar) to the Natura 2000 habitat area submitted in the Article 17 report.*

#### Article 17 area and Natura 2000 area from the Natura 2000 database:

98.6% of habitats reported were comparable between the Article 17 report and the Natura 2000 database end\_2018.

Of this comparable proportion, it was found that for 84% of the habitats, the habitat area reported within Natura 2000 was smaller than or equal with that reported in Article 17. This compares with an EU average of 74.9%.

For the remaining 16% of habitats, the reported habitat area in Natura 2000 was greater than that reported in Article 17, which is lower than the EU average of 25.1%. Of these records, approximately half (8.5%) reported an area in Natura 2000 >2 times the Article 17 area.

### Natura 2000 area reported in Article 17 and Natura 2000 area from the Natura 2000 database:

With regards to the Natura 2000 habitat area reported in Article 17 compared with the Natura 2000 area habitat submitted to the Natura 2000 database, the comparable records reach 98.6%.

No habitat with comparable records had an area within the Natura 2000 equal to the area reported under Art. 17 (EU average is 1.38%). It was found that 40.8 % of comparable records for habitats were reported with a larger habitat area in the Natura 2000 than in the Article 17 report, which is lower than the EU average of 54.5%. 59.1% of the comparable records had a smaller habitat area in Natura 2000 than in the Article 17 report, higher than the EU average of 46.1%.

For further details see the online statistics [here](#).

#### 1.2 Non-bird species: comparison of Article 17 and Natura 2000 species population

*There should be coherence in data between the Natura 2000 database and the information provided in the Article 17 report e.g. for a given species, the combined population reported in Natura 2000 sites in the Member State's Natura 2000 database should not exceed the national population reported in the Article 17 report. Additionally, the combined Natura 2000 population reported in the Natura 2000 database should be the same (or similar) to the Natura 2000 population submitted in the Article 17 report. However, it must be noted that for Art. 17 reporting, agreed population units are used which is not the case for Natura 2000. Therefore, it is not an obligation for Member States to use the same population units in both reporting flows. This is an added complication for comparing records between the two reporting flows.*

### Article 17 population and Natura 2000 population from the Natura 2000 database:

Only 8.6% of all species reported in AT were comparable between the Article 17 database and the Natura 2000 database. The highest comparable proportion among Member States does not exceed 34.2%.

Of this comparable proportion, 82.6% reported a species population value in Natura 2000 as smaller than or equal with that reported in Article 17, which is similar to the EU average of 80.5%. The remaining 17.4% of species reported a Natura 2000 population greater than the Article 17 population, which slightly lower than the EU average of 19.4%.

### Natura 2000 population reported in Article 17 and Natura 2000 population from the Natura 2000 database:

Regarding the Natura 2000 population reported in the Article 17 national report, only 8.6% of species records could be compared between the datasets based on the criteria noted above.

Of this small comparable proportion, 21.7% of species report a population in Natura 2000 greater than in Article 17, percentage that is lower than the EU mean of 32.5%. The remaining 78.2% of species report a population in Natura 2000 smaller than that in Article 17, which is higher than the EU mean of 64.5%. For no species with comparable records the population within the Natura 2000 was equal to the population reported under Art. 17 (EU average is 3%).

For further details see the online statistics [here](#).

#### 1.3 Bird species: comparison of Article 12 and Natura 2000 species population

*There should be coherence in data between the Natura 2000 database and the information provided in the Article 12 report e.g. for a given bird species, the combined population reported in Natura 2000 sites in the Member State's Natura 2000 database should not exceed the national population reported in the Article 12 report. Additionally, the combined Natura 2000 population reported in the Natura 2000 database should be the same (or similar) to the Natura 2000 population submitted in the Article 12 report. However, it must be noted that for Art. 12 reporting agreed population units are used which is*

*not the case for Natura 2000. This is an added complication for comparing records between the two reporting flows.*

#### Article 12 population and Natura 2000 population from the Natura 2000 database:

For Article 12 bird species, it was found that only 16% of bird records reported in the Natura 2000 database were comparable with an equivalent record in the Article 12 national report. The highest comparable proportion among Member States does not exceed 65%.

Of this proportion of comparable records, 13.2% report a larger population in Natura 2000 than the national population reported in Article 12, which is lower than the EU average of 20%.

#### Natura 2000 population reported in Article 12 and Natura 2000 population from the Natura 2000 database:

Regarding the comparison of Natura 2000 populations reported in Article 12 and Natura 2000 database, an even lower proportion of species could be compared: 7.8%.

Of this comparable proportion, 2.3% of species reported an equal population in Natura 2000 and Art 12, similar to the EU average of 3.2%. 45.3% of species reported a larger population in Natura 2000 compared with the Natura 2000 population in the Article 12 report, which is above the EU average of 40.5%, whereas 52.3% report a lower population in Natura 2000 than in Article 12 report, which is lower than the EU average of 56.2%.

For further details see the online statistics [here](#).

## **2. Analysis of specific fields in Article 12 & 17 reporting formats**

### 2.1 Data quality and completeness

*Several fields in the Article 17 and 12 reports are highlighted as ‘mandatory’ and are essential to assessing the status of a habitat or species at both national and EU level. When such fields have been completed with ‘unknown’ or the values are simply missing, this presents a data quality issue. Moreover, when ‘expert opinion’ or ‘insufficient data’ is indicated as method used, this highlight a need for further monitoring effort. This analysis complements the relevant analysis already included in the national summaries of [Article 12](#) and [Article 17](#).*

#### Habitats

The majority of missing mandatory information occurred with the habitat groups freshwater habitats (28.2% of all mandatory fields for the freshwater habitat types were missing or unknown), sclerophyllous scrub (22.2%, however only two habitats are reported in the group) and heath and scrub (21.9%). This is higher than the respective EU averages of 12.3%, 9.9% and 10.6%.

For grasslands, no mandatory information was submitted on the short-term trend inside the network. Several mandatory fields were missing for the two sclerophyllous habitats reported in AT: overall trend in conservation status, short-term trend of habitat area in good condition, short-term trend inside the network, short-term trend of area covered by the habitat and the overall status of structure and functions.

The habitat groups with the highest percentage of ‘expert opinion’ as the reported method when completing the fields on main results of surveillance are rocky habitats (40%) and freshwater habitats (25%). The percentage is higher than the EU average of 26.2% for rocky habitats and similar to the one for freshwater habitats (27.8%). Those indicated with ‘insufficient data’ are sclerophyllous scrub (53%), freshwater habitats (42%) and heath and scrub (42%). The percentages are higher than the EU average for sclerophyllous scrub (15.9%), freshwater habitats (18.4%) and heath and scrub (14.9%).

#### Non-bird species

The majority of missing mandatory information for any species group occurred with other invertebrates (68.3% of mandatory fields missing information) and non-vascular plants (18.1%). This is higher than the EU average of 33.4% for other invertebrates and lower than the EU average of 18.1% for non-vascular plants.

All species groups reported either the 'short-term population trend' or 'short-term population trend in the network' as the two fields with the highest proportion of missing/unknown information. The groups which reported the highest percentages of missing/unknown information for both these fields are: arthropods, mammals, other invertebrates and vascular plants.

The species groups with the highest percentage of 'expert opinion' as used method while filling in the fields on main results of surveillance are reptiles (53%) and amphibians (49%), which is higher than the relevant EU average (27.5% and 25.3%, respectively). Those indicated with 'insufficient data' are other invertebrates (100%, however there are only two species reported) and non-vascular plants (26%). The percentage is higher than the EU average for other invertebrates (46.8%) but lower than the EU average for non-vascular plants (30.1%).

### Bird species

The bird groups pigeons and doves, cuckoos and woodpeckers are those which report the highest proportion of missing information across all mandatory fields in the reporting format (26.7%, 25% and 23.1% of all fields, respectively). This is higher than the respective EU averages of 16.6%, 12.9% and 14.6%.

Two bird groups with primarily missing mandatory information for wintering species (trend information) are the falcons and waders, gulls & awks. The groups with majority missing information on hunting bags are pheasants, partridges & grouse and ducks, geese and swans (50% and 81.8%, respectively). A high proportion of missing information on the short-term trend within the SPA network is seen with species groups hawks & eagles, owls and woodpeckers. Several species groups reported the long-term trend in breeding population as field largely missing or unknown (cuckoos, hawks & eagles, herons & pelicans, kingfishers, owls, passerines, pheasants, partridge & grouse, pigeons & doves, swifts & nightjars, woodpeckers).

There are very low percentages of bird groups assessed with 'expert opinion'. Those indicated with 'insufficient data' in the methods field are pigeons and doves (35%), cuckoos (33%) and woodpeckers (30%). These percentages are lower than the EU average for pigeons and doves (40%), cuckoos (51%) and woodpeckers (37%).

For further details see the online statistics [here](#).

### 2.2 Quality of conclusion of the parameters for assessing conservation status

*The 'method used' field can be an indicator of the quality of data used to conclude on the parameters of the habitats and species. A complete survey indicates the best quality information, followed by partial estimate. Expert opinion indicates a lack of data and a reliance on opinion rather than empirical data. This analysis complements the assessments of conservation status delivered from the Member State, which is part of the National Summary and can be found [here](#).*

### Habitats - methods used

The majority of the assessments for the habitat area are based on partial estimate (44%, EU average 54.9%) followed by complete survey (42%, EU average 26.7%). The habitat type group with the highest proportion of absent data and expert opinion is freshwater habitats (58.8%) and heath and scrub (33.4%).

The majority of assessments on structure and functions are based on complete survey (33%, EU average 20.9%) but there is also a high share of absent data (30%, EU average 17.3%). The habitat type groups with the highest share of absent data and expert opinion is freshwater habitats (88.2%), rocky

habitats (69%) and heath and scrub (50%). Sclerophyllous scrub are based 100% on absent data but it is only 2 habitat types reported.

#### Non-bird species – methods used

The majority of the assessments for the species population are based on partial estimate (52%, EU average 51%) followed by complete survey (34%, EU average 21.4%). The species group with the highest share of absent data and expert opinion for the population parameter is other invertebrates (100%).

The majority of assessments on habitat of the species are based on expert opinion (54%, EU average 33.6%). The species groups with the highest share of absent data and expert opinion are mammals (82.6%) and reptiles (81.3%) followed by amphibians (78.7%) and non-vascular plants (77.8%). Other invertebrates are based 100% on absent data but it is only 2 species reported.

For further details see the online statistics [here](#).

#### 2.3 Use of the 'change & reason for change' field

*The 'change and reason for change' field as reported in Article 17 is an important field that shows whether a change in conservation status or trend is a genuine change (i.e. an improvement or deterioration) or a non-genuine change (change of methodology, knowledge etc). Species and habitats which report genuine changes in status and trends are used to assess improvement.*

#### Habitats

The range parameter showed the highest proportion of cases where no reason was filled in for change and reason for change (38.5% of the total of 13 cases, EU mean 2.4%).

Where a reason for change was not provided (i.e. when indicated in the reporting format that there was a change between reporting periods), this was seen with habitat groups: forests, grasslands and rocky habitats. There were no cases where more than one reason for change was filled in. There were no coherence issues with the selected reasons for change.

#### Non-bird species

For all species groups, the population parameter showed the highest proportion of cases where no reason was filled in for the change and reason for change (53.7% of the total of 54 cases, EU mean 15.7%).

The species groups where reason for change was not filled in for some parameters are identified are mammals, but also arthropods, fish, molluscs and both vascular and non-vascular plants. There were no cases where more than one reason was filled in. There were no coherence issues with the selected reasons for change.

For further details see the online statistics [here](#).

#### 2.4 Conservation measures

*Where habitats and species are in an unfavourable conservation status or with a deteriorating trend it is necessary to understand if there are conservation measures in place to improve their status or if conservation measures have been identified but are not yet in place. Where conservation measures are needed but have neither been implemented nor identified, this can give an indication of a critical gap. This analysis complements the relevant analysis already included in the national summaries of [Article 12](#) and [Article 17](#).*

#### Habitats

Only the habitat groups forests and heaths and scrub show a small percentage of habitat types where measures are needed but cannot be identified 3% (1% EU mean) and 17% (2% EU mean) of the total number of records on the status of measures of each group (respectively). The groups with the highest

percentage of measures needed but not yet taken are dune habitats (100% but for this group only one habitat is reported, 23.6% EU mean), bogs, mires and fens (75%, EU mean 21.7%), sclerophyllous scrub (50%, EU mean 15.6%) and forests (45.5%, EU mean 22.6%).

Restoration measures taken for structure and functions seem to concern mostly forests (85.7% of the total number of records on the main purpose of the measures that have been applied, EU mean 29.5%), and bogs, mires and fens (66.7%, EU mean 25.5%). No measures were taken to expand the current range or to increase the surface area.

#### Non-bird species

Species where measures are needed but cannot be identified are mostly found with the groups: reptiles (31.3% of the total number of records on the status of measures in the species group, EU mean 3.1%), arthropods (5.1%, EU mean 3%) and vascular plants (6.8%, EU mean 6.5%). The groups with the highest percentage of measures needed but not yet taken are non-vascular plants (81.3%, EU mean 27.5%), fish (47.5%, EU mean 40%) and molluscs (42.9%, EU mean 34.8%).

Restoration measures taken for the habitat of the species seem to concern mostly fish (95.2% of the total number of records on the main purpose of measures that have been applied, EU mean 13.8%), whereas measures to increase the population size or improve the dynamics concern mostly amphibians (16.7%, EU mean 12.3%). No measures were taken to expand the current range.

#### Bird species

**Breeding:** For the majority of breeding species reported in AT measures were reported as not needed, the second most reported category was needed and taken. Only 1 breeding species was reported in the category of conservation measures needed but cannot be identified, belonging to the group ducks, geese and swans.

**Wintering:** For the majority of wintering species in AT it was reported that conservation measures were not needed.

**Passage:** For all species reported in AT it was indicated that measures were not needed.

Restoration measures taken for the habitat of the species seem to concern only waders gulls and awks (62.5% of the total number of records on the main purpose of measures that have been applied, EU mean 11.1%), whereas measures to increase the population size or improve the dynamics concern mostly bustards, owls (100% for each, EU mean 53.3% and 15.4%, respectively) and hawks and eagles (75%, EU mean 33.5%). Measures to expand the current range concern hawks and eagles (25%, EU mean 6.3%).

For further details see the online statistics [here](#).

### 2.5 Favourable reference values

*The operators are used for reporting on favourable reference values when information on actual values is limited or missing completely. Operators are used as a rough estimation and highlight an issue with data gathering and monitoring. Apart from the 'unknown' the operator 'much bigger than (>>)' is particularly problematic as there is no indication of its upper values.*

#### Habitats

For the parameter range, the highest share of unknown (x) for favourable reference range was reported for freshwater habitats (35.3% of the values for the habitats group), followed by grasslands (12%). The operator >> had a high share among sclerophyllous scrub (100%), heath and scrub (33.3%) and freshwater habitats (23.5%).

For the parameter area the highest share of unknown (x) for favourable reference area was reported for freshwater habitats (41.2%) and heath and scrub (16.7%). The operator >> had a high share among

sclerophyllous scrub and dunes (100%, however, only two habitats were reported for sclerophyllous scrub and one habitat type was reported for dunes), bogs mires and fens (37%) and grasslands (36%).

Freshwater habitats report the highest frequency of unknown (x) for both favourable reference range and favourable reference area. Sclerophyllous scrub report the highest percentage of >> operators for both parameters, but only two habitat types were reported. From the rest of the groups, heath and scrub and freshwater habitats report the highest percentages of >> operators for both parameters.

#### Non-bird species

For the parameter range, the highest share of unknown value was reported for other invertebrates (100% of the values for the species group), followed by non-vascular plants (36.4%). The operator >> had a high share among fish (37.5%), arthropods (27.2%) and molluscs (25%).

For the favourable reference population, the highest share of unknown value was reported for other invertebrates (100%) and non-vascular plants (31.8%). The operator >> had a high share among fish (47.9%), amphibians (32.1%) and arthropods (30.9%).

Other invertebrates and non-vascular plants report the highest frequency of unknown (x) for both favourable reference range and favourable reference population. Fish report the highest percentages of >> operators for both parameters.

For further details see the online statistics [here](#).

#### 2.6 Comparison of habitat condition area with total habitat area

*For the coherence of areas reported it is expected that the combined habitat condition area (as reported under structure and functions) and the total habitat area would be the same.*

The habitat groups with the lowest percentage of equal values between habitat coverage reported and the mean habitat condition area (i.e. mean of area in good, not-good and unknown condition) are heath and scrub (40%, EU average 59.7%), sclerophyllous scrub (50%, but only two reports in AT, EU average 52.5%) and grasslands (52%, EU average 51.8%). Only dune habitats reported all areas in good, not-good and unknown condition as equal to the overall habitats area reported (however there is only one habitat type reported).

For further details see the online statistics [here](#).

### **3 Further gaps in habitats**

#### 3.1 Analysis of Land area, sealed area, Article 17 Annex I terrestrial habitat type area and Natura 2000 habitat area

*The combined Natura 2000 habitat area should not exceed the total Annex I habitat area. None of them should be bigger than the land area or land sealed area.*

AT combined Natura 2000 habitat area is smaller than the Article 17 habitat area reported.

The combined Annex I habitat area is 32% of the land area while the combined Natura 2000 habitat area within SCIs/SACs is 6% of the total land area.

On average, approximately 17% of the Annex I habitat area is within Natura 2000 sites in AT.

For further details see the online statistics [here](#).