



Data quality coherence check

Summary of results checking quality of data collected under the Nature Directives

Fact sheet

MT

Table of contents

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

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

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

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

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

2.1 Data quality and completeness

2.2 Conclusion of the parameters

2.3 Use of the 'change and reason for change' field

2.4 Conservation measures

2.5 Favourable reference values

2.6 Comparison of habitat condition area with total habitat area

3. Further analysis of habitats

3.1 Analysis of land area, sealed area, Article 17 terrestrial Annex I habitat area & Natura 2000 habitat area

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 purposes¹:

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

¹ 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 MT

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:

The majority of MT habitat reports under Article 17 could be compared with data reported in the Natura 2000 database end_2018 (93%)

For the majority of habitats, the habitat areas reported in the Natura 2000 database were less than or equal to the Article 17 habitat area (71.4%, EU average 74.9%). The next largest proportion were reported with a Natura 2000 database area of 1 - 1.5 times greater than Article 17 area (25%, EU average 13.1%). The remaining reported a Natura 2000 database habitat area of 1.5 to 2 times greater than Article 17.

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

With regards comparing the Natura 2000 area reported in Article 17 with the area reported in the Natura 2000 database, for MT habitats the majority reported a Natura 2000 database as lower than that reported in Article 17 (55.2%, EU average 46.2%) followed by a Natura 2000 database area of 1 to 1.5 times greater than the area reported in Article 17 (34.5%, EU average 32.7%). The remaining small proportion of habitats were reported in the 2 categories 1.5 to 2 times greater and more than 2 times greater Natura 2000 database habitat area than the Natura 2000 area reported in Article 17.

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:

18.5 % of all species records in MT were comparable between the Article 17 database and the Natura 2000 database. The highest comparable proportion among Member States does not exceed 34.3%. The average comparable proportion among Member States is 17 %.

Of this comparable proportion, 100 % reported a species population value in Natura 2000 as smaller than or equal with that reported in Article 17, which is more than the EU average (80.6 %).

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, 18.5 % of species records could be compared between the datasets based on the criteria noted above (EU average: 16.7). Of this comparable proportion, 20 % of species report a population in Natura 2000 that is more than 2 x greater than in Article 17 (EU average 12.1 %). The remaining 60 % of species report a population in Natura 2000 smaller than that in Article 17 (EU average 64.5). 20 % of all species reported by MT 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 1% 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, none 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:

This same pattern is seen between the Natura 2000 population reported in Article 12 and the Natura 2000 database, only 2 species could be compared. Both of these reported a population in Natura 2000 as less than that in Article 12.

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 highlights 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

Missing mandatory information in MT is only seen in a low proportion for habitats: coastal (1%, EU average 12%) and rocky habitats (2.9%, EU average 10.7%). The missing information for these 2 groups is seen with the same parameters: future prospects of structure & functions and status of structure & functions.

Complete survey and extrapolation are the methods used for all habitat groups.

Non-bird species

High proportion of missing mandatory information was spotted in reptiles (31.8 %). This is higher than the EU average (18.9 %) and the missing information is mainly for the fields favourable reference values, future prospects, short-term trend information and status of ranges and population. Species groups not reporting any missing mandatory information are: amphibians, fish, other invertebrates, vascular plants.

Where expert opinion is reported as a method this is seen in the highest proportion with non-vascular plants (35%) and insufficient data is seen in the highest proportion with arthropods.

Bird species

The bird group of owls report the highest proportion of missing information across all mandatory fields in the reporting format (57.1% of all fields). This is higher than the respective EU average of 16.3%.

None of the bird groups have missing mandatory information for wintering species. None of the groups have missing information on hunting bags. Where there is missing information on the short-term trend within the SPA network is seen with species group herons, pelicans, ibises & spoonbills (16.7%, EU average 10.4%). One species group of owls reported both the short-term and long-term trend in breeding population as field largely missing or unknown (100% for both, EU average 32.8% for short-

term trend, 31.9% for long-term trend). The short-term breeding trend is also reported as 50% missing for falcons.

The highest proportion of expert opinion as a method used is 100% with hawks and eagles (EU average 26%), kingfishers, rollers, bee-eaters and hoopoe (EU average 48%) and 92% with herons, pelicans, ibises and spoonbills (EU average 30%). One group indicated 'insufficient data' in the methods field: owls (33.3%). This percentage is lower than the EU average for owls (43%).

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

Neither expert opinion nor partial estimate is reported as the method used for either parameter for any habitat group in MT.

Non-bird species – methods used

The majority of the assessments for the species population are based on completely survey or partial estimate. The species groups with the highest share of expert opinion for the population parameter are amphibians (100 %, EU average 19.3 %), arthropods (40 %, EU average 25.1 %) and non-vascular plants (33.3 %, EU average 31.1 %). Absent data was not reported for the species population.

The majority of assessments on habitat of the species are based on partial estimate. The species groups with the highest share of expert opinion and absent data are fish (100 %, only one report) and non-vascular plants (33.3 %, EU average 58.8).

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

No issues are seen with reporting the main reason for change between reporting periods for any parameter for habitats in MT.

Non-bird species

For all species groups and all parameters there were no issues.

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

The habitat groups in MT which report the status of measures as needed but none yet taken are all freshwater and grassland habitats, and a high proportion of rocky habitats (66.7%, EU average 17.1%) and coastal habitats (55.6%, EU average 28.2%).

Where measures have been taken the main purpose of these is reported as maintaining the current range for all habitat reports.

Non-bird species

For most of the species groups, measures are “needed but none yet taken” or “not needed”. For MT species, the group with the highest proportion of reporting measures “needed but none yet taken” are arthropods (100 %, EU average: 20.2 %), non-vascular plants (100%, EU average:33 %), vascular plants (77.8%, EU average:27.5 %) and molluscs (60 %, EU average 34.8 %).

The majority of measures intend to maintain the current status (but only in reptiles and vascular plants was reported).

Bird species

Breeding: For all breeding species reported in MT, measures were reported as needed and taken.

Wintering: For all wintering species in MT it was reported that conservation measures were needed and taken.

Passage: For all species reported in MT it was indicated that measures were needed and taken.

Restoration measures were not taken for the habitat of none of the species, whereas measures to increase the population size or improve the dynamics concern mostly ducks, geese & swans, falcons, hawks & eagles, herons, pelicans, ibises & spoonbills, kingfishers, rollers, bee-eaters & hoopoe, passerines, petrels, storm-petrels & shearwaters, swifts & nightjars and waders, gulls & auks (100% for each, EU mean 16.2%, 33.9%, 33.5%, 27.3%, 37.5%, 17.4%, 29.2%, 23.1% and 21% respectively). Measures to expand the current range were not taken for any of the species.

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 both favourable reference range and area, while there is a high frequency of use of the ≈ operator, apart from dunes where >> operator is reported for all 3 habitats (100%) and for 1 freshwater habitat (50%) for both parameters.

The > operator is used for the 4 coastal habitats (44.4%) and 4 forest habitats (66.7%) for both parameters.

Unknown (x) is not reported for any habitat group.

Non-bird species

For the parameter range, the highest share of unknown value (X) was reported for reptiles (66.7% of the values for the species group), followed by arthropods (40%), non-vascular plants (33.3 %) and mammals (23.1 %). Molluscs report the highest percentages of >> operators (40 %).

For the favourable reference population, the highest share of unknown value (X) was reported for reptiles (66.7 %), arthropods (40 %), molluscs (40 %), non-vascular plants (33.3%) and mammals (30.8 %). The operator >> had a high share among molluscs (20 %).

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.

In MT for most habitat groups there is a relatively good proportion of reports where the habitat condition area is equal to the area of the habitat reported (rocky habitats 100%, EU average 55%, to freshwater habitats 50%, EU average 51%). The remaining habitats within these groups mostly report a habitat condition area as higher than the area covered by the habitat, with the exception of coastal habitats and forests which also report a proportion as having a lower habitat condition area.

The only habitat group not reporting an equal habitat condition area to the area covered by the habitat is grasslands, all habitats have a higher habitat condition area (EU average 16.5%).

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.

About 10% of Annex I habitat area reported by MT is covered by the Natura 2000 network. Annex I habitat area covers almost 70% of the land area (minus the sealed area).

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